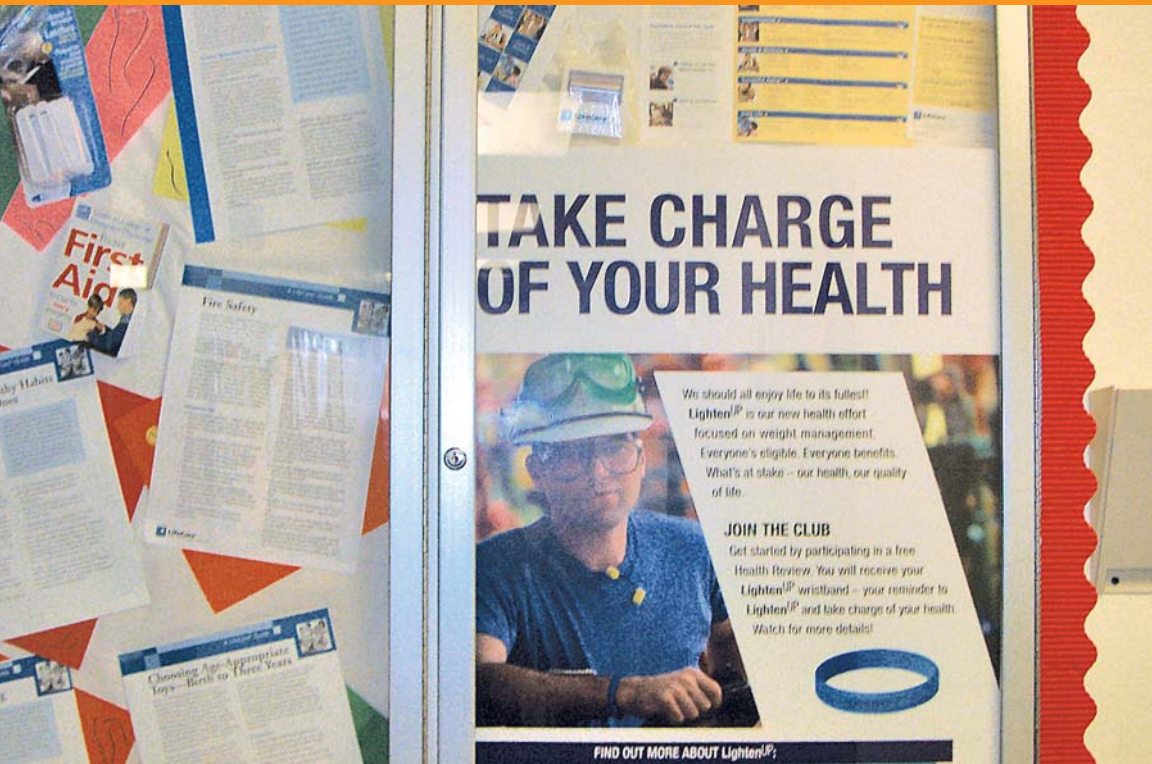


# LIGHTENUP



## A WORKSITE APPROACH to Promoting Healthy Weight Management



# Study Team



## **The Dow Chemical Company**

Dow facilitated the research and provided the 12 worksites that were the settings for the implementation of the ecological and environmental interventions



## **Emory University, Institute for Health and Productivity Studies (IHPS)**

IHPS led the study team in design, implementation, and evaluation of the LightenUP project.



## **Thomson Reuters**

Thomson Reuters was integral in the database development, statistical informatics, and data integration of the LightenUP data.



## **University of Georgia (UGA) Workplace Health Group**

UGA's Workplace Health Group was in charge of conducting the initial formative research and measuring the process of implementing intervention programs.



## **National Business Group on Health**

The Business Group has been instrumental in developing marketing, communication, and dissemination materials, including a public website.



## **National Heart, Lung and Blood Institute (NHLBI)**

NHLBI is the federal agency that funded the research study and provided overall project direction.



# LightenUP: A Study of Workplace Wellness Interventions

## What is LightenUP?

A five-year project (September 2004–September 2009) funded by the National Heart, Lung and Blood Institute (NHLBI), the Emory University Institute for Health and Productivity Studies partnered with Thomson Reuters, the University of Georgia, the National Business Group on Health, and The Dow Chemical Company (Dow) to design, implement, and evaluate an environmental and ecological intervention program aimed at preventing and managing overweight/obesity in the workplace. Environmental interventions change policies, programs, or workplace practices to influence behaviors by increasing availability and access to healthful food choices and facilities for physical activity and through creating a supportive environment. The goals of the study were to:

- Design and implement moderate-intensity and high-intensity environmental and ecological interventions directed at overweight and obesity prevention at The Dow Chemical Company.
- Test the hypothesis that, relative to individual interventions alone, environmental interventions combined with individual interventions:
  - reduce the prevalence of obesity and overweight,
  - reduce the prevalence of other weight-related risk factors,
  - improve health, and reduce health care utilization and expenditures, and;
  - improve an array of indicators known to be related to employee productivity; and
- Test whether savings outweigh program expenses, thus producing a positive return on investment.

