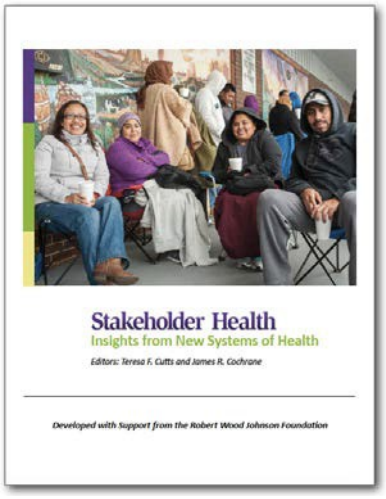
Stakeholder Health

Chapter 7
Integrating Care to Improve Health Outcomes: Trauma, Resilience and Mental Health



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CHAPTER 7

Integrating Care to Improve Health Outcomes: Trauma, Resilience and Mental Health

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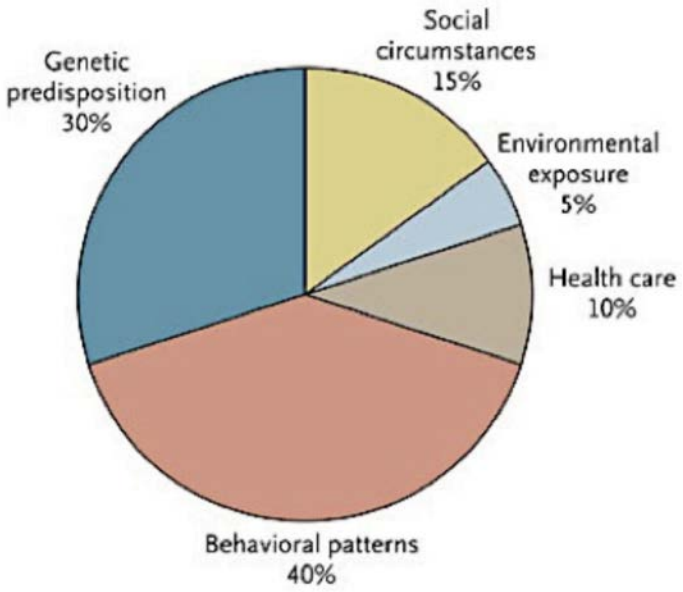
Researchers have consistently concluded that the factors that have the greatest impact on health arise from the environments in which we live and function in our everyday lives (see also Chapter 2 on the social determinants of health). A seminal study by McGinnis and Foege in 1993 indicated that human behaviors and interactions and the social and physical environment account for 60% of what determines health. By comparison, access to medical care only accounts for 10-15% of what contributes to the risk of premature death. Genetic pre-determination plays an important role (25-30%), but environmental factors (e.g. food consumption, toxin exposure, chronic stress) also produce epigenetic effects that impact health (McGinnis & Foege, 1993). In 2004, these insights were further supported by Mokdad and colleagues, who found that tobacco use, poor diet, physical inactivity, environmental factors and other health behaviors such as substance abuse continued to drive the actual causes of death for United States residents (Mokdad, Marks, Stroup, Gerberding, 2004).



(McGinnis and Foege, 1993.)

Paradoxically, approximately 95% of the trillion dollars spent on health as a nation goes to medical care, with just 5% on health promotion (McGinnis & Foege, 1993; McGinnis, Williams-Ruso & Knickman, 2002). Health care systems which are built around the medical model often expend vast resources to maintain patients in their last months of life, but invest relatively little in supporting the kind of social and physical environments that would allow people in all communities to thrive and be healthy throughout their lives.

The science around how social conditions impact our bodies is rapidly developing, particularly related to the genetic and cellular implications of trauma and stress on physical and mental health, but also on possibilities for resilience and healing. Social determinants may have been dismissed in the past as soft or superfluous to the core practices of medicine, but health care systems are quickly learning to understand and engage the patient in their whole context if they are going to meet federal requirements around health outcomes and achieve the cost savings that are necessary for the survival of its organizations.

This chapter explores trauma, stress and community strength as particular factors in the social determinants of health. We start by expanding our understanding of the dynamics of trauma for

individuals and at community scale. What do we mean by trauma? How does it actually affect our bodies and minds? How is resilience fostered to facilitate coping and healing? We look at the health implications and health care costs associated with unaddressed stressful childhood and community experiences, particularly around mental health, and highlight practical strategies that are being used effectively around the country to promote resilience and reduce health care costs. Finally, we focus on promising practices of integrated care that bring together what has been falsely separated—the connection between the health of our physical bodies, our mental condition, and our spiritual life at individual and community levels—what we call broadening the view of integrated health.

Defining Terms: Trauma, Resilience and Health

The social determinants of health are a broad field, but one area where headway is being made in deepening our understanding about how social conditions impact health is in the field of trauma and resilience. For decades, researchers have been able to link traumatic experience to poor health outcomes. Many studies support the role of protective factors such as positive adult-child interactions, meaningful social relationships and concrete support in times of need in mediating the effects of trauma. Public health and social scientists are zeroing in on these issues to learn more about the actual processes by which experiences we have in our social context get translated into our bodies at the cellular level.

We will explore the health and cost implications of trauma in more depth later, but first we want to define what we mean by trauma (individual, communal, and historical) and resilience. We also want to say from the outset that separating these two experiences is a false construct. In every experience of trauma, resilience is also in play. People do not have discrete experiences of trauma that are somehow devoid of efficacy, hope and strength to persevere.

INDIVIDUAL TRAUMA

Individual trauma results from an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on

Table 1. Adverse Childhood Events and Percent Respondents Answering Positively

TYPE OF EXPERIENCE	DESCRIPTORS	PERCENT RESPONDENTS ANSWERING POSITIVELY
Abuse	Physical-Beating, Not Spanking	28%
	Physical Contact Sexual Abuse	22% Overall (28% Women, 16% Men)
	Emotional-Recurrent Threats, Humiliation	11%
Household Dysfunction	Household Member was Alcoholic or Drug User	27%
	Not Raised by Both Biological Parents	23%
	Household Member was Chronically Depressed, Suicidal, Mentally Ill, or in Psychiatric Hospital	17%
	Mother Treated Violently	13%
	Household Member was Imprisoned	6%
Neglect	Emotional	15%
	Physical	10%

the individual's functioning and physical, social, emotional, or spiritual well-being (SAMHSA, 2014). The Adverse Childhood Experiences (ACE) Study conducted by Vincent Felitti and Robert Anda from 1995 to 1997 (Felitti, Nordenberg, Williamson, Spitz, Edwards, Koss & Marks, 1998) is perhaps the most compelling explication of what individual trauma is and what effect it has on peoples' health and functioning. Felitti and Anda developed a survey with ten questions designed to indicate experiences of abuse (physical and sexual), neglect and household dysfunction. They asked over 17,000 patients in the Kaiser Permanente health system to complete a physical exam and a comprehensive confidential survey. Their questions were grouped under ten categories that were used to determine a person's ACE score. Each positive answer on the survey added a point to one's ACE score. Table 1 on the previous page summarizes the key results.

The study compared health information and ACE scores and found a stepped, dose response. The higher the ACE score, the greater the negative impact on health and social functioning. A direct link is shown between childhood trauma and adult onset of chronic disease, as well as mental illness, time in prison, and work issues such as absenteeism (Felitti et al., 1998).

This was the first study on the effects of several types of trauma rather than the consequences of just one. It found that ACEs are pervasive. About two-thirds of the adults in the study had experienced one or more types of adverse childhood experiences. Of those, 87 percent had experienced 2 or more types. People who had an alcoholic father, for example, were likely to have also experienced physical abuse or verbal abuse. In short, ACEs usually don't happen in isolation. Women are also twice as likely as men to have more than five ACEs (Felitti et al., 1998).

Adults, of course, also experience painful or highly stressful situations that impact their well-being. Post-Traumatic Stress Disorder (PTSD), a diagnosis accepted by the American Psychiatric Association, describes the symptoms that accompany severe and prolonged exposure to stressors such as abuse, assault, military service or natural disaster. PTSD is associated with greater medical service utilization for physical health problems. Depression, anger and social dysfunction are the most common symptoms, but as we have already noted, physical, mental, emotional, spiritual and relational health are all intertwined. More recent clinical studies have linked chronic stress to impairment of the nervous system, the hypothalamic–pituitary–adrenal (HPA) axis, and cardiovascular, metabolic, and immune systems which contribute to chronic diseases such as diabetes, hypertension, and cardiovascular disease (Sherin & Nemeroff, 2011). Many studies on PTSD explore the processes that cause dysfunction. Among the findings, evidence shows that not all traumas create the same risk for PTSD: traumatic injuries caused by other people are the most likely to lead to PTSD, and it may be especially severe or long lasting when the stressor is of "human design" (Charuvastra & Cloitre, 2008).

COMMUNITY TRAUMA

Community Trauma is a toxic or negative event or condition that disrupts an entire neighborhood or population. It may be caused by a natural disaster, such as Hurricane Katrina when people from the whole city and region were displaced and in need of housing, water, food, medical care, clothing. Often in natural disasters, the wider community responds with good-will. The burden and sorrow are shared. Events such as a school shooting or mass murder are shocking experiences that make everyone feel unsafe. In urban communities, trauma may come in the form of gang violence, struggle to meet daily living needs, or the stress of racial discrimination. Unlike a natural disaster where the wider community is quick to respond with assistance, communities that experience violence and crime are often isolated from the rest of society. The whole community is labeled as dangerous or unstable and those in neighboring communities may even blame the victims, assuming they are involved in gang or criminal

activity. Law enforcement, normally providing a sense of safety and order, may not be responsive or trusted by the community.

The ACE scoring system was not originally designed to assess this level of stress. To begin to capture a broader conception of trauma, researchers in Philadelphia designed an Expanded ACE questionnaire (Findings from The Philadelphia Urban ACE Survey, 2013). Their 14 question survey included questions from the Conventional ACE tool, but added others that assessed community trauma, including experiencing racism, witnessing violence, living in an unsafe neighborhood, experiencing bullying, and having a history of living in foster care. It was also administered to a much more diverse sample. Whereas the majority of respondents in the original ACE study and numerous subsequent studies were White non-Hispanic, middle-class, and had more than a high school education, here the goal was to explore what ACEs look like in a more urban setting with a higher percentage of people of color.

The Philadelphia Urban ACE Survey found that the percentage of adults who experienced at least one ACE increased to 83.2% when the urban ACE survey indicators were added, compared to about 66% in the original study. Sixty three per cent of adults had a higher ACE score when including the urban ACE items. These urban ACE indicators are prevalent. During childhood, 40% of adults saw or heard violence in their community, more than a third reported feeling discrimination (for African Americans the rate is almost 50%), and almost a third didn't feel safe or that their neighbors looked out for each other (Findings from The Philadelphia Urban ACE Survey, 2013).

The Expanded ACE scores cluster around geographic areas that have the highest percentages of poverty and lowest adult educational levels. In those communities, over 45% of the population have ACE scores of four or more. Three of the five zip codes in Philadelphia with the highest percentage of Hispanic adults have a population in which 45.1% of the population has four or more ACEs (Findings from the Philadelphia Urban ACE Survey, 2013). As we will see in the next section, the connection between high ACE scores, health status and healthcare costs is staggering. The original ACE study (Felitti and Anda, 1998) showed that those with four categories of ACEs are more likely to have:

- 240% higher risk of hepatitis
- 390% higher risk of COPD (emphysema or chronic bronchitis)
- 240% higher risk of Sexually Transmitted Infections
- 200% higher risk of smoking
- 1200% higher risk of attempting suicide
- 700% higher risk to be an alcoholic.

If almost half the residents in whole zip codes experience four or more ACEs, it is no wonder that we have seemingly intractable health disparities in some communities. Clearly, expanding the way we think about Adverse Childhood Experiences to include Adverse Community Experiences is critical for health care planning around community health engagement. A few progressive hospitals, like the Community Health Enhancement Department of Memorial Hospital, South Bend in Indiana, have been incorporating ACE questions into their Community Health Needs Assessment (see sidebar on Aces Data Collection and Implementation).

