

EXECUTIVE SUMMARY

SUCCESSFUL YOUNG ADULT DEVELOPMENT

A report submitted to:

The Bill & Melinda Gates Foundation

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INTRODUCTION

Promoting the healthy development of children and adolescents requires a clear vision of successful adult development. We have identified about 50 theoretical and empirical explorations of successful young adult development. This work provided the intellectual and scientific base for this document, complemented by ongoing research initiatives on indicators of successful development currently underway at the Social Development Research Group (SDRG) at the University of Washington in Seattle and the Search Institute (SI) in Minneapolis.

The Transition to Young Adulthood

The transition from adolescence to adulthood (usually defined as the period from approximately age 18 to age 25) is important because it sets the stage for later adult life (Arnett, 2000; George, 1993; Hogan and Astone 1986; Shanahan, 2000). Leaving familiar roles of childhood and adolescence and taking on new responsibilities of worker, spouse, or parent can be challenging. Negotiating this transition successfully has positive consequences. Most often, transitions encourage continuity, reinforcing developmental patterns already established in childhood and adolescence (Elder and Caspi, 1988). For example, avoiding substance use and delinquency in adolescence decreases the risk for antisocial involvement in young adulthood and poor physical and mental health (Guo, Collins, Hill, and Hawkins, 2000; Guo, Chung, Hill, Hawkins, Catalano, and Abbott, 2002; Hill, White, Chung, Hawkins, and Catalano, 2000; Mason, Kosterman, Hawkins, Herrenkohl, Lengua, and McCauley, 2004; Newcomb and Bentler, 1988; Oesterle, Hill, Hawkins, Guo, Catalano, and Abbott, 2004). The conditions and characteristics that put people on a positive trajectory early in life can help them negotiate later transitions such as entering adolescence and young adulthood.

Transition periods also can function as turning points, providing opportunities for change from negative to more positive developmental pathways in subsequent developmental periods (Elder 1985, 1998; Feinstein and Bynner, 2004; Maughan and Rutter, 1998; Nagin, Pagani, Tremblay, and Vitaro, 2003; Rutter, 1996; Schulenberg and Maggs, 2002; Schulenberg, Maggs, and O'Malley, 2003; Wheaton, 1990). In early adulthood, for example, marriage, pregnancy (or having a pregnant spouse), and being a parent appear to reduce involvement with drugs (Bachman, Wadsworth, O'Malley, Johnston, and Schulenberg, 1997). Marriage also seems to reduce young men's involvement in crime (Sampson and Laub, 1993; Warr, 1998). Helping children, adolescents, and young adults negotiate transitions successfully is a fundamental societal task.

An emerging line of theory and research also suggests that successful development during adolescence and the transition into adulthood includes the arena of thriving. Thriving can be

understood as the active process by which individuals shape and engage with their developmental contexts in order to develop competencies, skills, and behavioral repertoires that are simultaneously beneficial to self and to society (Benson, Hamilton, Scales, and Sesma, in press; Lerner, 2004; Scales, Benson, Leffert, and Blyth, 2000). Key thriving dimensions include prosocial behavior, educational engagement, civic engagement, and a sense of purpose (Benson, 2003; Scales and Benson, 2004).

The Character of Young Adulthood

Young adulthood is most often described in terms of the new roles and statuses adopted in this stage of life. Leaving the parental home to establish one's own residence, establishing financial independence, completing school, moving into full-time employment, getting married, and becoming a parent are considered key markers of adulthood (Booth, Crouter, and Shanahan, 1999; Cohen, Kasen, Chen, Hartmark, and Gordon, 2003; George, 1993; Macmillan and Eliason, 2003a; Shanahan, 2000). Studies have identified two major groups of young adults who follow different pathways marked by indicators of education, employment, marriage, cohabitation, parenthood, and residence (Macmillan and Eliason, 2003a; Osgood, Ruth, Eccles, Jacobs, and Barber, in press; Sandefur, Eggerling-Boeck, and Park, in press; Schulenberg, O'Malley, Bachman, and Johnston, in press).

