Adolescence (age 11-18) is a time of great change and opportunity: physically, socially and psychologically. Youth-serving programs seek to influence this development in positive ways that impact both the current and future health and well being of youth. The process of conceptualizing what healthy development and well-being of youth looks like has historically been guided by developmental theory and practitioner wisdom. In recent years, however, a growing consensus surrounding the terms and the body of empirical evidence in the field has continued to evolve and to provide clarity and guidance for program design and accountability. While there are a variety of conceptual models that provide different frameworks for outlining the principles of healthy adolescent development (the Search Institutes 40 Developmental Assets, the 5 C’s, Positive Youth Development), they share many elements in common.

In 2002 the National Research Council of the Institute of Medicine convened the Committee on Community-Level Programs for Youth to integrate these various models into a singular synthesized and clear model of research-supported adolescent community program outcomes, as well as their indicators. The committee reviewed the leading theoretical models, the relevant quantitative data and folded in practitioner wisdom in the development of their exemplar model of healthy adolescent development. They discerned a series of personal and...
social assets found to be linked to evidence of thriving in youth; that is a series of personal and social skills, capabilities, or characteristics, that have been found to be linked to evidence of healthy development, as well as being negatively correlated with signs of pathology or negative development (Scales, Benson and Blyth, 2000). For ease of understanding, the committee grouped these assets into four developmental domains: 1) physical development, 2) Intellectual development, 3) psychological and emotional development, and 4) social development (Eccles and Gootman, 2002).

Following this framework proposed by the National Research Council in partnership with the Institute of Medicine, this paper will delineate which adolescent outcomes within each of the domains a growing body of evidence is demonstrating programs can find success in targeting in the pursuit of adolescent well-being. I will also list the relevant indicators considered valid for measuring these outcomes. Lastly, after a brief word of caution regarding the limitations of the research, I will provide several easily accessible resources for practitioners to find the tools needed to measure their program’s outcomes.

**Wait a minute . . . just what exactly are Outcomes and Indicators?**

The term ‘outcomes’ is used in the literature both to refer to a bottom-line measurement of the well-being of youth and their families, as well as in reference to the impact a program or intervention seeks to evoke in a target population. Outcomes frequently include specific attitudes, skills, behaviors or characteristics of youth, such as beliefs held about alcohol, the ability to refuse alcohol, and alcohol consumption behaviors. An indicator is quantifiable evidence or information that represents the phenomena or impact that you are interested in measuring. For example, a program that seeks to impact underage drinking behaviors
(outcome) may measure the number of alcoholic drinks consumed per week via self-report (indicator).

Furthermore, outcomes can be broken down into short, medium and long term impacts. As such, the shorter-term outcomes can be seen as indicators, or predictors, of reaching the medium or long term outcomes. For example, a program may seek to ultimately impact positive social norms about drinking alcohol among youth. A reasonable short term goal could be to increase knowledge regarding how alcohol affects the body, measured through a pre and post test questionnaire. A useful midterm outcome would be to increase participant knowledge of and self efficacy in using refusal tactics, also appropriately measured by a self report or knowledge acquisition questionnaire. Each of these outcomes (increasing knowledge and health behavioral repertoire) are inputs into and indicators of progress toward the ultimate outcome of impacting youth social norms surrounding alcohol consumption. In sum, outcomes can be both results of change as well as inputs into further change, and indicators can serve as measurements of current outcomes, predictors of future outcomes, or as outcomes in and of themselves (Hair et al, 2001). For more information on the distinction between outcomes, indicators and their usefulness for community programming please go to:

http://www.liveunited.org/outcomes/

**Research Based Outcomes for Youth (ages 10-18)**

**DOMAIN 1: PHYSICAL DEVELOPMENT**

Recommended Outcomes:
- Good Health Habits
- Good Health Risk Management Skills

Although physical health is widely recognized as a cornerstone of current and future well-being, much of the research that has gone into understanding and monitoring adolescent
physical development has focused on poor health outcomes such as obesity, sexually transmitted infections and chronic illness. However, strong evidence has begun to link the effects of healthy habits, such as regular physical activity and healthy eating, to the current and future health of young people. Good health can be measured by monitoring quantifiable things such as weight, the frequency of health exams unrelated to sickness or injury, tobacco use, dental hygiene, participation rates in recreational sports, and hours of sleep per night or week.

