Leadership and Infrastructure and Improving the Quality of Youth Policies, Programs, and Services

Over the course of its work, the Task Force on Adolescent Health concluded that improving the health of adolescents between ages 10 and 20 will require a new and comprehensive approach. This approach recognizes that:

1. Families, schools, communities, health care providers, and policies all make important contributions to adolescent health and well-being.
2. Effective youth-development approaches aimed at keeping adolescents healthy and on track in their lives will prevent a wide range of adolescent health problems.
3. Many evidence-based strategies to address one specific type of adolescent health problem often will simultaneously address other health problems because of the clustering of adolescent risk behaviors.

The orientation toward evidence-based strategies needs to be combined with an increased level of accountability.

To employ this approach, North Carolina will need to increase collaboration among the wide variety of agencies that address specific adolescent-health issues; develop leadership to champion the improvement of the health of all adolescents—who may be in or out of school—from an evidence-based perspective; and provide resources to inform implementation of evidence-based policies, programs, and services addressing the unique needs of adolescents in a comprehensive way.

Furthermore, the orientation toward evidence-based strategies needs to be combined with an increased level of accountability. There are many organizations (including governmental units) in our state dedicated to improving the health of adolescents, and their energy provides inspiration for us all. But in this era of increased accountability for limited resources, effort and enthusiasm are not enough. Organizations must be good stewards and utilize public health dollars more efficiently by choosing and exercising fidelity to proven models and welcoming monitoring and accountability requirements by funding partners. Research shows that fidelity to proven models is essential to replicating their success.[1] Monitoring an organization's fidelity to proven models ensures the greatest return for the dollar and provides guidance for future funding. Funders need to design and implement systems and measures to track accountability. These systems of accountability may be difficult for many funders to implement and for funded programs to welcome. But with the end goal of increasing the maximum return on investment, it is a new environment to which all must adapt.

Strengthening the Leadership and Infrastructure for Adolescent Health

Currently North Carolina has not identified a core leadership or resource group whose main concern is adolescent health. This Task Force provided many key stakeholders in child and adolescent health a first-ever opportunity to collectively and comprehensively focus attention on young people between 10 and 20 years of age. This process led to the recognition of the need for a state-based resource center that focuses exclusively on improving adolescent health and well-being in North Carolina via the above-listed activities. The federal Maternal and Child Health Bureau (MCHB) supports a national Adolescent Health Resource Center that is designed to assist in the development of state-specific resource centers, and it would be available to provide technical support during development and early operations[a]. A North Carolina resource center would provide a single point of contact for North Carolinians—health professionals, community leaders, and the public—for learning more about adolescent health. There are a wide variety of public and private resources and programs available across the state, but they are typically uncoordinated and sometimes conflict with one another. A resource center that collects and disseminates all adolescent health data and increases collaboration would support the many efforts to improve adolescent health. The Center for Early Adolescence (CEA), a unit within the University of North Carolina at Chapel Hill, founded by Joan Lipsitz, operated from 1978 to 1994 and was a national leader in focusing attention on young adolescents. It provided technical assistance to schools and replied to thousands of inquiries from parents each year.[2] The experience of the CEA illustrates the gap—especially for parents—that an adolescent health resource center could fill. Therefore, the Task Force recommends:

Recommendation 3.1: Establish an Adolescent Health Resource Center

An Adolescent Health Resource Center should be established within the Women and Children's Health Section of the Division of Public Health. The Center should be staffed by an Adolescent Health Director, an Adolescent Health Data Analyst, and an Adolescent Health Program Manager. Center staff should be responsible for supporting adolescent health around the state by coordinating the various health initiatives; expanding the use of evidence-based programs, practices, and policies; and providing adolescent health resources for youth, parents, and service providers. As part of its work, the Center should create and maintain a website that serves as a gateway to resources on adolescent health in North Carolina as well as provide links to relevant national resources. The North Carolina General Assembly should appropriate $300,000[b] in recurring funds beginning in SFY 2011 to support this effort.

a http://www.med.umn.edu/peds/ahm/programs/sahrc/aboutus/home.html

b The Division of Public Health estimates it would cost $300,000 in salary and benefits to support a health director, data analyst, and program manager for the Adolescent Health Resource Center. (Petersen R. Chief, Chronic Disease and Injury Section, Division of Public Health, North Carolina Department of Health and Human Services. Oral communication. March, 25, 2009.

