

# Developing a Strategic Plan for the NIH Office of Disease Prevention

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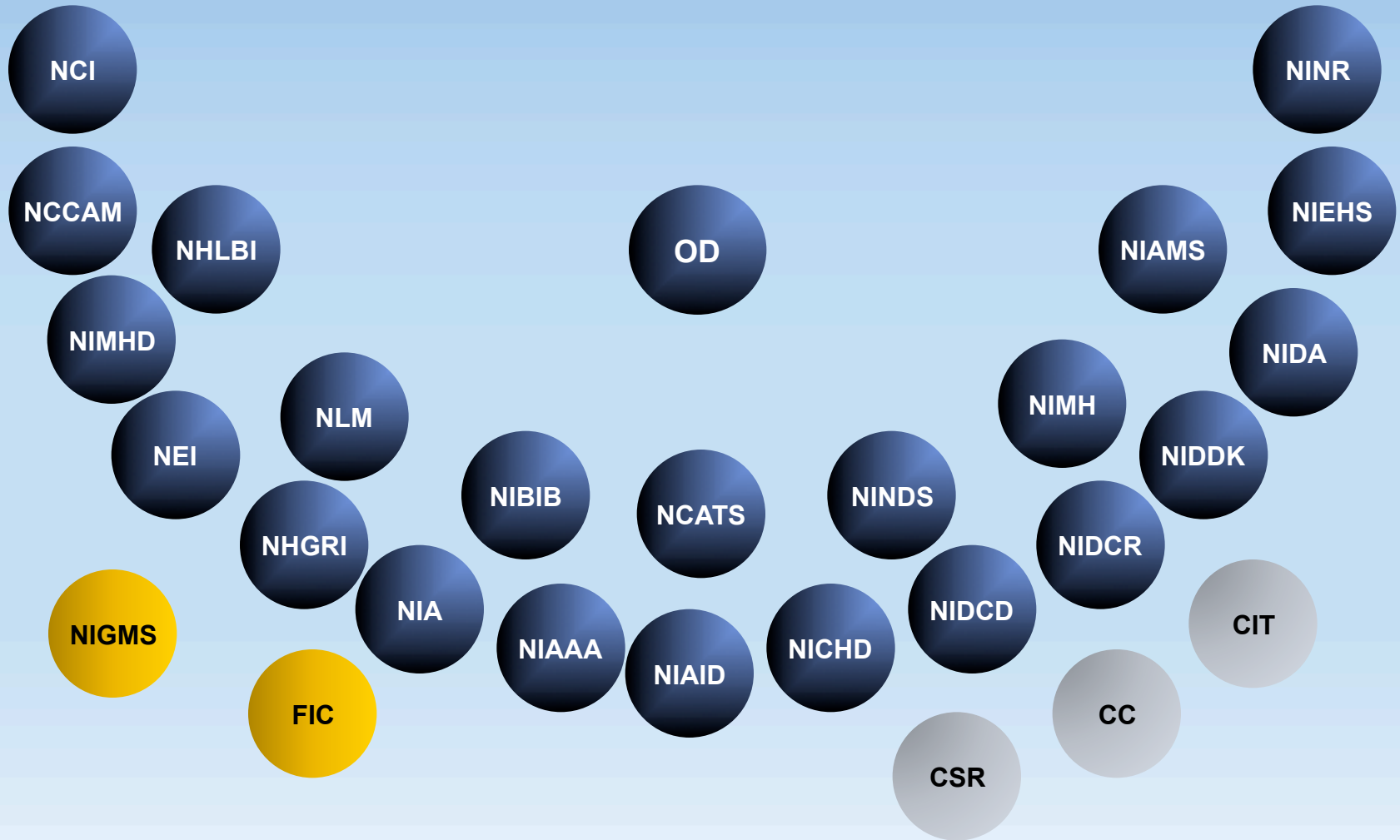
American College of Cardiology