Likewise, health risk management skills can be measured by either monitoring risk behaviors (behaviors that endanger the health and safety of individuals or those near them), or good safety habits. Risk behavior indicators include: drug and alcohol use, sexual activity, sexual barrier use, gang membership, frequency of physical fighting, and frequency of various types of injuries. Common injury types might include those that are related to recreation, family violence, physical fights, accidents at home or motor vehicle use or misuse. Good safety habits indicators include use of safety equipment such as seat belts or helmets, use of sexual barriers, frequency of health exams that monitor sexual health, self reports of refraining from reckless driving, or utilizing designated drivers.

**DOMAIN 2: Intellectual Development**

Recommended Outcomes:
- Knowledge of essential life skills
- Knowledge of essential vocational skills
- Academic success
- Rational habits of mind—critical thinking and reasoning skills
- In-depth knowledge of more than one culture
- Good decision-making skills
- Knowledge of skills needed to navigate through multiple cultural contexts
By and large, intellectual development has been measured via test assessment and/or grades. Defining essential life and vocational skills tends to be a very culturally specific thing, however essential life and vocational skills have historically been conceptualized as the skills seen to be needed in order to succeed in white, middle class America. Indicators of these skills have been: study habits, technological savvy (via typing speed or the use of internet as a research tool), homework completion and problem solving skills (Hair et al., 2002). Although many studies have documented the importance of life skills training, very little is known about which life skills are most important for youth in different cultural, ethnic, gender and class settings (Eccles and Gootman, 2002).

“Academic success is, without a doubt, one of the most powerful predictors of both present and future well-being, including mental health, school completion, and ultimate educational attainment, ultimate occupational attainment, pro-social values and behaviors, good relations with parents and pro-social friends, high levels of volunteerism and low levels of involvement in such problematic behaviors as risky sexual behavior, drug and alcohol use, and involvement in criminal activities (e.g., Alexander et al., 1993,1994; Clausen, 1993; Elder, 1998; Elder and Conger,2000; Entwisle and Alexander, 1993; Entwisle et al., 1987; Jessor et al., 1991; Scales and Leffert, 1999; Schweinhart et al., 1993; Werner and Smith, 1982, 1992).” (Eccles and Gootman, 2002, p 76.).

Academic success can be measure by looking at achievement: number of years of school completed, grade repetition, grade in school relative to age level, reading for pleasure, cultural competence and school retention. Engagement with school or an intellectually stimulating program can be measured by tracking attendance, or self-concept of academic ability. Similarly, rational habits of the mind have been evaluated via assessing problem-solving skills.
Good decision making skills is another highly socio-culturally specific outcome and has frequently been measured by examining youth avoidance of risk behaviors or utilization of safety measures such as condom usage, or helmets.

Both in-depth knowledge of more than one culture and knowledge of the skills needed to navigate through multiple cultural contexts are assets thought to be particularly needed for youth that are not solely members of the dominant culture. Since the dominant culture (white middle class, Christian, heterosexual, native-born American) is the gateway for opportunity, it is clear that not being socialized in it and accepted as a member of it from birth is a significant obstacle for individuals to navigate in their lifetime. Knowledge of how to navigate the dominant culture is necessary in order to succeed in it. While it is theorized that given today’s increasingly integrated world, knowledge of non-dominant cultures is useful and found to be associated with valuing diversity, it is not known yet whether or not it is a significant asset for youth who are members of the dominant culture.

**DOMAIN 3: Psychological and Emotional Development**

**Recommended Outcomes:**
- Good mental health including positive self-regard
- Good emotional self-regulation skills
- Good coping skills
- Good conflict resolution skills
- Mastery motivation and positive achievement motivation
- Confidence in one’s personal efficacy
- “Planfulness”—planning for the future and future life events
- Sense of personal autonomy/responsibility for the self
- Optimism coupled with realism
- Coherent and positive personal and social identity
- Pro-social and culturally sensitive values
- Spirituality or a sense of a ‘larger’ purpose in life
- Strong moral character
- A commitment to good use of time
Measures of psychological and emotional development often look at evaluating mental health, including scales of depression, eating disorders, anxiety and of optimism. Self-esteem has long been considered an essential component of mental health. Low self-esteem has been associated with increased depression, loneliness, and suicidal tendencies, while high self-esteem emerges as a protective factor, and is correlated with increased academic achievement as well as decreased levels of risk-taking activity such as sexual activity and drug use (Roth-Herbst, Borberly and Brooks-Gunn, 2008). Since self-confidence is conceptually composed of one part self-appraisal of one’s own abilities, and one part a belief in self-efficacy, confidence can be measured using tools to assess both global or overall self-esteem, as well as those to measure domain-specific self-concepts. Such self concepts might include satisfaction with one’s identity as an artist, a peer educator, a youth leader, an athlete or as a student.

