

# Prevention Research at the National Institutes of Health

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April 14, 2016



National Institutes of Health  
*Office of Disease Prevention*

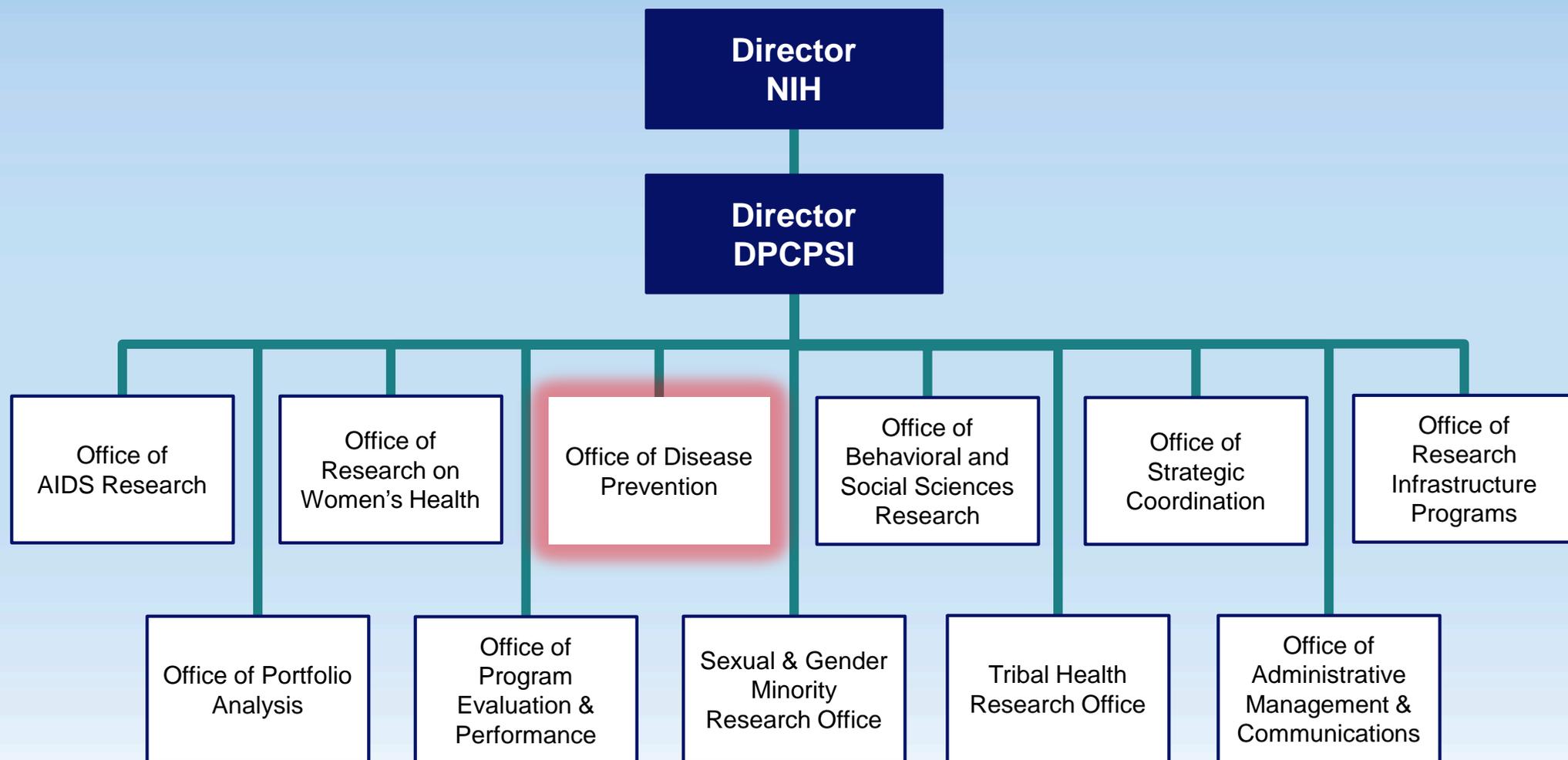
# Prevention is Part of the NIH Mission

- NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.
- The NIH provides leadership and direction to programs designed to improve the health of the Nation by conducting and supporting research in the causes, diagnosis, prevention, and cure of human disease.



