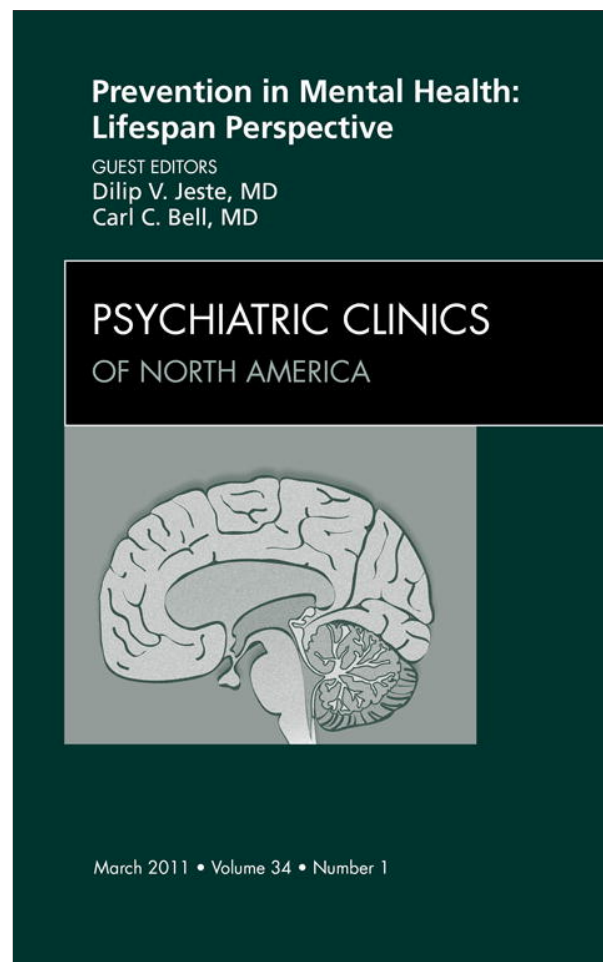


Provided for non-commercial research and education use.  
Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

<http://www.elsevier.com/copyright>

# Human Immunodeficiency Virus Prevention with Youth

Dominica F. McBride, PhD<sup>a</sup>, Carl C. Bell, MD, DLAPA, FACPsych<sup>b,c,\*</sup>

## KEYWORDS

• HIV • Prevention • Programs • Youth

*The drama of AIDS threatens not just some nations or societies, but the whole of humanity. It knows no frontiers of geography, race, age or social condition... (calling) for a supreme effort of international cooperation on the part of government, the world medical and scientific community and all those who exercise influence in developing a sense of more responsibility in society.*

Pope John Paul II (1990)

Pope John Paul (1990) was accurate in his assessment about the extent to which HIV/AIDS has ravaged the world. In January 1981, the first person infected with HIV was discovered in the United States, and by the mid-1980s, the prevalence of those who had contracted the virus doubled each year. By 1985, it was reported that 148 countries worldwide were dealing with an acceleration of HIV infection and AIDS, reaching the level of a pandemic. By 1990, there were more than 1 million people worldwide diagnosed with HIV.<sup>1</sup> Today, that number has reached more than 49 million worldwide.<sup>2</sup> Within the United States alone, 447.8 of 100,000 persons (an estimated 1.1 million adults and adolescents) were living with HIV infection at the end of 2006.<sup>3</sup> People of color comprised most of those cases (65.4%), with the prevalence rate of African Americans reaching 1715.1 per 100,000 persons and Hispanics reaching 585.3 per 100,000. These rates are 7.6 and 2.6 times higher than their European American counterparts.<sup>3</sup>

Although contraction of this virus can be preempted, people have and continue to die prematurely as a result of the progression of this virus to AIDS. This unfortunate

---

The authors have nothing to disclose.

<sup>a</sup> The HELP Institute, Inc, 2820 Broadview Drive NW, Huntsville, AL 35810, USA

<sup>b</sup> Community Mental Health Council, Inc, 8704 South Constance, Chicago, IL 60616, USA

<sup>c</sup> Institute for Juvenile Research, Department of Psychiatry, University of Illinois, Chicago, 1747 West Roosevelt Road # 155, Chicago, IL 60608-1264, USA

\* Corresponding author. Community Mental Health Council (CMHC), Inc, 8704 South Constance, Chicago, IL 60616.

E-mail address: [carlcbell@pol.net](mailto:carlcbell@pol.net)

Psychiatr Clin N Am 34 (2011) 217–229

doi:[10.1016/j.psc.2010.11.007](https://doi.org/10.1016/j.psc.2010.11.007)

0193-953X/11/\$ – see front matter © 2011 Elsevier Inc. All rights reserved.

[psych.theclinics.com](http://psych.theclinics.com)

reality is rooted in a lack of knowledge on prevention,<sup>4,5</sup> a dearth of motivation, and a paucity of protective factors,<sup>6</sup> especially in youth. Adolescence is the ideal time to provide the proper infrastructure for prevention of risky behaviors. Therefore, the focus of this article is on prevention of HIV in youth. Specifically, the present article delineates: (1) the risk factors that are conducive to risky behaviors, (2) the protective factors that can prevent risky behaviors, and (3) various prevention programs that have been found effective in preempting these behaviors in youth.

