

Appendices

APPENDIX A:

Diabetes Strategic Plan Participating Organizations

- Alpena General Hospital
- American Association of Retired Persons, Michigan
- American Diabetes Association, Michigan Affiliate
- American Heart Association
- Detroit Health Department
- Diabetes Center of Foote Hospital
- Diabetes Learning Center of Genesys Regional Medical Center
- East Central Diabetes Outreach Network (ECDON)
- Garden City Hospital: Diabetes Self-Management Training Program
- General Motors Corporation, Corporate Health Promotion
- Grand Valley State University: Kirkhof School of Nursing
- Health Care Partners, Inc., Autumn Ridge Home Health Agency and Prime Care Services, Inc.
- Henry Ford Health Center, African American Initiative for Male Health Improvement
- Hurley Diabetes Center
- Ingham County Health Department
- Juvenile Diabetes Research Foundation
- Lions Clubs of Michigan
- Mestizo Annisnabe Health Alliance
- Michigan Association of Health Plans
- Michigan Department of Community Health
- Michigan Diabetes Self-Management Training Certification Advisory Committee
- Michigan Dietetic Association
- Michigan Health and Hospital Association
- Michigan Nurses Association
- Michigan Optometric Association
- Michigan Organization of Diabetes Educators
- Michigan Osteopathic Association
- Michigan Peer Review Organization
- Michigan Public Health Institute
- Michigan Quality Improvement Consortium
- Michigan State Medical Society
- Michigan State University: School of Human Medicine; Department of Food Science and Human Nutrition; and MSU Extension, Family and Consumer Sciences
- Mid-Michigan Regional Fitness Council
- Midwest Health Plan, Diabetes Management Programs
- MESSA Insurance: Diabetes Management Program

APPENDIX A:

Diabetes Strategic Plan Participating Organizations

- National Kidney Foundation of Michigan, Inc.
- Northern Michigan Diabetes Outreach Network (TIPDON)
- Saint Mary's Mercy Medical Center/Center for Diabetes and Endocrinology, Member of Trinity Health Grand Rapids
- Saint Joseph Mercy Hospital of Macomb County, Diabetes Education Program
- Sault Ste. Marie Tribe of Chippewa and Indians
- South East Michigan Diabetes Outreach Network (SEMDON)
- Southern Michigan Diabetes Outreach Network (SODON)
- Spectrum Health: HeartReach
- Ten Counties in Central and Western Michigan Diabetes Outreach Network (TENDON)
- University of Michigan: School of Public Health, Medical School, School of Dentistry and Michigan Diabetes Research and Training Center
- Upper Michigan Diabetes Outreach Network (UPDON)
- Veteran's Health Administration Diabetes Program
- Wayne State University: School of Medicine and Morris J. Hood Jr. Diabetes Center
- William Beaumont Hospital - Royal Oak- Nursing Development and Education Resources Department/DSMT

Appendix B: Glossary of Terms

Blood Glucose: The main sugar that the body makes from food that is eaten. (Blood glucose is also called blood sugar). Glucose is carried through the bloodstream to provide energy to the cells. The cells cannot use glucose without the help of the hormone insulin.

Diabetes educator: A health care professional who teaches people with diabetes how to manage their disease (some diabetes educators are certified diabetes educators: professionals with expertise in diabetes education who have passed a certification exam). Diabetes educators work in hospitals, physician offices, managed care organizations, home health care services and other settings.

Diabetes mellitus: A condition characterized by hyperglycemia resulting from the body's inability to use blood glucose for energy. In type 1 diabetes, the pancreas no longer makes insulin and therefore blood glucose cannot enter the cells to be used for energy. In type 2 diabetes, either the pancreas does not make enough insulin or the body is unable to use insulin correctly.

Diabetes Prevention Program (DPP): A study by the National Institute of Diabetes and Digestive and Kidney Diseases conducted from 1998 to 2001 in people at high risk for type 2 diabetes. All study participants had impaired glucose tolerance, also called prediabetes, and were overweight. The study showed that people who lost 5 to 7% of their body weight through a low-fat, low-calorie diet and moderate exercise (usually walking for 30 minutes 5 days a week) reduced their risk of getting type 2 diabetes by 58%. Participants who received treatment with the oral diabetes drug metformin reduced their risk of getting type 2 diabetes by 31%.

Diabetic Ketoacidosis: A life-threatening condition in persons with type 1 diabetes that requires immediate treatment. It is characterized by extremely high blood glucose levels with the presence of ketones in the urine and bloodstream. Left untreated, diabetic ketoacidosis can lead to coma and death. Symptoms include: nausea and vomiting, stomach pain, fruity breath odor and rapid breathing.

Dilated eye exam: A specific eye exam that includes dilating of the pupil of the eye so that the retina (the back of the eye) can be carefully examined. This type of exam is crucial for people with diabetes.

Dialysis: An artificial process for cleansing wastes from the blood – a job normally performed by the kidneys. However, in persons with kidney failure, this job must be accomplished through special equipment instead.

