



Sex and Gender

HEALTH EDUCATION SUMMIT

Advancing Curricula Through a Multidisciplinary Lens



PROGRAM PROCEEDINGS



American Medical Women's Association
The Vision and Voice of Women in Medicine since 1915



Users are granted permission to utilize this work in part or in whole. This work has been designed to progress the integration of sex and gender evidence into health professions education, research and clinical care. Please provide the following attribution: ©2018 Sex and Gender Health Education Summit. For copyrighted material contained within the Proceedings, please contact the primary source for instructions to garner permission. (Images: © 2018 TTUHSC LWBIWH)

sghesummit2018.com



Sex and Gender HEALTH EDUCATION SUMMIT

Advancing Curricula Through a Multidisciplinary Lens



PROGRAM PROCEEDINGS

April 8-10, 2018 | University of Utah Health | Salt Lake City, UT



American Medical Women's Association
The Vision and Voice of Women in Medicine since 1915



INSTITUTE for WOMEN'S HEALTH
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
ANGELO STATE UNIVERSITY



HEALTH
UNIVERSITY OF UTAH



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER



SCHOOL OF DENTISTRY

ACKNOWLEDGMENTS



PROCEEDINGS EDITORIAL TEAM

MARJORIE JENKINS, MD, MEHP, FACP
CO-CHAIR, SGHE SUMMIT
*Professor of Medicine, Associate Dean for Women in Science
Chief Scientific Officer, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

ALYSON J. MCGREGOR, MD, MA, FACEP
CO-CHAIR, SGHE SUMMIT
*Director, Division of Sex and Gender in Emergency Medicine (SGEM)
Director, SGEM Fellowship; Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

ELIZA LO CHIN, MD, MPH, FACP, FAMWA
CO-CHAIR, SGHE SUMMIT
*Executive Director, American Medical Women's Association
Assistant Clinical Professor (Voluntary)
University of California, San Francisco*

KATHLEEN DIGRE, MD
HOST CO-CHAIR, SGHE SUMMIT
*Professor of Neurology and Ophthalmology
Director, Center of Excellence in Women's Health
University of Utah School of Medicine*

MARY K. ROJEK, PHD
*Senior Editor, SGHE Summit Proceedings
Chair, Sex and Gender Health Collaborative
American Medical Women's Association*

NASEEM RANGWALA
Assistant Editor, SGHE Summit Proceedings

KATHARINE JENKINS
SGHE Summit Logistics Lead

LEANNE JOHNSTON
*SGHE Local Logistics Lead
Administrative Program Coordinator
Center of Excellence in Women's Health
University of Utah*

GRAPHIC DESIGN
Tyra Jesko

ACKNOWLEDGEMENTS

We would like to acknowledge the work and support of the SGHE Executive Planning Committee, Scientific Program Committee, Senior Advisory Committee, Local Host Committee, and Scientific Poster Committee as well as administrative support from the University of Utah, the Laura W. Bush Institute for Women's Health, and the American Medical Women's Association.

EXECUTIVE PLANNING COMMITTEE

MARJORIE JENKINS, MD, MEHP, FACP
CO-CHAIR, SGHE SUMMIT
*Professor of Medicine, Associate Dean for Women in Science
Chief Scientific Officer, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

ALYSON J. MCGREGOR, MD, MA, FACEP
CO-CHAIR, SGHE SUMMIT
*Director, Division of Sex and Gender in Emergency Medicine (SGEM)
Director, SGEM Fellowship; Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

ELIZA LO CHIN, MD, MPH, FACP, FAMWA
CO-CHAIR, SGHE SUMMIT
*Executive Director, American Medical Women's Association
Assistant Clinical Professor (Voluntary)
University of California, San Francisco*

ANA MARIA LOPEZ, MD, MPH, FACP
HOST CO-CHAIR, SGHE SUMMIT
*Associate Vice President Health Equity and Inclusion
Director, Cancer Health Equity, Huntsman Cancer Institute
Professor of Internal Medicine
University of Utah School of Medicine*

KATHLEEN DIGRE, MD
HOST CO-CHAIR, SGHE SUMMIT
*Professor of Neurology and Ophthalmology
Director, Center of Excellence in Women's Health
University of Utah School of Medicine*

SCIENTIFIC PROGRAM COMMITTEE

MARJORIE JENKINS, MD, MEHP, FACP (CO-CHAIR)
*Professor of Medicine, Associate Dean for Women in Science
Chief Scientific Officer, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

ALYSON J. MCGREGOR, MD, MA, FACEP (CO-CHAIR)
*Director, Division of Sex and Gender in Emergency Medicine (SGEM)
Director, SGEM Fellowship; Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

JAY M. BEHEL, PHD
*Associate Dean of Student Affairs
Rush University Medical College*

HEATHER BILLINGS, PHD
*Assistant Professor of Medical Education
Associate Director of Faculty Development
Office of Applied Scholarship and Education Science
Principal Health Service Analyst, Center for Clinical and Translational Science
Mayo Clinic College of Medicine & Science*

ROBERT G. CARROLL, PHD
*Associate Dean for Medical Student Education, Professor of Physiology
Brody School of Medicine, East Carolina University*

GRETCHEN A. CASE, PHD
*Associate Professor, Medical Ethics and Humanities
University of Utah School of Medicine*

TIMOTHY W. FARRELL, MD, AGSF
*Associate Professor of Medicine (Division of Geriatrics)
Adjunct Associate Professor of Family Medicine
University of Utah School of Medicine
Physician Investigator, VA SLC Geriatric Research,
Education, and Clinical Center
Director, University of Utah Health Interprofessional
Education Program*

STEPHANIE S. FAUBION, MD, FACP, NCMP, IF
*Director, Executive and International Medicine
Director, Office of Women's Health
Division of General Internal Medicine
Mayo Clinic College of Medicine & Science*

LAURA GARDNER
MD Candidate 2019, University of Utah School of Medicine

MICHAEL GONYEAU, MS PHARM, PHARM, MD, FNP, FCCP, BCPS, RPH
*Interim Chair, Department of Pharmacy
and Health Systems Sciences; Clinical Professor
Bouvé College of Health Sciences, Northeastern University*

DANIEL GOUGER, MD
*Education and Advocacy Fellow
American Medical Student Association (AMSA)*

LESLIE R. HALPERN, DDS, MD, PHD, MPH, FACS
*Professor, Section Head, Oral and Maxillofacial Surgery
University of Utah School of Dentistry*

MEMOONA HASNAIN, MD, MHPE, PHD
*Professor and Associate Department Head
Associate Head, Faculty Development & Research
Department of Family Medicine
University of Illinois at Chicago, College of Medicine
President, South Asian Public Health Association*

DONNA HEINLE, OTD, OTR/L, BCPR
*Center Coordinator for Clinical Education
Director, Occupational Therapy Residency Programs
Mayo Clinic College of Medicine & Science*

DAWN DRA SECHRIST, PHD, OTR
*Assistant Dean, Outcomes and Assessment
Associate Professor
Texas Tech University Health Sciences Center School of
Health Professions (SHP)*

REBECCA SLEEPER, PHARM, FCCP, FASCP, BCPS
*Associate Dean of Curriculum
Professor of Pharmacy Practice Geriatrics
Texas Tech University Health Sciences Center School of
Pharmacy*

KIMBERLY J. TEMPLETON, MD, FAOA, FAMWA
*Professor of Orthopedic Surgery
Director, Orthopedic Residency Program
University of Kansas Medical Center
Past President, American Medical Women's Association*

SENIOR ADVISORY COMMITTEE

HUMAYUN J. CHAUDHRY, DO, MS, MACP, MACOI
*President and CEO
Federation of State Medical Boards*

JANINE CLAYTON, MD
*NIH Associate Director for Research on Women's Health
Director, NIH Office of Research on Women's Health*

SUZANNE HARRISON, MD, FAFAP, FAMWA
*Immediate Past President, American Medical Women's Association
Professor of Family Medicine & Rural Health, Director of Clinical Programs
Florida State University College of Medicine*

GAY JOHNSON, BA
*Chief Executive Officer
National Association of Nurse Practitioners in Women's Health*

LUCINDA MAINE, PHD, RPH
*Executive Vice President and Chief Executive Officer
American Association of Colleges of Pharmacy
President, Interprofessional Education Collaborative (IPEC)*

GINA MARIA MUSOLINO, PT, MSED, EDD
*President, Executive Board
American Physical Therapy Association - Education Section*

(Senior Advisory Committee Continued)

KAREN L. PARKER, PHD, MSW

*Director, Sexual & Gender Minority Research Office
Division of Program Coordination, Planning, and Strategic Initiatives
Office of the Director, National Institutes of Health*

JEFFREY STEWART, DDS, MS

*Senior Vice President for Educational Leadership and Innovation
American Dental Education Association*

CONNIE TYNE, MS

*Executive Director, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

MARK B. WOODLAND, MD, MS

*Chair, Department of Obstetrics and Gynecology, Tower Health
Clinical Professor OBGYN, Drexel University College of Medicine
American College of Obstetricians and Gynecologists*

SCIENTIFIC POSTER COMMITTEE

JANICE WERBINSKI, MD, FACOG, NCMP (CO-CHAIR)

*Executive Director, Sex and Gender Health Collaborative
American Medical Women's Association
Clinical Associate Professor Emerita, Obstetrics and Gynecology
Western Michigan University Homer Stryker MD School of Medicine*

TRACY E. MADSEN, MD, SCM, FACEP (CO-CHAIR)

*Assistant Professor of Emergency Medicine
Warren Alpert Medical School, Brown University*

HABEN DEBESSAI

*MD Candidate 2019
Michigan State University College of Human Medicine*

JULIANA (JEWEL) KLING, MD, MPH, NCMP, FACP

*Assistant Professor of Medicine
Associate Chair for Research, Division of Women's Health,
Department of Internal Medicine, Mayo Clinic Arizona*

SARA E. SIMONSEN, PHD, CNM, MSPH

*Associate Professor
Annette Poulson Cumming Presidential Chair in Women's &
Reproductive Health, University of Utah College of Nursing*

LAUREN SMITH

*MD Candidate 2019
Michigan State University College of Human Medicine*

LOCAL HOST COMMITTEE

KATHLEEN DIGRE, MD (CO-CHAIR)

*Professor of Neurology and Ophthalmology
Director, Center of Excellence in Women's Health
University of Utah School of Medicine*

ANA MARIA LOPEZ, MD, MPH, FACP (CO-CHAIR)

*Associate Vice President, Health Equity and Inclusion
Director, Cancer Health Equity, Huntsman Cancer Institute
Professor of Internal Medicine
University of Utah School of Medicine*

CORI AGARWAL, MD

*Assistant Professor, Surgery, Division of Plastic Surgery
University of Utah School of Medicine*

GRETCHEN A. CASE, PHD

*Assistant Professor, Medical Ethics and Humanities
University of Utah School of Medicine*

JOAN MARCOTTE GREGORY, MLS

*Librarian, Eccles Health Sciences Library
University of Utah*

LESLIE R. HALPERN, DDS, MD, PHD, MPH, FACS

*Professor, Section Head, Oral and Maxillofacial Surgery
University of Utah School of Dentistry*

JESSICA R. HOUF, PHD

*Research Associate, Communication
University of Utah*

LEANNE JOHNSTON

*Program Coordinator, Center of Excellence in Women's Health
University of Utah School of Medicine*

PAMELA MATHY, PHD, CCC-SLP

*Clinical Associate Professor, Communication Sciences & Disorders
University of Utah*

NICOLE MIHALOPOULOS, MD, MPH

*Associate Professor, Department of Pediatrics
Chief of the Division of Adolescent Medicine
Adjunct Assistant Professor, Internal Medicine and Nutrition &
Integrative Physiology
University of Utah School of Medicine*

SUSAN SCHULMAN

Medical Writer, Editor, Researcher, Independent Contractor

SARA E. SIMONSEN, PHD, CNM, MSPH

*Associate Professor
Annette Poulson Cumming Presidential Chair in Women's &
Reproductive Health, University of Utah College of Nursing*

MICHAEL VARNER, MD

*Vice-Chair of Research, Department of Obstetrics & Gynecology
University of Utah School of Medicine*

KATIE WARD, DNP, WHNP

*Clinical Associate Professor
University of Utah College of Nursing*

ADMINISTRATION

KATHARINE JENKINS

Summit Logistics Lead

LEANNE JOHNSTON

Local Logistics Lead

Program Coordinator, Center of Excellence in Women's Health

University of Utah School of Medicine

LAURA GARDNER

Social Media Lead

MD Candidate 2019, University of Utah School of Medicine

AMWA OUTREACH AND ADMINISTRATIVE TEAM

KRISTINE LALIC – TEAM LEAD

ADINA GREENE

LORI HORHOR

SALLY KIM

TANNAZ SAFARI

AV AND WEBCAST SUPPORT

UTAH EDUCATION AND TELEHEALTH NETWORK

WITH GRATITUDE

This Summit would not have been possible without the many institutional leaders who attended the Summit and the generous contributions from our sponsors: the American Medical Women's Association, Laura W. Bush Institute for Women's Health, Mayo Clinic, University of Utah Health, Texas Tech University Health Sciences Center School of Medicine, University of Utah School of Dentistry, National Association of Nurse Practitioners in Women's Health, Warren Alpert Medical School at Brown University - Division of Sex and Gender in Emergency Medicine, Florida State University College of Medicine, and HealthyWomen.

EDUCATIONAL DISSEMINATION PARTNERS

American Association of Colleges of Pharmacy (AACCP)

American Dental Education Association (ADEA)

National Association of Nurse Practitioners in Women's Health (NPWH)

WE ALSO THANK THE FOLLOWING ORGANIZATIONS FOR THEIR HELP WITH DISSEMINATION

Association of American Medical Colleges (AAMC)

American Association of Colleges of Nursing (AACN)

SPEAKERS AND CONTRIBUTORS



REBECCA BARRON, MD, MPH
*Assistant Professor
Emergency Medicine
Warren Alpert Medical School, Brown University*

A. LORRIS BETZ, MD, PHD
*Interim CEO, University of Utah Health
Executive Dean
University of Utah School of Medicine
Senior Vice President for Health Sciences*

GABRIELLA BLANCHARD, BSW
*Interim Director
Coordinator of Education and Outreach
LGBT Resource Center, University of Utah*

ROBERT G. CARROLL, PHD
*Associate Dean for Medical Student Education
Professor of Physiology
Brody School of Medicine, East Carolina University*

ELIZA LO CHIN, MD, MPH, FACP, FAMWA
*Executive Director
American Medical Women's Association
Assistant Clinical Professor (Voluntary)
University of California San Francisco*

ESTHER K. CHOO, MD, MPH
*Associate Professor
Center for Policy and Research in the
Department of Emergency Medicine
Oregon Health & Science University*

LAURIE M. LAUZON CLABO, PHD, RN
*Dean and Professor
College of Nursing, Wayne State University*

JORIE COLBERT-GETZ, PHD, MS
*Assistant Dean of Assessment and Evaluation
Department of Internal Medicine
University of Utah, School of Medicine*

SUSAN COX, MD, MA
*Executive Vice Dean for Academics
Chair, Department of Medical Education
Past President, Alliance for Clinical Education
Dell Medical School, The University of Texas at Austin*

ANNE DROLET, MS
*Student President
American Medical Women's Association
MD Candidate, College of Human Medicine
Michigan State University*

LEA ERICKSON, DDS, MSPH
*Associate Dean for Education and Student Life
Professor, School of Dentistry, University of Utah*

TIMOTHY W. FARRELL, MD, AGSF
*Associate Professor of Medicine (Division of Geriatrics)
Adjunct Associate Professor of Family Medicine
University of Utah School of Medicine
Physician Investigator - VA SLC Geriatric Research,
Education, and Clinical Center
Director, University of Utah Health
Interprofessional Education Program*

MICHAEL GONYEAU, BS PHARM, PHARM D, MED,
FNAP, FCCP, BCPS, RPH
*Clinical Professor and Interim Chair
Department of Pharmacy and Health Systems Sciences
Director of Undergraduate and Professional Programs
School of Pharmacy, Northeastern University*

SARA GORDON, DDS, MS
*Professor of Oral Medicine
Associate Dean for Academic Affairs
School of Dentistry, University of Washington*

DANIEL GOUGER, MD
*Post-Doctoral Fellow
American Medical Student Association*

LESLIE HALPERN, DDS, MD, PHD, MPH, FACS
*Professor, Section Head, Oral and Maxillofacial Surgery
School of Dentistry, University of Utah*

HOLLIE HANCOCK, EDD, LCMHC
Iron Mountain Counseling, Salt Lake City, Utah

ALYSSA HERRMANN, MD
*Resident, Obstetrics and Gynecology, Cleveland Clinic
Member, American Medical Women's Association
Women's Health Working Group*

WYATT R. HUME, DDS, PHD
Dean, University of Utah, School of Dentistry

ABBAS HYDERI, MD, MPH
*Associate Dean for Curriculum
Associate Professor of Clinical Family Medicine
University of Illinois at Chicago College of Medicine*

ANGELA JARMAN, MD
*Clinical Instructor, Fellow
Division of Sex and Gender in Emergency Medicine
Warren Alpert Medical School, Brown University*

MARJORIE JENKINS, MD, MEHP, FACP
*Professor of Medicine
Associate Dean for Women in Science
Chief Scientific Officer
Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

(Speakers and Contributors Continued)

CYNTHIA JUMPER, MD, MPH

*Professor of Medicine, Vice President of Health Policy
Co-Director, Sex and Gender Health Education Curriculum
Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

SUSAN KENDIG, JD, MSN, WHNP-BC, FAANP

*Policy Director, National Association of
Nurse Practitioners in Women's Health
Women's Health Integration Specialist
SSM Health, St. Mary's Hospital in St. Louis, Missouri*

ANA MARIA LOPEZ, MD, MPH, FACP

*Associate Vice President
Health Equity and Inclusion
University of Utah Health Sciences
Director, Cancer Health Equity
Huntsman Cancer Institute
Professor of Medicine
University of Utah School of Medicine*

RIXT ANNA CATHARINA LUIKENAAR, MD, FACOG

*Transgender and Lesbian Health Specialist
Rebirth ObGyn
Adjunct Instructor, Obstetrics and Gynecology
University of Utah*

JOHN LUK, MD

*Assistant Dean for Interprofessional Integration
Dell Medical School, University of Texas at Austin*

TRACY MADSEN, MD, SCM, FACEP

*Assistant Professor of Emergency Medicine
Division of Sex and Gender
Warren Alpert Medical School, Brown University*

LUCINDA MAINE, PHD, RPH

*Executive Vice President and Chief Executive Officer
American Association of Colleges of Pharmacy
President, Interprofessional Education Collaborative
(IPEC)*

ALYSON J. MCGREGOR, MD, MA, FACEP

*Director, Division of Sex and Gender in
Emergency Medicine (SGEM)
Director, SGEM Fellowship
Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

NICOLE L. MIHALOPOULOS, MD, MPH

*Associate Professor, Pediatrics
Chief, Division of Adolescent Medicine
University of Utah School of Medicine*

VIRGINIA M. MILLER, PHD

*Professor of Surgery and Physiology
Director, Women's Health Research Center
Mayo Clinic*

AMY PITTENGER, PHARM.D, MS, PHD

*Associate Professor, Department of Pharmaceutical
Care & Health Systems
Director, Interprofessional Education and
Pharmacy Learning Collaborative
College of Pharmacy, University of Minnesota*

LORIE RICHARDS, PHD, OTR/L, FAHA

*Chair, Occupational and Recreational
Therapies Department
Editor-in-Chief, American Journal of
Occupational Therapy
University of Utah Health Sciences Center*