September 8, 2014



National Institutes of Health  
*Office of Disease Prevention*

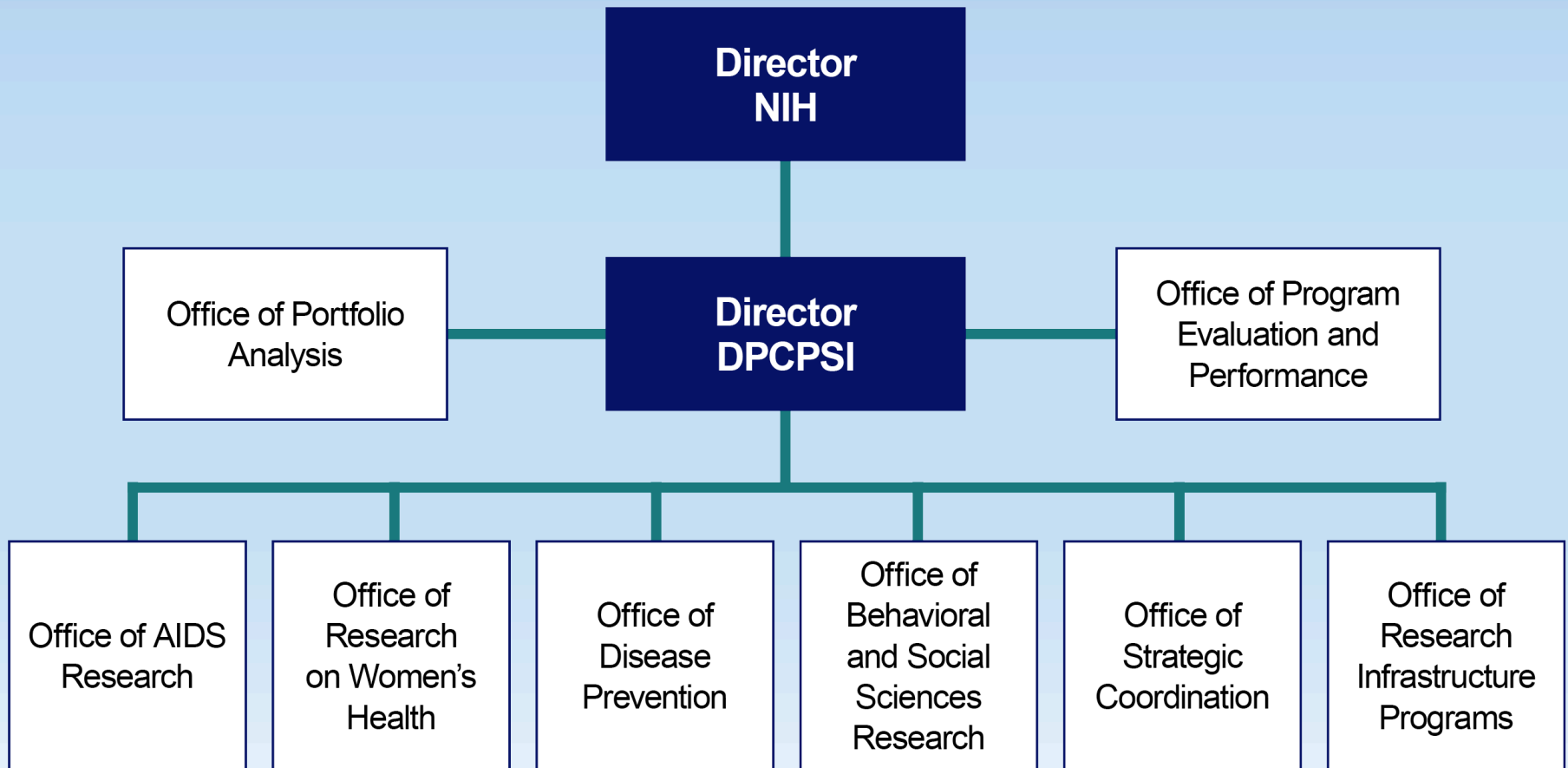
# NIH Institutes and Centers



● Extramural only

● No Funding Authority

# The Office of Disease Prevention



# Evolution of ODP

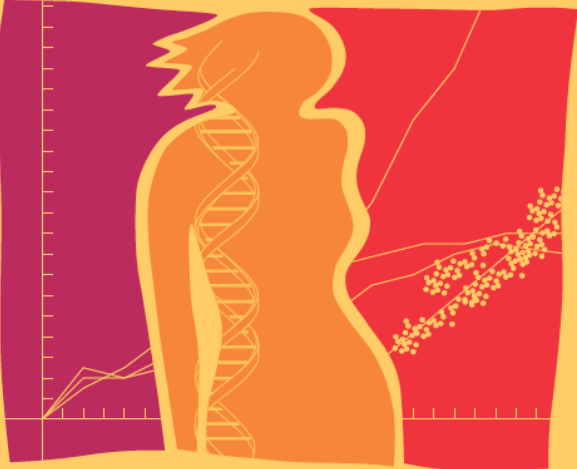
- ODP was created in response to a directive in the Health Research Extension Act of 1985 to create the position of Associate Director for Prevention.
  - The Prevention Research Coordinating Committee moved to ODP in 1986.
  - The Office of Medical Applications of Research (OMAR) and its Consensus Development Program (CDP) were moved to ODP.
  - The Office of Dietary Supplements was established in 1994.



# Evolution of ODP

- The Robert S. Gordon Lecture was established in 1995 to recognize scientists who have contributed significantly to the field of epidemiology or clinical trials research.

An NIH Director's Wednesday Afternoon Lecture Series  
THE 2013 ROBERT S. GORDON, JR. LECTURE



Using Risk Models  
for Breast Cancer Prevention

Mitchell H. Gail, M.D., Ph.D.  
Division of Cancer Epidemiology & Genetics, National Cancer Institute

February 27, 2013  
3-4 p.m. Masur Auditorium  
Warren Grant Magnuson Clinical Center  
National Institutes of Health  
Bethesda, Maryland

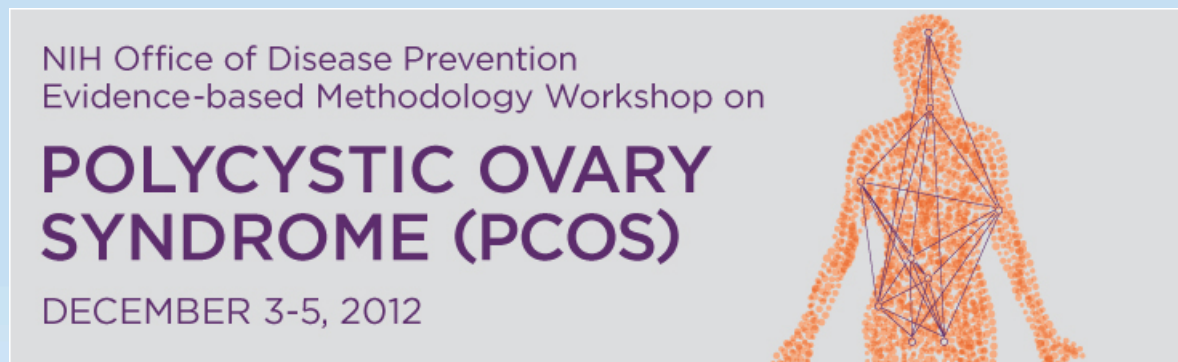
# Evolution of ODP

- The Medicine: Mind the Gap seminar series was established in 2007 to explore issues at the intersection of research, evidence, and clinical practice—areas in which conventional wisdom may be contradicted by recent evidence.



# Evolution of ODP

- Evidence-Based Methodology Workshops began in 2012 to identify methodological and scientific weaknesses in an area and move the field forward through an unbiased and evidence-based assessment of a complex clinical issue.