In addition, the Adolescent Health Resource Center could help address emerging and understudied issues that the adolescent health community has identified but are less well-known among parents and the public at large.

Improving the Quality of Programs and Services for Youth

Increasingly, policymakers, researchers, and practitioners are turning to evidence-based, best, or promising strategies to ensure that public and private investments are used effectively and strategically. Often, in the past, health intervention programs and services have been based on what leaders thought or hoped would work, without any real evidence of their efficacy. Alternatively, an initiative that works in one location may be attempted in another community without fidelity, i.e. not following the same program structure. Lack of fidelity to the model often causes programs to fail or not produce the expected results. In the field of adolescent health behaviors, there are a growing number of evidence-based programs that have been rigorously evaluated and shown to produce the desired outcomes. In an environment of increasing fiscal challenges, it is important to maximize the value of funding. Thus, the Task Force focused its work on identifying evidence-based policies, programs, and services to improve adolescent health behaviors and outcomes. The policies, programs, and services identified are the basis of the Task Force recommendations.

Evidence-based programs or strategies are those that have been subject to rigorous evaluation and have been shown to produce positive outcomes.

Evidence-Based Programs

Essentially, evidence-based programs or strategies are those that have been subject to rigorous evaluation and have been shown to produce positive outcomes. Typically, an intervention is considered "evidence-based" when it has been subject to multiple evaluations across different populations, the evaluations include large enough sample sizes to be able to measure meaningful effects of the intervention, and when the evaluations consistently find positive outcomes.[3] The best evidence stems from double-blind randomized control studies, where the individuals who are part of the study ("subjects") are randomly assigned to an intervention or nonintervention ("control") group, and neither the researchers nor the subjects know which group the subjects are in. Any changes in health status as a result of the intervention can generally be attributed to the intervention because individuals were randomly assigned to a control or intervention group. While considered the "gold standard," randomized control trials (RCTs) are usually expensive and take a long time to conduct. RCTs are most often used to test clinical interventions and are more difficult to conduct for the testing of community-wide interventions.

Population-based prevention interventions are often evaluated through other study designs. For example, researchers may use a comparison-group study (examining the outcomes of an intervention in one community with a "matched" group or another community with similar characteristics that did not receive the intervention). Or they may conduct pre-post studies (which measure the changes on the same individuals before and after the intervention).

While these evaluation studies are generally less expensive and quicker to conduct, the findings are not as robust—that is, the evidence is not considered as strong—as those that come from a well-designed RCT.

The Task Force on Adolescent Health used a variety of resources to identify evidence-based policies, programs, and services.

The Task Force on Adolescent Health used a variety of resources to identify evidence-based policies, programs, and services. The US Task Force on Community Preventive Services produces the Guide to Community Preventive Services (Community Guide).[c] This was one of the NCIOM Task Force's primary sources of information on evidence-based strategies, such as tobacco taxes to reduce youth smoking and school-based programs to reduce violence, substance use, and overweight and obesity. The US Preventive Services Task Force (USPSTF)[d] was used when examining potential clinical interventions, such as the type of health care policies or programs that will reduce STDs and teen pregnancy. Other resources were also used, depending on the topic. (See Appendix B.) For example, Blueprints for Violence Prevention identifies evidence-based strategies to reduce youth violence, aggression, delinquency, and substance abuse.[e] Similarly, the US Department of Education maintains a website of evidence-based interventions to improve educational outcomes.[f] Additionally, there are other national organizations that have examined the evidence and made recommendations for subjects that were not addressed through these resources, including the Institute of Medicine of the National Academies and professional associations such as the American Academy of Pediatrics.