The first major group includes young adults who move early into forming their own families and invest little in post-secondary education. In this group, the timing of first parenthood distinguishes two sub-groups: those who have children very early (in mid- and late-adolescence), and those who have children somewhat later, beginning in the early and mid-20s. The second major group includes those who invest in education, employment, and career development first and postpone family formation until later. The two pathways differ markedly by gender. More women than men are on the track of early family formation (Cohen, et al., 2003; Macmillan and Eliason, 2003b; Osgood, et al., in press; Schulenberg, et al., in press). In the United States, women are three times more likely than men to have their first child before the age of 20 (33 percent vs. 11 percent, respectively), while more men than women become a parent for the first time between age 25 and 29 (32 percent vs. 19 percent, respectively, Child Trends, 2002). In 1999, the mean age in the United States at the birth of the first child was 24.8 years for mothers and 29.7 years for fathers (Ventura, Martin, Curtin, Menacker, and Hamilton, 2001).

Very-early family formation clearly makes successful development in young adulthood difficult. Early parenthood is associated with a lower likelihood of marriage, a greater risk of divorce or separation, and less full-time work (Macmillan and Eliason, 2003a). It hinders completion of high

school and also continuation in post-secondary education. It lowers the well-being of mothers in young adulthood and worsens outcomes for their children (Furstenberg, 2003; Haggstrom, Kanouse, and Morrison 1986; Hardy, Astone, Brooks-Gunn, Shapiro, and Miller, 1998; Jones, Astone, Keyl, Kim, and Alexander, 1999; Upchurch, 1993).

Children from poverty disproportionately join the early-family-formation group, while children from homes with adequate incomes are more likely to invest in completing post-secondary education (Furstenberg, 2003; Kerckhoff, 1993). These differences reflect disparities in the opportunity structures of society. Organizations like the Washington Education Foundation, funded by the Bill & Melinda Gates Foundation, seek to redress this imbalance by creating greater opportunities for more students to complete post-secondary education. Increasing the proportion of poor children who invest in education and occupational skills and credentials in early adulthood is a worthy goal of youth-development actions.

The existence of the early-family-formation and educational-investment groups also directs attention to the possibility that success during this period may look different for the two groups. Some criteria of success are life course- or role-dependent, applying only to those who take on a particular role, such as parent. For example, while becoming a parent is an important marker of adulthood, it is not a criterion for successful adaptation in itself. It is a common choice to not have children or to have them later in life (Heaton, Jacobson, and Holland, 1999). For those who do have children, however, being a competent parent and enjoying a positive relationship with one's child are important criteria of successful adult development. For those in post-secondary education, positive connections in educational institutions are important. Keeping the role-dependent dimensions of successful adulthood in mind is important in creating indicators of successful early-adult development.

The transition to adulthood also may vary by culture (within and across societies), gender, and historical era, among other considerations (Hogan & Astone, 1986; Furstenberg & Kmec, 2000). The developmental reality that individuals do not merely have their environment imposed on them, but interact with and shape the environments that influence them, also contributes to a variety of pathways to adulthood (Osgood, et al., in press; Schulenberg, et al., in press; Shanahan, 2000; Werner & Smith, 2001).

For this report, we reviewed about 50 theoretical and empirical sources discussing successful development in young adulthood. This literature provided the foundation for developing a profile that includes eight dimensions of successful functioning in young adulthood.

Purposes

The primary purpose of this project for the Bill & Melinda Gates Foundation is to create a consensus statement on the dimensions and indicators of successful young-adult development. The work was guided by two applied considerations: One was to provide the Bill & Melinda Gates Foundation with a set of dimensions and corresponding indicators that have utility for benchmarking and monitoring change over time in samples of young adults; and a second is to provide a conceptual frame for establishing earlier developmental indicators of progress toward these proposed “outcomes” in young adulthood.

Procedures

The SI and SDRG teams used the following strategies to create this consensus document:

- At the front end of the project, the teams conferred to agree on a set of criteria for selecting dimensions and indicators;
- Each team, working independently, identified scientific source documents;
- These source documents were then pooled to create a common literature base;
- The teams then independently synthesized this literature and created parallel working documents, naming broad dimensions and concrete indicators; and,
- In a series of conference calls, the teams then negotiated the following consensus statement on dimensions and indicators.

Criteria

The criteria for selecting the dimensions and indicators of successful young-adulthood development were as follows:

- Be solidly reflected in the theoretical and research literature;
- Reflect a public consensus about what is important;
- Be useful for multiple purposes, including public communications and mobilization, program development and evaluation, individual planning, and community, state, and national tracking;
- Flow logically from the theory of action and change guiding the Bill & Melinda Gates Foundation’s initiative;
- Be measurable;
- Be amenable to change over time; and,

- Based on a conference call with the Bill & Melinda Gates Foundation staff, include developmental precursors/antecedents during early and later adolescence that can be tracked into the young-adult years.

