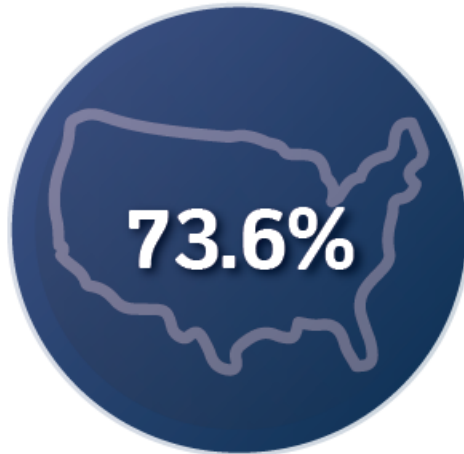


Managing Obesity Risk: The Weight Epidemic Can't Wait

Bruce Sherman, MD, FCCP, FACOEM
Medical Director

Impact of Obesity on Employers

Adult Americans who are Overweight or Obese



Percent of adults age 20+ with obesity = 42.5%; adults age 20+ who are overweight, including obesity = 73.6%

Direct Health Care Costs



46% increase in inpatient costs; 27% increase in outpatient costs; 80% increase in Rx costs (vs those of normal weight)

Lost Productivity Costs

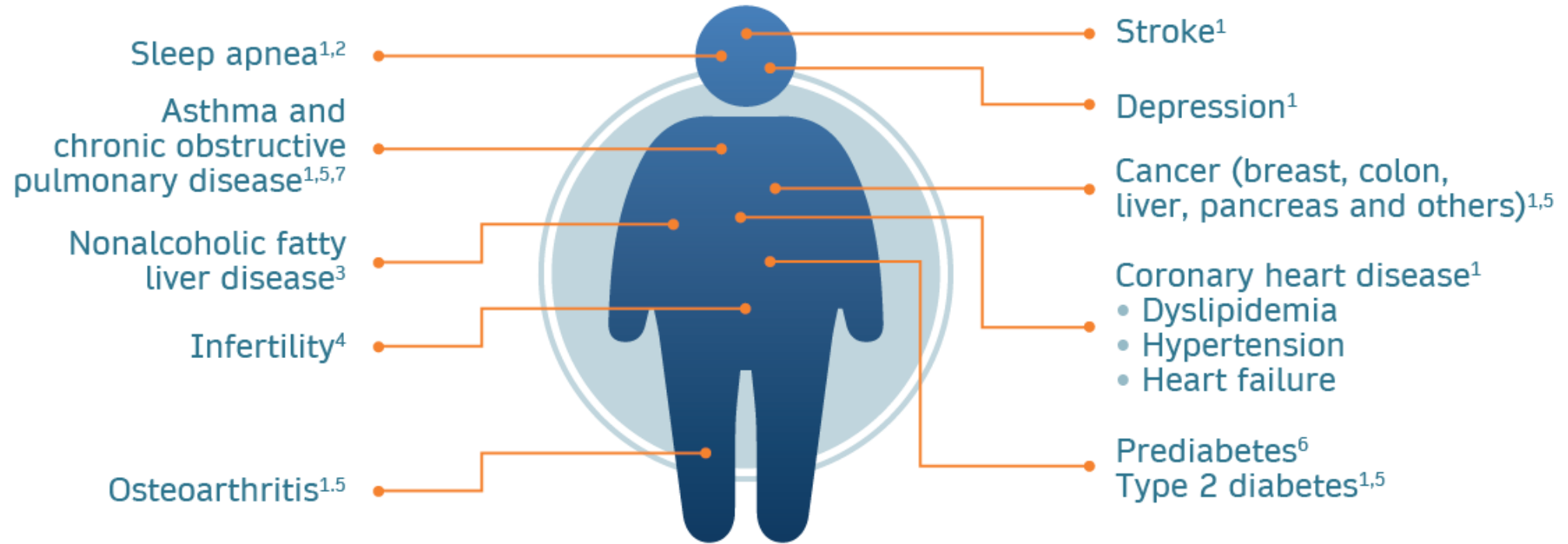


Estimated impact beyond medical claims and health care utilization in U.S.; costs are a result of work loss related to absenteeism and presenteeism, disability and Workers' Compensation

References: 1. <https://www.cdc.gov/nchs/fastats/obesity-overweight.htm>.