# Participants

Twelve Dow Chemical manufacturing and research/development locations in Louisiana, Texas, New Jersey and West Virginia served as study sites with a total of 10,281 eligible employees. Study leaders organized these locations into five sites to receive intense interventions, four sites to receive moderate interventions, and three control sites that would not receive any interventions. In addition to biometric screenings, interventions included tactics such as newsletters; posters; cafeteria table tents; e-mails; verbal encouragement and education from supervisors and managers; closed-circuit television advertisements; healthy food available in the cafeteria and through company vending; and telephone support. Interventions across intense and moderate sites were similar, but with increased frequency at intense sites.

While participation in the LightenUP program was voluntary, **1,520** employees participated at intense sites, and **382** at moderate sites. Data was also collected on **529** employees at control sites.

**Participants in the LightenUP program went through biometric screenings to determine overall health at the beginning, middle and end of the study.**



# Results

Study results were determined by biometric screenings taken at the beginning of the study, at the halfway point, and again at the end. Employees were encouraged to participate in all three screenings to accurately determine significant changes in results. Weight, BMI, total blood cholesterol, blood glucose, and blood pressure — along with self-reported information on tobacco and alcohol use, stress management and nutrition, and physical activity — were gathered and recorded across all sites. Participants whose results indicated additional interventions and/or education could be beneficial were offered health coaching, in person or through an online program.

First-year results revealed that environmental changes to the workplace can achieve modest improvements in employees' health risks, including weight and BMI measures in one year.<sup>1</sup> After one year of intervention, a modest treatment effect was observed for weight and BMI, largely because the control group subjects gained weight while the intervention group subjects maintained their weight; however, no effect was observed on prevalence of overweight and obesity. Other risk factors (high blood pressure, and systolic and diastolic blood pressure values) decreased significantly, although blood glucose (high risk prevalence and values) increased.

These overall patterns for weight and BMI were sustained after two years of intervention. Thus, while no additional weight change was achieved after an additional year of intervention, the intervention group participants were able to maintain their weight and BMI two years in a row while the control group participants gained weight over time. These are encouraging findings. **Given that national obesity rates are on the rise, and that people tend to gain weight as they age, the small but significant effects of environmental interventions at the worksite are notable. Helping people avoid weight gain is as important as supporting their weight loss efforts.**

A return investment (ROI) analysis revealed that a 1% annual decrease in overall health risks (including obesity) among Dow employees would save the company approximately \$62 million over 10 years (adjusted for inflation) in health care costs alone. This figure would be even more significant if indirect productivity costs were acknowledged.

“Good health is good business and we are proud of the role LightenUP has played in our efforts to continuously build and reinforce Dow’s culture of health. The study gave us another important channel to inspire employees to make a commitment to lifelong health improvement.”

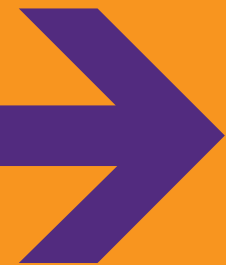
**Catherine Baase, M.D.**  
*Global Director of Health Services,  
The Dow Chemical Company*

<sup>1</sup> Goetzel RZ, Baker KM, Short ME, et al; First-year results of an obesity prevention program at The Dow Chemical Company. *J Occup Environ Med.* 2009;51:125-138.

# Ten Tips for Implementing Wellness Interventions



- 1 Integration is key.** Worksite wellness programs work best, and are more likely to be sustainable, when they are integrated into a comprehensive health and complementary communications strategy. Early involvement with communication partners who can facilitate messaging throughout existing company vehicles and promote connections between all available programs and benefits is key. Integrated efforts of all key stakeholders will increase the value of your program, leading to increased employee engagement and sustainable behaviors.
- 2 Assess resource needs.** During program planning, assess human and financial resources required to launch and sustain the program. Consider time required and costs of program materials, incentives, and other related expenses to ensure the resources are available to give your program the best chance for success.
- 3 Obtain leadership commitment.** Leaders in executive management and managers, supervisors, and others can be champions for facilitating a culture that encourages participation and enthusiasm about health improvement initiatives. These people can also help determine which tactics and interventions are appropriate and will inspire employees. Visible support and participation by company leaders demonstrates the importance of promoting a culture of health and can contribute to motivating employees.
- 4 Target health risk priorities, set goals, track and measure.** Use health assessment results and/or claims data to determine top avoidable risk factors. Set your program goals to reduce those risks, then track progress continuously. Measurement is essential, allowing you to make course corrections as needed and to report progress to executive leadership and to employees.
- 5 Do what works.** Measure communication and implementation tactics to understand what is essential and what is expendable. For example, which initiatives lead to increased interest and participation?