Unfortunately, there are not well-researched evidence-based strategies for all of the risk factors identified by the NCIOM Task Force. Some interventions have not yet been subject to sufficient evaluation to draw a definitive conclusion about their effectiveness. The intervention may not have been subject to multiple evaluations (in different settings) or the intervention may be too new to have been studied. In these instances, the Task Force tried to identify best practices—that is, practices where there is scientific evidence to suggest that this intervention *might* be effective. There may be some evidence from the published scientific literature but not a sufficient number or quality of studies to warrant designation as an evidence-based practice. Alternatively, there may have been internal program evaluations or other evidence of positive results that have not been published in the scientific literature.

c The US Task Force on Community Preventive Services is appointed by the Director of the Centers for Disease Control and Prevention (CDC) to identify evidence-based community-based prevention initiatives. The Guide to Community Preventive Services (Community Guide) provides information on recommended evidence-based interventions to improve public health and systematic reviews of the evidence behind multiple strategies for major public health issues. http://www.thecommunityguide.org/index.html.

d The US Preventive Services Task Force studies preventive clinical services and issues recommendations to guide clinical care for a variety of health issues ranging from nutrition to sexually transmitted diseases. http://www.ahrq.gov/CLINIC/uspstfix.htm.

e The Blueprints for Violence Prevention Program out of the Center for the Study and Prevention of Violence at the University of Colorado at Boulder systematically and continuously reviews the research on violence and drug abuse programs to determine which are exemplary and grounded in evidence. http://www.colorado.edu/cspv/blueprints/index.html

f The US Department of Education maintains a website of evidence-based programs that have been shown to improve educational outcomes. http://ies.ed.gov/ncee/wwc/.

The Task Force also considered promising practices when it was unable to identify either evidence-based or best practices. Promising practices include interventions that may have yielded positive intermediate effects (e.g. changes in knowledge) but have not been tested to determine whether it produced changes in health outcomes (e.g. behavioral changes).[4]

Overall, the Task Force sought to identify policies, programs, and services that have the greatest likelihood of producing positive health outcomes—either through reductions in risk factors or improvements in health-promoting behaviors.

Implementing Evidence-Based Programs and Services in Communities

Cultural Fit of Programs and Services

Evidence-based strategies have typically been proven in a select set of communities. Although the highest grade of evidence involves those programs that have evidence demonstrated across multiple populations, in practice, most programs were evaluated in a few populations and the effectiveness is assumed to be replicable in other populations. However, each community is unique, and even if there are large similarities among types of communities, differences in outcomes for interventions might occur. Thus, providing evidence-based and promising policies, programs, and services for youth is essential to impact health outcomes but is not enough alone. When designing or choosing health policies, programs, and services for youth, it is important to be sensitive to the diverse cultural norms and beliefs of the adolescents and families targeted. Factors concerning individuals such as age, gender, race and ethnicity, sexual orientation, disability status, and cultural background play a significant role in determining health attitudes, behaviors, and outcomes. Ensuring that health policies, programs, and services are culturally appropriate, linguistically competent, and appropriate for the needs of diverse populations of adolescents can be challenging, but they are critical to ensure that investments in improving adolescent health and well-being are effective.[5] In other words, the needs, resources, and circumstances of the community must be considered when implementing programs. For example, a program relying on public transit may not be a reasonable strategy in rural settings. The consideration of the population being addressed is as important as model fidelity.

When designing or choosing health policies, programs, and services for youth, it is important to be sensitive to the diverse cultural norms and beliefs of the adolescents and families targeted.

Developmentally Supportive Settings

In addition to ensuring that programs and services are evidence-based and a good fit with the community, it is important that programs and services targeting youth provide developmentally supportive settings. Youth are influenced by the settings in which they spend their time such as families homes, schools, neighborhoods, and community programs. The National Research Council and

Institute of Medicine's Committee on Community-Level Programs for Youth has identified eight features of daily settings that are important for positive adolescent development[g] including:

Physical and psychological safety: safe and health-promoting facilities

Appropriate structure: clear and consistent rules and expectations, continuity and predictability, and age-appropriate monitoring

Supportive relationships: caring, responsive, trustworthy, supportive, loving adults

Opportunities to belong: opportunities for meaningful inclusion, engagement, and integration for all youth

Positive social norms: expectations, rules for behavior, values, and morals;

Support for efficacy and mattering: youth-based practices that support enabling, responsibility, and meaningful challenge

Opportunities for skill building: opportunities to learn physical, intellectual, psychological, emotional, and social skills and to develop social and cultural capital

Integration of family, school, and community efforts: coordination and synergy among family, school, and community.