BASMAH SAFDAR, MD, MSC, FACEP

*Director, Chest Pain Center
Associate Professor, Yale School of Medicine*

TARA SHARIFAN, PSYD

Wasatch Front Wellness, Salt Lake City, Utah

SUSAN SHEEHAN

*President and Chief Operating Officer, Huntsman Cancer
Foundation*

REBECCA SLEEPER, PHARM.D, FCCP, FASCP, BCPS

*Associate Dean of Curriculum
Professor of Pharmacy Practice, Geriatrics
School of Pharmacy
Texas Tech University Health Sciences Center*

KATHRYN BOND STOCKTON, PHD

*Dean of the School for Cultural and Social Transformation
Associate Vice President for Equity and Diversity
Distinguished Professor of English
University of Utah*

CARA TANNENBAUM, MD

*Scientific Director, Institute of Gender and Health of the
Canadian Institutes of Health Research
Professor, Faculties of Medicine and Pharmacy
Université de Montréal, Canada*

KIMBERLY J. TEMPLETON, MD, FAOA, FAMWA

*Professor of Orthopedic Surgery
Director, Orthopedic Residency Program
University of Kansas Medical Center
Past President, American Medical Women's Association*

CONNIE TYNE, MS

*Executive Director
Laura W. Bush Institute for Women's Health*

LAUREN WALTER, MD, FACEP

*Associate Professor, Emergency Medicine
University of Alabama at Birmingham School of Medicine
Faculty Branch President and Region 5 Governor
American Medical Women's Association*

KATIE WARD, DNP, WHNP

*Clinical Associate Professor
University of Utah College of Nursing*

JANICE WERBINSKI, MD, FACOG, NCMP

*Clinical Associate Professor Emerita
Obstetrics and Gynecology
Western Michigan University
Homer Stryker MD School of Medicine
Executive Director, Sex and Gender Health Collaborative
American Medical Women's Association*

TESS WISKEL, MD

*Resident in Emergency Medicine
Warren Alpert School of Medicine, Brown University*

WORKSHOP FACILITATORS



REBECCA BARRON, MD, MPH
Assistant Professor, Emergency Medicine
Warren Alpert Medical School, Brown University

BRUCE BECKER, MD
Professor, Emergency Medicine
Warren Alpert Medical School, Brown University

JAY M. BEHEL, PHD
Associate Dean of Student Affairs
Rush University Medical College

GRETCHEN BUCKLER, MD, MPH
Medical Officer, Clinical Research
Office of Research on Women's Health
National Institutes of Health

ROBERT G. CARROLL, PHD
Associate Dean for Medical Student Education
Professor of Physiology
Brody School of Medicine, East Carolina University

GRETCHEN A. CASE, PHD
Associate Professor, Division of Medical Ethics and Humanities
University of Utah School of Medicine

ESTHER K. CHOO, MD, MPH
Associate Professor
Center for Policy and Research in the Department of
Emergency Medicine
Oregon Health & Science University

DANIEL GOUGER, MD
Post-Doctoral Fellow, American Medical Student Association

TIMOTHY W. FARRELL, MD, AGSF
Associate Professor of Medicine (Division of Geriatrics)
Adjunct Associate Professor of Family Medicine
University of Utah School of Medicine
Physician Investigator, VA SLC Geriatric Research,
Education, and Clinical Center
Director, University of Utah Health Interprofessional
Education Program

LESLIE HALPERN, DDS, MD, PHD, MPH, FACS
Professor, Section Head, Oral and Maxillofacial Surgery
University of Utah School of Dentistry

MEMOONA HASNAIN, MD, MHPE, PHD
Professor and Associate Department Head
Associate Head, Faculty Development & Research
Department of Family Medicine
University of Illinois at Chicago, College of Medicine

ANGELA JARMAN, MD
Clinical Instructor; Fellow, Division of Sex and Gender in
Emergency Medicine
Warren Alpert Medical School, Brown University

SUSAN KENDIG, JD, MSN, WHNP-BC, FAANP
Policy Director, National Association of Nurse Practitioners
in Women's Health
Women's Health Integration Specialist
SSM Health, St. Mary's Hospital in St. Louis, Missouri

JULIANA (JEWEL) KLING, MD, MPH, NCMP, FACP
Assistant Professor of Medicine
Associate Chair for Research, Division of Women's Health
Department of Internal Medicine
Mayo Clinic School of Medicine

RESA E. LEWISS, MD
Professor, Emergency Medicine
Thomas Jefferson University

TRACY MADSEN, MD, SCM, FACEP
Assistant Professor of Emergency Medicine
Division of Sex and Gender
Warren Alpert Medical School, Brown University

ALYSON J. MCGREGOR, MD, MA, FACEP
Director, Division of Sex and Gender in Emergency Medicine
Director, SGEM Fellowship; Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University

MARJEAN NIELSEN, MPP
Associate Director of Education
University of Utah School of Dentistry

MARY K. ROJEK, PHD
Chair, Sex and Gender Health Collaborative
American Medical Women's Association

BASMAH SAFDAR, MD, MSC, FACEP
Director, Chest Pain Center
Associate Professor, Yale School of Medicine

DAWN DRA SECHRIST, OTR, PHD
Assistant Dean Outcomes and Assessment
Associate Professor, Texas Tech University Health Sciences
School of Health Professions

REBECCA SLEEPER, PHARM D, FCCP, FASCP, BCPS
Associate Dean of Curriculum, Professor of Pharmacy Practice, Geriatrics
School of Pharmacy, Texas Tech University Health Sciences Center

KIMBERLY J. TEMPLETON, MD, FAOA, FAMWA
Professor of Orthopedic Surgery
Director, Orthopedic Residency Program
University of Kansas Medical Center
Past President, American Medical Women's Association

LAUREN WALTER, MD, FACEP
Associate Professor, Emergency Medicine
University of Alabama at Birmingham School of Medicine
Faculty Branch President and Region 5 Governor
American Medical Women's Association

SIMON WILLIAMS, PHD
Associate Dean of Academic Affairs
Texas Tech University Health Sciences Center
School of Pharmacy

JEANNETTE WOLFE, MD
Associate Professor of Emergency Medicine
University of Massachusetts Medical School – Baystate

“Without the data, then science cannot find the answer. Yet research discoveries cannot save one patient’s life unless they traverse the educational environment. And that is why we are here.” — Marjorie Jenkins, MD, MEHP, FACP

TABLE OF CONTENTS

1	ACKNOWLEDGEMENTS
9	CHAIRS' STATEMENT
10	A WORD FROM OUR SPONSORS
12	SUMMIT BY THE NUMBERS: PARTICIPANT MAP
13	SUMMIT BY THE NUMBERS: SURVEY RESULTS
15	KEYNOTE: SEX AND GENDER IN HEALTH EDUCATION: STUDENTS EXPECT IT, PATIENTS DESERVE IT
17	SEX AND GENDER BUILDING BLOCKS: UNIVERSAL TERMINOLOGY
18	LOOKING FORWARD: FRAMEWORK FOR THIS SUMMIT
19	PANEL: ADVANCING SEX AND GENDER EDUCATION THROUGH INTERPROFESSIONAL EDUCATION (IPE)
21	PANEL: HITTING THE MARK IN SEX AND GENDER: DEVELOPING <u>M</u> ULTI-PROFESSIONAL <u>A</u> CHIEVABLE <u>R</u> EQUIRED <u>K</u> NOWLEDGE
24	PANEL: SEX AND GENDER: WHAT DO STUDENTS THINK?
25	WORKSHOP <u>A</u> : INTEGRATING AND ASSESSING SEX AND GENDER IN CURRICULA
26	CURRICULAR INTEGRATION TIPS: MAKING WORKSHOP <u>A</u> WORK FOR YOU
27	PANEL: A TRANS HEALTHCARE PANEL
28	BREAKFAST WITH THE EXPERTS
30	WORKSHOP <u>B</u> : LEADING AND SUSTAINING CURRICULAR CHANGE
33	INTERSECTION OF SEX AND GENDER AND PUBLIC HEALTH
35	CAPSTONE LECTURE: ACHIEVING SEX AND GENDER IPE REQUIRES TRIPLE A: <u>A</u> WARENESS, <u>A</u> CTION, AND <u>A</u> CCOUNTABILITY
36	ADVANCING CURRICULA THROUGH A MULTIDISCIPLINARY LENS
37	SUMMIT OUTCOMES
38	SUMMIT PARTICIPANTS
49	APPENDIX
	SEX AND GENDER SPECIFIC HEALTH RESOURCES
	SCIENTIFIC POSTERS
	SGHE TEACHING TOOL: SEX AND GENDER BIAS QUESTIONS ACROSS DOMAINS

CHAIRS' STATEMENT

The Sex and Gender Health Education (SGHE) Summit was a historic event and the first time that the 5 major health professions – medicine, nursing, dentistry, pharmacy, and allied health – convened for the purpose of progressing sex and gender health education on a national scale. This Summit was a follow up to the Sex and Gender Medical Education (SGME) Summit held at the Mayo Clinic in Rochester, Minnesota in October 2015. Medical curriculum leaders, representatives, and students from over 150 U.S. and international health professional schools attended the Summit, as did representatives from 10 professional, student, and non-profit organizations and government agencies. Additional attendees participated via webcast from the U.S. and abroad. Basic tenets of sex and gender health were presented and explored within the framework of the different health professions.

The overarching goals for the SGHE Summit were to create a network of health professionals and health educators to support and progress the curricular integration of scientific evidence about the impact of sex and gender on health. Science demonstrates the influence that sex as a biological variable (SABV) and gender as a sociocultural variable have on health and disease. Resources provided at the Summit were designed to facilitate curricular change about sex and gender throughout health professionals' education.

We want to thank our Premier Sponsors, the American Medical Women's Association, Laura W. Bush Institute for Women's Health, University of Utah Health, and Mayo Clinic, as well as all the other sponsors – Texas Tech University Health Sciences Center School of Medicine, University of Utah School of Dentistry, National Association of Nurse Practitioners in Women's Health, Warren Alpert Medical School at Brown University's Division of Sex and Gender in Emergency Medicine, Florida State University College of Medicine, and HealthyWomen, whose generosity allowed us to provide travel grants for so many institutional leaders to attend. We are also grateful to the executive planning committee, scientific program committee, senior advisory committee, local host committee, scientific poster committee, and administrative support staff whose tireless efforts made this Summit possible. Above all, we thank the Summit speakers and participants for their expertise and participation, which not only enriched the sessions but advanced the movement to increase sex and gender specific health education across the country.

Sincerely,

MARJORIE JENKINS, MD, MEHP, FACP

*Professor of Medicine, Associate Dean for Women in Science
Chief Scientific Officer, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

ALYSON J. MCGREGOR, MD, MA, FACEP

*Director, Division of Sex and Gender in Emergency Medicine
Director, SGEM Fellowship; Associate Professor of Emergency Medicine
Warren Alpert Medical School, Brown University*

ELIZA LO CHIN, MD, MPH, FACP, FAMWA

*Executive Director, American Medical Women's Association
Assistant Clinical Professor (Voluntary), University of California, San Francisco*

A WORD FROM OUR SPONSORS



AMERICAN MEDICAL WOMEN'S ASSOCIATION



American Medical Women's Association
The Vision and Voice of Women in Medicine since 1915

The American Medical Women's Association (AMWA) was honored to co-lead this second Summit on sex and gender health professions education. AMWA, founded in 1915, has long strived to improve healthcare for women through education and advocacy. More recently, we have re-focused our work to ensure that sex and gender influences on health and disease are understood and used to guide all patient care. Research has demonstrated that aside from the reproductive tract, both biological sex differences in physiology and pathophysiology and gender related differences impact the clinical manifestations of disease, diagnosis, prognosis and response to treatment. Educating health professionals about sex and gender differences is therefore essential for individualized and optimal patient management. One of the most common examples is coronary artery disease. Before we recognized sex differences in the symptoms of coronary artery ischemia, many women were misdiagnosed which led to delayed treatment and increased complications.

This Summit marked another milestone in sex and gender education as we convened educators from diverse health fields including nursing, dentistry, pharmacy, allied health, public health and medicine. Many ideas and strategies for influencing curricular change originated in the workshop discussions. We anticipate that by working together across health disciplines, we can ensure that health professionals' education is more comprehensive and incorporates sex and gender differences. This should lead to improved patient care and outcomes, and better health for women and men.

CONNIE B. NEWMAN, MD, FACP, FAMWA
President, American Medical Women's Association

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, LAURA W. BUSH INSTITUTE FOR WOMEN'S HEALTH



It was a pleasure to join our esteemed colleagues in sponsoring the second Sex and Gender Health Education Summit at the University of Utah.

The first Summit at the Mayo Clinic focused on medical schools. For our second Summit, we were very pleased to include curriculum directors and influential leaders from across the healthcare spectrum: medicine, nursing, pharmacy, allied health professions, and dentistry. This interdisciplinary approach added depth and breadth to the important discussions about expanding sex and gender education to all students. Through shared ideas and perspectives, representatives from more than 150 institutions formulated strategies to initiate curricular change.

The Laura W. Bush Institute for Women's Health shared our new open access website, SexandGenderHealth.org which offers a wealth of curricular resources. In the pursuit of true personalized medicine for men and women, the site offers videos, slide libraries, and Avatar modules highlighting sex and gender differences across many disease states. The resources are fully referenced, peer reviewed, and ready for professors to integrate or assign to students.

Special thanks and recognition go to Dr. Marjorie Jenkins, Chief Scientific Officer for the Institute and co-chair of the Summit. We look forward to the continued success of this mission to improve the lives and health of women everywhere.

CONNIE TYNE, MS
Executive Director
Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center

(A Word From Our Sponsors Continued)

MAYO CLINIC



Mayo Clinic was honored to co-sponsor this groundbreaking Summit. Having hosted the Sex and Gender Medical Education Summit in 2015, we were thrilled to participate again in the first multiprofessional Summit to advance sex and gender health education concepts throughout all of the healthcare professions. The outcomes of this Summit will be a major step in that direction and will ultimately lead to better patient care. Dr. William Mayo once said, "The best interest of the patient is the only interest to be considered, and in order that the sick may have the benefit of advancing knowledge, union of forces is necessary." This Summit has brought together the major healthcare professions - medicine, nursing, dentistry, pharmacy, and allied health. We are thankful for the opportunity to have facilitated that process.

VIRGINIA M. MILLER, PHD
Professor, Surgery and Physiology
Director, Women's Health Research Center
Mayo Clinic

UNIVERSITY OF UTAH HEALTH



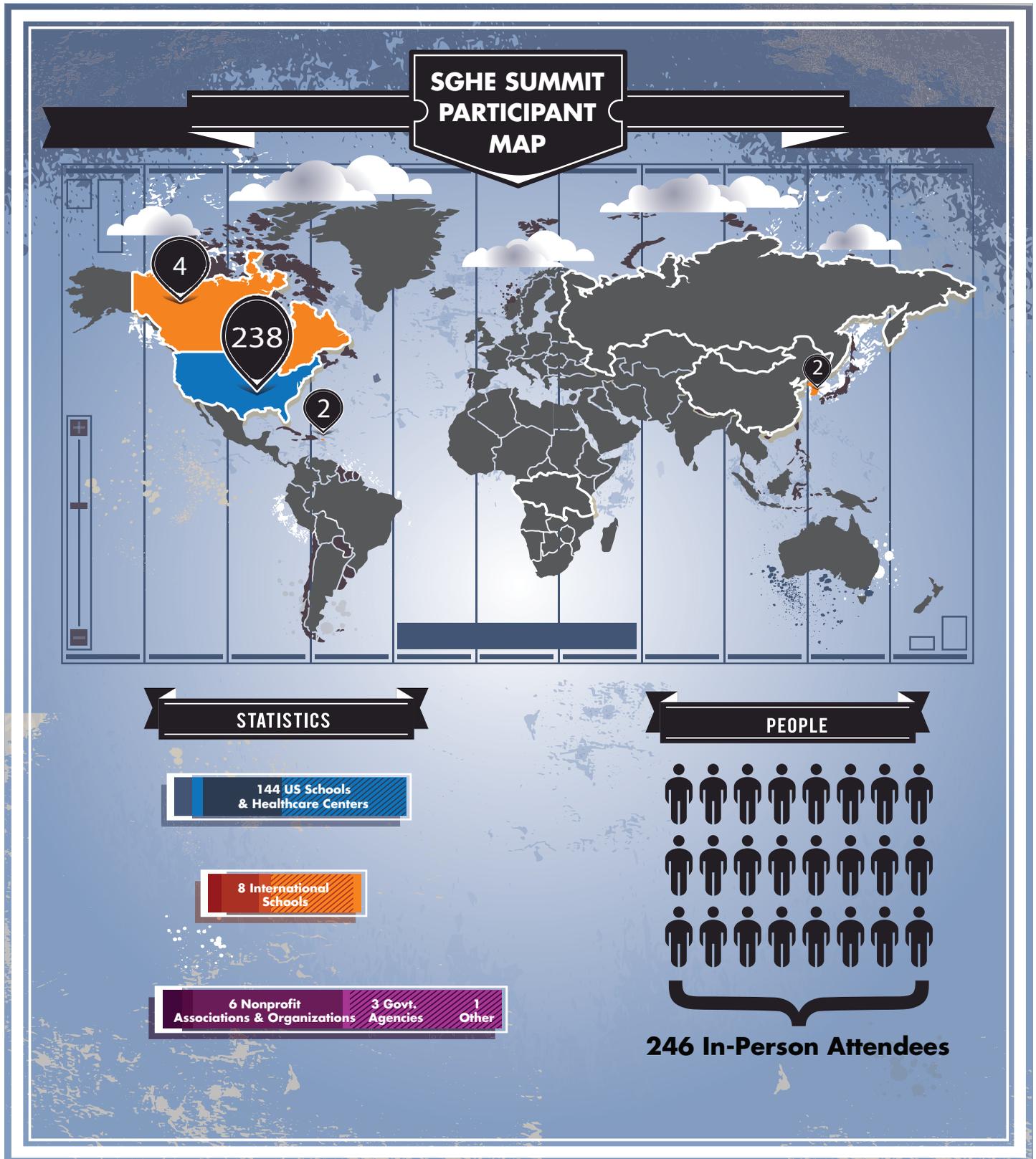
We were thrilled to host the 2018 International Sex and Gender Health Education Summit at the University of Utah Health Sciences. Sex and Gender is a timely and important topic for curriculum development. As health care professionals and educators, we recognize that sex and gender both play a role in health and in disease processes, and they affect all of our well-being.

We were especially pleased that this conference stressed the importance of Sex and Gender education within Interprofessional Education (IPE). IPE is an important aspect of our training at the University of Utah Health System. It embodies one of our major goals across our Schools of Medicine and Dentistry and Colleges of Nursing, Pharmacy, Social Work and Health. We have been focused on promoting IPE throughout our schools. By integrating sex and gender in an interprofessional manner into health care, we can provide better outcomes for our patients. We can give them personalized care that also pays attention to how the social determinants of health affect our most vulnerable patients.

We believe that interprofessional education that integrates sex and gender curricular content is personalized and evidence-based practice. The University of Utah Health System applauds the organizers in bringing together the best in the field to discuss these important concepts. We were proud to be the hosts of this wonderful conference.

A. LORRIS BETZ, MD, PHD
Interim CEO, University of Utah Health
Executive Dean, University of Utah School of Medicine
Senior Vice President for Health Sciences

SUMMIT BY THE NUMBERS



ATTENDEES

246 healthcare educators, professionals and trainees from 162 institutions, healthcare centers, organizations, and agencies across five health professions (medicine, nursing, pharmacy, allied health, dentistry) attended in person, with many others participating online. Summit attendees hailed from 34 different U.S. states, in addition to the District of Columbia and Puerto Rico, and internationally as far as Canada and South Korea. In-person attendees included 205 women and 41 men. Attendees' degree designations are shown in the table below. 22 attendees had a public health degree.