This executive summary, jointly authored by the SDRG and SI teams, has the following three sections:

1. Our consensus statement on dimensions and indicators;
2. The availability of measures for our proposed indicators; and,
3. Remaining issues and recommendations.

DIMENSIONS AND INDICATORS OF YOUNG ADULT SUCCESS

We reviewed this material in order to extract a universe of constructs and indicators of positive emerging adulthood. Initially working independently, SI identified seven constructs and SDRG identified 10 constructs, both with associated indicators. SDRG and SI developed a consensus around eight constructs taking into account: the sources, our individual documents, and our discussions about the important kinds of positive outcomes for emerging adults, regardless of the life course they take to move toward those outcomes. The following table summarizes the consensus of SDRG and SI on key dimensions of success in emerging adulthood and the salient indicators of those dimensions.

Dimensions and Indicators of Young Adult Success

Physical health

Good nutrition, regular exercise, no substance abuse or dependence, safe sexual behavior, avoiding violence, no drinking and driving

Psychological and emotional well-being

Positive self identity, life satisfaction, positive outlook, sense of purpose, prosocial orientation

Life skills

Decision-making, emotional self regulation, interpersonal skills, self-efficacy, financial responsibility

Ethical behavior

Telling the truth, keeping promises, avoiding crime, obeying the law, calling in sick only when really sick, demonstrating care and concern for others, taking responsibility for oneself

Healthy family and social relationships

Bonding and frequent interactions with a parent, an intimate partner, and with peer(s); involvement in groups such as community sports teams, church groups, music groups, dance classes

Educational attainment

High-school completion, completion of post-secondary degree or occupational certification

Constructive engagement

Over 35 hours per week in school, employment, or homemaking

Civic engagement

Volunteer work, political participation, charitable giving

Physical Health

Successful young adults are not risk-free but maintain a healthy lifestyle. Indeed, a high degree of risk-taking in the use of alcohol, tobacco, and drugs (and driving under the influence) and in sexual behavior persists in this age period. But, successful emerging adulthood involves increasing skill at minimizing and managing such risks. Successful emerging adults eat a nutritious diet, attend to exercise and fitness, and get adequate preventive health care and necessary treatment. If sexually active, they protect themselves from unplanned pregnancy and sexually transmitted diseases. They do not drink and drive, they avoid tobacco and illegal drugs, avoid binge drinking, and do not engage in violent behavior.

Psychological and Emotional Well-Being

Successful young adults are satisfied with the path their lives are on (or they are able to do something about changing or improving that path). They are essentially happy people who accept themselves and have adequate levels of self-esteem and self-efficacy. They are confident and have a positive outlook. Overall, their self-identity is positive, and more often than not they show positive emotions instead of negative ones. They are developing a sense of purpose, which Damon, et al., (2003) have defined as a stable intention to accomplish something meaningful to them and that is consequential to others. They have a disposition toward being involved with others and doing things to help others.

Life Skills

Ultimately, healthy adults have an array of skills for negotiating their environment successfully. These include emotional, cognitive, and social competences. Arnett (2000) noted that rather than gauging by status markers such as marriage or parenthood, people generally say being an adult is more about taking responsibility for oneself and making independent decisions. Successful emerging adults increasingly can take care of themselves, make decisions independent of their parents (including decisions about residence, finances, romance, and parenting), coordinate multiple life roles, and adapt flexibly and with reasonable emotional self-control to life's opportunities and challenges. They exhibit several interpersonal skills including competence with respect to initiating relationships, asserting displeasure with others, disclosing personal information, providing emotional support and advice, and managing interpersonal conflict. They show evidence of increasing financial responsibility, which includes not squandering or wasting money needed to make ends meet, paying bills, and saving. They know how to plan and carry out plans, how to solve problems

that get in the way, and how to deal with disappointments while still pursuing their immediate and longer-term goals through the decisions they make.

Ethical Behavior

Successful young adults demonstrate through their behavior such values such as caring for others and being honest. They are ethical, helpful, responsible people who obey the law and comply with common social norms and adult rules of conduct. They would be described by most others as having “good character.” They take responsibility for themselves. By this we mean not that they selfishly put themselves first or ignore social obligations, but that they do not blame others or make excuses for their own decisions or behavior—rather they own their decisions and the consequences their choices bring.

