Chapter 2

Understanding Primary Prevention

Thomas P. Gullotta

Why Is Illness Prevention / Health Promotion Important?

Why must illness prevention and health promotion be a central part of any national plan to improve mental health services for its citizens? It is as simple as this: “Preventing an illness from occurring is inherently better than having to treat the illness after its onset” (Surgeon General, 1999, p. 62). The majority of emotional problems are not diseases that can be traced to some microorganism, chemical imbalance, or gene. As the former Surgeon General of the United States C. Evert Koop (1995, p. 760) observed, “diseases are of two types: those we develop inadvertently and those we bring upon ourselves by failure to practice preventive measures. Preventable illness makes up approximately 70% of the burden of illness and associated costs.”

As the National Commission on Children (1991, p. 126–127) noted in the report Beyond Rhetoric: A New American Agenda for Children and Families,

Malnourishment, obesity, and the incidence of many illnesses are related to nutritional intake. Sexually transmitted diseases, accidents and injuries, and physical and mental impairments are directly attributable to early, unprotected sexual activity, drug and alcohol use, and delinquent behavior. . . . In fact, better control of a limited number of risk factors . . . could prevent at least 40% of all premature deaths, one-third of all short-term disability cases, and two-thirds of all chronic disability cases. Changes in health behaviors can also reduce medical costs and limit losses in productivity. Illnesses attributable to smoking cost individuals and society more than $65 billion a year. The total cost of alcohol and drug abuse exceeds $110 billion each year.

While some human characteristics like height are highly inheritable, with 90% of a person’s height can be attributable to the genetics, other characteristics or behaviors do not have this effect size. As one of the world’s most respected geneticists has stated,

[Genetic research] provides the strongest available evidence for the importance of environmental influence. That is, twin and adoption studies usually find more than half the variance in behavioral development cannot be accounted for by genetic factors. For example, if identical twins are 40% concordant for schizophrenia, as recent studies
suggest, no genetic explanation can account for the 60% discordance between these pairs of genetically identical individuals (Plomin, 1994, p. 28).

Prevention does not yield a utopia. Illness and suffering requiring expert treatment and a full range of interventions from quality accessible out-patient care and medication to in-patient and rehabilitation services must also be provided. But the United States is experiencing an epidemic of suffering that overpowers and will continue to overwhelm the service capacity of the nation and in the absence of preventive and treatment options impair the life potential of millions of children, youths, and adults. How so?

The Surgeon General’s report (1999) supports previously published epidemiological studies suggesting that in any given year one in five citizens will experience a mental disorder. Of this number roughly 15% will experience a co-occurring alcohol or other drug-use disorder. With an estimated United States population of 300,000,000 individuals, this means that roughly 60,000,000 individuals are in need of help each year. Yet, the treatment and rehabilitation capacity of the United States is but a small fraction of this number. Each year millions of seriously ill individuals struggle without the necessary help to address problems that interfere with their ability to lead productive lives. If prevention were to reduce this population by only 20%, or 12,000,000 cases a year, it would have exceeded the total treatment capacity of the United States for any given year. Given that not all clinical interventions are either successful or are directed at those defined as most seriously ill, the cost-benefit ratio of prevention becomes readily apparent (Durlak & Wells, 1997; Yodanis & Godenzi, 2003). But even more important than prevention’s favorable cost-benefit ratio is that millions of children and adults would avoid unnecessary suffering.

What is Primary Prevention?

Briefly put, prevention involves universal, selective, and indicated actions “... that protect existing states of health... promote psychosocial wellness and prevent... problems” (Bloom & Gullotta, 2003, p. 13). What does promoting health and psychosocial wellness mean? It means taking actions that encourage resiliency, coping, adaptation, and developing human social capital. What does preventing illness mean? This refers to reducing, modifying, and avoiding the risks known to foster ill health.

The terms *universal*, *selective*, and *indicated* are borrowed from Gordon’s (1983) work as adopted by the Institute of Medicine (Mrazek & Haggerty, 1994) to describe the domain for preventive interventions. Universal is synonymous with the word *all*. For example, to reduce the incidence of tooth decay many communities add fluoride to their public water supplies. Thus everyone who drinks from that water supply is a recipient of this intervention known to reduce tooth decay. Childhood immunizations for polio and other crippling illnesses and automatically deploying car airbags are other examples of universal preventive interventions.