## **RISK FACTORS**

Various risk factors have been found to be connected with risky HIV-related behaviors in youth. The reasons for behavior are complex and multidetermined. The most notable and influential factors are those that simultaneously have the power to curb these behaviors and transform them into health behaviors: the individual's personal characteristics, family, and community.<sup>7</sup>

### ***Individual***

---

Resilience in people has been defined as including intrapsychic strengths of trust, self-regulation, autonomy, self-esteem, empathy, altruism, an internal locus of control, flexibility, optimism, invulnerability, aspects of health or social competence,<sup>8</sup> and being stress-resistant.<sup>9</sup> Intrapsychic protective factors, for example, include the manner in which individuals perceive themselves (eg, perceptions of self-reliance, resilience, and invulnerability or vulnerability). Self-perceptions may also be positively shaped by living through trauma, which can create a sense of competence or stress inoculation.<sup>10</sup>

### ***Family***

---

The family is not only the environment in which a child grows but is also the source of potential models and impressive experiences (whether positive or negative). Negative experiences (also known as adverse childhood experiences [ACEs]) are often the root of risky behaviors in youth.<sup>11</sup> ACEs have been linked to numerous behavior problems and mental and emotional disorders, including violence, premature sexual intercourse, and substance abuse.<sup>11</sup> A finding relative to HIV prevention is the evidence that compared with an individual who was not exposed to any of the 7 ACEs (psychological abuse, physical abuse, sexual abuse, violence against mother, living with household members who were substance abusers, living with household members who were mentally ill or suicidal, or living with ex-offender household members), an individual exposed to 4 or more ACEs is 3.2-fold more likely to have 50 or more sexual intercourse partners and 2.5-fold more likely to have a sexually transmitted disease.<sup>11</sup> Maladaptive family functioning clusters (including parental mental illness, substance abuse disorder, and criminality; family violence; physical and sexual abuse; and neglect) have been found to be conducive to various mental health disorders, explaining 32.4% of all disorders, 41.2% of disruptive behavior disorders, 32.4% of anxiety disorders, 26.2% of mood disorders, and 21.0% of substance use disorders.<sup>12,13</sup> These findings demonstrate the acute and indelible effect that family has on behavior and global functioning.

### ***Community and Context***

---

Brown and colleagues<sup>14</sup> provide a detailed and comprehensive review of how various parts of the community affect HIV-related behaviors. As they and many others assert, the community can be constructive or destructive. Community comprises the social

resources (eg, people, service organizations) and processes (eg, social interactions including violence and block parties) and physical appearance and structure. If a community is close-knit, collaborative, clean, and kempt, the residents are more likely to be socially secure and behave in a healthy way.<sup>15</sup> However, the opposite is also true; if a community is violent and dilapidated, its members are more likely to be fearful and behave in unhealthy ways. Gladwell<sup>16</sup> writes eloquently on this topic, conveying that context can mold and alter character and behaviors. He provides the example of the 1980s and 1990s in New York City. During this time, the city subway system was littered with graffiti, symbolizing the social disorder that plagued the city at that time. Gladwell<sup>16</sup> poignantly explicated that this contextual predicament was conducive to the social disarray. Hence, when the physical appearance was changed (among other things, such as reinforcing that people pay for entry with both leading to a greater air of social order), the behavior within the subway system also changed; it became safer.

Pertinent to HIV-related behaviors, the socioeconomic conditions of a community have been found to predict risky sexual behaviors in youth, with characteristics including single parenthood, poverty, and instability increasing these behaviors.<sup>14</sup> In 2001, Baumer and South<sup>17</sup> found that living in a disadvantaged community was the strongest predictor of risky sexual behavior among youth, compared with race, owning a home, and gender. Compared with youth who lived in more advantaged communities, Baumer and South found that youth in disadvantaged communities were 39% more likely to have sexual intercourse with various persons and more than twice as likely to have unprotected sex.

The social cohesion within a community also has implications and influences the behavior of youth. The work of the Community Mental Health Council in the child welfare system in Illinois<sup>18</sup> suggests that communities with a lack of social cohesion may result in higher rates of contact with child protective services indicating a higher rate of experiencing ACEs. The Adverse Childhood Study illustrates that children in families that lack support are more at risk for child abuse and neglect resulting in higher numbers of different sexual intercourse partners and rates of sexually transmitted diseases.<sup>11</sup>

With a weak sense of social cohesion, Browning and colleagues<sup>19</sup> found an increase in sexual promiscuity, indicating the possibility that community cohesion has a positive relationship with healthy behaviors in youth. These investigators also found that this relationship strengthened with the age of the youth. As they became older, the likelihood of them having 2 or more partners decreased with the increase of social cohesion.

