



AZIENDA OSPEDALIERO-UNIVERSITARIA  
Città della Salute e della Scienza di Torino

## V CONVEGNO NAZIONALE



### **Nuove frontiere in Medicina**

La Medicina di Genere si afferma e affronta nuovi ambiti di interesse:  
**L'EMICRANIA**

Organizzato in collaborazione con il  
Comitato Unico di Garanzia  
dell'A.O.U. Città della Salute e della Scienza di Torino

**5 APRILE 2019**

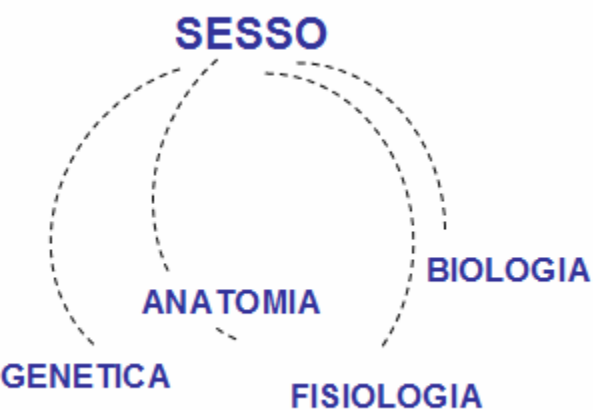
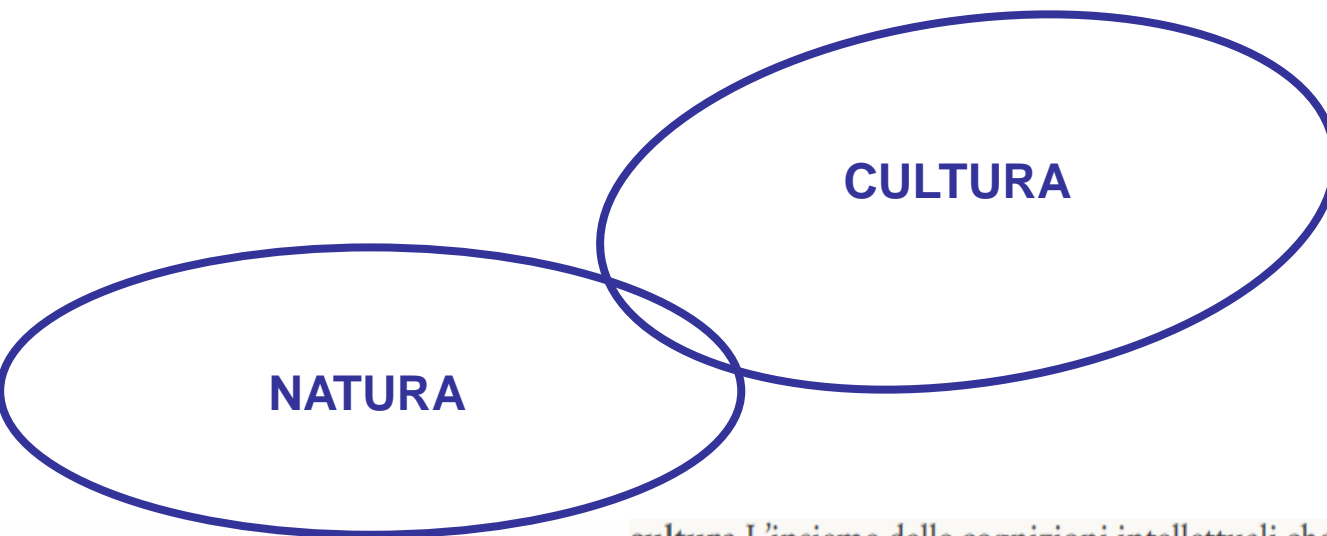
Aula Magna A.M. Dogliotti  
C.so Bramante, 88 - Torino

**Come ripensare la  
ricerca biomedica  
in un'ottica  
genere - specifica**

**Fulvia Signani**

**Azienda USL Ferrara**

**Università di Ferrara**



**cultura** L'insieme delle cognizioni intellettuali che, acquisite attraverso lo studio, la lettura, l'esperienza, l'influenza dell'ambiente e rielaborate in modo soggettivo e autonomo diventano elemento costitutivo della personalità, contribuendo ad arricchire lo spirito, a sviluppare o migliorare le facoltà individuali, specialmente la capacità di giudizio.

