

# **NOT Imposter Syndrome!**

Reshma Jagsi, MD, DPhil

Newman Family Professor

Deputy Chair, Department of Radiation Oncology

Director, Center for Bioethics and Social Sciences in Medicine

University of Michigan

# Imposter Syndrome

## Treat the Cause, Not the Symptom

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**Samyukta Mullangi,**  
**MD, MBA**

Division of Healthcare  
Delivery Science and  
Innovation, Weill  
Cornell Medicine,  
New York, New York;  
and Department of  
Medicine, New  
York-Presbyterian  
Hospital, New York.

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**Reshma Jagsi, MD,**  
**DPhil**

Department of  
Radiation Oncology,  
Michigan Medicine,  
Ann Arbor; Center for  
Bioethics and Social  
Sciences in Medicine,  
University of Michigan,  
Ann Arbor; and  
Institute for Healthcare  
Policy and Innovation,  
University of Michigan,  
Ann Arbor.

**A few weeks ago,** a Twitter account called @womeninmedchat facilitated an online conversation about imposter syndrome in medicine. *Imposter syndrome* is a psychological term that refers to a pattern of behavior wherein people (even those with adequate external evidence of success) doubt their abilities and have a persistent fear of being exposed as a fraud.

# Imposter Syndrome

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[I]mposter syndrome might be viewed less as a personal challenge affecting a few than a systemic problem...with real, detrimental consequences to those affected.

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Imposter syndrome is but a symptom; inequity is the disease. Promoting equitable representation of women and minorities among the leaders of medicine through concerted systems-level intervention is the most appropriate treatment.

# Imposter Syndrome: What Is It and What Impact Does It Have?

SHARE    

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- Meeting Materials
- Contact

## A Virtual Workshop on Impostor Syndrome: What Is It and What Impact Does It Have?

Thursday, May 19  
1 - 4 p.m. (EST)

What is impostor syndrome? Is it a syndrome or a phenomenon? Who is most likely to experience it? Are women more likely to experience it than men? Does it improve with age? Is it an issue best addressed through mentorship and coaching of individuals or by changing policies and cultural norms at an organizational level? What is driving this increasing public interest in, and scholarly study of, impostor

AGENDA 

### DATE

May 19, 2022  
1:00PM - 4:00PM ET

### PROJECT

The Committee on Women in  
Science, Engineering, and  
Medicine

# Outline

- Nature and causes of gender inequity in academic medicine
  - Not simply due to a slow pipeline
  - Rather, reflects the differential impact of
    - Unconscious biases
    - Gendered expectations of society
    - Harassment
- Evidence-based interventions

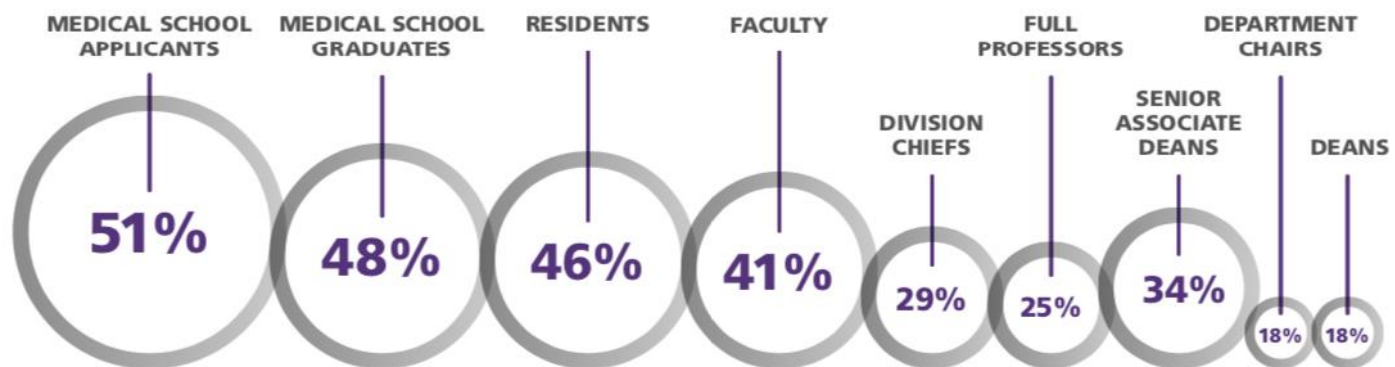
# Women in Leadership

THE STATE OF WOMEN IN ACADEMIC MEDICINE, 2018-2019

## Executive Summary



### REPRESENTATION OF WOMEN IN ACADEMIC MEDICINE 2018-2019



SPECIAL ARTICLE

# The “Gender Gap” in Authorship of Academic Medical Literature — A 35-Year Perspective

Reshma Jagsi, M.D., D.Phil., Elizabeth A. Guancial, M.D.,  
Cynthia Cooper Worobey, M.D., Lori E. Henault, M.P.H., Yuchiao Chang, Ph.D.,  
Rebecca Starr, M.B.A., M.S.W., Nancy J. Tarbell, M.D.,  
and Elaine M. Hylek, M.D., M.P.H.