A *selective* intervention focuses more narrowly on populations at risk. In this instance, epidemiological evidence exists to suggest that a group of people is at higher than average risk for developing a disorder. To prevent that disorder and to promote the health of that group, interventions are offered. To illustrate, school teachers, who as a population have high contact with young people with runny noses, might be encouraged to receive flu shots to avoid influenza, an illness that peaks during the school year.
An indicated intervention draws on epidemiological evidence, but in this instance the risk for the group in question is considered very high. To use the flu shot example again, a teacher who is elderly and has heart disease would move from the selected group into an indicated group. Notice that in each instance the intervention for health promotion and illness prevention is occurring before the onset of disease. Intervention is not focused on individuals, but on entire populations, and is information driven. That is, risk determines need for intervention exposure. The purpose of the intervention is to prevent the development of the illness or disorder by either strengthening the health of the individual (the flu shot) or by preventing its onset (the deployment of the airbag).

**Stress Theory**

Stress theory offers a useful theoretical framework for designing efforts to reduce risk and promote health in individuals, families, and larger groups. A simple definition of stress is any change in life. Thus, the life events that mark off the life cycle carry with them positive stress (eustress) and negative stress (distress). Life can be filled with boredom and a lack of challenge (hypostress), or it can be filled with excessive demands on time, labor, and energy. These stressful situations mark transition points that, if coped with successfully, facilitate a healthier individual, family, and group environment.

An initial understanding of how stress affects organisms was developed Cannon (1939) and Selye (1982). Selye’s laboratory work with animals found that stress-producing agents (called stressors) create a reaction that Selye called the general adaptation syndrome. When stress exceeds some threshold, Seyle found, laboratory animals enter into a stage of alarm. During this stage the organism is on alert, calling on its defensive systems to combat the stressor. The period during which the body fights the noxious stressor is called the stage of resistance. If the body cannot defeat the noxious stressor, it enters the stage of exhaustion. Unable to overcome the damaging virus, bacterium, or other adverse stimulus, the body surrenders to the stressor and expires.

**The ABCX Stress Model**

Of the stress models, Hill’s (1949, 1958) ABCX model is particularly useful for preventive action as it identifies three areas for intervention. While recent theoretical work has elaborated on Hill’s writings (the double ABCX model; see McCubbin & Patterson, 1982), it remains a very viable explanation with practical application on its own. In this model the letter A represents some event that brings discomfort, such as death of a loved one, a divorce, or school failure. B stands for the internal and external resources the person can use to fight the discomfort—wealth, friends, level of self-esteem, internal locus of control, coping abilities, and so on. C is the meaning the individual, family, or group attaches to the event. X is the crisis. Together A, B, and C result in X. That is, the magnitude of the crisis, its duration, and the individual’s or family’s level of reorganization after the crisis are determined by the sum of A (the event) + C (its meaning) − B (the available resources).
The second part of Hill’s model predicts how most individuals or groups will react in a crisis. The crisis (X) sends the individual into a period of disorganization in which the group marshals its resources to meet the crisis. The angle of recovery reflects the time necessary for the group to find a solution to its distress; the level of reorganization reflects the group’s success in returning to a pre-crisis state.

Now let’s take a closer look at the ABCX model by examining its components individually.

A, the stressor. A, the event that causes discomfort, can also be called the “stressor.” Stressors are events “of sufficient magnitude to bring about change in the family system” (McCubbin et al., 1980, p. 857). In line with our earlier definition of stress as any change in life, a stressor may be either a good or a bad event.

Life is filled with stressors. Some of these are sudden changes, such as an unexpected relocation or death of a loved one. Others can be more insidious, slowly sapping an individual’s energy over a period of years, such as poverty, alcoholism, or chronic physical or emotional illness. Still others mark the flow of life. These include the addition of family members, entry into school, adolescence, dissipation over a marriage, possibly divorce and remarriage, and the loss of family members.