Disparate populations: A term used in the public health arena to describe populations receiving unequal treatment based on differences such as gender, race, ethnicity, income, disability, education, geographic location or sexual orientation.

Gestational diabetes mellitus (GDM): A type of diabetes mellitus that develops only during pregnancy and usually disappears upon delivery, but increases the risk that the mother will develop diabetes later. GDM is managed with meal planning, activity and, in some cases, insulin.

Hemoglobin A_{1c}: A test that summarizes how much blood glucose has been sticking to the red blood cells during the past three to four months. Since red blood cells regenerate every four months, doctors can get a good idea about how glucose has affected the life of the cells during that time period.

Hyperglycemia: Also called high blood glucose. A condition in people with diabetes where blood glucose levels are too high. Symptoms include frequent urination, unusual thirst and weight loss.

Hyperosmolar hyperglycemic state: A state of unconsciousness (coma) that can lead to death. Can be caused by hyperglycemia (high blood glucose).

Hypoglycemia: Also called low blood glucose. Is a condition that results when blood glucose levels are too low. Symptoms include feeling nervous or anxious, feeling numb in the arms and hands, and shakiness or dizziness.

Impaired fasting glucose (IFG): A condition in which a blood glucose test, taken after an 8- to 12-hour fast, shows a level of glucose higher than normal but not high enough for a diagnosis of diabetes. IFG, also called prediabetes, is a level of 110 mg/dL to 125 mg/dL. Most people with prediabetes are at increased risk for developing type 2 diabetes.

Impaired glucose tolerance (IGT): A condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. IGT, also called prediabetes, is a level of 140 mg/dL to 199 mg/dL 2 hours after the start of an oral glucose tolerance test. Most people with prediabetes are at increased risk for developing type 2 diabetes. Other names for IGT that are no longer used are "borderline," "subclinical," "chemical," or "latent" diabetes.

Insulin: A hormone that helps the body use blood glucose for energy. The beta cells of the pancreas make insulin.

Insulin resistance: A condition that occurs when the body cannot use the insulin it makes effectively and as a result, glucose levels rise.

Ketones: Chemical substances the body produces when it does not have enough insulin in the blood. If ketones build up in the body, serious illness or a coma can result.

Pancreas: An organ that makes insulin and enzymes for digestion. The pancreas is located behind the lower part of the stomach and is about the size of a hand.

Pancreatic Beta Cells: Cells that make insulin.

Podiatrist: A doctor who treats people who have problems with their feet. Podiatrists help people with diabetes keep their feet healthy by providing regular foot examinations and treatment if necessary.

Prediabetes: A condition in which blood glucose levels are higher than normal but are not high enough for a diagnosis of diabetes. People with prediabetes are at increased risk for developing type 2 diabetes and for heart disease and stroke. Other names for prediabetes are impaired glucose tolerance and impaired fasting glucose.

Translational Medicine: A term used to describe evidence-based clinical care. Translational medicine is the transformation of laboratory/research findings into new ways to diagnose and treat patients.

Type 1 diabetes: A condition characterized by high blood glucose levels caused by a total lack of insulin. Occurs when the body's immune system attacks the insulin-producing beta cells in the pancreas and destroys them. The pancreas then produces little or no insulin. Type 1 diabetes develops most often in young people but can appear in adults.

Type 2 diabetes: A condition characterized by high blood glucose levels caused by either a lack of insulin or the body's inability to use insulin efficiently. Type 2 diabetes develops most often in middle-aged and older adults but can appear in young people.

Definitions adapted and/or excerpted from:

- 1) Centers for Disease Control and Prevention. (2002). *Take Charge of Your Diabetes*. 3rd edition. Atlanta: U.S. Department of Health and Human Services.
- 2) National Institute of Diabetes and Digestive and Kidney Diseases. Diabetes Dictionary. [On-line]. Retrieved April, 2003 from the World Wide Web: <http://www.niddk.nih.gov/health/diabetes/pubs/dmdict/dmdict.htm>

Appendix C: Development of the Michigan Diabetes Strategic Plan

The Michigan Diabetes Strategic Plan was developed through a four-step strategic planning process over a six-month period. The process was designed to gather the broadest possible input from a variety of perspectives. Among those included in the planning process were: diabetes experts, state diabetes leaders, community health coordinators, physicians, nurses, allied health professionals and people with diabetes. The planning process consisted of the following four steps:

- 1) A team of four nationally recognized diabetes field experts were brought into Michigan to conduct an assessment of the state's diabetes program. First they examined Michigan diabetes data and program documents. Second, they met with the state's diabetes leaders, dozens of professionals involved in diabetes intervention and prevention efforts and numerous Michigan citizens with diabetes. From these fact-gathering efforts, they drafted 41 practical recommendations for improving diabetes prevention and intervention efforts in Michigan.
- 2) The Diabetes Policy Advisory Council (DPAC), the advisory board for the state's Diabetes Control Program, reviewed, modified and prioritized the experts' 41 recommendations -- breaking them down into four focused categories for consideration in Michigan's Diabetes Strategic Plan. The four categories were 1) Scientific (Data/Research), 2) Consumer, 3) Advocacy/Policy and 4) Training/Programs
- 3) Based on DPAC's focused categories, four subcommittees were formed, comprised of key diabetes representatives and consumers from around the state. The subcommittees further prioritized and modified the existing recommendations to make them realistic and strategic for Michigan. They also considered new and creative possibilities that had not yet been offered. From this groundwork, they wrote 14 recommendations they felt were likely to make the most impact in reducing the burden of diabetes in Michigan.
- 4) The Diabetes Strategic Plan Steering Committee, a group composed of both DPAC Executive Committee members and diabetes representatives from various sectors of public and private health care, reviewed the recommendations and several drafts of the Michigan Diabetes Strategic Plan. Once the committee approved the plan, it was put on the Michigan Department of Community Health Web Site for a 30-day public comment period. The steering committee reviewed all public comments prior to the finalization of the plan.

Appendix D: State and National Diabetes Core Objectives

National Objective 1: Establish measurement procedures to track program success in reaching the national objectives.

1. Impact Objective: By March 31, 2008, the MDPCP will expand and improve the current Michigan diabetes surveillance and quality improvement patient data systems to collect expanded and more useful diabetes incidence, prevalence, health services and behavioral data statewide by:

- a. Developing and implementing an expanded Michigan-specific BRFSS (in addition of the current CDC Diabetes module) with over-sampling of disparate at-risk populations with diabetes to allow for annual +/- 10% confidence limits within each of the six MDON regions for all major survey data elements (First full survey year: FY2005);
- b. Developing working agreements with Medicare and Medicaid, HMOs and Commercial Insurers that collect the Health Employer Data Information Set (HEDIS) to expand the number of outcomes collected to include immunizations, blood pressure control, foot exams, physical activity, smoking cessation and referral to diabetes self-management education (First statewide expanded HEDIS Data Set: FY2005);
- c. Developing, in cooperation with the University of Michigan Diabetes Research and Training Center and/or other partners, a scientifically valid way to quantify the cost-benefit of the statewide program in the prevention and reduction of complications of diabetes in Michigan (First comprehensive state level cost-benefit study: 2006-7); and
- d. Developing, a surveillance system that can accurately determine the prevalence and risk factors of diabetes in those 10 – 18 years of age.

National Objectives 2-5: Increase the number of people in Michigan with diabetes who report receiving the recommended foot exams, eye exams, flu and pneumococcal immunizations and recommended A_{1c} tests.

2. Impact Objective: By March 31, 2008, increase the percent of people in Michigan with diabetes who receive appropriate foot exams from 62% to 75%. (HP2010 from 55% to 75%)

3. Impact Objective: By March 31, 2008, increase the percent of people in Michigan with diabetes who receive appropriate annual dilated eye exams from 70% to 80%. (HP2010 from 47% to 75%)

4. Impact Objective: By March 31, 2008, increase the percent of people in Michigan with diabetes: From 38% to 65% who receive appropriate immunizations among adults 18 to 64 years old; From 62% to 85% who receive an annual flu immunization among those 65 ≥ (HP2010 people 65 ≥ from 64% to 90%); and From 40% to 69% who receive the pneumococcal vaccination among those 65 ≥ (HP2010 people 65 ≥ from 46% to 90%).

5. Impact Objective: By March 31, 2008, increase the percent of people in Michigan with diabetes who receive the appropriate number of HbA_{1c} tests from baseline (Michigan Medicare 74%, and Michigan Medicaid and HEDIS 64%) to 80% (HP2010 from 24% to 50%).

National Objective 6: By March 2008, demonstrate success in reducing health disparities for high-risk populations with respect to diabetes prevention and control.

6. Impact Objective: By March 31, 2008, Michigan will demonstrate progress in reducing diabetes health disparities related to access to care and the utilization of clinical care improvement measures in Michigan's uninsured, and other high-risk populations including but not limited to African American, Native American and Hispanic populations by:

- a. Expanded collection and dissemination of BRFSS data about at risk populations to health program, policy and stakeholder associations (see Impact Objective 1 above);
- b. Insuring that annual MDPCP state-funded community diabetes prevention and control efforts include targeted community efforts and objectives aimed at reducing diabetes-related health disparities (By October, 2003); and
- c. Developing, in cooperation with state CVD and kidney disease programs, a specific Michigan action plan for reducing health disparities related to these three co-morbid conditions (By September, 2005).

National Objective 7: By March 2008, demonstrate progress in establishing linkages for the promotion of wellness, physical activity, weight and blood pressure control and smoking cessation for persons with diabetes.

7. Five Year Impact Objectives: By March 31, 2008, Michigan will demonstrate success in establishing linkages to other programs for the promotion of wellness, physical activity, and control of weight and blood pressure, and smoking cessation for persons with diabetes by:

- a. Ensuring the inclusion of diabetes prevention and control specific information in the approved or updated state chronic disease strategic health plans for CVD, nutrition, school health, obesity and smoking cessation;
- b. Increasing the number of collaborative funding, policy and contractual agreements between the MDPCP and state and regional health promotion efforts; and
- c. Increasing the number schools that include diabetes prevention information as a part of their school health curriculum.