- Renamed Pathways to Prevention Workshops in 2013.



# Evolution of ODP

- The Tobacco Regulatory Science Program was transferred to ODP in 2012.
  - TRSP is a trans-NIH collaborative effort with the FDA's Center for Tobacco Products to conduct research to support FDA's regulatory authority for tobacco products.
  - This program supported \$183M in new research in 2013.

The screenshot shows the NIH Office of Disease Prevention website. The header includes the NIH logo, the text "National Institutes of Health", and the U.S. Department of Health and Human Services logo. Below the header, there are social media links for @NIHprevents and ODP Email Updates. The main content area features a navigation menu on the left with "Home" and "Tobacco Regulatory Research" (which is expanded to show sub-links: "About the FSPTCA", "Research Priorities", "Funding Opportunities", "Research Portfolio", and "Resources"). The main heading is "Tobacco Regulatory Science Program (TRSP)". The text below the heading states: "Located in the NIH Office of Disease Prevention (ODP), the Tobacco Regulatory Science Program (TRSP) coordinates the trans-NIH collaborative effort with the Food and Drug Administration's (FDA) Center for Tobacco Products (CTP) to conduct research to support its regulatory activities over tobacco products." Below this, it says "With the passage of the 2009 Family Smoking Prevention and Tobacco". On the right side, there is a "What's New" section with a bullet point: "Tobacco Control Regulatory Research PAR-12-267 (R01)" and a sub-bullet: "Notice of Change in Expiration Date of PAR-12-267 Tobacco Control".