Healthy Family and Social Relationships

This dimension comprises a young person’s social bonds or connectedness with others in friendships and neighborhood relationships, their ability to share intimacy, and be a loving and effective family member. Successful young adults have people they can turn to in times of need; are satisfied with their networks of friends; have close relationships including an adequate number of friends and a high quality of intimate love, romantic, or sexual relationships; and frequently interact with parents, partners, and peers. They are connected with others in classes, organizations, and formal groups where they pursue common interests.

Educational Attainment

One of the biggest variations in the clusters of different pathways young people take to adulthood is in how involved they are with education or how far they have gone in educational attainment in the emerging-adult period. The completion of high school and occupational degree and certification requirements are indicators of educational success. They are powerful determinants of later adult occupational and socioeconomic status, as well as health and other personal outcomes in adult life. Successful emerging adults are on a path on which their post-secondary educational involvement is appropriate to the personal and career/work goals they have.

Constructive Engagement

Successful emerging adults occupy themselves mostly in productive pursuits, study, work, or raising a family, or some combination of these. Just as industry is important earlier in life, during

young adulthood constructive engagement is an important outcome. Whether engaged in school, work, or homemaking, they are investing time in pursuits that provide the platform for future adult achievements.

Civic Engagement

Successful emerging adults have begun to “give back” to the community. They work on improving the social, political, or physical welfare of society. They have registered to vote and consistently exercise that right. They have learned enough about community and government to have an interest in political affairs and how to influence them. They are connected to formal groups, not simply for the social relationships such connections permit, but for the contribution they can make to the common good. They frequently volunteer or contribute money or resources. They look for opportunities to make meaningful contributions in various spheres of their lives.

MEASUREMENT OF SUCCESSFUL FUNCTIONING IN YOUNG ADULTHOOD

We have sought to identify observable behavioral measures of positive adult functioning wherever possible because behaviors are the ultimate target of successful development and can be affected by interventions earlier in life (Hawkins, Kosterman, et al., in press; Kosterman, Hawkins, et al., in press). The following sections provide examples of available measures of the eight dimensions of successful adult functioning and their associated indicators.

Physical Health is an important dimension of well-being and successful adult development (Schneider and Davidson, 2003; Wickrama, Conger, et al., 2003). Relevant indicators of health status in young adulthood include hypertension, Body Mass Index (BMI), and waist circumference, which are associated with overweight and obesity (NHLBI, 2000). According to National Heart, Lung, and Blood Institute (NHLBI) standards (2000), a BMI between 25 and 30 indicates a person is overweight, and a BMI of 30 or greater indicates obesity. Waist sizes that are greater than 35 inches for women and greater than 40 inches for men are associated with an increase in risk for diseases such as diabetes and hypertension (NHLBI, 2000). Hypertension in adults is defined as systolic blood pressure of 140mm HG or greater and diastolic pressure of 90mm HG or greater (NHLBI, 1997). Clinically significant BMI and waist-size thresholds for health risks as well as indicators of hypertension can be included as indicators of physical health in young adulthood (Oesterle, Hill, et al., 2004).

An additional useful indicator is self-reported physical health. It is easily assessed (e.g., “How would you describe your general health? Excellent, good, fair, or poor?”) and strongly correlates with the presence of disease and physician-rated health, and it is an independent predictor of mortality (Romelsjo, Kaplan, et al., 1992; Idler and Benyamini, 1997; Ferraro and Farmer, 1999; Wickrama, Conger, et al., 2003).

In addition to health status, it is important to consider health behaviors, which are under the individual’s control and can be promoted in childhood and adolescence (Schneider and Davidson, 2003). Pertinent health behaviors in young adulthood include regular exercise, healthy nutrition, adequate sleep, safe driving habits, absence of substance abuse and dependence, avoiding violence, and refraining from unsafe sex (Kulbok, Carter, et al., 1999).

With regard to exercise, guidelines set by the NHLBI (1998) for physical activity necessary to achieve weight loss and reduce risks of cardiovascular disease and diabetes suggest that exercising at least three times per week for at least 30 minutes with at least moderate intensity is a desirable level of physical activity. Exercise also improves sleep, another contributor to good health. About eight hours of sleep per night are considered healthy for most adults (National Center on Sleep Disorder Research and Office of Prevention, 1997).