SGHE SUMMIT ATTENDEES BY SPECIALTY/DEGREE	
SPECIALTY/DEGREE	TOTAL
MEDICINE (MD/DO)	78
DENTISTRY (DDS/DMD)	23
PHARMACY (PHARMD)	27
NURSING (VARIOUS)	29
ALLIED HEALTH (VARIOUS)	8
DOCTORAL DEGREE (SPECIALTY NOT SPECIFIED)	44
OTHER	37
GRADUATE DEGREE (18)	
UNDERGRADUATE DEGREE (8)	
MEDICAL STUDENT (9)	
UNDERGRADUATE STUDENT (2)	
TOTAL:	246

Many other individuals viewed the Summit online. While most viewers were from the USA on both days, individuals from an additional 32 countries viewed the Summit on at least one day.

SGHE SUMMIT SURVEYS

A survey was conducted at the beginning and end of the Summit using the Whova app. Summit survey results are shown in the following tables. There were 157 pre-summit survey respondents (133 women, 19 men, 4 other gender) and 115 post summit respondents (96 women, 19 men).

SGHE POST SUMMIT SURVEY	
Has this conference changed your opinion of the importance of sex- and gender-specific health?	YES: 81% NO: 19%
How likely are you to consider integrating sex and gender concepts in all of your educational sessions?	VERY LIKELY: 73% LIKELY: 22% NEITHER: 4% VERY UNLIKELY: 1%
Would you like us to use the Whova App at future educational events?	YES: 96% NO: 4%

Total respondents, N = 115. Did not reply: 6 respondents for each question.

Reprinted from JOURNAL OF WOMEN'S HEALTH, published by Mary Ann Liebert, Inc.; New Rochelle, NY.

SGHE SUMMIT PRE AND POST SURVEY RESULTS

	STRONGLY/AGREE	NEITHER	STRONGLY/DISAGREE
1. I am familiar with the topic of sex and gender differences in health and disease.			
Pre	87%	7%	6%
Post	97%	1%	2%
2. Concepts of sex- and gender-based health can be used to improve men's health.			
Pre	97%	3%	0%
Post	99%	1%	0%
3. Sex and gender health is the same as women's health.			
Pre	17%	6%	77%
Post	7%	9%	85%
4. The FDA should consider recommending dosages based on the sex of the patient.			
Pre	78%	20%	2%
Post	93%	4%	3%
5. Sex and gender based medicine is a fundamental aspect of precision medicine.			
Pre	95%	5%	1%
Post	100%	0%	0%
6. It is not necessary to include female animals in pre-clinical research studies.			
Pre	2%	10%	89%
Post	4%	0%	96%
7. Sex and Gender Specific Medicine focuses on the health of the LGBT Community.			
Pre	43%	26%	31%
Post	45%	23%	32%
8. My institution has integrated sex and gender evidence across the 4 year curriculum.			
Pre	14%	25%	60%
Post	5%	29%	65%
9. My institution has developed Objective Structured Clinical Exams (OSCEs) or other simulated patient cases which integrate sex and gender-specific health.			
Pre	22%	27%	51%
Post	19%	27%	54%
10. I have included sex and gender evidence as part of my courses and/or curriculum development.			
Pre	66%	18%	16%
Post	64%	16%	20%

The survey used a 5 point Likert scale. Respondents: pre-summit, N=157; 131 faculty, 6 residents, 8 students, and 12 other respondents. Post-summit, N = 115; 89 faculty, 5 residents, 5 students, and 16 others. No answer given: pre-summit, N = 3 for all questions; Post-summit, questions 5, 6, 10, N = 4. All others N = 3.

Reprinted from JOURNAL OF WOMEN'S HEALTH, published by Mary Ann Liebert, Inc.; New Rochelle, NY.

SUMMIT KEYNOTE

SEX AND GENDER IN HEALTH EDUCATION: STUDENTS EXPECT IT, PATIENTS DESERVE IT

CARA TANNENBAUM, MD

*Scientific Director, Institute of Gender and Health of the Canadian Institutes of Health Research
Professor, Faculties of Medicine and Pharmacy, Université de Montréal, Canada*

Three central questions form the main themes for the Sex and Gender Health Education (SGHE) Summit:

- What sex and gender content needs to be incorporated into curricula to prepare our students for the future?
- What is the best way to do this?
- What can you do now to accelerate transformation?

Understanding Sex and Gender

Sex is a biological variable of humans and animals. It includes physical features, chromosomes, gene expression, hormones, and anatomy. Sex is usually categorized as female or male. Gender refers to socially constructed roles, behaviors, expressions, and identities of girls, women, boys, men, and gender-diverse people. It influences how people perceive themselves and each other, how they act and interact, and the distribution of power and resources in society. Gender identity is usually thought of as a binary man/woman or boy/girl, but there is great variability in how people understand, experience and express it. Gender identity can be “cis” (the same as one’s sex) or “trans” (different from one’s sex). While gender is often thought of in individual terms, it is a broader concept that applies at a societal level and is institutionalized in roles, relations and practices. In healthcare, gender influence can be seen in differences in patient referrals for treatment protocols or services.

Understanding the Relevance of Sex and Gender to Health

Sex and gender are relevant and important across the spectrum of health and illness. Depending on the illness, either sex, gender, or both may be the primary factors. In the case of depression, sex and gender both play a role. Genetic pathways for depression differ in men and women. While women are more likely to be diagnosed with depression, men are more likely to complete suicide. However, men may avoid psychological care due to stigma, which then affects measured rates of depression.

There are also sex differences in the immune system. Males and females exhibit different immune cell function in spinal cord mediation of chronic pain. In what has been referred to as the “man cold,” we find that men have different immune systems and fight infection differently than women. Women are much more likely to have autoimmune disorders.

There are important differences in relation to drugs. Women process drugs differently than men. They have more body fat (resulting in increased drug retention), but lower overall weight, smaller kidneys, different heart rhythms, and female hormones that alter drug metabolism in the liver. In the U.S. and Canada, half the dose of Ambien is recommended for women as compared to men. A 2001 GAO FDA audit of prescription drugs withdrawn from the US market showed that 8 out of 10 drugs were more likely to have adverse events in women. 4 of the 8 withdrawn drugs were utilized by greater numbers of women, and therefore more adverse events might be expected. Of the 4 drugs utilized in equal numbers, Torsade de Pointe was the reason for withdrawal, which is much more common in women.

On a molecular level, every cell has a sex. Stem cells behave differently depending on whether the cell has female or male sex chromosomes. The X chromosome has 1,669 genes and the Y chromosome has 426 genes, which also affects health.

Improving Education and Research to Improve Patient Care

We must act to improve education and research. We can teach students to think in terms of sex and gender and to adopt a sex and gender lens as they care for all patients. Cultural competence in relation to gender is also important. When students encounter patients from diverse backgrounds, we can teach them to use more inclusive language. We begin to do this by changing our own language to be more inclusive. Alternatively, students may play a role in educating faculty about gender, especially about variations in gender identity.

(Summit Keynote Continued)

We need to change how we conduct research. Historically, there has been a lack of research that focused on how drugs react differently in men and women. Drug development research was traditionally conducted only on male animals, and for ethical reasons, women were excluded from drug trials. We must recognize that pregnant women get sick, sick women get pregnant, and that women must be included in research studies.

Sex and gender are central aspects of personalized healthcare. Personalized healthcare matters. We must look at factors such as sex, gender, genetics, age, race, and socioeconomic status if we want to give the right therapy, at the right dose, for the right person, at the right time.

Teaching Students How to Think Through a Sex and Gender Lens

As educators, we need to teach our students how to think through a sex and gender lens in relation to all health issues. Dr. Alyson McGregor et al. (2017) provide us with a guide for the cognitive steps in using a sex and gender lens in clinical practice: (1) identify the patient's sex and gender, (2) consider whether the clinical manifestation differs based on sex or gender, (3) recognize limitations in testing, (4) use sex specific thresholds for biomarkers or laboratory references, (5) dose medications based on sex specific evidence, and (6) mitigate bias.¹ Bias is often unconscious and must be assessed in order to improve care for both women and men.

Dr. McGregor's approach can inspire guidelines for faculty in teaching sex and gender. For each topic: (1) distinguish and recognize the importance of sex and gender, (2) pay attention to sex and gender differences and inclusive language, (3) recognize limitations in the methods and state of science, (4) use sex and gender specific normative values or references, and (5) when available, teach interventions based upon sex and gender specific evidence.

“Sex and gender are central aspects of personalized healthcare. Personalized healthcare matters.” – Cara Tannenbaum, MD

Changing Your Organizations

Make a sex and gender action plan for your organizations. Assess your institution's state of readiness for change. Write or advocate for a sex and gender inclusion policy for your program. Get the policy on the agenda and create a working group to move it forward. Include students in the working group and in the entire process. For example, Yale medical students created a survey to track the content of each class and to critically appraise each research study presented. Obtain numerical data in pushing for change. You may need to start with a pilot assessment. Get baseline numbers and track any changes. Students can help to identify what is omitted from each course. Students can be given small group assignments to consider how a course, module, or case would be different if it had a sex and gender lens. While sex and gender should be integrated into all courses, there may also be a need for in-depth separate courses. Most importantly, don't reinvent the wheel. Use existing tools and resources.

Here are three actions you can take immediately:

- Make a sex/gender curriculum plan,
- Start using inclusive gender language, and
- Keep abreast of tools and resources.

Be an early adopter! Students expect it. Patients deserve it.

¹Adapted from: McGregor AJ, Beauchamp GA, Wira III CR, Perman SM, Safdar B. Sex as a Biological Variable in Emergency Medicine Research and Clinical Practice: A Brief Narrative Review. *Western Journal of Emergency Medicine*. 2017 Oct;18(6):1079.



SEX AND GENDER BUILDING BLOCKS: UNIVERSAL TERMINOLOGY

TRACY MADSEN, MD, SCM, FACEP
Assistant Professor of Emergency Medicine
Division of Sex and Gender
Warren Alpert Medical School, Brown University

The move to use precise terminology when talking about sex and gender in health and medicine traces its beginnings back to the women's health movement of the 1970s. At that time, we began by first looking at reproductive rights. That evolved into "gender-based" and later into "sex-based biology." We began to understand that the differences between men and women extended beyond reproductive organs and into every cell and organ system. From there, the field evolved into "sex and gender based medicine," a term proposed by the Laura W. Bush Institute for Women's Health in 2010. "Sex and gender specific health," a closely related term, is used to denote the relevance of sex and gender to all health professions.

Communicating precisely by using correct terminology results in better healthcare delivery. For example, by correctly identifying a stroke patient as a woman, we can immediately begin to think about how her risks would differ from a man's risks and we can plan her care accordingly. By correctly identifying her gender, we can better understand her risk factors and accompanying social situations that could impact her ability to receive care or manage stress.

Sex differs from gender. Sex is biologically determined by a person's sex chromosomes and autosomes. The appropriate terms when discussing sex are male and female. Gender, while it can be rooted in sex, refers to individuals' self-representation and is influenced by environment and life experiences. The appropriate terms when discussing gender are man and woman. Both of these definitions are based on NIH terminology.

Yet male/female and man/woman are binary terms. We need to move beyond binary categorizations and recognize that the situation is more complex. In order to have a more nuanced understanding of all of our patients, we need to expand our definitions of sex and gender. We can add the term intersex to our definition of biological sex. We can add transgender and other gender identity expressions to our definition of gender. We need to account for the 1.4 million people in the U.S. who identify as transgender. Overall, we need to provide better care for LGBTQI patients.

An expanded definition of sex and gender is relevant to designing research studies. For example, sex and gender should be asked as two separate questions and should be expanded beyond a binary choice. In one's data analysis, sex and gender should be disaggregated.

Having established sex and gender terminology, it is crucial to implement them into our training and education. This begins with correctly identifying the sex and gender of our patients. Trainees should be made comfortable in asking those questions early on so that they can carry these lessons into their independent practices.

The field of sex and gender is changing rapidly. In the field of epigenetics, we are beginning to look more closely at how environments shape our DNA. We are moving away from binary categories. We are creating the foundation for understanding the effects of sex and gender in everything we do.



LOOKING FORWARD: FRAMEWORK FOR THE SUMMIT

ALYSON J. MCGREGOR, MD, MA, FACEP
*Director, Division of Sex and Gender in Emergency Medicine
Director, SGEM Fellowship; Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

***“All patients possess the basic human variables of sex and gender, and therefore the integration of these variables into our health professions’ curricula is the new challenge.”
Alyson J. McGregor, MD, MA, FACEP***

The push for integrating sex and gender into health professions curricula began in 2012 at a workshop held at the Mayo Clinic. Representatives from medical schools across the U.S. gathered to discuss strategies to achieve integration. Following this meeting, the first Sex and Gender Medical Education (SGME) Summit was held in 2015. It was co-sponsored by the American Medical Women’s Association, the Laura W. Bush Institute for Women’s Health, the Society for Women’s Health Research, Texas Tech University Health Sciences Center, and the Mayo Clinic (which hosted the Summit). Stakeholders included representatives from over 100 U.S. and international medical schools as well as representatives from federal agencies and nonprofit organizations. Results from a national student survey showed that students wanted this knowledge integrated into their curricula. In workshops, participants identified existing gaps in curricula, strategies for incorporating sex and gender based medicine (SGBM) content into existing curricula, and the creation of a framework for national SGBM competencies.

Tangible outcomes after the 2015 Summit included work to develop SGBM medical student competencies, publication of the Summit program proceedings, and publication of a collection of peer reviewed articles for a special October 2016 journal issue of *Biology of Sex Differences*. A toolkit was created for attendees to share these insights and ideas with their home institutions.

We have much more to do in order to bridge the gap and create sustainable change. As Dr. Marjorie Jenkins has stated, “No scientific discovery can save a life without traversing a learning environment.” Integrating sex and gender into our medical curricula is not enough. The next step is for interprofessional teams to work together to progress the integration of sex and gender content into all health professions curricula. This first U.S. interprofessional conference on sex and gender health education will move us toward achieving this goal.



ADVANCING SEX AND GENDER EDUCATION THROUGH INTERPROFESSIONAL EDUCATION (IPE)

MODERATOR:

LESLIE HALPERN, DDS, MD, PHD, MPH, FACS
*Professor, Section Head, Oral and Maxillofacial Surgery
School of Dentistry, University of Utah*

PANELISTS:

SARA GORDON, DDS, MS
*Professor of Oral Medicine
Associate Dean for Academic Affairs
School of Dentistry, University of Washington*

LORIE RICHARDS, PHD, OTR/L, FAHA
*Chair, Occupational and Recreational Therapies Department
Editor-in-Chief, American Journal of Occupational Therapy
Health Sciences Center, University of Utah*

JOHN LUK, MD
*Assistant Dean for Interprofessional Integration
Dell Medical School, University of Texas at Austin*

REBECCA SLEEPER, PHARMD, FCCP, FASCP, BCPS
*Associate Dean of Curriculum
Professor of Pharmacy Practice, Geriatrics
School of Pharmacy, Texas Tech University Health Sciences Center*

This interdisciplinary panel was composed of representatives from medicine, dentistry, pharmacy, and allied health professions. Panelists discussed the successes and challenges of implementing interprofessional activities at their institutions and integrating sex and gender into both formal and hidden curricula. Panelists also identified common themes that could serve as a basis for creating sex and gender competencies across disciplines.

Integrating Sex and Gender into IPE

The University of Washington School of Dentistry (UWSOD) suggests a team based approach to integrate sex and gender into curricula. Such an IPE model could address the following questions: (1) What is the difference between sex and gender? (2) Why does this difference matter? (3) How could either (or both) affect health? (4) How does it affect the provision of health care? (5) How could sex and gender affect team dynamics and the functioning of the healthcare team? For example, there could be power imbalances within the team due to sex or gender, or gender differences in preferences for working on teams.

“Culture eats strategy for lunch. Logistics eat IPE for breakfast.”

JOHN LUK, MD

Using the Gender Lens Tool with Students

UWSOD piloted the use of a Gender Lens Tool created by the Canadian Gender and Health Collaborative Curriculum Project (genderandhealth.ca/en/modules/lens). This tool requires students to ask whether the patient's condition is influenced by sex, gender, culture, society, or socioeconomic factors. It encourages complex thinking by students and enables them to adopt an intersectional view of the patient and his/her case. It could be readily adapted to encompass both gender and sex. One possible exercise is to ask students to mentally swap the sex and gender of everyone in the case and then ask - how is this scenario different? For the patient - how does it change the presentation and the treatment outcomes? For the team or the consultants - how does it change the team dynamics or decision making?

Students and the Sex and Gender Curriculum Audit

At Texas Tech University Health Sciences Center (TTUHSC), the desire to ensure the integration of sex and gender content began with a curriculum audit. The audit was conducted by students who were hired as researchers for this project. These students filled out audit forms during their lectures and indicated whether the topic was sex inclusive, if there was differentiation between sex and gender, and the degree of inclusion. Degree of inclusion was composed of the time of instruction (minor, moderate, or major) and the type of focus (e.g., epidemiology, pathophysiology, or clinical therapeutics). The data showed that when sex and gender were included in courses, it was almost always in a minor way (98%), and it tended to be related to epidemiology (55%). In a more nuanced curriculum assessment of case and problem based learning, all cases included sex and age, and most included ethnicity. However, students were not being taught how to consider these factors. These findings enabled TTUHSC to begin to address these deficiencies by developing sex and gender specific health course resources [sexandgenderhealth.org].

IPE for Students as an Institutional Initiative

The IPE experience at the University of Utah brings students together from medicine, pharmacy, nursing, occupational therapy, speech therapy, speech language pathology, dentistry, social work, recreational therapy, and physician assistant programs to work on cases. The discipline of psychology will be added in the future. Students work on one case per semester in interprofessional teams, and they share what they would do with a client within the context of their discipline. They also take an online IPE course. Later, they will work with actors, videos and charts, and ultimately with real clients in clinical and community settings. Challenges included coordinating diverse schedules across schools and faculty burden.

Interprofessional Identity Formation for Students

At Dell Medical School in Austin, students learn IPE via the Leading EDGE curriculum. The curriculum's success comes from moving beyond traditional learning models to one where students learn from each other. They use student-centered learning methods such as flipped classrooms, team based learning, and societies of learning communities with an emphasis on interprofessional inquiry. A central feature of the curriculum is interprofessional identity formation. Students are socialized into a collaborative culture. They engage in service and scholarship, and they adopt interprofessional values and skills. They apply knowledge in a patient-centered manner. This curriculum enables students to become change agents in their future practices.

IPE and Faculty Development

At Texas Tech University Health Sciences Center (TTUHSC), IPE is a requirement for all learners. In order to facilitate IPE, TTUHSC engages in faculty development. Twice a year, faculty meet in interprofessional groups and work on patient cases, bringing in expertise from their disciplines. Learning objectives are created for these cases for all faculty participants in addition to specific objectives for each discipline.

Integrating Sex and Gender into Accreditation Standards

Sex and gender content fit into existing health professions' accreditation standards, albeit in different ways across professions. In dentistry, two relevant standards deal with communicating and collaborating with other members of the healthcare team (Standard 2-20) and requiring that graduates be competent in managing a diverse patient population (Standard 2-17). However, the most relevant standard may be one that addresses critical thinking and problem solving in patient care, science, and research (Standard 2-10). In medicine, the most relevant accreditation standards are related to competencies, curricular objectives, curricular design (Standard 6), and curricular content (Standard 7). In pharmacy, learners are expected to have competency in four core areas: roles and responsibilities of team members, values and ethics, communication, and teamwork. Sex and gender are relevant in each of these core areas. In the allied health professions, each specialty has its own accreditation standards. Sex and gender are relevant to many of the standards across the allied health professions, i.e. occupational therapy, physical therapy, speech and language pathology (SLP), and recreational therapy. All discuss the body's structure and function. Because therapists tend to address patient functioning, the issue of gender is especially relevant to them.