# The Office of Disease Prevention

Division of Program Coordination, Planning, and Strategic Initiatives

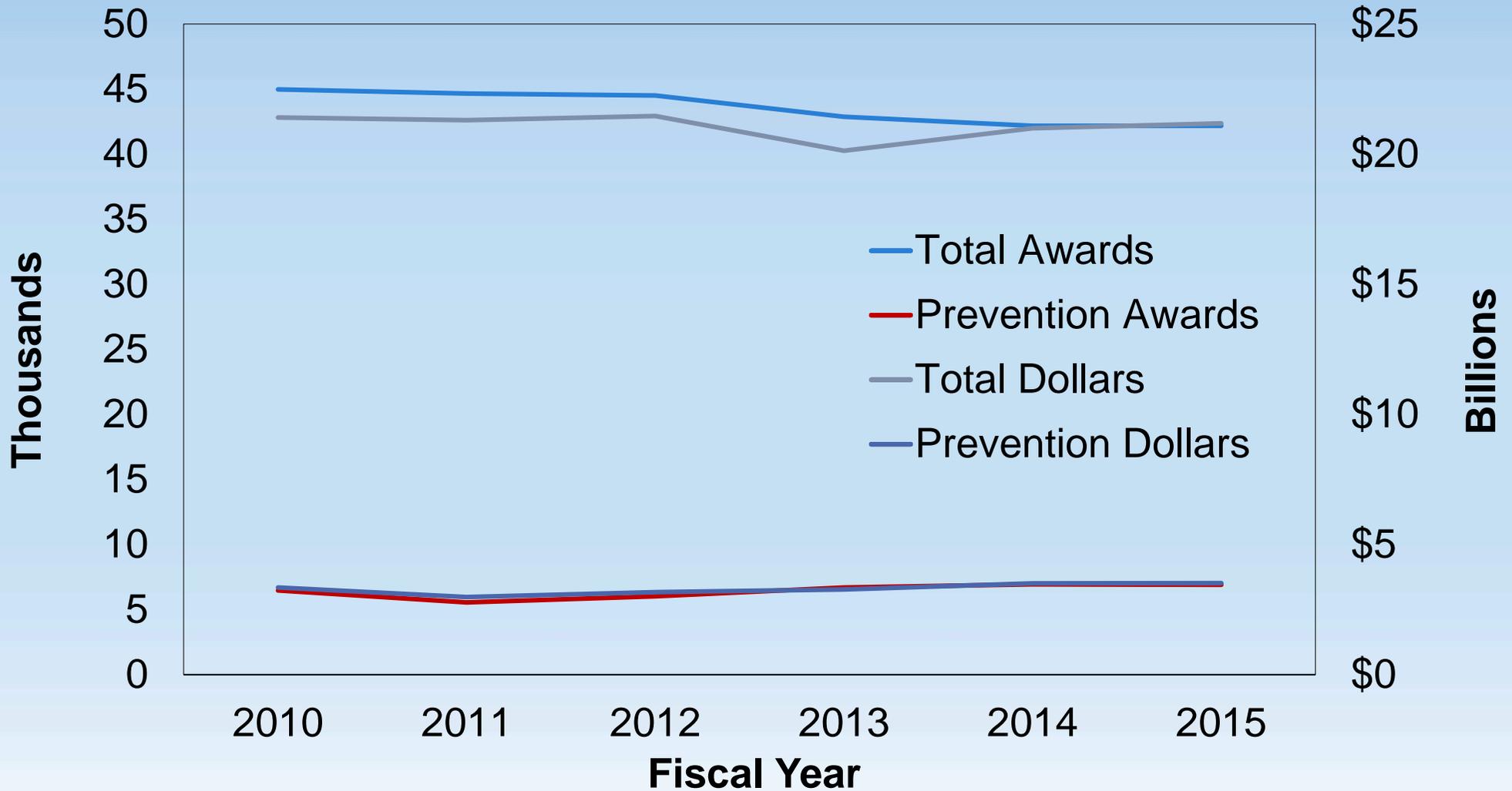


# Mission of the Office of Disease Prevention

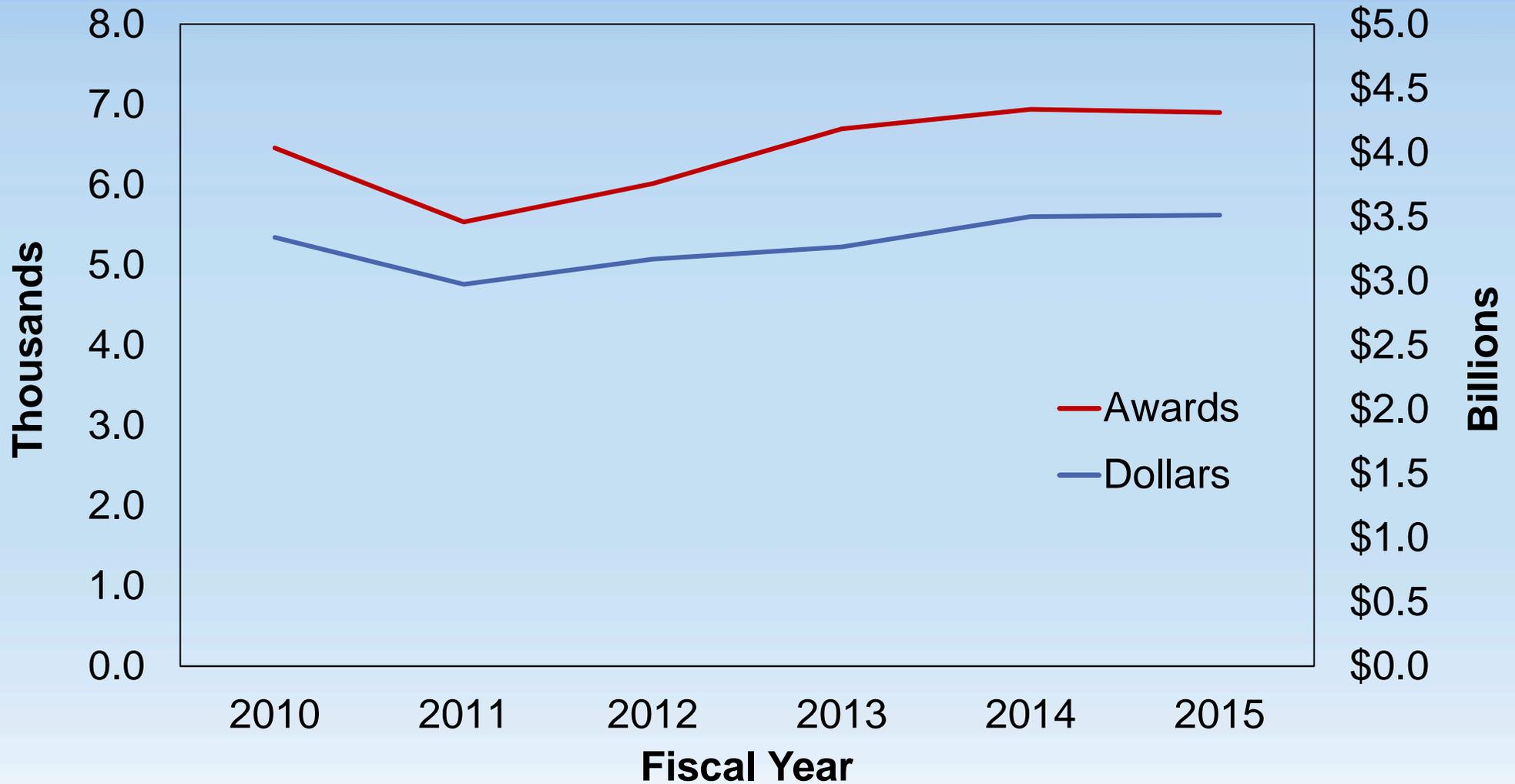
- The mission of the ODP is to improve the public health by increasing the scope, quality, dissemination, and impact of prevention research supported by NIH.
- ODP will fulfill this mission by providing leadership for the development, coordination, and implementation of prevention research in collaboration with the ICs and other partners.