# Evolution of ODP

- The Consensus Development Program (CDP) was retired in 2012.
- There are now many other organizations that conduct systematic reviews and develop consensus statements
  - US Preventive Services Task Force
  - Community Preventive Services Task Force
  - Cochrane Collaboration
  - Agency for Healthcare Research and Quality

U.S. Department of Health & Human Services • National Institutes of Health

NIH Consensus Development Program



# ODP Today

- ODP co-funds NIH research projects, meetings, and workshops that support prevention research.
- ODP manages the Tobacco Regulatory Science Program.
- ODP is the NIH liaison to other DHHS activities and partners.
  - Healthy People 2020
  - National Prevention Strategy
  - U.S. Preventive Services Task Force
  - Community Preventive Services Task Force
- ODP offers evidence-based assessment programs
  - Pathways to Prevention
- ODP offers training and education
  - Mind the Gap, Gordon Lecture
- ODP is the OD Liaison to the National Children's Study

# Developing a Strategic Plan

- During 2013, ODP sought broad input to create its first strategic plan to guide its work in 2014-18.
  - A Working Group of NIH, other federal, extramural, and public partners guided the process.
  - Interviews with NIH Institute and Center Directors and other key leaders informed the definition of prevention research and the mission, vision, and draft strategic priorities for ODP.

# Defining Prevention Research

- Prevention research for the Office of Disease Prevention encompasses both primary and secondary prevention.
- It includes research designed to promote health; to prevent onset of disease, disorders, conditions, or injuries; and to detect, and prevent the progression of, asymptomatic disease.



# Defining Prevention Research

- Prevention research targets biology, behavior, factors in the social and physical environments, and health services.
- It informs and evaluates health-related policies and regulations.
- Prevention research includes studies for:
  - Identification and assessment of risk and protective factors
  - Screening and identification of individuals and groups at risk
  - Development and evaluation of interventions to reduce risk
  - Translation, implementation, and dissemination of effective preventive interventions into practice
  - Development of methods to support prevention research.

# Mission

- 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.



# Vision

- By 2018, the ODP will extend its value as a resource to the NIH and the broader prevention research community,
  - Providing guidance in prevention research methodology,
  - Identifying gaps in existing evidence and facilitating the coordination of new activities to address those gaps,
  - Promoting quality improvements in the review of prevention research,
  - And increasing the impact and visibility of prevention research.

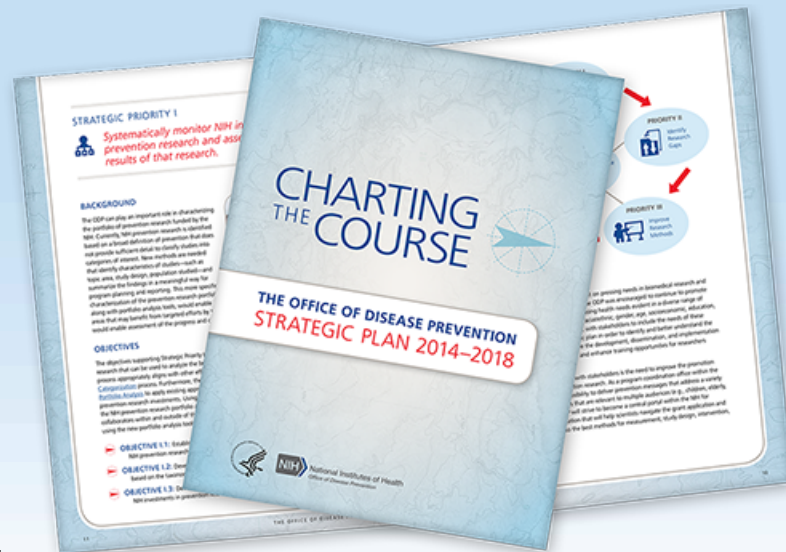
# Developing a Strategic Plan for 2014-18