**As an intervention at moderate and intense sites, Dow labeled healthier menu items with a “Good Health” sticker and encouraged employees to make healthy food choices.**

**6 Communicate, communicate, communicate.** Many organizations under-communicate with employees and do not use every available outreach channel. In fact, barely 35 percent of U.S. workers rate benefits communications as “highly effective.” Communicate early and often, integrate messaging within existing company communication vehicles, and encourage leaders to promote the program among employees.

**7 Clarify responsibilities.** It is important that all stakeholders and staff understand their roles and responsibilities to ensure planning and implementation success, as well as program sustainability. Be specific with requests for support. This will help prevent confusion, promote accountability, and keep tasks from being overlooked. Make sure the staff and implementation teams are supported and appreciated for their efforts.

**8 Plan for sustainability.** Preparing a contingency plan allows you to expect the unexpected so you can react quickly to change and keep health initiatives from being relegated to the bottom of the priority list. Examples include a natural disaster, acquisitions, an economic downturn, or changes in company leadership.

**9 Celebrate success and achievements.** Optimism, enthusiasm and teamwork are contagious. Encourage goal setting (e.g., participation, weight loss, steps per day) and celebrate individual, team or site successes and achievements. Offer relevant incentives to encourage friendly competition.

**10 Listen and respond.** Listen to what employees want and try to meet or at least address requests. Take advantage of new employee orientation to encourage participation and gather new ideas.

# Getting Started

- 1 Develop and make the business case
- 2 Develop and implement a comprehensive health promotion program
- 3 Align with corporate priorities and objectives and across all sectors
- 4 Develop a communication strategy



**Keep communications simple**, consistent, interactive while focusing on norms, beliefs and behaviors using multiple vehicles

**Integrate messages** into existing communications and processes, i.e., expand safety culture to health and safety culture

**Emphasize “what’s in it for me”** benefits to the individual — both financial and health wise

## Key Learnings

### Shared, Focused Vision

Emphasis on a shared responsibility for health

### Leadership and Site Leaders Engagement

Visible, supportive, encouraging and active

### Integrated Employee Programming and Communications

Build on existing organizational structures and processes

### Peer Support

Employee recognition is key to building positive climate and employee perception

### Positive Climate and Energy

High trust/confidentiality and visible company commitment

### Environmental Supports

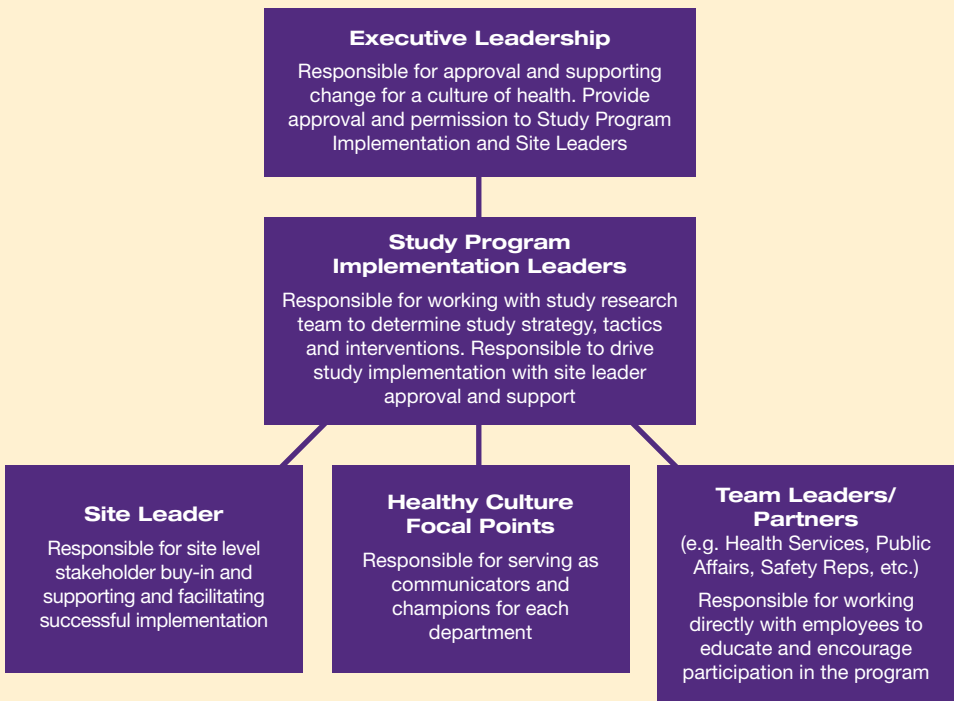
Easy access to physical activity and healthy food

# Organized for Success

**A critical success factor** in launching a workplace wellness program is developing an organizational chart at the beginning of the process that details reporting structures, roles and responsibilities. It's important to have a plan to reflect organizational structure.