Complesso delle istituzioni sociali, politiche ed economiche, delle attività artistiche e scientifiche, delle manifestazioni spirituali e religiose che caratterizzano la vita di una determinata società in un dato momento storico.

Il genere si riferisce alle caratteristiche socialmente costruite di donne e uomini, vale a dire norme, ruoli e relazioni di e tra gruppi di donne e uomini.

Varia da società a società e può cambiare.

<http://www.who.int/gender-equity-rights/understanding/gender-definition/en/>

La maggior parte delle persone nasce o maschio o femmina, quindi vengono loro insegnate norme e comportamenti appropriati, incluso il modo in cui dovrebbero interagire con altri dello stesso sesso o del sesso opposto, dalla famiglia, dalla comunità e nei luoghi di lavoro.

Quando individui o gruppi non 'si adattano' alle norme di genere stabilite, spesso sono **vittime di stigma**, pratiche discriminatorie o esclusione sociale - tutte conseguenze che influiscono negativamente sulla salute.

Le norme di genere, i ruoli e le relazioni influenzano la suscettibilità delle persone per differenti condizioni di salute e malattie e condizionano la loro possibilità di godere di buona salute, benessere fisico e mentale.

Queste norme, ruoli e relazioni  
hanno anche un impatto  
sull'accesso e l'assistenza dei servizi  
sanitari e  
sugli esiti di salute  
che le persone vivono durante il  
corso della vita.

È importante *essere sensibili alle diverse identità* che non rientrano necessariamente nelle categorie di sesso cosiddetto "binario", cioè maschile o femminile.

<http://www.who.int/gender-equity-rights/understanding/gender-definition/en/>



Nel 2009 OMS aggiunge:

Tutti i professionisti della salute devono avere conoscenza e consapevolezza dei modi in cui il genere influenza la salute, in modo **che possano affrontare le questioni di genere, laddove appropriato, rendendo così il loro lavoro più efficace**.

Il processo di creazione di questa conoscenza e consapevolezza di - e responsabilità per - il genere tra tutti gli operatori sanitari è chiamato **mainstreaming di genere**

Home Allgemeine Informationen Patientinneninformationen Studium und Lehre Forschung



Gender  
MEDICINE



**L'approccio interdisciplinare e scientifico della Gender Medicine esplora le differenze biologiche e psicosociali tra uomini e donne che riguardano sia la consapevolezza della salute che lo sviluppo, la percezione e le modalità di trattamento delle malattie ("modello bio-psico-sociale"). Le differenze di genere sono in parte ovvie, a volte sottili e ancora poco conosciute in molte aree. Le nuove conoscenze clinicamente rilevanti dovrebbero trovare strada nella pratica clinica e portare a un trattamento ottimizzato per uomini o donne.**

Leiterin: Univ. Prof.<sup>in</sup> Dr.<sup>in</sup> Alexandra Kautzky-Willer

## Schnellinfo

- Alle News der Gender Medicine
- Alle Events der Gender Medicine
- Universitätslehrgang Gender Medicine
- Arbeitskreis für



2008

## Gender bias in medicine

*Katarina Hamberg  
Umeå University,  
The Department of Public  
Health & Clinical Medicine,  
Family Medicine, & Centre  
for Gender Excellence at  
Umeå University, Research  
Programme Challenging  
Gender, 901 85 Umeå,  
Sweden*

Gender bias has implications in the treatment of both male and female patients and it is important to take into consideration in most fields of medical research, clinical practice and education. Gender blindness and stereotyped preconceptions about men and women are identified as key causes to gender bias. However, exaggeration of observed sex and gender differences can also lead to bias. This article will examine the phenomenon of gender bias in medicine, present useful concepts and models for the understanding of bias, and outline areas of interest for further research.

