



Find The Facts! connects NH state and community leaders to resources needed to implement evidence-based policies and programs to address a critical public health issue. We welcome your suggestions for improvement by either completing a short survey (<http://www.nhhealthpolicyinstitute.unh.edu/ffsurvey>) or by contacting Laura Davie ldavie@unh.edu.

INTRODUCTION

Our Mandate

“...the debilitating effects of diabetes can be lessened by healthy nutrition and physical activity, and by early identification and conscientious management of the disease. Promoting these good health practices is our responsibility....Together, we can make a difference.” NH Governor John Lynch¹

Diabetes Definition

Diabetes is a disorder whereby the body does not either produce or consume the hormone insulin correctly leading to high blood glucose levels. High blood glucose levels impair the circulatory system putting individuals at risk for many serious health conditions including: heart disease, blindness, nerve and kidney damage. Several types of diabetes exist. Type 1 diabetes, which accounts for 5-10% of all diabetes diagnoses, has no known prevention strategies. Type 2 diabetes, which account for 90-95% of all diabetes diagnoses, has known modifiable risk factors such as obesity and physical inactivity.²

in 1990³ to 6.5% in 2004.⁴ Diabetes prevalence among NH children is unknown. However, prevalence of risk factors for diabetes seems to be on the rise in both adults and children. In 2002, approximately 56% of NH adults were classified as overweight⁵. An estimated 27% of NH youth ages ten to seventeen years were considered at-risk for overweight or overweight in 2003.⁶ In 2003, only 31% of NH adults⁷ engaged in vigorous exercise 3+ days per week. During this same time period only 56% of NH youth ages six to seventeen years⁸ engaged in vigorous exercise 4+ days per week.,

NH Diabetes Prevalence

In NH, diabetes is a growing health concern. The proportion of NH adults who reported having been told by their physician that they had diabetes rose from 4.5%

The Cost of Diabetes

The healthcare costs associated with diabetes are huge. In 2004, approximately \$8,700,000 or about 5.5% of all healthcare expenditures for NH state government employees was related to diabetes care.⁹

NH DATA

The below table summarizes data and reports containing NH-specific diabetes related data. For most of these resources, an expanded description with key information such as latest year available is included on NH Health Data Inventory (www.nhhealthdata.org).

RESOURCE	DESCRIPTION	LINK
NH Mortality Data	This data contains information about diabetes-related deaths for NH residents of all ages. State and sub-state level data is available provided confidentiality restrictions are met. NH DHHS has also published a death report which stratifies the diabetes death rate by several variables.	NH mortality data: http://www.dhhs.state.nh.us/DHHS/HSDM/death-data.htm Most recent death report: http://www.dhhs.state.nh.us/dhhs/hsdm/library/data-statistical-report/nh-deaths.htm