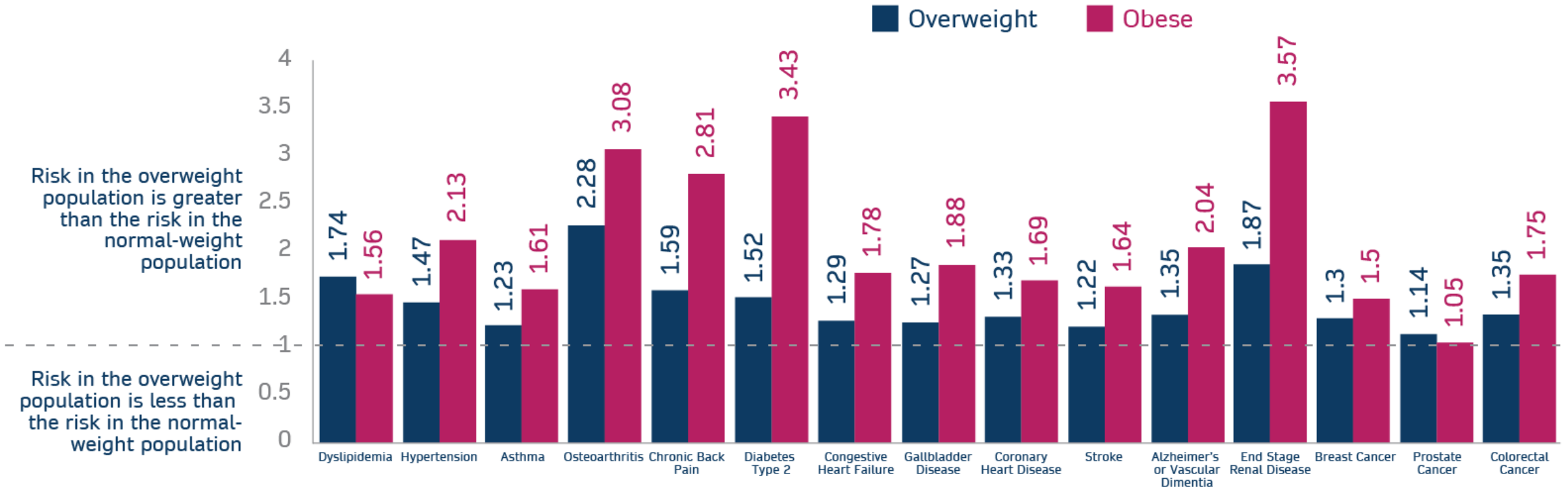
2-4. <https://milkeninstitute.org/report/americas-obesity-crisis-health-and-economic-costs-excess-weight>.

Chronic Diseases and Complications Impacted by Obesity



References: 1. National Institutes of Health. *Obes Res.* 1998;6 Suppl 2:515-2095. 2. LI C et al. *Prey Med.* 2010;51(1)1B-23. 3. Church TS et al. *Gastroenterology.* 2006;130(7):2023-2030. 4. Esmazzadeh 5 et al. *Arch Med Sci.* 2013;9(3).499-505. 5. Guh DP et al. *BMC Public Health.* 2009;9:88. 6. Shalkh 5 et al. *Int J Diabetes Dev Ctries.* 2011;31:65-69. 7. Liu Y et al. *Respir Med.* 2015; 109(7):851-859.