All stakeholders and staff should understand their roles and responsibilities clearly to ensure planning and implementation success, as well as program sustainability. Be specific with requests for support. This will help prevent confusion, promote accountability, and keep tasks from being overlooked. Staff and implementation teams need support and recognition for their efforts.

Shown here is an organizational structure that worked effectively for Dow when the company implemented the **LightenUP** study across 12 sites.



## The Business Case for Implementing a Workplace Wellness Program

- Keeping U.S. health care benefit costs in the lower end of the trend estimates could save Dow as much as \$0.07/share in 2008
- Most experts agree that 30 percent to 50 percent of health care conditions and illness could be modified by preventive health interventions
- Total global economic impact related to employee and retiree health likely exceeds \$750 million/year for Dow

*"Inspiring Employees to Lifelong Health Improvement: Good Health is Good Business — Making Health Happen"*  
Presented on May 9, 2007, by Catherine Baase, MD, The Dow Chemical Company at the National Business Group on Health Summit

# Study Results at a Glance

Intense	
Total number of sites	Five
Total number of participants	1,520
Types of interventions	<p>Everything implemented at moderate sites, plus:</p> <ul style="list-style-type: none"><li>• Goal setting and reporting (by site leadership) and alignment with departments<ul style="list-style-type: none"><li>– Health screening participation, weight management tracking program, leadership training</li><li>– Increased role for healthy culture focal points</li></ul></li><li>• Site leaders' increased accountability (reporting) to senior management</li><li>• Site leaders' training and regular feedback sessions</li><li>• Recognition for site leaders, cross-discipline teams, healthy culture focal points and work groups</li></ul>
Frequency of intervention communications	Same frequency as moderate sites plus some daily messages.
Initial hypotheses	Employees at intense sites would lose weight and significantly improve their “numbers” by lowering cholesterol or blood pressure; reduce risk of poor nutrition and/or physical activity.
Actual results	Maintained weight, BMI. Lowered blood pressure (both systolic and diastolic), cholesterol. Reduced risk for poor nutrition, and physical activity.

Moderate	Control
Four	Three
382	529
<p>Dow standard programs plus:</p> <ul style="list-style-type: none"> <li>• Access to healthy food choices <ul style="list-style-type: none"> <li>– Cafeterias, vending, catering</li> <li>– Education</li> <li>– Labeling</li> <li>– Promotional pricing in cafeterias</li> </ul> </li> <li>• Access to physical activity <ul style="list-style-type: none"> <li>– Walking paths/routes</li> <li>– Weight management tracking program: “Why Weight (YW8) Challenge”</li> </ul> </li> <li>• Work group healthy culture focal points – local “ambassadors/champions” <ul style="list-style-type: none"> <li>– Intervention promotion and implementation</li> <li>– Interventions advocate</li> <li>– Employee recognition</li> </ul> </li> <li>• Enhanced Communication Strategy (Coordinated with site Communication partners) <ul style="list-style-type: none"> <li>– Newsletters &amp; E-mails</li> <li>– Posters &amp; Cafeteria table tents</li> <li>– Verbal encouragement and education from supervisors and managers</li> <li>– Closed-circuit television education and promotions</li> </ul> </li> </ul>	<p>Dow standard ongoing individual-based behavioral programs</p>
Some messages and/or vehicles were repeated monthly while others were scheduled at weekly intervals.	None
Employees at moderate sites would lose a smaller amount of weight than those at the intense sites but would still lose weight and improve their blood pressure and cholesterol numbers; reduce risk of poor nutrition and/or physical activity.	Employees at control sites would not lose any weight, and may actually gain weight; not improve their blood pressure or cholesterol; not improve risk of poor nutrition and/or physical activity.
Maintained weight, BMI, blood pressure (systolic), cholesterol. Reduced risk for poor nutrition and physical activity.	Gained an average of 1.3 pounds and 0.2 BMI. Blood pressure (systolic) increased by 5 points. No changes in cholesterol. Reduced risk for poor nutrition; no change for physical activity.



# For More Information

Visit [www.businessgrouphealth.org/lightenup](http://www.businessgrouphealth.org/lightenup)

## **You will find more information on:**

- Developing the Business Case
- A Customizable Communication Toolkit
- LightenUP Study Tools and Resources
- Study Publications and Presentations

### **Prepared by:**

Joneyse Gatling, Program Specialist, Institute on Innovation in Workforce Well-being,  
National Business Group on Health

Jean E. Hanvik Schauer, President, Schauer Global Health

### **Produced by:**

Groff Creative, Inc., Design