While measurements of mental health and self esteem have long been studied, there are now also consistent findings emerging regarding the predictive importance of pro-social values. These values include spirituality and sense of purpose, moral character, a strong sense of personal responsibility, a strong sense of mattering and meaning in life, and a positive and coherent personal identity. However, little is known about how to effectively influence these assets; moreover, it is unclear whether or not an increase in them will actually produce changes in other characteristics in the short term or enhance a successful transition into adulthood in the long term (Eccles and Gootman, 2002). Nevertheless, pro-social values are frequently
measured by assessing the possession of goals and aspirations, the ability to say no when things seem wrong, the ability to learn from one’s mistakes, to stand up for one’s beliefs and to tell the truth. Culturally sensitive values are indicated by a desire to know people of different cultures, and valuing diversity. A few studies have found that having a strong positive ethnic identity is associated with having high self-esteem, a strong commitment to doing well in school, a strong sense of purpose in life, great confidence in one’s own personal efficacy, and high academic achievement. In particular, research has stressed the importance of providing opportunities for adolescents of non-European descent to explore ethnic identity in an environment devoid of harassment and stereotypes. In fact, these studies have indicated that discriminatory racial experiences have a less negative effect on adolescents with strong racial identities to the extent that the discriminatory experiences actually correlate to their increased commitment to do well in school.

In addition to the aforementioned outcomes of mental health, self esteem and pro-social values, several other aspects can be measured for psychological and emotional development. However, these outcomes tend to receive less attention in the literature. They include planfullness, spirituality, possession of a strong moral character and a commitment to make good use of time. Planfullness is indicated by the possession of goals or aspirations in life, including the specific steps anticipated as necessary to reach said goals or aspirations. The measures that examine indicators of spirituality are limited to religious observance or formal religious allegiance such as frequency of prayer and attendance to a religious edifice. A strong moral character is a particularly culturally specific outcome that has been historically measured by a sense of right and wrong as well as a commitment to say no to things that seem wrong.
Lastly, a commitment to make good use of time is frequently indicated by measuring what youth do with their free time; in particular, it is common to measure if the youth read for pleasure or volunteer their time. This can also be indicated via observations of how they manage free time within the parameters of a program.

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DOMAIN 4: Social Development
Recommended Outcomes:
- Connectedness—perceived good relationships and trust with parents, peers, and some other adults
- Sense of social place/integration—being connected and valued by larger social networks
- Attachment to pro-social/conventional institutions, such as school, church and nonschool youth programs
- Ability to navigate in multiple cultural contexts
- Commitment to civic engagement
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The need to feel as though you belong has been suggested to be one of the most compelling human motivational needs. There is strong evidence that demonstrates the predictive importance of a sense of connectedness on positive youth development. A strong sense of belonging has been found to predict positive outcomes such as skills mastery, positive identities, good mental health, self-regulation and civic-engagement. Furthermore, a strong sense of belonging has been related to the avoidance of negative outcomes such as risky behaviors. However, very few experimental studies have focused on assessing whether altering the sense of belonging is causally related to either changes in current well-being or to successful transitions into adulthood (Eccles and Gootman, 2002). An indicator of connectedness is the frequency with which youth talk to parents, other adults, or peers about
school, frustrations, fears or hopes for the future. This indicator is related to the indicator of a youth’s feeling of being valued or cared for by parents, other adults or peers. The level of awareness that youth feel their parents have about how they spend their free time is yet another indication of connectedness. Finally, studies have found that giving youth decision making roles in a program or organization increase a sense of connectedness, therefore a self-perception of the ability to do so is an indicator of connectedness.

Indicators of a commitment to civic engagement include: participation or leadership positions in community or after school programs, the number of school or community organizations the youth participates in, frequency of volunteering, following the news, involvement in community service activities such as neighborhood cleanups, and participation in social activities such as sports or clubs.

**Limitations of the Research into Outcomes and Indicators**

Although much work has gone into understanding what thriving looks like in adolescent, we lack a consensus of terms even within the dominant culture. In 2005, King et al conducted an investigation of the validity of the terms academics and researchers use to describe thriving in adolescents. After surveying a culturally homogenous group of practitioners, parents, early and late adolescents, they found that while many similar terms are used, there is little consensus in describing the prototypic thriving American youth. Given the expectation that heterogeneous cultural groups would likely be even more dissimilar from each other in describing a thriving youth, the authors concluded that there is no strong consensus of language in America for conceptualizing thriving in adolescence. This is certainly a limitation as
the strength of the measurement tools lay in the validity and reliability of terms; a lack of consensus in terms weakens the strength of the findings.

