

Public private partnerships that address diabetes in the workplace: How Academia, Government Agencies and Private Industry Can Work Together

**National Diabetes Education Program:
A Resource in the Public Domain**

Rachel Weinstein M.Ed.

Pam Allweiss MD, MPH

The Diabetes Epidemic:

What is the scope of the problem?

- **24 million Americans have diabetes – almost 8% percent of the U.S. population.**
- **Diagnosed: 17.9 million people**
- **Undiagnosed: 5.7 million people**
- **57 million have pre-diabetes**
- **One of the six leading causes of death**
- **1.6 million new cases of diabetes were diagnosed in people aged 20 years or older in 2007.**
- **Effective interventions promote multiple good outcomes**
- www.cdc.gov/diabetes

We Have a Diabetes Epidemic

- The Epidemic has made the “front page” of Time, Newsweek Magazines
- Aging of America
- Diverse ethnic groups, various incidence and prevalence of diabetes
- Earlier diagnosis and reclassification
- “Borderline Diabetes or a “touch of sugar”

Estimated Number of New Cases of Diagnosed Diabetes in People Over the Age of 20 by Age Group in the US 2007

- **20-39 years old: 281,000**
 - **40-59 years old: 819,000**
 - **60+ years old: 536,000**
 - **Bottom Line: 1 in 3 Americans born in 2000 will develop diabetes sometime in their lifetime**
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- CDC. National Diabetes Fact Sheet, 2007.
 - Source: 2004–2006 National Health Interview Survey estimates projected to year 2007

Diabetes and Obesity: The Continuing Epidemic

- **Prevalence of obesity, increased by 61% since 1991**
- **More than 50% of US adults are overweight**
- **Only 43% of obese persons advised to lose weight during checkups**
- **BMI and weight gain major risk factors for diabetes**
- **Maps of obesity trends from 1990-2005 can overlap the maps of diabetes trends**

Mokdad et al. *Diabetes Care*. 2000;23:1278.

Mokdad et al. *JAMA*. 1999;282:1519.

Mokdad et al. *JAMA*. 2001;286:1195.

So Why Does Diabetes Continue to Command Our Attention?

- **Because EVERY 24 HOURS there are:**
 - ***4,100 new cases of diabetes,***
 - ***810 deaths due to diabetes,***
 - ***230 amputations,***
 - ***120 kidney failures, and***
 - ***55 new cases of blindness***

- Source: 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**
- **Make the link: Diabetes and Heart Disease**

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

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

- **Effective interventions promote multiple good outcomes**
- **Loss of productivity due to uncontrolled diabetes may be improved with better glucose control**
- **Improve quality of life for employees**
- **Many employees (both current and future) have or may be at risk for developing diabetes**

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**

Costs 2007

- **\$174 billion, including \$116 billion in excess medical expenditures and \$58 billion in reduced national productivity.**

Indirect costs include:

- **Increased absenteeism (\$2.6 billion)**
- **Reduced productivity while at work (\$20.0 billion) for the employed population**
- **Reduced productivity for those not in the labor force (\$0.8 billion)**
- **Unemployment from disease-related disability (\$7.9 billion)**
- **Lost productive capacity due to early mortality (\$26.9 billion)**

Do Any Interventions Work?

- **Better control translates into fewer complications**
- **Fewer complications translate into fewer days lost to absenteeism and disability, and future savings on health care expenditures**
- **Bottom Line: Does better glucose control translate to better outcomes or better health in the individual? Does better glucose control translate into improved productivity in the workplace?**

YES!

Economic Benefits of Improved Glycemic Control

- Workers with better A1C had fewer days lost to absenteeism
 - Fewer days of restricted activity
 - A1c levels are directly linked to health care costs and savings can be realized with improvement of A1c levels
-
- Testa et al, *JAMA*, Nov 1, 1998
 - Gilmer, *Diabetes Care* 1997

Symbiotic Relationship:

Opportunity knocks to open the doors between business and community health

- **The health of a community impacts the economic health of its businesses.**
- **Corporations are able to play a unique role in the development of a community's health and continued vitality.**
- **A “healthy” community produces “healthy” potential employees who can increase productivity and positively impact the economics of a business.**
- **Healthy and productive employees can have a positive impact upon the community.**
- **Employers know that it takes collaborations on several levels to nurture a healthy community, and are searching for the right partners and vehicles to accomplish this together.**

Business vs Community Health

- **ROI**
- **Stay in business**
- **Productivity**
- **Profit and loss**
- **Overhead**
- **Employees as a capital investment**
- **Public good**
- **Healthy people**
- **Public and private partnerships**
- **Non-profits**
- **Advocacy**

Community and Public Health

- **Community health= primary domain of the public health entities.**
- **Models, based on epidemiological evidence, target populations with identified health risk factors or conditions.**
- **Engaging business in such activities is challenging, and many community health development efforts lack effective partnership with local businesses.**
- **We wear our hearts on our sleeves**

So what are some resources
in the public domain?