C, the meaning. C in Hill’s model represents the meaning the person, family, or group attaches to the event. Events are not stressors unless they are perceived to be, and the degree of positive or negative disruption is again determined by the individual. Suppose a job promotion has been offered to a family member. At first glance this would seem to be a positive event for the family, but it may not be. It may require the promoted member’s extended absence from the home to meet increased job responsibilities, or it may mean a move to a new community. A promotion may then become a negative event in this family’s life and acquire the status of crisis.

B, resources. The B in Hill’s ABCX equation stands for the strengths that the individual, family, or group calls on in time of need. These B factors include personal resources, a family system’s internal resources, social support, and coping. Personal resources include humor, religious faith, financial resources, self-respect, and an internal locus of control.

An individual’s, family’s or group’s internal resources are its integrative abilities. Integration refers to the degree of unity existing in the family or group. Where there are common interests, a common agenda for the future, and affection for one another, there is a high degree of integration. Social support involves people outside the family or group who, in time of need, lend their strength to the family or group. This is accomplished by helping the family or group to feel loved, cared for, valued, and worthy, and by communicating to the individual, family, or group that it belongs.

The last factor, coping, involves the adaptive ways families use their B resources to handle a crisis. A family’s adaptive capability is judged by its ability to mobilize its resources to confront a challenge and adjust to overcome that challenge.

X, the crisis. The X in Hill’s model represents the state of disorganization after a crisis-producing event. There are two types of crisis events. The first are called developmental or normative crises and are considered a normal part of living life. The birth of a child, a child’s entry into school, entry into adolescence, and the death of an aged family member are illustrations of normative crises. These events confront the individual with developmental tasks that, if coped with successfully, move the person on to another life stage. The second type of crisis is called situational or
catastrophic. These events affect only some individuals, groups, or families and are tragic events. They may be circumstances that occur over time like living in a violent household or may be sudden like a close sibling dying in an automobile accident.

**Primary Prevention Has Technologies**

To achieve illness prevention and health promotion, prevention uses four technologies. They are overlapping and in and of themselves rarely effective. However, when they are combined, they prevent illness and promote health.

The first technology is **education**. The most often used of all prevention’s technologies, alone it rarely, if ever, is effective. The reason for this is that while education increases knowledge, only occasionally does it affect attitudes, and it almost never changes behavior. Thus, the tobacco user will acknowledge the hazards of tobacco use and might wish to give up the habit, but rarely acts on the motivation. This said, education nevertheless plays an important role in health promotion and illness prevention in concert with other technologies.

Education can take one of three forms. The first is **public information**. This can be found on the side of a cigarette package, an alcohol beverage bottle, or on the visor of an automobile. Information can be provided by means of print, radio, internet, television, or film. It can be read, spoken, sung, or acted. In all instances the intention is to increase knowledge about a given subject and offer ways to handle that subject that promotes health or prevents illness.

A more specific form of education is **anticipatory guidance**. In this case, information is used to educate a group prior to some expected event. Drawing on the folk wisdom that to be forewarned is to be forearmed, the group will be better prepared to cope with the circumstances and adapt to the demands the event may place on them. Adaptation may be as simple as decreasing speed and braking as a traffic signal turns from yellow to red to heeding a weather report and packing sun protector to the beach, to childbirth preparation classes, children’s visits to hospitals prior to elective surgery, and preretirement planning.

Education’s third form is found in the **personal self-management** of behavior. In this instance, the individual or group learns how to control emotional, neurological, and physical aspects of their behavior. The methods to achieve this outcome range from yoga, transcendental meditation, and biofeedback to cognitive behavioral approaches.

Prevention’s second tool is the promotion of **social competency**. To be socially competent requires that one belong to a group, that the group value the membership of the individual, and that the individual make a meaningful contribution to the group’s existence. Socially competent people tend to possess the following individual characteristics: a positive sense of self-esteem, an internal locus of control, a sense of mastery or self-concept of ability, and an interest beyond themselves that extends to a larger group. Thus, a feedback loop is established between belonging, valuing, contributing, and individual characteristics that is self-perpetuating.