RESOURCE	DESCRIPTION	LINK
<i>NH Hospital Discharge Data: (Inpatient, Outpatient, and Specialty Hospitals)</i>	These three data sets provide information about diabetes related inpatient, emergency room, and specialty hospital visits. Data is available for NH residents of all ages. State and sub-state level data is available provided confidentiality restrictions are met.	Http://www.dhhs.state.nh.us/dhhs/hsdm/hospital-discharge-data.htm
<i>Behavioral Risk Factor Surveillance System (BRFSS) Data</i>	BRFSS provides estimates about diabetes prevalence, risk factors, and clinical care indicators for adults 18+. State-level data as well as data for Hillsborough, Strafford, Rockingham, and Grafton Counties are available on CDC's SMART BRFSS website. NH DHHS also has available a report summarizing BRFSS data.	Smart BRFSS: http://apps.nccd.cdc.gov/brfss-smart/index.asp Most recent BRFSS report available: http://www.dhhs.state.nh.us/dhhs/hsdm/behavioral-risk.htm
<i>Youth Risk Behavior Surveillance System (YRBSS)</i>	YRBSS provides state-level estimates about the prevalence of diabetes risk factors (exercise, obesity, nutrition) among NH high school students.	http://www.ed.state.nh.us/education/doe/organization/instruction/HealthHIVAIDS/youthrisk.htm
<i>National Survey of Children's Health Data</i>	This survey provides state-level estimates about the prevalence for the diabetes risk factors of exercise and obesity for youth six to seventeen and ten to seventeen years respectively.	http://www.cdc.gov/nchs/about/major/slait/nsch.htm
<i>NH Diabetes Data, 2003 Report</i>	Report contains state-level data for diabetes prevalence/burden, risk factors, clinical care, and healthcare utilization indicators for NH adults 18+ years.	http://www.dhhs.nh.gov/dhhs/cdpc/library/data-statistical+report/diabetes-data.htm
<i>Healthy NH 2010</i>	Healthy NH 2010 contains state-level baseline and 2010 benchmarks for diabetes clinical care indicators for adults and risk factors (See nutrition/physical activity section) for both adults and youth.	http://www.healthynh2010.org/
<i>State Snapshot 2005- Focus Area: Diabetes</i>	Report includes state-level diabetes clinical care and disparities in healthcare utilization indicators for NH adults 18+. Estimated costs associated diabetes for NH state govt. employees are also provided.	http://www.qualitytools.ahrq.gov/qualityreport/2005/state/summary/diabmenu.aspx?div=1&state=nh
<i>Disparities in Health: Diabetes Prevention in NH: Issue Paper</i>	Paper contains data on diabetes risk factors and clinical care indicators for African Descendents and Latinos 18+ years living in Hillsborough County. A full report from 2003 is also available.	Issue Brief: http://www.nhhealthequity.org/downloads/health_disparities_09012005.pdf Full Report: http://www.nhhealthequity.org/downloads/reachdatareport.pdf
<i>Teen Assessment Project (TAP)</i>	TAP reports contain prevalence estimates for diabetes risk factors (exercise, obesity) for middle & high school age youth. Results are limited to NH school districts participating in the project	Http://extension.unh.edu/4h/4hcydtap.htm
<i>Manchester Diabetes Report Card</i>	Report card contains diabetes mortality, risk factor, and healthcare utilization indicators for Manchester adults and a mixture of youth age brackets.	http://www.manchesternh.gov/citygov/hlt/healthdatareports.html

EVIDENCE-BASED INTERVENTIONS

The below table summarizes available evidence resources for interventions to prevent and treat diabetes. Unless otherwise noted, reviews can be downloaded for free.

Intervention	Resource	Description	Link
<i>Increase physical activity</i>	Guide To Community Preventive Services: Physical Activity	This 2001 chapter reviews the effectiveness of different informational, behavioral/social, and environmental/policy approaches to increasing physical activity.	http://www.thecommunityguide.org/pa/default.htm
<i>Improved nutrition</i>	Guide To Community Preventive Services: Nutrition	This 2005 chapter examines the effectiveness of school-based nutrition programs. A review to determine the effectiveness of community approaches to increase fruit & vegetable consumption is in progress. A review of the effect of food and beverage advertising on children is also planned.	http://www.thecommunityguide.org/nutrition/default.htm
<i>Weight Loss</i>	Guide To Community Preventive Services: Obesity	This 2005 chapter reviews evidence for the effectiveness of school and work-site based obesity prevention programs. Reviews are pending for healthcare system and community-wide approaches.	http://www.thecommunityguide.org/obese/default.htm
	Long-Term Non-Pharmacological Weight Loss Interventions For Adults With Pre-Diabetes	This 2005 Cochrane Collaboration review examines the effectiveness of physical activity, dietary, or behavioral approaches to promote weight loss and decrease diabetes incidence among pre-diabetic adults.	http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/cd005270/frame.html Cost: \$25 for one day on-line access.
	Community-Based Lifestyle Interventions To Prevent Type 2 Diabetes	This 2003 review examines the effectiveness of community-based, multi-faceted interventions (diet, exercise, and/or health education) to reduce the incidence of Type 2 Diabetes.	http://care.diabetesjournals.org/cgi/reprint/26/9/2643
<i>Diabetes Management</i>	Guide To Community Preventive Services: Diabetes	Completed in 2002, this chapter reviews the effectiveness of health care interventions (disease and case management) and self-care approaches based in different settings (community, home, school, work, camp) to manage diabetes.	http://www.thecommunityguide.org/diabetes/default.htm
	NH Guidelines For Diabetes	Report summarizes 2005 Am. Diabetes Assoc. clinical practice recommendations for screening, diagnosis, management, and complications associated with pre-diabetes and diabetes.	http://www.dhhs.state.nh.us/nr/rdonlyres/eslsbkjyfuqbrgw/p4jgkp234t4tndqfxudt2uvikvucp4sgzbcdp6e3wqyf4xpoomeh6qo7hcammzsa46mnaea5ve6g/diabetes-care-guidelines.pdf
	Long-Term Non-Pharmacological Weight Loss Interventions For Adults With Type 2 Diabetes	This 2005 Cochrane Collaboration review examines the effectiveness of behavioral weight loss and control interventions (diet, exercise, etc) for adults with Type 2 diabetes.	http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/cd004095/frame.html Cost: \$25 for one day on-line access.