HISTORICAL TRAUMA

Historical trauma is the condition in which an entire population is subjugated deliberately and systematically over an extended period of time by a dominant group or social order (See also Chapter 6). Studies crossing historical periods, global settings and types of subjugation (war, starvation, occupation, colonization, etc.) have all found an increased disease burden for those suffering the

ACES DATA COLLECTION AND IMPLEMENTATION

In 2012, the Community Health Enhancement (CHE) Department of Memorial Hospital-South Bend decided to begin including eight of the ACE questions in its Community Health Needs Assessment. The subsequent data from 599 respondents, predominantly Caucasian (86%), showed that 126 (21%) had a total score of three or more on the eight items. Members of the high ACEs subgroup came from every income category. For example, 21 earned less than $10,000, but 19 earned more than $75,000.

The data also revealed similar patterns of higher associations between those with increased ACEs scores and chronic illness in the following physical health areas.

	COPD	Arthritis	Diabetes	Asthma	Heart Attack	Stroke	Kidney Disease	Obesity (BMI)
< 3 score	8.9%	34.9%	13.1%	11.4%	7.2%	6.3%	3.6%	28.9%
>3 score	16.7%	46.0%	24.8%	27.0%	10.3%	7.9%	7.9%	38.2%

In addition, the data also showed that associations between high ACE scores and mental health problems were especially troublesome.

	Anxiety	Depression
< 3 score	9.5%	15.0%
>3 score	34.9%	45.2%

Based on this data, the Community Health Enhancement Department staff decided to focus their efforts across the entire community and implement a simple three-pronged plan to impact individual experience and health, families, organizations and the community as a whole:

1. Increase community-wide awareness of ACEs and their broad effects
2. Actively support interventions to reduce trauma as well as the effect of trauma
3. Build health (cognitive, social, emotional, physical, financial).

Over time, they imagined this system-wide focus could create a culture of health where costly penal, health, educational, and social welfare interventions would be reduced and the quality of life and holistic outcomes throughout our community would increase.

To achieve these new goals, CHE has begun to implement many action steps during the past three years. Just a few examples include:

- Partnering with the public schools to teach the Mind Up resiliency training curriculum to students;
- Hosting and financially supporting training by experts in trauma-focused techniques (EMDR/A-TIP) for mental and physical health professionals;
- Participating in the building St. Joseph County Cares (SJC CARES), a community-wide trauma-focused task force. SJC CARES ensures that wherever a child or youth goes, they are greeted and treated in a way that is consistent with a trauma informed approach. Soccer coaches, pastors, after-school providers, and theatre directors are all educated to know about the impact of trauma on developing brains, identify the ways in which trauma can show up as behaviors in children and youth, recognize that they can play a role in mitigating the impact of trauma, and avoid re-traumatization;
- Funding a part-time non-medical Trauma Intervention Specialist to work with gunshot, assault, and stabbing victims and their families.

Memorial Hospital-South Bend included the ACE questions again in their 2015 Community Health Needs Assessment and noted similar results. They are continuing to make a long-term commitment to reducing trauma and its effects in their community, especially in the area of mental health.

immediate experience, but also for their children and even their grandchildren (Sotero, 2006). This transgenerational transmission of health consequences is one of the most concerning features of historical trauma in terms of its implications for managing health outcomes for our most socially complex patients. We will explore the genetic pathways that support this intergenerational effect later in the chapter.

Much of the framing of the field of study around “historical trauma” comes from the work of Maria Brave Heart and the American Indian/Native Alaskan (AINA) context. However, studies have spanned populations as diverse as those forced into labor camps during the Stalinist purges in the 1930, the

renowned Dutch Famine Birth Cohort Study on the Nazi enforced Dutch "hunger winter" of 1944-5 (www.dutchfamine.nl/index.htm) and the experience of Palestinians under Israeli occupation (Danieli, 1998). In our own history as a nation, over 200 years of slavery laid the groundwork for a legacy of discrimination and institutional racism which continue to shape the daily experience and opportunities of African Americans today.

Studies also show that Native Americans are seven times more likely than the U.S. average to die from alcoholism, four times more likely to die from diabetes, twice as likely to complete suicide, and 50% more likely to die from influenza or pneumonia. In the Western Hemisphere, only Haiti has a lower life expectancy than Native American populations (Sotero, 2006). These statistics mirror health disparities experienced in the African American and Hispanic communities. While it seems overwhelming, we cannot ignore the salience of historical trauma as a contributing factor when we tend to the health of our patients, families and communities.

RESILIENCE

One of the most exciting things about the work around trauma is the finding that trauma is not destiny. When Adverse Childhood Experiences are addressed, healing can occur and health outcomes do improve. When communities have what they need and people can function in a trusting and supportive community environment, the health of the population improves. As the Children's Resilience Initiative says, "Resilience trumps trauma."

The American Psychological Association (2015) defines resilience as "the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress—such as family and relationship problems, serious health problems or workplace and financial stressors. It means 'bouncing back' from difficult experiences." A very different organization, The Maine Resiliency Building Network (2015), defines resilience as "the ability to work with adversity in such a way that one comes through it unharmed or even better for the experience." This hopeful approach to resilience is central to trauma informed practices—the idea that we can thrive in spite of or even because of difficulty.

Resilience is basically our ability to modulate the stress response. Whether a person perseveres or gives up in the face of difficulty depends on many factors. These can be environmental or biological, but the strongest influence on our response to stress and ability to be resilient are psychological factors—the way we think—and relational factors—connections we have with others. The way we think about the cause of negative events, whether we feel we have the ability to exert control in most situations, and our overall outlook on life is a mindset. It is teachable, and it is one we can help others develop. Still, it is not only up to a person to foster their own resilience. It is also our responsibility to surround individuals with a supportive and positive environment while lessening the presence of risk factors. Protective factors are positive qualities located within the cognitive, emotional, environmental, social, and spiritual experience of the person that are associated with resilience and, when combined, facilitate resilience. These modifiable factors work cumulatively to empower and support a person or a child in avoiding or successfully working through negative outcomes associated with ACEs. Developing resilience is important to healthcare because research shows that people who are able to bounce back live longer, have better health, happier relationships and greater success (Reivich & Shatte, 2002).

Because trauma is fundamentally a phenomenon of dysfunctional or toxic relationships, one of the most critical protective and healing factors for both individuals and communities is strong social relationships. Many studies support the function of social support in buffering or protecting against the effects of stress. Across studies, it is clear that the quality of the relationship is more important than the quantity of relationships. For example, Liebenberg, Ungar and LeBlanc (as quoted in Ungar, 2013) showed that

it was not the quantity of services that were provided, but the quality of relationships between an adult service provider and youth that was most predictive of how well a child was able to make use of the services. When adults heard and empowered children in the adult-child relationship, children functioned better.

These benefits are observed across diverse populations, from children to veterans to unemployed workers to mothers of children with serious illnesses. Strong social support helps people with depression function better and increases their likelihood of recovery. Vietnam veterans who had high levels of social support were 180% less likely to develop PTSD than counterparts who did not have strong social connections (Ozbay, Johnson, Dimoulas, Morgan, Charney & Southwick, 2007). A positive relationship with a caring adult is one of the most effective strategies for mediating the impact of ACEs. One program found that a compassionate response to students' trauma histories reduced out of school suspensions by 80% (Resilience Trumps ACEs, n.d.).

HOW DO TRAUMA AND RESILIENCE WORK?

Intuitively we can understand how toxic stress can impact a person's emotional or mental health or a community's sense of well-being and we can imagine how this would impact their physical health. We can see how stress can trigger coping mechanisms such as overeating, substance abuse, risky behaviors, multiple sexual partners and social isolation which feed poor health outcomes. Researchers are now also exploring how traumatic experience actually creates brain impairment and how this gets translated into behavior. While more needs to be learned, scientists already have a good idea how these pathways function. The diagram below shows the progression of impacts from the initial experience of trauma to poor health and social outcomes and early death.

(CDC. Injury Prevention & Control: Division of Violence Prevention, 2014)

Science is now demonstrating that, in addition to the social consequences of toxic stress, the unregulated and ongoing release of stress hormones such as cortisol and adrenaline, can activate the Hypothalamic–Pituitary–Adrenal (HPA) Axis. HPA are three endocrine glands that regulate many body processes, including digestion, the immune system, mood and emotions and how we store and expend energy. An activated HPA Axis can weaken body defenses and compromise the immune system's ability to protect from infection, cancer or autoimmune diseases and can also raise blood pressure, promote plaque formation in arteries and lead to neurological changes that create depressive and post-traumatic stress illnesses (Shonkoff, Garner, Siegel, Dobbins, Earls, Garner, McGuinn, Pascoe & Wood, 2012).

Trauma also causes changes to brain structure and functioning. Survivors of trauma have shown smaller brain volumes and alterations in the functioning of the neocortex and the visual and auditory cortex. These findings strongly suggest that childhood trauma may have profound negative effects on executive function, attention, memory, and visual spatial function (Danese, DeBellis & Teicher, 2015).

In addition, the field of epigenetics is exploring how trauma changes the expression of our genetic structure. While our actual DNA remains the same, our life experiences and the physical environment

in which we live can turn certain features of our genes on and off or change the way they function. As noted above, these genetic shifts can be passed down through generations. For example, a study (Dias & Ressler, 2014) conducted on mice found that when a pleasant smell was associated with an electric shock, the mice began to cower and show signs of fear whenever that smell was introduced. The mice's babies also cowered when encountering the smell despite never having been shocked, and their babies also had the same reaction when they smelled the aroma. These researchers believe that the shock created an intergenerational epigenetic shift in the mice's olfactory system that connected the smell with danger (Dias & Ressler, 2014).

In Switzerland, a team of behavioral geneticists found a clue to the generational transition of aggression and violence. Their research links two observable phenomena: "the higher rate of aggression in those experiencing early-life stress and the blunted activation of a brain region known as the orbitofrontal cortex among people with pathological aggression" (Blue, 2013, p. 4). Another study (Márquez, Cordero, Larsen, Groner, Marquis, Magistretti, Trono & Sandi, 2013) showed that stressed lab animals had higher levels of testosterone, and showed more activity in the amygdala, the brain segment responsible for emotions, including fear and anxiety. There was also an altered connectivity between the seat of emotions and the prefrontal cortex, where executive functions such as decision-making, learning math, and making judgment calls are located. One of the most interesting aspects of the study was evidence that the brain alterations were correlated with enhanced expression of the gene for the monoamine oxidase A (MAOA) enzyme (Márquez et al., 2013).

In support of the claim that "resilience trumps trauma," this same study found that when an MAOA inhibitor was introduced, normal social behaviors returned and aggression was reduced (Márquez et al., 2013). It is important to remember that neuroscience research has taught us that changing our behavior over time can create changes in our brains. This is called neuroplasticity. Our brains change throughout our lifetime in response to our experiences, choices and repeated thoughts. This is the brain's way of fine-tuning itself to meet our needs. For example, if a person is exposed to ongoing trauma, the brain will respond with a heightened stress response as a survival mechanism. The opposite is also true. Ongoing exposure to supportive and caring environments will trigger resilience and healing. Any action or thought that is repeated often, whether positive or negative, becomes "hard-wired," nearly an automatic response in our brains. If traumatic experiences shift the way that our genome functions, restorative experiences can correct or redirect genetic functioning.

This is great news for teaching the skills of resilience. Practicing a positive mindset and developing resilient coping skills over time will help to make that response style more automatic. It can serve to replace the negative, reactive response style that survivors of trauma develop, normalize the HPA Axis response and rewire genetic and brain pathways. Trauma and adversity do not have to be destiny.

Communities can also foster resilience by supporting practices that enable a rapid and comprehensive response to crisis, fostering community connections through events, parks and other public spaces, and effectively connecting residents to a wide-range of social services. Resilient communities seek solutions to problems by engaging people within the community and building interventions around local customs and cultural norms. These communities are better able to bounce back from crisis and disruptions, maintain a good quality of life for the residents, prepare for uncertainties, and adapt to change.

Skills that can help us develop a less negative mindset about adversity include: optimism, gratitude, empathy, and altruism. Physiological interventions such as exercise, mindfulness, deep breathing and meditation help modulate the body's stress response. Finally, as already noted social support and connection to others are important factors in resilience. In fact, the presence of a caring adult can help to mitigate the impact of trauma in the life of a child and significantly increase that child's resilience (Hodas, 2006).

All of these elements can be learned and taught in settings as diverse as hospital workplaces, schools and even prisons. Further down or in side-bars we highlight specific modalities for fostering resilience currently used in clinical settings (see sidebars on Resilience for work done in Oncology at Advocate Children's Hospital in Chicago, and Mind Up Resiliency Building for work done in South Bend, Indiana in public schools.)