Il **pregiudizio di genere** o gender bias ha implicazioni nel trattamento di pazienti sia maschi che femmine ed è importante tenerlo in considerazione nella maggior parte dei campi di ricerca medica, nella pratica clinica e nella formazione.

La “**cecità di genere**” o gender blindness e **preconcetti stereotipati** su uomini e donne sono identificati come cause chiave di distorsione di genere. Tuttavia, anche l'esagerazione del sesso osservato e le differenze di genere possono portare a pregiudizi.

**“ordine di genere”** nella società significa che di solito si presume che l'essere umano normale sia un uomo, visto come più importante e prezioso a tutte le età, mentre le donne vengono intese come gruppo regolarmente subordinato.

Nell'interazione paziente-medico, il paziente **‘sta facendo genere’** presentandosi o in linea con ciò che è visto come accettabile socialmente per ogni genere; e il medico maschio o femmina, fa lo stesso.



# Grants & Funding



## Grants Policy

Policy & Guidance

Compliance & Oversight

Research Involving  
Human Subjects

Office of Laboratory  
Animal Welfare (OLAW)

Animals in Research

Peer Review Policies &  
Practices

Intellectual Property  
Policy

Acknowledging NIH  
Funding

Invention Reporting  
(iEdison)

NIH Public Access

## Inclusion of Women and Minorities as Participants in Research Involving Human Subjects - Policy Implementation Page

The NIH is mandated by law (Public Health Service Act sec. 492B, 42 U.S.C. sec. 289a-2) to ensure the inclusion of women and minority groups in clinical research. The goal is to ensure that individuals are included in clinical research in a manner that is appropriate to the scientific question under study.

### News Flash

**NEW** **New System and Procedures for Reporting Sex/Gender, Race, and Ethnicity:** Please see the following NIH Guide Notice for information on this topic:  
<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-086.html>

**Use of New Inclusion Management System Required as of October 17, 2014:** Please see the following NIH Guide Notice for information on this topic:  
<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-005.html>

## Related Resources

- [Inclusion of Women and Minorities](#) (NIH Staff Only)



Related Archives

**Trial diversity** The US Food and Drug Administration (FDA) plans to ensure representation of demographic subgroups (eg, age, ethnic origin, and sex) in clinical trials of drugs and medical products, with an action plan to improve data collection by study funders, identify barriers to subgroup enrolment in trials, and make subgroup data more available.

**HIV/AIDS in China** Mortality from HIV/AIDS has decreased by 11.3% since 2005 in China as a result of free HIV tests and treatment for poor citizens. However, in 2013, 436 800 people in the country were living with HIV/AIDS and 126 200 had