Implementing Change

Curricular change will require assessing students and the curriculum. Assessment provides evidence of a curriculum's effectiveness. Using reflection in assessment can help educators to observe changes in student thinking and understand how students think. Students will need to learn how to be reflective. Guided reflection activities can help students acquire this lifelong learning skill.

Exposing students and faculty to IPE and to the sex and gender lens is not enough. Students must also be socialized to think and work differently. The strategies described above socialize students at an early stage of their careers to team-based care. This helps break down professional silos. This is a framework within which we can promote competency in sex and gender education.

The ultimate question is – how can we best pair IPE with sex and gender education? Do we take the IPE core tenets and look for the sex and gender components that fit under each one? Or do we define an independent set of learning objectives and core competencies in sex and gender and see how we will make them play out in an interprofessional way? Every participant at this Summit can be part of the think tank to help answer that question.

HITTING THE MARK IN SEX AND GENDER: DEVELOPING MLTI-PROFESSIONAL ACHIEVABLE REQUIRED KNOWLEDGE

MODERATOR:

TIMOTHY W. FARRELL, MD, AGSF

Associate Professor of Medicine (Division of Geriatrics)

Adjunct Associate Professor of Family Medicine

University of Utah School of Medicine

Physician Investigator, VA SLC Geriatric Research, Education, and Clinical Center

Director, University of Utah Health Interprofessional Education Program

PANELISTS:

SUSAN COX, MD, MA

Executive Vice Dean for Academics

Chair, Department of Medical Education

Past President, Alliance for Clinical Education

Dell Medical School, The University of Texas at Austin

AMY PITTENGER, PHARM.D, MS, PHD

Associate Professor, Department of Pharmaceutical Care & Health Systems

Director, Interprofessional Education and

Pharmacy Learning Collaborative

College of Pharmacy, University of Minnesota

LAURIE M. LAUZON CLABO, PHD, RN

Dean and Professor

College of Nursing, Wayne State University

LEA ERICKSON, DDS, MSPH

Associate Dean for Education and Student Life

Professor, School of Dentistry, University of Utah

With contribution from:

ABBAS HYDERI, MD, MPH

Former Associate Dean for Curriculum and Associate Professor of Clinical Family Medicine

University of Illinois at Chicago College of Medicine

Current Senior Associate Dean for Medical Education and Professor of Clinical Science

Kaiser Permanente School of Medicine (pending accreditation)

This panel explored mapping student competencies of sex and gender influences on health and disease to milestones and developing national entrustable professional activities (EPAs) within each discipline. Participants engaged in a hands-on activity of taking a student competency and mapping out the milestones, hence the term Hitting the MARK - developing Multiprofessional Achievable Required Knowledge in relation to sex and gender.

Competencies

Competencies are the observable ability of a health professional to integrate multiple components such as knowledge, skills, attitudes, and values. Competencies are trainable attributes or abilities. They are observable and thus can be measured and assessed. Each health profession refers to them as either competencies or competency domains. While there are differences in how each health profession defines competencies, in the United States they generally include the categories of knowledge, patient care, interpersonal and communication skills, professionalism, systems-based practice, practice-based learning and improvement, interprofessional collaboration, and personal and professional development.

The next table outlines the competencies across the health professions of medicine, nursing, pharmacy and dentistry. It shows that the competencies across health professions are similar. If a primary competency or competency domain is not specified for a health profession, then that competency is likely to be subsumed under another category. It does not mean that it is not expected of graduates. The competencies listed are from the Association of American Medical Colleges (AAMC), American Association of Colleges of Nursing for Advance Practice Nursing (APRN, doctoral level), Center for the Advancement of Pharmacy Education (CAPE), and American Dental Education Association (ADEA).

“Competencies are trainable attributes or abilities....

Milestones are developmental markers or steps toward competence.

– ABBAS HYDERI, MD, MPH

COMPETENCIES AND COMPETENCY DOMAINS ACROSS HEALTH PROFESSIONS

MEDICINE	NURSING	PHARMACY	DENTISTRY
Knowledge for Practice	Knowledge of practice	Information master	Critical thinking
Patient Care	Patient care	Patient provider	Patient care
Interpersonal/ Communication Skills	Interpersonal/ Communication Skills	----	Communication/ Interpersonal Skills
Professionalism	Professionalism	----	Professionalism
Practice-based learning/ improvement	Practice-based learning/ improvement	Practice manager	Practice management/ informatics
Personal/professional development	Personal/professional development	Self-developer	----
Systems based practice	Systems based practice	Population health promoter	Health promotion
Interprofessional collaboration	Interprofessional collaboration	Interprofessional team member	----

Source: Medicine – AAMC Competencies; Nursing – APRN Competency Domains; Pharmacy – CAPE Competency Domains; Dentistry – ADEA Competency Domains.

Milestones

Milestones are developmental markers that show progress towards achieving competence. Milestones describe an individual's developmental trajectory. Examples of milestone stages are novice, advanced beginner, competency, proficiency, and expertise. Progression from being a beginning learner to an expert is observable and measurable. An example of a milestone for the competency of interpersonal and communication skills for a level 1 resident includes being a good listener and effective communicator. For a level 5 resident (the final stage), the milestones include being an effective communicator in the most challenging situations and inviting participation from all stakeholders in these discussions.

“EPA (Entrustable Professional Activity): a unit of observable, measurable, professional practice requiring integration of competencies.”

AAMC, CORE ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR ENTERING RESIDENCY. 2017.

Entrustable Professional Activities (EPAs)

An Entrustable Professional Activity (EPA) is a unit of observable, measurable professional practice. Execution of an EPA requires the integration of multiple competencies. It is a unit of professional practice, a task, or responsibility that a trainee is entrusted to perform at a specified level of supervision. EPAs are executable in a specific time-frame, observable, and measurable.

EPAs are composed of competencies which can be thought of as the “building blocks” of EPAs that require their integration to execute the EPA. Similar to competencies, milestones are markers of the progression toward competence for an EPA.

None of the competencies, milestones, or EPAs within the different professions explicitly address sex and gender specific health education, but many reference issues under which sex and gender could be integrated. A prime example is patient-centered care because the sex and gender of the patient is central in considering how to provide care that is specific to any given patient. Issues of critical thinking and multiculturalism are also relevant to sex and gender. A good strategy for approaching sex and gender health education is to choose an EPA and its associated competency domains. Within those competency domains, what are the knowledge, skills, and attitudes that are needed to incorporate sex and gender?

(Hitting the Mark Continued)

Group exercises illustrated how sex and gender could be incorporated into the EPA model.

COMPETENCY: UTILIZES GENDER-INCLUSIVE COMMUNICATION

DEVELOPMENTAL MILESTONES FOR THIS COMPETENCY:

EARLY	Appropriately defines vocabulary related to sex and gender
MIDDLE	Asks patients about their chosen pronoun
LATE	Reflects upon and attempts to mitigate personal bias (conscious and unconscious) related to gender-inclusive communication

EPAs THAT WOULD INVOLVE INTEGRATING THIS COMPETENCY:

Speaks comfortably with patients while incorporating their sex and gender

Speaks comfortably with patients and uses their chosen pronouns and/or identity

Interacts with patients in an unbiased manner with respect to sex and gender

COMPETENCY: INCORPORATES IMPACT OF SEX AND GENDER ON THE PATHOPHYSIOLOGY OF DISEASE

DEVELOPMENTAL MILESTONES FOR THIS COMPETENCY:

EARLY	Defines sex and gender
MIDDLE	Describes the impact of sex and gender on human development
LATE	Incorporates the impact of sex and gender on disease management (mechanism, presentation, progression)

EPAs THAT WOULD INVOLVE INTEGRATING THIS COMPETENCY:

Completes a sex and gender appropriate history and physical

Creates a differential diagnosis based on patient sex and gender

Prescribes treatment based on patient sex and gender

The Association of American Medical Colleges (AAMC) has EPA Toolkits for their 13 core EPAs available at: aamc.org/download/482214/data/epa13toolkit.pdf

SEX AND GENDER: WHAT DO STUDENTS THINK?

MODERATOR:

KIMBERLY J. TEMPLETON, MD, FAOA, FAMWA

Professor of Orthopedic Surgery

Director, Orthopedic Residency Program, University of Kansas Medical Center

Past President, American Medical Women's Association

PANELISTS:

ANNE DROLET, MS

Student President, American Medical Women's Association

MD Candidate, College of Human Medicine, Michigan State University

ALYSSA HERRMANN, MD

Member, American Medical Women's Association, Women's Health Working Group

Resident in Obstetrics and Gynecology, Cleveland Clinic

DANIEL GOUGER, MD

Post-Doctoral Fellow, American Medical Student Association

Student Advocacy Can Facilitate Curricular Change

We owe it to our students to give them an education that will prepare them to care for all patients. With the new cultural shift around sex and gender in health and healthcare, it is important to engage our students in this shift. They can be influential at their respective institutions and beyond. They can be allies in the process and help shape the narrative. For example, when Dr. Templeton worked with the American Medical Association (AMA) to develop a policy statement regarding an "expanded definition of 'women's health'" that reflected sex and gender differences, it was student support that was instrumental in pushing the project through.

AMA Statement on Sex and Gender

In 2016, the AMA issued a new policy to "recognize the term 'women's health' as inclusive of all health conditions for which there is evidence that women's risks, presentations, and/or responses to treatments are different from those of men, and encourage that evidence-based information regarding the impact of sex and gender be incorporated into medical practice, research, and training."

Students Are Interested in Sex and Gender Based Medicine

When medical education does not integrate sex and gender based medicine into the curricula, it creates a gap in knowledge that ultimately affects patients' treatment. In a national survey of U.S. medical students conducted in 2015, Dr. Herrmann and her team found that 94% of respondents thought that medical education should teach about sex and gender differences. 59.7% had received some education about sex and gender differences, but of those, only 43% felt that their curriculum had given them a better understanding of sex and gender differences. Moreover, only 34% of students felt that they were prepared to manage these differences in a clinical setting. The data showed that students understood that sex and gender based health differences existed, but these topics were not presented in a clear or comprehensive manner. 96% of students reported that understanding sex and gender differences was important to their ability to care for patients. However, there was inconsistency in how well these differences were taught across several curriculum topics. Moreover, there was varying understanding between expressed knowledge and students' perceived amount of exposure within several subject areas, which indicates a lack of effectiveness in how SGBM topics are currently taught.

Students Lead in Developing a Course about Sexual Health

The sex and gender knowledge gap prompted medical students to lead the work toward the integration of this content into curricula, as was seen in many of the Summit's posters. The American Medical Student Association (AMSA) had been providing an online course about sexual health (developed by medical students) well before educators took up the initiative. This example demonstrates that students are interested and committed to paving their own path in medicine, even when educators are not yet ready.

Student Advocacy Led Three Medical Societies to Pass Resolutions that SGBM Be Included in Medical Education

Student advocacy led to a policy change both in Michigan and nationally. A group of medical students was inspired after hearing a talk about sex and gender based medicine at a regional AMWA meeting. They wanted to learn more about this topic and about why it wasn't included in medical curricula. Working with an experienced AMWA physician, they created a resolution and submitted it to the Michigan State Medical Society (MSMS), AMA, and American Academy of Family Physicians Student Congress to encourage the inclusion of sex and gender based medicine into medical education. The resolution was passed by all three organizations in 2017.

Students Need to Be Taught How to Adopt a Sex and Gender Lens

Students and faculty need to be taught how to adopt a sex and gender lens in education and clinical practice. This means that they need to learn to ask the right questions. Students can be proactive, for example, by asking faculty if there would be a difference in presentation or treatment if the patient was of the opposite sex. Students also need to learn how to look for evidence of differences by using research tools and other available resources. Ultimately, in order for sex and gender evidence to be integrated throughout health professions education, faculty will need to be more cognizant of the impact of sex and gender on health and disease, and learn more about sex and gender health via faculty development initiatives.

WORKSHOP A: INTEGRATING AND ASSESSING SEX AND GENDER IN CURRICULA

ALYSON J. MCGREGOR, MD, MA, FACEP

*Director, Division of Sex and Gender in Emergency Medicine
Director, SGEM Fellowship
Associate Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

BASMAH SAFDAR, MD, MSC, FACEP

*Director, Chest Pain Center
Associate Professor, Yale School of Medicine*

DANIEL GOUGER, MD

*Post-Doctoral Fellow
American Medical Student Association*

REBECCA BARRON, MD, MPH

*Assistant Professor, Emergency Medicine
Warren Alpert Medical School, Brown University*

ANGELA JARMAN, MD

*Clinical Instructor, Fellow,
Division of Sex and Gender in Emergency Medicine
Warren Alpert Medical School, Brown University*

TESS WISKEL, MD

*Resident in Emergency Medicine
Warren Alpert School of Medicine, Brown University*

The goal of Workshop A was to use an interdisciplinary and interprofessional cohort to:

- Analyze common clinical scenarios that highlight the sex and gender differences in presentation, diagnosis or management of illness,
- Utilize educational tools that promote active learning to teach sex and gender based medicine clinical pearls to diverse learner audiences,
- Determine highest yield instructional modalities to teach trainees in the health professions about the influence of sex and gender on clinical care.

Each group had a trained facilitator, a scribe, an interprofessional team, and access to the Association of American Medical Colleges Curriculum Inventory. They were given two clinical cases that were blind to both sex and gender. Each case had discussion points based on evidence that highlighted sex and gender differences in risk factors, epidemiology, patient presentation, diagnosis, disease pathogenesis, and clinical management. The groups selected a case, discussed the clinical presentation and the sex and gender nuances of the case, and identified a standardized delivery method of teaching and assessment. Groups were encouraged to use instructional methods that promoted active learning. They shared insights from their own experiences. The best delivery methods for instruction and assessment were then used to create SMART (specific, measurable, attainable, relevant, and time-bound) objectives.

Workshop A demonstrated an interprofessional model for developing a curriculum on sex and gender specific health. This template may be replicated at institutions across the country to weave sex and gender specific health education into the curriculum.

CURRICULAR INTEGRATION TIPS: MAKING WORKSHOP A WORK FOR YOU

JORIE COLBERT-GETZ, PHD, MS

Assistant Dean of Assessment and Evaluation; Faculty Appointment, Department of Internal Medicine, School of Medicine, University of Utah

Dr. Colbert-Getz led a group exercise through the first four steps of Kotter's 8 Step Model of Change. For all steps, it is essential to consider both needed actions and potential pitfalls.

Step 1: CREATE How will you establish a sense of urgency for integrating sex and gender evidence in the curriculum at your institution?

Group responses: This may include tying sex and gender education to accreditation standards, faculty performance metrics (e.g. promotion and tenure), or the mission of the university (e.g. population health or personalized health); working to add questions on sex and gender specific health to national boards questions; and engaging students (e.g. surveys, advocacy).

Step 2: BUILD What do you need to do to get "buy-in" from a powerful guiding coalition to integrate sex and gender evidence in the curriculum at your institution?

Group responses: This may include engaging institutional leaders, building interprofessional student groups, providing faculty incentives, supporting student champions, and partnering with the Institute for Healthcare Improvement (IHI).

Step 3: FORM What is your vision for integrating sex and gender evidence in the curriculum, and how does it relate to the mission of your institution?

Group responses: This may include forming interprofessional working groups, highlighting community engagement, and creating awards to recognize sex and gender faculty champions.

Step 4: ENLIST Different stakeholders will have different reactions. You will need to be prepared to consider who should be informed based on their institutional influence and interest.

Group responses: Attendees identified where different stakeholders fit into the enlistment matrix below. Patients could be on a task force to weigh in on the curriculum.

STAKEHOLDERS' INFORMATION AND MANAGEMENT NEEDS RE: SEX AND GENDER HEALTH

	Low Interest	High Interest
High Influence	Keep Satisfied ("Negative Nellies")	Manage Closely (administrative leaders, your coalition)
Low Influence	Keep Informed (preceptors)	Keep Informed + 2-way communication (your task force, students, faculty)

Understanding these principles will help ensure the success of the institutional change you want to implement.

A TRANS HEALTHCARE PANEL

MODERATOR:

KATHRYN BOND STOCKTON, PHD

*Dean of the School for Cultural and Social Transformation
Associate Vice President for Equity and Diversity
Distinguished Professor of English, University of Utah*

PANELISTS:

GABRIELLA BLANCHARD, BSW

*Interim Director, Coordinator of Education and Outreach
LGBT Resource Center, University of Utah*

NICOLE L. MIHALOPOULOS, MD, MPH

*Associate Professor, Pediatrics, Chief, Division of Adolescent Medicine
University of Utah School of Medicine*

TARA SHARIFAN, PSYD

Wasatch Front Wellness, Salt Lake City, Utah

HOLLIE HANCOCK, EDD, LCMHC

*Iron Mountain Counseling, Salt Lake City, Utah
Associate Professor, University of Utah*

RIXT ANNA CATHARINA LUIKENAAR, MD, FACOG

*Transgender and Lesbian Health Specialist, Rebirth ObGyn
Adjunct Instructor, Obstetrics and Gynecology, University of Utah*

PLANNING:

KATIE WARD, DNP, WHNP

*Clinical Associate Professor
University of Utah College of Nursing*

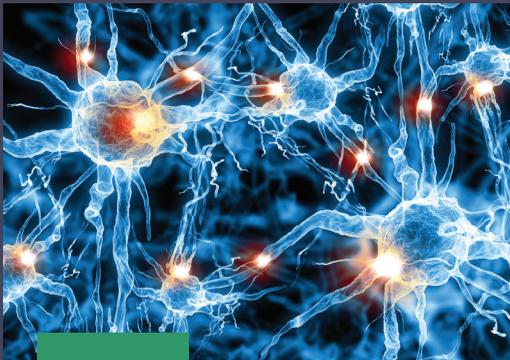
This panel explored the intertwining of trans health with healthcare education. It focused on gender affirming care, specifically on education surrounding transgender persons' healthcare needs and opportunities. An estimated 3% of the U.S. population are gender nonconforming or transgender.

Best practices for health professions educators:

- Integrate conversations about gender, race, reproductive rights, sexuality, and disability with students and patients.
- Rethink the curriculum in a more encompassing, holistic way.
- Reframe the case and ask, "what would you do if this patient was a transwoman?"
- Use self-reflection to get your learners to think about their own experiences.
- Teach students to listen and learn.
- Be humble and accept that you will never fully understand your patient's subjective experience.

Best practices for clinical care:

- Ask: What is your name? What is your chosen pronoun?
- Be respectful and treat the person first.
- Know how to take a history from a transgender person.
- Treat the anatomy that is present.
- Recognize that the trans patient is there for healthcare and it is not their job to train providers about transgender issues.



(A Trans Healthcare Panel Continued)

The question, “What do you call yourself?” can be complex. While some individuals might be able to give a succinct answer, others may not. Be aware that a person’s responses may change over time. Some individuals may still be in the process of defining themselves given that their starting framework is most likely to be the traditional sex and gender binary.

Students should be taught to be patient-centered. This means that they should accept all patients regardless of their background so that patients feel welcome. They should be humble and avoid gendered expectations. Even so, potential blunders may occur, such as using the wrong pronoun or forgetting a patient’s assigned sex at birth.

Diversity training is important, but it is more than just simple online training. Rather, training should be the beginning of a lifelong commitment to diversity principles. Structural barriers will continue to exist, but be proactive in seeking out education. New technology can also help overcome barriers. Electronic medical record platforms such as Epic can list the chosen name, chosen pronoun, and organ inventory. Train your staff to ask routine questions about the patient’s name and chosen pronouns. Vocabulary is important. Listen to your patients. Above all, learn from your patients.

BREAKFAST WITH THE EXPERTS

LAUREN WALTER, MD, FACEP

*Associate Professor, Emergency Medicine
University of Alabama at Birmingham School of Medicine
Faculty Branch President and Region 5 Governor
American Medical Women’s Association*

Breakfast with the Experts roundtables were led by expert group facilitators and provided opportunities for more in-depth discussions about various topics that arose during the Summit.

