Introduction

Chapter 1

The burden of chronic diseases and other preventable conditions in our state is skyrocketing. National rankings show that North Carolina is 36th in terms of overall health and 38th in premature death.[a,1] Leading causes of death and disability in North Carolina include cancer, heart disease, injuries, strokes, and type 2 diabetes. Further, as shown in Table 1.1, North Carolina ranks poorly on many other health comparisons, including health outcomes, health behaviors, access to care, and socioeconomic measures. The most practical approach to address such conditions—from both a health and economic perspective—is to prevent them from occurring in the first place. However, health care spending in North Carolina, as elsewhere in the country, is drastically skewed toward paying for therapeutic procedures to manage or treat acute or chronic health problems and *not* toward prevention. Reorienting our health system, as well as our overall society, towards a prevention focus represents a fundamental paradigm shift affecting all members of our society. In addition to individual personal responsibility for our own health, health care providers, employers, schools, communities, industries, and other institutions have a critical role to play in ensuring the long-term health of our state by recognizing the importance of taking the proper actions now, before the burden of preventable disease and condition becomes too great.

Reorienting our health system, as well as our overall society, towards a prevention focus represents a fundamental paradigm shift affecting all members of our society.

As a state, North Carolina has not invested heavily in the population-, community-, and clinical-level strategies and interventions that can help keep people healthy and that can help people who are not well be as healthy as possible. As population health worsens, costs to both individuals and the health care system as a whole continue to rise. North Carolina spends a greater percentage of its gross state product on health care than the rest of the nation (13.8% compared to 13.3%).[2] Despite spending more, North Carolina fares poorly on many health outcomes compared to the rest of the nation. (See Table 1.1). This may be in part due to the level of funding the state invests in public health. Compared to other states, North Carolina spends less on public health, spending an average of $50 per person and placing us in the bottom 11 states in terms of public health spending. North Carolina spends considerably less than some of our neighboring southern states. Virginia, for example, spends $111 per person (ranked 9th), and South Carolina spends $81 per person (ranked 19th).[1] However, this is beginning to change as state leaders have begun to realize that we can no longer "treat" our way out of the problem.

a All rankings reported in Chapter 1 are based upon the best state ranked as 1st. A larger number indicates poor performance for a particular measure compared to the best state. It is noted when a ranking includes Washington, DC.

Table 1.1
North Carolina Ranks Poorly on Most of the Major Health Indicators

Indicator	North Carolina Data	United States Data	National Rank
Adults who are current smokers (2008)[1]	20.9%	18.4%	37th
Obese adults (2008)[1]	29.5%	26.7%	41st
Physically active adults (2007)[1]	44.0%	49.5%	46th
Incidence of syphilis, gonorrhea, and chlamydia cases per 100,000 (2007)[2]	537.4	492.9	37th
Adults with alcohol and illicit drug abuse or dependence (2006-2007)[3]	8.2%	9.2%	6th
Adults with serious psychological distress (2006-2007)[3]	10.9%	11.1%	15th
Average air pollution (micrograms of fine particulate per cubic meter) (2005-2007)[4]	13.6	13.1	35th
Motor vehicle fatalities per 100,000 (2008)[5]	15.5	12.3	35th
Children ages 19 to 35 months with recommended childhood immunizations (4:3:1:3:3) (2007)[4]	80.0%	80.1%	27th
Low-income families (<200% FPG) (2007-2008)[6]	39.4%	35.8%	39th
Graduation rate (2004-2005)[4]	72.6%	74.7%	39th
Race and ethnicity equity (2007)[7]	33.7	24.1	42nd
Uninsured (2006-2007)[6]	17.2%	15.3%	38th