As stated previously, the physical community environment, including the buildings, layout, and structure of the community, has been shown to also influence health-related behaviors (Brown and colleagues, in press). Semenza and March<sup>20</sup> describe the acute deleterious effects of the way communities are structured. They stated, "These fractured metropolises can stifle physical activity, degrade the environment, and curb spontaneous social interactions."<sup>(p23)</sup> Communities structured in a way that is conducive to physical activity (eg, walking, jogging) have been found to provide an environment ripe for more positive social interaction.<sup>21</sup> The buildings themselves, whether kempt or decrepit, seem to also be associated with HIV and other health-related behaviors.<sup>16,22</sup> Hopfer and colleagues<sup>23</sup> asserted that environmental factors play a significant role in adolescent alcohol use. Berstein and colleagues<sup>24</sup> narrowed the broader category of environmental factors down to physical dilapidation, finding those living in dilapidation to be more likely to drink heavily than those living in more enhanced environments. More direct links have

been found concerning community ramshackle and the rate of sexually transmitted diseases. For example, Cohen and colleagues<sup>25</sup> found that there was a positive correlation between the number of broken windows and cases of gonorrhea. This indicator appeared to be more influential than other variables, including unemployment and income.

## PROTECTIVE FACTORS

Many researchers have fallen into the trap of focusing on deficiencies and risk factors and have forgotten the more important and potent aspects of development and healing: the protective factors. Protective factors are not only integral but they are also powerful in that they have been shown to prevent risk factors from becoming predictive.<sup>26-29</sup> This section discusses 7 field principles that have been shown to be conducive to the development of empowerment and healthy behaviors. Applied to the prevention of HIV-related risk behaviors, they have also been proved to be effective in reducing this likelihood and even increasing social cohesion and holistic well-being: (1) rebuild the village or create social fabric, (2) provide access to modern technology, (3) facilitate connectedness on various levels, (4) facilitate improvement of self-esteem, (5) develop social and emotional skills and intelligence, (6) reestablish the adult protective shield, and (7) minimize the effects of trauma. Bell and colleagues<sup>30,31</sup> provide detailed and concrete accounts of how to execute these principles.

### ***Rebuild the Village or Create Social Fabric***

---

Creating social fabric (or social cohesion) is an anecdote for the aforementioned risk factor of community dissolution. A village in the old adage is defined as a cohesive social unit in which its members work together and collaborate in caring for one another and their community as a whole. This sentiment is the goal of this principle. The purpose is 3-fold: (1) to build a sense of empowerment and motivation for change and progress within community members, (2) to develop and enhance social and interpersonal processes and partnerships or coalitions, and (3) to establish a strong and unified community. Often, this ambition is accomplished through first examining the social capital currently existing within a community (eg, schools, churches, people, organization); second, bringing these various elements together in partnership and collaboration; and third, moving collectively toward a common vision.<sup>32</sup> These processes help to create a true and holistic collective through uniting community members in work, physical interaction, and mental and emotional motivation and empowerment.

### ***Provide Access to Modern and Ancient Technology***

---

Merriam-Webster's dictionary definition of technology is "the practical application of knowledge especially in a particular area." Thus, technology includes knowledge, adjunctive physical facilities, and action (eg, treatments for drug addiction, prosthetics, heart transplants) and from a public health perspective, technology can be biotechnical or psychosocial. Unfortunately, disadvantaged or historically oppressed communities often do not receive and, therefore, benefit from technology. This discrepancy is the cause of the present health disparities between European Americans and African Americans, for example. Therefore, the provision of technology, particularly health care, is integral in the movement toward social equity.

Providing access to these technologies includes offering and effectively applying health care services such as health insurance, physical and mental health screenings (eg, breast cancer, depression, dental), and medications. A perfect example of

a biotechnical technology would be circumcision in men to prevent the spread of HIV. This technology also encompasses evidence-based knowledge and practices including prevention programming (eg, HIV prevention programs, cardiovascular disease prevention education). This list centers on modern technology but ancient technology is also effective in healing, including certain homeopathic remedies and soft martial arts (eg, tai chi).<sup>33</sup> Ancient technology such as meditative practices that formed the development of cognitive behavioral therapy are also useful in developing affect regulation and important social and emotional skills and intelligence that prevents youth from being driven by their limbic system instead of their frontal lobe.<sup>34</sup>

### ***Facilitate Connectedness on Various Levels***

---

Human beings are social creatures, as shown through not only physiological responses to human relationships but also mental and emotional well-being or harm caused by interpersonal interaction.<sup>35</sup> From infancy to adulthood, connectedness with one another is integral to holistic well-being. Bowlby<sup>36</sup> and Meloy<sup>37</sup> (1992) assert that attachment between caregivers and their dependents during infancy acts as a conductor of behaviors, whether healthy or unhealthy. Renken and colleagues<sup>38</sup> demonstrated that those with insecure or unstable attachments in infancy exhibited violent or risky behaviors later in life. Fortunately, the potential damage done in infancy can be attenuated through later intervention, focused on bridging social gaps and bolstering positive and meaningful connectedness between the person and others.

Social connectedness can be manifested on various levels (intrafamilial, peer-to-peer, neighborhood, and school or community) and at various times in the rearing of a person (eg, infancy, adolescence). Caregivers can be taught how to form strong attachments between themselves and their infants.<sup>39</sup> Parents can be trained in how to mend relational breaks through communication, empathy, and acceptance. Teachers and other adult actors in a youth's life can hone their social and emotional skills and become mentors and confidants. Even institutions, such as schools<sup>31</sup> and churches, can be entities to which a young person connects and heals. Therefore, all is not lost if mistakes are made early in a child's life and connectedness is a potent protective factor, both physically and mentally.