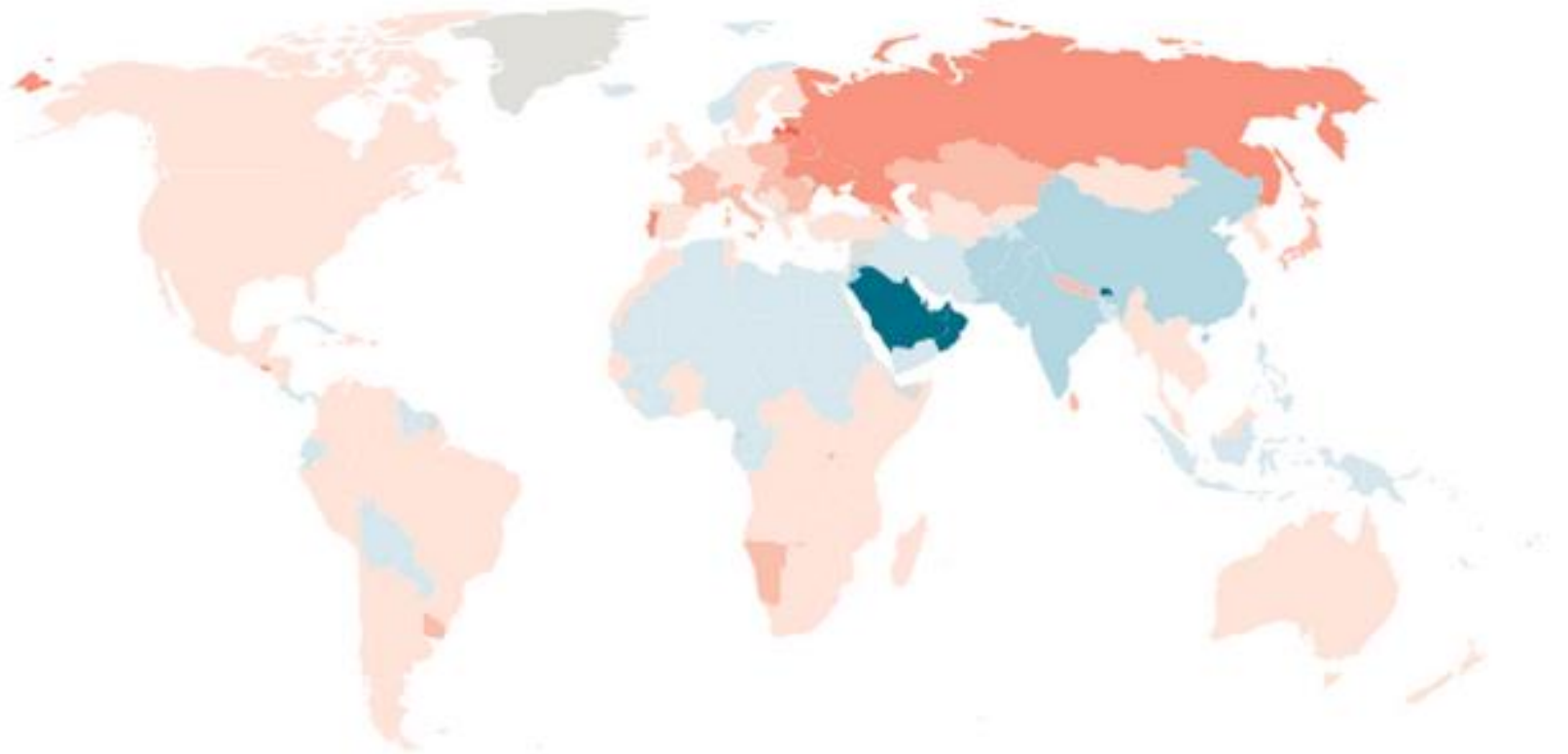
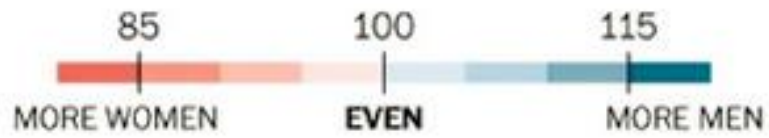


**Sperimenta la diversità.** La FDA (Food and Drug Administration) statunitense intende garantire la rappresentazione di sottogruppi demografici (ad es. età, etnia e **se**ss<sup>o</sup>) nei studi clinici di medicinali e prodotti medici, con un piano d'azione per migliorare la raccolta di dati da parte dei finanziatori degli studi, per identificare i limiti dell'incorporazione dei sottogruppi nelle prove e fornire più dati inerenti ai sottogruppi.

The Lancet Vol.384, No.9945 Aug.30 **2014**

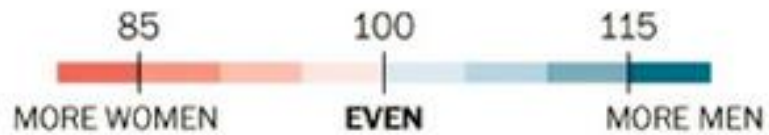
L'inclusione delle donne e delle minoranze nella ricerca clinica è diventata obbligatoria per legge 17 ottobre 2014 in America.  
(Legge del servizio sanitario pubblico 492B, 42 U.S.C. sec.289a-2)  
Per informazioni su questo argomento:

<http://Grants.nih.gov/Grants/Guide/Notice-files/not-OD-15-005.html>



Source: United Nations World Population Prospects: The 2015 Revision





Source: United Nations World Population Prospects: The 2015 Revision



1991



# The New England Journal of Medicine

Owned and Published by the Massachusetts Medical Society

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## THE YENTL SYNDROME

YENTL, the 19th-century heroine of Isaac Bashevis Singer's short story,<sup>1</sup> had to disguise herself as a man to attend school and study the Talmud. Being "just like a man" has historically been a price women have had to pay for equality. Being different from men has meant being second-class and less than equal for most of recorded time and throughout most of the world. It may therefore be sad, but not surprising, that women have all too often been treated less than equally in social relations, political endeavors, business, education, research, and health care.