Effect prevention programs contain exercises aimed at nurturing these individual characteristics, which are demonstrated in the ways in which groups embrace and value their members, and afford them opportunities to contribute to the welfare and well-being of the group. This meaningful contribution can entail being the elected
spokesperson for a group, becoming a literacy tutor, or donating blood. This value to
the group can be that of the philanthropist or of the soup kitchen volunteer. This
belonging is reflected in hundreds of ways from flags hung from homes, draped on
rear view car mirrors, and worn on clothing to songs and stories that celebrate the
group’s existence. To achieve the solidarity that is the essence of social competency
requires not only education but also prevention’s next technology.

Prevention’s third technology is “natural caregiving,” which is a term used to
draw a distinction between the services offered by mental health professionals and
those afforded by others. Natural caregiving takes three different forms. The first is
the mutual self-help group in which individuals are drawn together by some com-
mon experience. This experience may be the expected death of a loved one (hospice),
a personal problem behavior like alcoholism (Alcoholics Anonymous), or a chal-
lenging behavior of another (attention-deficit/hyperactivity disorder parent’s
group). In the self-help group members are both caregivers and care-receivers.
Reliance is not on a professional but on each other. Pathology is not the governing
dynamic but rather navigating through life’s swamp with a companion who knows
the stress the affected individual is experiencing. By acknowledging the failures
celebrating the small successes, and relying on each other for support and advice,
self-help group members discover competency—the competency that goes with
belonging, with being valued, and with being a contributing member.

The phrase “indigenous trained caregiver” describes the second form of natural
caregiving that individuals turn to in time of need. While not trained as mental
health professionals, people such as ministers, teachers, and police officers provide
advice, comfort, and support that enables many in society to lead healthy and pro-
ductive lives.

In times of need, individuals turn first to friends and loved ones, then to trained
indigenous caregivers. Why? Because the power of a single caring relationship over
time is both nurturing and healing. As with other forms of caregiving, indigenous
caregiving involves behaviors such as the sharing of knowledge, the sharing of
experiences, compassionate understanding, companionship, and, when necessary,
confrontation (Bloom, 1996; Cowen, 1982). The indigenous caregiver accepts
responsibility for her or his life and ideally invests in the life (health) of at least one
other person.

Prevention’s fourth technology is its most powerful. Community Organization
and Systems Interventions (COSI) are concerned with the promotion of a community’s
social capital. That is, how does a community motivate its members to participate
actively in the process of governance and how are inequalities are addressed? COSI
addresses these issues in three ways. The first is community development and takes
a variety of forms: the neighborhood civic association formed to be a local voice on
zoning issues; the local recreation league created to afford after-school opportunities;
and the neighborhood watch started to deter crime are but three examples. In each
example, a group of people with concerns about property, youth activities, or crime
prevention draw together and act to express their concerns and develop solutions in
response to those concerns.

The second form COSI takes is systems intervention. The assumption is that
every institution has dysfunctional elements within it that contribute to the needless
suffering of individuals in society. Identifying those dysfunctional elements and cor-
recting them is the purpose of this form of COSI. To illustrate, Tadmor (2003)
describes her efforts to reform the medical practices used for treating children in one hospital. Policies and procedures that harmed children like restraining them to force compliance with the treatment regimen and separating them from parents during the treatment process were identified as dysfunctional and subsequently changed.

For the outsider, while the identification of these dysfunctional practices might appear obvious, they are not necessarily evident to individuals within the system. Institutions—whether schools, hospitals, social service agencies, child care centers, or larger entities like child protective services and other state agencies—develop unique internal cultures very removed from those of society at large. Often, elements of these internal cultures are dysfunctional and needing change. This change rarely occurs without external COSI pressure.

The final form that Community Organization and Systems Intervention takes is **legislative change and judicial action**. Drawing on the earlier illustration of the difficulty that accompanies institutional change, it should be remembered that no legislation or judicial action benefits all. In these legislative and judicial contests, there are winners and losers. For example, while a universal family leave policy may be good for employees needing to care for loved ones, for the employer preserving a job for someone who may not return to work, the policy can be detrimental to business. While advocating civil rights legislation in the 1960s, it was Lyndon Johnson who observed that this just action would break the hold of the Democratic Party on the South, and it did. While offering a limited prescription benefit to Social Security recipients enables them to stretch their retirement savings, without a corresponding tax increase it hastens the eventual bankruptcy of the Social Security program.