### ***Facilitate Improvement of Self-esteem***

---

Self-esteem is a construct defining how people feel about or value themselves. It is associated with health-related behaviors and mental and emotional disorders, from depression to anxiety states.<sup>40</sup> Bell and colleagues<sup>31</sup> purport that "improving the target recipients' self-esteem is a critical component in any successful prevention/intervention strategy to change health behavior."<sup>(pp260-1)</sup> Bean<sup>41</sup> delineates 4 conditions that are conducive to producing self-esteem: (1) a sense of connectedness, (2) a sense of uniqueness, (3) a sense of power, and (4) a sense of models.

### ***Connectedness***

This construct relates to the previous discussion on connectedness. However, in Bean's research,<sup>41</sup> this sense was more expansive and encompassed not only people and institutions but also groups, a past or culture, things, or places, a sense of belonging. Similar to the third field principle, in cases of interpersonal relations, there must be a bidirectional relationship in which the child perceives that the object (ie, person or group) of her affection also exhibits a sense of being connected to the child, ergo a sense of belonging. Connectedness, in this regard, also includes feeling connected and trusting in one's body; hence, the child feels connected to himself.

***Uniqueness***

A sense of uniqueness is a realization and embracing of special qualities. When a child experiences feeling unique, the child identifies and respects characteristics, skills, and/or talents that are specific to him or her. This condition encompasses the child knowing and actualizing their uniqueness as well as others validating and reaffirming the importance of their special traits or skills. Thus, there are 4 components to manifesting this condition: having a space and opportunity to identify unique aspects, the actual identification and respect for these characteristics, enacting or engaging the skills or facets, and the external validation of the features.

***Power***

A sense of power in this case refers to empowerment and trust of self; children perceive and trust in their own capability to accomplish their ambitions and what they need and want to do. When children have a sense of power, they also view that they can influence circumstances within their life and make a difference in the lives of others. Children perceive their own competence and they are, ideally, given opportunities to apply their skills and build confidence in their competence. From academics to philanthropy, a sense of power can be manifest in various areas. Children should be given ample opportunity to manifest their skills to build their competence and sense of power.

***Models***

To feel safe and secure, children must be able to make sense of the world. A sense of human, philosophical, and operational models facilitates this process and forms the foundation for the formation of goals, values, personal principles, and ideals. Children who have a strong sense of models are connected with positive role models, have an accurate internal moral compass, feel a sense of purpose and direction, and are able to make sense of and influence their circumstances.

***Develop Social and Emotional Skills***

---

Emotional and social skills have been identified as one of the main causes of success in life.<sup>42</sup> Emotional skills are synonymous with affect regulation, which is “a set of processes individuals use to manage emotions and their expression to accomplish goals.”<sup>34</sup> Emotional skills can also encompass emotional and mental inclinations such as empathy and compassion.<sup>42</sup> Social skills refer to the way in which an individual can and does interact with others. They include the ability to resolve conflict and facilitate social interactions appropriately. Social and emotional skills can engender healthy interpersonal interactions and relationships. The lack of both these skill sets are conducive to the opposite, including interpersonal conflict, isolation, and even violence.<sup>43</sup> This paucity can even influence HIV-related behaviors, with an individual armed with emotional and social skills being better able to protect and assert themselves in potentially dangerous situations (eg, peer pressure toward drug use, sexual encounters). Thus, the acquisition and use of emotional and social skills can be a potent protective factor.

***Reestablish the Adult Protective Shield***

---

The adult protective shield is a synchronized buffer against potential emotional and physical dangers for youth. Adults can include parents, school personnel, and community members who act as mentors. Within this protective factor, adults are active in coordinating efforts to preempt conflict, disorder, and violence (eg, metal detectors in schools, prevention programs). As a result of how the brain develops, with the limbic system developing first and the frontal lobes developing last (by age

26 years), youth are susceptible to reacting without logic, reason, or conscious thought. Metaphorically, the youth are operating as vehicles with no brakes. Therefore, adults must act as their inhibition or brakes; in other words, protect the youth from their lack of forethought and/or reactivity.<sup>34</sup> This biological, social, and emotional predicament constitutes the importance and integrality of the adult protective shield, especially in preventing HIV-related risk behaviors.

### ***Minimize the Effects of Trauma***

---

As conveyed previously, ACEs contribute significantly and are often responsible for later mental and behavioral disorder. The untreated effects of trauma can lead to behaviors that place an individual in grave danger and are conducive to premature death. Therefore, minimizing the effects of trauma is a necessary component, in many cases, to preventing these behaviors. One reason for pernicious and indelible effects is a sense of victimization that never changes into a survivor or conqueror stance. The person victimized perceives a lack of power over the situation and, thus, a sense of helplessness, which often leads to insidious choices and risky behavior. One such way of preempting this behavior and minimizing trauma is transforming a sense of learned helplessness into learned helpfulness or empowerment.<sup>44</sup>

These 7 field principles are effective because of their holism, working on multiple levels. Bronfenbrenner<sup>45</sup> perceived the necessity of a multifaceted and multilayered approach to helping an individual, for each is embedded within and affected by multiple systems. The principles address the individual internally (eg, self-esteem) and interpersonally (eg, social skills), the family system (eg, adult protective shield), and the neighborhood and community (eg, social fabric). Conducive to transformation and empowerment, the intersection and harmony of these components has been shown to effectively prevent risky behaviors,<sup>30,31</sup> improve systems,<sup>30</sup> and enhance communities.<sup>18</sup> To endanger lasting prevention mechanisms for youth, one must work on all these levels.