The Health Impact and Costs of Trauma

It should be the goal of every institution of human caring to ensure that no one in our society is hurt or has to endure harmful life experiences. As faith-based and/or mission driven health care providers, our traditions and values call us to create loving and just communities where all people can be healthy and whole. That is enough reason to try to reduce trauma and foster social caring and support. It turns out that attending to the environments in which our patients and families live, work, play or attend school is not only a critical part of their health journey; it promotes the financial health of our organizations, as well. Trauma, toxic stress and unstable social conditions have an astonishing impact on health outcomes. The effects of trauma reduce life expectancy and quality of life and cost health care systems millions of dollars in readmissions, noncompliance with treatment plans and unnecessary chronic disease conditions.

The health impact of traumatic experience is well documented. Studies based on the original 17,000 Kaiser Permanente patients that participated in the study showed a dose response, graded relationship between ACE scores (the number of categories of childhood experiences of trauma) and each of the adult health risk behaviors and diseases that were studied (Brown, Anda, Tiemeier, Felitti, Edwards, Croft & Giles, 2009). For instance, persons who had experienced four or more categories of childhood exposure were 4 to 12 times more likely to have increased health risks for alcoholism, drug abuse, depression, and suicide attempt. They were twice as likely to

FOSTERING STAFF RESILIENCE

Because young cancer patients and their families are involved in care over many years, our pediatric caregivers at Advocate Children's Hospital in metropolitan Chicago often witness many life changes and develop meaningful bonds with families. While strong attachments facilitate healing, they also amplify the magnitude of loss when a patient dies. Staff experience grief as well as physical and emotional stress that translate into disrupted sleep, loss of appetite, pain, and mental health issues.

Recognizing the need for staff support, leaders from Oncology and Mission & Spiritual Care divisions came together in 2013 to consider how to overcome generalized feelings of helplessness and hopelessness that result from these profound losses. New interventions, from scheduled debriefings to group prayer, have already proven important to staff morale and resiliency. The Vice President of Mission and Spiritual Care worked with nursing leadership and other hospital managers to seek funding from the LiveStrong Foundation to conduct three, three-day resiliency trainings for members of the interdisciplinary teams at the two main campuses of the children's hospital.

The grant funded the implementation of a train-the-trainer program with VitalHearts, a non-profit organization from Colorado, led by psychologist, Henry Tobey. The Resiliency Training Initiative's mission is caring for cancer treatment providers who suffer from secondary or vicarious trauma, which is a significant, although hidden problem. Secondary Traumatic Stress includes such reactions as: depression, anxiety, persistent trauma imagery, sleep disturbances, mistrust of their organization, isolating from family/friends, frequent illness and loss of mission optimism, among other symptoms, due to the deep exposure to suffering that care providers experience. VitalHearts' program, the Secondary Trauma Resiliency Training (STRT), revitalizes care providers, often saving careers of those who work with cancer patient and survivors by making them more resilient. This allows institutions to better retain their staff expertise, which gives crucial value to patients.

To date sixty members of the interdisciplinary team have participated in the training and with the grant ending in 2015, the Mission and Spiritual Care Department has received budget approval to conduct three more trainings in 2016. Participants in the first three trainings have overwhelmingly recommended that more members of Advocate Children's Hospital team have the opportunity to take part in the training. This training and recent efforts from staff chaplains to provide regular staff support sessions, including weekly resiliency rounds, have begun to transform the culture of the hospital to be one where health care professionals are reflecting and living out of a place of resiliency.

be smokers, 12 times more likely to have attempted suicide, 7 times more likely to be alcoholic, and 10 times more likely to have injected street drugs. People with high ACE scores had a 2 to 4-fold increase in smoking, poor self-rated health, multiple sexual partners, and sexually transmitted disease and were 1.5 times more likely to be physically inactive or severely obese. Adult diseases including ischemic heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease were all associated with the presence of ACEs. Compared with people with zero ACEs, those with four categories of ACEs had a 240 % greater risk of hepatitis, were 390% more likely to have chronic obstructive pulmonary disease (emphysema or chronic bronchitis), and a 240% higher risk of a sexually-transmitted disease. Persons with two or more ACEs were found to have a 70% increased risk for hospitalization for autoimmune disease compared with people with no ACEs and 100% increased risk for rheumatic diseases. They also had more social problems—more absences from work, more injuries, more marriages, etc. People with six or more adverse experiences died on average 20 years sooner than those with no ACEs (Felitti & Anda, 2009).

MIND UP RESILIENCY BUILDING

Community Health Enhancement of Memorial Hospital-South Bend is offering resiliency building classes at Rise-up Academy, South Bend public schools' alternative school for youth 16–21 wanting a second chance. The facilitator is utilizing a curriculum entitled Mind Up. Developed by the Hawn Foundation, this curriculum uses research to teach basic neuroscience and build resilience at the same time. Students learn how to self-regulate by practicing controlled breathing and mindfulness as they learn about the associated brain processes. In addition, lessons in optimism, empathy, gratitude and altruism help students develop a positive mind-set. Each lesson features classroom activities as well as a link to specific neuroscience research around resilience. Students also learn strategies to improve focus and attention as well as manage stress. Concepts in the curriculum meet health and science standards. Both teachers and students are fascinated by the neuroscience lessons and report that the activities increase coping skills. Outcomes are measured with pre/post testing that includes knowledge acquisition and behavioral change. In addition, the Resiliency Scales for Children & Adolescents™–A Profile of Personal Strengths (RSCA) is also administered pre and post training to measure growth in three areas: Sense of Mastery, Sense of Relatedness, and Emotional Reactivity.

Overview and Impact/Cost of Mental Illness and Substance Abuse

We now review the cost of mental health conditions to the health care system and discuss treatment models for integrating mental health and physical health. Although we address those experiencing severe and persistent chronic mental illnesses, we will focus more on those in the lower segments of the population health management pyramid, those described by our colleague, Steve Tierney, MD, of South Central Foundation, as having the (imagined) Diagnostic and Statistical Manual-V type diagnosis: "My Life is a Mess, Not Otherwise Specified." In short, we refer to vulnerable persons who have ongoing life stressors, often tied to their status as under-served, unemployed and/or working multiple low-paying jobs, living in poverty and/or unsafe environments, replete with more susceptibility to abuse or neglect, toxins, violence and in poor living conditions.

We recognize that many such people have likely experienced trauma, making them more susceptible to developing clinical depression, anxiety and/or substance abuse, in a cyclical toxic interaction. The embodiment of those stressors can lead to a host of stress-related illnesses (see "How stress gets under our skin", HSLG, 2013, p. 41). Dube, Felitti, Dong, Chapman, Giles and Anda (2003) found that ACEs seem to account for one half to two thirds of serious problems with drug use. In a study of over 8000 patients in a primary care clinic, each ACE increased the likelihood for early initiation of drug use two to four times. As the ACE score increased, the initiation of drug use and drug addiction increased. Compared with people with zero ACEs, people with more than five ACEs were seven to ten times more likely to report illicit drug use problems, addiction to illicit drugs, and IV drug use.

COSTS OF ACES

Adverse Childhood Experiences have real health care costs in financial terms, health outcomes, quality of life and community stability. Those with four categories of ACEs are more likely to have:

- 240% higher risk of hepatitis
- 390% higher risk of COPD (emphysema or chronic bronchitis)
- 240% higher risk of STDs
- 200% more likely to smoke
- 1200% more likely to have attempted suicide
- 700% higher risk to be an alcoholic (Felitti and Anda, 1998).

A recent CDC study looked at confirmed child maltreatment cases. The total lifetime estimated financial costs associated with just one year of confirmed cases of child maltreatment (physical abuse, sexual abuse, psychological abuse and neglect) is approximately $124 billion. That breaks down to a lifetime cost of $210,012 for each victim of child maltreatment who lived, which is comparable to other costly health conditions. The costs of each death due to child maltreatment are even higher. The researchers based their calculations on only confirmed cases of physical, sexual and verbal abuse and neglect, which child maltreatment experts say is a small percentage of what actually occurs.

The breakdown per child is:

- $32,648 in childhood health care costs
- $10,530 in adult medical costs
- $144,360 in productivity losses
- $7,728 in child welfare costs
- $6,747 in criminal justice costs
- $7,999 in special education costs.

The estimated average lifetime cost per death includes:

- $14,100 in medical costs
- $1,258,800 in productivity losses (CDC, 2014).

COSTS OF MENTAL HEALTH

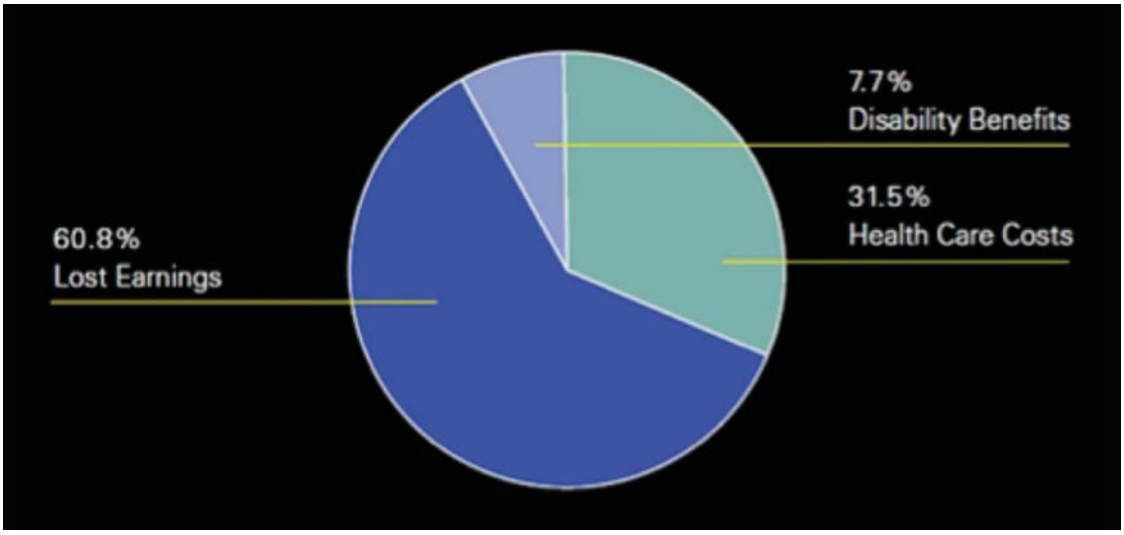
Estimates in 2007-08 were that severe mental illness costs in the US were approximately $308 billion, due to 60.8% lost earnings, 31.5% direct health care costs and 7.7% disability benefits (Insel et al., 2008; Marks, 2007).

In a 2004 study, 10 health conditions were assessed via large medical/absence data bank across many major corporations (Soni, 2009). Overall economic burden of illness: #1 hypertension ($392 per eligible employee per year), #2 heart disease ($368) and #3 depression and other mental conditions. In a more recent estimate, the Agency for Healthcare Research and Quality, cites a cost of $57.5 billion in 2006 for mental health care in the U.S. (AHRQ, 2010).

This graded relationship persists across all populations and age groups dating back to 1900, which suggests that this association is true despite changes in the availability of drugs and social attitudes toward drugs over the years (Dube et al, 2003). When we look at just male children, we find that those with an ACE score of 6 or more have a shocking 4,600% increased likelihood of becoming an injection drug user, compared to a male with an ACE score of 0 (Felitti, 2002). This strongly suggests that medical practice and addiction treatment programs should become “trauma informed” and integrate methods to address the experiential sources of substance abuse and addiction.

The relationship between stress, poverty, trauma and mental illness and substance abuse problems has also been well-documented. Essentially, common mental disorders occur at over twice the rate for those experiencing poverty than those who are rich (WHO, 2007). Depression is also strongly associated with trauma even fifty to sixty years after ACEs occurred. One study shows that 54% of current depression and 58% of suicide attempts in women can be attributed to adverse childhood experiences (Felitti & Anda, 2009). Whatever later factors might trigger suicide, childhood experiences cannot be left out of the equation. A similar relationship exists between ACE Score and later hallucinations (Felitti & Anda, 2009.) Also, depression is 1.5 to 2 times more prevalent for under-served parts of populations (WHO, 2007). From an epidemiological standpoint, these researchers defined “under-served parts of the population” as those living in poverty, with low socioeconomic status (measured by social or income class), unemployment and low levels of education (Saraceno & Barbui, 1997).

