

Diabetes at Work: Legal and Medical Answers for HR

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Why are we discussing this?

- **Epidemic of diabetes**
- **Working population now has many chronic conditions**
- **How do we balance having a workforce, make accommodations for chronic conditions, avoid “discrimination”**

**NY times: 12- 26, 2006 COSTS OF A
CRISIS: Diabetics Confront a Tangle of
Workplace Laws**

- A mortgage loan officer in Oregon was denied permission to eat at her desk to stanch her sugar fluctuations, and eventually was fired.
- ¶A Sears lingerie saleswoman in Illinois with nerve damage in her leg quit after being told she could not cut through a stockroom to reach her department.
- ¶A worker at a candy company in Wisconsin was fired after asking where he could dispose of his insulin needles

What we have here is a failure
to communicate: Open the
doors to collaborate



***Crossing the Great Divide: Employers,
Health Care Providers, Lawyers and
Employees Come Together to Promote
Health***



**The health of a community
impacts the economic health
of its businesses
and
Corporations are able to play
a unique role in the
development of a community's
health and continued vitality**

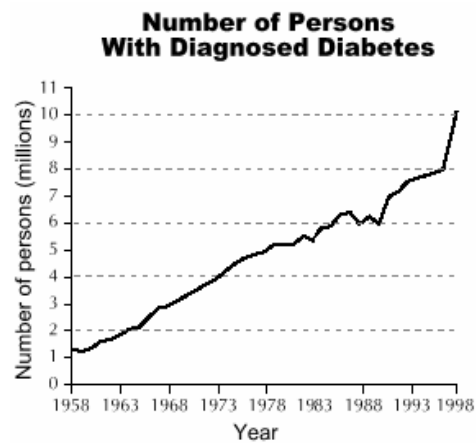
NBGH Kellogg paper

Know the Language; Multiple ADAs

- ADA; American Diabetes Association: Advocacy
- ADA; Americans with Disabilities Act



We Have an Epidemic of Diabetes!



Source: National Institutes of Health and Centers for Disease Control and Prevention



Newsweek
TAX CUT SMACKDOWN
SAINTLY POPES BEHIND CHOC

DIABETES

It Strikes 16 Million Americans
Are You at Risk?

An American Epidemic
Diabetes

The silent killer: Scientific research shows a persistent explosion of cases—especially among those in their prime
BY JERRY ADLER AND CLAUDIA KALE

Scientific research shows a persistent explosion of cases—especially among those in their prime. The CDC estimates that 16 million Americans have diabetes, and that number is rising rapidly. In fact, the CDC estimates that 41 million Americans have pre-diabetes, a condition that can lead to diabetes if not managed properly. The CDC estimates that 1 in 3 Americans have pre-diabetes, and that number is rising rapidly. The CDC estimates that 1 in 3 Americans have pre-diabetes, and that number is rising rapidly. The CDC estimates that 1 in 3 Americans have pre-diabetes, and that number is rising rapidly.

DIABETES
ARE YOU AT RISK?

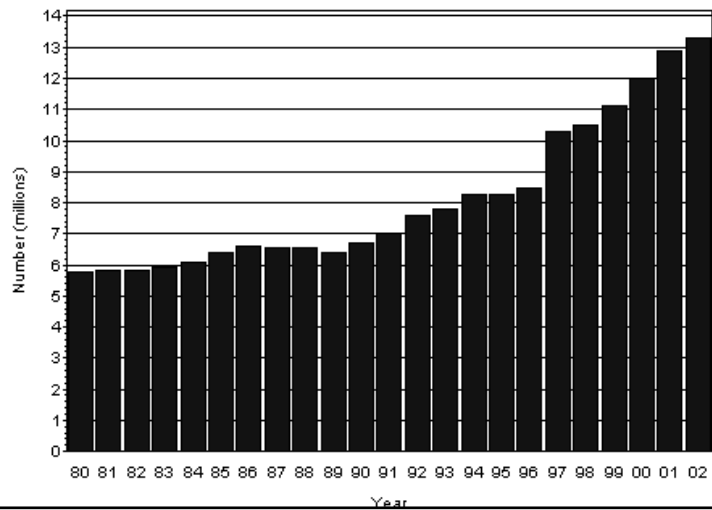
DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
CDC