APPENDIX E: Resources for Employers

There are almost 1.3 million Michigan residents who are either directly affected by diabetes (type 1 or type 2, or gestational diabetes) or indirectly affected by diabetes (people who have pre-diabetes). In the last decade, the Centers for Disease Control and Prevention has seen a 49 % increase in the prevalence of diabetes and expects this upward trend to continue unless aggressive intervention and prevention measures are taken. The increase in prevalence is partially attributed an increase in obesity and physical inactivity among adults and children.

Because of the large and growing numbers of individuals in Michigan who have diabetes or who have a high chance of developing diabetes, employers can benefit greatly by becoming more knowledgeable about the condition. Numerous resources and models are available for helping employers promote diabetes prevention, control and management. Research has shown that diabetes interventions in the work place can positively impact employees' health and productivity. In addition, studies show that employers can save money on lost productivity and health care with effective diabetes intervention programs.

Included in this section:

Ideas for Diabetes Programs at Work -Excerpts from The National Diabetes Education Program's booklet entitled, *Making a Difference: The Business Community Takes on Diabetes*.



Ideas for Diabetes Programs at Work

Excerpted from the National Diabetes Education Program Booklet *Making a Difference—The Business Community Takes on Diabetes*¹

The consequences of diabetes and its complications impact your company in two ways: human and economic. The human consequences include a lower quality of life, higher absenteeism, and increased risk of premature death. The economic consequences include lower productivity and greater direct and indirect expenditures for illness and disability.

Human Consequences of Diabetes

Did you know that

- In 1994, more than half of all persons with diabetes (4.1 million at that time) reported that they were limited in activity, and more than 60% attributed their limitation to diabetes (*Centers for Disease Control and Prevention, 1997*).
- On average, persons with diabetes ages 18 to 64 lost 8.3 days per year from work (*American Diabetes Association, 1998*).
- In 1997, a total of 74,927 workers were reported to be permanently disabled because of the disease (*American Diabetes Association, 1998*).
- In 1996, death certificate data listed diabetes as a potential contributing cause of death for more than 193,410 persons. This statistic may be underestimated since diabetes is believed to be underreported on death certificates, both as a condition and as a cause of death (*Centers for Disease Control and Prevention, 1998*)



¹ Centers for Disease Control and Prevention. Making a Difference – The Business Community Takes on Diabetes. (pp. 11-14). Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1999. For the full booklet, see <http://ndep.nih.gov/materials/pubs/making-a-difference/index.htm>

Diabetes Activities: What Small Businesses Can Do

A small business could:

- Support a walk/run for diabetes.
- Display posters about diabetes on company bulletin boards.
- Have diabetes and other health organizations speak at a brown-bag lunch for employees.
- Distribute diabetes information with employee paychecks (paycheck stuffers).
- Host a Diabetes Day to educate employees about diabetes.
- Send a broadcast e-mail to employees about diabetes.
- Encourage employees to browse Web sites (on their free time) for more information on diabetes. The employer could recommend Web sites to view.

Corporate Goals and Actions to Reduce the Human Impact of Diabetes

The statistics on diabetes are not inevitable. Your company can take positive steps to reduce the human impact of diabetes and its complications. Examples of such steps are listed below:

Corporate Goal #1: Develop a supportive work environment so that employees with diabetes feel comfortable adopting and performing the behaviors that promote good diabetes control. Let employees know that their efforts to stay healthy are appreciated. This support must be accomplished while protecting the employee's privacy and keeping records confidential.

Possible Actions: Provide a private, convenient place for employees to test their blood sugar with a blood glucose monitor and administer insulin, if needed; develop a diabetes support group; establish a regular series of diabetes classes; educate other employees about diabetes; reimburse expenses for diabetes supplies and education through the company health plan; create a diabetes resource center for guidance on diabetes self-management and regular risk assessment for diabetes complications; develop nutritious menus in collaboration with employees for company eating facilities.

Potential Outcomes: Better blood sugar control; more support from families and co-workers for diabetes self-management efforts; lower healthcare costs due to fewer diabetic complications.

Corporate Goal #2: Provide encouragement and opportunities for all employees to adopt healthier lifestyles that reduce risk for chronic diseases.

Possible Actions: Develop a corporate wellness committee; set up an exercise area or contract with a local gym to provide memberships at reduced rates; sponsor weight-control programs; create a company wide smoke-free environment; invite local health experts to talk at "lunch-and-learn" sessions; offer a series of classes on cardiovascular risk reduction; contract with a local health facility to provide individual and group classes for chronic disease management and smoking cessation; partner with one or more other companies to provide a wellness program.

Potential Outcomes: Enhanced employee morale; lower employee absenteeism; less employee stress; better prevention and control of chronic diseases; development of employer-employee partnerships for improving health status.

Economic Consequences of Diabetes

Did you know that

- Diabetes-related hospitalizations accounted for 13.9 million hospital days in 1997. The mean length of stay was 5.4 days (*American Diabetes Association, 1998*).
- In 1997, there were 30.3 million physician office visits to treat people with diabetes (*American Diabetes Association, 1998*).