Healthy nutrition is defined by the USDA’s food pyramid (United States Department of Agriculture, 1996). It recommends eating a variety of foods, grains (six to 11 servings a day), vegetables (three to five servings a day), and fruits (two to four servings a day), meat, poultry, fish, eggs, and nuts (two to three servings a day), milk, yogurt, and cheese (two to three servings a day), with fat contributing only 30 percent of the total calories or less per day, moderate consumption of sugar and salt, and not more than one to two drinks of alcohol a day.

Safe driving habits are indicated by always using a seat belt, not driving under the influence of alcohol or drugs, and not riding in a car with a driver who is under the influence of alcohol or drugs (Kulbok, Carter, et al., 1999; Oesterle, Hill, et al., 2004).

The American Psychiatric Association’s DSM-IV (1994) describes diagnostic criteria for substance abuse and dependence that define a meaningful, clinically significant outcome measure. The Diagnostic Interview Schedule (DIS: Robins, Cottler, et al., 1999) can be used to determine those meeting criteria for substance abuse and dependence in young adulthood (Guo, Collins, et al., 2000; Guo, Hawkins, et al., 2001).

Violence in young adulthood can take several forms: partner violence, child maltreatment, and non-intimate interpersonal violence. Partner violence may be assessed through the Conflict Tactics Scale (Straus, Hamby, et al., 1996), a self-report measure of 20 items to assess psychological

and physical attacks on a partner in a marital, cohabiting, or dating relationship. Child maltreatment may be assessed through the parallel Parent-Child Conflict Tactics Scale (Straus, Hamby, et al., 1998), a self-report measure of 27 items assessing psychological aggression, physical assault, nonviolent discipline, and neglect. Non-intimate interpersonal violence may be assessed through 10 items of self-reported frequency of involvement in violence (e.g., picking fights, assault, robbery, rape, threatening serious violence) in the past year (cf., Herrenkohl, Mason, et al., 2004; Mason, Kosterman, et al., 2004). Research has shown that self-reports of delinquency and crime are reliable and valid (Hindelang, Hirschi, et al. 1981).

Safe sexual behavior is an indicator of physical health in young adulthood. Useful indicators include age at first sexual intercourse, the number of lifetime sexual partners, frequency and consistency of condom use, STD diagnosis, early pregnancy and birth (by age 21) for females, and having caused a pregnancy and having fathered a child by age 21 for males (Guo, Chung, et al., 2002; Lonczak, Abbott, et al., 2002).

Psychological and Emotional Well-Being. Many scientists and practitioners have offered suggestions on how to measure psychological and emotional well-being. We suggest that indicators of this construct include positive self-identity, life satisfaction, positive outlook, sense of purpose, and prosocial orientation. Positive self-identity may be assessed by a measure combining self-esteem, self-efficacy, and social support, with self-rated items such as “I feel I am a person of worth” (Schulenberg, et al., in press). Life satisfaction, positive outlook, and sense of purpose have been assessed through self-report scales (Damon, Menon, et al., 2003; Keyes and Waterman, 2003). Prosocial orientation has been assessed through a seven-item measure combining attitudes toward helping others and behavioral intentions to act on them in the coming year (Scales & Benson, 2004). Some additional work is needed to identify those items most suitable for young adults.

Life Skills that contribute to positive functioning and successful development in young adulthood include a sense of self-efficacy and internal control (Rotter 1966; Bandura 1977; 1982; Gecas, 1989; Clausen, 1991a; 1991b; Lachman and Weaver, 1998; Fournier and Jeanrie, 2003), problem solving and decision making skills (Heppner and Wang, 2003; Smith, 2003), emotional self-regulation (Carstensen, Fung, et al., 2003; Diamond and Aspinwall, 2003; Graziano and Tobin, 2003; Cole, Martin, et al., 2004; Eisenberg and Spinrad, 2004), and interpersonal skills.

Measures of self-efficacy, mastery, and internal control are available, including the Pearlin Mastery Scale (Pearlin and Schooler 1978; Pearlin, Menaghan, et al. 1981) and Bandura’s (1997) self

efficacy measures and measures of internal vs. external locus of control (Rotter 1966; Levenson 1974). The concept of self-efficacy and mastery is measured using statements such as “I can do just about anything I really set my mind to,” “When I really want to do something, I usually find a way to succeed at it,” and “What happens to me in the future mostly depends on me.”