21 million with Diabetes

41 million with Pre-Diabetes

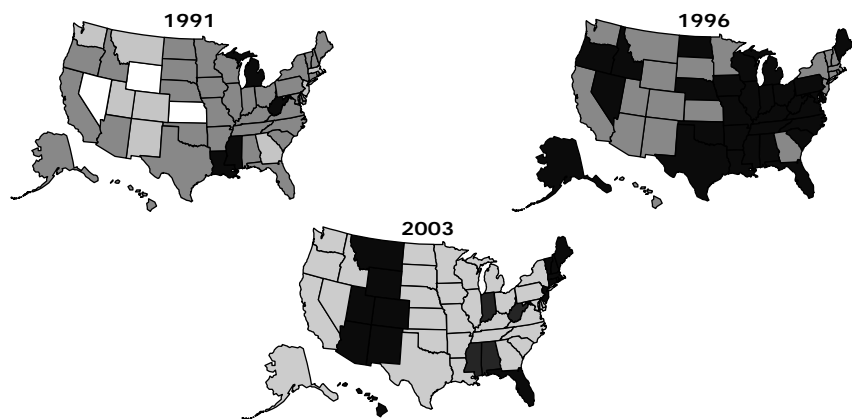
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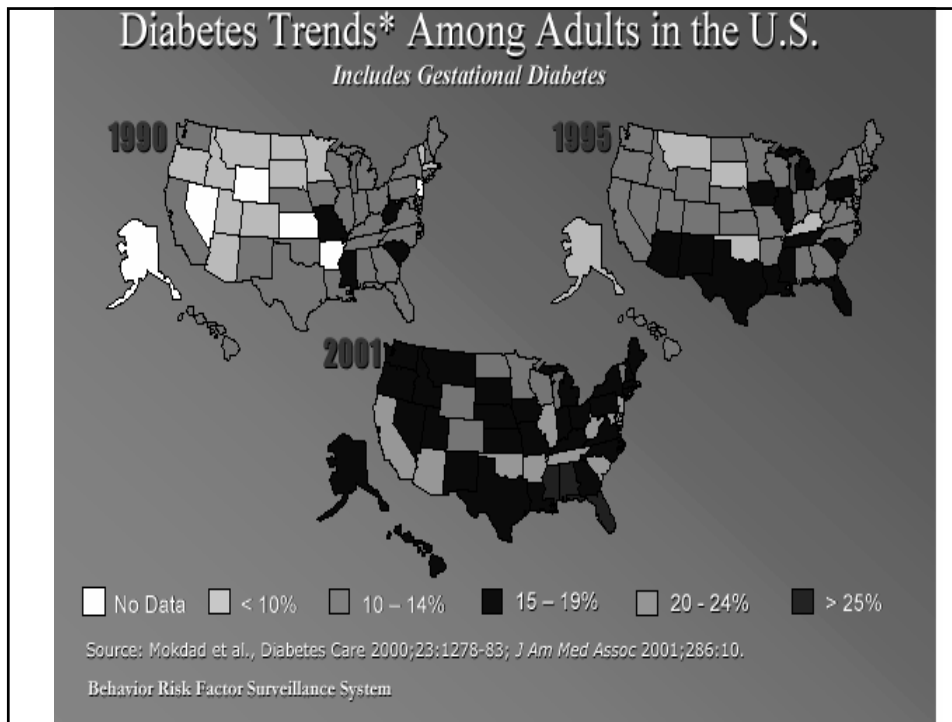
Diabetes Trends US 1980-2002



Obesity Trends* Among U.S. Adults BRFSS, 1991, 1996, 2003

(*BMI ≥30, or about 30 lbs overweight for 5'4" person)





Obesity

- **Prevalence of obesity increased 61% since 1991.**
- **More than 50% of US adults are overweight.**
- **Only 43% of obese persons are advised to lose weight during checkups.**
- **BME and weight gain are major risk factors for diabetes.**

U.S. Diabetes Prevalence

All Ages, 2005

- 20.8 million people have diabetes

Diagnosed: 14.6 million people

- Type 1 diabetes accounts for 5 – 10%
- Type 2 diabetes accounts for 90 – 95%
- **Undiagnosed:** 6.2 million people
- **Incidence:** 1.5 million cases diagnosed in 2005

NIDDK, National Diabetes Statistics fact sheet. HHS, NIH, 2005.