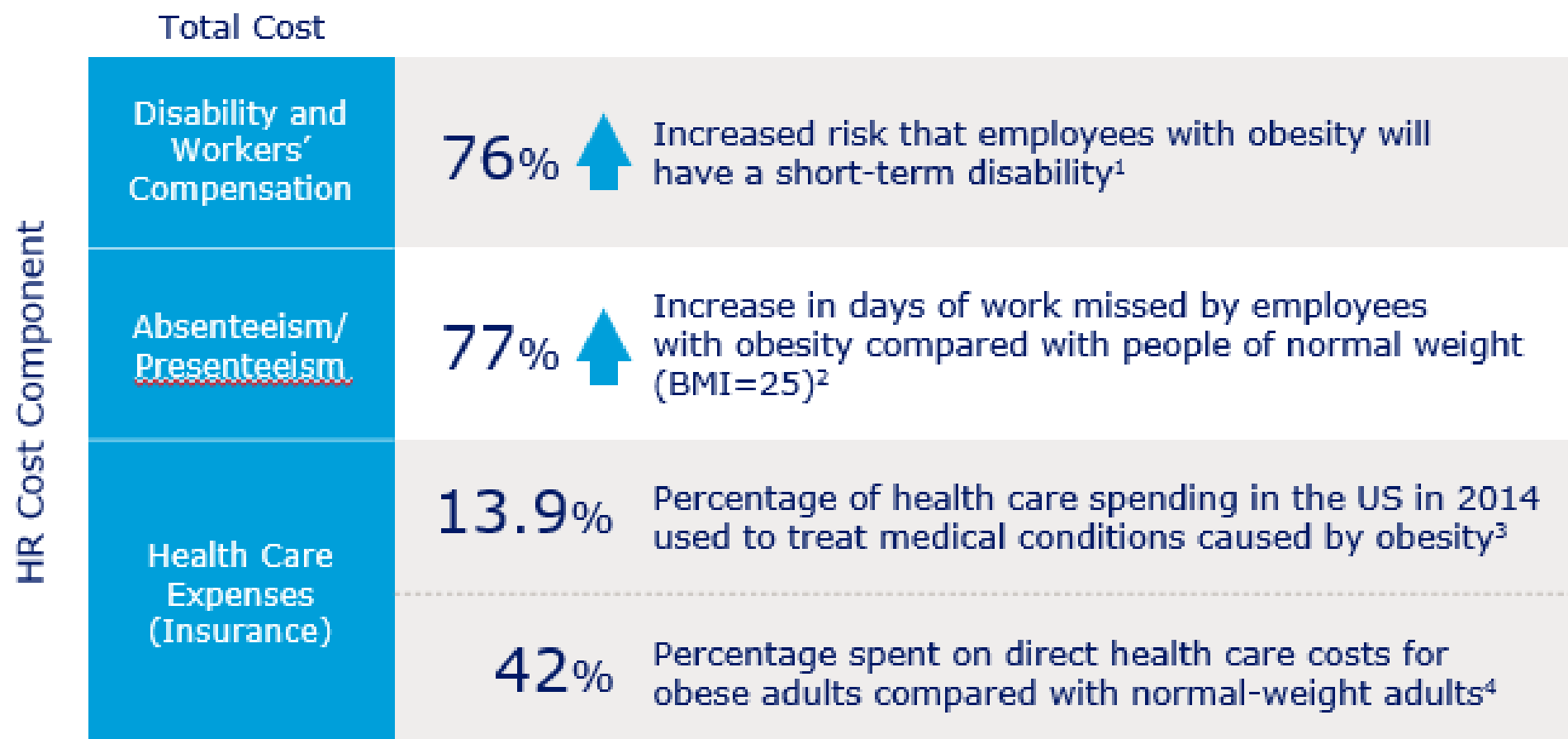
Relative Risk and Impact of Being Overweight or Obese on Health



Obesity Is the Common Denominator Across All of These Conditions



Obesity Contributes Significantly to HR-related Costs



References: 1. Arena VC et al. *J Occup Environ Med.* 2006;48(11):1118-1124. 2. Van Nuys K et al. *Am J Health Promot.* 2014;28(5):277-285. 3. Waters H et al. Milken Institute. 2016. <http://assets1b.milkeninstitute.org/assets/Publication/ResearchReport/PDF/Weighing-Down-America-WEB.pdf>. Published November 2016. Accessed March 4, 2017. 4. Finkelstein EA et al. *Health Aff (Millwood).* 2009;28(5):w822-w831.