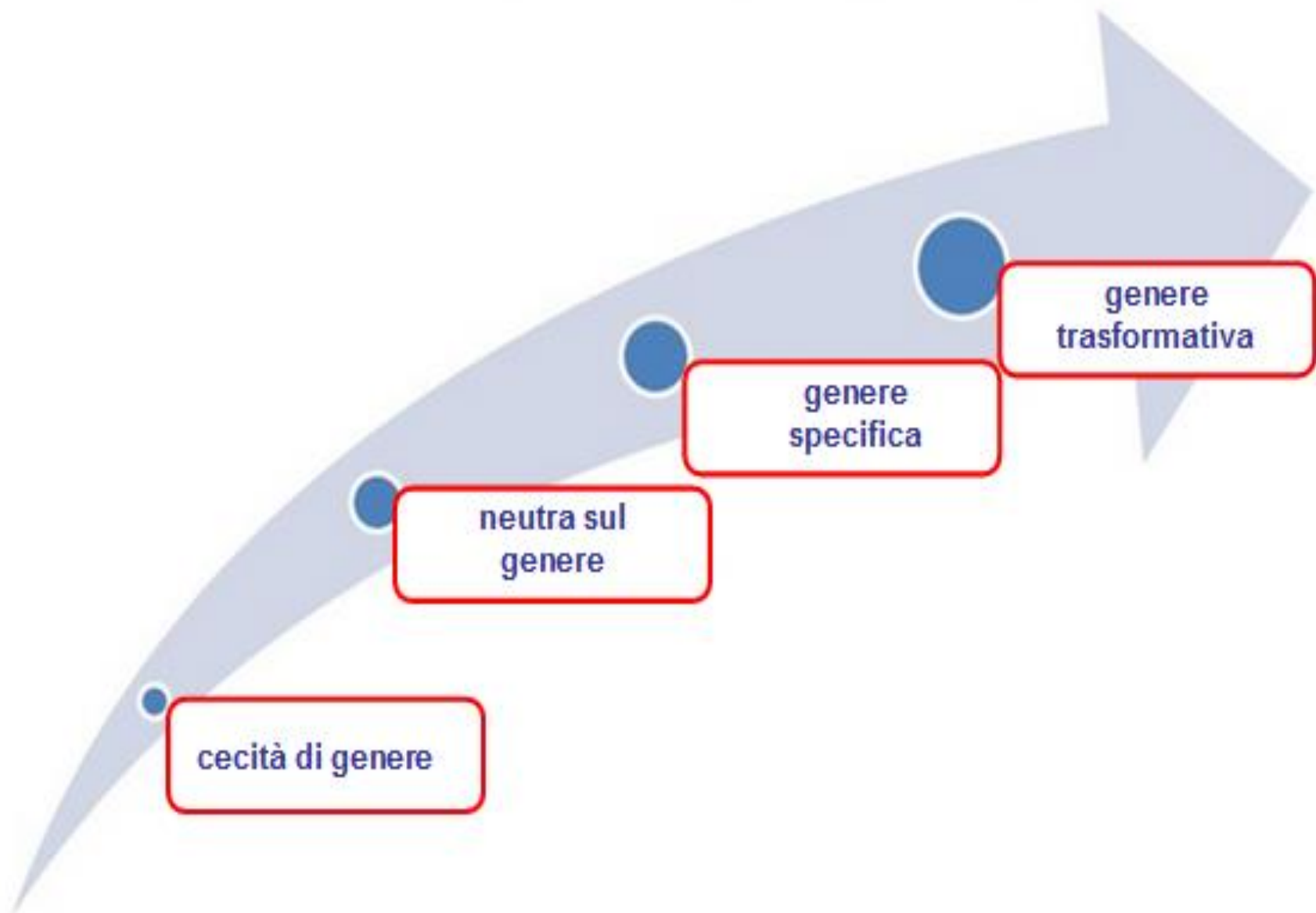
# **AHA Scientific Statement**

## **Acute Myocardial Infarction in Women A Scientific Statement From the American Heart Association**

Laxmi S. Mehta, MD, FAHA, Chair; Theresa M. Beckie, PhD, FAHA, Co-Chair;  
Holli A. DeVon, PhD, RN, FAHA; Cindy L. Grines, MD; Harlan M. Krumholz, MD, SM, FAHA;  
Michelle N. Johnson, MD, MPH; Kathryn J. Lindley, MD; Viola Vaccarino, MD, PhD, FAHA;  
Tracy Y. Wang, MD, MHS, MSc, FAHA; Karol E. Watson, MD, PhD;  
Nanette K. Wenger, MD, FAHA; on behalf of the American Heart Association Cardiovascular  
Disease in Women and Special Populations Committee of the Council on Clinical Cardiology,  
Council on Epidemiology and Prevention, Council on Cardiovascular and Stroke Nursing,  
and Council on Quality of Care and Outcomes Research

***Circulation.* 2016;133:00-00.**

**2016**



cecità di genere

neutra sul  
genere

genere  
specifica

genere  
trasformativa



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**Health Portfolio Sex and Gender-Based Analysis Policy**

The [Health Portfolio Sex and Gender-Based Analysis \(SGBA\) Policy](#) and implementation tools are part of The Government of Canada's commitment to gender equality. The commitment calls for gender-based analysis (GBA) or sex and gender-based analysis (SGBA), as it is called within the Health Portfolio, to be used to inform and guide federal legislation, policy and program processes. This is supported by the revised *Guidelines for Treasury Board Submissions* (2007), and Memoranda to Cabinet templates which require federal organizations to ensure their submissions include gender considerations.

- [Read the Sex and Gender-Based Analysis Policy](#)

Policy active dal 1981

# SCIENCE IS BETTER WITH SEX AND GENDER

Strategic Plan  
2018-2023



Imagine if we only tested  
prostate cancer drugs  
on female cell samples,  
or created anti-smoking  
campaigns only for men.

Does that make sense?

. Our vision includes  
*everybody*—men, women, girls, boys and gender-  
diverse people.

# personalized health

We will transform research methods to ensure health research is more rigorous and its findings generalizable to everyone. We are interdisciplinary. We are international. We are leading science towards the delivery of personalized health at the point of care.