Diabetes also means:

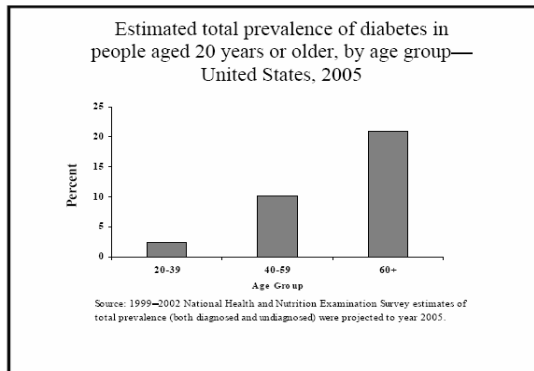
- 2 x the risk of high blood pressure
- 2 to 4 x the risk of heart disease
- 2 to 4 x the risk of stroke
- **#1 cause of adult blindness**
- **#1 cause of kidney failure**
- **Causes more than 60% of non-traumatic lower-limb amputations each year**

NIDDK, National Diabetes Statistics fact sheet. HHS, NIH, 2005.

BOTTOM LINE

- **1/3 of Americans born in 2000 will develop diabetes sometime in their lifetime**

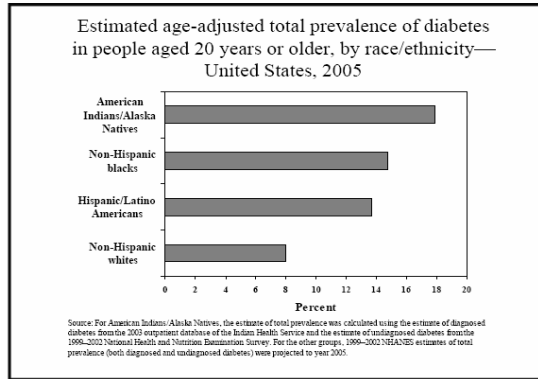
U.S. Diabetes Prevalence 20 Years or Older, 2005



NIDDK, National Diabetes Statistics fact sheet. HHS, NIH, 2005.

U.S. Diabetes Prevalence

20 Years or Older, by Race/Ethnicity, 2005



NIDDK, National Diabetes Statistics fact sheet. HHS, NIH, 2005.

EVERY 24 HOURS

- **New Cases – 4,100**
- **Deaths – 810**
- **Amputations – 230**
- **Kidney Failure – 120**
- **Blindness - 55**



Derived from NIDDK, National Diabetes Statistics fact sheet. HHS, NIH, 2005.

Estimated Cost of Diabetes in U.S.

- **Total: \$132 billion**
- **Direct Medical Cost: \$92 billion**
- **Indirect Cost: \$40 billion**

Lewin Group, Inc., for the American Diabetes Association, 2002.

What is Diabetes

- **Not just a “sugar” problem**
- **Interaction of food, insulin, other hormones (glucagon)**
- **Physical activity**
- **Obesity**
- **Pancreatic function**
- **Other commonly associated conditions: hypertension, lipid problems**

Diabetes 101

- **The complications, not just the diagnosis of diabetes, cause the problems**
- **Diabetes is common, serious BUT treatable**
- **Not all therapies for type 2 diabetes cause hypoglycemia**
- **Remember that many people are afraid of discrimination and some do not share the diagnosis**

Diabetes: Each Day, A New Drug, Each Day, A New Diagnosis

- **Earlier diagnosis, Can diabetes be prevented?**
- **Fasting glucose: 126mg/dl,**
- **Post glucose load 2h: >200 mg/dl**
- **Impaired fasting glucose: >100 but <126**
- **Impaired glucose Tolerance: >140 but <200**

Types of Diabetes

- **Type 1: traditionally age <20, no endogenous insulin, may be 15 or 50 years old, Rx = insulin only**
- **Type 2: traditionally >40, multiple problems with insulin secretion and action, may be 15 or 50, Rx may include oral agents and/or insulin**

Characteristics of Type 1 Diabetes

- **Beta cells of pancreas have pooped out**
- **Etiology? auto immune, viral?**
- **?Genetic component**

