

# DESIGN MATTERS:

Worksite Health Promotion ROI Closely  
Linked to Evidence-Based Programming

by Kenneth E. Thorpe, PhD and  
Lydia Ogden, MA, MPP



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**W**ell-designed worksite health promotion (WHP) programs post a positive ROI. A recent story on CNN related the experience of Lincoln Industries, a blue-collar manufacturing plant with 565 employees. Lincoln has had a multifaceted health promotion program for more than 16 years; has three full-time employees devoted to wellness; requires all employees to undergo quarterly checkups measuring weight, body fat, and flexibility; conducts annual blood, vision, and hearing tests; and offers smoking cessation classes, in addition to pre-shift stretching and flexibility sessions. The company ranks workers on fitness (from platinum, gold, and silver down to "non-medal"). To achieve platinum status, workers must reach fitness goals and be nonsmokers, and they are rewarded with a three-day, company-paid trip each summer to climb a 14,000-foot peak in Colorado. The company reports significantly lower health-care costs: Lincoln Industries pays less than \$4,000 per employee, about half the regional average, a savings of more than \$2 million annually.



Workers' compensation costs at the company have fallen to less than \$140,000 last year from more than \$500,000 in 2000. The worksite health promotion program costs a total of \$400,000 annually—at least a 5:1 ROI.<sup>1,2</sup>

## Evaluation Shows Positive ROI

**T**he anecdotal experience of Lincoln Industries is supported by evaluation and economics. Several scientific reviews report that WHP programs reduce medical costs and absenteeism and produce a positive return on investment.<sup>3,4,5,6,7</sup>

### Among the key findings of these reviews:

- 18 studies showed WHP reduces medical costs and 14 studies showed reduced absenteeism costs.<sup>3</sup>
- 13 studies calculated benefit/cost ratios and all showed that savings are much greater than cost, with medical cost savings averaging \$3.48 and the absenteeism savings averaging \$5.82 per dollar invested in the programs.<sup>3</sup>
- A systematic review of more than 50 studies meeting rigorous guidelines for review by the U.S. Task Force on Community Preventive Services found strong evidence of WHP program effectiveness in specific areas: reducing tobacco use, dietary fat consumption, high blood pressure, total serum cholesterol levels, and days absent from work due to illness or disability, as well as improvements in other general measures of worker productivity.<sup>7</sup>

**Kenneth E. Thorpe, PhD**, is Robert W. Woodruff Professor and Chair, Department of Health Policy and Management, Rollins School of Public Health, Emory University. He is the Executive Director of Emory's Institute for Advanced Policy Solutions. **Lydia L. Ogden, MA, MPP**, is a PhD candidate, Department of Health Policy and Management, Emory University, and is the Chief of Staff of Emory's Institute for Advanced Policy Solutions.

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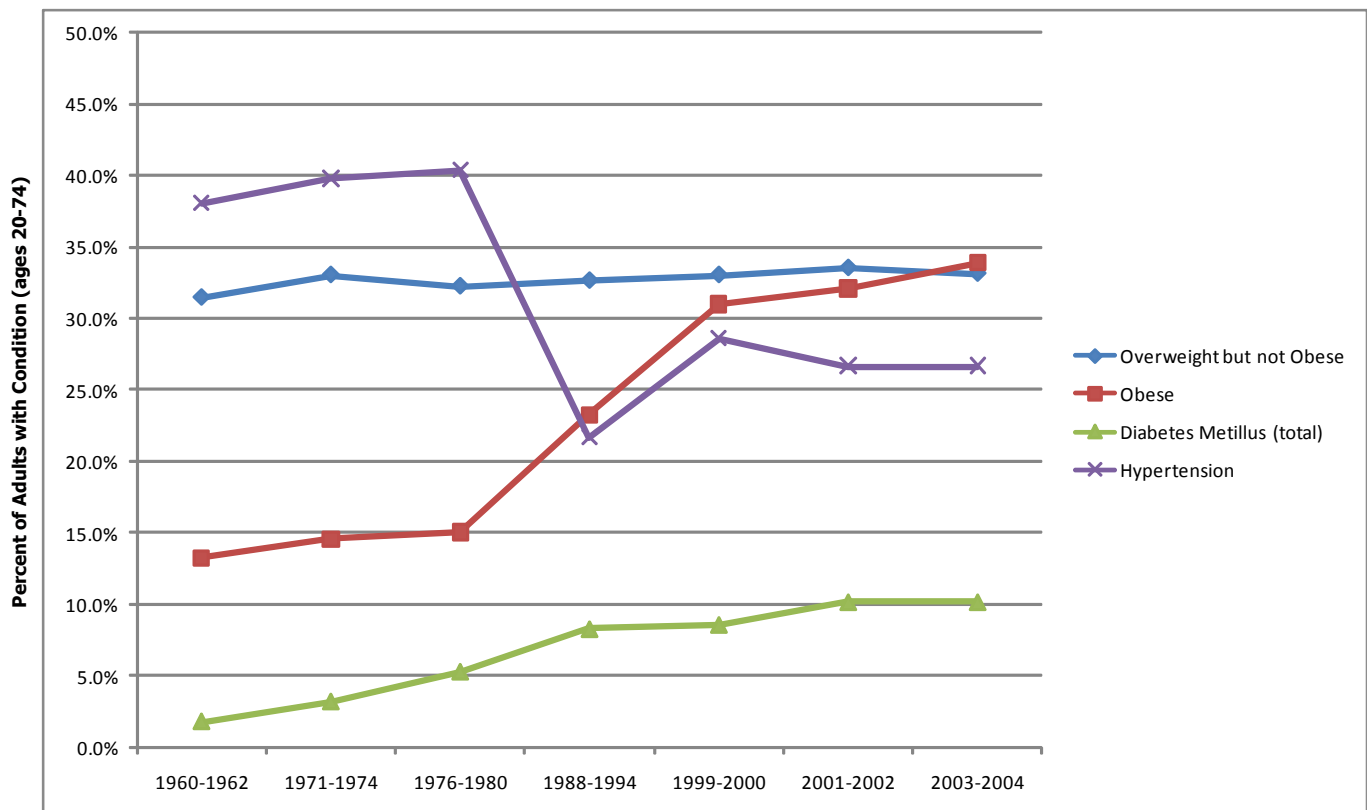
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- Case studies from Citibank, Johnson & Johnson, Procter & Gamble, and Highmark all demonstrate returns on investment, but those returns varied significantly. At Citibank, a comprehensive health management program showed an ROI of \$4.70 for every \$1 in cost.<sup>8,9</sup> A similar comprehensive program at Johnson & Johnson reduced health risks including high cholesterol levels, cigarette smoking, and high blood pressure, and saved the company up to \$8.8 million annually.<sup>10,11</sup> Procter & Gamble saw reductions in hospital admissions and in-patient days as well as overall health care costs, but posted an ROI of just \$1.49 for every dollar invested.<sup>12</sup> Highmark's ROI was \$1.65 for every dollar invested.<sup>13</sup>
- Systematic reviews of multicomponent WHP programs show that they vary widely in their comprehensiveness, intensity, and duration—producing uneven measurable impact.<sup>7</sup>

