

WOMEN & MEDICAL RESEARCH

- It is now clear that **men and women experience illness differently**. Four diseases where this is especially true: cardiovascular disease, lung cancer, depression and Alzheimer's disease. The past two decades have shown not only that sex differences exist, but also have produced scientific advancements that enhance our ability to discover why they occur and how we might adapt prevention, detection and treatment strategies for the benefit of women and men alike. Therefore, **to ignore these differences challenges the quality and integrity of science and medicine**.¹
- The science that informs medicine—including the prevention, diagnosis, and treatment of disease—**routinely fails to consider the crucial impact of sex and gender**. This happens from the earliest stages of research, when females are excluded from animal and human studies or the sex of the animals isn't stated in the published results.²
- In 1985, a U.S. Public Health Service task force found and stated that the 'lack of research focus on women's health concerns has compromised the quality of health information available to women as well as the health care they receive.' Almost two decades later, this is **still overwhelmingly the case**.³
- Historically, women have been excluded from clinical trials because it is considered **too difficult or expensive** to include them. If they are taking hormonal contraception it can interfere with how a drug is metabolised, if they are pregnant, menopausal or in any other altered hormonal state this can also effect results or pose risks to the subject or their baby.⁴
- That there is a lack of physiological data on women has been cited as a **reason for the neglect** of them as medical research subjects. ⁵
- **Factors that contribute** to women's health (or lack of it) such as poverty and social deprivation will not be the same as for men. These differences need to be defined in order for guidance to reflect the social context of disease.⁶
- Women **metabolize drugs differently** than men.⁷
- Women are **70% more likely** to suffer depression than men, yet **fewer than 45%** of animal studies on anxiety and depression use female lab animals.⁸

¹ Sex-Specific Medical Research Why Women's Health Can't Wait: A Report of the Mary Horrigan Connors Center for Women's Health & Gender Biology at Brigham and Women's Hospital p3 2014

² Sex-Specific Medical Research Why Women's Health Can't Wait: A Report of the Mary Horrigan Connors Center for Women's Health & Gender Biology at Brigham and Women's Hospital p5 2014 Accessed on 11 March 2014

³ [http://my.chicagotribune.com/#section/-/1/article/p2p-79502994/By Caroline Chen, Bloomberg News](http://my.chicagotribune.com/#section/-/1/article/p2p-79502994/By%20Caroline%20Chen,%20Bloomberg%20News)

⁴ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1761670/>

⁵ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1761670/>

⁶ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1761670/>

⁷ Sex-Specific Medical Research Why Women's Health Can't Wait: A Report of the Mary Horrigan Connors Center for Women's Health & Gender Biology at Brigham and Women's Hospital p5 2014 Accessed on 11 March 2014

⁸ <http://my.chicagotribune.com/#section/-/1/article/p2p-79502994/> By Caroline Chen, Bloomberg News

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- More women die of cardiovascular disease than men, yet only **one-third** of cardiovascular clinical trial subjects are female and less than one-third (31%) of cardiovascular clinical trials that include women report outcomes by sex.⁹
- While about one in five people who are diagnosed with lung cancer never smoked, nonsmoking women are **three times more likely** than nonsmoking men to get it. Despite this, researchers continually fail to analyze data by sex or include hormone status or other gender-specific factors in their research. This makes it difficult to uncover differences in incidence, prevalence, and survivability between men and women, or to replicate the studies.¹⁰
- Women are **more likely** than men to be affected by health problems related to alcohol consumption such as:
 - Alcoholic liver disease;
 - Alcohol-induced brain damage;
 - Alcohol-related heart disease.¹¹
- While 45% of doctorates are awarded to female students, only **30%** of active researchers and **18%** of full professors are women. ¹²
- Amongst other things, this is because **cognitive errors** in assessing merit, suitability for leadership, or evaluation of performance are embedded in institutional practices, often despite good intentions and a commitment to fairness.¹³

⁹ Sex-Specific Medical Research Why Women's Health Can't Wait: A Report of the Mary Horrigan Connors Center for Women's Health & Gender Biology at Brigham and Women's Hospital p5 2014 Accessed on 11 March 2014

¹⁰ Sex-Specific Medical Research Why Women's Health Can't Wait: A Report of the Mary Horrigan Connors Center for Women's Health & Gender Biology at Brigham and Women's Hospital p5 2014 Accessed on 11 March 2014

¹¹ National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2008). Women and drinking. <http://pubs.niaaa.nih.gov/publications/brochurewomen/women.htm#drinking> Accessed 19 November 2012.

¹² European Commission, *Structural Change in Research Institutions: Enhancing excellence, Gender Equality and Efficiency in Research Innovation*, <http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1222> Accessed on 16 April 2014

¹³ *ibid*