Research shows that programs designed to strengthen families, often through teaching parenting and communication skills can have a positive impact on youth health behaviors.

These features help set the stage for adolescents to have the kinds of positive experiences that contribute to healthy development. They build upon and complement one another in positive ways. Research suggests that the more components a setting has, the greater the contribution to positive youth development. Youth who do not experience any of these features anywhere in their daily lives are at risk of becoming involved in risky behaviors or experiencing poor outcomes.[6] Catherine D. DeAngelis, MD, a renowned expert and the first female editor of the *Journal of the American Medical Association*, has suggested that in order to reduce the prevalence of adolescent health-risk behaviors we need to "Start early, include everyone possible, and don't ever stop."[7] Investing in adolescents and their families is one of the surest ways to reduce risk behaviors.

Supporting and Strengthening Families

Providing high-quality programs and services for adolescents is essential to improving their health and well-being, however, research shows that supporting and strengthening their families is also critical.[7] Although adolescence is a time of growing independence, families continue to provide physical necessities, emotional support, learning opportunities, moral guidance, and skills needed

g See Chapter 2 for more information on positive youth development.

in preparation for adulthood. It is critical that parents continue to provide nurturing, responsive relationships that promote healthy relationships and development throughout adolescence. During a time when youth typically begin to test boundaries and try new things, families can help their children make healthy decisions by providing appropriate monitoring, communication, and supervision.[1] Research has shown that family functioning plays a critical protective role when it comes to health risk behaviors.[8]

The vast majority of parents of teenagers in North Carolina report that they would like to know more about adolescent health and about how to communicate with their teenagers.[9] There is wealth of information about what parents can do to help their adolescents develop positively towards adulthood, but parents do not always know how to access this information. Incorporating parent education into programs and services for adolescents would benefit both youth and their parents.

Furthermore, research shows that programs designed to strengthen families, often through teaching parenting and communication skills can have a positive impact on youth health behaviors.[1] For example, the Strengthening Families Program (SFP), which teaches parent skills, children's life skills, and family skills to families with children ages 3-16, has been shown to reduce behavioral, emotional, academic, and social problems among high-risk youth. In addition SFP increases protective factors by improving family relationships and improving adolescent life and social skills.[10] Family therapy and in-home services, both when children are young and during adolescence, have also been shown to strengthen families and improve outcomes for high-risk youth.[11] Programs and services that work to reduce risk factors and increase protective factors can have a positive impact on a wide range of adolescent health risk behaviors.

To improve the effectiveness of interventions designed to improve adolescent health behaviors and outcomes, the Task Force recommends:

Recommendation 3.2: Fund Evidence-Based Programs that Meet the Needs of the Population Being Served (PRIORITY RECOMMENDATION)

Public and private funders supporting adolescent initiatives in North Carolina should place priority on funding evidence-based programs to address adolescent health behaviors, including validation of the program's fidelity to the proven model. Program selection should take into account the racial, ethnic, cultural, geographic, and economic diversity of the population being served. When evidence-based programs are not available for a specific population, public and private funders should give funding priority to promising programs and to those programs that are theory-based and incorporate elements identified in the research literature as critical elements of effective programs.

a) The North Carolina General Assembly should amend the purpose of the North Carolina Child and Family Leadership Council[h] to include increasing coordination between North Carolina Departments that provide funding, programs, and/or services to youth. Whenever possible the North Carolina Child and Family Leadership Council should encourage departments and agencies to adopt common evidence-based community prevention programs that have demonstrated positive outcomes for adolescents across multiple protective and risk behaviors, and to share training and monitoring costs for these programs. This initiative should focus on evidence-based strategies that have demonstrated positive outcomes for adolescents in reducing substance use, teen pregnancies, violence, and improving mental health and school outcomes. To facilitate this work:

1) The North Carolina Child and Family Leadership Council (Council) should work to identify a small number of evidence-based programs that have demonstrated positive outcomes across multiple criteria listed above. As part of this work, the Council should collaborate with groups that have already done similar work to ensure coordinated efforts. All youth-serving agencies should agree to place a priority on funding the evidence-based programs identified. Each agency should dedicate existing staff to provide technical assistance and support to communities implementing one of the chosen evidence-based programs.