## SGBA+ policy

promuoviamo l'uso di **SGBA + (analisi basata sul sesso e sul genere +)** nella ricerca sanitaria; riconoscendo che sia la biologia (sesso) che la società (genere) influenzano la nostra salute e il nostro benessere in modi distinti ma interconnessi.

La politica SGBA + della CIHR si allinea con l'impegno del governo canadese per l'integrazione del sesso e del genere in tutte le sue politiche e programmi, incluso il modo in cui viene condotta la ricerca finanziata dal governo.

Il vantaggio di SGBA + indica i molti altri fattori che possono intersecarsi con il sesso e il genere per influenzare la salute.

# Consideration of Sex as a Biological Variable in NIH-funded Research

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Notice Number: NOT-OD-15-102

## Key Dates

**Release Date:** June 9, 2015

## Related Announcements

[NOT-OD-16-034](#)

[NOT-OD-16-031](#)

[NOT-OD-16-012](#)

[NOT-OD-16-011](#)

[NOT-OD-15-103](#)

## Issued by

National Institutes of Health ([NIH](#))

## Purpose

The National Institutes of Health (NIH) is committed to improving the health outcomes of men and women through support of rigorous science that advances fundamental knowledge about the nature and behavior of living systems. Sex and gender play a role in how health and disease processes differ across individuals<sup>1</sup>, and consideration of these factors in research studies informs the development and testing of preventive and therapeutic interventions in both sexes. This notice focuses on NIH's expectation that scientists will account for the possible role of sex as a biological variable in vertebrate animal and human studies. Clarification of these expectations is reflected in plans by NIH's Office of Extramural Research (OER) to update application instructions and review questions; once approved by the Office of Management and Budget (OMB), these updates will take effect for applications submitted for the January 25, 2016 due date and thereafter. Please refer to [NOT-OD-15-103](#) for further consideration of NIH expectations about enhancing

