URBAN INSTITUTE

Health Policy Center

Independent research for better health policy and better health

Potential Savings through Prevention of Avoidable Chronic Illness among CalPERS State Active Members

April 2012

Timothy A. Waidmann, Barbara A. Ormond, Brenda C. Spillman

Executive Summary

The high and rising prevalence of chronic disease represents a substantial burden on the medical care system and a major cost for society. This burden includes rising rates of obesity,[1] increased prevalence of diabetes,[2] greater incidence of disability,[3] rising cost of medical care[4] and other disease-related costs.[5] It is widely recognized that many of the most common conditions driving these costs could be largely prevented through lifestyle changes such as reduced use of tobacco, improved diets, and increased physical activity.[6]

In this report, we estimate the excess medical spending CalPERS incurs for its members and their dependents as the result of diabetes and hypertension and the more advanced diseases associated with them over time. These conditions are among the most common in the population, contribute substantially to annual health care costs, and are largely preventable with relatively modest changes in diet and level of physical activity.[6] Using regression analysis of CalPERS administrative data for 2004 to 2008, we estimate this burden of preventable chronic disease for the CalPERS system as a whole and its distribution by demographic characteristics, across geographic areas, across agencies/ departments within State government, and across the health plans offered by CalPERS.

Analysis of CalPERS medical care expenditures shows that, of the $1.6 billion spent in 2008 on health care services, $362 million, or 22.4 percent, was attributable to chronic diseases amenable to prevention through changes in diet and physical activity. Workplace wellness programs are one approach to promoting such cost-saving changes in employee behaviors. A greater emphasis by participating health plans on prevention and the implementation of workplace wellness programs are two important approaches to promoting such changes in employees' behaviors.

Recent research focusing specifically on workplace wellness programs has found that every dollar invested in these programs can reduce medical care costs by $3.27 and costs associated with absenteeism by $2.73.[7] The expansion of workplace wellness programs offers implicit evidence that many employers believe that prevention is a worthwhile investment.

Potential savings through prevention

Evidence suggests that well-designed and targeted interventions can achieve reductions of 5% to 15% in the prevalence of the common conditions included in this analysis. By implementing effective interventions, CalPERS could realize potential savings of $18 million to $54 million annually. Even a 1% reduction in the conditions included in the analysis ultimately could save CalPERS $3.6 million per year.

Key Findings

The distribution of excess spending on preventable conditions varies across several dimensions. This variation can provide information for targeting prevention and wellness activities.

Demographics

Estimated excess spending for males is $196 million; for females, $166 million. By race/ethnicity, estimated excess spending for the two largest population groups, non-Hispanic whites and Hispanics, are $113 million and $40 million respectively.

- Excess spending is a much larger share of spending for males (27.9%) than for females (18.2%).
- The share rises with age for all groups: "preventable" spending by women and men in their 30s is 12.0% and 23.0% of total spending, respectively, but 33.4% and 42.5% for those in their 60s.
- The share of excess spending is highest for Filipinos (38.5%) and Asians (34.2%) and lowest for non-Hispanic whites (26.4%) and Pacific islanders (26.7%).

Geography

Estimated excess spending is highest in Sacramento County ($63.7 million) and Los Angeles County ($43.8 million) where there are the largest numbers of CalPERS members.

- Madera (31.5%), Los Angeles (30.8%), Tulare (30.4%), Imperial (30.4%) and Merced (30.0%) are the counties with the highest share of total spending for preventable disease.

Department/Agency

- Excess spending represented the largest share of total health care spending for the Department of Developmental Services (27.3%), the California State University System (26.1%), and the Department of Mental Health (25.5%), among the 19 largest agencies covered by CalPERS.

- When limited to employees only (excluding dependents), who would be directly affected by a workplace wellness program, the largest shares were for Developmental Services (37.4%), Transportation (32.1%) and Corrections (31.8%).

Health Plan

- Kaiser, the largest plan in terms of total payments, has the lowest share (14.9%) going to excess spending, compared with the next two largest plans, Blue Shield Access+ (25.0%) and PERS Choice (29.5%).

Discussion

This report provides estimates that could be useful to CalPERS in setting priorities and targeting initiatives to improve its members' health while restraining medical care cost growth. Even a 1% reduction statewide in the prevalence of the common conditions we include in our analysis ultimately could save $3.6 million per year. Evidence in the literature suggests that actual reductions of 5% to 15% are feasible, depending on how well-designed and targeted interventions are, indicating potential savings of $18 to $54 million annually.

These estimates are conservative because they do not include the costs of other diseases that may be affected by interventions to improve diet, increase exercise, and reduce smoking. Nor do we capture the reductions in medical costs associated with "pre-disease" or reduced severity of the conditions we include. Interventions available to the whole CalPERS population, or even to only those at high risk for disease onset, would likely affect these costs as well. The estimates also do not include any savings from productivity gains that would come from a healthier workforce.

Notes

1. EA Finkelstein et al., 2008, The Lifetime Medical Cost Burden of Overweight and Obesity: Implications for Obesity Prevention, Obesity 16(8):1843-8; The California Center for Public Health Advocacy, 2009, The Economic Costs of Overweight, Obesity, and Physical Inactivity Among California Adults—2006, available at http:// www.publichealthadvocacy.org/costofobesity.html.
2. American Diabetes Association, 2008, Economic Costs of Diabetes in the U.S. in 2007, Diabetes Care 31(3):596-615; ES Huang et al., 2009, Projecting the Future Diabetes Population Size and Related Costs for the U.S., Diabetes Care 32(12):2225-9; TM Dall et al., The Economic Burden of Diabetes, 2010, Health Affairs 29(2):1-7.
3. R Sturm et al., 2004, Increasing Obesity Rates and Disability Trends, Health Affairs 23(2):1-7.
4. KE Thorpe et al., 2004, Which Medical Conditions Account for the Rise in health Care Spending? Health Affairs Web Exclusives:W4:437-45.
5. RZ Goetzel et al., 2003, The Health And Productivity Cost Burden of the "Top 10" Physical and Mental Health Conditions Affecting Six Large U.S. Employers, Journal of Occupational and Environmental Medicine 46:398-412.
6. SM Grundy et al, 1998, Primary Prevention of Coronary Heart Disease: Guidance from Framingham: A Statement for Healthcare Professionals from the AHA Task Force on Risk Reduction. American Heart Association, Circulation 97 (18):1876-87; SG Aldana et al., 2006, The Behavioral and Clinical Effects of Therapeutic Lifestyle change on idle-aged Adults, Prevention Chronic Disease 31(1):A05; VJ Stevens Et al., 2001, Long-term Weight Loss and Changes in Blood Pressure: Results of the Trials of Hypertension Prevention, Phase II, Annals of Internal Medicine 134(1):1-11.
7. K Baicker et al., 2010, Workplace Wellness Programs Can Generate Savings, Health Affairs 29(2):304-11.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders.

About the Authors and Acknowledgements

Timothy A. Waidmann and Brenda C. Spillman are senior fellows and Barbara A. Ormond is a senior research associate at the Urban Institute's Health Policy Center. The research in this paper was funded by Trust for America's Health and the California Endowment.

The authors would like to acknowledge Ruth Holton-Hodson, Deputy Controller for Health and Consumer Policy for the State of California, for identifying the need for this study and for bringing together the several state parties with the data needed to complete the analyses, and Richard Sun, Medical Consultant for CalPERS, for his assistance in understanding the data.

The Urban Institute is a nonprofit, nonpartisan policy research and educational organization that examines the social, economic, and governance problems facing the nation. For more information, visit www.urban.org.