Intervention	Resource	Description	Link
	Pharmacotherapy For Weight Loss In Adults With Type 2 Diabetes	This 2005 Cochrane Collaboration review examines the effectiveness of three different weight-loss drug therapies among Type 2 diabetics.	http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/cd004096/frame.html Cost: \$25 for one day on-line access.
	Interventions For Improving Adherence To Treatment Recommendations In People With Type 2 Diabetes	This 2005 Cochrane Collaboration review examines the effectiveness of different strategies (home aids, diabetes education, pharmacy or nurse led interventions) to improve compliance with treatment recommendations among Type 2 diabetics.	http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/cd003638/frame.html Cost: \$25 for one day on-line access.

NH PROGRAM IN ACTION

Monadnock Family Services of Keene is taking an innovated approach to combating risk factors associated with diabetes among those with severe mental illness. Studies show people with severe mental illness, such as schizophrenia, experience a higher prevalence of diabetes (in addition to other chronic diseases) and risk factors associated with diabetes¹⁰, as well as live shorter lives by about 10 years compared to the general population.¹¹ Initiated in 2004, the In-Shape program connects each participant with a Primary Care Physician (PCP), a nurse case manager, and a health mentor. Each participant must visit his/her PCP, participate in a community based physical activity program (such as aerobics at the YMCA), and work with a nutritionist/chef. The nurse case manager facilitates communication among a participant's In-shape team.

The program now has over 200 participants, 100 of whom are enrolled in the evaluation study. The evaluation includes monitoring changes in behavior, mental health status, and clinical measures such as blood pressure, cholesterol levels, and waist/hip ratio. One year of data

has been collected and is currently being analyzed. A promising early result indicates study participants have experienced decreases in their hip/waist ratio.

The In-Shape Program serves as an innovative example for preventing or delaying the onset of diabetes among the high-risk population of the severely mentally ill. The Program continues to expand its funding base and list of community partners providing program support. To learn more about the In-Shape Program, contact Gail Williams, Program Coordinator, at (603) 357-6878.

Interested in learning about other diabetes risk reduction programs in action from across the U.S.? Go to:

- ◆ Exemplary State Programs to Prevent Chronic Disease & Promote Health Report (Diabetes Chapter):
<http://www.cdc.gov/nccdphp/publications/exemplary/pdfs/Diabetes.pdf>
- ◆ Healthy Policy Guide Website's Section on Obesity Prevention:
<http://www.healthpolicycoach.org/doc.asp?ID=665>

KEY STATE AND LOCAL CONTACTS

- ◆ **NH Diabetes Education Program (NHDEP):** Through its work this NH Dept. of Health and Human Services (NH DHHS) program strives to prevent or postpone the onset of diabetes-related health problems by facilitating the use of diabetes care guidelines and coordinating statewide diabetes prevention efforts. To contact the NHDEP, go to <http://www.dhhs.nh.gov/DHHS/CDPC/dep.htm> or call 1-800-852-3345 ext 5173.
- ◆ **NH Diabetes Educators:** A local diabetes educator may be able to provide insight into diabetes issues

for and programs in your community. To find a diabetes educator in your area, go to http://www.nhade.org/find_an_educator.htm.