**Nel 2016 il NIH ha rafforzato la definizione di “ricerca sulla buona salute” richiedendo che ogni domanda di finanziamento includa come sono considerati sesso e genere nel disegno di ricerca.**



**Un numero crescente di riviste ha politiche editoriali che richiedono di riportare specificamente i dati riferiti a sesso e genere nella ricerca scientifica e l'IOM, l'American Institute of Medicine, ha catalogato una serie di riviste in tal senso.**

*IOM Sex-Specific Reporting of Scientific Research: A Workshop Summary.*  
Washington, D.C. The National Academies Press. 2012.

# Sex and Gender Analysis Policies of Peer-Reviewed Journals

A growing number of peer-reviewed journals have editorial policies requiring sex- or gender- specific reporting of scientific research. For a discussion of issues involved in such journal policies, see IOM (Institute of Medicine), 2012. [\*Sex-Specific\*](#)

**Nature**  
**The Lancet**  
**Journal of the American College of Cardiology- American College of Cardiology (ACC)**  
**American Journal of Physiology (AJP) - Cell Physiology**  
**Endocrinology and Metabolism**  
**Canadian Medical Association**  
**Circulation American Heart Association**  
**Clinical Orthopaedic and related research**  
**Endocrinology**  
**Journal of the International AIDS Society**  
**Journal of the National Cancer Institute**  
**The Journal of Physiology**  
**Plos Biology**  
**Plos Medicine**  
**American Journal of Preventive Medicine**  
**European Journal of Neuroscience**



www.nature.com/nature

nature

Vol 465 | Issue no. 7299 | 10 June 2010

## Putting gender on the agenda

2010

Biomedical research continues to use many more male subjects than females in both animal studies and human clinical trials. The unintended effect is to short-change women's health care.

Differences in the physiology of males and females, and in their response to disease, have been recognized for decades in many species — not least *Homo sapiens*. The literature on these differences now encompasses everything from variations in gene expression between male and female mice, to a higher susceptibility to adverse drug reactions in women compared with men. Moreover, hormones made by the ovaries are known to influence symptoms in human diseases ranging from multiple sclerosis to epilepsy.

And yet, despite the obvious relevance of these sex differences to experimental outcomes, three articles in this issue (see pages 688–690) document that male research subjects continue to dominate biomedical studies. Some 5.5 male animal models are used for every female in neuroscience, for example. And apart from a few large, all-female projects, such as the Women's Health Study on how aspirin and vitamin E affect cardiovascular disease and cancer, women subjects remain seriously under-represented in clinical cohorts. This is despite reforms undertaken in the 1990s, when sex discrimination in human trials was first widely recognized as a problem.

Admittedly, there can be legitimate reasons to skew the ratios. For instance, researchers may use male models to minimize the variability

whether to require the inclusion of such information. Funding agencies should demand that researchers justify sex inequities in grant proposals and, other factors being equal, should favour studies that are more equitable.

Funding agencies and researchers alike should also start thinking seriously about how to deal with the most fundamental sex difference: pregnancy. Pregnant women get ill, and sick women get pregnant. They need therapies, too, even though they are carrying a highly vulnerable fetus and their bodies are undergoing massive changes in hormonal balance, immune function and much else besides. Entering pregnant women in clinical trials is problematic in the extreme, for a host of ethical reasons. But ignoring the problem is not an answer either — the result is that physicians will prescribe drugs whose effects during pregnancy are poorly known. One possible solution is systematic retrospective data collection from women who have had no choice but to take an unproven drug while they were pregnant.

**"Medicine as it is currently applied to women is less evidence-based than that being applied to men."**



# Scientific research must take gender into account

*From car design to drug discovery, the failure to acknowledge sex differences can be costly and even lethal, argues Londa Schiebinger.*

In Madrid a couple of years ago, I was interviewed for Spanish newspapers. When I later ran the text through Google Translate, I got a shock: I was referred to repeatedly as “he”.

