ORWH E-Learning Courses: Overview and Live Demonstration

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The Need for Trainings:

“Less than 25% of [548 medical school lectures and workshops audited] raised the topic of sex or gender influences on physiology and pathophysiology or the experience of the patient in the health care environment.”

“Only 8.1% of all sessions included an in-depth discussion of sex or gender differences, and these discussions predominantly focused on basic physiology and prevalence and/or incidence of disease, and not on available data on sex- and gender-specific influences on diagnosis, treatment, prognosis, and drug effects.” (2019)
Purpose of ORWH Trainings:

Target State
Application of SABV and Sex & Gender considerations across biomedical research and clinical care.

- Study design
- Study populations
- Reporting of results
- Disaggregation of data
- Sex & gender aware clinical care
Goals for Today:

- Provide an overview of the course offerings
- Provide an understanding of who the courses are for, **key audiences** and **benefits**
- Provide a live demo of the *Bench to Bedside Course*
High-Level Metrics:

- As of September 30, 2022, a total of **2,006 individuals** have registered for the ORWH Course Dashboard (Bench to Bedside, SABV Primer, and Introductory Training).
  - **1344 since Aug 1, 2020**
- As of September 30, 2022, **1,267 individuals** have either started (N=493) or completed (N=774) a module of Bench to Bedside
- Learners reported affiliations with institutions in **56 countries**
- **81%** of learners are female
E-Learning Home:

https://orwh.od.nih.gov/career-development-education/e-learning

Find E-Learning under Career Development and Educational Resources
## Course Offerings Overview:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Primary Aim</th>
<th>Primary Audience</th>
<th>Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bench to Bedside: Integrating Sex and Gender to Improve Human Health</strong></td>
<td>• Provide a thorough understanding of sex and gender influences on health and disease; instruct users how to apply this knowledge when conducting research and interpreting evidence for clinical practice</td>
<td>Clinicians, researchers, healthcare workforce</td>
<td>6</td>
</tr>
<tr>
<td><strong>Sex as a Biological Variable: Primer &amp; Supplement</strong></td>
<td>• Demonstrate how to consider SABV in all stages of biomedical research and clarify requirements of the NIH SABV policy</td>
<td>Researchers, including all NIH grant applicants</td>
<td>4</td>
</tr>
<tr>
<td><strong>SABV Primer: Train the Trainer</strong></td>
<td>• Help researchers account for, implement, and appropriately teach the SABV policy</td>
<td>Researchers, all NIH grant applicants, trainers</td>
<td>6</td>
</tr>
<tr>
<td><strong>Introduction: Sex- and Gender-Related Differences in Health</strong></td>
<td>• Introduce to the concepts and terminology of sex and gender and how to incorporate a multidimensional sex and gender lens into research and clinical care</td>
<td>Researchers, clinicians, policymakers, public (everyone)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*All courses are free*

*Free CMEs available*
Pre-Test Screenshots:
(Applies to Bench to Bedside and SABV Primer)

1. Please rate your understanding of the following terms:

<table>
<thead>
<tr>
<th>Term</th>
<th>Have never heard this term</th>
<th>Have heard term but don't know what it means</th>
<th>Somewhat familiar with this term</th>
<th>Confident in my understanding</th>
<th>Expert understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. NIH Sex as a Biological Variable Policy*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1b. Sex*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1c. Gender*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1d. Women's Health*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1e. Sex and gender specific medicine*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>1f. Intersection of sex and gender*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

2. I am familiar with the following topics:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Do Not Know</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a. Sex differences in health and medicine*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2b. Gender differences in health and medicine*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2c. The intersection of sex and gender in health and medicine*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2d. The importance of including both sexes in animal and human research studies*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2e. Sex-specific reporting of study results*</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Bench to Bedside: Who is it for?

- Clinicians (Including trainees)
- All healthcare professionals (nurses, administrators, public health workers)
- Researchers (all career levels)
- Students
  - Advanced undergraduate
  - Graduate, post graduate
  - Medical, pharmaceutical, and other allied health professional schools
- All interested learners

Bench to Bedside Modules

Free CMEs available
Bench to Bedside: How to use it?

- Incorporate into academic courses
- Incorporate as training for lab members
- Provide as an extra-credit option for students
- Share with school libraries
- Share with professional associations
- Share with department faculty
- Share with networks online
- Share your experience taking the course(s)
Bench to Bedside Course Demo