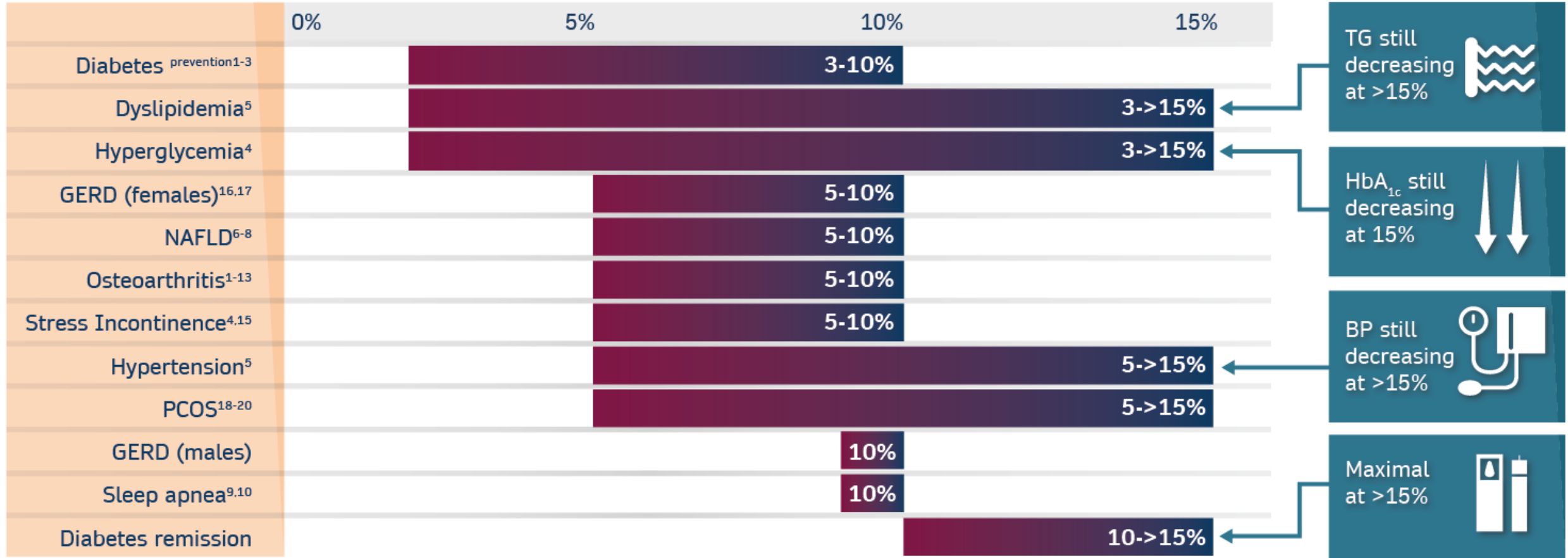
Employer Costs of Obesity Include More than Healthcare

- Workplace accommodations for overweight/obese individuals
- Hiring concerns related to physical work capabilities
- Turnover issues for individuals in physically demanding jobs