Likewise, those experiencing food insecurity or debt are more likely to manifest mental disorders, as well as those experiencing overcrowding and sub-standard housing. The



Costs of Mental Illness in the U.S.: 2007-2008. Data derived from Insel, 2008 and Mark et al., 2007"

WHO and others argue that breaking the cyclical nature of poverty is a key consideration for preventing more mental illness and note the lack of adequate funding devoted at national and international levels to both prevention of mental illness and poverty reduction efforts. Substance abuse has a similar relationship to poverty and stress in under-served populations. A recent SAMSHA report (2014) found that among the 43.8 million adults aged 18 or older in 2013 with any mental illness in the past year, 17.5 percent (7.7 million adults) met criteria for a substance use disorder (i.e., illicit drug or alcohol dependence or abuse). Among the 10 million adults with severe mental illness in the past year, 23.1 percent also had past year substance dependence or abuse. In comparison, 6.5 percent of adults who did not have mental illness in the past year met criteria for a substance use disorder.

What is the cost and impact of mental illness and substance abuse to our society? Estimates in 2007-08 were that severe mental illness costs in the U.S. were approximately $308 billion, owing to 60.8% lost earnings, 31.5% direct health care costs and 7.7% disability benefits (Insel, 2008; Mark et al., 2007; slide above reproduced courtesy of Dr. Thom Bornemman of the Carter Center's Mental Health Program).

Psychiatrically disabled persons (those with severe mental illness) in Massachusetts with co-occurring substance abuse disorders manifested 60% higher costs than those with only substance abuse issues, mostly due to inpatient psychiatric admissions (Dickey & Azeni, 1996). However these costs do not even begin to account for the quality of life lost due to mental illness, for both the persons experiencing these illnesses and their family members.

Collectively, claims for depression, anxiety and stress cost U.S. employers an estimated $344 billion each year due to lost productivity, accidents, disability claims and medical fees (Insel, 2008). Estimates range from 18% to 81% of current lost productivity costs associated with presenteeism ("at the job but not performing well"). Of course, these illnesses co-occur with many chronic medical conditions. In a 2004 study, ten health conditions were assessed via a large medical/absence data bank across many major corporations (Soni, 2009). In this study, depression and other mental conditions ranked number three in terms of cost per eligible employee per year in terms of economic burden of illness (see Medical Cost Offsets of Behavioral Health Treatment (Laurence, 2013) for details).

EMERGENCY DEPARTMENT UTILIZATION COSTS ASSOCIATED WITH MENTAL ILLNESS AND SUBSTANCE ABUSE

Costs in hospital emergency rooms are also significant. Dealing with mental illness/substance abuse prevention and front line treatment is critically important, especially in our health systems, where those inappropriately using emergency room services often have both medical and psychiatric or stress-related illnesses. Total annual visits to emergency rooms in the United States from 1997-2007 increased by 23% (Tang, Stein, Hsia, Maselli & Gonzales, 2010), yet during part of that timeframe (1992-2003) mental health-related ER visits increased 75% (Salinksky & Loftis, 2007). Compared to patients without psychiatric disorders, those with psychiatric disorders are more likely to use the ER on multiple occasions and to have multiple hospitalizations (Baillargeon, Thomas, Williams et al., 2008). Almost 12 million ER visits in the U.S. in 2007, roughly 1 in 8, were due to mental health and/or substance use problems in adults (AHRQ, 2010). Of these 12 million visits, 63.7% were related to mental health problems, 24.4% involved substance use disorders and 11.9% involved co-occurring psychiatric and substance use disorders (AHRQ, 2010).

Specific to health systems, we know at local and state levels that many super-utilizers or over-utilizers of emergency services have co-occurring medical and mental illness/substance abuse issues. For instance, CDC analyzed ED visits occurring in North Carolina during the period 2008–2010 captured by the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT). This report indicated that nearly 10% of ED visits had one or more mental health diagnoses assigned to the visit and the rate of mental health related ED visits increased seven times as much as the overall rate of ED visits in North Carolina during the study period. Those with a mental health diagnoses were admitted to the hospital from the ED more than twice as often as those without such diagnoses. Stress, anxiety, and depression were diagnosed in 61% of mental health-related ED visits. The annual rate of mental health-related ED visits for those aged ≥65 years was nearly twice the rate of those aged 25–64 years; half of those aged ≥65 years with mental health diagnoses were admitted to the hospital from the ED (CDC, 2013). Looking at these numbers can cause even the most optimistic among us to feel despair about making a difference in persons with these issues.

Although these cost figures are staggering, there is good news. Numerous experiments in care for persons covered under Medicaid and other programs for the under-served exist to show that incorporating any level of mental health screening, care and treatment can save money for health plans, hospital, individuals and other stakeholders, and, more importantly, improve the quality of life for both individuals and families (see Medical Cost Offsets of Behavioral Health Treatment sidebar for details).

Additionally, there is hope for prevention of mental illness and substance abuse through evidence-based practices that could be implemented at the community level. For example, the Institute of Medicine (2009; 2012) reports that these practices exist for both youth and those in later life. Muñoz et al. (2012) report estimates from meta-analyses that suggest that 22-38% of initial major depressive episodes could be prevented with available methods. These include strength-based and resiliency training, cognitive behavioral programs, web-based programs, public health efforts, taking a developmental perspective, targeting high risk populations (post-partum, elderly, college students, etc.) and testing evidence-based interventions with the widest reach. Other prevention efforts center on dealing with poverty and adverse events in youth and children (Yoshikawa, Aber & Beardslee, 2012; Blair & Raver, 2012). Actively engaging these programs or knowledge at community scale may help prevent unnecessary suffering. Stakeholder Health believes that offering resiliency training, mindfulness and other strategies proactively to all children and youth would decrease the stigma of designating persons as traumatized and could

MEDICAL COST OFFSETS OF BEHAVIORAL HEALTH TREATMENT

Excerpted from 2013 Presentation by Lance Laurence

Numerous natural experiments, in care for persons covered under Medicaid and other programs for under-served, exist to show that incorporating any level of mental health screening, care and treatment can save money for health plans, hospital, individuals and other stakeholders.

In 1990, the Hawaii Medicaid Program dropped MH/SA services in Medicaid due to costs. As a result, Medicaid costs escalated as those with mental health problems sought help from PCPs at twice the rate of those without such issues and visited the ED more frequently. In 1991, the Hawaii Medicaid Program reinstituted a full array of mental health services, including no utilization review, a process often required in advance to justify reimbursement for therapy visits. Costs in the Medicaid Program decreased. One aspect of the Hawaii Medicaid Study focused on high users with targeted mental health care. Cost reductions in medical care for those receiving services were 38% for those not chronically ill, 18% for those chronically ill, 15% who had substance abuse diagnoses. These high users sought medical help 200-250% more frequently than those not seeking mental health intervention.

In a follow up of the same study cohort, high users (80% of costs used by 20% of the patients) were randomly assigned to receiving mental health care or not. After 18 months, those getting mental health care showed a 44% reduction in general medical costs. Likewise, in a 2008 study, high users receiving psychotherapy showed a 38% reduction in office visits, 56% reduction in laboratory/x-ray visits, and 78% reduction for urgent care visits.

Biodyne Institute's 4-year study of 16,000 lives in the Hawaii Medicaid population and 30,000 federal employees showed that patients who received targeted, focused mental health care experienced a 35-38% drop in medical costs after receiving treatment. Those who got no focused mental health care saw medical cost increases from 0-25%, depending on the patient.

Likewise, Kaiser Permanente's HMO found that those who received psychotherapy showed a 77.9% decrease in average length of stay in the hospital, a 66.7% decrease in the frequency of hospitalizations, a 48.6% decrease in the number of prescriptions written, 47.1% decrease in physician office visits, 45.3% decrease in emergency room visits, and 31.2% decrease in telephone contacts. One million patient contacts were reviewed. Sixty-eight per cent of these persons were on medication at the onset of the study. Mental health interventions provided a 13% reduction in those on medication at the end of the study.

While early medical cost offset studies focused on high utilizers of medical services, later work also expanded to look at those who were on the low end of the utilization spectrum. Again, the use of some level of mental health care demonstrated improvements. A study with 8,100 enrollees at Boston Clinic demonstrated that those receiving psychotherapy for non-chronic condition (i.e., not bipolar, etc.) reduced their non-psychiatric medical services by 7.2%; similarly diagnosed patients who did not receive mental health care increased 9.5%–effects lasted over a two year period. In a BCBS Federal Plan, those who received psychotherapy along with treatment of their medical conditions used 56% less medical services than those with similar medical conditions and no psychotherapy.

Finally, meta-analysis of 91 peer reviewed cost-offset studies of those without severe and persistent mental illness showed that 90% of the studies reported a 20-30% medical cost offset savings when compared to those who did not receive psychological services (Chiles, Lambert & Hatch, 1999).

prevent untold pain and suffering and violence against self and others. Our question to ourselves as health system staff interacting with the community is, "Why are we not using these strategies to improve the mental health, resiliency and well-being of all persons?"

We now attempt to answer that question by first, broadening the view of what constitutes all facets of integrated health, particularly in terms of future training in health systems, and then sharing select, potential solutions and interventions for addressing ACEs, mental health and substance abuse problems at both individual and community-scale, highlighting exemplary practices and organizations.

Moving Toward a New Model of Integrated Medicine or Health

BROADENING THE VIEW OF INTEGRATED HEALTH

While most health systems have barely adopted the now dated "bio-psycho-social" model (Engel, 1977) of care delivery, SH and others suggest that the current iteration of the full spectrum of Integrated Health should be expanded beyond this model to include, as delineated by many including the World Council of Churches Reference Group on Mental Health and Faith Communities (WCC, 2007), the

dimension of faith or spirituality, broadly defined—a bio-psycho-social-spiritual model. The World Health Organization has also advocated adding a spiritual component to their definition of health: "Health is a dynamic state of complete physical, mental, spiritual and social well-being and not merely the absence of disease or infirmity" (WHO, 2001).

We go even further in seeing Integrated Health not only in terms of the individual but also at community level. This view incorporates, within a health systems framework, current models of population health metrics and interventions now capturing the attention of both public health and clinical practitioners. An example is the Institute for Healthcare Improvement's ambitious Triple Aim to improve quality of care or patient experience and health outcomes while decreasing costs at community scale (Bisognano & Kenney, 2012). We advocate an even more expansive view, however, adding health equity to a "Quadruple Aim" (see our earlier work, Health Systems Learning Group, 2013, p. 12) to insure justice in healthcare and elsewhere. We now explore how integrated care is being adopted by health systems, and early returns on investment that can result.

INTEGRATED CARE IN HEALTH SYSTEMS

In the light of federal regulations requiring not-for-profit health systems to demonstrate community benefit and ensure high quality patient outcomes, health care systems are seeing the benefit of addressing the social determinants of health and providing care that brings in wisdom from other disciplines. Though a move to integrated, patient centered medical homes gained ground in the '60s and early '70s, the managed care decade of the 80s successfully re-siloed the healthcare disciplines and, instead, valued services on volume. The more tonsillectomies performed or broken bones cast, the more money earned or saved—a business model that invited payment for sick care and less for health and prevention.

The idea of multi-disciplinary care, coordination, collaboration, and integration of services is resurfacing at a time when the business model is beginning to shift from fee-for-service to outcomes (or values) based payment models, such as per member per month incentives (actually penalties) to reduce readmissions and for ED diversions. This alters the model of care delivery and brings medical providers (broadly defined) to consider public health and population health models that look at "big data" and aim at the overall minimization of symptoms and diagnoses in large groups and communities. Behavioral health, similarly, is finding a new home in primary and specialty outpatient and inpatient care delivery. Touted as the response to lack of follow through for referrals for behavioral health treatment in other settings, medical treatment noncompliance, management of "difficult" patients, and real-time consultation for patients exhibiting depression, anxiety, suicidality or other complex symptomology, behavioral health (psychiatric and non-medical) is finding its way into these clinics.

The Health Research Services Agency (HRSA) suggests that the integration of primary medical care, behavioral health, public health, oral health, weight management (an option for impacting metabolic syndromes), and pharmacy should be the norm in all clinics, and, depending on the patients served and community needs, other services (physical therapy, nutrition, etc.) might also be appropriate to the mix. We would add spiritual care as another discipline that needs to be at the table, as well as those who help improve social and economic well-being (such as financial or life skills counselors).