TOPICS AND FACILITATORS

1. HUMAN SEX TRAFFICKING (HST): Both a sex and gender bias exist within HST, but statistics should not dictate stereotypes (men can be victims and women can be traffickers). How does HST intersect with SGBH? Why are knowledge and awareness of HST important for the medical community?

LESLIE HALPERN, DDS, MD, PHD, MPH, FACS

*Professor, Section Head, Oral and Maxillofacial Surgery
School of Dentistry, University of Utah*

2. CURRICULAR INTEGRATION: ‘Bottom-up’ vs ‘Top-down’ strategies. Both are needed for curricular change. Where do we start with SGBH? Do we start with students, faculty, or both? What might that look like at your institution?

CYNTHIA JUMPER, MD, MPH

*Professor of Medicine, Vice President for Health Policy
Co-Director, Sex and Gender Health Education Curriculum
Laura W. Bush Institute for Women’s Health
Texas Tech University Health Sciences Center*

SIMON WILLIAMS, PHD

*Associate Dean for Academic Affairs
Texas Tech University Health Sciences Center*

3. STUDENT-LED EFFORTS: Students effect change. They want to learn SGBH. How can we enable and empower students to lead SGBH innovation? How can students be effective ambassadors in this cultural change?

DANIEL GOUGER, MD

*Education and Advocacy Fellow
American Medical Student Association*

4. NATURE VERSUS NURTURE: Is it ever possible to separate what is hard-wired into an organism by virtue of biological sex? What is the result of the impact of development, hormones, and environment on the phenotype? As Dr. Marianne Legato asks, “Can we ever truly separate sex and gender?”

MARY K. ROJEK, PHD

*Chair, Sex and Gender Health Collaborative
American Medical Women’s Association*

JANICE WERBINSKI, MD, FACOG, NCMP

*Clinical Associate Professor Emerita, Obstetrics and Gynecology
Western Michigan University
Homer Stryker MD School of Medicine*

(Breakfast With the Experts Continued)

5. RESEARCH BARRIERS AND OPPORTUNITIES: Sex as a biological variable (SABV) analysis is now required for NIH funded research. What issues is this presenting for researchers from your institution? How are they overcoming them? How do we encourage more widespread incorporation of SABV beyond NIH funded research? What sex specific research opportunities and collaborations might now be more readily available?

BASMAH SAFDAR, MD
Associate Professor, Emergency Medicine
Yale University

ESTHER CHOO, MD, MPH
Associate Professor, Emergency Medicine
Oregon Health & Science University

6. THE FUTURE CLINICIAN: Should the future of medicine include sex specific specialists? How does the routine incorporation of SGBM into medicine affect future clinical medical practice?

JULIANA KLING, MD, MPH
Assistant Professor of Medicine
Mayo Clinic Arizona

RESA E. LEWISS, MD
Professor of Emergency Medicine
Thomas Jefferson University Hospital

7. THE IMPACT OF GENDER: SABV is now an accepted practice. How do we now incorporate the variable of "gender" routinely into research, and subsequently into clinical practice?

SARAH GORDON, DDS, MS
Associate Dean for Academic Affairs
Professor of Oral Medicine
University of Washington School of Dentistry

JEANNETTE WOLFE, MD
Associate Professor of Emergency Medicine
University of Massachusetts Medical School, Baystate Campus

8. PATIENTS COME FIRST AND PATIENTS DESERVE IT: How do we spread "lay" sex and gender specific health awareness and knowledge to patients? Is this an important component in advancing SGBM? How does this intertwine with the public health realm?

JUSTINA TROTT, MD
Clinical Professor of Medicine
University of New Mexico

9. INTERPROFESSIONAL HURDLES: Integrating SGBM wholly will require collaboration in interprofessional education. What obstacles have you encountered and/or do you anticipate? What are some strategies to overcome these challenges? What successes have you attained? What are your ideas for integrated 'group efforts'?

ROBERT G. CARROLL, PHD
Associate Dean for Medical Student Education
Professor of Physiology
Brody School of Medicine, East Carolina University

DAWNDRRA SECHRIST, PHD, OTR
Assistant Dean, School of Health Professions
Texas Tech University Health Sciences Center

10. OTHER IMPORTANT VARIABLES? What about other biological/sociocultural variables (race/ethnicity, SES)? When and how do we start to take these into account in medicine? What are the anticipated challenges and barriers?

ANA MARIA LOPEZ, MD, MPH, FACP
Associate Vice President, Health Equity and Inclusion
Director, Cancer Health Equity
Huntsman Cancer Institute
Professor of Medicine
University of Utah School of Medicine

KATHLEEN DIGRE, MD
Professor of Neurology and Ophthalmology
Director, Center of Excellence in Women's Health
University of Utah Health Sciences

11. ADDRESSING LGBTQ HEALTH CARE DISPARITIES: The LGBTQ patient population is a marginalized community that suffers from several significant health disparities. Standard healthcare curricula and clinical care often do not adequately address this population's healthcare and personal needs. How do we break down these often perceived "awkward" barriers in education and clinical care that limit our ability to provide optimal care to ALL patients?

GABRIELLA BLANCHARD, BSW
Interim Director
Coordinator of Education & Outreach
LGBT Resource Center, University of Utah

BRUCE BECKER, MD, MPH
Professor, Emergency Medicine and
Behavioral and Social Science
Warren Alpert Medical School, Brown University

WORKSHOP B: LEADING AND SUSTAINING CURRICULAR CHANGE

CYNTHIA JUMPER, MD, MPH (WORKSHOP FACILITATOR)

*Professor of Medicine, Vice President of Health Policy
Co-Director, Sex and Gender Health Education
Curriculum, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

KIMBERLY J. TEMPLETON, MD, FAOA, FAMWA (PRESENTER)

*Professor of Orthopedic Surgery,
Director Orthopedic Residency Program
University of Kansas Medical Center
Past President, American Medical Women's Association*

ROBERT G. CARROLL, PHD (PRESENTER)

*Associate Dean for Medical Student Education
Professor of Physiology
Brody School of Medicine, East Carolina University*

MARJORIE JENKINS, MD, MEHP, FACP

*Professor of Medicine, Associate Dean for Women in Science
Chief Scientific Officer
Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

LESLIE HALPERN, DDS, MD, PHD, MPH, FACS

*Professor, Section Head, Oral and Maxillofacial Surgery
School of Dentistry, University of Utah*

MICHAEL GONYEAU, BS PHARM, PHARMD, MED, FNAP, FCCP, BCPS, RPH

*Clinical Professor and Interim Chair
Department of Pharmacy and Health Systems Sciences
Director of Undergraduate and Professional Programs
School of Pharmacy, Northeastern University*

Change Agents Are Needed for Institutional Change

Driving the integration of sex and gender into the institutional curriculum will require change agents. The five characteristics of being a change agent include: (1) Having a clear vision of what you want, (2) Being patient yet persistent, (3) Asking tough questions, (4) Being knowledgeable and leading by example, and (5) Building strong relationships based on trust (be trustworthy).

Assess Organizational Readiness for Change

It is important to assess organizational readiness for change. Is there interest? What is the impetus for change? Organizations may be taking a foray, they may be responsive and ready, or their state of readiness may be unstable. If you are taking a foray into change, then support and augment the forces that are aligned with your goals and that are already in motion. If your organization is ready for change, then you can engage with students' curiosity, the receptiveness of various stakeholders, and act with a sense of urgency and determination. Leaders should provide advice, guidance and mentoring. Organizations that are in an unstable state of readiness are characterized by confusion, anxiety, or crisis. In this case, the key is reframing. Reframing what you are doing about sex and gender enables others to view it as a part of the change process and as cultivating the seeds of creative thought. In all organizational environments, be prepared that leaders may not understand what sex and gender is and why it is important. Even after overcoming obstacles, one of the biggest challenges may be insufficient time within the curriculum to add new material. Every discipline feels under-represented within the curriculum. There may be a need to emphasize "Why this cause over others?"

STRATEGIES FOR CHANGE (Includes Workshop B Group Reports)

Consider strategies for obtaining support and avoiding pitfalls. There can be top-down (leadership) and bottom-up (grassroots with students, faculty, and patients) approaches to change. Strategies may apply to either the individual or the organizational level.

Attend to Your Language

Create a 1-2 minute elevator speech using key words

- Be clear about what you want changed and how you would like it to happen.
- Use school motivator buzz words, e.g., innovative, champions, generational expectations of learners.
- Create mantra statements, e.g., Our _____ will be better prepared to deliver excellent patient care if they understand the impact of sex and gender on health. There is now extensive evidence that SABV affects individual health outcomes.
- For your elevator pitch to the dean, use concrete examples that are specific to your field and center it on patients.

Manage expectations

- Change the expectations, e.g., It won't be too much work. We can just move toward integration and refinement.

(Workshop B: Strategies Continued)

Be clear about the meaning of sex and gender

- Make sure everyone understands the definitions of sex and gender.
- Start with the relationship between sex and gender to health outcomes.
- Remember “every patient has a sex and a gender.” Link these terms to patient-centered and individualized care.
- Reframe the issue not as a women’s health issue but as a sex and gender issue. Give examples of both men and women so that it doesn’t get lost in women’s health. This approach indicates broader relevance, i.e. applicable to all patients and not just a portion of the population.
- Focus on sex and gender as a tool to help students overcome bias.

Use a Win/Win Approach

Determine individual interests

- Focus on what is important to your dean, e.g., test scores, reputation, student placement.
- Think about how to make it win/win for academic directors. It can be added to professional portfolios.

Determine institutional interests

- Consider the long-term institutional interest, e.g., funders will demand, expect, require it. It will help to get students ready for IRB and journal submissions.
- Examine deficiencies from your last LCME site visit and how you might satisfy those deficiencies.
- Sex and gender will increase your ability to attract students to your program. It will demonstrate leadership and innovation.
- Think about how to make it win/win for professional schools. It might improve the professional profile of the school. It might bring in more alumni money.
- Consider whatever is important to your institution and build into that, e.g., interprofessional education, personalized medicine, community recognition, community engagement, endowed chairs, etc.
- Use an approach of enlightened self-interest with your leadership. Consider your organizational leaders’ challenges and how you might help them reduce those challenges. Present concepts in a way that showcases how implementing your suggested changes are in his/her best interest.

Consider strategies for obtaining support and avoiding pitfalls.

Know Your Institution

- Be familiar with the curricular map.
- Understand the governance structure of your college, who you’re talking to, and who the important players are.
- Talk to colleagues in the liberal arts to learn what students are learning.

Consider Student, Faculty and Community Needs

- From the ground up – What do learners expect (e.g., diversity)? What are the needs of the community, and what does it expect?
- Consider how you will engage in faculty development and how it will be paid for.
- Faculty members’ work effort may need to be adjusted to provide time to make changes.
- Share resources and put all Summit resources in one place.
- Combine a bottom-up (students, faculty) and top-down approach (course directors, curricular deans).

Conduct an Assessment

- Identify how sex and gender might already be in the curriculum.
- Do an assessment of what learners have acquired. That becomes part of your argument. First assess what your learners aren’t being taught and then show the gains in learning.
- Use the curricular map and see if students are learning what you think you are teaching.
- Link sex and gender to organizational outcomes.

Build Coalitions

- Know your audience's niche. Have 3-4 data points to show how the data are relevant to their area.
- Meet with your policy people and talk to them about outcomes.
- Be thoughtful and take your time to identify stakeholders and find allies.
- Get buy-in from partners. Use data that drives peer educator responses.
- Survey faculty and others to see who is already interested in this so that you become a group voice asking for change.
- Engage students so that they can do some of the work to implement change. They can participate in writing papers, and it will be good for their academic advancement.
- Engage patients from a bottom-up perspective (they are impacted by healthcare decisions) and top-down perspective (on task forces or committees for change).
- Create early champions or early adopters – either within your organization or at the national level.
- Reach out to those at other schools for support, resources, and examples of change.
- Reach out to accrediting bodies to explicitly integrate sex and gender into existing accreditation standards.
- Approach your specialty societies about a resolution regarding the importance of sex and gender in health education and practice.
- Have more than one champion at your institution.

Build coalitions with those inside and outside of your institution.

Integrate Sex and Gender into the Existing Structure

- Integrate sex and gender into existing competencies, e.g., cultural competency, social determinants, population health.
- Use Kern's model of curriculum development. Do a needs assessment, identify the objectives you need to cover based on national standards, create an implementation plan, identify resources, create an assessment plan and implement it.
- Thread it through precision medicine.
- Be a leader and make changes in your own teaching slides. Enlist your friends to make changes in their slides too. This is leading by example.

Prepare for Opposition

- Be prepared for rebuttals to what you're proposing.
- The values and politics of the community around you may be opposed to these efforts. Don't underestimate the value of coalitions and champions (both top-down and bottom-up).
- Identify all institutions that are already doing something re: sex and gender and use them as exemplars of what your organization should do.
- Use motivational interviewing skills so that you can consider how you'll respond to push back and how you can reframe the discussion with leadership, peers, and others.

Other

- Write sex and gender papers in the health professions. Most of the sex and gender literature is in medicine, so there is a literature gap in the other health professions.
- Capitalize on the enthusiasm of the Summit.

INTERSECTION OF SEX AND GENDER AND PUBLIC HEALTH

ESTHER CHOO, MD, MPH

*Associate Professor, Center for Policy and Research in the Department of Emergency Medicine
Oregon Health & Science University*

Sex and Gender Are Relevant to the Problem of Substance Abuse

Sex and gender are relevant at all stages of substance use disorders including: initiation of use, drug metabolism, continuation, dependence, dose escalation, addiction, access to and utilization of treatment, and relapse and success of treatment. However, the role of sex in substance abuse disorders is often underappreciated.

Alcohol: Women metabolize alcohol differently than men. They absorb more alcohol in their bloodstreams. They have a lower concentration of water in the body compared with men (55% vs. 68%) so that they have a higher concentration of alcohol in the body for the same amount of alcohol consumption. High alcohol use makes women more susceptible to injury and increases the risk of many diseases, including breast cancer. For men, alcohol has a feminizing effect. It increases breast size and causes testicular atrophy. It decreases testosterone levels and sperm motility, while increasing the numbers of abnormal sperm.

Opioids: Women are prescribed opioids more frequently than men. Estrogen enhances responsiveness to opioids. Women also have more brain receptors that respond to opioids, so it is more addictive in women, while men are more likely to overdose on opioids. However, the overdose rates in women have been increasing.

Heroin: Women are more responsive to methadone and other medically assisted treatments than men. However, women experience barriers to accessing treatment. In emergency rooms, women are more likely to be given a psychiatric diagnosis, and men are more likely to be given a referral for detox.

Violence: Violence and substance abuse are often intertwined. In women, there is a bidirectional relationship between the two. Women who use alcohol or other drugs are at increased risk of violence. At the same time, women who experience intimate partner violence are more likely to respond by substance abuse – potentially as a way to cope with their situations. Most treatment programs do not provide gender specific care, even though they should.



ANA MARIA LOPEZ, MD, MPH, FACP

*Former Associate Vice President Health Equity and Inclusion
University of Utah Health Sciences*

Former Director, Cancer Health Equity, Huntsman Cancer Institute

Former Professor of Medicine, University of Utah School of Medicine

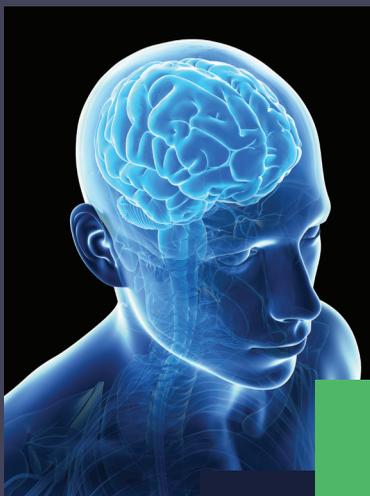
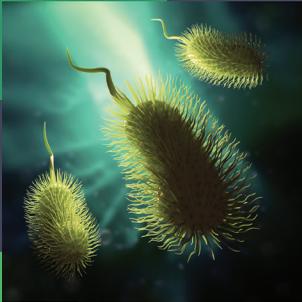
Current Vice Chair, Medical Oncology

Chief of Cancer Services, Jefferson Health New Jersey, Sidney Kimmel Cancer Center, NCI Designated

Sidney Kimmel Medical College at Thomas Jefferson University

Sex and Gender Have a Complex Role in Many Cancers

There are sex and gender differences in many cancers. Globally, both incidence and mortality rates are higher in men (53% and 56% respectively). In the U.S., there are sex disparities in the incidence, aggressiveness and prognosis for many cancers. Prognosis in childhood cancers is generally worse for boys.



(Intersection of Sex and Gender and Public Health Continued)

Sex and gender are intertwined through epigenetic processes. Many cancers are related to differences in environmental or occupational exposure. Lung cancer is one example of an illness with an epigenetic component in which a gendered behavior triggers an illness. Historically, men were more likely to be diagnosed with lung cancer due to their higher smoking rates, but as women's smoking rates increased, their rates of lung cancer also increased and uncovered a unique gender-specific risk. Gendered factors also increase the incidence of lung, renal, colon, and hepatocellular cancers in men. The mechanisms underlying sex and gender differences in melanoma include many complex factors, such as hormones, the immune system, skin physiology, and X and Y chromosome associated factors.

Sex hormones affect gene expression and modulate the immune response. Estrogen associated receptors are present throughout the body and may have a role in disease manifestation and treatment response. Estrogen is associated with an enhanced immune response, while androgens diminish the immune response. Because of this, there may be better response rates in women to some cancer treatments. On the other hand, women tend to experience more side effects to treatment.

There is much that we do not yet understand. Gender susceptibility may be due to cellular differences at an earlier developmental stage such as the effects of prenatal programming of sex hormones on genes. There are also sex based differences in factors that contribute to cancer before implantation, throughout prenatal development, during childhood, and in adulthood. A better understanding of sex and gender specific oncology may improve outcomes for both men and women.



SUSAN KENDIG, JD, MSN, WHNP-BC, FAANP

Director of Policy, National Association of Nurse Practitioners in Women's Health

Women's Health Integration Specialist

SSM Health, St. Mary's Hospital in St. Louis, Missouri

Ignoring Sex and Gender Factors Contributes to Medical Errors

Sex and gender are central to public health in relation to patient safety, access, and quality of care. When clinical decision making ignores sex and gender factors, it contributes to observed mortality and morbidity at the population level. Medical errors have been estimated to be the third biggest cause of death in the U.S. In fact, the most common reasons for medical malpractice claims are for errors in diagnosis, medications, and communications, each of which has a sex and gender component.

Ignoring sex and gender differences in treatment and diagnostics can contribute to poor outcomes. Women are approximately 60% more likely to have ambulatory visits due to the adverse effects of medical treatment. Women experience higher rates of catheter-associated urinary tract infections. Diabetic women are less likely to be monitored by their physicians, and they are less likely to monitor their own blood glucose levels. Traditional testing strategies for coronary artery disease may also be inadequate for women given that they tend to have dysfunction in the coronary microvasculature and endothelium.

Sex and gender influence medication usage in multiple ways which effects health outcomes. For example, women are more likely to be prescribed antibiotics which can lead to antibiotic resistance. Women over 65 are more than twice as likely to be prescribed a drug from a list of 11 drugs that should be avoided in older adults. Women are more likely to use one or more medications, and their medication use increases sharply with age. In contrast, men's medication use increases gradually. (This may be an indicator of inappropriate care in either sex). Women are less likely to adhere to diabetes and cardiovascular medications. These adherence problems may be related to women's increased likelihood of living in poverty, having inadequate insurance coverage, or having higher out of pocket costs. Women are less likely to be prescribed medications in accordance with clinical guidelines.