Likely the most salient limitation of the bulk of the research into youth well-being and the indicators of well-being is the paucity of rigorous experimental studies assessing causality. While there is a growing body of research highlighting connections between assets, indicators and well-being, there have been very few studies that have been able to assess whether or not manipulating certain assets will show any impact on outcomes. In particular, we have yet to discern neither which are the most important assets to influence nor which are the most susceptible to positive influence.

The second largest limitation of the current information we have on youth outcomes and indicators is the fact that the majority of studies evaluating outcomes and indicators have conducted their research on predominantly white, middle class populations. This is particularly concerning that given that fact that various elements of oppression greatly alter the experiences of non-white and low-income youth from that of white, middle-class youth. In particular, the additional stressor of various elements of intersecting oppressions likely greatly affect both non-white’s youth interpretation of the wording of instruments, as well as the valuation of different outcome domains. For example, the link between academic success and mental health has been found to be much weaker for African American, and female-gendered youth. One theory, postulates that since both African American youth and females learn that they are not expected to do well in school, they come to devalue the importance of school and it therefore plays a less significant role in self-esteem and self-evaluation (Eccles and Gootman, 2002).
In sum, rigorous research evaluating both how these assets are manifested and valued in different cultural groups, as well as whether or not interventions to change assets have effects on future indicators of well-being for any or all youth is still needed.

**Where to Find Measurement Tools**

Selecting which measurement tool is most appropriate is not as simple as locating a tool with documented validity and reliability; it is essential to find the tool most suited to the capacity of a program, the population it seeks to engage as well as the outcomes it seeks to measure. Below is a far from exhaustive, albeit concise, list of pertinent web resources that are easy to navigate, include a multitude of free or low-cost tools and that use language that most closely matches the descriptions of outcomes and indicators used in this paper.

**The Center for Substance Abuse Prevention**

The Center for Substance Abuse Prevention (CSAP) has developed a compendium of evaluation measures to assess actual use of substances and risk and protective factors related to substance use. Most measures in the compendium are reasonable in length, free, in the public domain, and widely used. CSAP has provided reliability and validity information about each measure, including information about the target population. Since the compendium was originally designed to be a resource for programs seeking to prevent the outcome of substance abuse, the majority of the measures under the first two domains (ATOD and Individual/Peer) tap attitudes, beliefs, and behaviors related to substance use. However, measures included in the remaining three sections (Family, School, and Community) may be applicable to a wide range of programs since they assess individual and environmental risk and protective factors that cut across many problem domains. Some of the individual/peer domain items tap stress
management, problem solving, social skills, goal setting, assertiveness, leadership, and antisocial behavior. More information can be found at:

http://www.activeguidellc.com/cmi/menu_frameset.htm

The Compendium of Assessments and Research Tools

The Compendium of Assessments and Research Tools (CART) is an exceptionally well organized resource for locating instruments that measure variables and attributes in a number of domains, including youth outcomes. Furthermore, CART has an easy search engine that allows the user to select areas of youth outcomes, and then provides you with an extensive, although not exhaustive, list of tools available, including information on their reliability, availability and author contact information. http://cart.rmcdenver.com/

The Youth Outcomes Compendium

Produced by Child Trends and the Edna McConnell Clark Foundation, the Youth Outcomes Compendium serves as a youth outcomes and indicator resource for people working in the field of youth development. Although it categorizes youth outcome domains across four slightly different domains of adolescent development, there is much overlap with the model used in this paper; in fact, the research synthesized within the Youth Outcomes Compendium informed the making of the model produced by the National Research Council of the Institute of Medicine and subsequently this paper. Subsequently the website that houses this compendium contains a wealth of information about many of the overlapping outcomes, including detailed literature reviews on each of outcomes. Most importantly, within the literature reviews are descriptions of measurement tools, their availability, and frequently the tool itself is included
free, for easy download and practitioner use.

http://www.childtrends.org/what_works/clarkwww/compendium_intro.asp

**Conclusion**

The many changes, challenges and opportunities in adolescence provide youth serving practitioners with a multitude of opportunities to aid youth in thriving and successfully transitioning into adulthood. The model delineated in this paper provides practitioners with a framework to guide this work of influencing adolescent outcomes in positive ways. Although the research community has yet to determine which assets show the most promise for manipulation in pursuit of positive outcomes, the research does indicate that the more of the personal and social assets a youth has, the higher the likelihood they well experience positive development outcomes in adolescence. Furthermore, tracking programmatic success in influencing these outcomes with the use of measurement tools will serve not only to provide evidence of efficacy to funders, as well as inform the internal program improvement process. Tracking outcomes also has the potential to begin to fill in these gaps in the literature and thereby advance our understanding of how small community-level programs can make a difference in influence adolescent health and well-being.
References


