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.”  

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

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% in 1995 to 7.4% in 2006 3 Diabetes prevalence among New Hampshire children is unknown. Prevalence of risk factors for diabetes seems to be on the rise among adults and children. In 2006, approximately 61% of New Hampshire adults were classified as overweight or obese4. In 2005, only 33% of New Hampshire adults5 engaged in vigorous exercise 3+ days per week. The 2007 Youth Risk Behavior Survey of New Hampshire high school students reported 14.4% of students were at risk form becoming overweight and 11.7% were overweight. The same survey reported that 47% of New Hampshire high school students were physically active for a total of 60 minutes per day on five or more of the past seven days6.

The Cost of Diabetes

The medical care costs associated with diabetes in New Hampshire was estimated at over $600 million in 2006. 8 In 2004, approximately $8,700,000 or about 5.5% of all health care expenditures for New Hampshire state government employees was related to diabetes care.7

NEW HAMPSHIRE DATA

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

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
<th>Link</th>
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| New Hampshire 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 | NH mortality data: [http://www.dhhs.state.nh.us/DHHS/HSMD/death-data.htm](http://www.dhhs.state.nh.us/DHHS/HSMD/death-data.htm)  
Most recent death report: [http://www.dhhs.state.nh.us/dhhs/hsdm/library/dat](http://www.dhhs.state.nh.us/dhhs/hsdm/library/dat) |
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<tr>
<td>NH Hospital Discharge Data: (Inpatient, Outpatient, and Specialty Hospitals)</td>
<td>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.</td>
<td><a href="http://www.dhhs.state.nh.us/dhhs/hsdm/hospital-discharge-data.htm">Http://www.dhhs.state.nh.us/dhhs/hsdm/hospital-discharge-data.htm</a></td>
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| Behavioral Risk Factor Surveillance System (BRFSS) Data | BRFSS provides estimates about diabetes prevalence, risk factors, and clinical care indicators for adults 18+. State-level data as well as data for selected city and/or county areas within NH 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](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](http://www.dhhs.state.nh.us/dhhs/hsdm/behavioral-risk.htm) |
| Youth Risk Behavior Survey (YRBS) | YRBSS provides state-level estimates about the prevalence of diabetes risk factors (exercise, obesity, nutrition) among NH high school students. In 2007 a select number of schools implemented the YRBS survey with their entire student body. School-level reports from these data will be available in the future. | State YRBS Results: [http://www.ed.state.nh.us/education/doe/organization/instruction/HealthHIVAIDS/youthrisk.htm](http://www.ed.state.nh.us/education/doe/organization/instruction/HealthHIVAIDS/youthrisk.htm)  
School Reports:  
Contact Jeffrey Metzger at NH DHHS ([Jeffrey.L.Metzger@dhhs.state.nh.us](mailto:Jeffrey.L.Metzger@dhhs.state.nh.us)) |
| National Survey of Children’s Health Data | 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/slaits/nsch.htm](http://www.cdc.gov/nchs/about/major/slaits/nsch.htm) |
| Healthy NH 2010 | 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](http://www.healthynh2010.org) |
Link to main site: [www.qualitytools.ahrq.gov](http://www.qualitytools.ahrq.gov) |
### EVIDENCE-BASED INTERVENTIONS

The below table summarizes available evidence resources for interventions to prevent and treat diabetes.