Differences in communication styles between patients and providers and between men and women can also lead to errors. They can affect content, decision making, communication effectiveness, and health outcomes. This situation can be exacerbated by the power differential between physicians and patients, especially when the sex of the provider and patient differ.

In summary, sex and gender are important variables to consider in patient safety events because they have the potential to affect patient outcomes, quality metrics, and risk management strategies.

CAPSTONE LECTURE: ACHIEVING SEX AND GENDER IPE REQUIRES TRIPLE A: AWARENESS, ACTION, AND ACCOUNTABILITY

LUCINDA MAINE, PHD, RPH

*Executive Vice President and Chief Executive Officer
American Association of Colleges of Pharmacy
President, Interprofessional Education Collaborative (IPEC)*

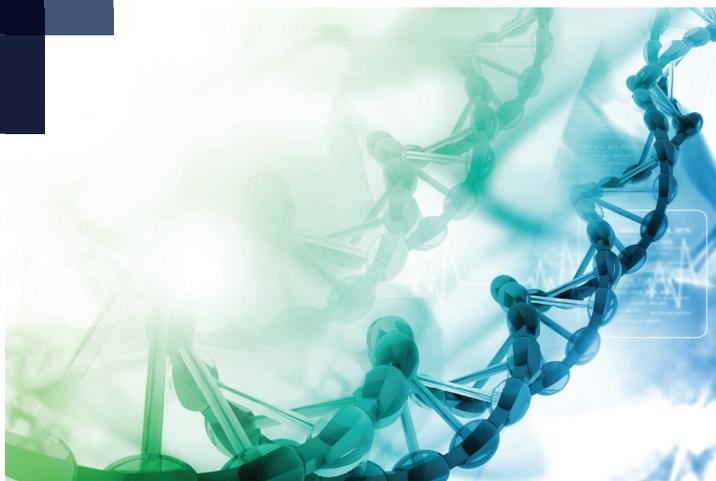
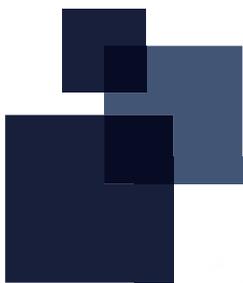
The capstone message for this Summit can be summarized in three words - awareness, action, and accountability.

It begins with awareness. Attending this historic Summit is a first step. When we go back to our institutions, we should keep asking the question, does sex and gender matter? Learn from the available resources shared here and from the 2015 Summit. Connect with your colleagues who attended this Summit.

The next step is to take action. Start with simple steps. Make an appointment to follow up with a colleague when you return. Either follow up with your colleagues who attended this Summit, or meet with your "inner circle" at home and tell them about this Summit. Help learners to understand that they may be missing something in their education, i.e., sex and gender health. Teach those who taught you. Crosswalk sex and gender health with other special populations such as pediatrics or geriatrics. Use the Gender Lens tool from the Gender and Health Collaborative Curriculum in Canada. Use resources from the 2015 Sex and Gender Medical Education Summit which include a roadmap, proceedings, and a toolkit. Share these and other resources with your colleagues. Advocate for change in curricular mapping software. Align sex and gender with your organization's mission and vision. When implementing change, always remember to measure what matters.

The final step is accountability. Incorporate the principles of sex and gender education into accreditation standards, exams and OSCEs (both local and national), curricular maps, student and other surveys, and course evaluations. Federal agencies also have an important role in ensuring that research is being performed on both male and female subjects and that the data are being analyzed with respect to sex and gender.

Above all, we should never underestimate the passion and power of our learners and our patients.



ADVANCING CURRICULA THROUGH A MULTIDISCIPLINARY LENS

MARJORIE JENKINS, MD, MEHP, FACP

*Professor of Medicine; Associate Dean for Women in Science
Chief Scientific Officer, Laura W. Bush Institute for Women's Health
Texas Tech University Health Sciences Center*

Every patient has the two basic human variables of sex and gender. In order to provide patient-centered care and improve patients' health, we need both research and multiprofessional education. Without the data, then science cannot find the answer. Yet research discoveries cannot save one patient's life unless they traverse the educational environment. And that is why we are here – to ensure that sex and gender health content is integrated into all health professions education.

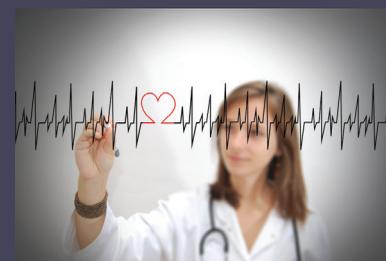
Terminology matters: say what you mean and mean what you say. We know that sex is a biological variable. There are biological differences affecting cellular receptors and drug metabolism. Gender is a social and cultural variable. These variables are intertwined. It may be easier to first implement the concept of sex as a biological variable into our curricula and then layer gender into it. This Summit provided an initial discussion of how to integrate both into our teaching.

“Gender is a social and cultural variable.”
– MARJORIE JENKINS, MD, MEHP, FACP

At this Summit, we learned about the what, the why, and the how. Importantly, the information shared was delivered with a solid foundation of educational theory, accreditation requirements, and interprofessional models. We learned what sex, gender, and sex and gender health are. We learned why it must be integrated into curricula. We also addressed how we can all get started. There are many books and online resources. The Laura W. Bush Institute for Women's Health at the Texas Tech University Health Sciences Center has created open access peer-reviewed slide sets, online modules, simulation cases and podcasts focusing on sex and gender health. Partners around the world are invited to contribute to these peer reviewed resources. Other resources are also available online through the Sex and Gender Health Collaborative, an initiative of the American Medical Women's Association.

We have learned that by working together, we can make a difference. The engagement, conversations, and feedback at this Summit have been incredible. We have created a true interprofessional community where we learn from and support each other.

This is your call to action. When you return to your institutions, be a change agent and spread the word. Continue to engage and build this network. Let's reconvene in 2020.



SEX AND GENDER HEALTH EDUCATION SUMMIT OUTCOMES

Short-term: (Time of program - 12 months)

- Pre- and Post-program knowledge, attitudes, and awareness survey.
- Distribute Summit Proceedings to national and international medical schools, professional organizations, SGBH stakeholder organizations, federal policy and funding agencies.
- Develop and distribute a sex and gender health education messaging toolkit.

Mid-term: (within 18-24 months)

- Expand utilization of available sex and gender educational resources and increase curricular integration.
- Publish a special section within the *Journal of Women's Health* that focuses on Sex and Gender Integration into Health Professions Curricula.
- Develop Multiprofessional Achievable Required Knowledge (MARK) Standards.

Long term: (within 3-5 years)

- Convene a follow-up Multiprofessional Sex and Gender Health Education Summit.
- Increase integration of sex and gender scientific content throughout U.S. medical, dental, nursing, pharmacy, and allied health curricula.

"It is very exciting that sex and gender now is such an important part of pedagogical training because it is health determinants that weave within the tapestry of interprofessional education."

- Leslie Halpern, DDS, MD, PhD, MPH, FACS

SUMMIT PARTICIPANTS



INTERNATIONAL

CANADA

MCGILL UNIVERSITY

Shahrokh Esfandiari, BSc, MSc, DMD, PhD
Associate Dean Undergraduate Program

MCMASTER UNIVERSITY

Anne Niec, MD
*Professor, Pediatrics Director
Gender and Health Initiative*

UNIVERSITÉ DE MONTRÉAL

Cara Tannenbaum, MD
*Scientific Director
Institute of Gender and Health
of the Canadian Institutes of Health Research
Professor, Faculties of Medicine and Pharmacy*

WESTERN UNIVERSITY

Joy MacDermid, PhD
Professor

PUERTO RICO

SAN JUAN BAUTISTA SCHOOL OF MEDICINE

Martha Garcia, MD, MSc
Virtual Education Specialist, Assistant Professor

UNIVERSIDAD CENTRAL DEL CARIBE

Alvaro Perez, MD, MS, MMEL
*Assistant Dean for Curriculum Development
Accreditation, and Licensing*

SOUTH KOREA

CENTER FOR GENDERED INNOVATIONS IN SCIENCE AND TECHNOLOGY RESEARCH (GISTER)

Hee-Young Paik, ScD
Director

SEOUL NATIONAL UNIVERSITY

BUNDANG HOSPITAL

Nayoung Kim, MD
Professor

USA

ALABAMA

UNIVERSITY OF ALABAMA, BIRMINGHAM

Lauren Walter, MD
Associate Professor of Emergency Medicine

UNIVERSITY OF SOUTH ALABAMA

Bridget Moore, DNP, MBA, MSN, BSN
Assistant Professor



ARIZONA

FRONTIER NURSING UNIVERSITY

Tanya Belcheff, MSN, CNM
Regional Clinical Faculty

HONORHEALTH MEDICAL GROUP

Janie Goodall, DO, PsyD

MAYO CLINIC ARIZONA

Juliana Kling, MD, MPH
Assistant Professor of Medicine



CALIFORNIA

CEDARS-SINAI MEDICAL CENTER

Michael Elliott, BA
Research Admin Coordinator

Christine Pacheco, MD
*Clinical Research Fellow, Barbra Streisand Women's Heart Center
Cedars-Sinai Heart Institute*

Panteha Rezaeian, MD
*Clinical and Research Fellow, Women's Heart Diseases and Health Center
Cedars-Sinai Heart Institute*

CHAPMAN UNIVERSITY SCHOOL OF PHARMACY

Kathleen Hill Besinque, PharmD, MSEd
Professor

Souhiela Fawaz, PhD
Assistant Professor

Sharon Xavier, PharmD
Assistant Professor

STANFORD UNIVERSITY

Marcia Stefanick, PhD
*Professor of Medicine
Director, Stanford WSDM Center
(Women & Sex Differences in Medicine)*

(California Continued)

**UNIVERSITY OF CALIFORNIA
IRVINE SCHOOL OF MEDICINE**

Charles Vega, MD
Associate Dean, Diversity and Inclusion

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Rachel Brook, MD
Assistant Clinical Professor of Medicine

Brandon Ito, MD, MPH
Health Sciences Assistant Professor of Psychiatry

Arielle Sommer, MD
Clinical Instructor

**UNIVERSITY OF CALIFORNIA
LOS ANGELES SCHOOL OF DENTISTRY**

Edmond Hewlett, DDS
Associate Dean for Outreach and Diversity

**UNIVERSITY OF CALIFORNIA
SAN FRANCISCO SCHOOL OF DENTISTRY**

Michael Le, DDS, PhD
Assistant Clinical Professor

**UNIVERSITY OF CALIFORNIA
SAN FRANCISCO SCHOOL OF PHARMACY**

Marcus Ferrone, PharmD
Associate Professor

UNIVERSITY OF SOUTHERN CALIFORNIA

Karrie Kingsley, MA, OTD
Associate Professor of Clinical Occupational Therapy

**UNIVERSITY OF SOUTHERN CALIFORNIA
HERMAN OSTROW SCHOOL OF DENTISTRY**

Kim Austin, DDS
*Assistant Dean of Diversity, Inclusion & Access
Associate Professor of Clinical Dentistry
Director, Pre-Doctoral Periodontics*

**UNIVERSITY OF THE PACIFIC ARTHUR A. DUGONI
SCHOOL OF DENTISTRY**

Nan Tori Xiao, PhD, DDS
Assistant Professor

WEST COAST UNIVERSITY

Sarah McBane, PharmD
Professor and Chair, Department of Pharmacy Practice



COLORADO

**UNIVERSITY OF COLORADO
SCHOOL OF MEDICINE**

Anne Libby, PhD
Professor and Vice Chair for Academic Affairs



CONNECTICUT

FRANK H. NETTER MD SCHOOL OF MEDICINE

Rebecca Zucconi, MD, FACOG
Assistant Professor of Medical Sciences

QUINNIPIAC-NETTER SCHOOL OF MEDICINE

A.C. Demidont, DO
Assistant Clinical Professor of Medicine

**UNIVERSITY OF CONNECTICUT
SCHOOL OF DENTAL MEDICINE**

Aniuska Tobin, DDS, MDS
Assistant Professor In-Residence

**UNIVERSITY OF CONNECTICUT
SCHOOL OF PHARMACY**

Marissa Salvo, PharmD
Associate Clinical Professor

YALE SCHOOL OF MEDICINE

Basma Safdar, MD
Associate Professor, Department of Emergency Medicine

Njeri Thande, MD
Assistant Professor of Medicine

YALE UNIVERSITY

Kaveri Curlin
BS Candidate (2019)



DISTRICT OF COLUMBIA

GEORGETOWN UNIVERSITY

Eva Fried, DNP, WHNP
Midwifery and Women's Health Nurse Practitioner Programs

**THE GEORGE WASHINGTON UNIVERSITY
SCHOOL OF MEDICINE & HEALTH SCIENCES**

Mandi Pratt-Chapman, MA
Associate Center Director, Patient-Centered Initiatives & Health Equity



FLORIDA

**FLORIDA INTERNATIONAL UNIVERSITY
HERBERT WERTHEIM COLLEGE OF MEDICINE**

Sarah Stumbar, MD, MPH
Assistant Professor, Family Medicine

**FLORIDA STATE UNIVERSITY
COLLEGE OF MEDICINE**

Suzanne Harrison, MD, FAAFP, FAMWA
*Professor of Family Medicine and Rural Health
Director of Clinical Programs*

Karen Myers, APRN, FNP-BC
Assistant Professor

LARKIN UNIVERSITY COLLEGE OF PHARMACY

Nicholas Chow, PharmD
Assistant Professor

NOVA SOUTHEASTERN UNIVERSITY

Elizabeth Gray, MD, MBA
Director of Clinical Skills and Simulation

**UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF MEDICINE**

Denise Kay, PhD, MA
Assistant Professor, Medical Education

UNIVERSITY OF SOUTH FLORIDA

Jamie Cooper, PhD
Assistant Director, Medicine and Gender Scholarly Concentration



GEORGIA

**THE DENTAL COLLEGE OF GEORGIA
AT AUGUSTA UNIVERSITY**

Nancy Young, DMD
Assistant Professor

EMORY SCHOOL OF MEDICINE

Anika Backster, MD, MSCR
Assistant Professor of Emergency Medicine



ILLINOIS

LOYOLA UNIVERSITY CHICAGO

Sandi Tenfelde, PhD, MSN, BSN
Associate Professor, Women's Health Nurse Practitioner

**MIDWESTERN UNIVERSITY CHICAGO
COLLEGE OF PHARMACY**

Brooke Griffin, PharmD, BCACP
Professor of Pharmacy Practice

Kathleen Vest, PharmD
Associate Professor of Pharmacy Practice

RUSH MEDICAL COLLEGE

Neelum Aggarwal, MD
Associate Professor

Jay Behel, PhD
Associate Dean for Student Affairs

Annabelle Volgman, MD, FACC, FAHA
Professor of Medicine

**SOUTHERN ILLINOIS UNIVERSITY
SCHOOL OF DENTAL MEDICINE**

Nathalia Garcia, DDS, MS
Associate Professor

**SOUTHERN ILLINOIS UNIVERSITY
SCHOOL OF MEDICINE**

Karen Reynolds, MS, RN
Curriculum Development Specialist

**UNIVERSITY OF ILLINOIS AT CHICAGO
COLLEGE OF DENTISTRY**

Linda Kaste, DDS, MS, PhD
Professor

**UNIVERSITY OF ILLINOIS AT CHICAGO
COLLEGE OF MEDICINE**

Memoona Hasnain, MD, MHPE, PhD
Professor and Associate Department Head

Abbas Hyderi, MD, MPH
*Associate Dean for Curriculum
Associate Professor of Clinical Family Medicine*

**UNIVERSITY OF ILLINOIS AT CHICAGO
COLLEGE OF NURSING**

Charles Yingling, DNP
Clinical Assistant Professor - Family Nurse Practitioner

**UNIVERSITY OF ILLINOIS AT CHICAGO
SCHOOL OF PUBLIC HEALTH**

Susan Altfeld, PhD, MA
Associate Dean for Academic Affairs

**UNIVERSITY OF ILLINOIS AT URBANA – CHAMPAIGN
COLLEGE OF MEDICINE**

Grace Kim, MS
MD/PhD Candidate



INDIANA

INDIANA UNIVERSITY SCHOOL OF MEDICINE

Ashleigh Bush, BSK
MD Candidate

Nimisha Kumar, BS
MD Candidate

Theresa Rohr-Kirchgraber, MD, FACP, FAMWA
*Executive Director
National Center of Excellence in Women's Health*

(Indiana Continued)

MANCHESTER UNIVERSITY

Teresa Beam, PhD
Chair and Professor of Pharmaceutical Sciences



KANSAS

UNIVERSITY OF KANSAS MEDICAL CENTER

Kimberly J. Templeton, MD, FAOA, FAMWA
*Professor of Orthopedic Surgery
Director, Orthopedic Residency Program*



KENTUCKY

UNIVERSITY OF KENTUCKY

Carla Rodriguez, DMD
Assistant Professor



MAINE

UNIVERSITY OF NEW ENGLAND COLLEGE OF OSTEOPATHIC MEDICINE

John Kazilionis, DO, MSMEdL, FACOPF, FMGS
Clinical Assistant Professor, Department of Geriatrics



MARYLAND

UNIVERSITY OF MARYLAND SCHOOL OF PHARMACY

Caitlin Leach, PharmD
Clinical Pharmacist



MASSACHUSETTS

BOSTON COLLEGE CONNELL SCHOOL OF NURSING

Allyssa L. Harris, RN, PhD, WHNP-BC
Associate Professor, WHNP Program Director

HARVARD MEDICAL SCHOOL

Deborah Bartz, MD, MPH
Assistant Professor

MASSACHUSETTS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Gayle McGinty, MSN, RN
Assistant Professor of Nursing

Mollie Ruben, PhD
Assistant Professor of Psychology

NORTHEASTERN UNIVERSITY SCHOOL OF PHARMACY

Michael Gonyeau, BS Pharm, PharmD,
MED, FNAP, FCCP, BCPS, RPH
*Clinical Professor and Interim Chair
Department of Pharmacy and Health Systems Sciences
Director of Undergraduate and Professional Programs*

TUFTS UNIVERSITY SCHOOL OF DENTAL MEDICINE

Y. Natalie Jeong, DMD, MA
Assistant Professor

TUFTS UNIVERSITY SCHOOL OF MEDICINE

Joyce Sackey, MD
*Dean for Multicultural Affairs & Global Health
Associate Professor of Medicine*

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

Yasmin Carter, PhD
Assistant Professor

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL - BAYSTATE CAMPUS

Jeannette Wolfe, MD
Associate Professor of Emergency Medicine



MICHIGAN

MICHIGAN STATE UNIVERSITY COLLEGE OF HUMAN MEDICINE

Anne Drolet, MS, BS
*MD Candidate
President, Medical Student Division
American Medical Women's Association*

MICHIGAN STATE UNIVERSITY COLLEGE OF OSTEOPATHIC MEDICINE

Mary C. Jordan DO, FACOG
Assistant Clinical Professor

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Charisse Loder, MD, MSc
Clinical Lecturer, Department of Obstetrics and Gynecology

(Michigan Continued)

**UNIVERSITY OF MICHIGAN
SCHOOL OF DENTISTRY**

Marita Inglehart, Dr. phil. habil.
Professor

Carol Anne Murdoch-Kinch, DDS, PhD
*Dr. Walter H. Swartz Professor of Integrated Special Care Dentistry
Associate Dean for Academic Affairs*