Problem-solving and decision-making skills can be measured following Fogler and LeBlanc (Fogler and LeBlanc, 1995), who describe the problem-solving process as proceeding in several steps, including defining the problem, generating solutions through brainstorming and other methods, deciding on a course of action, and implementing a solution.

Emotional self-regulation can be measured using Rothbart’s effortful-control dimension of the Adult Temperament Questionnaire (ATQ; Derryberry and Rothbart, 1988; Rothbart, Ahadi, et al., 2000). It measures the capacity to focus and shift attention when desired, to suppress inappropriate behavior, and to perform an action even when there is a strong tendency to avoid it.

Interpersonal skills can be assessed using Buhrmester, et al.’s (Buhrmester, Furman, et al., 1988) Interpersonal Competence Questionnaire (ICQ). It assesses several dimensions of interpersonal skills including competence with respect to initiating relationships, asserting displeasure with others, disclosing personal information, providing emotional support and advice, and managing interpersonal conflict.

Financial responsibility is a final measure of life skills important for successful adult functioning. These skills include being able to manage finances, to make essential purchases (e.g., food, clothes, health insurance), pay bills, and assure safe and healthy living conditions (e.g., having a place to stay, being able to pay for heat) (Arnett, 2000; Cohen, Kasen, et al., 2003). SDRG has created a measure of financial responsibility by asking young adults questions about the occurrence of “spending sprees” that caused financial trouble or a period of “foolish decisions about money” and about squandering or wasting money that was “needed to make ends meet” (Kosterman, Hawkins, et al., in press; Oesterle, Hill, et al. Unpublished).

Ethical Behavior is a fourth dimension of positive development in young adulthood. Ethics, trustworthiness, integrity, and honesty are terms often used to define good character (Seligman and Csikszentmihalyi, 2000; Kosterman, Hawkins, et al., in press). While some degree of misbehavior and minor delinquency is statistically normative during adolescence, young adults are expected to become responsible and conforming to the social norms and rules of adult conduct (Jessor, Donovan, et al., 1991; Bachman, Wadsworth, et al., 1997; Arnett, 1998; Roisman, Masten, et al., 2004). Successfully adopting adult rules of conduct includes abstaining from criminal behavior

and obeying the law (Farrington, 1989; Oesterle, Hill, et al., unpublished). Other indicators reflecting honesty and integrity include telling the truth, keeping promises, giving correct information on applications and tax forms, and calling in sick to school or work only when really sick (Gibbs, Basinger, et al., 2003; Kosterman, Hawkins, et al., in press). Taking responsibility for oneself and demonstrating care and concern for others might be assessed through a combination of items offered by Benson, Scales, Leffert, & Roehlkepartain, 1999; Keyes, 2003, and the “values in action” work of Seligman & Peterson (Peterson and Seligman, in preparation). In addition, Search Institute has developed a variety of behavioral indicators of prosocial behavior in a number of national adolescent and adult surveys.

Healthy Family and Social Relationships are an important dimension of the social domain of success in adulthood. This dimension includes frequent interactions with close friends and relatives and bonding or connectedness with others (Resnick, Bearman, et al., 1997). Success in establishing and maintaining social relations is important for successful development because social relations are among a person’s most fundamental sources of positive functioning and well-being (Durkheim, 1951; Berscheid, 2003; Reis and Gable, 2003; Reitzes, 2003). Indicators of success in the interpersonal domain in young adulthood include interactions with and social bonds to the family of origin (including parents and siblings), peers, a romantic partner or spouse, and one’s children. The quality of relationships with significant others is also important, such as a supportive, loving relationship with the partner or spouse and a warm and caring parent-child relationship (Holmbeck, Paikoff, et al., 1995; Furstenberg and Weiss, 2000; Cox and Harter, 2003).

SDRG has constructed four measures of healthy family and social relationships in young adulthood. The first measures the frequency of interaction the young adult has with mother, father, intimate partner, fellow students, co-workers, and five of 10 people the participant reports feeling closest to aside from parents, partner, and children. Items are combined so that those people with almost daily interaction with a parent or partner and with a peer are scored as most connected (Kosterman, Hawkins, et al., in press).