## **OVERVIEW OF HIV PREVENTION PROGRAMS**

There are prevention programs and initiatives that have applied some of these principles and have been effective in preventing HIV-related risky behaviors in youth. This section delineates various prevention intervention programs targeted at youth and/or the family.

### ***PATH***

---

Parent-Preadolescent Training for HIV Prevention (PATH) is a prevention intervention that targets HIV risk behaviors by focusing on healthy family relations, delay of sexual initiation, accurate information on HIV/AIDS, and how to implement skills to reduce the risk of infection. PATH integrates principles focused on connectedness through targeting family relationships, enhancing the adult protective shield through bolstering parenting skills, and indirectly touches on self-esteem through information and skills implementation. PATH was designed to prevent risky sexual behaviors in youth, particularly those aged 10 to 13 years. It consists of 4 sessions, provided once per week, lasting 3 hours each for the parents. Sessions cover topics including knowledge and skills on preventing risky behaviors related to sex, HIV and drugs, parent-child communication, and child development. Three months after the end of the program, parents meet again with facilitators to discuss their family life after the program.

The trial of this program consisted of 238 families who participated in either the treatment or control condition (materials only). The children of the parents who



participated in PATH showed increased HIV knowledge, higher intentions to use condoms,<sup>46</sup> and a greater delay of first intercourse.<sup>47</sup>

### ***The SAAF Project***

---

The Strong African American Families Program (SAAF)<sup>48</sup> incorporates the field principles of connectedness, the adult protective shield, and self-esteem. SAAF consists of 7 consecutive weekly 2-hour meetings. Youth and their caregivers begin with a meal together, divide into separate groups, and come together at the end to focus on family relationships. The content for caregivers focuses on limit setting, monitoring, racial socialization, clear expectations about sexual risk, including sexual initiation, alcohol/substance use, communication, and inductive discipline. The youth content focuses on strengthening protective factors including dealing with experiences of racism, planning for the future, differences between themselves and peers who engage in HIV-related and other risk behaviors. Family modules focus on problem solving, conflict resolution, communication skills, the promotion of positive parent-child affectivity about sex, and the establishment of clear expectations about sexual behavior and substance use.

SAAF was evaluated in a randomized prevention trial with 667 African American 11-year-old students and their caregivers who were recruited from public schools in 8 rural Georgia counties.<sup>48</sup> Of the participating SAAF families, 65% attended 5 or more of the 7 weekly sessions; 44% attended all 7 sessions. Families who participated in SAAF had increased communication and their youth had enhanced protection, including enhanced future orientation, and improved attitudes and self-efficacy about resisting influences to risky behavior. Most importantly, the program reduced young people's HIV-related risk behavior, including early onset of substance use and sexual intercourse.

### ***Keepin' it R.E.A.L.!***

---

Dilorio and colleagues<sup>49</sup> developed a prevention program for mothers and adolescents called Keepin' it R.E.A.L.! (Responsible, Empowered, Aware, and Living) to enhance the role of mothers in postponing the sexual debut of their 11- to 14-year-old adolescents. This program also focused on bridging possible gaps between parents and their children through enhancing their communication (or connectedness). The program had 2 versions: one focused on preventing risky sexual behavior and the other focused more broadly on reducing multiple problem behaviors. A randomized trial comparing the 2 versions of the program with a control condition indicated that there were no differences among conditions in delay of sexual intercourse, but the program focused on multiple problems increased condom use.

Dilorio and colleagues<sup>50</sup> also developed a version of the program for fathers. The fathers attended 7 weekly sessions, and sons attended the final session. The program included goal setting and take-home activities. A randomized trial showed that fathers who participated in the program reported significantly more conversations about sexuality, greater intentions to have future conversations about sexuality, more confidence discussing sexual issues, and more positive outcomes associated with these conversations with their sons. Their adolescents reported significantly higher rates of sexual abstinence, condom use, and the intent to delay initiation of sexual intercourse.

### ***Familias Unidas***

---

Familias Unidas (United Families) is a multilevel, family-centered, ecodevelopmental, Hispanic-focused, HIV prevention intervention.<sup>51</sup> This program integrates the

principles of connectedness through targeting parent-child relationships, the adult protective shield through parental involvement and school bonding, and self-efficacy through adolescent self-regulation and behavior control. It targets Hispanic immigrant parents and their children in an urban community in Miami, Florida. The first study was a 9-month randomized trial that showed that the program increased parental involvement, improved communication and support, and resulted in fewer adolescent behavior problems.<sup>51</sup> Active participation in the group was shown to predict engagement and retention in the intervention, and in turn, engagement and retention facilitated improved outcomes for adolescents and families participating in the intervention.<sup>52</sup>