Limiting most of these models is an approach that generally involves medicine "integrating" other "ancillary" services into their practice. Workflows might shift, thorough screenings might invite the clinic to treat some depression, anxiety or addiction that might have otherwise been missed, services can be enhanced, but the basic limit is still there—treat what is broken, ill, or diseased, and follow the known best protocol. The focus stays on the biological aspects of the person. This contrasts with the holistic

model of assessment, treatment, prevention and wellness, particularly as the key to managing chronic health conditions, that many promote, including the World Council of Churches, National Institutes of Health, Doctors Without Borders, Association of Clinical Pastoral Education, American Association of Pastoral Counselors, and American Psychiatric Association.

While the rigid view of integrated care refers to a behavioral health provider embedded in a medical clinic sharing outcomes through patient registry data and population health management, we suggest a broader view of Integrated Health that (more and more) encompasses care in the community. Increasingly, no longer is it simply the expectation that the patient come to the provider for care. Rather, providers (physicians, social workers, psychologists, nutritionists, etc.) are leaving the clinic and basing their efforts in the heart of community programs and locations where those who need the help the most might receive better access to quality care. For example, free dental clinics are becoming commonplace and low cost or free medical clinics (integrated with behavioral health) are being housed in houses of worship when those buildings would otherwise be empty. Likewise, community members are inviting behavioral health providers to screen for depression and anxiety and provide referral resources at local health fairs.

INTEGRATED CARE: RETURN ON INVESTMENT

Almost every integration effort with a true patient-centered philosophy and practice is providing positive results in their practice. Well known for successes are Intermountain Health Care in Utah, and Cherokee Health Systems in Tennessee. A "Becker's Hospital Review" article from May 2013 (Rodak, 2013) lists 100 integrated health systems across the country. SAMHSA's Primary and Behavioral Health Care Integration program names these benefits from current integrated care settings:

- Improved access to primary care services;
- Improved prevention, early identification, and intervention to reduce the incidence of serious physical illnesses, including chronic disease;
- Increased availability of integrated, holistic care for physical and behavioral disorders; and
- Improved overall health status of clients.

Models that work around policy and funding barriers include Federally Qualified Health Centers and Rural Health Centers that provide services through large blocks of funding rather than reimbursement in the fee-for-service paradigm. These Centers screen all patients for anxiety, depression, and substance use behaviors, embedding behavioral health consultants and co-locating counselors for onsite psychotherapy.

As noted (Medical Cost Offsets sidebar, above), outcomes related to the integration of clinical and community services are very positive. Consistently, integrated primary care clinics are showing improved general health for patients, reduced length of illness for acute patients, reduced hospital admissions and readmissions, and increased treatment compliance metrics in their patient groups. Unexpectedly, clinicians and non-clinicians alike receiving training in integrated modalities, behavioral health interventions, and educational programs are seeing improved mental health themselves—such as improved coping techniques and qualities of resiliency, self-differentiation, and increased emotional intelligence.

Training for integrated care practices also invites a shift in our educational structures. Siloed training based on disciplines is counter to the idea of integrated practice and to the collaborative approach of many programs of inter-professional training. Likewise, developing integrated practice in medical clinics is less about staffing all the necessary disciplines and more about creating a culture of collaboration with flat structures to the fullest degree possible.

THE EMOTIONAL FITNESS CENTER: COMMUNITY-BASED PREVENTION

The Emotional Fitness Center is an exemplary, individual and community-based practice that integrates behavioral health care through the African-American churches in Tennessee. The Emotional Fitness Center was born out of a crisis in The Healing Center church in Memphis, Tennessee. Early Monday morning, after a wonderful Easter service in 2002, a member of the congregation came to the grounds of the church, got under the cross and took her life. This tragedy shook the congregation to its core in light of the fact that its leader, Bishop and Dr. William M. Young, was a counselor and therapist. How could this suicide happen on his watch? After colleagues came in to help the congregation recover from this loss, a fire was lit in the hearts of the Bishop Young and his wife, Minister Dianne Young, to sound the alarm that suicide was a growing phenomenon in the African American community that could no longer be ignored. From this tragedy, the Youngs formulated the First National Suicide and the Black Church Conference in June, 2003. The conferences continue bi-annually and draw 350 attendees from across the country. The Youngs were also supported by Methodist Le Bonheur Health System, who helped with crafting their first grant to the state and helped sponsor their bi-annual conferences.

The Youngs, now realizing the power of faith and community, with knowledge and hunger to help those with mental, emotional and behavioral health challenges, presented a concept to the State of Tennessee, Department of Mental Health and Substance Abuse in 2007, to develop the Emotional Fitness Centers of Tennessee. The program has been funded by the Tennessee Department of Mental Health and Substance Abuse since 2008. The use of the term "Emotional Fitness" removes the stigma in itself because "Mental Health" to most African Americans sends a negative message culturally. The church removes much of the stigma by giving individuals permission to seek care for their mental health, offering church sites as places where individuals in the community can go and be screened for emotional distress or trauma. After being screened, those dealing with these challenges would be triaged to support groups, counselors, mental health facilities or hospitals to receive the needed care.

Currently, The Emotional Fitness Center utilizes over 20 Peer Advocate Liaisons (PALS) to screen and navigate persons with behavioral health needs to appropriate mental health care, The PALS are based at 7 African American churches, offering multiple entry points through which persons can come into their system. Persons screened by the PALS are then triaged by Bishop Young (also a licensed professional counselor and family and marital therapist by the State of Tennessee) to local psychiatrists, psychologists, social workers and/or to a series of support groups at the Center, ranging from care for family survivors of suicide, anger management, those dealing with violence in their lives and more. The program serves an essential feature in decreasing stigma of mental health care, providing a strong safety net in the community and building strong ties between the African-American church and traditional mental health services.

Over 50 PALS in total have been trained since 2007, with up to 13 churches in Memphis and West Tennessee participating since 2008. Over 3,500 persons have been served in this program since 2008 and most of these individuals would never have received services had they not been made available utilizing the church as the hub for navigation of care. The Youngs, through the Emotional Fitness Centers of Tennessee, have proven the combination of faith and mental health is a best practice for getting individuals into care. Though the funding is not adequate to roll out the program throughout the state, it is definitely a proven best practice, especially since over half of the residents in the State of Tennessee identify themselves as having a faith home.

Resilience Solutions

CREATING RESILIENCE: MINDFULNESS AS A PROMISING SOLUTION AND PREVENTION STRATEGY

Mindfulness is derived from centuries-old meditative traditions. It is simply the cultivation of inner resilience and well-being through attention and awareness. Although it can be taught in a secular way, it is a component of many faith traditions and allows each person to bring their own perspective and approach to finding meaning, purpose, and well-being in their lives. It can be as simple as learning how to breathe deeply and purposefully when feeling anxious. The Psalmist in the 23rd Psalm reminds us that it is beside still waters that the soul is restored. It is a powerful tool whether one is looking to find a healthy way to reduce stress and become more self-aware, a child who needs to calm down and focus, a veteran battling post-traumatic stress disorder, a cancer patient seeking strength and perspective for the journey ahead, and more.

The secular practice of mindfulness entered the mainstream in large part due to the groundbreaking work of Jon Kabat-Zinn and his Mindfulness-Based Stress Reduction (MBSR) program at the University of Massachusetts Medical School. Kabat-Zinn describes mindfulness, at its core universal and not particular

to any culture, tradition or belief system, as quieting the mind and paying attention in the present moment, on purpose, and without judgment, staying curious instead of reacting (Kabat-Zinn, 1994). The physical and mental health benefits of mindfulness have been so well documented that they have inspired countless programs to adapt the MBSR model for schools, prisons, hospitals, veterans' centers, and more.

World-renowned neuroscientist Dr. Richard J. Davidson at The Center for Investigating Healthy Minds at The Waisman Center, University of Wisconsin-Madison, has been leading rigorous scientific studies for decades on the psychological and neurological evidence for the benefits of mindfulness training. Mindfulness has been linked to heightened activation in brain regions responsible for regulating attention, or focus, and positive affective states such as compassion, kindness and empathy (Davidson, Kabat-Zinn, Suchmacher, Rosenkranz, Muller, Santorelli et al., 2003; Lutz, Greischar, Rawlings, Ricard & Davidson, 2004; Lutz, Slagter, Dunne & Davidson, 2008). Researchers have discovered that the neuroplasticity of the brain, its ability to change structure and function, comes not only from external experiences but also internally through thoughts and intentions. Their evidence-based studies suggest that one can develop concrete skills of inner preparedness to face stress, shock and trauma through meditation and other cognitive behavior training.

Studies also reveal that emotions, attention, and introspection are ongoing and changing processes that may be understood and mastered as skills similar to sports, math, and music (Davidson & McEwen, 2012). A Kindness Curriculum for pre-kindergarten students using Kabat-Zinn's adult-based MBSR curriculum as a model is being used in a research study in the Madison Metropolitan School District with positive results to be published soon. Mindfulness in Schools, a project at the University of Exeter, UK, has created a mindfulness curriculum for middle school students with the goal of teaching skills that cultivate well-being and promotion of mental health. Results reported in the British Journal of Psychiatry (Kuyken, Weare, Ukoumunne et al., 2013) show evidence of its benefit in reducing stress and enhancing well-being and reducing depressive symptoms in students.

The UCLA Mindful Awareness Research Center and The Cousins Center for Psychoneuroimmunology has ongoing studies using mindfulness to lower blood pressure and boost the immune system, increase attention and focus and help with anxiety and depression, foster well-being and create less emotional reactivity, and change the brain in areas in charge of decision making, emotional flexibility, and empathy. Their affiliate program, Inner Kids, provides a mindfulness curriculum for K-12 education with the goal of cultivating more thoughtful, resilient, and empathetic children. Also, Emory University has created the Emory-Tibet Partnership and developed Cognitively Based Compassion Training (CBCT), a program that intentionally and systematically works to cultivate compassion for self and others. A recent study from researchers at Emory focused on foster kids (Reddy, Negi, Dodson-Lavelle et al., 2013) showing promising results in using CBCT in at risk populations.

In Chattanooga, Tennessee, people from various backgrounds including medicine, nursing, theology, social work, psychology, business, education, healing arts, and other professional and religious traditions created the Center for Mindful Living. This non-sectarian, non-profit organization serves the community through teaching mindfulness as a tool for living. Classes are offered in Kabat-Zinn's MBSR, Emory-Tibet's CBCT, Mindfulness in Schools, Mindful Eating, Meditation, Tai Ji, Yoga, Centering Prayer, and many other workshops and classes. The center has created programs for public schools in underserved areas of the community, offers mindfulness camp for kids, and works with local hospitals to create programs for cancer patients to learn to breathe during treatment. Outreach classes are also offered in the corporate/business setting (including some hospitals) as well to provide onsite meditation and yoga sessions with positive results.

Mindfulness can no longer be considered “fluff’ or strictly a Buddhist practice. It has entered the mainstream based on rigorous scientific research and positive outcomes and should not be ignored by the traditional medical model of healthcare. Mindfulness is a tool for reducing the effects of trauma and, more importantly, teaching resilience at the earliest age as a prevention strategy for building healthy, mindful communities.

TRAUMA INFORMED OR FOCUSED COGNITIVE BEHAVIORAL THERAPY

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) is a model of psychotherapy that effectively combines trauma-sensitive interventions with cognitive behavioral therapy (Child Sexual Abuse Task Force and Research & Practice Core, 2004). Cognitive Behavior Therapy (CBT) was initially developed by Aaron Beck and others in the 1970’s and has been shown to be a strong evidence-based modality to treat anxiety, depression (Beck, Rush, Shaw & Emery, 1979; Butler, Chapman, Forman & Beck, 2006; Wolitzky-Taylor, Zimmerman, Arch, De Guzman & Lagomasino, 2015), various personality disorders (Linehan, 1993), as well as Post Traumatic Stress Disorder (PTSD), especially when combined with other interventions (Mueser, Rosenberg, Xie et al., 2008; Foa, Keane, Friedman & Cohen, 2008).

