

During adolescence many of the behaviors and health habits that affect lifelong health trajectories are established. Thus, investing in the health and well-being of adolescents can have far-reaching benefits. Although adolescence is traditionally a time of robust physical health, data show that far too many North Carolina youth put themselves at risk for death and serious health problems by engaging in risky health behaviors. Engagement in such risk behaviors can have serious short- and long-term health consequences. Fortunately, behaviors are modifiable, and investments to reduce youth engagement in risky health behaviors can have both immediate and long-term health benefits. Furthermore, improving adolescent health can also positively impact academic success and social and emotional well-being. Therefore it is critical that adolescents develop the skills and knowledge needed to make decisions that lead them to engage in health-promoting, rather than health-compromising, behaviors. Adolescents need support—at home, at school, in clinics, in the community—to help them develop the skills and knowledge needed to be healthy adolescents, healthy adults, and productive members of society in the future.

The environment created by parents, health professionals, schools, communities, and policymakers contributes to the health and well-being of youth. A positive environment for youth development provides support and opportunities to increase youth strengths and positive assets while also working to reduce risk factors. Research shows that multifaceted strategies to reduce youth risk behaviors work. North Carolina's coordinated campaign to reduce youth smoking involved using evidence-based strategies to change individual behaviors and community norms; change state and local policies; and increase supports and services for youth trying to quit smoking. In five years the campaign was able to reduce smoking among high school students by 30% and among middle school students by 52%.^a This type of multifaceted, coordinated approach is needed to address other youth risk behaviors. Investments made today to improve the health and well-being of North Carolina's youth will help ensure the state's future prosperity.

The North Carolina Metamorphosis Project (NCMP), funded by The Duke Endowment, asked the North Carolina Institute of Medicine to convene the Task Force on Adolescent Health to develop a 10-year plan to improve the health and well-being of North Carolina's adolescents. Specifically, the Task Force was asked to produce evidence-based recommendations to improve services, programs, and policies to address the high-priority health needs of North Carolina's adolescents between 10 and 20 years of age over the next decade. This final report provides a roadmap for investments in adolescent health over the next decade.

Below is an abridged list of the Task Force recommendations, along with the agency or organization charged with addressing the recommendation. A list of the complete Task Force recommendations can be found in Appendix A. Ten of the 32 recommendations were considered by the Task Force to be priority recommendations. However, all the recommendations are important.



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^a Shah V. North Carolina initiatives to reduce tobacco use: partII. Presented to the North Carolina Institute of Medicine Task Force on Prevention; May 8, 2008; Cary, NCC. Access June 29, 2009.

	NCGA	Education	DHHS	Health Professionals and Organizations	Insurers	Others
Strengthening Adolescent Health Leadership and Infrastructure and Improving the Quality of Youth Policies, Programs, and Services Recommendations						
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 support adolescent health around the state by coordinating health initiatives; expanding the use of evidence-based programs, practices, and policies; and providing adolescent health resources for youth, parents, and service providers. The North Carolina General Assembly should appropriate \$300,000 in recurring funds to support this effort.	✓ \$300,000 (SFY 2011) (R)		✓ DPH			✓
3.2: Fund Evidence-Based Programs that Meet the Needs of the Population Being Served (PRIORITY RECOMMENDATION) Public and private funders supporting adolescent health initiatives in North Carolina should place priority on funding evidence-based programs, including validation of the program's fidelity to the proven model, to address adolescent health behaviors across multiple protective and risk factors. Program selection should take into account the racial/ethnic, cultural, geographic, and economic diversity of the population being served.	✓ \$25,000 (SFY 2011) (R)	✓	✓			✓ NC Found, CFLC
3.3: Support Multifaceted Adolescent 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 aimed at improving health outcomes for at-risk adolescents. To qualify for funding, the demonstration project should have evidence-based components and involve families, adolescents, health care providers (which may include school-based health centers), schools, Juvenile Crime Prevention Councils, and local community organizations. DPH should contract for an independent evaluation of the demonstration projects.	✓ \$1.5 M (SFY 2011) (R)	✓ DPI, SCHA	✓ DPH	✓		✓ JCPC, CBO, CCNC