A second study randomly assigned 266 eighth-grade Hispanic adolescents and their primary caregivers to 1 of 3 conditions: (1) Familias Unidas + Parent-Preadolescent Training for HIV Prevention (PATH); (2) English for speakers of other languages (ESOL) + PATH; and (3) ESOL + HeartPower! For Hispanics (HEART). The results showed that Familias Unidas + PATH was efficacious in preventing and reducing cigarette use relative to both control conditions and more efficacious than ESOL + HEART in reducing illicit drug use. Familias Unidas + PATH was efficacious, relative to ESOL + PATH, in reducing unsafe sexual behavior. Results showed that Familias Unidas + PATH was efficacious in reducing illicit drug use relative to ESOL + HEART. There were 2 surprising results. First, Familias Unidas + PATH was more efficacious in reducing cigarette use than ESOL + HEART, in which HEART directly targeted cigarette use. Second, Familias Unidas + PATH was more efficacious in reducing unsafe sexual behavior at last sexual intercourse than ESOL + PATH.<sup>53</sup>

### **CHAMP**

---

The Chicago HIV Prevention and Adolescent Mental Health Project (CHAMP) targeted all 7 field principles throughout its development and iterations. CHAMP is a family-based HIV prevention intervention that targets young adolescents (fourth and fifth grades). It includes 10 to 12 manualized, multiple-family group sessions that engage the guardians and their dependants. The sessions educate the participants on HIV and risky behaviors and situations, and promote parental skills (eg, parental connectedness with youth, parenting styles, parental monitoring, and engaging caregiver support from the community and peers). Through skills-building practice, the participants learn to apply and hone prevention skills. The sessions also encourage comfort around family discussion on sensitive topics, connectedness between the caregivers and their youth, and apt monitoring and discipline for parents. All of the CHAMP programs are designed to allow youth the opportunity to practice the social and emotional skills necessary to extricate themselves from risky sexual situations and to avoid being influenced by sexual and drug use peer pressure.<sup>29</sup> The program facilitators are also integral parts of the program and the realization of social fabric. A CHAMP research staff member and a target community member conduct the sessions.<sup>29</sup> The required community partnership is yet another way in which CHAMP interventions are conducive to the actualization of rebuilding the village.<sup>29</sup>

The first CHAMP research study involved more than 300 control and more than 300 experimental families assigned to multiple-family groups, 1 with an attention control and 1 with the manualized CHAMP HIV prevention. Three of 4 families in the experimental condition completed the entire program. In addition, the experimental families showed an increase in family decision making, improved caregiver monitoring, greater comfort in discussing hard to talk about topics with their children, more neighborhood support systems in place, and fewer aggressive and rule-breaking behaviors.<sup>29,54</sup> Based on the findings from the original, CHAMP was adapted to contexts in

New York, Chicago's Westside, Durban, South Africa; and Trinidad and Tobago.<sup>55,56</sup> The adaptations did not change the core family-based HIV prevention principles of this evidence-based intervention, but rather shifted the packaging of the core principles to be welcoming to the target culture as measured by focus group endorsement, not offensive to the target culture, contain issues of relevance to the targeted culture, recognizable to the target culture, familiar to the target culture, and endorsed by the target culture. Accordingly, the basic goals of increasing family connectedness, communication about difficult topics, social skills training and practice, HIV transmission knowledge, and so forth were preserved in each adaptation of the CHAMP intervention.

An analysis of the key elements of all the CHAMP interventions illustrates that a major goal of the intervention was to rebuild the village by guiding families to cultivate social fabric or collective efficacy<sup>15</sup> to assist in child rearing. The principle of providing modern psychological technology was accomplished by using the multiple-family groups to deliver a manualized HIV prevention intervention. This manual had exercises to develop connectedness and social and emotional skills (eg, communication using I messages). Thus, South African caregivers were supported in obtaining a sense of power and models along with reestablishing the adult protective shield so that youth could feel safer. Thus, families were taught how to set family rules, monitor their and other's children's whereabouts, and cooperate with neighbors to watch out for their children. The intervention also aimed at creating a sense of mastery to address the HIV/AIDS epidemic in South Africa and this was achieved by cultivating a sense of learned helpfulness as these families were actively doing something to prevent HIV infections.

In Durban, South Africa, compared with the control group, the caregivers in the experimental arm had increased their monitoring of their youth and had more family rules. These families also had more comfort and frequency in talking to their youth about the epidemic. Caregivers who experienced the CHAMP manualized intervention reported less neighborhood disorganization along with more social control and cohesion where they lived. The youth in the experimental conditions had more knowledge and less stigmatizing attitudes toward people afflicted with HIV/AIDS. Because, like the original CHAMP, indigenous Zulu community residents were hired to recruit, retain, and deliver the intervention, the participation rate was 94%.<sup>29</sup> These outcomes are proximal, therefore it is too early to tell whether they will be sustained; however, it is clearly a step in the right direction.

## SUMMARY

For years, the HIV pandemic was seemingly mysterious and uncontrollable. However, it is now known that with technology, this virus can be stopped from becoming fatal, and with prevention further infection can be stopped. With the application of certain principles and knowledge, this pandemic can be turned into something much less noxious and pervasive. Various researchers and programs have effectively demonstrated this reality, showing the possibilities of ameliorating the propagation of this virus through prevention. Future research and policy should indicate the furtherance of these programs and designate more time and resources for more targeted research on prevention.