This last form of COSI is a battleground where special interests strive to dominate the field. Over time and with growing public impatience, seat belt laws do become enacted. Wetlands are protected from development. Clean air standards are enacted. Tobacco laws restricting youth’s access to cigarettes and other tobacco products are passed. Interestingly, it is often through the efforts of organizations like MADD and the NAACP, whose origins reflect many of the characteristics of self-help groups, that these laws capable of correcting injustice and improving public health are passed.

Thus, we come to see that when prevention’s technology is fully utilized, a circle is completed. Education informs. Natural caregiving unites. Social competency enables, and COSI serves as a means to achieve community change.

**Implementing Preventive/Health Promotion Interventions**

Healthy communities are achieved from within. That is, the members of a community as small as a person or as large as the world must want change. In that desire for change a search for new ideas leading to new practices eventually leading to new behavior is undertaken. At times that search can be conducted without assistance; one or more community leaders may offer ideas that catch the imagination of the larger group and with group support transform those ideas into reality.

At other times assistance is necessary. This assistance can take one of three forms. The least intrusive form is **consultation**. Here, the advisor studies a program, a situation, a condition, or a behavior and offers advice. In its most elemental form, this consultative advice may be taken in whole, in part, or not at all. An illustration of this form of involvement is the architect who is asked to draw preliminary plans for a
structure. After interviewing the client, visiting the site, and speaking with local zoning officials, this person renders a plan which may be accepted, modified, or rejected. The architect’s involvement with the client ceases with the completion of the assigned task.

A higher level of involvement is collaboration. Here, the advisor has a personal stake in bringing the given advice to fruition. A junior partner in the enterprise, the advisor now argues his case and actively works for change. Imagine a political consultant in this instance. A person working for the election of a candidate, this advisor develops a position for the candidate, obtains the candidate’s approval and then champions that position with the candidate and others in the campaign. It is important to note again that the collaborator is not the leader of the group but a trusted actively involved participant.

The highest level of involvement is coaching. In this instance the advisor is empowered to work with the client to bring about the desired change. Consider the personal trainer. This is a person who instructs the client in how to exercise, how long the exercise period will last, and the type of exercise to be engaged in. In some settings, like a spa, this level of control extends to control over daily activities, the types of food consumed, even when one rises and when the day ends. With coaching, the client voluntarily surrenders a part of their control to achieve the desired end. Yet, even in this instance, the individual being coached retains the power to dismiss the coach. Thus, while the coach can use a wide range of motivational techniques to achieve change, the ultimate authority remains not with the coach but with the person, institution, or community.

**Conditions for Successful Prevention Activities**

The challenge facing preventionists is that their interventions are frequently afterthoughts. When the community’s discomfort with an issue reaches widespread public expression, it reacts with a pledge and a program. Both tend to be short-lived. Rather than the layering approach of adding an additional curriculum, the successful preventive intervention teaches a set of skills that can be used in multiple settings for multiple purposes.

New behaviors develop over time and require practice to be learned. Even when individuals are immersed in information, and some knowledge is retained, retention is measured in days—perhaps weeks—rarely in months or years; and any unfamiliar skill requires repeated practice in a variety of settings and circumstances in order to improve overall performance.

New behaviors are best learned in small groups. Small groups afford the opportunity for natural caregiving to occur, for competencies to be nurtured, and change agendas to be developed.

New behaviors are best learned by experiences that are lived through. Experiential learning offers opportunities to manipulate the learning experience, to vary its content, and to alter its intensity and duration. It allows the learner to interpret the information across a variety of intelligences (Gardner, 1993) best suited to the learner.

Finally, new behaviors need nurturance. Unless supported by the environment, new skills will rapidly disappear. Simply put, BE WANTED!
Understanding Primary Prevention

References

Handbook of Adolescent Behavioral Problems
Evidence-Based Approaches to Prevention and Treatment
Gullotta, Th.P.; Adams, G.R. (Eds.)
2005, XXII, 665 p. 6 illus., Hardcover