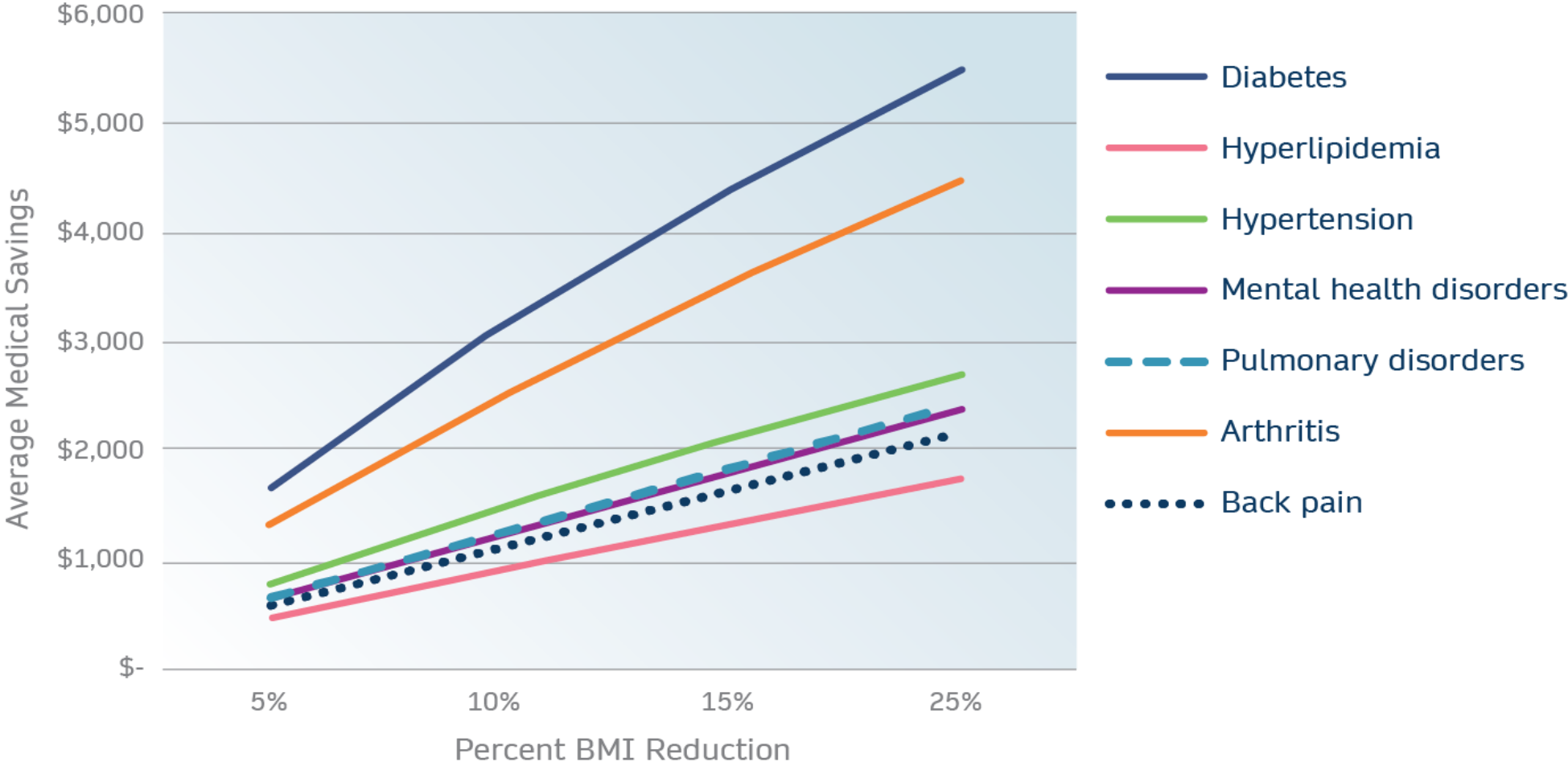


Weight Loss has a Beneficial Impact on Comorbidities

Weight loss required for therapeutic benefit (%)*



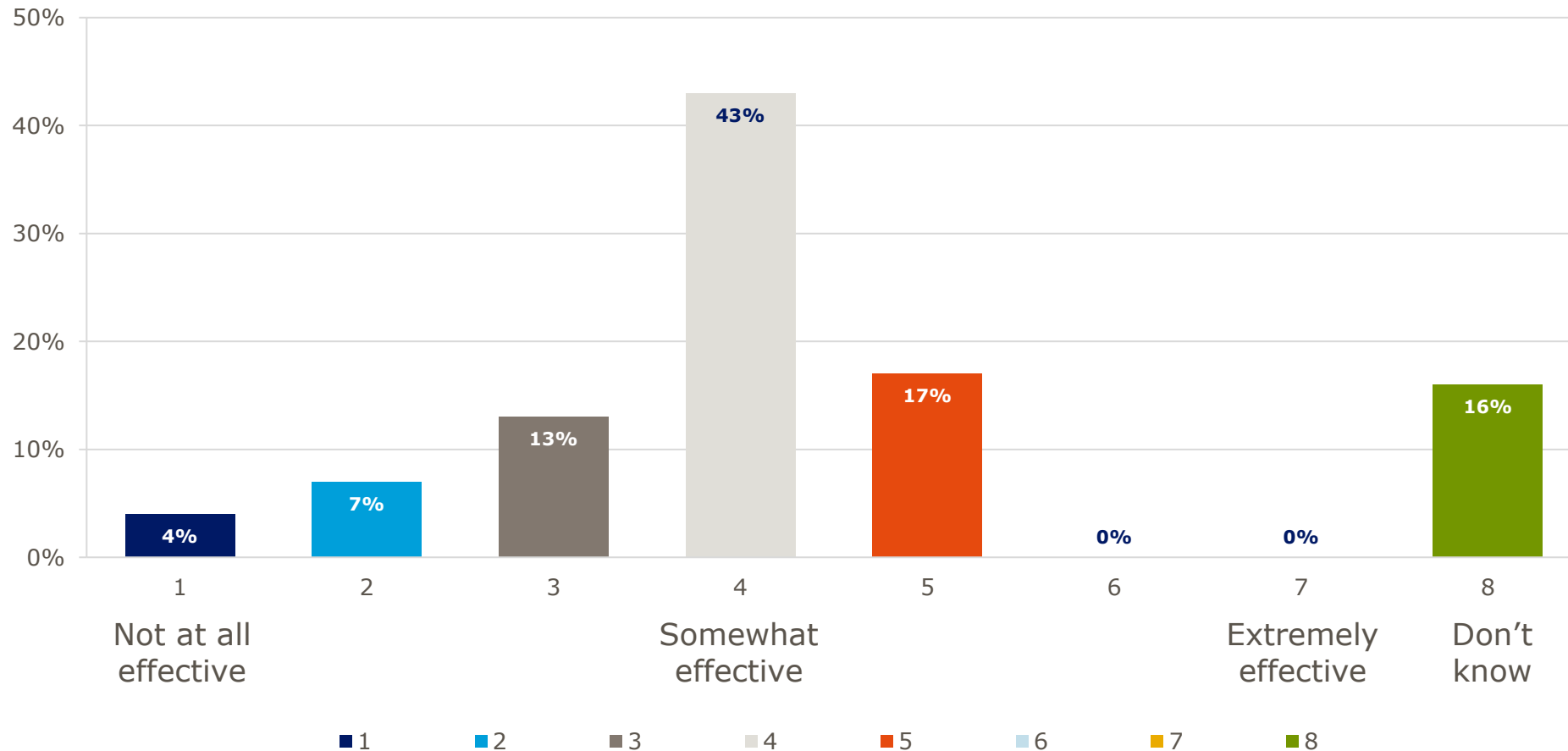
Predicted Reductions in Average Annual Healthcare Costs for Chronic Conditions Following Weight Loss



Reference: <https://pubmed.ncbi.nlm.nih.gov/34138824/>

Most Employers Feel That Current Obesity Management Practices Haven't Been Particularly Effective...