Characteristics of Type 2 Diabetes

- **Absolute or relative insulin deficiency: impaired beta cell function and/or insulin resistance**
- **Twin components: Fasting hyperglycemia and/or postprandial hyperglycemia**
- **Associated problems: Hypertension, fasting and postprandial dyslipidemia, arteriosclerotic changes**

Therapies

- **Type 1: Insulin: many types and duration of action. Goal to mimic normal physiology**
- **Type 2: many oral agents. May also use insulin**
- **New agents: incretins, GLP1**

Consequences of Uncontrolled Diabetes

- **Loss of productivity**
- **Increased direct and indirect health care expenditures**
- **Poorer quality of life for employees**
- **Possible permanent disability**

Complications

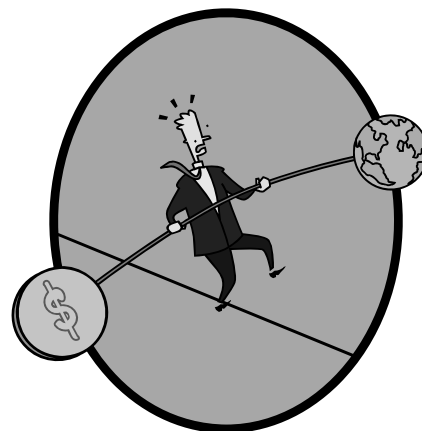
- **Eyes**
- **Kidneys**
- **Nerves**
- **Cardiovascular disease and stroke**
- **Randomly controlled studies show that these complications can be prevented or controlled with good blood sugar control but this might involve multiple shots etc**
- **More shots does not mean “worse diabetes”!**

Why Control Diabetes?

- **Better control translates into fewer complications in eyes and kidneys**
- **Fewer complications translate into fewer days lost to absenteeism and disability, and future savings on health care expenditures**

Complications of diabetes: Issue for disability

- **Balance between appropriate therapies to PREVENT complications and accommodations such as needles at the worksite, breaks for snacks**
- **Wellness programs to PREVENT and improve control**



Economic Benefits of Improved Glycemic Control

- **Workers with better A1C have fewer days lost to absenteeism***
- **Fewer days of restricted activity**

*Testa et al, JAMA, Nov 1, 1998

Diabetes and the Workplace- General Considerations

- **Type of job**
- **Physical activity**
- **Hours**
- **Coworkers**
- **Physical environment**

Type of Job

- **Desk job**
- **Physically active job**
- **Stress**
- **Supervisor**
- **Handling equipment**
- **Physical requirements**
- **Special license or qualifications**

Physical Activity

- **Active and less active days**
- **Type of activity: constant vs episodic**
- **Handling moving or hazardous equipment: forklifts, assembly lines, cutting equipment**
- **Lifting required: how much, how frequent**

Physical Environment

- **Hazards**
- **Working alone or with others**
- **Exposures: need for protective equipment, respirators etc**
- **Location: outside, inside, Near lockers or source of food etc**
- **Heights**

Shift Work

- **Hours of work: 8, 10, 12, 14 etc**
- **Number of days/week**
- **How often does shift change: weekly, monthly?**
- **Type of shift: day, night, other**
- **Hours of meals and snacks**
- **Source of meals and snacks**

Individual assessment

- **LEO (Law Enforcement Officers):
ACOEM**
- **Avoid blanket bans!**
- **Focus on specific complications: eyes, neuropathy just like other physical conditions such as back pain, repetitive motion injuries etc**

Examples

- **Box cutter and hypoglycemia**
- **Short term use of insulin in type 2 diabetes in an employee who drives a forklift**
- **Disposal of needles: pens, ADA guidelines**
- **Shift work**

Individual Assessment

- **Work with health care provider**
- **Education!**
- **Assessment of physical condition**
- **Assessment of therapeutic regimen. Can insulin, for example be adjusted (dose, type, timing) to better control glucose level (avoid hypoglycemia, keep good control)**

Individual Assessment

- **Accommodation may be short term until glucose levels are stable**
- **Be proactive**

Why pick diabetes for a health promotion intervention at a business?

- **Costs over \$100 billion/year in health care expenditures**
- **Effective interventions promote multiple good outcomes**
- **Loss of productivity due to uncontrolled diabetes**
- **Increased direct and indirect health care expenditures**
- **Poorer quality of life for employees**
- **Possible permanent disability**

Why the workplace as a site of disease education?