CBT contends that specific exercises changing thinking and behavior can dramatically improve mood, personality and help persons better process trauma. For example, TF-CBT is designed to address the needs of children with Post Traumatic Stress Disorder (PTSD) or other significant behavioral problems related to traumatic life experiences (Child Sexual Abuse Task Force and Research & Practice Core, 2004). Core elements of effective TF-CBT for children include trauma assessment, utilizing cultural strengths, addressing safety, engagement, attachment and positive focus on the child-caregiver relationship, attention to the social context, trauma processing, consolidation and post-traumatic growth syndrome, therapist self-care and common core interventions (Strand, Hansen & Courtney, 2013). These common core interventions include psycho-education, parent training and developmental guidance, feeling identification, problem solving and social skills cognitive interventions, relaxation and stress reduction, and affective interventions along with creation and processing of the child’s trauma narrative (Strand, Hansen & Courtney, 2013).

This treatment results in improvements in PTSD symptoms such as depression, anxiety, behavior problems, sexualized behaviors, trauma-related shame, interpersonal trust and social competence. It has been recognized by SAMHSA nationally (Elliott, Bjelajac, Fallot, Markoff & Reed, 2005) and by many state level behavioral health initiatives (e.g., Minnesota) as a useful intervention to be implemented at community scale. Likewise, trauma informed CBT has been used successfully in quasi-experimental trials to treat adults with co-occurring substance abuse issues (Morrissey, Ellis, Gatz, Amaro, Reed, Savage, Finkelstein, Mazelis, Brown, Jackson & Banks, 2005). Health systems (such as Memorial Hospital in South Bend, as described above) are increasingly interested in use of trauma informed CBT as a model that can be adopted to address issues resulting from ACEs, and prevent the impact of ACEs as described above.

EYE MOVEMENT DESENSITIZATION AND REPROCESSING (EMDR)

Eye Movement Desensitization and Reprocessing (EMDR) is a well-known, but often controversial, therapeutic modality that has been used in both outpatient and inpatient settings to treat Post-Traumatic Stress Disorder or PTSD. EMDR was developed by Francine Shapiro to reduce the effects of distressing memories by a multi-stage approach designed to help a patient more effectively process such memories and associated stimuli (Shapiro & Laliotis, 2010). Essentially, a patient is asked to recall distressing memories while receiving one of several types of bilateral sensory input from a practitioner, such as side-to-side eye movements (Feske, 1998). EMDR has been shown to be more beneficial than no treatment and is similar to trauma-informed cognitive behavior therapy (CBT) in helping persons

with chronic PTSD (Bisson, Roberts, Andrew, Cooper & Lewis, 2013; Watts, Schnurr, Mayo, Young-Xu, Weeks & Friedman, 2013). EMDR requires extensive training of clinical professionals, but similar models to the intervention have been developed (e.g., Acute Trauma Incident Processing or A-TIP; Community Resiliency Model; Emotional Freedom Technique or EFT) that have been shown efficacious in clinical trials (Feinstein, 2012) and can be implemented at community scale by laypersons (see the EMDR and Other Hospital-Based Approaches for Mediating Adverse Childhood Experiences sidebar for more details).

COMMUNITY-BASED TRAININGS

In addition to traditional healthcare providers, we are also seeing more and more laypersons being pulled into the larger integrated care networks, as their skills in health literacy, cultural competency and holding implicit trust in community renders them essential players on the broader care team. SH also advocates that health systems provide wholesale and free training of community members/volunteers to build capacity for early recognition, screening, prevention, triage to traditional treatment, as well as enhanced self-management of behavioral health issues. The following trainings are available at community scale.

BETTER BRAINS FOR BABIES/BRAIN HEALTH THROUGH THE AGES

Better Brains for Babies is a community-based training designed to teach parents and other caregivers four strategies for stimulating and nurturing early brain development: touch, talk, read and play, as well as addressing how early neglect and trauma impacts brain development and physical and emotional well-being as children develop. Better Brains for Babies was developed by University of Georgia researchers (Bales, 2005) and further refined in work with the churches in Memphis, through The Urban Childhood Institute (TUCI). In collaboration with the Congregational Health Network, the training was further expanded to include healthy strategies for brain protection and enhancement through the lifespan, focusing on healthy exercise, nutrition, minimizing use of alcohol and abstaining from drugs, as well as other behavioral strategies for preventing dementia and tips for caregiving those with dementia. This training has been taught to over 100 persons in the Memphis area and has been well-received by younger persons, as well as the older generation, in terms of both early brain development and good brain health promotion strategies throughout the lifespan.

MENTAL HEALTH FIRST AID

In terms of Integrated Health at community scale, educational programs for lay persons, such as Mental Health First Aid are aimed at building community capacity to promote wellness and prevention, stigma reduction, skill development for helping managing acute episodes toward stability and appropriate professional or community support. Mental Health First Aid (MHFA) is a training designed to help lay persons navigate peers to traditional mental health services and resources. This eight-hour course teaches participants how to help someone who is developing a mental health problem or experiencing a mental health crisis, by identifying, understanding and responding to signs of mental illness or substance abuse problems (Kitchener & Jorm, 2008).

MHFA was created in 2001 by Betty Kitchener, a nurse specializing in health education, and Anthony Jorm, a mental health literacy professor. Kitchener and Jorm run Mental Health First Aid™ Australia, a national non-profit health promotion charity focused on training and research. This has now expanded to the US and 22 other countries under MHFA International (Mental Health First Aid website, 2015). ALGEE is the core training technique and mnemonic device that aids in retaining the information learned in MHFA.

EMDR AND OTHER HOSPITAL-BASED APPROACHES FOR MEDIATING ADVERSE CHILDHOOD EXPERIENCES

In 2012, with the completion of the mandated Community Health Needs Assessment, the Community Health Enhancement team of Memorial Hospital of South Bend became keenly aware of the community's concerns regarding the seemingly out-of-control Violence and Safety in the neighborhoods, as well as domestic and relationship violence.

The team began to seriously investigate the correlation between childhood adverse experiences (ACE) and the startling variety of mental and physical health diseases in adulthood. They took heart with the multiple professional sources that were consistent in stating childhood trauma need not plant and nourish the horrible projected destiny. They avidly consumed studies which developed a forecast of the potential for mediation and prevention. Two evidence-based interventions came to their attention, Resiliency and Eye Movement Desensitization and Reprocessing (EMDR); EMDR, developed by Frances Shapiro, is a psychotherapeutic approach to help cliental process traumatic experiences.

An informal poll of St. Joseph and Elkhart Counties, the two locations served by both Beacon Health System and the area's community mental health center, Oaklawn, suggested there were fewer than a half-dozen therapists trained in EMDR. The first initiative was pretty obvious: they needed EMDR trained therapists. Connecting with a therapist and EMDR trainer, to-date, they have provided training to more than 100 therapists, making this evidenced-based program widely available to their community.

Building upon the training for licensed therapists, they have also offered Acute Trauma Incident Processing (A-TIP) training which would include first responders, teachers, justice officers, adult Parks and Recreation program leaders, etc. With awareness comes a strong internal entreaty to make a difference, to intervene, to assist their children to succeed academically and socially; to increase the odds for a healthy future for themselves and their children. South Bend has found many opportunities to use the knowledge and training that is available, many of which are embedded in best practices. Among their first partners in preventing and treating the trauma was Youth Services Bureau, a safe shelter for homeless teens, the St. Joseph County Juvenile Justice Center; Memorial Hospital's regional, level II Trauma Center providing immediate intervention to stabilize the patient emotionally and subsequently physiologically. The Trauma Center also employs a well-respected gentleman from the community as the Community Trauma Liaison, providing a link for healing victims, families and the community. The South Bend Police Department has been a critical partner as they work to ameliorate violence in our neighborhoods.

Elkhart's law enforcement officers were trained in a communications/brain based program, "Policing the Teen Brain"; South Bend's Police Department will be immersed in the train-the-trainer model after the first of the year. They have presented the impact of ACE on children's brain development to parents at two urban parochial schools; in addition, the school counselor was trained in EMDR. Immediately, parents besieged the team asking for training for them to assist their children in dealing with trauma. They are researching possibilities and in conversation with professionals. A presentation to an alternative school's teachers and principal evolved into a seven-week course for the students, ages 16 to 21.

From February 2016, Memorial partnered with local agencies and organizations to host the PBS series on childhood in America, including "Healing the Wounds." Another colleague is investigating funding opportunities to bring "Paper Tigers," a documentary about ACEs, to the area. Memorial was part of a research study being conducted at the University of Notre Dame, measuring the impact of the 400 subject/mothers trauma experiences on the birth outcome and the first six-months of the infants' life development. Accrual and intervention has been completed; this cutting-edge research is in the analysis stage before submission for publication.

Two additional expansions for next year include the train-the-trainer workshops, "ACE Interface," with Dr. Rob Anda and Laura Porter. This training is currently scheduled for South Bend; however, a grant submission is being prepared to replicate the training in Elkhart. The community health team will also be developing a series of programs which will be geared toward different audiences, from an intention of raising awareness, to becoming a change agent for children, parents and organizations providing services to our vulnerable children.

An indicator of success might be when other groups begin to own the concept and bring it to children and parents in the agencies from which they serve. Key service agencies in Elkhart and St. Joseph County have coalesced to transform shared interests into a community-wide organization based upon trauma-informed-care. The University of Notre Dame invited Dr. Bruce Perry, pediatric psychiatrist and author *The Boy Who Was Raised As A Dog* and *Born to Love*, to play a key role in an academic symposia on child development. They have been blessed by the early work of many pioneers who began the research and continue to validate the implications of trauma and health. South Bend, St. Joseph County, Elkhart, Elkhart County are opening their eyes and hearts to serve their beloved communities.

Assess for risk of suicide or harm

Listen nonjudgmentally

Give reassurance and information **E**ncourage

appropriate professional help **E**ncourage self-

help and other support strategies

Mental Health First Aid USA is listed in the Substance Abuse and Mental Health Services Administration (SAMHSA)'s National Registry of Evidence-based Programs and Practices. The SAMHSA Intervention Summary for MHFA suggests that the training (intervention) was useful in building knowledge and confidence in interacting with and providing help to, persons with mental illness and substance abuse problems and decreasing sense of social distance from those with such illnesses (SAMHSA National Register of Evidence-based Programs and Practices, 2015). Several states and groups have adopted large scale MHFA training to improve community capacity to respond to and help persons with mental illness and substance abuse problems, building a stronger safety net. For example, North Carolina's Dept. of Health and Human Services along with SAMHSA funding, has trained almost 12,000 persons in MHFA since 2008.

FAITH COMMUNITY EFFORTS

Increasingly faith communities are providing support groups and educational programs for grief and other life transitions. Likewise, faith leaders often serve as front line responders for behavioral health issues. Many people will go to their pastor, priest, rabbi, cleric, shaman, or lay leader for help in understanding and managing distress (chronic and acute) in their lives before seeking other professional resources. Programs to train and support faith leaders in this role are evolving rapidly, although seminaries, divinity schools and other theological training programs have included pastoral care or counseling techniques in the curriculum for decades. In 2016 the American Psychiatric Association published *Mental Health: A Guide for Faith Leaders*, a booklet and quick reference guide for understanding, managing, and referral sources for mental health issues.

Additionally, laypersons are now being seen and trained as critical parts of this Integrated Health system. For example, Stephens Ministries, a program designed to equip and empower lay caregivers, has trained over 600,000 Stephens Ministers since 1975, who provide high-quality, confidential care to people who are hurting, from the Christian perspective (Stephens Ministries website, 2015).

Community Scale Screening and Assessment: Population Health Management Tools

In terms of solutions to behavioral health issues, Stakeholder Health holds a core belief that communities can partner more intentionally with health systems to improve overall health and well-being within the broad integrated health view described above. One mechanism to achieve this is to train and engage laypersons in the use of screening and assessment tools now being used in population health management efforts across health systems and in community mental health settings. Just as Mental Health First Aid training expands the broader knowledge of how to deal more appropriately with mental illness and substance abuse, these screening tools help to better integrate the work of community-based peers and laypersons working in their churches and organizations with that of traditional mental health practitioners and organizations. The more familiarity the public has with these tools, the more they can partner to help detect problems in peers and family members and thus

broaden the community safety net to prevent intra-personal and inter-personal harm and violence at all levels. Below we describe briefly some commonly used tools, with links to their access. All of the tools discussed in this section are available in Appendix 2.