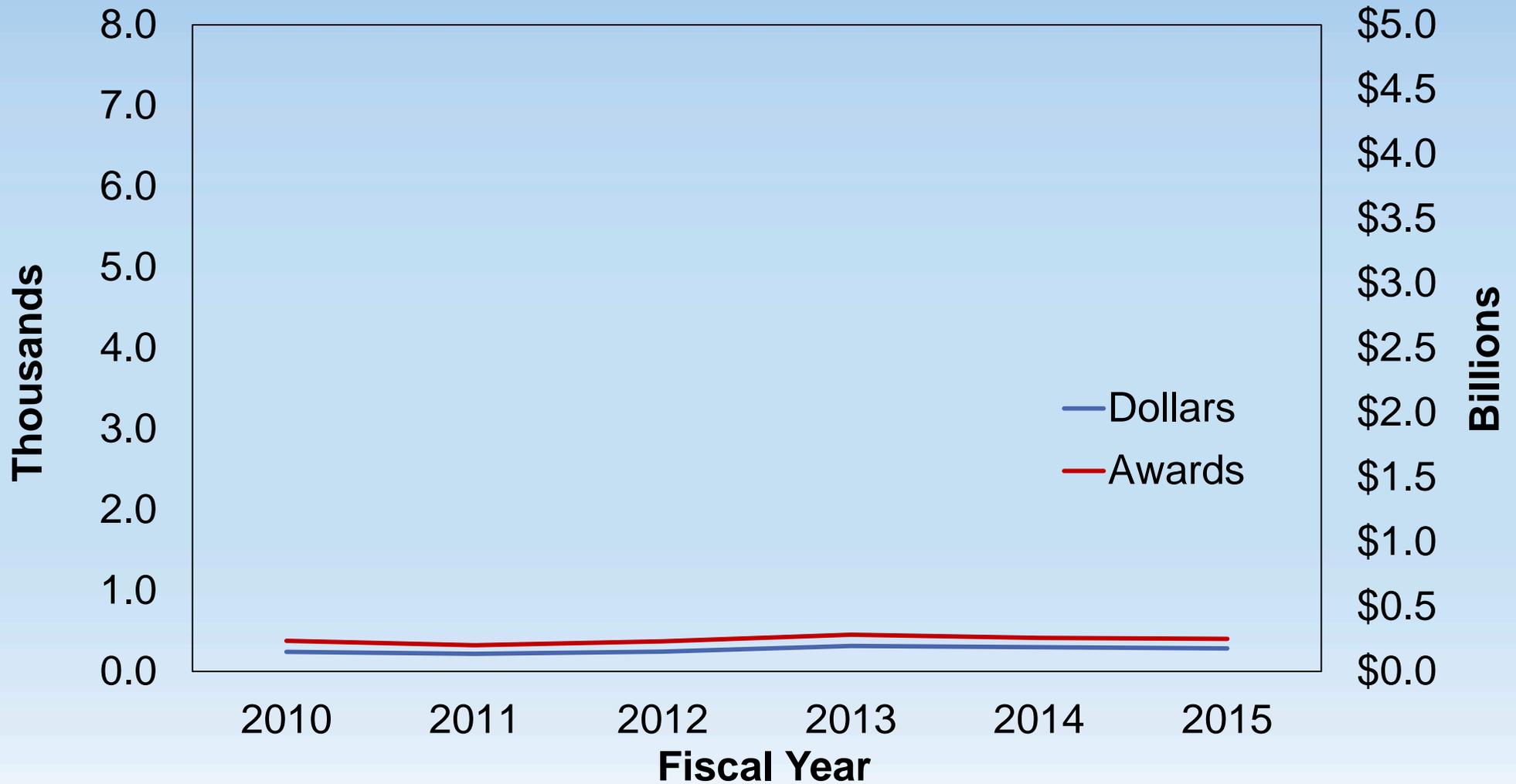
# Awards and Dollars: NIH Total and Prevention