- **Unique opportunity for education**
- **Less time away from work**
- **Improves employer-employee relations and shows employer cares about employees**

National Diabetes Education Program: Business and Managed Care Workgroup

What are we?

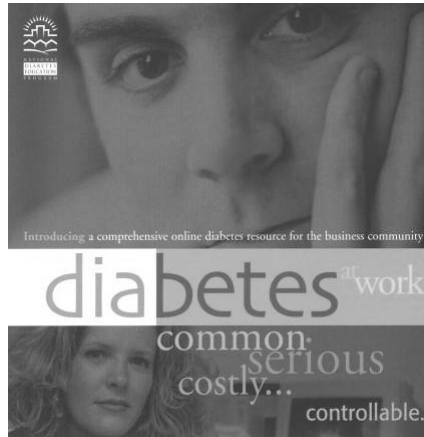
What do we do?

Why do we do it?

National Diabetes Education Program (NDEP) Goals www.ndep.nih.gov :

- **CDC and NIH program formed after evidence showed that better glucose control translated into fewer complications**
- **Public and private partnerships to improve diabetes treatment and outcomes**
- **Increased public awareness of the seriousness of diabetes, its risk factors, and strategies for preventing diabetic complications**

NDEP Business Health Strategy Workgroup



Business Health Strategy Workgroup Goals

- **To increase awareness of the benefits of quality diabetes care among employers, benefits managers and managed care decision makers**
- **To provide employers, health plans and employees with tools and information for incorporating diabetes education programs into the workplace**
- **To promote the value of investing in prevention**

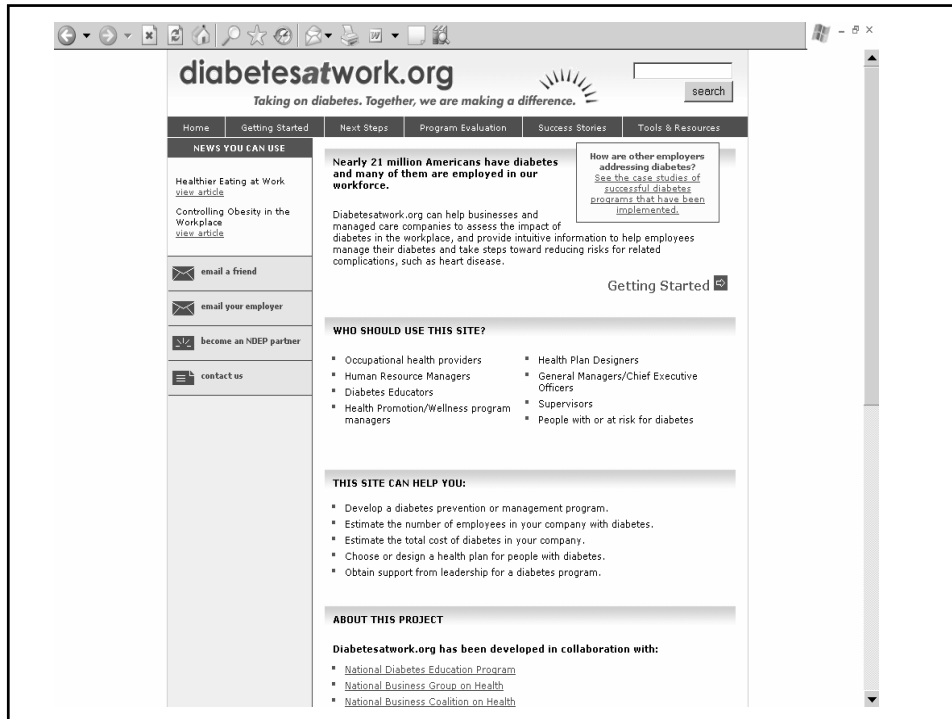


NDEP Business Health Strategy Workgroup: Who are we?