TAKE AN ACE HISTORY: NOTICE AND ASK ABOUT TRAUMA

A critical first step in moving toward resilience may be as simple as asking people about their experience. Following up from the ACE study, Kaiser Permanente began taking an ACE history for each of their patients in their outpatient clinics. When respondents answered "yes" to one of the questions on the ACE tool, the provider simply said, "I see that you have experienced …. Tell me how that has affected you later in your life." Simply asking the question, taking it seriously and responding in a compassionate way had a measurable impact on use of health care resources. Over a two-year period with 100,000 patients, when practitioners used this approach, an independent study showed a 35% reduction in doctor office visits (DOVs) in the year subsequent to evaluation, compared to the year before. Additionally, analysis showed an 11% reduction in Emergency Department (ED) visits and a 3% reduction in hospitalizations. Even though the question was asked and recorded in the medical record, practitioners did not usually continue to address the issues in subsequent visits. Just asking the question and recognizing that it had an impact on the person seemed to have a positive impact. Interestingly, however, these benefits did not last beyond the first year, so additional follow up and treatment is certainly also necessary (Felitti & Anda, 2009).

SBIRT AND AUDIT

Trauma and substance abuse scales can be used by trained laypersons to determine what kind of extra support a person might need. For example, *SBIRT – Screening, Brief Intervention, Referral to Treatment* – is a comprehensive, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those at risk of developing these disorders." As indicated by the acronym, there are three distinct phases to SBIRT:

- Screening can assess the severity of substance use, dependence and abuse at hopefully early stages of the game, identifying appropriate levels of treatment.
- Brief intervention offers the possibility of behavior change by raising awareness of personal practices and their consequences. In addition to psycho-education, Motivational Interviewing is a primary tool utilized in this phase to invite behavior change as indicated.
- Referral to treatment is the methodology offered to those with more severe addiction (or potential addiction) issues, again with a goal of intervening as early in the process as possible with the appropriate level of care.

Tools used in SBIRT include the AUDIT and NIAAA Low Risk Drinking Guidelines. The AUDIT (*Alcohol Use Disorders Identification Test*), developed by the World Health Organization in 1982, is a brief 10-question addendum to SBIRT used in many primary care settings to identify those who are at risk of excessive alcohol use. It is available in English, Japanese, Spanish, and Slovenian (www.who.int/substance_abuse/activities/sbi/en). The AUDIT-C is a modified version of the 10-question AUDIT instrument that can reliably identify patients who are hazardous drinkers or who have active alcohol use disorders. A score of 4 for males or 3 for females is considered positive, indicating need for further conversation or possible intervention. Similarly, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Low Risk Drinking Guidelines are short questions designed to determine if a person's drinking patterns put them at risk in terms of health.

PERSONAL HEALTH QUESTIONNAIRE-9 (PHQ-9)

Two scales for assessing depression and anxiety at population levels, the Personal Health Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder-7 (GAD-7), were developed by Spitzer and colleagues as part of the PRIME-MD study, for assessment efforts in primary care and other settings (Spitzer, Williams, Kroenke, Linzer, deGruy, Hahn, Brody & Johnson, 1994; Spitzer, Williams & Kroenke 2000; Kroenke, Spitzer & Williams, 2001; Kroeneke & Spitzer, 2002).

The PHQ-9 is now widely emerging as a gold standard tool for screening for depression and has been embedded in many health system electronic medical records. It starts with items 1 and 2 (PHQ-2) which, if scored above 3 points, suggests a need for use of the whole 9 item scale (free at the website noted for AUDIT above, along with an instruction manual). Scores and actions appropriate to depression levels suggested by scores are found in the instruction manual in Table 1, and all tools and scoring are public domain, courtesy of Pfizer.

PHQ-9 Scores and Proposed Treatment Actions suggest that a score of 0-4 indicates None-minimal action; a score of 5-9 indicates Mild Watchful waiting and repeat PHQ-9 at follow-up; a score of 10-14 indicates a Moderate Treatment plan, considering counseling, follow-up and/or pharmacotherapy; a score of 15-19 suggests Moderately Severe Active treatment with pharmacotherapy and/or psychotherapy; while a score of 20-27 suggests Severe levels, with Immediate initiation of pharmacotherapy and, if severe impairment or poor response to therapy, expedited referral to a mental health specialist for psychotherapy and/or collaborative management (Kroenke & Spitzer, 2002).

GENERALIZED ANXIETY DISORDER-7

The Generalized Anxiety Disorder-7 is a similar brief screening tool that can also be administered by lay persons to discern whether more follow up is needed. As with the PHQ-9, scores above 3 suggest the need to administer the full seven items and take further action to prevent more problems secondary to anxiety symptoms.

Conclusion

At The Center for Faith and Community Health Transformation, an initiative in Chicago that works with faith communities to advance health equity by drawing on the unique spiritual power that resides in the practices and commitments of their faith, one of the core organizing principles is the interplay between hurt and hope. The idea is that we find our resilience both when fully engaged with trauma (or challenge) and when exercising our capacities to find meaning and purpose, experience kindness and loving relationships, and heal and be healthy. Our experience as individuals and as communities is that we are always living at the intersection of challenge and hope. The power for transformational change comes when we are aware of both and integrate both perspectives into our identity.

For example, many in the African-American community experience the deep and enduring impact of historical trauma, yet in countless African American churches across the nation, hope and love nevertheless prevail. This reality has been a constant for centuries, all the way back to the origins of African American spirituals—songs of hope sung during times of persecution and despair. The message was enlarged in 1956 by Dr. Martin Luther King who said on the night his home was bombed, “We must love our white brothers no matter what they do to us. We must make them know that we love them. Jesus still cries out in words that echo across the centuries: ‘Love your enemies; Bless them that curse you; pray for them that despitefully use you.’ … We must meet hate with love.” This speech inspired the non-violent approach to Civil Rights protests in the South. This model of resilience is seen today in the response by the members of the Emanuel African Methodist Episcopal Church in Charleston to

the horrible shootings that took place there in June of 2015. As CNN reported in an online news story, the Reverend Norvel Goff told the congregation, “Lots of folks expected us to do something strange and break out in a riot. Well, they just don’t know us. God shows how to love our neighbors as we love ourselves.” Many of the family members of the victims offered forgiveness directly to the shooter in court, and the son of Sharonda Coleman-Singleton, one of the victims said, “Love is always stronger than hate,” echoing Dr. King’s message almost 60 years later (Capelouto, Shoichet & Savidge, 2015).

This example may seem distant from the medical concerns of health care systems, but it is not. People in our hospitals and clinics are experiencing this kind of reality every day—crisis, abuse, discrimination, violence, life-threatening illness, social isolation—and meeting it with hope that comes out of deep faith commitment, personal values, fearless love and a capacity for unimaginable grace. Our patients and families come to us with experiences of trauma and stress—personal, community and historical. But they also come with the capacity to be resilient in the face of difficulty. We know that these realities impact the physical, mental and spiritual health of the people we serve. One of the most important things we can do as health care providers is simply to notice this larger context and, with the patient or with the community, recognize how it is functioning in their lives. Science is with us on this, ready to make a difference for our patients and for our communities, and helping our health care ministries and/or mission driven initiatives thrive as well.

REFERENCES

Agency for Healthcare Research and Quality (AHRQ). (2010). Mental Disorders and/or Substance Abuse Related to One of Every Eight Emergency Department Cases. *AHRQ News and Numbers*, July 8. Rockville, MD. Retrieved from http://www.ahrq.gov/news/nn/nn070810.htm.

Anda, R. F. & Brown, D. W. (2010). *Adverse Childhood Experiences & Population Health in Washington: The Face of a Chronic Public Health Disaster.* Prepared for the Washington State Family Policy Council.

American Psychological Association. The road to resilience. (2015). Retrieved from http://www.apa.org/helpcenter/road-resilience.aspx.

Baillargeon, J., Thomas, C.R., Williams, B. et al. (2008). Emergency department utilization patterns among uninsured patients with psychiatric disorders. *Psychiatric Services.* 59: 808–811.

Bales, D. W. (2005). Sharing the message about early brain development: Georgia’s Better Brains for Babies collaboration. *Forum for Family and Consumer Issues*, 10. Retrieved from http://www.ces.ncsu.edu/depts/fcs/pub/10_2/pa3.html.

Beck A., Rush A.J., Shaw, B.F. & Emery, G. (1979). *Cognitive Behavior Therapy*. New York: The Guilford Press.

Bisognano, M., Kenney, C. (2012) *Pursuing the Triple Aim: Seven Innovators Show the Way to Better Care, Better Health, and Lower Costs.* San Francisco: Jossey-Bass Publishers.

Bisson, J., Roberts, N.P., Andrew M., Cooper R. & Lewis C. (2013). Psychological therapies for chronic post-traumatic stress disorder (PTSD) in adults. *Cochrane Database of Systematic Reviews. 12: CD003388.*

Blair, C. & Raver, C.C. (2012). Child development in the context of adversity: Experiential canalization of brain and behavior. *American Psychologist*. 67: 309-318.

Blue, B. (2013) Childhood Trauma Leaves Legacy of Brain Changes: Painful experiences early in life can alter the brain in lasting ways. *TIME*. January 16.

Brown, D.W., Anda, R.F., Tiemeier, H., Felitti, V.J., Edwards, V.J., Croft, J.B. & Giles, W.H. (2009). Adverse childhood experiences and the risk of premature mortality. *Am J Prev Med*. Nov. 37(5):389-96.

Butler, A.C., Chapman, J.E., Forman, E.M. & Beck, A.T. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review*, 26 (1): 17-31.

Capelouto, S.; Shoichet, C. & Savidge, M. (June 21, 2015) Charleston Minister: “No evildoer, no demon” can close the church. *CNN*. Retrieved from http://www.cnn.com/2015/06/21/us/charleston-church-shooting-main/.

Centers for Disease Control and Prevention. Morbidity and Mortality Weekly. (2013). Emergency Department Visits by Patients with Mental Health Disorders—North Carolina, 2008–2010, 62 (23): 469-472.

Centers for Disease Control and Prevention. Injury Prevention & Control: Division of Violence Prevention. (2014) Retrieved from http://www.cdc.gov/violenceprevention/acestudy/.

Charuvastra, A. & Cloitre, M. (2008). Social Bonds and Posttraumatic Stress Disorder. *Annual Review of Psychology*. 59: 301–328.

Child Sexual Abuse Task Force and Research & Practice Core, National Child Traumatic Stress Network. (2004). *How to Implement Trauma-Focused Cognitive Behavioral Therapy. Durham, NC and Los Angeles, CA: National Center for Child Traumatic Stress.*

Chiles, J. A., Lambert, M. J. & Hatch, A. L. (1999). The Impact of Psychological Interventions on Medical Cost Offset: A Meta-analytic Review. *Clinical Psychology: Science and Practice*, 6: 204–220.

Collins C., Hewson D.L., Munger R. & Wade T. (2010). Evolving Models of Behavioral Health Integration in Primary Care, Milbank Memorial Fund, http://www.milbank.org/reports/10430EvolvingCare/EvolvingCare.pdf.

Danese, A., DeBellis, M.D., & Teicher, A. (2015). Biological Effects of ACEs. *Academy on Violence and Abuse (AVA)*. Retrieved from http://www.avahealth.org/aces_best_practices/biological-impacts.html.

Danieli, Y. (Ed.) (1998). *International Handbook of Multigenerational Legacies of Trauma.* New York: Plenum Press.

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M. A., Muller, D., Santorelli, S. F., Urbanowski, F., Harrington, A., Bonus, K., & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic Medicine*, 65: 564-570.

Davidson, R. J. & McEwen, B. S. (2012). Social influences on neuroplasticity: Stress and interventions to promote well-being. *Nature Neuroscience*, 15(5): 689-95.

Dias, B.G. & Ressler, K.J. (2014). Parental olfactory experience influences behavior and neural structure in subsequent generations, *Nature Neuroscience*. 17: 89–96.

Dickey, B. & Azeni, H. (1996). Persons with Dual Diagnoses of Substance Abuse and Major Mental Illness: Their Excess Costs of Psychiatric Care. *American Journal of Public Health*, 86(7): 973-77.

Dube, S., Felitti, V., Dong, M., Chapman, D., Giles, W. & Anda, R. (2003). Childhood Abuse, Neglect, and Household Dysfunction and the Risk of Illicit Drug Use: The Adverse Childhood Experiences Study. *Pediatrics,* 111 (3), March.

Elliott, D. E., Bjelajac, P., Fallot, R. D., Markoff, L. S. & Reed, B. G. (2005). Trauma-informed or trauma-denied: Principles and implementation of trauma-informed services for women. *Journal of Community Psychology*, 33:461–477.