## REFERENCES

1. Fanning D. Frontline: the age of AIDS [television broadcast]. Washington, DC. New York: Public Broadcasting System; 2006.

2. Tree of Life Gallery. AIDS orphans 2006. Available at: <http://treeoflifegallery.org/AidsOrphans.htm>. Accessed May 1, 2006.
3. Centers for Disease Control and Prevention. HIV prevalence estimates: United States; 2006. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5739a2.htm>. Accessed June 15, 2008.
4. Pequegnat W, Stover E. Behavioral prevention is today's AIDS vaccine! *AIDS* 2000;14:S1–7.
5. Pequegnat W. Family and HIV/AIDS: first line of health promotion and disease prevention. In: Pequegnat W, Bell CC, editors. *Families and HIV/AIDS: culture and contextual issues in prevention and treatment*. New York: Springer, in press.
6. National Research Council and Institute of Medicine. *Preventing mental, emotional, and behavioral disorders among young people: progress and possibilities*. Washington, DC: The National Academies Press; 2009.
7. Flay BR, Snyder F, Petraitis J. The theory of triadic influence. In: DiClemente RJ, Kegler MC, Crosby RA, editors. *Emerging theories in health promotion practice and research*. 2nd edition. New York: Jossey-Bass; 2009. p. 451–510.
8. Zigler E, Trickett PK. IQ, social competence, and evaluation of early childhood intervention programs. *Am Psychol* 1978;33:789–98.
9. Masten AS. Resilience in development: implications of the study of successful adaptation for developmental psychopathology. In: Cicchetti D, editor. *Rochester symposium on developmental psychopathology. The emergence of a discipline*, vol. 1. Hillsdale (NJ): Erlbaum; 1989. p. 261–94.
10. Bell CC, Richardson J, Blount MA. Suicide prevention. In: Lutzker JR, editor. *Preventing violence: research and evidence-based intervention strategies*. Washington, DC: American Psychological Association; 2005. p. 217–37.
11. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of child abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med* 1998;14:245–58.
12. Green JG, McLaughlin KA, Berglund PA, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication I. *Arch Gen Psychiatry* 2010;67:113–23.
13. McLaughlin KA, Green JG, Gruber MJ, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication II. *Arch Gen Psychiatry* 2010;67:124–32.
14. Brown SC, Flavin K, Kaupert S, et al. The role of settings in family-based prevention of HIV/STDs. In: Pequegnat W, Bell CC, editors. *Families and HIV/AIDS: culture and contextual issues in prevention and treatment*, vol. 304. New York: Springer; 2010. p. 565–6.
15. Sampson RJ, Raudenbush SW, Earls F. Neighborhoods and violent crime: a multi-level study of collective efficacy. *Science* 1997;277:918–24.
16. Gladwell M. *Tipping point: how little things can make big difference*. New York: Little, Brown and Company; 2000.
17. Baumer EP, South SJ. Community effects on youth sexual activity. *J Marriage Fam* 2001;63:540–54.
18. Redd J, Suggs H, Gibbons R, et al. A plan to strengthen systems and reduce the number of African-American children in child welfare. *Illinois Child Welfare* 2005; 2:34–46.
19. Browning CR, Burrington LA, Leventhal T, et al. Neighborhood structural inequality, collective efficacy, and sexual risk behavior among urban youth. *J Health Soc Behav* 2008;49:269–85.