National Diabetes Education Program

- Sponsored by DHHS's NIH &CDC
- Partnering with over 200 groups on the federal, state, and local levels

National Diabetes Education Program

Mission:

To reduce illness and death associated with diabetes by changing the way diabetes is treated.

National Diabetes Education Program

- Translates the science and spread the word...

*...diabetes is serious, common,
costly, yet controllable and, for type
2 diabetes, preventable*

NDEP History

- Launched in 1997
- With one message and one product

NDEP Today

- Diabetes messages:
 - control and prevention
- More than 100 resources and tools

NDEP Structure

- Executive Committee
- Steering Committee
- Operations Committee
- Work Groups
- Partnership Network

NDEP Work Groups

- African American/African Ancestry
- American Indian & Alaska Native
- Asian American & Pacific Islander
- Business Health Strategies
- Diabetes in Children & Adolescents
- Evaluation
- Health Care Professional
- Hispanic/Latino
- Pharmacy, Podiatry, Optometry, &Dentistry
- Older Adults

Diabetes Control

Control Your Diabetes. For Life.

Diabetes Control

Diabetes ABCs

- *A1C*
- *Blood Pressure*
- *Cholesterol*

Diabetes Prevention

*Small Steps. Big Rewards.
Prevent type 2 Diabetes.*

Diabetes Prevention

Lose 5% to 7% of weight

Two keys to success:

- At least 30 minutes of physical activity 5 days a week
- Healthy food choices

Diabetes Risk Factors

- Ages 45 and older
- Overweight (BMI>25)
- Family history
- African American, Hispanic/Latino, American Indian, Asian American, or Pacific Islander
- Gestational Diabetes
- Glucose levels above normal
- High blood pressure
- Cholesterol levels outside normal range

Target Audiences

- People with diabetes and their families
- People at risk for diabetes and their families
- Health care professionals
- Payers and purchasers of health care and health care system policy makers
- Community groups, schools, etc.
- General public
- High risk populations

Resources- Consumer

Materials:

- *English and Spanish*
- *15 Asian and Pacific Islander languages*
- *For high risk audiences*

Resources-Health Care Professionals

- *Criteria for diagnosing pre-diabetes & diabetes, managing diabetes*
- *Guiding principles for diabetes care*
- *Team care document*
- *Prevention program toolkit*

Resources-Groups and Others

Resources include:

- *Prevention toolkit for community health workers*
- *Toolkit to promote diabetes control in the older adult community*

Resources-continued

- Brochures, Tip Sheets, CDs
- Tool Kits and Newsletters
- Articles and Fact Sheets
- PSAs and Posters
- Press Releases
- Logos and Banners
- Websites, podcasts, and webinars

Resources-continued

- ordered for free,
- downloaded from our website,
- are copyright free and
- you can add your own logo.

NDEP Business Health Strategy Workgroup

- **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

- www.Diabetesatwork.org can help businesses and managed care companies to assess the impact of diabetes in the workplace, and provide intuitive information to help employees manage their diabetes and take steps toward reducing risks for related complications

***www.DiabetesAtWork.org* Content**

- **General Diabetes Education**
- **Managing Diabetes Complications**
- **Cardiovascular Disease Risk Factors**
- **Nutrition, Physical Activity, and Weight Control**
- **Emotional Well-Being**
- **Feet Care**
- **Guide to Choosing a Health Plan**
- **“Lunch and Learns” Topics**
- **Shift Work**
- **Supervisor’s Guide**
- **Links to NDEP Websites**

Small steps: Big rewards

- Can't transform everything at once
- Use the web sites to print out forms and “recipes”
- Don't re-invent the wheel
- Learn from others

Other DAW Projects

- Lockheed Martin
- GE Energy
- DFWBGH: Federal Reserve Bank
- Land's End

GE/CDC/NBGH Project: Who Are We?

- **CDC:** government agency, cooperative agreement with the business sector of CDC
- **GE Energy:** multinational company 120 countries,
- **NBGH:** National non-profit organization, represent the Fortune 500 companies, and public sector health care purchasers, 39 million employees, dependents and retirees.

Why Did We Do it?

- **Impetus for the project**
 - CEO concerned about health status of employees
 - Top management wants productive workforce
 - Management understood link between health status and productivity
- **Objectives of the collaboration**
 - Science-to-Service
 - Link CDC scientist with business

What Did We Do?