	NCGA	Education	DHHS	Health Professionals and Organizations	Insurers	Others
Improving Adolescent Health Care Recommendations						
4.1: Cover and Improve Annual High-Quality Well Visits for Adolescents up to Age 20 All public and private health insurers should cover annual well visits for adolescents 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 Advisory Committee on Immunization Practices. Community Care of North Carolina (CCNC), Area Health Education Centers (AHEC) Program, and the Division of Public Health should develop and pilot tools and strategies to help primary care providers deliver high quality adolescent health checks. North Carolina's foundations should provide \$500,000 over three years to support and evaluate this effort.	✓ \$500,000 (SFY 2011) (R)		✓ DMA	✓	✓ PI, SHP	✓ CCNC, AHEC
4.2: Expand Health Insurance Coverage to More People In the absence of everyone having access to high-quality, affordable health insurance, the North Carolina General Assembly (NCGA) should begin expanding coverage to groups that have the largest risk of being uninsured, including children and adolescents, ages 0-20, with family incomes up to 300% of the federal poverty guidelines. Additionally the NCGA should require insurance companies to offer parents the option to continue dependent coverage until the child reaches age 26, regardless of student status.	✓ (Funding TBD)		✓ DMA		✓ PI, SHP	
4.3: Fund School-Based Health Services in Middle and High Schools (PRIORITY RECOMMENDATION) The Department of Public Instruction and the Division of Public Health should work together to improve school-based health services in middle and high schools. The North Carolina General Assembly should appropriate \$7.8 million in recurring funds in SFY 2011, \$13.1 million in recurring funds in SFY 2012, and additional funding in future years to support school-based health services, including school based- and school-linked health centers, school nurses, and Child and Family Support Teams in	✓ \$7.8M (SFY 2011) (R), \$13.1 M (SFY 2012) (R)	✓ DPI	✓ DPH			✓ SBLHC, NC Found

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middle and high schools. North Carolina foundations should fund evaluations of the effectiveness of these initiatives.						
4.4: Develop a Sixth Grade School Health Assessment The Women and Children's Health Section of the Division of Public Health should convene a working group to develop a plan to operationalize a sixth grade health assessment for all students.		✓ DPI	✓ DPH	✓		✓ CCNC
Improving Adolescent Health through Education Recommendations						
5.1: Increase the High School Graduation Rate (PRIORITY RECOMMENDATION) The North Carolina State Board of Education and the North Carolina Department of Public Instruction should expand efforts to support and further the academic achievement of middle and high school students with the goal of increasing the high school graduation rate. The SBE and DPI should work with others to examine the experiences of other states and develop cost estimates to implement initiatives to increase the high school graduation rates and present this information to the North Carolina General Assembly by April 2010.	✓ Funding TBD	✓ SBE, DPI				
5.2: Enhance North Carolina Healthy Schools (PRIORITY RECOMMENDATION) The North Carolina School Health Forum should be reconvened and expanded to ensure implementation of the coordinated school health approach and expansion of the North Carolina Healthy Schools Partnership (NCHSP). The Department of Public Instruction (DPI) should expand the NCHSP to include a local healthy schools coordinator in each local education agency (LEA). The North Carolina General Assembly should appropriate \$1.64 million in recurring funds beginning in SFY 2011, increased by an additional \$1.64 in recurring funds in each of the following six years (SFY 2012-2017), for a total of \$11.5 million recurring funds to support these positions. The NCGA should appropriate \$225,000 in recurring funds to NCHSP to provide monitoring, evaluation, and technical assistance to the LEAs through the local healthy schools coordinators.	✓ \$1.64 M (SFY 2011) (R), \$1.64 M (SFY 2012) (R)	✓ SBE, DPI, LEA, SHAC, PTA, NCHSP	✓ DPH			✓ NCSHF

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5.3: Actively Support the Youth Risk Behavior Survey and School Health Profiles Survey The North Carolina State Board of Education should support and promote the participation of Local Education Agencies in the Youth Risk Behavior Survey and the School Health Profiles Survey.		✓ SBE, LEA				
5.4: Revise the Healthful Living Standard Course of Study The North Carolina General Assembly (NCGA) should require the State Board of Education (SBE) to require schools to use evidence-based curricula when available to teach the objectives of the Healthful Living Standard Course of Study and to phase in over five years an increase in the Healthful Living requirements so that students would receive 225 minutes per week of Healthful Living instruction in middle schools and 2 units for high schools. The NCGA should appropriate \$1.15 million in recurring funding beginning in SFY 2011 to the North Carolina Department of Public Instruction (DPI) to provide grants to Local Education Agencies (LEAs) to implement evidence-based curricula. The SBE should encourage DPI to develop healthful living electives beyond the required courses.	✓ \$1.15M (SFY 2011) (R)	✓ SBE, DPI, LEA, NCHSP				
Preventing Unintentional Injury Recommendations						
Recommendation 6.1: Improve Driver's Education (PRIORITY RECOMMENDATION) The North Carolina General Assembly should continue funding driver education through the North Carolina Department of Transportation (DOT). The DOT should work to improve the comprehensive training program for young drivers. Pilot programs to improve driver education should be developed, implemented, evaluated, and, if shown to be successful, expanded.	✓	✓				✓ DOT, GHSP
6.2: Strengthen Driving While Intoxicated (DWI) Prevention Efforts All North Carolina state and local law enforcement agencies with traffic responsibilities should actively enforce DWI laws throughout the year. The North Carolina General Assembly (NCGA) should	✓ \$750,000 (SFY 2011) (R)		✓ DPH			✓ State and Local Law Enforcement, GSHP, HSRC