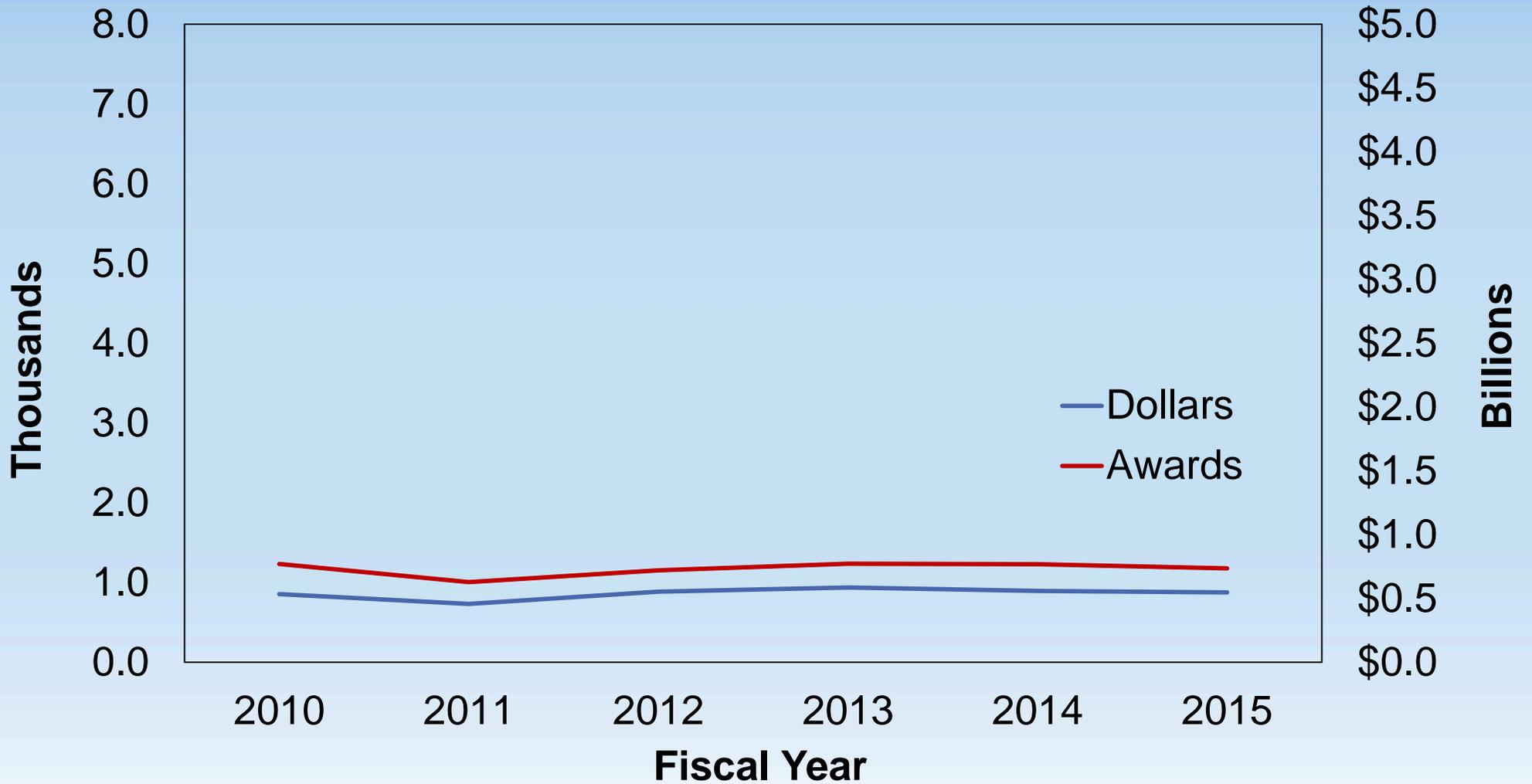
# Prevention



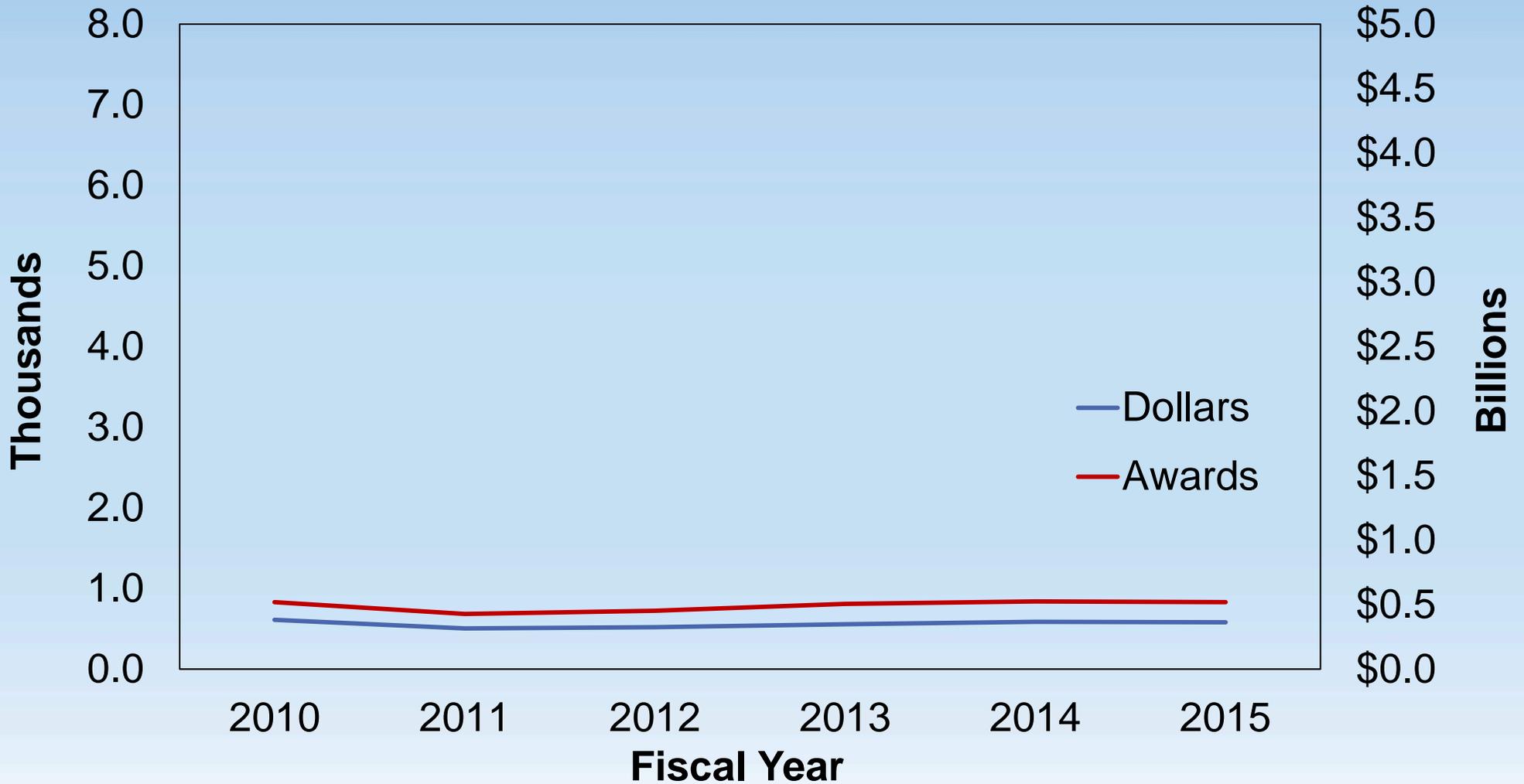
# Tobacco



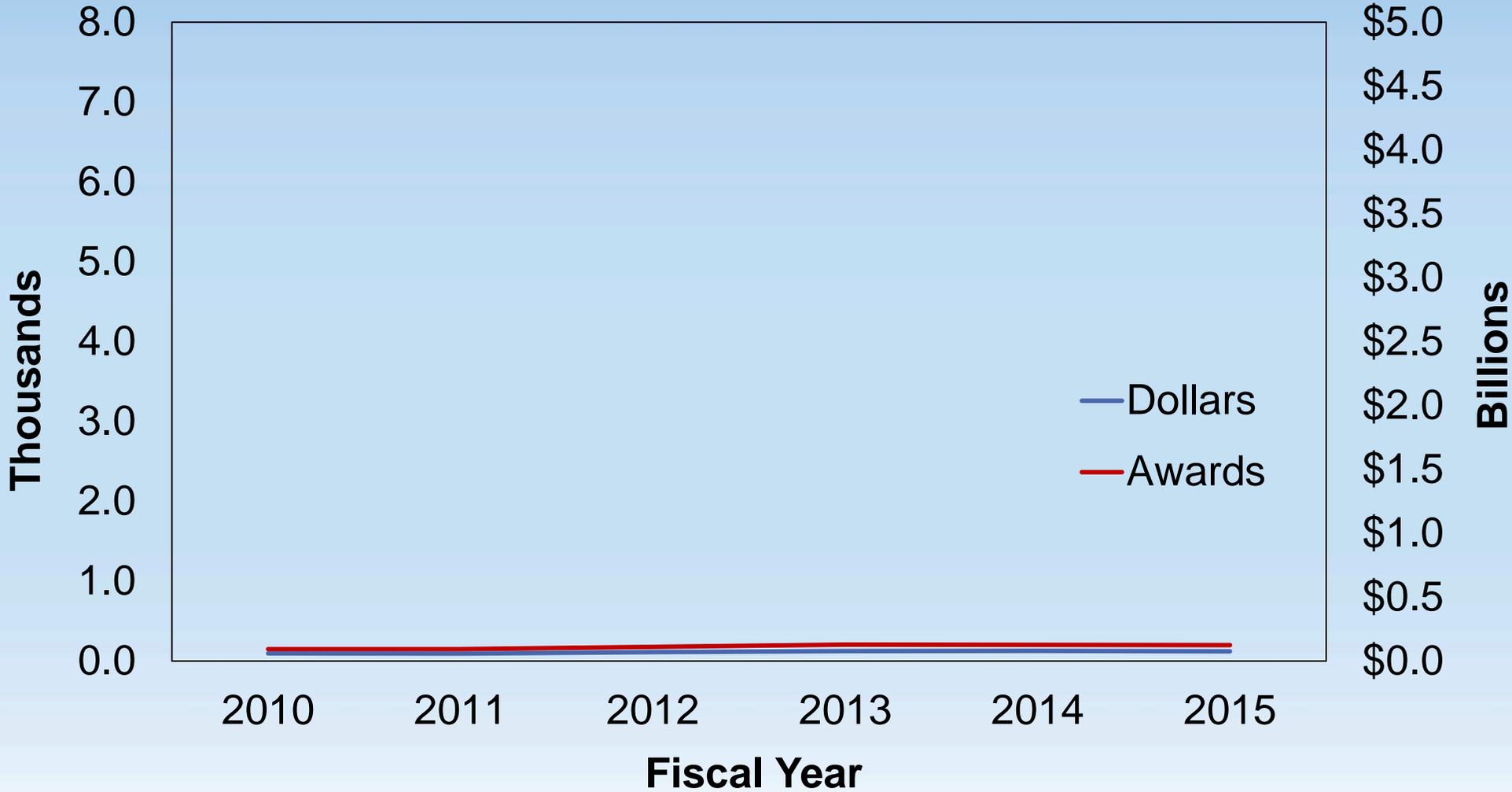
# Nutrition



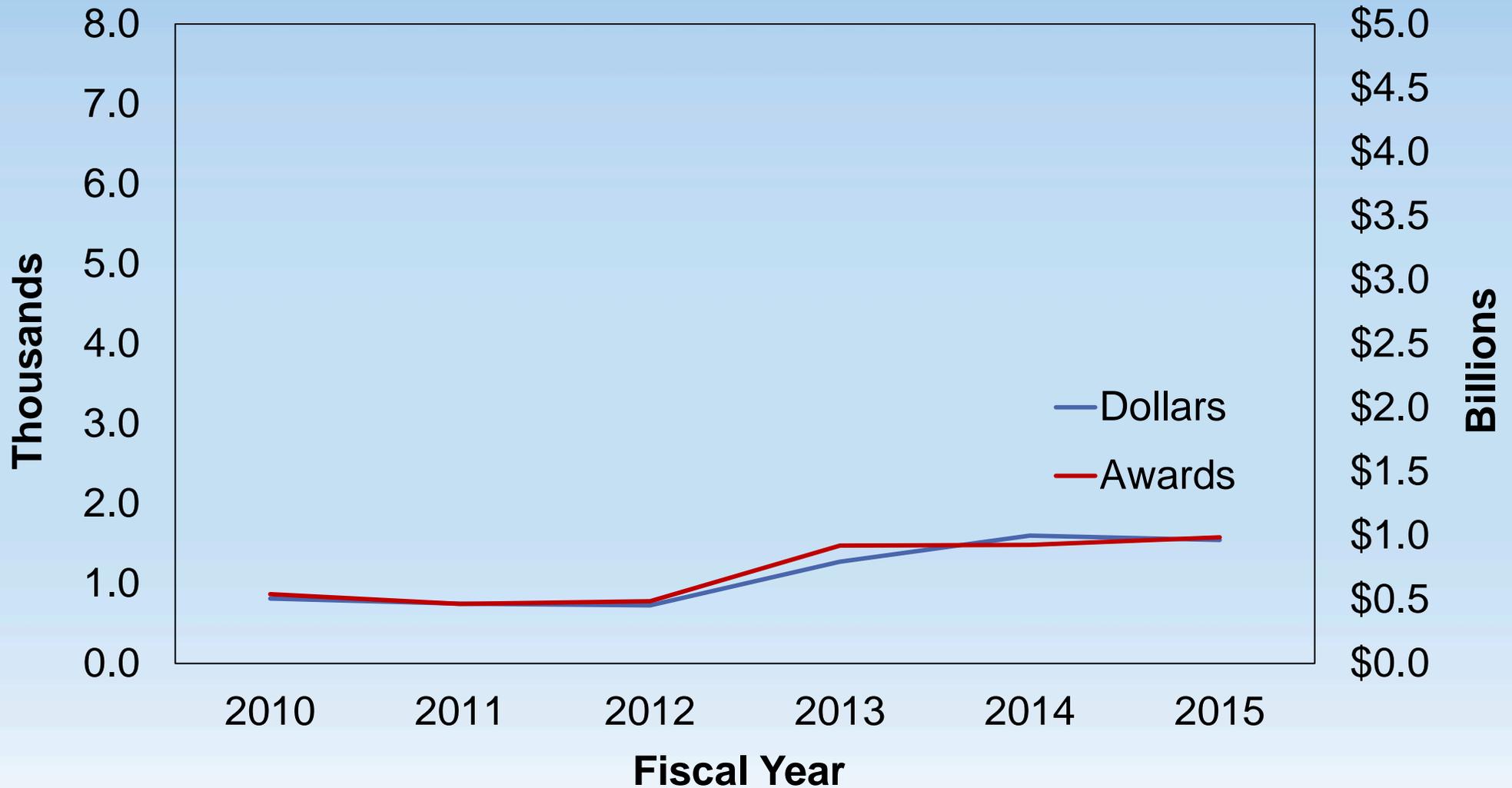
# Obesity



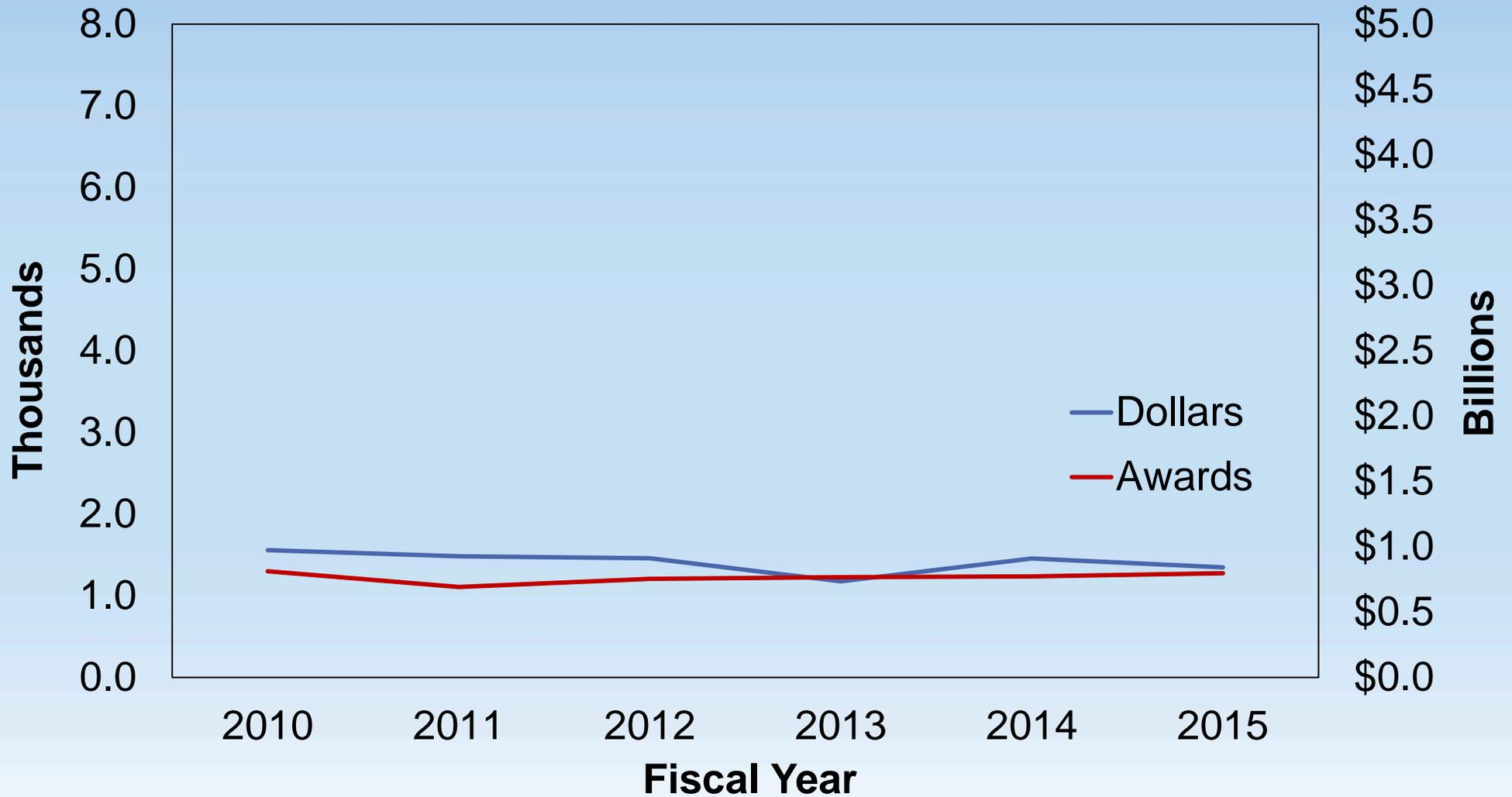
# Alcohol



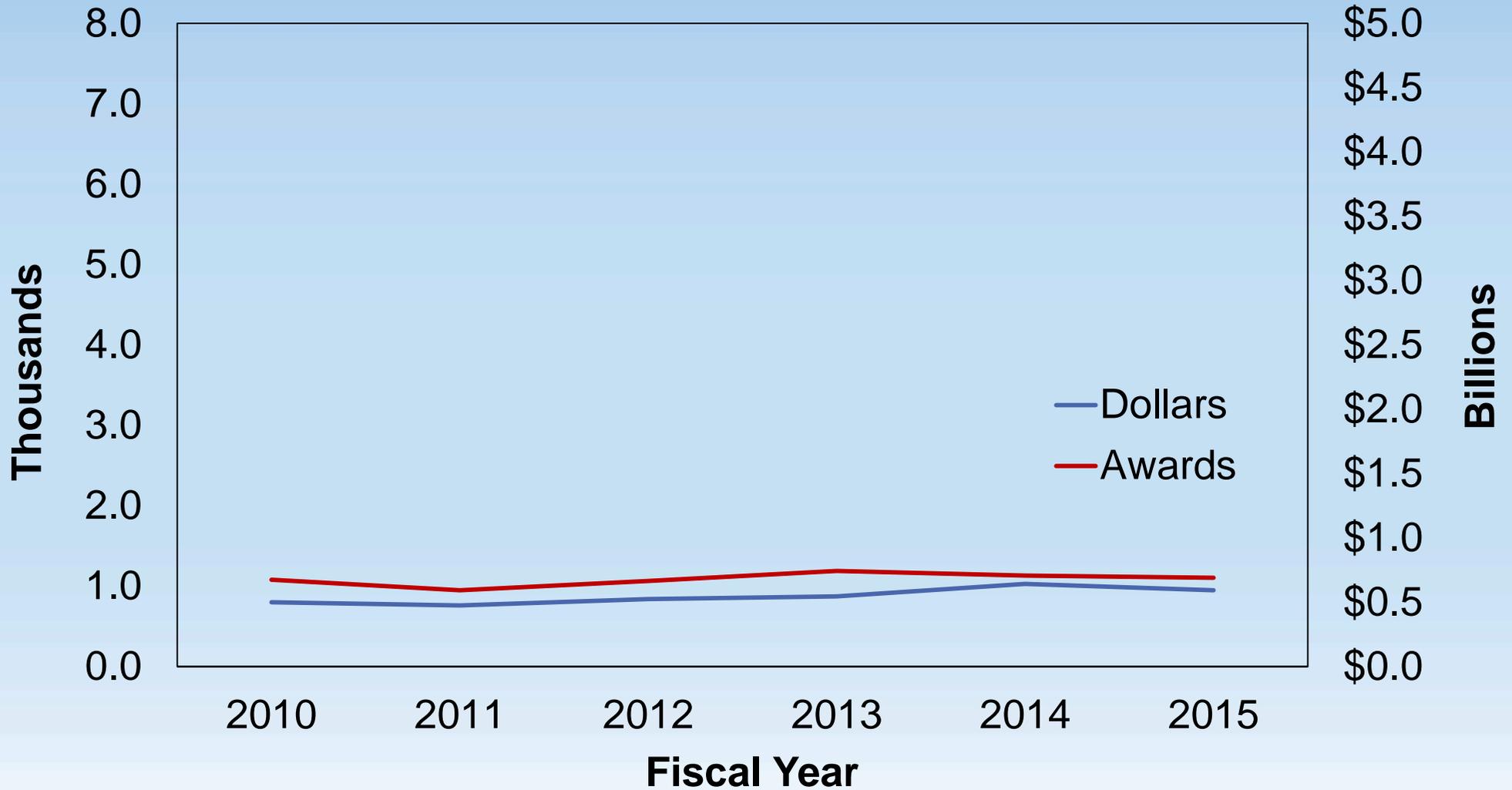
# Infectious Disease – Not HIV/AIDS



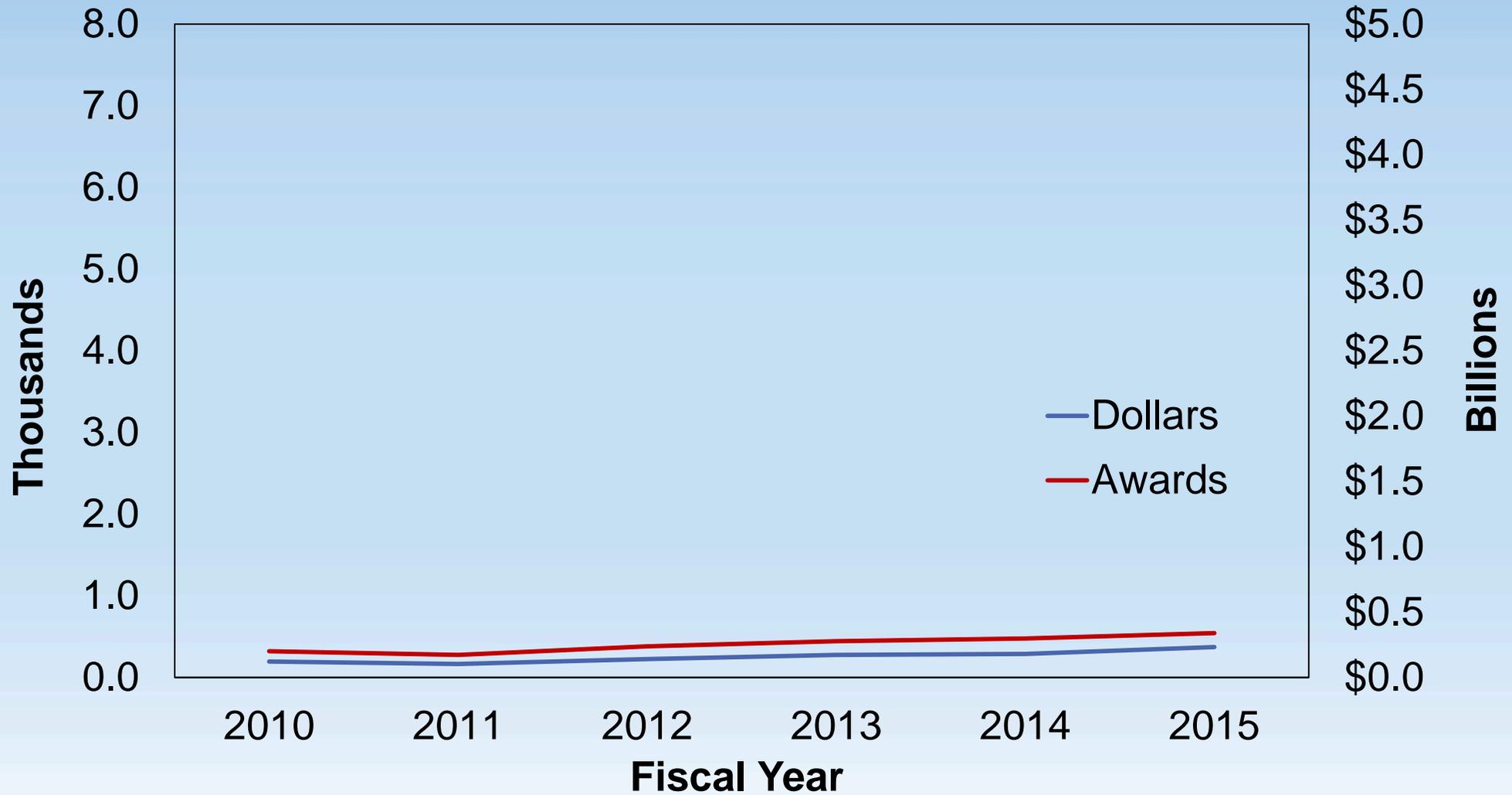
# HIV/AIDS



# Substance Abuse



# mHealth



# Recent NIH Initiatives Related to Prevention

- Enhancing Diversity of the Biomedical Workforce
- Big Data
- Rigor and Reproducibility
- Precision Medicine Initiative (PMI)