- Building on this foundation, ODP sought input from key stakeholders to refine its draft strategic priorities and to develop measurable objectives, activities, and timelines for each priority.
  - Program and review staff participated in focus groups.
  - The public participated via a Request for Information.
  - Professional societies and extramural investigators participated through direct correspondence, meetings and the RFI.
  - ODP organized the input around the draft strategic priorities.
- Teams recommended refinements to the priorities and candidate objectives, tasks, benchmarks, and timelines.



# Developing a Strategic Plan for 2014-18

- Strategic Plan approved in January, 2014.
  - Six strategic priorities
  - Nineteen objectives
  - Five years to make progress
  - [http://prevention.nih.gov/aboutus/strategic\\_plan/default.aspx](http://prevention.nih.gov/aboutus/strategic_plan/default.aspx)
- Resource request approved in June, 2014



# Strategic Priority I

- Systematically monitor NIH investments in prevention research and assess the progress and results of that research.
  - Current methods...
    - Have poor sensitivity and specificity.
    - Provide inadequate detail on features like outcome, exposure, study type, design, age group, etc.
    - Cannot accurately characterize levels or trends for awards or dollars.
    - Cannot identify areas with inadequate support.
    - Cannot be used effectively to address this strategic priority.

# Strategic Priority I

- Systematically monitor NIH investments in prevention research and assess the progress and results of that research.
- Objectives
  - Establish a taxonomy for prevention research that ODP can apply to analyze the NIH prevention research portfolio.
  - Develop, test, and implement portfolio analysis tools to classify NIH funding awards based on the taxonomy for prevention research.
  - Develop and implement a process to regularly assess the progress and results of NIH investments in prevention research.

# Strategic Priority II

- Identify prevention research areas for investment or expanded effort by NIH.
  - ICs look to ODP for advice on areas and topics for new or expanded prevention research.
  - Better portfolio analysis methods would help.
  - Regular interaction with key stakeholders would help.
    - US Preventive Services Task Force
    - Community Preventive Services Task Force
    - Centers for Disease Control and Prevention
    - National Prevention Council
    - Professional societies

# Strategic Priority II

- Identify prevention research areas for investment or expanded effort by NIH.
- Objectives
  - Work with stakeholders to identify needs in prevention research.
  - Compare those needs with the current NIH portfolio to identify gaps in prevention research (i.e., those areas that are not being addressed or have insufficient funding).
  - Work with the NIH Institutes and Centers to prioritize the prevention research gaps for investment or expanded effort.

# Strategic Priority III

- Promote the use of the best available methods in prevention research and support the development of better methods.
  - Evidence shows that good methods are not always well used.
  - My observations, based on 33 years as an NIH funded investigator and reviewer tell me that...
    - Program and review staff are not always up to date, making it harder for them to advise applicants and empanel study sections.
    - Review panels often lack necessary methodological expertise.
    - Steps are needed to ensure applications with strong methods are distinguished from those with weak methods.
    - We want to identify the applications that are innovative, likely to have a substantial impact, and based on strong methods.

# Strategic Priority III

- Promote the use of the best available methods in prevention research and support the development of better methods.
- Objectives
  - Develop a list of existing NIH and other federal resources pertaining to prevention science methodology.
  - Provide training in prevention science methods to NIH program and review staff and to extramural investigators.
  - Develop NIH Funding Opportunity Announcements that encourage innovative and improved approaches to prevention science.
  - Work with stakeholders and NIH staff to identify and disseminate “best practices” in prevention science methods.

## Strategic Priority IV

- Promote collaborative prevention research projects and facilitate coordination of such projects across the NIH and with other public and private entities.
  - All of the ICs support prevention research in their own areas.
  - This has created a robust and diverse prevention research portfolio, but one that discourages collaboration across ICs.
  - Enhanced collaboration and coordination among ICs could result in better outcomes and more efficient use of resources.