20. Semenza JC, March TL. An urban community-based intervention to advance social interactions. *Environ Behav* 2009;41:22–42.
21. Toit L, Cerin E, Leslie E, et al. Does walking in the neighborhood enhance local sociability? *Urban Stud* 2007;44:1677–95.
22. Collins RL, Ellickson PL, Orlando M, et al. Isolating the nexus of substance use, violence and sexual risk for HIV infection among young adults in the United States. *AIDS Behav* 2005;9:73–87.
23. Hopfer CJ, Crowley TJ, Hewitt JK. Review of twin and adoption studies of adolescent substance use. *J Am Acad Child Adolesc Psychiatry* 2003;42:710–9.
24. Bernstein KT, Galea S, Ahern J, et al. The built environment and alcohol consumption in urban neighborhoods. *Drug Alcohol Depend* 2007;91:244–52.
25. Cohen D, Spear S, Scribner R, et al. “Broken windows” and the risk of gonorrhea. *Am J Public Health* 2000;90:230–6.
26. National Institute of Medicine. *Reducing suicide: a national imperative*. Washington, DC: The National Academies Press; 2002.
27. US Department of Health and Human Services. *Youth violence: a report of the surgeon general*. Washington, DC: US Department of Health and Human Services; 2001.
28. Bell CC, Bhana A, McKay MM, et al. A commentary on the Triadic Theory of Influence as a guide for adapting HIV prevention programs for new contexts and populations: the CHAMP-South Africa story. *Soc Work Men Health* 2007;5: 243–67.
29. Bell CC, Bhana A, Petersen I, et al. Building protective factors to offset sexually risky behaviors among black South African youth: a randomized control trial. *J Natl Med Assoc* 2008;100:936–44.
30. Bell CC, Gamm S, Vallas P, et al. Strategies for the prevention of youth violence in Chicago Public Schools. In: Shafii M, Shafii SF, editors. *School violence: assessment, management, prevention*. Arlington (VA): American Psychiatric Press; 2001. p. 251–72.
31. Bell CC, Flay B, Paikoff R. Strategies for health behavior change. In: Chunn J, editor. *The health behavioral change imperative*. New York: Kluwer Academic/Plenum Publishers; 2002. p. 17–39.
32. Bell CC. Keeping promises: ethics and principles in psychiatric practice. In: *The art and science of psychiatry*. Boston: Aspatore Books; 2007. p. 7–38.
33. Bell CC. Endurance, strength, and coordination exercises without cardiovascular or respiratory stress. *J Natl Med Assoc* 1979;71:265–70.
34. Bell CC, McBride DF. Affect regulation and the prevention of risky behaviors. *JAMA*, in press.
35. Levey J, Levey M. *Living in balance: a dynamic approach for creating harmony and wholeness in a chaotic world*. Berkeley (CA): Conari Press; 1998.
36. Bowlby J. *Separation. Attachment and loss, vol. 2*. New York: Basic Books; 1973.
37. Meloy R. *Violent attachments*. Northvale (NJ): Jason Aronson; 1992.
38. Renken B, Egeland B, Marvinney D, et al. Early childhood antecedents of aggression and passive-withdrawal in early elementary school. *J Pers* 1989; 57:257–81.
39. Sweet MA, Appelbaum ML. Is home visiting an effective strategy? A meta-analytic review of home visiting programs for families with young children. *Child Dev* 2004;75:1435–56.
40. Fisher M, Schneider M, Pegler C, et al. Eating attitudes, health-risk behaviors, self-esteem, and anxiety among adolescent females in a suburban high school. *J Adolesc Health* 1991;12:377–84.

41. Bean R. The four conditions of self-esteem: a new approach for elementary and middle schools. 2nd edition. Santa Cruz (CA): ETR Associates; 1992.
42. Goleman D. Emotional intelligence: why it can matter more than IQ. New York: Batman Books; 1994.
43. Flay BR, Graumlich S, Segawa E, et al. The ABAN AYA youth project: effects of comprehensive prevention programs on high-risk behaviors among inner city African American youth: a randomized trial. *Arch Pediatr Adolesc Med* 2004; 158:377–84.
44. Bell CC. Cultivating resiliency in youth. *J Adolesc Health* 2001;29:375–81.
45. Bronfenbrenner U. The ecology of human development: experiments by nature and design. Cambridge (MA): Harvard University Press; 1979.
46. Krauss B, Tiffany J, Goldsamt L. Research notes: parent and pre-adolescent training for HIV prevention in a high seroprevalence neighbourhood. *AIDS STD Health Promot Exch* 1997;1:10–2.
47. Krauss B, McGinniss S, O'Day J, et al. Delaying tactics: parent HIV education as a protective factor for early sexual debut. Poster presented at NIMH International Conference on the Role of Families in Preventing and Adapting to HIV/AIDS. San Francisco (CA), July 2007.
48. Willis TA, Murry VM, Brody GH, et al. Ethnic pride and self-control related to protective and risk factors: test of the theoretical model for the Strong African American Families Program. *Health Psychol* 2007;26:50–9.
49. Dilorio C, Resnicow K, Denzmore P, et al. Keepin' It R.E.A.L.! a mother-adolescent HIV prevention program. In: Pequegnat W, Szapocznik J, editors. Working with families in the era of AIDS. Thousand Oaks (CA): Sage; 2000. p. 113–32.
50. Dilorio C, McCarty F, Denzmore P. An exploration of social cognitive theory mediators of father-son communication about sex. *J Pediatr Psychol* 2006;31:1–11.
51. Pantin H, Coatsworth JD, Feaster DJ, et al. Familias Unidas: the efficacy of an intervention to promote parental investment in Hispanic immigrant families. *Prev Sci* 2003;4:189–201.
52. Prado G, Pantin H, Schwartz SJ, et al. Predictors of engagement and retention into a parent-centered, ecodevelopmental HIV preventive intervention for Hispanic adolescents and their families. *J Pediatr Psychol* 2006;31:874–90.
53. Prado G, Pantin H, Briones E, et al. Family-based HIV prevention with African American and Hispanic youth. In: Pequegnat W, Bell CC, editors. Families and HIV/AIDS: culture and contextual issues in prevention and treatment. New York: Springer, in press.
54. McKay MM, Chasse KT, Paikoff R, et al. Family-level impact of the CHAMP family program: a community collaborative effort to support urban families and reduce youth HIV risk exposure. *Fam Process* 2004;43:79–93.
55. McKay MM, Paikoff RL, editors. Community collaborative partnerships: the foundation for HIV prevention research efforts. Binghamton (NY): Haworth Press; 2007.
56. Bell CC. Family as the model for prevention of mental and physical health problems. In: Pequegnat W, Bell CC, editors. Families and HIV/AIDS: culture and contextual issues in prevention and treatment. New York: Springer, in press.