- Identify a population at high risk for developing diabetes and other cardiovascular risk factors by doing serial cardiovascular risk assessments (CRA) at the worksite
- Combine public and private expertise to develop interventions to decrease the risks
- Calculate the ROI (Return On Investment)

GE Energy Interventions for At Risk Population

- Combo of GE materials and adaptation of CDC www.diabetesatwork.org materials
- 0 Smoking
- 5 Fruits/vegetables /day
- 10,000 steps/day
- 25 BMI < 25

Net Effect of CRA As an Intervention and ROI

- **Per 1000 employees screened, 4 events (in 5 years) are prevented**
- **24.8 events averted in our screened population**
- **At \$40,000 per event = \$992,000**
- **"I have participated for three years. It is very helpful to see the progress on a consistent basis. This program definitely helps understand the health risks and management, and provides encouragement, support and guidance for healthy life style."**

Trane Wellness Program: A Public Private Partnership

- **It started in a supermarket.**
- **Medical providers (occ med professionals, docs, nurses, wellness coordinators)**
- **Sources of expertise: Public health, NDEP (CDC/NIH), state DPCP (Diabetes Control and Prevention Program), University of Kentucky, Local Health Department**
- **Community groups, AHA, ADA**
- **Used NDEP Materials**

American Standard/Trane

- **Makers of the necessities of life**
- **Partnership between health department and private company**
- **On site training of all shifts**
- **Plan: Spread to other plants in the US**
- **Used basic fact sheets from DAW and NDEP**
- **2 messages: Better diabetes control and Primary prevention**
- **Wheel of diabetes interactive game**

Kick Off: January 9, 2007

- All Employee program
- Three shifts—1050 employees
- Guest speakers:

Jump Start Your Heart

Control Your Blood Pressure

What's on my Plate?

Participation Numbers

Highest: 100 on January 23rd, paid time

Lowest: 39 on January 16, unpaid time

54 on August 14th, paid time

Evaluations and comments

Comments from “what would keep you from attending 2008 classes”

- If my boss won't let me come
- If unpaid time
- Getting fired
- Going on strike
- Death
- *Wild Horses*

Lessons learned

- Work with existing programs: True collaboration, not competition)
- Include many community and health organizations
- Include health plan
- Consistency
- Support from the top

www.DiabetesAtWork.org
***Planning and Implementing
Corporate Breakfast Meetings***

Examples of Collaboration

- Land's End
- Wisconsin DPCP
- The Alliance (a coalition)
- Palmer and Cay insurance

A Guide to Successful Workshop Planning

- **Lessons Learned**
- **Securing Appropriate Partners**
- **Program Content**
- **Logistics**
- **Promotion**
- **Evaluation**

Other Business Health Strategy Workgroup projects

- NBCH diabetes seed grant review
- NBGH Purchasers Guide to Preventive Services
- CDC co-operative agreement as subject matter experts
- NBCH evalu8

What Can My Company Do?

- Identify actions to improve diabetes care and education
- Implement programs at the worksite to educate employees about diabetes and other diseases related to diabetes
- Provide the best health care possible at a reasonable cost

Develop a Supportive Work Environment

- Possible Actions
 - Reimburse for glucose testing supplies
 - Develop a support group
 - Educate other employees about diabetes
 - Create a wellness committee
 - Sponsor health screenings
 - Provide education on chronic disease prevention and control

Encourage Healthier Life Styles

- Possible Outcomes
 - Improved morale
 - Early detection and prevention of complications
 - Lower absenteeism
 - Improved health status and services for the community
 - Better blood glucose control
 - Lower health care costs due to fewer complications

Coordinate All Health Efforts

- Possible Outcomes
 - **More support for self-management efforts**
 - **Fewer hospitalizations**
 - **Improved provider services**
 - **Fewer complications leading to disability**

Remember

- Diabetes Prevention Trial: lifestyle and/or meds can PREVENT type 2 diabetes
- The lifestyle changes and medical care recommended for diabetes control helps prevent and control MANY chronic diseases.

Websites

www.YourDiabetesInfo.org

Your source for
free diabetes information
1-888-693-NDEP (6337)

Websites

- *BetterDiabetesCare.nih.gov*
- *Diabetesatwork.org*

Resources

<http://www.ihl.org>: Institute for Healthcare Improvement, tools to print , “how to” manuals

<http://www.healthdisparities.net>: collaboratives done at HRSA clinics, Handbook for many chronic conditions (diabetes, asthma, CHF etc)

American Association of Medical Colleges
Academic Chronic Care Collaborative

www.aamc.org

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American Association of Medical Colleges Academic Chronic Care
Collaborative www.aamc.org

- **American College of Occupational and Environmental Health**
www.acoem.org: Consensus Statement on Health and Productivity, The Business Case for Managing Health and Productivity , Health and Wellness in the Workplace
- National Business Group on Health www.wbgh.com
- WK Kellogg Foundation, The Business Interest in a Community's Health, pdf on NBGH web site,
- National Business Coalition on Health www.nbch.org
- American Occupational Health Nurses www.aaohn.org

CDC Business Portal:

www.cdc.gov/business

- **Smokefree Workplace Guide**
- **A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage**
- **Healthier Worksite Initiative**
- **Heart-Healthy & Stroke: Free Tools for Employers**
- **Stairwell to Better Health: A Worksite Initiative**
http://www.cdc.gov/nccdphp/dnpa/hwi/toolkits/stairwell/other_ideas.htm
- **Choosing foods and beverages for healthy meetings.**