Of the \$98 billion in total medical expenditures attributed to diabetes in 1997, indirect costs were estimated at \$54 billion, with \$16.9 billion for premature mortality and \$37.1 billion for disability (*American Diabetes Association, 1998*).

Total direct costs were estimated at \$44.1 billion, which broke down as follows:

- \$7.7 billion for diabetes and acute glycemic care (control of blood sugar levels).
- \$11.8 billion due to the excess prevalence of related chronic complications, e.g., circulatory, kidney, eye, nerve, and skin disorders.
- \$24.6 billion due to the excess prevalence of other medical conditions not related to diabetes (*American Diabetes Association, 1998*).

What does this mean to the average corporation? Various cost-effective interventions (listed on the next several pages) have been identified to improve the health outcomes of diabetes, ultimately affecting the cost of treatment and potentially insuring cost-effective measures for the self-insured employer. All employers can benefit financially from the improvements in employee productivity that diabetes control can generate.

Corporate Goals and Actions To Reduce the Economic Impact of Diabetes

The following are steps your company could take to reduce the economic impact of diabetes and its complications:

Corporate Goal #3: Coordinate all corporate diabetes control efforts to make them more efficient as well as accountable within the organization.

Possible Actions: Develop a data system that tracks diabetes-related medical claims and costs; identify opportunities where costs and outcomes can be improved; develop an integrated diabetes education program that addresses all issues associated with preventing diabetes complications; evaluate diabetes education and medical interventions to see their impact on employees' diabetes control and management; ensure appropriate screenings for diabetes and its complications.

Potential Outcomes: Fewer hospitalizations; reduction in emergency room visits; lower absenteeism rate; fewer diabetic complications that result in disability or death; reduced expenses for diabetes care.

Corporate Goal #4: Demand the highest quality medical care for people who are dealing with diabetes.

Possible Action: Publish quality standards; negotiate with the company health plan for high-quality diabetes services; build coalitions with local health care providers and communities to improve health care and community wellness efforts; ensure that the health plan follows NDEP Guiding Principles for Diabetes Care for Health Care Providers and People With Diabetes; promote increased blood sugar control testing and screening for diabetes-related complications.

Potential Outcomes: Improved health care provider services; increased adherence to American Diabetes Association clinical guidelines (*American Diabetes Association, 1999*) and NDEP Guiding Principles.



General Motors Corporation (GM) Diabetes Intervention Program

General Motors Corporation (GM), with the support of unions represented at GM, implemented **LifeSteps**, a comprehensive wellness program available to all employees, retirees, and dependents.

Components of the program include:

- A comprehensive nationwide effort to raise health awareness and improve health education about diabetes and other health-related matters. This effort includes the development of a self-care book and health risk appraisal mailed to GM households, a quarterly newsletter, a toll-free Personal Health Advisor Line, a booklet outlining national guidelines related to diabetes and GM's available benefits and services, and the **LifeSteps** online Web site.
- Pilot programs implemented in Flint, Michigan, and Anderson, Indiana, that go beyond education and prevention to include screenings for modifiable health risks and various interventions aimed at health risk reductions (e.g., a 1-year counseling program with an assigned health professional).

First Chicago NBD Corporation/Bank One Diabetes Intervention Program

First Chicago NBD Corporation/Bank One offered a worksite diabetes education program to employees in Chicago, Illinois. Employees with either type 1 or type 2 diabetes were identified using the bank's integrated health data warehouse, which includes medical claims, records related to extended absences (the company has a salary continuation benefit that begins after 5 consecutive workdays of absence and may last up to 6 months), and a computer-based medical record. Individuals were then invited to participate. A flier announcing the program was mailed to all employees with diabetes. Components of the program included the following:

- Three questionnaires (filled out by participants) measuring knowledge of diabetes, recent symptoms of diabetes, and a brief medical history form for treatment and history of complications.
- A complete health risk appraisal.
- Blood tests performed at no cost to employees.
- Lunchtime seminars featuring a free box lunch that was consistent with American Diabetes Association (ADA) dietary recommendations.
- A free blood glucose monitor if participants wished to trade in their old one.
- Once-a-month diabetes education by a health educator, including meal planning, nutrition, exercise, medications, strategies for preventing complications, and stress management.

APPENDIX F: Resources for Schools, Day Care Centers and Professionals who Care for Children



Children with type 1 diabetes have always had a special challenge to deal with in school – checking their glucose levels, watching what they eat, dealing with insulin injections and knowing that they require different care than other children. With all that is known about the importance of stabilizing glucose levels in children with diabetes, it is crucial that schools, day care centers and parents provide children with the help and support that they need to accomplish this goal.

No longer is type 1 diabetes the only cause of diabetes in children. Within recent years there has been a marked increase in the number of cases of type 2 diabetes among children and adolescents. This has been mostly associated with rising rates of obesity and physical inactivity in children and adolescents. Thus, it is especially important for schools to address the risk factors for diabetes at a much earlier age. Developing the habit of regular physical activity and healthy eating early in life may help children avoid diabetes and many chronic health conditions later in life.