# Strategic Priority IV

- Promote collaborative prevention research projects and facilitate coordination of such projects across the NIH and with other public and private entities.
- Objectives
  - Identify, document, and share best practices for research collaborations within the NIH and with other stakeholders.
  - Establish or promote infrastructures and processes to foster research coordination and collaboration across the NIH and with other public and private entities.
  - Coordinate NIH Funding Opportunity Announcements to address areas of need in prevention research.

# Strategic Priority V

- Identify and promote the use of effective evidence-based interventions.
  - The Congressional mandate for ODP includes dissemination of the results of disease prevention research.
  - There are many other federal agencies whose mission is focused more directly on dissemination, e.g., CDC.
  - Dissemination will be part of the ODP portfolio, but here ODP will play a support role.

# Strategic Priority V

- Identify and promote the use of effective evidence-based interventions.
- Objectives
  - Identify evidence-based interventions for disease prevention and present them in an organized structure.
  - Enhance partnerships to promote dissemination of evidence-based disease interventions for disease prevention.
  - Enhance partnerships to promote research on dissemination and implementation of evidence-based interventions in prevention.

# Strategic Priority VI

- Increase the visibility of prevention research at NIH and across the country.
  - NIH is focused much more on basic science and on developing and evaluating treatments than on prevention.
  - The prevention community at NIH has asked ODP to take a leadership role in promoting prevention research both at NIH and elsewhere.

# Strategic Priority VI

- Increase the visibility of prevention research at NIH and across the country.
- Objectives
  - Increase the availability of information about prevention research through the use of traditional and digital communication tools.
  - Increase communications and collaborations with stakeholders to coordinate communications about disease prevention.
  - Support Strategic Priorities I–V via the ODP website and other communication tools.

# Progress to Date

- The ODP staff will increase in 2014 to implement the plan.
- Priority I
  - Taxonomy developed to classify awards based on rationale, exposure, outcome, entities studied, setting, population focus, research design, and prevention research category.
  - Web-based system developed to allow teams to code awards, compare results, reconcile differences, provide quality control.
  - Several hundred awards coded to be used as a training set.
  - Coders are being hired and trained.
  - Software engineer is developing machine learning tools to use the data to develop an automated system for coding.

# Progress to Date

## ■ Priority II

- Systematic review of existing reports to identify gaps
  - USPSTF Insufficient Evidence Reports
  - Community Guide Highlighted Research Gaps and Priorities
  - IOM Highlighted Research Gaps and Priorities
  - NIH IC Proceedings and Workshops
- New system developed to obtain annual reports from ICs on work related to USPSTF Insufficient Evidence Reports.
- Co-funding work at CDC to make it easier to identify research gaps in the Community Guide

# Progress to Date

## ■ Priority III

- ODP partnered with the Society for Prevention Research and the Association of Schools and Programs in Public Health to survey their members to identify experts in prevention science methods and content.
- ODP is developing a web-based tool that Scientific Review Officers can use to identify experts for review panels.
- ODP has surveyed Scientific Review Officers to identify topics in prevention science methods that they would like to have addressed in seminars.
- ODP is contributing to several training institutes this summer with an emphasis on prevention science methods.



# Looking Forward

- ODP will ramp up work on Priorities IV-VI this fall.
- All teams should be staffed and active by the end of the year.

# The Role of Epidemiology in NIH Research

- Epidemiology is very important at NIH
  - There is an Epidemiology and Clinical Trials Interest Group
  - ODP sponsors the annual Robert S. Gordon lecture to recognize contributions to epidemiology and clinical trials
  - Many of the ICs have a Division or Branch focused on epidemiology
  - There are more than 6300 currently funded projects that include a variation of "epidemiology" in their title or abstract.
  - Of that number, more than 480 are individual or institutional training grants.
  - There are always epidemiologists involved in the highest level policy and planning discussions at NIH.

# Thinking about the Future of Epidemiology

- Khoury MJ et al. Transforming epidemiology for 21st century medicine and public health. *Cancer Epidemiol Biomarkers Prev* 2013;22(4):508-16.
  - Extend the reach of epidemiology
  - Transform the practice of epidemiology
  - Expand cohort studies across the lifespan including multiple health outcomes
  - Develop, evaluate, and use novel technologies appropriately
  - Integrate "big data" science into the practice of epidemiology
  - Expand knowledge integration to drive research policy and practice.
  - Transform training of 21<sup>st</sup> century epidemiologists

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