**UNIVERSITY OF MICHIGAN
SCHOOL OF NURSING**

Carol J. Boyd, PhD, MSN, RN
Professor

**WAYNE STATE UNIVERSITY
COLLEGE OF NURSING**

Laurie M. Lauzon Clabo, PhD, RN
Dean and Professor

**WAYNE STATE UNIVERSITY, EUGENE APPLEBAUM
COLLEGE OF PHARMACY AND HEALTH SCIENCES**

Mary Beth O'Connell, PharmD
Professor

**WAYNE STATE UNIVERSITY
SCHOOL OF MEDICINE**

Erin Miller, MD, FAAP
Chief Resident, Internal Medicine/Pediatrics Program

**WESTERN MICHIGAN UNIVERSITY
HOMER STRYKER MD SCHOOL OF MEDICINE**

Janice Werbinski, MD, FACOG, NCMP
*Clinical Associate Professor Emerita, Obstetrics and Gynecology
Executive Director, Sex and Gender Health Collaborative*



MINNESOTA

MAYO CLINIC

Virginia M. Miller, PhD
Director Women's Health Research Center

ST. CATHERINE UNIVERSITY

Laurie Sieve, DNP, MSN, BSN, BA, AD
Associate Professor of Nursing

**UNIVERSITY OF MINNESOTA
COLLEGE OF PHARMACY**

Amy Pittenger, PharmD, MS, PhD
*Director of Interprofessional Education and Pharmacy Learning
Collaborative
Associate Professor, Department of Pharmaceutical Care
and Health Systems*

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

Amanda LaLonde, PT, DPT
*Assistant Professor, Director of Clinical Education
Division of Physical Therapy, Department of Rehabilitation Medicine*



MISSISSIPPI

UNIVERSITY OF MISSISSIPPI

Marie Barnard, PhD
Assistant Professor of Pharmacy Administration



MISSOURI

GOLDFARB SCHOOL OF NURSING

Julie Crawford, MSN, RN
Instructor

UNIVERSITY OF MISSOURI-KANSAS CITY

Erica Ottis, PharmD, BCPS
Clinical Associate Professor

Mallory Loggins
BHS Candidate



NEBRASKA

**UNIVERSITY OF NEBRASKA MEDICAL CENTER
COLLEGE OF MEDICINE**

Regan Taylor, MD, FACP
Assistant Professor in General Internal Medicine

**UNIVERSITY OF NEBRASKA MEDICAL CENTER
COLLEGE OF NURSING**

Jennifer Cera, DNP, APRN-NP, WHNP-BC
Instructor



NEW JERSEY

RUTGERS SCHOOL OF DENTAL MEDICINE

Herminio Perez, DMD, MBA
Director of Student Affairs, Diversity and Inclusion

RUTGERS UNIVERSITY SCHOOL OF NURSING

Carol Carofiglio, MSN, PhD, RN
Clinical Assistant Professor

Rubab Qureshi, MD, PhD
Associate Professor



NEW MEXICO

BURRELL COLLEGE OF OSTEOPATHIC MEDICINE

Robert Ketchum, PhD
Senior Associate Dean for Academic Affairs

UNIVERSITY OF NEW MEXICO

Justina Trott, MD
Clinical Professor of Medicine



NEW YORK

COLUMBIA UNIVERSITY SCHOOL OF NURSING

Tonda Hughes, PhD, RN
*Hendrik H. Bendixen Professor of International Nursing
Professor of Nursing (in Psychiatry)
Director, Global Health Research*

HOFSTRA NORTHWELL SCHOOL OF MEDICINE

Nathan Ha, PhD
Medical Student

LONG ISLAND UNIVERSITY/BROOKLYN HARRIET ROTHKOPF HEILBRUNN SCHOOL OF NURSING

Cindy Broholm, MS, MPH, FNP-BC
Assistant Professor of Nursing

NEW YORK MEDICAL COLLEGE

Joanna Pessolano, MD
*Assistant Professor Obstetrics and Gynecology
Assistant Clerkship Director 3rd and 4th Year Clerkships*

NEW YORK UNIVERSITY COLLEGE OF DENTISTRY

Jessica Hilburg, DDS
Associate Dean for Clinical Affairs

Stefanie Russell, DDS, MPH, PhD
Associate Clinical Professor

STONY BROOK UNIVERSITY SCHOOL OF NURSING

Justin Waryold, DNP, RN, NP-C
Clinical Assistant Professor

UNIVERSITY OF ROCHESTER SCHOOL OF NURSING

Luis Rosario-McCabe, DNP, RN, WHNP-BC, CNL
Assistant Professor of Clinical Nursing



NORTH CAROLINA

BRODY SCHOOL OF MEDICINE AT EAST CAROLINA UNIVERSITY

Robert G. Carroll, PhD
*Associate Dean for Medical Student Education
Professor of Physiology*

DUKE UNIVERSITY SCHOOL OF NURSING

Alison Edie, DNP
Assistant Professor

UNIVERSITY OF NORTH CAROLINA COMMUNITY-BASED PHARMACY RESIDENCY

Kelsea Gallegos, PharmD
PGY1 Resident



OHIO

CHAMBERLAIN UNIVERSITY COLLEGE OF NURSING

Folorunso Ladipo, DNP, MSN, RN
Course Coordinator and Instructor

CLEVELAND CLINIC

Alyssa Herrmann, MD
Resident Physician, Department of Obstetrics and Gynecology

OHIO NORTHERN UNIVERSITY

Natalie DiPietro Mager, PharmD, MPH
Associate Professor of Pharmacy Practice

UNIVERSITY OF CINCINNATI

Aaron Marshall, PhD
Assistant Professor



OREGON

OREGON HEALTH & SCIENCE UNIVERSITY SCHOOL OF MEDICINE

Esther Choo, MD, MPH
Associate Professor of Emergency Medicine

Keenan Yanit, MD
Assistant Professor of Obstetrics and Gynecology

OREGON HEALTH & SCIENCE UNIVERSITY SCHOOL OF NURSING

Karla Reinhart, DNP, FNP-C
Clinical Assistant Professor

OREGON STATE UNIVERSITY

Natalea Braden-Suchy, PharmD
Clinical Assistant Professor

PACIFIC UNIVERSITY

Marina Suzuki, PharmD, PhD
Assistant Professor



PENNSYLVANIA

ARCADIA UNIVERSITY

Susan Tomlinson, DPT
Associate Professor and Director of Clinical Education

DREXEL UNIVERSITY COLLEGE OF MEDICINE

Mark Woodland, MS, MD
*Chair, Department of Obstetrics and Gynecology – Tower Health
Clinical Professor of Obstetrics and Gynecology*

JEFFERSON COLLEGE OF PHARMACY (PHILADELPHIA UNIVERSITY AND THOMAS JEFFERSON UNIVERSITY)

Bhavik Shah, PharmD
Associate Professor of Pharmacy Practice

JEFFERSON COLLEGE OF REHABILITATION SCIENCES (PHILADELPHIA UNIVERSITY AND THOMAS JEFFERSON UNIVERSITY)

Karla Bell, DPT, OCS, GCS
Assistant Professor, Director of Clinical Education

PENNSYLVANIA STATE UNIVERSITY COLLEGE OF MEDICINE

Rachel Casas, MD, EdM
Assistant Professor of Medicine

Patricia Silveyra, PhD, MSc
*Associate Professor of Pediatrics
Biochemistry and Molecular Biology and Humanities*

SIDNEY KIMMEL MEDICAL COLLEGE (PHILADELPHIA UNIVERSITY AND THOMAS JEFFERSON UNIVERSITY)

Nethra Ankam, MD
Associate Professor

Resa E. Lewis, MD
Professor of Emergency Medicine

UNIVERSITY OF PENNSYLVANIA PERELMAN SCHOOL OF MEDICINE

Constance Dine, MD, MSHP
Assistant Professor of Medicine

UNIVERSITY OF PENNSYLVANIA SCHOOL OF NURSING

Dalmacio Flores, PhD, ACRN
Postdoctoral Fellow

UNIVERSITY OF PITTSBURGH SCHOOL OF DENTAL MEDICINE

Joanne Prasad, DDS
Associate Professor

UNIVERSITY OF PITTSBURGH SCHOOL OF PHARMACY

Lorin Grieve, PharmD
Instructor



RHODE ISLAND

WARREN ALPERT MEDICAL SCHOOL BROWN UNIVERSITY

Rebecca Barron, MD, MPH
Assistant Professor of Emergency Medicine

Bruce Becker, MD, MPH
Professor, Emergency Medicine and Behavioral and Social Science

Cassandra Duarte, BA
Medical Student

Angela Jarman, MD, MPH
Clinical Instructor, Fellow, Sex and Gender in Emergency Medicine

Tracy Madsen, MD, ScM
Assistant Professor of Emergency Medicine

Alyson J. McGregor, MD, MA, FACEP
*Director, Division of Sex and Gender in Emergency Medicine (SGEM)
Director, SGEM Fellowship; Associate Professor of Emergency Medicine*

Alice-Lee Vestner, MD
*Assistant Professor of Psychiatry, Clinician Educator, Curriculum Director
Adult Psychiatry Residency Staff Psychiatrist, Providence VAMC*

Tess Wiskel, MD
Emergency Medicine Resident, PGY4



SOUTH CAROLINA

MEDICAL COLLEGE OF GEORGIA AT AUGUSTA UNIVERSITY

Lara Stepleman, PhD
Professor of Psychiatry and Health Behavior

MEDICAL UNIVERSITY OF SOUTH CAROLINA

Debra Hazen-Martin, PhD
Associate Dean for Curriculum



TENNESSEE

BELMONT UNIVERSITY

Edgar Diaz-Cruz, PhD
Associate Professor of Pharmacology

EAST TENNESSEE STATE UNIVERSITY GATTON COLLEGE OF PHARMACY

Larissa Bossaer, PharmD, BCPS
Associate Professor of Pharmacy Practice

EAST TENNESSEE STATE UNIVERSITY QUILLEN COLLEGE OF MEDICINE

Patricia Amadio, MD
Assistant Professor of Medicine

MEHARRY MEDICAL COLLEGE

Sakina Eltom, PhD, MS
Professor, Interim Executive Director, Center for Women's Health Research

Digna Forbes, MD
Associate Dean for Medical Education

SOUTH COLLEGE SCHOOL OF PHARMACY

Wendy Gabriel, PharmD
Assistant Professor of Pharmacy Practice

VANDERBILT UNIVERSITY SCHOOL OF MEDICINE

Mary Romano, MD, MPH
Assistant Professor

VANDERBILT UNIVERSITY SCHOOL OF NURSING

Anna Richmond, MSN, DNP
Assistant Professor



TEXAS

MD ANDERSON CANCER CENTER

Irene Tami-Maury, PhD
Assistant Professor

TEXAS A&M COLLEGE OF DENTISTRY

Kathy Svoboda, PhD
Regents Professor

TEXAS A&M UNIVERSITY RANGEL COLLEGE OF PHARMACY

Simi Gunaseelan, PhD
Instructional Associate Professor

TEXAS TECH UNIVERSITY

Katharine Jenkins, BS

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

Linda Gilmore, MA
Program Manager for the Sex and Gender Specific Health Program

Marjorie Jenkins, MD, MEHP, FACP
*Professor of Medicine, Associate Dean for Women in Science
Chief Scientific Officer, Laura W. Bush Institute for Women's Health*

Cynthia Jumper, MD, MPH
*Professor of Medicine, Vice President of Health Policy
Co-Director, Sex and Gender Health Education Curriculum
Laura W. Bush Institute for Women's Health*

Dawndra Sechrist, PhD, OTR
Assistant Dean School of Health Professions

Connie Tyne, MS
Executive Director, Laura W. Bush Institute for Women's Health

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, EL PASO

Tanis Hogg, PhD
Assistant Dean for Medical Education

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER SCHOOL OF PHARMACY

Rebecca Sleeper, PharmD, FCCP, FASCP, BCPS
Professor and Associate Dean of Curriculum

Simon Williams, PhD
Associate Dean for Academic Affairs

UNIVERSITY OF TEXAS AT AUSTIN DELL MEDICAL SCHOOL

Susan Cox, MD, MA
*Executive Vice Dean for Academics
Chair, Department of Medical Education*

John Luk, MD
Assistant Dean for Interprofessional Integration

UNIVERSITY OF TEXAS AT TYLER BEN & MAYTEE FISCH COLLEGE OF PHARMACY

Elizabeth Cook, PharmD
Clinical Assistant Professor



UTAH

INTERMOUNTAIN HEALTHCARE

Kristi Nelson, MBA, RN
Clinical Program Manager

IRON MOUNTAIN COUNSELING

Hollie Hancock, MS
Clinical Mental Health Counselor

UNIVERSITY OF UTAH

Gabriella Blanchard, BSW
Coordinator of Education & Outreach, LGBT Resource Center

Claudia Geist, PhD
Assistant Professor

Jessica Houf, MA
Doctoral Candidate, Department of Communications

Kathryn Bond Stockton, PhD, MA, MDiv, BA
*Associate Vice President for Equity and Diversity
Dean of the School for Cultural and Social Transformation,
Distinguished Professor of English*

UNIVERSITY OF UTAH COLLEGE OF HEALTH

Pamela Mathy, PhD, CCC-SLP
*Director, Clinical Education, Director
Speech-Language-Hearing Clinic
Department of Communication Sciences and Disorders*

Lorie Richards, PhD
Chair, Division of Occupational Therapy and Associate Professor

UNIVERSITY OF UTAH COLLEGE OF NURSING

Deanna Kepka, PhD, MPH
Assistant Professor

Sara E. Simonsen, PhD, CNM, MSPH
*Associate Professor, Annette Poulson Cumming
Presidential Chair in Women's and Reproductive Health*

Lisa Taylor-Swanson, PhD, MAcOM, EAMP
Assistant Professor

Auri Wann, BSN, RN
WHNP Student

Katherine Ward, DNP, WHNP
Clinical Associate Professor

UNIVERSITY OF UTAH COLLEGE OF PHARMACY

Karen Gunning, PharmD
Professor (Clinical) of Pharmacotherapy

Heidi Pigott, PharmD
PGY2 Ambulatory Care Pharmacy Resident

UNIVERSITY OF UTAH HEALTH SCIENCES

Joan Gregory, MLS
*Librarian and Associate Director for Access and Inclusion
Eccles Health Sciences Library*

Chloe Nguyen, MS
Communications Specialist, Public Affairs

UNIVERSITY OF UTAH SCHOOL OF DENTISTRY

Jeri Bullock, DDS
Assistant Professor

Rena D'Souza, DDS, MS, PhD
Professor and Assistant VP for Academic Affairs

Lea Erickson, DDS, MSPH
Associate Dean, Education and Student Life

Leslie Halpern, MD, DDS, PhD, MPH
Professor, Section Head, Oral and Maxillofacial Surgery

Wyatt Hume, DDS, PhD
*Dean, School of Dentistry and
Associate Vice President for Academic Affairs and Education*

Marjean Nielsen, MPP
Associate Director of Education

UNIVERSITY OF UTAH SCHOOL OF MEDICINE

Amanda Bakian, PhD
Research Assistant Professor, Psychiatry

Gretchen Case, PhD
Associate Professor, Division of Medical Ethics and Humanities

Jorie Colbert-Getz, PhD, MS
*Assistant Dean of Assessment and Evaluation
Faculty Appointment, Department of Internal Medicine*

Molly Conroy, MD
Chief, Division of General Internal Medicine

Kathleen Digre, MD
*Professor of Neurology and Ophthalmology
Director, Center of Excellence in Women's Health*

Serena Fang, BA
MD Candidate

Timothy Farrell, MD, AGSF
*Associate Professor of Medicine
Director, University of Utah Health Interprofessional
Education Program*

Laura Gardner, MS
MD Candidate

Heidi Hanson, PhD
Assistant Professor, Surgery Research

Kelly Hoerger, BA
MD Candidate

Bushra Hussein, BA
MD Candidate

Leanne Johnston, BS
Program Coordinator, Center of Excellence in Women's Health

Harjit Kaur, BS
MD Candidate

Ana Maria Lopez, MD, MPH, FACP
*Associate Vice President Health Equity and Inclusion
Director, Cancer Health Equity, Huntsman Cancer Institute
Professor of Internal Medicine*

Rixt Luikenaar, MD, FACOG
*Transgender and Lesbian Health Specialist, Rebirth ObGyn
Adjunct Instructor, Department of Obstetrics and Gynecology*

Nicole Mihalopoulos, MD, MPH
Associate Professor, Pediatrics

Margaux Miller, MS
MD Candidate

Kyl Myers, PhD, MS
*Director, Family Planning Elevated
Department of Obstetrics and Gynecology*

Ryan Ring, AS
*Program Coordinator, Family Planning
Department of Obstetrics and Gynecology*

Joanne Rolls, MPAS
Physician Assistant, Assistant Professor (Clinical)

Leen Samha
MD Candidate

Jessica Sanders, PhD, MSPH
*Director of Family Planning Research
Department of Obstetrics and Gynecology*

Melody Scheefer, MD
Plastic Surgery Resident

Susan Schulman, MAT, CCR
Independent Consultant

Gillian Stanfield, AB, PhD
Associate Professor of Human Genetics

Katey Steele, BA
MD Candidate

Michael Varner, MD
Professor, Department of Obstetrics and Gynecology

WASATCH FRONT WELLNESS, PLLC

Tara Sharifan, PsyD
Psychologist



WASHINGTON

MADIGAN ARMY MEDICAL CENTER

Amanda Tashjian, MD
Resident Physician

UNIVERSITY OF WASHINGTON
SCHOOL OF DENTISTRY

Sara Gordon, DDS, MS
*Associate Dean for Academic Affairs
Professor of Oral Medicine*

UNIVERSITY OF WASHINGTON
SCHOOL OF MEDICINE

Melanie Lang, DDS, MD
Clinical Assistant Professor

WASHINGTON STATE UNIVERSITY
COLLEGE OF PHARMACY

Cheyenne Newsome, PharmD
Clinical Assistant Professor



WISCONSIN

MEDICAL COLLEGE OF WISCONSIN

Abir El-Alfy, PhD
Associate Professor

Sandra Pfister, PhD
Associate Professor

UNIVERSITY OF WISCONSIN - MADISON
SCHOOL OF NURSING

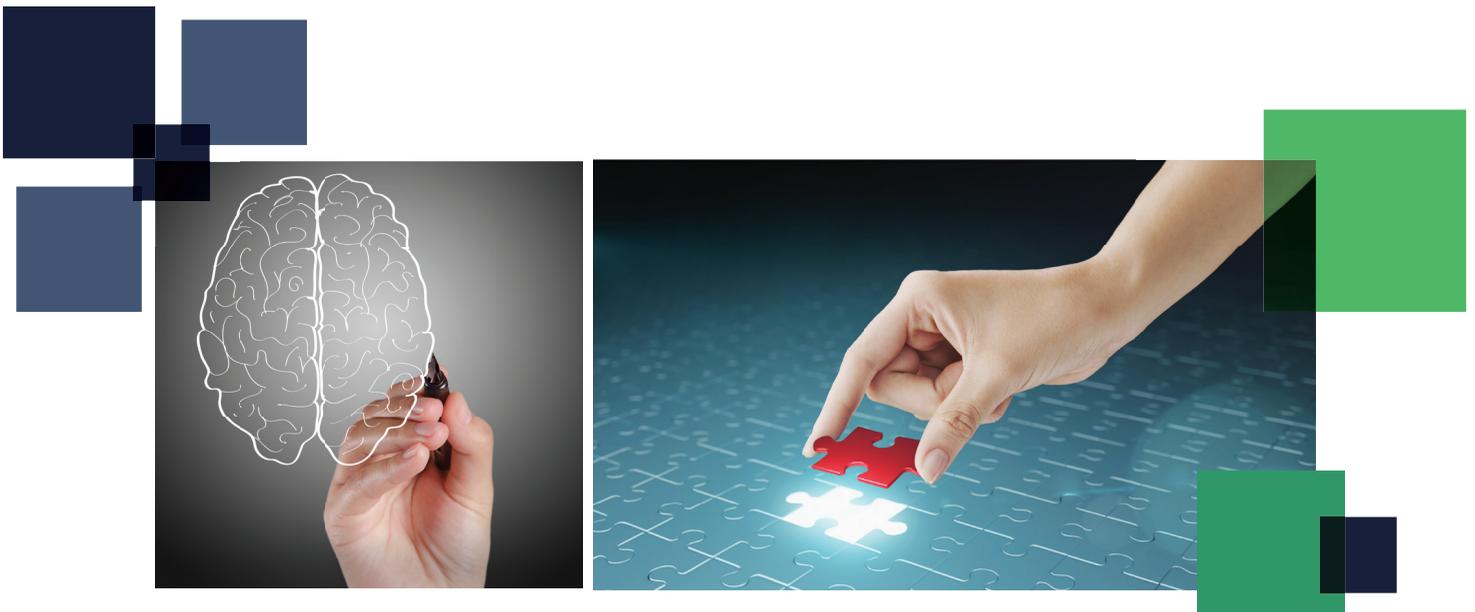
Danny Willis, DNS
Associate Dean for Academic Affairs

UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

Christine Kolehmainen, MD, MS
*Internist and Women's Health Medical Director
William S. Middleton Madison Veterans Hospital
Director, Advanced Fellowship in
Women's Health VA National Coordinating Center
Clinical Adjunct Assistant Professor*

Caroline Paul, MD
Assistant Professor

Klint Peebles, MD
Assistant Professor





FEDERAL

DEPARTMENT OF HEALTH AND HUMAN SERVICES OFFICE OF THE ASSISTANT SECRETARY OF HEALTH

Susana Calderon, MPH
*Regional Women's Health Coordinator
Acting Minority Health Consultant Region VIII*

DEPARTMENT OF HEALTH AND HUMAN SERVICES OFFICE OF RESEARCH ON WOMEN'S HEALTH (ORWH)

Gretchen Beckler, MD, MPH
Medical Officer

DEPARTMENT OF HEALTH AND HUMAN SERVICES OFFICE OF WOMEN'S HEALTH

Cheryl Thompson, MS
Health Scientist Administrator

Stephanie Alexander, MS
Health Scientist Administrator



ASSOCIATIONS & OTHER ORGANIZATIONS

AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY

Lucinda Maine, PhD, RPh
*Executive Vice President and Chief Executive Officer
President, Interprofessional Education Collaborative (IPEC)*

AMERICAN MEDICAL STUDENT ASSOCIATION

Daniel Gouger, MD
Education and Advocacy Fellow

AMERICAN MEDICAL WOMEN'S ASSOCIATION

Connie Newman, MD
President

Eliza Lo Chin, MD, MPH
Executive Director

Mary K. Rojek, PhD
Chair, Sex and Gender Health Collaborative

AMERICAN PHYSICAL THERAPY ASSOCIATION

Gina Musolino, PT, MEd, EdD
*President, Executive Board
Professor & Director of Clinical Education, University of South Florida, School of Physical Therapy and Rehabilitation Sciences*

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Diana Lautenberger, MA
Director, Women in Medicine & Science, Diversity & Inclusion

BOSTON SCIENTIFIC

Elise Schebler Roberts, EdD
Senior Project Specialist

NATIONAL ASSOCIATION OF NURSE PRACTITIONERS IN WOMEN'S HEALTH

Gay Johnson, BA
Chief Executive Officer

Susan Kendig, JD, MSN, WHNP-BC, FAANP
Director of Policy



APPENDIX

SEX & GENDER SPECIFIC HEALTH RESOURCES



MEDICAL EDUCATION CURRICULAR MATERIALS

CHARITÉ UNIVERSITY HOSPITAL

Institute of Gender in Medicine

eGender Curriculum

egender.charite.de/en/index.php

CIHR INSTITUTE OF GENDER AND HEALTH

Gender, Sex, & Health Research Case Book

cihr-irsc.gc.ca/e/44082.html

DREXEL UNIVERSITY COLLEGE OF MEDICINE

Gender and Ethnic Medicine Project

webcampus.drexelmed.edu/gem/default.htm

SEX AND GENDER HEALTH COLLABORATIVE

amwa-doc.org/sghc

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, LAURA W. BUSH INSTITUTE FOR WOMEN'S HEALTH

Sex and Gender Specific Health Curriculum

sexandgenderhealth.org

CONTINUING MEDICAL EDUCATION COURSES

NIH ORWH THE SCIENCE OF SEX AND GENDER IN HEALTH

sexandgendercourse.od.nih.gov

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, LAURA W. BUSH INSTITUTE FOR WOMEN'S HEALTH

Y Does X Make A Difference CME Series

laurabushinstitute.org

RESEARCH INTEGRATION TOOLS

CIHR INSTITUTE OF GENDER AND HEALTH

Sex and Gender in Biomedical Research

cihr-irsc-igh-isfh.ca

Webinars

cihr-irsc.gc.ca/e/8673.html

KAROLINSKA INSTITUTET CENTRE FOR GENDER MEDICINE

ki.se/en/staff/gendered-innovation-alliance-0

NATIONAL INSTITUTES OF HEALTH – OFFICE OF RESEARCH ON WOMEN'S HEALTH

orwh.od.nih.gov/

STANFORD UNIVERSITY/EUROPEAN COMMISSION/US NATIONAL SCIENCE FOUNDATION

Gendered Innovations in Science, Health & Medicine, Engineering, and Environment

genderedinnovations.stanford.edu

LITERATURE SEARCH & DATABASE RESOURCES

CHARITÉ UNIVERSITY HOSPITAL

Institute of Gender in Medicine

GenderMed Database

gendermeddb.charite.de/?site=home&lang=eng

TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER, LAURA W. BUSH INSTITUTE FOR WOMEN'S HEALTH

Pubmed Search Engine Tool

sexandgenderhealth.com

CONSUMER AND PROFESSIONAL RESOURCES

EUROPEAN SOCIETY OF GENDER HEALTH AND MEDICINE

gendermedicine.org

NATIONAL INSTITUTES OF HEALTH – OFFICE OF RESEARCH ON WOMEN'S HEALTH

orwh.od.nih.gov

SEX AND GENDER HEALTH COLLABORATIVE

amwa-doc.org/sghc

SOCIETY FOR WOMEN'S HEALTH RESEARCH

swhr.org

TEXTBOOKS

Sex and the Brain: A Reader. Einstein G. Cambridge: MIT Press; 2007.

Principles of Gender-Specific Medicine, 3rd ed. Legato M. London: Elsevier; 2017.

Sex and Gender in Acute Care Medicine. McGregor, AJ, Choo, EK, Becker, BM. Cambridge: Cambridge University Press; 2016.

Sex and Gender Aspects in Clinical Medicine. Oertelt-Prigione S, Regitz-Zagrosek V, editors. London: Springer-Verlag; 2012.

Sex and Gender Differences in Pharmacology. Regitz-Zagrosek V. editor. Heidelberg: Springer-Verlag; 2012.

Handbook of Clinical Gender Medicine. Schenk-Gustafsson K, DeCola PR, Pfaff DW, Pisetsky DS, editors. Basel: Karger; 2012.

JOURNALS

BIOLOGY OF SEX DIFFERENCES

Official Journal of the Organization for the Study of Sex Differences

bsd-journal.com

CLINICAL THERAPEUTICS, ANNUAL THEMED ISSUE ON WOMEN'S HEALTH/GENDER MEDICINE

clinicaltherapeutics.com

JOURNAL OF WOMEN'S HEALTH

liebertpub.com/jwh

ORGANIZATIONS

THE FOUNDATION FOR GENDER-SPECIFIC MEDICINE, INC

gendermed.org

INTERNATIONAL SOCIETY OF GENDER MEDICINE

isogem.eu

ORGANIZATION FOR THE STUDY OF SEX DIFFERENCES

ossdweb.org

SEX AND GENDER HEALTH COLLABORATIVE

amwa-doc.org/sghc

SOCIETY FOR WOMEN'S HEALTH RESEARCH

swhr.org

SCIENTIFIC POSTERS

***BARRON R, JARMAN A, MADSEN T, MCGREGOR, AJ**

Impact of a Novel Sex and Gender Based Medicine Preclinical Elective

DIPIETRO MAGER N

An Interdisciplinary Course in Women's Health Issues

GALLEGOS, K, CONKLIN J, LENELL A, RHODES LA, MARCINIAK MW

Examining Community-Based Pharmacist Perceptions on the Care of Transgender Patients

GARCIA N

Gender and Faculty Research Productivity in Health Professional Schools

HERATY EE, VEST KM, GRIFFIN BL

Incorporation of Gender and/or Sex Related Differences in PharmD Curriculum: Phase 2

***HERRMANN A, ROJEK MK, JENKINS M**

Giving Voice to the Data: An Analysis of Free Text Comments from the Sex and Gender Based Medicine National Student Survey 2015

HOCHLEITENER M, BADER A

How to Implement Gender Medicine (GM) into Clinical Practice: We Start by Teaching It

INGLEHART MR, D'SILVA E, MURDOCH-KINCH CA

First Year Dental Students' Interest in Learning About the Role of Sex, Gender, and Sexual Orientation for Patients' Oral Health from 2000-2017

KASABYAN A

Mental Health of Transgender Veterans: Patient Perspectives on the Psychiatric Care Provided at the Local Department of Veterans Affairs Medical Center

KASTE LM, HALPERN LR, RUSSELL SV

An Interprofessional and Sex/Gender Health Education Timeline: A Call for Action

KIM N, PARK SM, KIM HB, KIM JW, YOON HI, YOON SH, SUH JW, PARK HY, YANG EJ, CHUNG JW, LEE J, LEE JC, LEE SM, LEE HS, PAIK HY

Experience of Sex and Gender Medical Education in Postgraduate Course in South Korea

KUMAR N, BUSH A, ROHR-KIRCHGRABER T

Creating a Sex and Gender Curriculum in Medical Education

LEACH CE, LAYSON-WOLF C

Student Pharmacists' Perception of Transgender Health Management

***MACDERMID JC**

Physical Therapy Student Reflections on Sex and Gender Issues in Clinical Practice Placements

MARSHALL A, BERGELSON I, JAIN A, VAMOSI B, MAMMOLENTI C, FINNERTY E, CAMMOCK H, BARENGO J, TAYLOR M, TAN R

Implementation of a Student-Designed Workshop on Sex and Gender Medicine

MARSHALL AM, BOWLES D, PICKLE S

Transgender Medicine Curriculum: Integration into an Organ-system Based Preclinical Program

MCGREGOR AJ, BEAUCHAMP GA, CHOO EK, SAFDAR B, ROSENAU AM, GREENBURG MR

Incorporating Sex and Gender into Culturally Competent Simulation in Medical Education

PFISTER SL, MALMSTEN C, TWINING S, SUELZER E, HURLBUT P

Using Self-Directed Learning (SDL) to Teach Sex and Gender Medicine to Second-Year Medical (M2) Students

PFISTER SL, HINES AM, RABBITT AL, WAGNER AJ, WEBB TP

Student and Faculty Perception of Women's Health, Sex and Gender Medicine Curriculum at the Medical College of Wisconsin (MCW)

QURESHI R, ZHA P

Assessing Lesbian, Gay, Bisexual and Transgender (LGBT) Health Competencies Among Graduate Nurses

ROOD CJ, FRANCKEK-ROA KM, AND HALPERN L

Improving Interprofessional Medical Education on Sex and Gender Identity in Human Trafficking Risk and Resiliency

SALVO MC

Teaching Affirmative and Inclusive Care for the LGBTQ Community in a Pharmacy Communications Course

STUMBAR SE, LUPI C, BROWN D

Use of Sexual Health Objectives and Curriculum Management Structures to Enhance a Longitudinal Sexual Health Curriculum for Medical Students

TASHJIAN A

The Ethical Implications of the Medical Community's Failure to Differentiate Sex and Gender-Based Medicine from Women's Health

***THANDE N, WANG M, CURLIN K, DALVIE N, MAZURE CM**

Influence of Sex and Gender on Health: Is This Taught to Physicians and Is There Room for This Content in Medical School Curricula?

WALTER L

Sex and Gender-Based Acute Care and Emergency Medicine: A Novel Didactic Elective for Trainees

ZELIN N, HASTINGS C, BEAULIEU-JONES BR, SCOTT C, RODRIQUEZ-VILLA A, DUARTE C, CALAHAN C, ADAMI AJ

Sexual and Gender Minority Health in Medical Curricula in New England: Medical Student Comfort, Competence, Knowledge, and Perception of Curricula

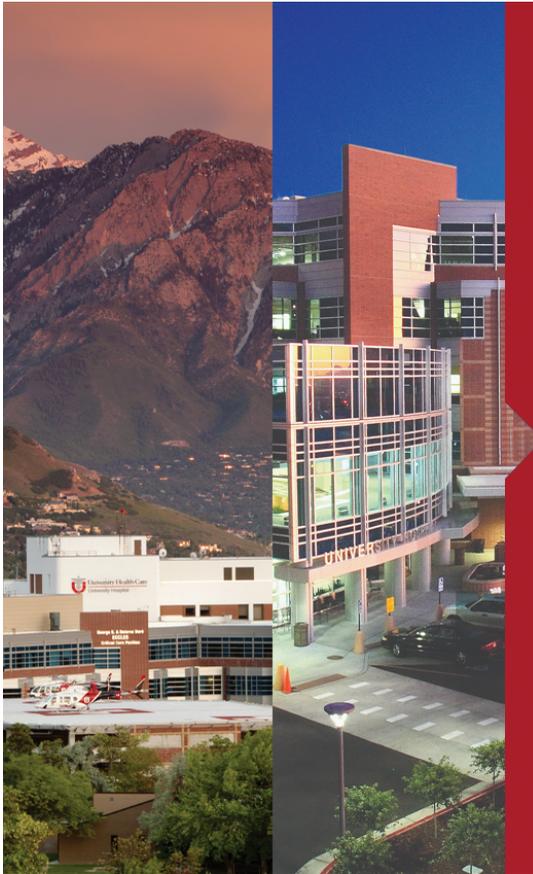
***selected for oral presentation**

SGHE TEACHING TOOL:

SEX AND GENDER BIAS QUESTIONS ACROSS DOMAINS

BASIC SCIENCE
Were laboratory animals both male and female?
PHARMACOLOGY
Were both men and women included in clinical trials?
Were data analyzed based on sex differences?
Are there pharmacokinetic or pharmacodynamic differences between men and women for a specific treatment?
ANATOMY AND PHYSIOLOGY
Are there functional or size differences in bodies, organs, or vessels that matter?
PATHOPHYSIOLOGY
Do disease presentation, management, and/or outcome differ between men and women?
EPIDEMIOLOGY
Are there sex differences in prevalence?
Are prevalence rates being measured correctly, or is misdiagnosis leading to bias?
PUBLIC HEALTH
Are there differences in access based on sex, gender, or other factors?
Is there gender bias in public health policies?
How do policies and practices contribute to sex and gender based health disparities?
SOCIAL FACTORS
Which gendered aspects of patients' lives result in illness or affect their ability to care for themselves, e.g. economic, environmental, safety, interpersonal, sociocultural?
REHABILITATION
Do patients need different therapies or modifications in therapies based on sex and gender?
Do they recover differently based on sex and gender?
PATIENTS
How do patients' biases lead them to avoid seeking care or to misinterpret their symptoms?
How are sex and gender interrelated in problems of addiction, victimization and violence?
DIAGNOSTIC TESTS
Is a test equally valid in men and women?
HEALTHCARE PROVIDERS
How would you interpret this case differently if the patient was the opposite sex?
How do provider biases lead to misinterpretation of patients' symptoms?
How does bias lead to misdiagnoses and unnecessary hospitalizations?
How does ignoring sex and gender contribute to medical errors or iatrogenesis?

Reprinted from *JOURNAL OF WOMEN'S HEALTH*, published by Mary Ann Liebert, Inc.; New Rochelle, NY.



The Center of Excellence in Women's Health at the University of Utah promotes women's health across their lifespan through clinical care, women's health research, education and community outreach.

<http://uofuhealth.utah.edu/coe-womens-health/>

Ph: 801-585-9971

Proud to sponsor the Sex and Gender Health Education Summit

Women's Health Answers From Women's Health Experts

The Office of Women's Health coordinates and integrates women's health clinical care, research and education programs at Mayo Clinic. So whatever information you need about women's health, we have the answer.

866-869-4069

womenshealth@mayo.edu



The Laura W. Bush Institute for Women's Health is proud to sponsor the second

Sex & Gender Health Education Summit

Integrating Sex and Gender Differences into curriculum has never been easier!

Our Interactive Modules and Slide Library are OPEN ACCESS. Created by an inter-professional team of professors, students and experts from across the US and feature case-based interactive modules, didactic slide sets, with an expanded reference library;

VISIT WWW.SEXANDGENDERHEALTH.ORG

Laura W. Bush
INSTITUTE for WOMEN'S HEALTH
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

 | SEX & GENDER SPECIFIC
HEALTH
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER.



AMWA
Celebrating 100 Years

American Medical Women's Association
Empowering Women & Improving Health Care Since 1915

**XX SEX and GENDER
HEALTH COLLABORATIVE**
Fostering a Sex and Gender Approach to Health Education and Practice

Join the Sex and Gender Health Collaborative

AMWA promotes the expanded definition of women's health to be inclusive of all health conditions for which there is evidence that women's risks, presentations, and/or responses to treatment are different from those of men.

AMWA co-founded the **Sex and Gender Health Collaborative** to address the health of both women and men in education, research, and practice. Understanding these issues will lead to better outcomes for both men and women.

Join the **Sex and Gender Health Collaborative** so that together we can achieve this goal. amwa-doc.org/sghc



TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER™



Founded in 2013, the University of Utah School of Dentistry is committed to caring for the underserved. As the School matures, we strive to attain gender equity within the profession. We are committed to providing an exceptional experience for our patients and our students as we improve the oral health of our community. For more information, visit dentistry.utah.edu.



NPWH

NURSE PRACTITIONERS
IN WOMEN'S HEALTH

Caring for Women

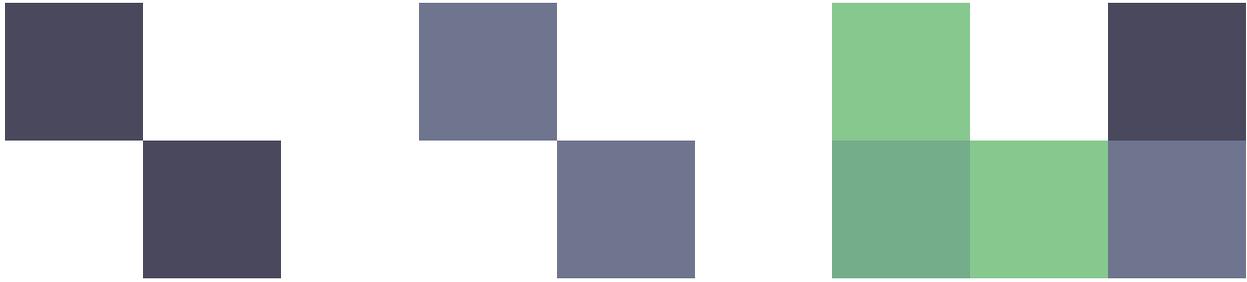


Sex and Gender
in Emergency Medicine



FLORIDA STATE UNIVERSITY
COLLEGE OF MEDICINE

healthy
women



THANK YOU TO OUR SPONSORS



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER.



BROWN UNIVERSITY, Division of Sex and Gender in Emergency Medicine | FLORIDA STATE UNIVERSITY COLLEGE OF MEDICINE | HEALTHYWOMEN

Please plan to join us for the 2020 Summit



Sex and Gender
HEALTH EDUCATION SUMMIT
Innovative and Sustainable Curriculum Integration



September 11-13, 2020 | Thomas Jefferson University | Philadelphia, PA