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increase the reinstatement fee for DWI offenders by \$25. Funds from the increased DWI fees should be used to support DWI programs. The NCGA should appropriate \$750,000 in recurring funding in SFY 2011 to the North Carolina Division of Public Health to develop and implement an evidence-based dissemination plan for the existing <i>Booze It & Lose It</i> campaign. The plan should focus on reaching adolescents and young adults.						
6.3: Fund Injury Prevention Educators The North Carolina General Assembly should appropriate \$300,000 in recurring funds to the University of North Carolina Injury Prevention Research Center for the dissemination of evidence-based injury prevention programs and policies to schools and youth sports clubs across the state.	✓ \$300,000 (SFY 2011) (R)					✓ IPRC
Reducing Substance Use and Improving Mental Health for Adolescents and Young Adults Recommendations						
7.1: Review Substance Abuse and Mental Health Prevention and Services in Educational Settings The North Carolina General Assembly should direct the State Board of Education, Office of Non-Public Education, North Carolina Community College System, and University of North Carolina System to review their existing substance abuse and mental health prevention plans, programs, and policies, and the availability of substance abuse and mental health screening and treatment services and to report a description of their prevention plans to the North Carolina General Assembly biennially beginning in 2011.	✓	✓ SBE, DPI Office of Non-Public Education, UNC, NCCCS	✓ DMHD DSAS			
7.2: Support the North Carolina Youth Suicide Prevention Plan The North Carolina Youth Suicide Prevention Task Force along with the Division of Public Health's Injury and Violence Prevention Branch should implement the recommendations in North Carolina's Plan to Prevent Youth Suicide. The North Carolina General Assembly should appropriate \$112,500 in recurring funds in SFY 2011 to support this effort.	✓ \$112,500 (SFY 2011) (R)		✓ DPH			✓ NC Youth Suicide Prevention Task Force

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7.3 Develop and Implement a Comprehensive Substance Abuse Prevention Plan The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should develop a comprehensive substance abuse prevention plan for use at the state and local levels. The plan should increase the capacity at the state level and within local communities to implement a comprehensive substance abuse prevention system, prioritizing efforts to reach children, adolescents, young adults, and their parents. Priority should be given to evidence-based prevention programs that have shown to have positive impacts on multiple outcomes, including but not limited to preventing or reducing substance use, improving emotional well-being, reducing youth violence, and/or reducing teen pregnancy. The North Carolina General Assembly should appropriate \$1.95 million in SFY 2011 and \$3.72 million in SFY 2012 in recurring funds to DMHDDSAS to pilot these prevention plans in six counties or multi-county efforts and to evaluate these efforts. If successful, the comprehensive prevention plans should be implemented statewide.	✓ \$1.95 M (SFY 2011) (R), \$3.72 M (SFY 2012) (R)	✓ LEA, C&U	✓ DMHDDSAS, LME, LHD			✓ CBO, Others
7.4: Increase Alcohol Taxes The North Carolina General Assembly should index the excise taxes on malt beverages and wine to the consumer price index so they can keep pace with inflation. The increased fees should be used to fund effective prevention and treatment efforts for alcohol, tobacco, and other drugs.	✓					
7.5: Drinking Age Remain 21 The North Carolina General Assembly should not lower the drinking age to less than age 21.	✓					
7.6: Integrate Behavioral Health into Health Care Settings The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should work with the Office of Rural Health and Community Care (ORHCC), Governors Institute on Alcohol and Substance Abuse, and Area Health Education Centers (AHEC) to expand the use of	✓ \$2.25 M (SFY 2011) (R)		✓ DMHDDSAS, ORHCC	✓		Gov. Inst., CCNC, ICARE