Engel, G. (1977). The Need for a New Medical Model: A Challenge for Biomedicine. *Science* 196(4286): 129-36.

Fanga, X., Brown, D.S., Florencea, C.S., & Mercy, J.A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse & Neglect,* 36(2): 156–165.

Feinstein, D. (2012). Acupoint stimulation in treating psychological disorders: Evidence of efficacy. *Review of General Psychology*, 16(4), 364-380.

Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Koss, M., & Marks, J. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*. 14(4): 245-258.

Felitti, V. (2002). The Relationship of Adverse Childhood Experiences to Adult Health: Turning gold into lead. *Z Psychsom Med Psychother*. 48(4): 359-369.

Felitti, V. & Anda, R. (2009). The Relationship of Adverse Childhood Experiences to Adult Medical Disease, Psychiatric Disorders, and Sexual Behavior: Implications for Healthcare in *The Hidden Epidemic: The Impact of Early Life Trauma on Health and Disease.* Lanius R & Vermetten E, editors. Cambridge University Press.

Feske, U. (1998). "Eye movement desensitization and reprocessing treatment for posttraumatic stress disorder. *Clinical Psychology: Science and Practice 5 (2): 171–181.*

Findings from the Philadelphia Urban ACE Survey. (2013). Prepared for Institute for Safe Families by The Research and Evaluation Group at Public Health Management Corporation, 260 S. Broad St., Philadelphia, PA. September 18.

Foa, E.B., Keane, T.M., Friedman, M.J. & Cohen, J.A. (2008). *Effective Treatments for PTSD, Second Edition: Practice Guidelines from the International Society for Traumatic Stress Studies.* New York: The Guilford Press.

Hodas, G.R. (2006). *Responding to childhood trauma: The promise and practice of trauma informed care*. Pennsylvania Office of Mental Health and Substance Abuse Services. February.

Insel, T.R. (2008). Assessing the economic costs of serious mental illness. *American Journal of Psychiatry.* 165(6):703-711. PMID: 18519528.

Institute of Medicine (IOM) (2009). *Preventing Mental, Emotional, Behavioral Disorders Among Young People: Progress and Possibilities*. Rockville, MD.

Institute of Medicine (IOM) (2012). *The Mental-Health and Substance Use Workforce for Older Adults*. Rockville, MD.

Kabat-Zinn, J. (1994). *Wherever you go, there you are*. New York: Hyperion.

King, M.L., Jr. (1958). *Stride Toward Freedom: The Montgomery Story*, New York: Harper and Brothers.

Kitchener, B.A. & Jorm, A.F. (2008). Mental health first aid: An international programme for early intervention. *Early Intervention in Psychiatry,* 2:55-61.

Kroenke, K., Spitzer, R.L., Williams, J.B.W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16:606-613.

Kroenke, K. & Spitzer, R.L. (2002*).* The PHQ-9: A New Depression Diagnostic and Severity Measure. *Psychiatric Annals*, 32:509-521.

Kuyken, W., Weare, K., Ukoumunne, O.C., Vicary, R., Motton, N.,Burnett, C., Hennelly, S., & Huppert, F. (2013). Effectiveness of the Mindfulness in Schools Programme: non-randomised controlled feasibility Study. *The British Journal of Psychiatry*, 1-6.

Laurence, L. (2013). Improving Patient Outcomes: The Medical Cost-Onset Effect & Value of Psychological Services. Keynote presentation at the Tennessee Psychological Association annual conference, November, Nashville, TN.

Liebenberg, L., Ungar, M., & LeBlanc, J. C. (2013). The CYRM-12: A brief measure of resilience. Canadian Journal of Public Health, 104(2): 131-135.

Linehan, M. (1993). *Cognitive-Behavioral Treatment of Borderline Personality Disorder*. New York: The Guilford Press.

Lutz, A., Greischar, L., Rawlings, N. B., Ricard, M., & Davidson, R. J. (2004). Long-term meditators self-induce high-amplitude synchrony during mental practice. *Proceedings of the National Academy of Sciences*, 101: 16369-16373.

Lutz, A., Slagter, H. A., Dunne, J., & Davidson, R. J. (2008). Attention regulation and monitoring in meditation. *Trends in Cognitive Sciences.* 12(4): 163-169.

Maine Resiliency Building Network. (2015). Retrieved from http://www.maineaces.org.

Mark, T., Levit, K., Coffey, R., McKusick, D., Harwood, H., King, E., Bouchery, E., Genuardi, J., Vandivort-Warren, R., Buck, J., & Ryan, K. (2007). National Expenditures for Mental Health Services and Substance Abuse Treatment, 1993–2003, *SAMHSA publication number SMA 07-4227*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Márquez C, Poirier GL, Cordero MI, Larsen MH, Groner A, Marquis J, Magistretti PJ, Trono D, and Sandi C. (2013). Peripuberty stress leads to abnormal aggression, altered amygdala and orbitofrontal reactivity and increased prefrontal MAOA gene expression. *Translational Psychiatry*. Jan. 3(1): e216.

Mayo Clinic. (n.d.). Resilience: Build Skills to Endure Hardship. Retrived from http://www.mayoclinic.org/tests-procedures/resilience-training/in-depth/resilience/art-20046311.

McGinnis, J.M. and Foege, W.H. (1993). Actual causes of death in the United States. *JAMA*. 270:2207-2212

Mokdad, A., Marks, J., Stroup, D., Gerberding, J. (2004). Actual Causes of Death in the United States--2000. *JAMA*. 291(10):1238-1245.

Morrissey, J.P., Ellis, A.R., Gatz, M., Amaro, H., Reed, B.G., Savage, A., Finkelstein, N., Mazelis, R., Brown, V., Jackson, E.W. & Banks, S. (2005). *Journal of Substance Abuse Treatment. 28(2):121-33.*

McGinnis J.M., Williams-Ruso P., Knickman J.R. (2002). The case for more active policy attention to health promotion. *Health Affairs*, 21(2):78-93.

Mueser, K. T., Rosenberg, S. D., Xie, H., Jankowski, M. K., Bolton, E. E., Lu, W., & Wolfe, R. (2008). A Randomized Controlled Trial of Cognitive-Behavioral Treatment of Posttraumatic Stress Disorder in Severe Mental Illness. *Journal of Consulting and Clinical Psychology*, *76*(2): 259–271.

Muñoz, R. F., Beardslee, W. R., & Leykin, Y. (2012). Major Depression Can Be Prevented. *The American Psychologist*, *67*(4): 285–295.

Ozbay F, Johnson DC, Dimoulas E, Morgan CA, Charney D, Southwick S. (2007). Social support and resilience to stress: from neurobiology to clinical practice. *Psychiatry (Edgmont).* May 4(5):35-40.

Rodak, S. (2013). 100 Integrated Health Systems to Know. Becker's Hospital Review, May 15, 2013; retrieved from http://www.beckershospitalreview.com/lists/100-integrated-health-systems-to-know.html.

Reddy, S.D., Negi, L. T., Dodson-Lavelle, B., Ozawa-de Silva, B., Pace, T.W.W, Cole, S.P., Raison, C.L., & Craighead, L.W. (2013). Cognitive-Based Compassion Training: A Promising Prevention Strategy for At-Risk Adolescents. *Journal of Child and Family Studies.* 22: 219–230.

Reivich K., & Shatté A. (2002). *The Resilience Factor*. New York: Broadway Books.

Resilience Trumps ACEs. (2015). Children's Resilience Initiative. Retrieved from www.resiliencetrumpsaces.org.

Saraceno B. & Barbui, C. (1997). Poverty and Mental Illness. *Canadian Journal of Psychiatry*, 42(3): 285-290.

Salinsky, E., & Loftis, C. (2007). Shrinking Inpatient Psychiatric Capacity: Cause for Celebration or Concern? *National Health Policy Forum, Issues Brief 823: 1-21*, George Washington University, Washington, DC.

Shapiro, F. & Laliotis, D. (2010). "EMDR and the adaptive information processing model: Integrative treatment and case conceptualization." *Clinical Social Work Journal* 39 (2): 191–200.

Sherin, J. & Nemeroff, C. (2011). Post-traumatic stress disorder: the neurobiological impact of psychological trauma. *Dialogues in Clinical NeuroSciences*. September; 13(3): 263–278.

Shonkoff, J.P., Garner, A.S., Siegel, B.S., Dobbins, M.I., Earls, M.F., Garner, A.S., McGuinn, L., Pascoe, J., & Wood, D.L. (2012). The Lifelong Effects of Early Childhood Adversity and Toxic Stress. *Pediatrics*. Jan; 129(1): e232-e246.

Soni, Anita. (2009). *The Five Most Costly Conditions, 1996 and 2006: Estimates for the U.S. Civilian Noninstitutionalized Population.* Statistical Brief #248. Agency for Healthcare Research and Quality, Rockville, MD. http://www.meps.ahrq.gov/mepsweb/data_files/publications/st248/stat248.pdf .

Sotero, M. (2006). A Conceptual Model of Historical Trauma: Implications for Public Health Practice and Research. *Journal of Health Disparities Research and Practice*, Fall 1 (1): 93–108.

Spitzer, R.L., Williams, J.B.W., Kroenke, K., Linzer, M., deGruy, F.V., Hahn, S.R., Brody, D., Johnson, J.G. (1994). Utility of a new procedure for diagnosing mental disorders in primary care: The PRIME-MD 1000 study. *JAMA*, 272:1749-1756.

Spitzer R.L., Kroenke K., Williams J.B.W. and the Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ Primary Care Study. *JAMA*, 282 (3):1737-1744.

Spitzer R.L., Williams J.B.W. & Kroenke K. (2000). Validity and utility of the Patient Health Questionnaire in assessment of 3000 obstetrics-gynecologic patients. *Am J Obstet Gynecol*, 183(4):759-769.

Stephen Ministries. (2015). Stephen Ministry by the Numbers. Retrieved from Stephen's Ministries website, at https://www.stephenministries.org/stephenministry/default.cfm/917.

Strand, V., Hansen. S. & Courtney, D. (2013). Common Elements Across Evidence-Based Trauma Treatment: Discovery and Implications. *Advances in Social Work*, Fall 14(2): 334-354.

SAMHSA Primary Care and Behavioral Care Integration (PBHCI) Program. Retrieved from http://www.integration.samhsa.gov/about-us/pbhci.

SAMHSA National Register of Evidence-based Programs and Practices. (2015). Retrieved from http://nrepp.samhsa.gov/ViewIntervention.aspx?id=321.

Substance Abuse and Mental Health Services Administration. SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. (2014). *HHS Publication No. (SMA) 14-4884*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration, (2014). Results from the 2013 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-49. *HHS Publication No. (SMA) 14-4887.* Rockville, MD: Substance Abuse and Mental Health Services Administration.

Tang, N., Stein, J., Hsia, R.Y., Maselli, J.H., & Gonzales, R. (2010). Trends and characteristics of US emergency department visits, 1997-2007. *JAMA*, 304(6): 664-70.

The Philadelphia Urban ACE Study. (2013). Retrieved from http://www.instituteforsafefamilies.org/philadelphia-urban-ace-study.

Ungar, M. (2013). Family Resilience and At-Risk Youth. In D. Becvar (Ed.), *Handbook of Family Resilience.* New York, NY: Springer.

Watts, B.V., Schnurr, P.P., Mayo, L., Young-Xu, Y., Weeks, W.B., & Friedman, M.J. (2013). "Meta-analysis of the efficacy of treatments for posttraumatic stress disorder". *Journal of Clinical Psychiatry 4 (6): e541–550.*

Wolitzky-Taylor K., Zimmermann M., Arch J.J., De Guzman E., & Lagomasino, I. (2015). Has evidence-based psychosocial treatment for anxiety disorders permeated usual care in community mental health settings? *Behaviour Research and Therapy*, 72: 9-17.

World Council of Churches. (2007). Consultation on Mental Health and Faith Communities, Vellore, India: Christian Medical College. Available at www.arhap.uct.za.

World Health Organization. (2001). *World Health Report —WHO Mental Health: New Understanding*, New Hope, Geneva.

World Health Organization (2007). Breaking the Vicious Cycle between Mental Ill-Health and Poverty. Geneva. Retrieved from (http://www.who.int/mental_health/policy/development/en/index.html.)

Yoshikawa, H., Aber, J.L., & Beardslee, W.R. (2012). Poverty and the mental, emotional and behavioral health of children and youth: Implications for prevention science. American Psychologist, 67: 272-284.

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