Like much science and technology, Google Translate has a male default. When I drive a car, the seatbelt is not designed to accommodate breast tissue. Any medicines I take are more likely to have been tested on male than on female animals. There are moral issues here: women pay taxes and buy products and should not be short-changed. But scientific objectivity is at stake, too. Because medical research is done mainly in males, there is a male bias in, for example, the choice of drug targets. Science is halving the potential field of innovation.

This is not about active discrimination; the bias is largely unconscious. Google Translate defaults to the masculine pronoun because

unconscious bias. Applicants to its newly opened Horizon 2020 funding scheme are now asked to include gender analysis in their projects — for example, to assess whether the research will have different implications for women and men. The commission identified dozens of science areas that could benefit from gender analysis: computer hardware and architecture, biodiversity, ecology, biophysics, oceanography, geosciences, organic chemistry, aeronautics, space medicine and some 40 others, including nanotechnology (astrophysics did not make the cut).

Since 2006, the Canadian Institutes of Health Research has required scientists across its 13 institutes to analyse sex and gender (when appropriate); and since 2008, the philanthropic Bill & Melinda Gates Foundation has required gender analysis for its agricultural research

# Prendere in considerazione il sesso in medicina

The Lancet, 2011

## Taking sex into account in medicine



Science PhotoLibrary

For the European Gender Summit see <http://www.gender-summit.eu>

For the systematic review on smoking and coronary heart disease see *Articles Lancet* 2011; 378: 1297-305

For more on methods of sex and gender analysis see <http://www.gendereininnovations.eu>

For more on prescribing see <http://www.rpharms.com/blue-pill-pink-pill-does-gender-matter.asp>

Throughout Europe, despite women often forming the majority of students at university, fewer women than men are appointed to high-level jobs in medicine and science. Evidence presented at the first European Gender Summit in Brussels (Nov 8-9) illustrates that without targets or quotas, it will take decades, maybe centuries, to reach equality at the top. Female role models, mentors, and family friendly employment policies encourage and allow women to aim high. Moreover, gender-diverse teams have higher team IQs and promote innovation. But the case for equality is not only about who makes it to the top, it is also about medicine itself. What women can do for medicine is one thing; what medicine can do for women is also important.

In medicine too, the common assumption is that men and women experience disease and react to treatment in the same way. Increasingly, though, there is evidence to the contrary. A systematic review published in August online in this journal showed that women who smoke have a higher risk of coronary heart disease than do male smokers. Female smokers also ha

risk of lung cancer than do male smokers. Overall, in most types of cancer, women have higher 5-year survival than do men. In stroke, atrial fibrillation is one example of a more important risk factor in women than in men. Overall, in many diseases, women have more side-effects from treatment than do men. When the pharmacokinetic and pharmacodynamic characteristics of drug metabolism in men and women are analysed, in some cases the unexpected finding would be if sex had no effect. Body surface area, body mass, and the amount of adipose tissue can all affect response to treatment. Therapeutic drug monitoring is the ideal, but impractical in many settings.

Being male or female might be a more important determinant of health, illness, and response to treatment than is known. To find out, and to aid meta-analysts, *The Lancet* encourages researchers to enrol more women into clinical trials of all phases, and to plan to analyse data by sex, not only when known to be scientifically appropriate, but also as a matter of

*The Lancet* encourages researchers to enrol more women into clinical trials of all phases, and to plan to analyse data by sex, not only when known to be scientifically appropriate, but also as a matter of routine. ■ *The Lancet*

NEWS FEATURE · 27 MARCH 2019

# Why the sexes don't feel pain the same way

*After decades of assuming that pain processing is equivalent in all sexes, scientists are finding that different biological pathways can produce an 'ouch!'.*

---

Amber Dance

NEWS FEATURE · 27 MARCH 2019

# Why the sexes don't feel pain the same way

*After decades of assuming that pain processing is equivalent in all sexes, scientists are finding that different biological pathways can produce an 'ouch!'.*

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Amber Dance



*Grazie per l'attenzione!*

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