Sources: [1] Centers for Disease Control and Prevention (CDC), US Department of Health and Human Services. Behavioral Risk Factor Surveillance System Survey Data website. www.cdc.gov/brfss. Published May 22, 2009. Accessed July 16, 2009. [2] North Carolina Institute of Medicine. Analysis of Centers for Disease Control and Prevention, Sexually Transmitted Disease Surveillance Data, 2007. [3] Hughes A, Sathe N, Spagnola K. (2009). State Estimates of Substance Use from the 2006-2007 National Surveys on Drug Use and Health. Office of Applied Studies, Substance Abuse and Mental Health Services Administration, NSDUH Series H-35, HHS Publication No. SMA 09-4362. Rockville, MD. http://www.oas.samhsa.gov/2k7state/adultTabs.htm. [4] United Health Foundation. America's Health Rankings: data tables. United Health Foundation website. http://www.americashealthrankings.org/2008/tables.html. Published 2008. Accessed December 4, 2008. [5] National Highway Traffic Safety Administration. State Traffic Safety Information for Year 2008 website. http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/USA%20WEB%20REPORT.HTM. Accessed July 16, 2009. [6] The Kaiser Family Foundation. statehealthfacts.org. Data Source: Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2007 and 2008 Current Population Survey. Accessed August 21, 2009. [7] Cantor JC, Schoen C, Belloff D, How SKH, McCarthy D. Aiming Higher: Results from a State Scorecard on Health System Performance, The Commonwealth Fund Commission on a High Performance Health System, June 2007.

Relying on prevention as a basic strategy can save lives, reduce disability, improve quality of life, and potentially decrease costs.

Relying on prevention as a basic strategy can save lives, reduce disability, improve quality of life, and potentially decrease costs. Research has shown that several modifiable factors impact health, including personal behaviors, interpersonal relations, clinical care, communities and the environment, and public and health policies.[3] Furthermore, there are evidence-based, prevention-focused strategies that can address these modifiable factors. Working to address these factors will improve the health, well-being, and overall quality of life of North Carolinians in both the short- and long-term.

Task Force Charge

North Carolina's leading health foundations recognize the value of prevention to health. These four foundations—the Blue Cross and Blue Shield of North Carolina Foundation, The Duke Endowment, the Kate B. Reynolds Charitable Trust, and the North Carolina Health and Wellness Trust Fund—joined together to ask the North Carolina Institute of Medicine (NCIOM) to convene a Task Force on Prevention. The NCIOM, in collaboration with the North Carolina Division of Public Health (DPH), convened the Task Force in the spring of 2008. The Task Force was chaired by Leah Devlin, DDS, MPH, former State Health Director;[b] Jeffrey Engel, MD, State Health Director, Division of Public Health, North Carolina Department of Health and Human Services; William Roper, MD, MPH, CEO, University of North Carolina (UNC) Health Care System and Dean, UNC School of Medicine; and Robert Seligson, MA, MBA, Executive Vice President and CEO, North Carolina Medical Society. Importantly, representatives of all four foundations were members of the Task Force, so key funders of North Carolina prevention programs helped craft the *Prevention Action Plan for North Carolina* outlined here. In addition to the co-chairs, the Task Force had 46 other members including legislators; representatives of state and local agencies; key health care leaders; public health experts; foundation leaders; business, community, and faith leaders; and other interested individuals. A Steering Committee of 13 individuals, representing many of the same groups mentioned above, guided the work of the Task Force. (See pages 9-12 for a complete listing of Task Force and Steering Committee members.)

The NCIOM Prevention Task Force was charged with developing a comprehensive, evidence-based, statewide prevention plan to improve population health.

Specifically, the NCIOM Prevention Task Force was charged with developing a comprehensive, evidence-based, statewide prevention plan to improve population health and thereby reduce health care costs. To accomplish this goal, the Task Force was asked to do the following:

- Comprehensively examine the preventable, underlying causes of the top 10 leading causes of death and disability in the state.
- Examine health disparities.
- Prioritize prevention strategies to improve population health through evidence-based interventions when possible and through best or promising practices when more thoroughly tested evidence-based strategies were not available.
- Develop a comprehensive approach to prevention that includes strategies to address the modifiable factors (i.e. personal behaviors, interpersonal relations, clinical care, communities and the environment, and public and health policies) that affect health outcomes.

b Dr. Leah Devlin served as one of the co-chairs for the Task Force from the inception of the work until she retired as State Health Director. At that time, Dr. Jeffrey Engel became one of the co-chairs. Dr. Devlin remained as a member of the Task Force.