## Four Decades of Rising Rates of Overweight, Obesity, and Chronic Disease

Over the past quarter century, obesity has increased dramatically in the United States. The most recent data from the Centers for Disease Control and Prevention (CDC) report that 32% of adults aged 20 and older are overweight and 34% are obese.<sup>14,15</sup> Poor diet and physical inactivity—leading to obesity and its consequences—are poised to overtake tobacco as the leading actual cause of death in the U.S.<sup>16</sup>

As obesity has risen, so have incidence and prevalence of associated costly chronic conditions. More than 133 million Americans—45% of the total population—have at least one chronic disease.<sup>17</sup> Chronic diseases kill more than 1.7 million Americans yearly, and account one-third of years of potential life lost before age 65.<sup>18</sup>



### Sources:

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## Successful WHP Programs Are Science-Based



**T**he key to successful worksite health promotion programs is evidence-based design and delivery. Effective programs conduct needs assessments, attract participants, use behavioral theory as a foundation, incorporate multiple ways to reach people, and make efforts to measure program impact.

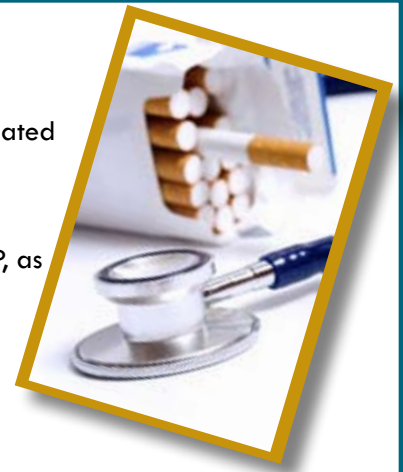
Effectiveness is also greatly enhanced by having senior management support, a champion at the worksite promoting the program, alignment between the program and broader organization goals, data documenting program achievements, and the organization's ability to create a healthy company culture.<sup>7</sup>

### **An expert review of the state of the art in WHP programming reports these critical elements of successful programs<sup>7</sup>:**

- Needs assessment, also known as health risk appraisal (HRA), is a necessary but insufficient component of WHP programs. A study of retirees found that cost trends were lowest and savings highest for those whose HRA was followed by one or more interventions, including on-site biometric screenings, telephone lifestyle management counseling for high-risk individuals, nurse-support telephone lines, and wellness classes.
- High participation is also key and incentives, like Lincoln Industries' Colorado trip, can and do boost sustained participation, compliance with behavior change recommendations, and goal achievement. Easy access is essential to success.
- Tailored behavior change and maintenance messages are more effective than generic ones, studies have shown. Individuals receiving tailored HRA feedback were 18% more likely to change at least one risk factor than those receiving generic messages. Higher effectiveness has also been reported for tailored smoking cessation and exercise messages.
- Comprehensive programs that address various risks, including individuals with multiple risks, are more effective than single-focus programs—although several studies indicate that individuals with multiple risks may need to change one at a time to be successful. Risks should be prioritized based on the near-term likelihood of mortality or morbidity (not cost) and participants' readiness to change that risk. A person ready to change a lower priority risk may find that success translates to other risks. Programs also need to offer participants various ways to engage—individually, with a group, worksite-wide, etc.
- Finally, WHP programs need to be in place at least one year to reduce employee risks and at least three years to measure health and financial outcomes.

## Invest Wisely in Prevention

An important health economics lesson to bear in mind is that not all health promotion is created equal. Some prevention is cost-saving—counseling adults to quit smoking, screening for colorectal cancer, and influenza vaccination are good examples. Other interventions—typically treatment rather than primary or secondary prevention—may not be. With WHP, as with any prevention effort, “[c]areful analysis of specific interventions, rather than broad generalizations, is critical.”<sup>19</sup>



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**EMORY**  
UNIVERSITY

**Institute for  
Advanced Policy Solutions**

1599 CLIFTON ROAD

ATLANTA, GA 30322

404.727.8889

[www.emory.edu/policysolutions](http://www.emory.edu/policysolutions)

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