The second measure assesses the degree of social bonding or connectedness to parents, spouse or partner, and friends in young adulthood (Oesterle, Hill, et al., Unpublished). Respondents are considered to be bonded to their parents if they indicated that they would like to be the kind of person their mother or father is, they would stick by their parents no matter what, and felt close to their parents. Similarly, respondents were asked how close their relationship was with their spouse or partner and the five people to whom they felt closest (aside from parents and spouse or partner).

Because not all respondents had a spouse or partner, bonding items were averaged across the five friends and, if present, also the spouse or partner.

The third measure assesses the quality of the partner relationship for those who are partnered (Hill, Bailey, et al., 2004; Tabares, Hill, et al., 2004). The measure of adult-partner relationship quality included opportunities with partner (e.g., “I have lots of chances to do things with my partner.”), involvement (e.g., “How often do you have a friendly chat with your partner?”), rewards (e.g., “How much warmth and affection do/did you receive from your partner?”), bonding (e.g., “Do you share your thoughts and feelings with your partner?”), conflict (e.g., “How often do you threaten to leave your relationship?”), and items from the Dyadic Adjustment Scale (e.g., “In general, how often do/did you and your partner disagree about matters of recreation?”) (Tabares, Hill, et al., 2004).

Finally, group involvement is another measure of healthy family and social relationships important for successful adult development. The social capital literature suggests that involvement in organized prosocial groups is itself a positive contribution to the social fabric (Hemingway, 1999; Paxton, 1999; Putnam, 2000). SDRG has measured group involvement as the number of “groups outside of school or work such as community sports teams, church groups, music or dance classes, clubs and organizations” in which adults have participated (Kosterman, et al., in press).

Educational Attainment is an important dimension of success in young adulthood. The completion of high-school and occupational degree and certification requirements are indicators of educational success. They are powerful determinants of adult occupational and socioeconomic status, as well as of health and other personal outcomes in adult life (Pallas, 2000).

SDRG has measured educational attainment by creating a dichotomous variable that indicated whether participants had completed a high-school degree (excluding GED) by age 24 (Oesterle, Hill, et al., Unpublished). GED was excluded from the educational indicator of success because it was found that GED recipients were more similar to non-credentialed drop-outs than high-school graduates on other young adult outcomes, such as constructive engagement. A GED does not appear to reflect “on-time” completion of secondary education and does not lead to the same post-educational and economic benefits as the regular high-school diploma (Cameron and Heckman, 1993; Boesel, Alsalam, et al., 1998).

Constructive Engagement is another dimension of success in the economic domain. Productive activity, work, or constructive use of time make up an important developmental asset

and a component of adult functioning (Rowe and Kahn, 1997). Constructive engagement can take different forms, such as paid employment, homemaking, or being a student. SDRG has created a constructive-engagement index that combines full-time work (35 hours per week or more), part-time work (less than 35 hours per week), full-time homemaking, or school attendance (full-time or part-time) during the past 12 months (Kosterman, Hawkins, et al., in press; Oesterle, Hill, et al. Unpublished).

Civic Engagement is a final suggested dimension of success in adulthood to improve the social, political, or physical welfare of society. Helping others and contributing to society does not only add to the common civic good, it also increases the well-being and positive functioning of the helper (Uggen and Janikula, 1999; Thoits and Hewitt, 2001; Eisenberg, 2003; Piliavin, 2003). Although altruism, empathy, and civic-mindedness are important values and emotions that motivate many prosocial actions, they are not necessary for civic participation (Eisenberg, 2003; Oesterle, Johnson, et al., 2004). Behavioral indicators of civic involvement include volunteering, charitable giving, voting and other forms of political participation, and environmental action.

ISSUES AND RECOMMENDATIONS

It is expected that this work on dimensions, indicators, and measures will trigger a number of conversation points with the Bill & Melinda Gates Foundation. Among these, we expect, will be pinpointing a priority set of indicators and measures that can be conceptually linked to emerging foundation investments in early childhood development, the middle-school years, and community capacity building.

It is our intent to offer additional recommendations on dimensions, indicators, and measurements as these conversations unfold. Our initial document (Sept. 27, 2004) describing the scope of work for this project recommended that the foundation convene and host a meeting of researchers, policymakers, and practitioners on early-adult development. This dialogue would give additional focus to the indicator work, the initiative design, and their interrelationship.

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