The Task Force met 14 times between April 2008 and August 2009. In March of 2009, the Task Force released an interim report with recommendations covering tobacco use, poor nutrition, physical inactivity, and substance abuse. The Task Force's final report, the *Prevention Action Plan for North Carolina*, is a roadmap that will lead to improved population health if implemented. It is the start of a much larger initiative to improve the health of all North Carolinians. This Plan can provide guidance for new legislative funding and foundation grant-making. Additionally, it can assist in prioritizing prevention efforts and focusing the work of the North Carolina Division of Public Health and other state and local agencies, health care and public health professionals, health organizations, insurers, community organizations, companies, the faith community, and other groups. Working together off a common action plan and making wise use of resources offers the greatest opportunity to improve population health in North Carolina and to lower costs to individuals and the system.

Working together off a common [Prevention] action plan and making wise use of resources offers the greatest opportunity to improve population health in North Carolina and to lower costs to individuals and the system.

The *Prevention Action Plan for North Carolina* contains 14 chapters, with this chapter being an introduction to the work of the Task Force. Chapter 2 provides an overview of prevention and the methodology used to determine the leading causes of death and disability in the state and the preventable underlying causes. This information provided the foundation for the areas of study of the Task Force. The remaining chapters contain recommendations addressing each area the Task Force studied over the 17-month period. Chapter 3 focuses solely on tobacco use—North Carolina's leading cause of preventable death. Chapter 4 examines the impact of poor nutrition and physical inactivity on obesity. Chapter 5 explores sexually transmitted diseases, HIV, and unintended pregnancy in North Carolina. Chapter 6 examines substance abuse and mental health prevention and early intervention. Chapter 7 broadly discusses environmental risks in North Carolina as they relate to population health. Chapter 8 is dedicated to injury, an often overlooked, but major contributor to death and disability. Chapter 9 focuses on preventable infectious disease and foodborne illness. Chapter 10 discusses racial and ethnic disparities, which are pervasive in health behaviors and health outcomes. Chapter 11 addresses upstream socioeconomic factors impacting health such as income, education, and housing. Chapter 12 examines site-specific strategies to improve population health across multiple risk factors. Chapter 13 looks at data needs and translation. Finally, Chapter 14 includes a brief conclusion and a summary of the Task Force recommendations.

Although the *Prevention Action Plan for North Carolina* was developed as the global economic situation deteriorated, a large portion of the work occurred prior to the more dire budget news of the spring and summer of 2009. The 2009-2010 state budget was being adopted just as this report was being finalized, so although there was considerable effort to incorporate noteworthy changes in state policy into the report, not all aspects may have been included. The *Prevention Action Plan for North Carolina* represents a way forward that can occur only if state investments in prevention activities are restored; in other words, for us to improve our efforts in prevention, in some cases we need to climb back up in future years just to get to where we were at the inception of the Task Force in 2008.

References

1 United Health Foundation. America's Health Rankings: data tables. United Health Foundation website. http://www.americashealthrankings.org/2008/tables.html. Published 2008. Accessed December 4, 2008.

2 The Henry J. Kaiser Family Foundation. Total health care expenditures by state of provider as a percent of gross state product (GSP), 2004. The Henry J. Kaiser Family Foundation website. http://www.statehealthfacts.org/comparemaptable.jsp?ind=263&cat=5. Published 2004. Accessed December 4, 2008.

3 Glanz K, Rimer B, Lewis MF, eds. *Health Behavior and Health Education.* 3rd ed. San Francisco, CA: Jossey-Bass; 2002.