Included in this section:

1. Resource List for Schools, Day Care Centers and Health Professionals and Parents – lists Web sites and written literature addressing the needs of children with diabetes. *This resource list was excerpted from Diabetes Care, Volume 26, Supplement 1, January 2003, p. S134.*

2. Sample Diabetes Health Care Plan- a sample form detailing information about a child's: health care provider(s), personal contacts, emergency contacts, blood glucose monitoring schedule, insulin dosage and delivery, meals and snacks eaten at school, hyperglycemia treatment, hypoglycemia treatment, exercise and sports precautions/restrictions and diabetes supplies. *This resource list was excerpted from Diabetes Care, Volume 26, Supplement 1, January 2003, p. S133.*

Resource List for Schools, Day Care Centers and Professionals who Care for Children

(Excerpted with permission from *Diabetes Care*, Volume 26, Supplement 1, Jan. 2003, p. S134)

Children with Diabetes: Information for Teachers & Child-Care Providers, Alexandria, VA, American Diabetes Association, 1999 (brochure); available online at www.diabetes.org/ada/teacher.asp.

Your School & Your Rights: Protecting Children with Diabetes Against Discrimination in Schools and Day Care Centers, Alexandria, VA, American Diabetes Association, 2000 (brochure); available online at http://www.diabetes.org/main/type1/parents_kids/away/scrights.jsp.*

Your Child Has Type 1 Diabetes: What You Should Know, Alexandria, VA, American Diabetes Association, 1999 (brochure); available online at <http://www.diabetes.org/main/community/advocacy/type1.jsp>*

Treating Diabetes Emergencies: What You Need to Know, Alexandria, VA, American Diabetes Association, 1995 (video); 1-800-232-6733.

Complete Guide to Diabetes, Alexandria, VA, American Diabetes Association, 1999; 1-800-232-6733.

Raising a Child with Diabetes: A Guide for Parents, Alexandria, VA, American Diabetes Association, 2000; 1-800-232-6733.

Clarke W: Advocating for the child with diabetes. *Diabetes Spectrum* 12:230–236, 1999.

Education Discrimination Resources List, Alexandria VA, American Diabetes Association, 2000.*

Wizdom: A Kit of Wit and Wisdom for Kids with Diabetes (and their parents), Alexandria, VA, American Diabetes Association, 2000. Order information and select resources available at www.diabetes.org/wizdom.

The Care of Children with Diabetes in Child Care and School Setting (video); available from, Managed Design, Inc., P.O. Box 3067, Lawrence, KS 66046, (785) 842-9088.

Fredrickson L, Griff M: *Pumper in the School, Insulin Pump Guide for School Nurses, School Personnel and Parents. MiniMed Professional Education, Your Clinical Coach. First Edition, May 2000*. MiniMed, Inc., 1-800-440-7867.

Tappon D, Parker M, Bailey W: *Easy As ABC, What You Need to Know About Children Using Insulin Pumps in School*. Disetronic Medical Systems, Inc., 1-800-280-7801.

* These documents are available in the American Diabetes Association's Education Discrimination Packet by calling 1-800-DIABETES.

Diabetes Health Care Plan

(Excerpted with permission from *Diabetes Care*, Volume 26, Supplement 1, Jan. 2003, p. S133)

Diabetes Care Plan for _____ (name of student) School _____ Effective Dates: _____

To be completed by parents/health care team and reviewed with necessary school staff. Copies should be kept in student's classrooms and school records.

Date of Birth: _____ Grade: _____ Homeroom Teacher: _____

Contact Information:

Parent/guardian #1: _____ Address: _____
 Telephone - Home: _____ Work: _____ Cell Phone: _____
 Parent/guardian #2: _____ Address: _____
 Telephone - Home: _____ Work: _____ Cell Phone: _____
 Student's Doctor/Health Care Provider: _____ Telephone: _____
 Nurse Educator: _____ Telephone: _____
 Other emergency contact: _____ Relationship: _____
 Telephone - Home: _____ Work: _____ Cell Phone: _____

Notify parent/guardian in the following situations: _____

Blood Glucose Monitoring

Target range for blood glucose: _____ mg/dl to _____ mg/dl Type of blood glucose meter student uses: _____

Usual times to test blood glucose: _____

Times to do extra tests (check all that apply):
 Before exercise When student exhibits symptoms of hyperglycemia
 After exercise When student exhibits symptoms of hypoglycemia
 Other (explain): _____

Can student perform own blood glucose tests? Yes No Exceptions: _____

School personnel trained to monitor blood glucose level and dates of training: _____

Insulin

Times, types, and dosages of insulin injections to be given during school:

Time	Type(s)	Dosage
_____	_____	_____
_____	_____	_____

School personnel trained to assist with insulin injection and dates of training: _____

Can student give own injections? Yes No
 Can student determine correct amount of insulin? Yes No
 Can student draw correct dose of insulin? Yes No

For Students with Insulin Pumps:

Type of pump: _____
 Insulin/carbohydrate ratio: _____
 Correction factor: _____

Is student competent regarding pump? Yes No
 Can student effectively troubleshoot problems (e.g., ketosis, pump malfunction)? Yes No
 Comments: _____

Meals and Snacks Eaten at School (The carbohydrate content of the food is important in maintaining a stable blood glucose level.)