2) Agencies should identify state and federal funds that can be used to support these initiatives. Each agency should work to redirect existing funds into evidence-based programs and to use new funds for this purpose as they become available. Agencies can support programs individually or blend their funding with funds from other agencies.

3) Funding should be made available to communities on a multiyear and competitive basis. Funding priority should be given to communities that are high-risk based on the behaviors listed above. Communities could apply to use a best or promising program or practice if they can demonstrate why existing evidence-based programs and practices will not meet the needs of their community. In such cases, a program evaluation should be required to receive funding.

4) The North Carolina General Assembly should appropriate $25,000[i] in recurring funds beginning in SFY 2011 to the Council to support their work.

h The North Carolina Child and Family Leadership council includes the Secretary of the Department of Health and Human Services, the Superintendent of the Department of Public Instruction, the Chair of the State Board of Education, the Secretary of the Department of Juvenile Justice and Delinquency Prevention, the Director of the Administrative Office of the Courts, and others as appointed by the Governor.

i $25,000 would be used to support 1/3 of a full-time employee at the Department of Administration to provide administrative support to the North Carolina Child and Family Leadership Council.

b) The agencies and other members of the Alliance for Evidence-Based Family Strengthening Programs should identify funds that could be blended to support family strengthening programs that focus on families of adolescents.

c) North Carolina foundations should fund pilots and evaluations of existing evidence-based parent-focused interventions. If found to be effective, the North Carolina General Assembly and North Carolina foundations should support statewide program dissemination and implementation. Pilot programs should include those targeted for specific health domains that are aimed at universal and selected populations.

Multifaceted Interventions

As discussed in Chapter 1, the Task Force work was guided by the understanding that changes in population health require multilevel interventions, or a socioecological approach. Although many of the recommendations in this report focus on interventions in a single setting or for a single health risk behavior, the Task Force encourages comprehensive community-wide approaches that address multiple determinants of health.

This type of community approach may hold the most promise in changing adolescent health risk behaviors. The CDC notes that:[5]

> Communities experiencing the most success in addressing health and quality-of-life issues have involved many components of their community: public health, health care, business, local governments, schools, civic organizations, voluntary health organizations, faith organizations, park and recreation departments, and other interested groups and private citizens.

Communities that are interested in improving the health of certain at-risk groups, like adolescents, have found more success when they work collaboratively within their communities. This is because many health problems relate to more than one behavioral risk factor as well as social and environmental factors, as noted in Chapter 2. [5] Comprehensive community-wide evidence-based approaches to health problems require a lot of time, leadership, and funding; therefore, the Task Force recommends funding demonstration projects using this approach in a select number of communities and expanding policies, programs, and services that are shown to be effective. The Task Force recommends:

Recommendation 3.3: Support Multifaceted Health Demonstration Projects

The North Carolina General Assembly should provide $1.5 million annually for five years beginning in 2011 to the Division of Public Health to support four multicomponent, locally-implemented adolescent health demonstration projects. Funds should be made available on a competitive basis.

a) **To qualify for funding, the demonstration project should involve families, adolescents, primary health care providers (which may include school-based health centers), schools, Juvenile Crime Prevention Councils, and local community organizations. Projects must include evidence-based components designed to improve health outcomes for at-risk adolescent populations and increase the proportion of adolescents who receive annual well visits that meet the quality of care guidelines of the US Preventive Services Task Force, Centers for Disease Control and Prevention, American Academy of Pediatrics/Bright Futures, and the Advisory Committee on Immunization Practices.**

b) **Priority will be given to projects that recognize and comprehensively address multiple adolescent risk factors and to counties that have greater unmet health or educational needs, including but not limited to counties that have graduation rates below the state average, demonstrated health disparities or health access barriers, or high prevalence of adolescent risky health behaviors.**

Demonstration projects will be selected and provided with technical assistance in collaboration with the Department of Public Health (DPH), Department of Public Instruction, Community Care of North Carolina, and the NC School Community Health Alliance. These groups will work collaboratively to identify appropriate outcome indicators, which will include both health and education measures. As part of this project, DPH should contract for an independent evaluation of the demonstration projects.

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