- ◆ **Public Health Network (PHN) Coordinators:** NH currently maintains 14 regional networks working on the public health and emergency preparedness needs of towns contained within their region. PHN coordinators may be able to provide links to local diabetes contacts and efforts within their PHN region. To see if your town is covered by a PHN, and for coordinator contact information, go to: <http://www.nhphn.org>.

RELATED STATE POLICY

- ◆ **NH Action Plan for Diabetes:** This document provides a state-level blueprint to guide diabetes programs, funding, policies, and activities. To obtain a copy of the plan, contact the NH Diabetes Education Program at (800) 852-3345 Ext. 5173
- ◆ **NH State Obesity Prevention and Control Planning Process:** In 2005, NH DHHS began this process to develop a statewide strategy to address obesity. The first step involved assessing statewide interest in developing a state obesity and control plan. For more details about the assessment and planning process, go to <http://www.dhhs.state.nh.us/NR/rdonlyres/eyjhd/aq44qnbgtoferu5b7vlebtouuus4ndtapxuinotdaho4joqxlem375ve67jemsjwnnk3hitrw5cwycgn3bfcmlh/NH+Obesity+Assessment+Summary.pdf> or contact Stacy Smith at slsmith@dhhs.state.nh.us.
- ◆ **Diabetes-related State Legislation:** The NH Public Health Association (NHPHA)'s Policy Committee monitors public health (including diabetes-related) legislation. The NHPHA website (www.nhpha.org) provides key information (bill status, action taken, etc) about bills currently being monitored. To direct questions to the Policy Committee, use the 'contact us' feature on the NHPHA website.
- ◆ **School District Wellness Policy:** All NH school districts participating in the National School Lunch Program will need to have by June 2006 a School Wellness Policy that outlines district goals and policies with respect to nutrition education and standards as well as physical activity. To help school districts develop their wellness policy, Action for Healthy Kids (a national child health effort) has developed a Wellness Policy Toolkit (http://actionforhealthykids.org/resources_wp.php) and the NH Healthy Schools Coalition (http://actionforhealthykids.org/state_profile.php?state=NH) provides assistance as well.

¹ (To be released report). *NH Diabetes Data, 2004*. Concord: NH Department of Health and Human Services.

² *National Diabetes Fact Sheet United States 2005*, [Available at http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2005.pdf]. Centers for Disease Control and Prevention [2006, Accessed April 19].

³ (To be released report). *NH Diabetes Data, 2004*. Concord: NH Department of Health and Human Services.

⁴ *Behavioral Risk Factor Surveillance System*, [Available at <http://apps.nccd.cdc.gov/brfss/index>]. Centers for Disease Control and Prevention [2006, Accessed April 19].

⁵ (To be released report). *NH Diabetes Data, 2004*. Concord: NH Department of Health and Human Services.

⁶ *National Survey of Children's Health Data Resource Center Website*, [Available at <http://www.nschdata.org/DesktopDefault.aspx>]. Child and Adolescent Health Measurement Initiative [2006, Accessed on April 19].

⁷ *Behavioral Risk Factor Surveillance System*, [Available at <http://apps.nccd.cdc.gov/brfss/index>]. Centers for Disease Control and Prevention [2006, Accessed April 19].

⁸ *National Survey of Children's Health Data Resource Center Website*, [Available at <http://www.nschdata.org/DesktopDefault.aspx>]. Child and Adolescent Health Measurement Initiative [2006, Accessed on April 19].

⁹ *State Snapshots 2005 from the National Healthcare Quality Report*, [Available at <http://www.qualitytools.ahrq.gov/qualityreport/2005/state/summary/diabexp.aspx?div=1&state=NH&comp=x&lv=11>]. Agency for Healthcare Research and Quality [2006, Accessed April 19].

¹⁰ Brown, S., & et al. (2000). Causes of the excess mortality of schizophrenia. *British Journal of Psychiatry*, 177, 212-217.

¹¹ Dembling, B., & et al. (1999). Life expectancy and causes of death in a population treated for serious mental illness. *Psychiatric Services*, 50(8), 1036-1042.