Employer perceptions of the overall effectiveness of their obesity management strategy

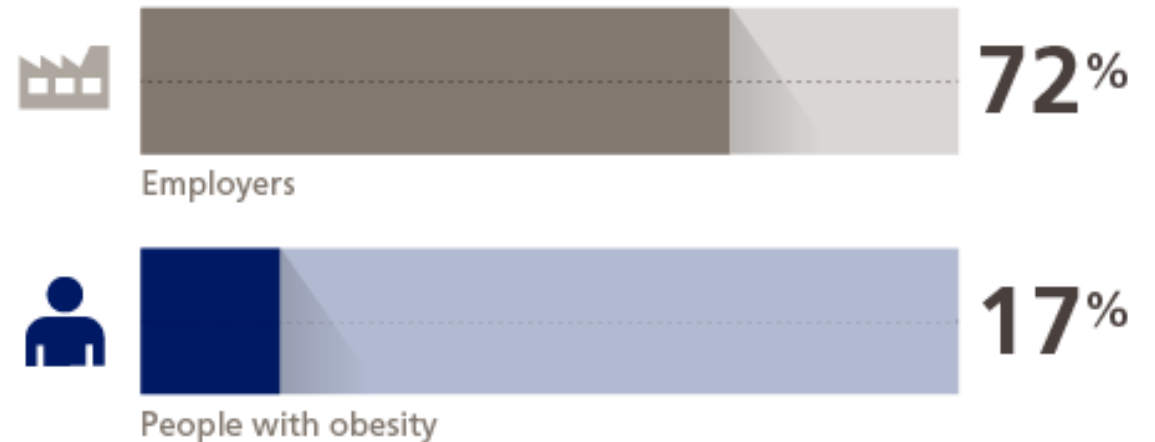


...and Employees Seem to Feel the Same Way




Value in wellness programs perceived differently by employers and people with obesity¹

The wellness programs offered by employers are not perceived by the majority of people with obesity as helpful.

Perceived benefits of employer wellness programs



Stepped Approach to Treating Obesity

	BMI 25-26.9 kg/m ²	BMI 27-29.9 kg/m ²	BMI 30-34.9 kg/m ²	BMI 35-39.9 kg/m ²	BMI ≥40 kg/m ²
 <p>Lifestyle Modification Weight Loss Impact = 3% to 5%</p>	+	+	+	+	+
 <p>Pharmacotherapy/ Medications & Lifestyle Modification Weight Loss Impact = 5% to 10%</p>		With co-morbidity	+	+	+
 <p>Bariatric Surgery Weight Loss Impact = 25% to 30%</p>				With co-morbidity	+

References: BMI, body mass index.
Volkan et al. *Obes Facts* 2015;8:402-24.

An Integrated Solution is Best

Integrated Best Practice Model



Wellness Activities

(Lifestyle, Chronic Disease Management)

- Weight management classes
- Nutrition counseling
- Fitness classes
- Subsidized healthy eating options at the worksite
- Lifestyle modification and disease management programs
- Farmer's markets, healthy cooking classes
- Walking meetings

Value-Based Benefit Design

Benefit Design

- Medical Benefit – reduced copays for high value services; contribution to HSA
- Pharmacy Benefit – reduced copays for high value medications
- Incentives for healthy behaviors and participation in wellness activities
- For those having bariatric surgery, incentives to participate in wellness activities post-surgery

Integrated solutions can result in overall improvements in outcomes and lowering barriers to high-value services

Measuring Success of Weight Loss Interventions

- Near-term (0-3 months)
 - Program participation and satisfaction rates
 - Dropout/attrition rates
- Mid-term (3-12 months)
 - Sustained engagement and satisfaction rates
 - Weight loss
- Longer-term (>12 months)
 - Weight loss and trajectory
 - Comorbid conditions (medications, healthcare utilization and costs)
 - Well-being status