What is the Sex and Gender Health Collaborative?

Better Healthcare For All

We are an organization whose vision is to integrate sex and gender knowledge into medical education and clinical practice to improve healthcare for all. Our goals include increasing awareness about the importance of sex and gender specific medicine, providing evidence based sex and gender educational resources, and promoting sex and gender related collaborations.
Definitions

Sex
Refers to biological differences: e.g., chromosomes, reproductive, and hormonal differences between males and females.

Gender
The socially constructed and enacted roles and behaviors for men and women which occur in a historical, social, and cultural context.
Sex and Gender Specific Medicine

Applies the science of biology, environmental, and social influences onto health and illness, and takes the whole person into account
What does Sex and Gender Specific Medicine look like?

BASIC SCIENCE AND CLINICAL RESEARCH
Sex and gender are integrated into research platforms. Data are analyzed and reported by sex and gender. The disaggregation of data by sex provides further evidence for sex and gender medicine.

CLINICAL PRACTICE
Practitioners consider sex and gender when forming diagnoses and choosing treatment options.

MEDICAL EDUCATION
Educate current and future generations of practitioners to view diagnosis and treatment from a sex and gender lens.
Relevance in Medical Education

94% of students in a 2015 U.S. national survey stated that sex and gender should be included in medical curriculum.

70% did not have a formal sex and gender integrated medical curriculum.

Jenkins et al, 2015
Examples of Sex and Gender Discrepancies in Healthcare

- **Bias in Research Models**
  80% of animal trials are done on male models

- **Drug Efficacy and Safety**
  In 8 of 10 FDA discontinued medications, women experienced the majority of side effects, including death

GovAccountability Office (2001)
Bias in Research Models

Sex Unspecified 76%
Male Models 80%
Men 67%
Women 51% of Population
Women 80% of Healthcare Decisions

Song et al, J of WH (2015)
Osteoporosis
Not just a women’s health problem

After age 30, bone resorption exceeds bone formation in men and women

- Females lose bone mass earlier than males
- Females lose bone mass at a higher rate than males
- Males have a higher peak bone mass than females

Rapid Bone Loss at Menopause

Women can lose up to 20% of their bone mass during the first 5-7 years following menopause
### Osteoporosis Screening Guidelines

**Sex Gender-Based Guidelines**

#### Women

All women age 65 and older should be screened for osteoporosis

Postmenopausal women <65 with 1 or more risk factors should be screened

#### Men

All men age 70 and older should be screened for osteoporosis

Men aged 50-70 with 1 or more risk factors should be screened

#### Risk Factors

<table>
<thead>
<tr>
<th>Risk Factors Include</th>
<th>Risk Factors Include</th>
</tr>
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<tbody>
<tr>
<td>Family history of osteoporosis</td>
<td>Low calcium or vitamin D</td>
</tr>
<tr>
<td>Low calcium or vitamin D</td>
<td>Lack of exercise</td>
</tr>
<tr>
<td>Lack of exercise</td>
<td>Smoking</td>
</tr>
<tr>
<td>Smoking</td>
<td>Certain medications</td>
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### Outcome Differences

- The Dubbo Osteoporosis Epidemiology study demonstrated that even though the risk of fracture may be higher in women compared to men, the mortality rate for men was higher than for women after osteoporotic fracture

- Mortality after osteoporotic fracture
  - 48.4% in women
  - 57.4% in men
COVID-19
Sex and Gender Differences

Sex Differences
» Less likely to develop severe disease
» Less likely to die due to Covid-19 complications
» Fatality rate 1.7%

Gender Differences
» More likely to work in healthcare
» More likely to be caregivers at home
» More likely to take precautions against Covid-19
» Higher rates of smoking and tobacco use
» Higher incidence of chronic illnesses and co-morbidities
» Take longer to seek help when severely ill

WHY SHOULD YOU CARE?

HOW DOES THIS AFFECT MEDICAL, PREMEDICAL & HEALTH CARE PROFESSIONAL STUDENTS?
In 2010, 46 Allopathic and Osteopathic U.S. Schools Responded:

83.1% did not have an integrated women’s health curriculum outside of traditional Ob/Gyn

In 2014, 1097 Medical Students Representing 153 Medical Institutions Responded:

85.5% were aware of sex and gender differences in medicine

96% indicated that knowledge of gender differences improved one’s ability to manage patients

How to Get Involved as a Premedical or Medical Student

Visit our Website
amwa-doc.org/sghc/

JOIN US TODAY!
Sign up sheet

Contact us via E-mail with any questions
sghcstudents@amwa-doc.org
How can I become more informed about evidence based sex and gender differences in medicine?

**National Institute of Health**

[Bench to Bedside Learning Modules](orwh.od.nih.gov/career-development-education/e-learning)

**TED TALK**

Dr. Alyson McGregor on “Why Medicine Often has Dangerous Side Effects for Women”
[youtube.com/watch?v=sJCBM9ajA5s](youtube.com/watch?v=sJCBM9ajA5s)

**Earn your Certificate in Sex and Gender Health**

Laura W. Bush Institute for Women’s Health offers FREE learning modules in osteoporosis, diabetes, cardiovascular disorders, alcohol use disorder and infectious disease
[sexandgenderhealth.org/menu.html](sexandgenderhealth.org/menu.html)
Where to learn more?

WEBSITES

Sex and Gender Health Collaborative
amwa-doc.org/sghc

National Institute of Health Office of Research on Women’s Health
orwh.od.nih.gov/

Organization for the Study of Sex Differences
https://www.ossdweb.org/

Society for Women’s Health Research
swhr.org