# Cardiovascular Health Gender Disparities: The Pathway to Policy



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## Objectives

- Discuss disparities in cardiovascular disease (CVD) research for women
- Discuss national and global implications for cardiovascular health policy
- Analyze current U.S. health policy
- Use a Problem-Centered Public Policy-Making Process Model

## Frequencies of cardiovascular diseases among adults aged 18 and over: United States, 2012

	Heart Disease					
	All types	Coronary	Hypertension	Stroke	Total	
	Number in thousands					
Male	13,820	8,752	28,940	2,898	113,071	
Female	12,741	6,529	30,890	3,472	121,850	

Note. Adapted from Blackwell, D. L., Lucas, J. W., & Clarke, T. C. (2014). Summary health statistics for U.S. adults: National Health Interview Survey, 2012. National Center for Health Statistics. Retrieved from http://www.cdc.gov/nchs/data/series/sr 10/sr10 260.pdf.

## **National Statistics**

- Leading cause of death for men and women (American Heart Association, 2015)
- CVD kills 419,730 women each year (American Heart Association, 2013)
- 64% of women who die suddenly of coronary heart disease had no previous symptoms (American Heart Association, 2012)

## International Statistics

- In 2012 an estimated 17.5 million people died from CVDs, which comprised 31% of all deaths (World Health Organization, 2015)
- Over 75% of CVD deaths take place in low- and middle-income countries (World Health Organization, 2015)
- 20% aware CV disease was the number one killer in women (National Heart Foundation of Australia, 2010)
- 56% in United States (American Heart Association, 2015)

## Economic impact of CVD

- \$444 billion spent in 2010 on treatment, medication and lost productivity (National Conference of State Legislatures, 2015)
  - 2.4% of U.S. GDP
- Leading cause of death globally (World Health Organization, 2015)

## Women in Cardiovascular Research

- Systematic review between 1997 and 2009 showed female enrollment at 30% in 325 trials (Tsang et al., 2012)
- EuroHeart Project: review of 65 trials with 33% average and range 15-60% (Stramba-Badiale, 2009).

#### **Position Statements**

- Institute of Medicine (2010) Women's Health Research
  - Not enough advancement with depression, HIV, osteoporosis, drug addiction
  - Research community should integrate women's health considerations into all research
  - Need more gender exclusive studies
  - Governments should ensure adequate participation

#### **Position Statements**

- International Council on Women's Health Issues
  - As Millenium Development Goals come to an end, need emphasis on chronic diseases, such as CVD
  - Research data needs to be disaggregated
  - More active female investigators

## Health Policy Initiatives

- WHO recommendation
  - "Best buys"
  - Comprehensive tobacco control policy, taxation, building walking paths, healthy school lunches
- EuroHeart
  - European Society of Cardiology and European Heart Network
  - Awareness, diagnosis and treatment

## Health Policy Initiatives

- Policy depot (Mason et al., 2012)
  - Launched in 2012 by National Forum for Heart Disease and Stroke Prevention and the Collaboration for Integrated Noncommunicable Disease Intervention Program
  - Online tool to form and implement evidence-based policies
  - Clearinghouse of policies

Case Study: History of health policy related to women's CVD research in the United States

#### Problem-Centered Public Policymaking Process Model (Block, 2008)

Phases of policy making	Phases of policy analysis		
1. Agenda setting	1. Problem structuring		
Window of opportunity			
2. Policy formulation	2. Forecasting		
3. Policy adoption	3. Recommendations for adoption		
4. Policy implementation	4. Monitoring		
5. Policy assessment	5. Evaluation		
6. Policy modification	6. Recommendations for modification		

## Research Funding and Healthcare Costs

	Research Funding	Healthcare Costs	
	in billions of dollars		
Heart Disease	1.32	109	
Cancer	2.17	77	

Note. Adapted from Wood, S. (2011). *Drugs, money, and glory: Is cancer beating cardiovascular diseases?* Retrieved from http://www.medscape.com/viewarticle/790998

## History of Previous Bills

Year	Bill	Name	Senate	House
1993		NIH Revitalization Act (passed)		
1996	H.R. 3001 / S. 1910	Women's Cardiovascular Diseases Research and Prevention Act		
1997	S. 349	Women's Cardiovascular Diseases Research and Prevention Act		
1998	H.R. 4683 / S. 1722	Women's Health Research and Prevention Amendments of 1998 (passed)		
2001	H.R. 2783	Women's Health Drug Studies Act		
2006	H.R. 4747 / S. 227	HEART for Women Act		
2007	H.R. 1014 / S.573	HEART for Women Act		
2009	H.R. 1032	HEART for Women Act		
2011	S. 422	HEART for Women Act		
2014	H.R. 4879	Research for All Act		

## Barriers in Policy Environment

#### Historical

- Women harmed in historical studies
  - Tuskegee Syphilis study
  - Thalidomide studies
- Trend to protect women from studies by exclusion
- 1977 FDA excluded women from Stage 1 clinical trials

#### Current

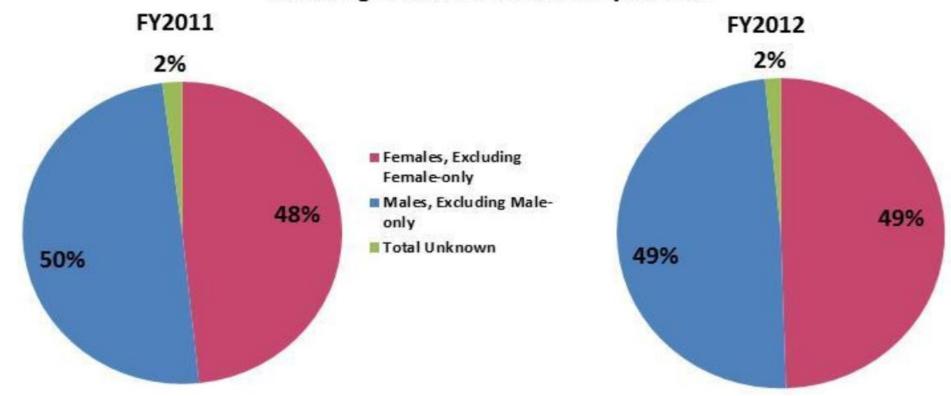
- Majority of laws passed related to women's health focuses on breast cancer research
- Other health related research laws

#### **Current Events**

- Research is a low priority
- Electoral campaigns
- Major national and world events
- Other major healthcare laws
- Decrease in co-sponsors
  - 8 Democratic co-sponsors and 2 Republican co-sponsors for the current bill (2014)
  - 35 Democratic, 7 Republican, and 2 Independent co-sponsors for S.
    422 (2009)

Percent Enrollment by Sex/Gender in All NIH Clinical Research Excluding Male and Female Only Studies

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U.S. Department of Health and Human Services, National Institutes of Health. (2013) Monitoring Adherence to the NIH policy in the inclusion of women and minorities as subjects in clinical research Comprehensive Report: Tracking of clinical research as reported in fiscal year 2011 and fiscal year 2012.

## Conclusion

National and International support for women's cardiovascular health and research

Progress is in the right direction

Health policy is an evolving process



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