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Screening, Brief Intervention and Referral into Treatment (SBIRT) to increase the early identification and referral into treatment of patients with problematic substance use. A similar evidence-based model for screening, brief intervention, and referral to treatment should be identified and expanded to increase the early identification and referral of patients with mental health concerns. ORHCC should lead efforts to support and expand co-location in primary care practices of licensed health professionals trained in providing mental health and substance abuse services. The North Carolina General Assembly should appropriate \$2.25 million in recurring funds in SFY 2011 to support these efforts.						
7.7: Ensure the Availability of Substance Abuse and Mental Health Services for Adolescents (PRIORITY RECOMMENDATION) The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMHDDSAS) should develop a plan for a comprehensive system that is available and accessible across the state to address adolescents' substance abuse treatment needs.			✓ DMHDDSAS	✓		
Preventing Youth Violence Recommendations						
8.1: Enhance Injury and Violence Surveillance The North Carolina General Assembly should amend the Public Health Act § 130A-1.1 to include injury and violence prevention as an essential public health service and appropriate \$175,000 in recurring funds in SFY 2011 to the Division of Public Health to develop an enhanced intentional and unintentional injury surveillance system with linkages between data systems. The Department of Juvenile Justice and Delinquency Prevention should collect gang activity data each year.	✓ \$175,000 (SFY 2011) (R)		✓ DPH DMHDDSAS OCME	✓		✓ DJJDP, DOT, GHSP, CPC
8.2: Support Evidence-Based Prevention Programs in the Community (PRIORITY RECOMMENDATION) The Department of Juvenile Justice and Delinquency Prevention should strongly encourage Juvenile Crime Prevention Councils					✓	✓ DJJDP, JCPC

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to fund evidence-based juvenile justice prevention and treatment programs, including prevention of youth violence and substance use, and community-based alternatives to incarceration.						
8.3: Raise the Age of Juvenile Court Jurisdiction The North Carolina General Assembly should enact legislation to raise the age of juvenile court jurisdiction from 16 to 18.	✓					✓ DJJDP
Reducing Teenage Sexual Activity and Preventing Sexually Transmitted Diseases and Teenage Pregnancies Recommendations						
9.1: Increase Immunization Rates for Vaccine-Preventable Diseases The North Carolina Division of Public Health (DPH) should aggressively seek to increase immunization rates for all vaccines recommended by the Centers for Disease Control (CDC) and Prevention Advisory Committee on Immunization Practices, including but not limited to the human papillomavirus (HPV) vaccine which is not currently covered through the state's universal childhood vaccine distribution program. The North Carolina General Assembly should appropriate \$1.5 million in recurring funds in SFY 2011 to support this effort. All public and private insurers should provide first dollar coverage for all CDC recommended vaccines that the state does not provide through the Universal Child Vaccine Distribution Program.	✓ \$1.5 M (SFY 2011) (R)		✓ DPH	✓	✓ PI, SHP	✓ Parents
9.2: Ensure Comprehensive Reproductive Health and Safety Education for More Young People in North Carolina Local school boards should adopt an opt-out consent process to automatically enroll students in the comprehensive reproductive health and safety education program unless a parent or legal guardian specifically requests that their child not receive any or all of this education.		✓ SBE, LEA, Local School Boards				
9.3: Expand Teen Pregnancy and STD Prevention Programs and Social Marketing Campaigns (PRIORITY RECOMMENDATION) The North Carolina General Assembly should appropriate \$5.9 million in recurring funds to the North Carolina Division of Public	✓ \$5.9 M (SFY 2011) (R)		✓ DPH			