Time	Food content/amount
Breakfast _____	_____
A.M. snack _____	_____
Lunch _____	_____
P.M. snack _____	_____
Dinner _____	_____
Snack before exercise? Yes No	_____
Snack after exercise? Yes No	_____

Other times to give snacks and content/amount: _____

A source of glucose, such as _____, should be readily available at all times.
 Preferred snack foods: _____
 Foods to avoid, if any: _____
 Instructions for when food is provided to the class, e.g., as part of a class party or food sampling: _____

Hypoglycemia (Low Blood Sugar)

Usual symptoms of hypoglycemia: _____

Treatment of hypoglycemia: _____

School personnel trained to administer glucagon and dates of training: _____

Glucagon should be given if the student is unconscious, having a seizure (convulsion), or unable to swallow. If required, glucagon should be administered promptly and then 911 (or other emergency assistance) and parents should be called.

Hyperglycemia (High Blood Sugar)

Usual symptoms of hyperglycemia: _____

Treatment of hyperglycemia: _____

Circumstances when urine or blood ketones should be tested: _____

Treatment for ketones: _____

Exercise and Sports

A snack such as _____ should be readily available at the site of exercise or sports.

Restrictions on activity, if any: _____
 Student should not exercise if blood glucose is below _____ mg/dl.

Supplies and Personnel

Location of supplies: Blood glucose monitoring equipment: _____ Insulin administration supplies: _____
 Glucagon emergency kit: _____ Ketone testing supplies: _____
 Snack foods: _____

Personnel trained in the symptoms and treatment of low and high blood sugar and dates of training: _____

Signatures

Reviewed by: [student's health provider/ date] Acknowledged/received by: [guardian/date] Acknowledged/received by: [school representative/date]

APPENDIX G: National Diabetes Resources

Diabetes Dictionaries

National Diabetes Information
Clearinghouse Diabetes Dictionary
<http://www.niddk.nih.gov/health/diabetes/pubs/dmdict/dmdict.htm>

Take Charge of Your Diabetes Dictionary
<http://www.cdc.gov/diabetes/pubs/tcyd>

Federal Government Resources

CDC's Diabetes Public Health Resource
<http://www.cdc.gov/diabetes/>

Diabetes and Cardiovascular Disease
Fact Sheet
<http://ndep.nih.gov/control/CVD.htm>

Healthfinder
<http://www.healthfinder.gov/>

Indian Health Services
<http://www.ihs.gov>

Medicare Web site
Provides information about diabetes and new Medicare benefits.
<http://www.medicare.gov>

MEDLINEplus tutorials
*Health condition and disease modules:
Take about 10 minutes to review, use
animated graphics and explain a
condition or procedure in easy-to read
language. Information on diabetes is
also available in Spanish.*
<http://www.nlm.nih.gov/medlineplus/tutorials.html>

National Diabetes Education Program
NDEP—CDC
*Federally-funded initiative involving public
and private partners to address diabetes.*
<http://www.cdc.gov/team-ndep/>

NDEP — National Institutes of Health
(NIH)
<http://www.ndep.nih.gov/>

National Institute of Diabetes and
Digestive and Kidney Disease (NIDDK)—
NIH
<http://www.niddk.nih.gov/>

National Eye Institute—NIH
<http://www.nei.nih.gov/>

Office of Minority Health Resources
Center
<http://www.omhrc.gov/>

Native American Web site Directory
<http://www.nlm.nlm.nih.gov/pnr/samplers/natamer.html>

State Diabetes Control Programs
<http://www.cdc.gov/diabetes/states/>

State by State Table of Diabetes
<http://ndep.nih.gov/control/ Diagnosed-diabetes.htm>

Professional Associations/Organizations

American Diabetes Association (ADA)
800-342-2383
<http://www.diabetes.org/>

American Dietetic Association (ADA)
800-877-1600
<http://www.eatright.org>

American Foundation for the Blind (AFB)
800-232-5463
www.afb.org/default.asp

The National Kidney Foundation
<http://www.kidney.org>

American Association of Diabetes Educators
(AADE)
<http://www.aadenet.org>
American Medical Association
<http://www.ama-assn.org>

American Optometric Association
800-678-9262
<http://www.aoanet.org/>

Canadian Diabetes Association
<http://www.diabetes.ca/index.htm>

Employment-related Links

Diabetesatwork.org
Web site that provides useful resources for helping businesses bring diabetes education and awareness into the workplace.