- **CDC and NIH**
- **Large and small businesses: GE, GM, Land's End**
- **Unions**
- **Occupational health professionals**
- **Public health agencies state Diabetes Prevention and Control Programs)**
- **Managed care groups**
- **National associations representing employers, business coalitions and health care insurers**

www.diabetesatwork.org

- **Developed to meet the business community's need for easily accessible, diabetes-focused worksite health information**
- **Users: human resource managers, occupational health professionals, supervisors, wellness coordinators, employees and their family members**



www.Diabetesatwork: Content

- **General Diabetes Education :**
- **Nutrition, Weight Control, and Physical Activity**
- **Lesson Plans (English and Spanish)**
- **Fact Sheets (English and Spanish)**
- **Guide to choosing a health plan, developed with AAHP**
- **Supervisor's guide**
- **NO COPYRIGHT!**

Why Focus a Worksite Health Promotion Program on Diabetes?



Additional Resources

- **Employer showcase**
- **Links to NDEP materials in English, Spanish, Asian and African languages**
- **News You Can Use**
- **Links to information on preventing diabetes and the diabetes and heart disease connection**
- **Federal government agencies and health and business associations Web sites**

Don't Forget about Diabetes Prevention!



Pre-diabetes?

- **People with pre-diabetes have blood glucose levels higher than normal but not high enough to be diagnosed with diabetes**
- **At least 54 million U.S. adults age 20 and older have pre-diabetes—which raises their risk for type 2 diabetes and cardiovascular disease**
- **58% of people with pre-diabetes (DPP study) prevented or delayed the onset of type 2 diabetes through lifestyle change**

• NIDDK, National Diabetes Statistics fact sheet. HHS, NIH, 2005.
The Diabetes Prevention Program Research Group. Diabetes Care. 1999;22:623.
NIDDK. http://www.niddk.nih.gov/welcome/releases/8_8_01.htm.

Diabetes Prevention Efforts worth every penny

- **Lifestyle intervention could delay the onset of DM by 11 years**
- **Decrease the risk of developing DM by 20%**
- **QALY (Quality Adjusted Life Years)**
- **Over a lifetime, intensive lifestyle intervention = \$8,800 for every QALY saved = very cost effective**
- Herman, W. et al. Effectiveness of lifestyle modification or metformin in preventing type 2 diabetes in adults with impaired glucose tolerance, *Ann Int Med*, 142: 323-342, March 2005



Get Real!

You don't have to knock yourself out to prevent diabetes.

It's about taking small steps: losing 10 to 15 pounds if you weigh 200 pounds, walking briskly for 30 minutes most days, and making healthy food choices.

It's about big rewards: living a longer and healthier life—and avoiding serious health problems such as heart attacks, strokes, blindness, kidney failure or amputation.

Take the first step today. If you're over 45 and overweight, you may be at high risk for diabetes. Talk to your health care provider today. For free information about preventing diabetes, call 1-800-438-5383.



A message from the National Diabetes Education Program, sponsored by the National Institutes of Health and the Centers for Disease Control and Prevention.



Get Real!

You don't have to eat like this to prevent diabetes.

It's about taking small steps: losing 10 to 15 pounds if you weigh 200 pounds, walking briskly for 30 minutes most days, and making healthy food choices.

It's about big rewards: living a longer and healthier life—and avoiding serious health problems such as heart attacks, strokes, blindness, kidney failure or amputation.

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REMEMBER

The lifestyle changes and medical care recommended for diabetes control helps to prevent and control MANY chronic diseases.

Websites

N
D
E
P

<http://ndep.nih.gov>

<http://www.cdc.gov/team-ndep>

<http://www.diabetesatwork.org>

<http://www.betterdiabetescare.org>

Commercial printer-ready Zip
cartridges or CDs also available.
Call 1-800-860-8747

<http://www.healthdisparities.net>



Resources

- www.diabetesatwork.org
- www.cdc.gov/diabetes
- www.ndep.nih.gov
- National Business Group on Health
www.wbgh.com
- National Business Coalition on Health
www.nbch.org
- American College of Occupational and Environmental Medicine www.acoem.org
- American Occupational Health Nurses
www.aohn.org

Resources

- www.cdc.gov/needledisposal,
- **Arent S, The Role of Diabetes Health Care Professionals in Diabetes Discrimination Issues at Work and School Diabetes Spectrum 15:217-221, 2002**
- **Questions and Answers About Diabetes in The Workplace and the Americans with Disabilities Act (ADA)**
- **Job Accommodation Network**
(<http://janweb.icdi.wvu.edu/media/diabetes.html>)
- www.eeoc.gov/facts/diabetes.html