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Health to develop and disseminate an unintended pregnancy prevention campaign, expand the Teen Pregnancy Prevention Initiative, and expand the <i>Get Real. Get Tested.</i> Campaign for HIV prevention to include other STDs and reach more adolescents.						
Preventing Adult-Onset Disease Recommendations						
10.1: Support the Implementation of North Carolina's Tobacco Control Program (PRIORITY RECOMMENDATION) The North Carolina General Assembly (NCGA) should adopt measures to prevent and decrease adolescent smoking. As part of this effort, the NCGA should increase tobacco taxes to the national average; support the state's Comprehensive Tobacco Control Program; amend current smoke-free laws to mandate that all worksites and public places are smoke-free; and ensure comprehensive evidence-based tobacco cessation services are available for all youth. The increase in revenue from new taxes should be used to support the Comprehensive Tobacco Control program. The NCGA should appropriate \$26.7 million in recurring funds in 2011 to support implementation of the Comprehensive Tobacco Control program. The NCGA should appropriate other funds as necessary until we reach the Center for Disease Control and Prevention recommended level of funding.	✓ \$26.7 M (SFY 2011) (R)	✓	✓ DMA	✓	✓ PI, SHP	✓ HWTF, local governments, Employers
10.2: Improve School Nutrition in Middle and High Schools (PRIORITY RECOMMENDATION) North Carolina funders should develop a competitive request for proposal to fund a collaborative effort between North Carolina Department of Public Instruction and other partners to test and evaluate innovative strategies to deliver healthy meals in middle and high schools while protecting/maintaining revenue for the child nutrition program.			✓ DPI			✓ NC Found CBO
10.3: Establish Joint-Use Agreements for School and Community Recreational Facilities Local governmental agencies, including schools, parks and recreation, health departments, county commissioners and municipalities, and other relevant organizations should work		✓ SBE, DPI, NCSBO	✓ LHD			✓ NCRPA, NCCCA, NCLM, NCHSAA, PTA, Local governments, DPH CBO

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together to develop joint-use agreements that would expand the use of school facilities for after-hours community physical activity and make community facilities available to schools.						
10.4: Fund Demonstration Projects in Promoting Physical Activity, Nutrition, and Healthy Weight The North Carolina Division of Public Health (DPH) along with its partner organizations should fully implement the <i>Eat Smart, Move More North Carolina Obesity Plan</i> for combating obesity in selected local communities and, if shown to be effective, should expand efforts statewide. As part of this project, the North Carolina General Assembly should appropriate \$500,000 in nonrecurring funds for six years beginning in SFY 2011 to DPH for pilot programs of up to \$100,000 per year to reduce overweight and obesity among adolescents.	✓ \$500,000 (SFY 2011-2016) (NR)		✓ DPH			✓ CBO
10.5: Expand the CCNC Childhood Obesity Prevention Initiative If shown to be successful through program evaluations, Community Care of North Carolina (CCNC) should continue expansion of the Childhood Obesity Prevention Initiative including the dissemination and use of already developed clinical initiatives aimed at obesity reduction for Medicaid-enrolled and other children and their families. The North Carolina General Assembly should appropriate \$174,000 in nonrecurring funds in SFY 2011 to the North Carolina Office of Rural Health and Community Care to support this effort.	✓ \$174,000 (SFY 2011) (NR)	✓ ORHCC				✓ CCNC

* Funding shown for state fiscal years 2011, 2012

AHEC	North Carolina Area Health Education Centers Program
CBO	Community Based Organizations
CCNC	Community Care of North Carolina
CFLC	Child and Family Leadership Council
CPC	Carolinas Poison Center
C&U	Colleges and Universities
DHHS	North Carolina Department of Health and Human Services
DJJDP	North Carolina Department of Juvenile Justice and Delinquency Prevention
DMA	North Carolina Division of Medical Assistance
DMHDDSAS	North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services
DOT	North Carolina Department of Transportation
DPH	North Carolina Division of Public Health
DPI	North Carolina Department of Public Instruction
GHSP	Governor's Highway Safety Program
Gov. Inst.	Governor's Institute on Alcohol and Substance Abuse
HSRC	UNC Highway Safety Research Center
HWTF	Health and Wellness Trust Fund
IPRC	UNC Injury Prevention Research Center
JCPC	Juvenile Crime Prevention Council
LEA	Local Education Agency
LHD	Local Health Department
LME	Local Management Entity
OCME	North Carolina Office of the Chief Medical Examiner
NCCCA	North Carolina County Commissioners Association
NCCCS	North Carolina Community College System
NC Found.	North Carolina Foundations
NCGA	North Carolina General Assembly
NCHSAA	North Carolina High School Athletic Association
NCHSP	North Carolina Healthy Schools Partnership
NCLM	North Carolina League of Municipalities
NCRPA	North Carolina Recreation and Parks Association
NCSBO	North Carolina School Boards Association
NCSHF	North Carolina School Health Forum
ORHCC	North Carolina Office of Rural Health and Community Care
PI	Private Insurers
PTA	Parent Teachers Association
SBE	State Board of Education
SBLHC	School-Based or School-Linked Health Centers
SCHA	North Carolina School Community Health Alliance
SHAC	School Health Advisory Council
SHP	State Health Plan
TBD	To Be Determined