National Business Coalition on Health
<http://nbch.org/>

Washington Business Group on Health
<http://wbgh.org/>

Community Resources

Guide to Community Preventative Services
Provides evaluation of community, population and health care system strategies that address diabetes.
<http://www.thecommunityguide.org/diabetes/>

Diabetes Directories

Rick Mendosa Diabetes Directory
<http://www.mendosa.com/diabetes.htm>

Research/Educational Resources

Diabetes in America, 2nd Edition.
A 733-page compilation of diabetes statistics that can be downloaded chapter by chapter or ordered online.
<http://diabetes-in-america.s-3.com/>

The Joslin Diabetes Center
An institution affiliated with Harvard Medical School, which is an international leader in diabetes treatment and research.
<http://www.joslin.org/jboston/index.html>

The Mayo Clinic
<http://www.mayohealth.org/mayo/library/html/tocdiabe.htm>

Juvenile Diabetes Research Foundation International
<http://www.jdrf.org>

APPENDIX H: Michigan Diabetes Resources

American Diabetes Association, Michigan Affiliate

1-800-525-9292 or 810-433-3830
www.diabetes.org

American Heart Association, Michigan Affiliate

248-557-9500
www.american.heart.org

Governor's Council on Physical Fitness, Health & Sports

*Provides information on exercise including
ACES and "Get Michigan Moving"*
<http://www.michiganfitness.org>

Joining People with Diabetes

*A diabetes consumer/advocacy group
dedicated to enhancing the self-care and
long-term support of people with diabetes
and their significant others through active
use of their personal strengths and
experiences.*
517-335-8445

Lions Clubs of Michigan/Lions of Michigan Service Foundation

*Charitable organization that assists in the
betterment of the quality of life of people in
Michigan having unmet needs, especially
related to preventing and treating diabetic
eye disease.*
517-887-6440
www.lionsofmi.com

Michigan Association of Health Plans (MAHP)

*Sponsor of "Taking on Diabetes in Michigan"
(TODIM) initiative.*
517-371-3181
<http://www.mahp.org/MAHP%20Foundation/todim/diabetes.htm> or
<http://www.mahp.org>

Michigan Diabetes Self-Management Training Certification Program

*State certification is available to eligible
diabetes self-management training
programs. Web page (available by link from
Michigan Diabetes Prevention and Control
Program) provides information about the
certification process.*

517-335-8445
<http://www.michigan.gov/mdch> (click on
Physical Health & Prevention on left side of
screen, then click on Prevention, then click
on Diabetes, and then click on DSMEP link)

Michigan Department of Career Development: Michigan Rehabilitation Services

*Provides assistance to individuals who have
health-related disabilities to obtain and/or
maintain employment.*
<http://www.state.mi.us/career> (under MDCH
Services found on the left)

Michigan Diabetes Prevention and Control Program (MDPCP)

*Web site provides helpful information and
data about diabetes and a listing of Certified
Diabetes Self-Management Training
Programs. The MDPCP provides leadership
to diabetes prevention and control programs
throughout the state. It also serves as the
coordinating body for the six regional
diabetes outreach networks. (See next
page.)*

517-335-8445 or 517-335-9955
<http://www.michigan.gov/mdch> (click on
Physical Health & Prevention on left side of
screen, then click on Prevention and then
click on Diabetes)

Michigan Diabetes Outreach Networks

Michigan has six regional Diabetes Outreach Networks. Their purpose is to create innovative partnerships to strengthen diabetes prevention, detection and treatment throughout all areas of Michigan. Their three main areas of focus include: (1) improving the quality of diabetes care, (2) providing diabetes professional education and (3) raising public awareness of diabetes.

www.diabetes-midon.org or
www.diabetesinmichigan.org

Upper Michigan Diabetes Outreach Network (UPDON)

906-228-9203 or 1-800-369-9522
(Upper Peninsula Only)

Northern Michigan Diabetes Outreach Network (TIPDON)

231-348-8596 or 1-800-847-3665

East Central Diabetes Outreach Network (ECDON)

989-249-0170 or 1-800-323-6614

Ten Counties in Central and Western Michigan Diabetes Outreach Network (TENDON)

616-735-1118 or 1-800-472-3175

Southern Michigan Diabetes Outreach Network (SODON)

517-279-2267 or 1-800-795-7800

South East Michigan Diabetes Outreach Network (SEMDON)

313-965-2351

Michigan Diabetes Training and Research Center (MDRTC)

734-783-5730

www.med.umich.edu/mdrtc

Michigan Optometric Association

517-482-0616

<http://www.mioptassn.org/>

Michigan Organization of Diabetes Educators (MODE)

1-888-DIABETES (342-2383) ext. 6638

www.modeonline.org

Michigan Protection and Advocacy Service, Inc. (MPAS)

Offers disability rights information and services.

800-288-5923

www.mpas.org

Michigan Self-Help Clearinghouse Web site

Lists support groups by county.

www.mpas.org

National Kidney Foundation of Michigan, Inc.

1-800-482-1455

www.nfkm.org

Racial and Ethnic Approaches to Community Health:**REACH Detroit Partnership**

A program aimed at preventing diabetes and diabetes complications as well as improving quality of life in African American and Hispanic communities in eastside and southwest Detroit.

313-758-0624

www.reachdetroit.org