- Environmental Influences on Child Health Outcomes (ECHO)

# The Future for Prevention Researchers

- Prevention researchers need better training in research design and analytic methods so that results are reproducible and to be sure that they are using current methods.
  - Clinical trials, group- or cluster-randomized trials
  - Less common designs (e.g., stepped wedge, regression discontinuity)
  - Key or new analytic methods (e.g., mixed model regression, methods for intensive longitudinal data and for big data)
- This recommendation aligns well with the CTSA's 2015 ECRPTQ Competency Domains 1, 4, and 6.
- This recommendation applies to animal and human studies, to drug and device interventions, and to behavioral interventions.

# The Future for Prevention Researchers

- Prevention researchers need better training in the design, operation, and analysis of pragmatic trials, which are often more efficient and can lead to more rapid implementation of newly tested interventions.
  - Pragmatic trials are often run in health care systems.
  - They often rely on electronic health records for most data.
  - They often involve group- or cluster-randomized trial designs, or related methods (e.g., stepped wedge).
  - Training in the design and analysis is important.
  - Training in operations is also important, because these studies are often run in existing health care systems rather than in study-specific setting.

# The Future for Prevention Researchers

- Researchers using behavioral interventions need training in the use of taxonomies and frameworks for behavioral change.
  - These methods contribute to the development of stronger behavioral interventions.
  - They also set the stage for meta-analyses and other cross-study analyses.

# ODP's Contributions

- ODP's Resources for Researchers web pages provide resources for new and experienced investigators interested in prevention research.
  - Prevention research needs and gaps
  - Prevention related programs, offices, divisions, and study sections
  - Applying for NIH funding

# ODP's Contributions

- ODP provides links to Prevention Science Methods webinars, including webinars on topics identified in the previous slides.
  - Group- or cluster randomized trial design and analytic methods
  - Use of taxonomies and frameworks of behavior change
  - Big data and the promise and pitfalls when applied to prevention research
  - Time-varying effect for intensive longitudinal data
- ODP is seeking opportunities to support training in prevention science methods

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