<table>
<thead>
<tr>
<th>Intervention</th>
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<tbody>
<tr>
<td>Increase physical activity</td>
<td>Guide To Community Preventive Services: Physical Activity</td>
<td>This 2001 chapter reviews the effectiveness of different informational, behavioral/social, and environmental/policy approaches to increasing physical activity.</td>
<td><a href="http://www.thecommunityguide.org/pa/default.htm">http://www.thecommunityguide.org/pa/default.htm</a></td>
</tr>
<tr>
<td>Improved nutrition</td>
<td>Guide to Community Preventive Services: Nutrition</td>
<td>This 2005 chapter examines the effectiveness of school-based nutrition programs.</td>
<td><a href="http://www.thecommunityguide.org/nutrition/default.htm">http://www.thecommunityguide.org/nutrition/default.htm</a></td>
</tr>
<tr>
<td>Weight Loss</td>
<td>Guide to Community Preventive Services: Obesity</td>
<td>This 2005 chapter reviews evidence for the effectiveness of school and work-site based obesity prevention programs.</td>
<td><a href="http://www.thecommunityguide.org/obese/default.htm">http://www.thecommunityguide.org/obese/default.htm</a></td>
</tr>
<tr>
<td>Diabetes Management</td>
<td>Guide to Community Preventive Services: Diabetes</td>
<td>Updated in 2005, 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.</td>
<td><a href="http://www.thecommunityguide.org/diabetes/default.htm">http://www.thecommunityguide.org/diabetes/default.htm</a></td>
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**Resource** | **Description** | **Link**
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NH: Issue Paper | 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](http://extension.unh.edu/4h/4hcydtap.htm) |
NEW HAMPSHIRE PROGRAM IN ACTION

Updated outcomes data available!
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 diabetes\textsuperscript{[i]}, as well as live shorter lives by about 10–25 years compared to the general population. \textsuperscript{[ii]}

Initiated in 2004, the In-Shape program connects each participant with: a health mentor/personal trainer; access to free or low cost gym memberships, dance classes, yoga, tennis, and water exercises; nutrition and cooking classes; and a weight loss support group. A nurse also guides participants in accessing health care and communicating with their Primary Care Provider.

The program now has reached 400 participants, 100 of whom are enrolled in an evaluation study undertaken by the Dartmouth Psychiatric Research Center. Nine months after beginning the program, evaluation results showed:

1. Participants significantly increased the number of hours they reported exercising per week.
2. Participants significantly increased their overall activity and their participation in vigorous activities
3. Participants were significantly more satisfied with their physical fitness.
4. Participants reported having significantly greater self-efficacy, or confidence, in social situations.

In addition, in term of health status and functioning:

1. Approximately one-fifth of participants reduced their waist circumference by 10 or more centimeters or lowered their weight by 10 or more pounds.
2. Over one third reduced their systolic blood pressure by 10 or more mm Hg.
3. One-fourth with depression showed a 50% or greater reduction in depressive symptoms

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):

KEY STATE AND LOCAL CONTACTS

New Hampshire Diabetes Education Program (NHDEP): Through its work this New Hampshire 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.

New Hampshire 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/index.php/directory.

Public Health Network (PHN) Coordinators: New Hampshire 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.

Lighten Up New Hampshire: This website provides research-based education and information aimed at the general public, communities, and professionals. www.lightenupnh.org
RELATED STATE POLICY AND PLANNING

New Hampshire 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 New Hampshire Diabetes Education Program at (800) 852-3345 Ext. 5173

Statewide Healthy Eating and Active Living (HEAL) Initiative: The HNHfoundation, in conjunction with foundations, state agencies and private and public partners, provided support for a planning and implementation process to address overweight and obesity in New Hampshire. Interventions addressing policy, practice and communication were identified for six sectors: businesses and worksites, schools, health care industry, communities and municipalities, food and recreation industries, and individuals and families, and can be found in the HEAL Action Plan. A copy of the plan including priorities, recommendations, related resources, and up to date HEAL information are at www.lightenupnh.org –click on the HEAL logo.

Diabetes-related State Legislation: The New Hampshire Public Health Association (NHPHA) has released it 2008 Priorities Report which includes two diabetes-related risk factors: lack of physical activity and poor nutrition. In addition, NHPHA’s Policy Committee monitors public health (including diabetes-related) legislation. The NHPHA website (www.nhpha.org) provides a link the 2008 Priorities Report. To learn more about legislation NHPHA is tracking, use the ‘contact us’ feature on the NHPHA website to reach the Policy Committee.