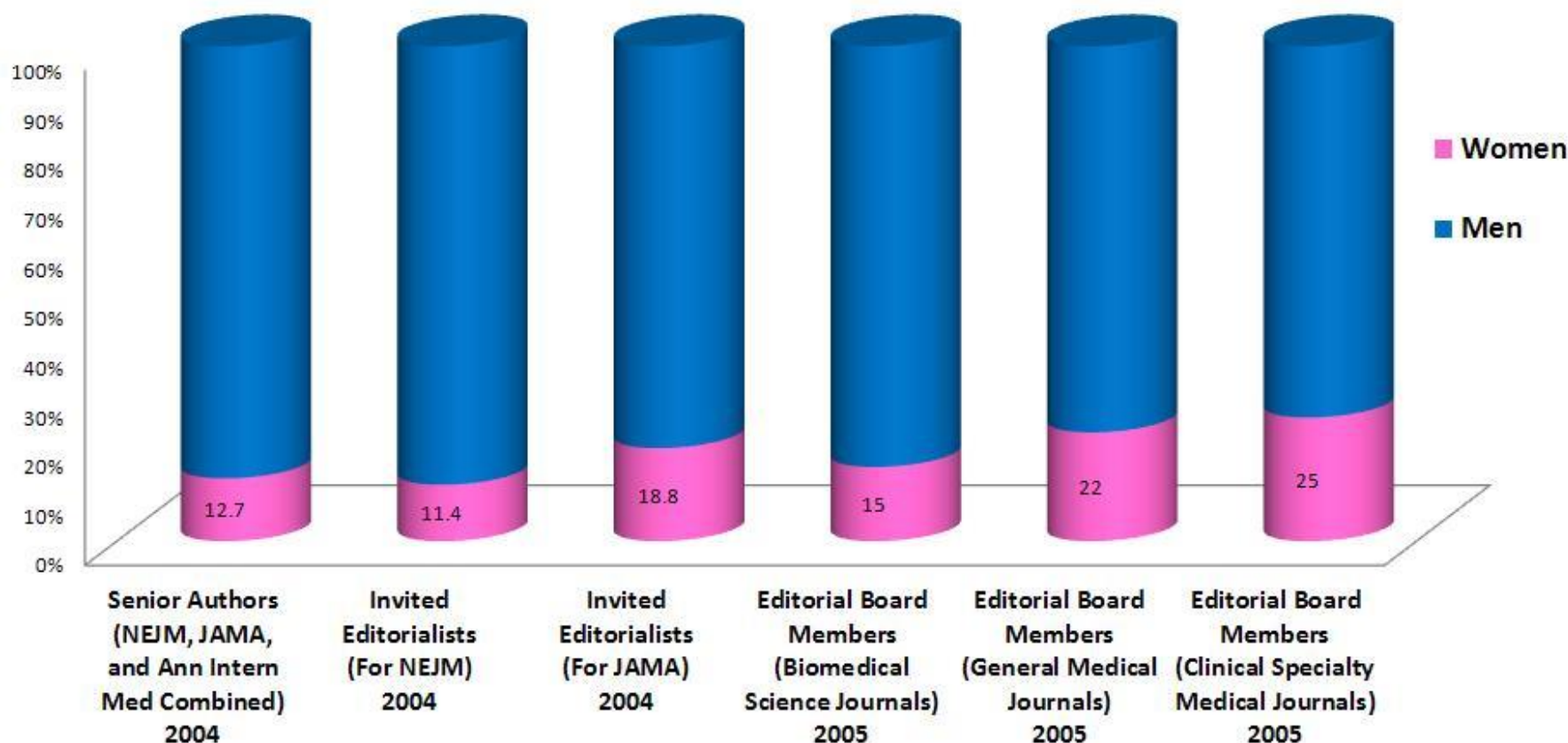
## RESEARCH LETTER

*Arch Intern Med.* 2008;168(5):544-548.

## The Representation of Women on the Editorial Boards of Major Medical Journals: A 35-Year Perspective

Reshma Jagsi, MD, DPhil  
Nancy J. Tarbell, MD

Lori E. Henault, MPH  
Yuchiao Chang, PhD  
Elaine M. Hylek, MD, MPH

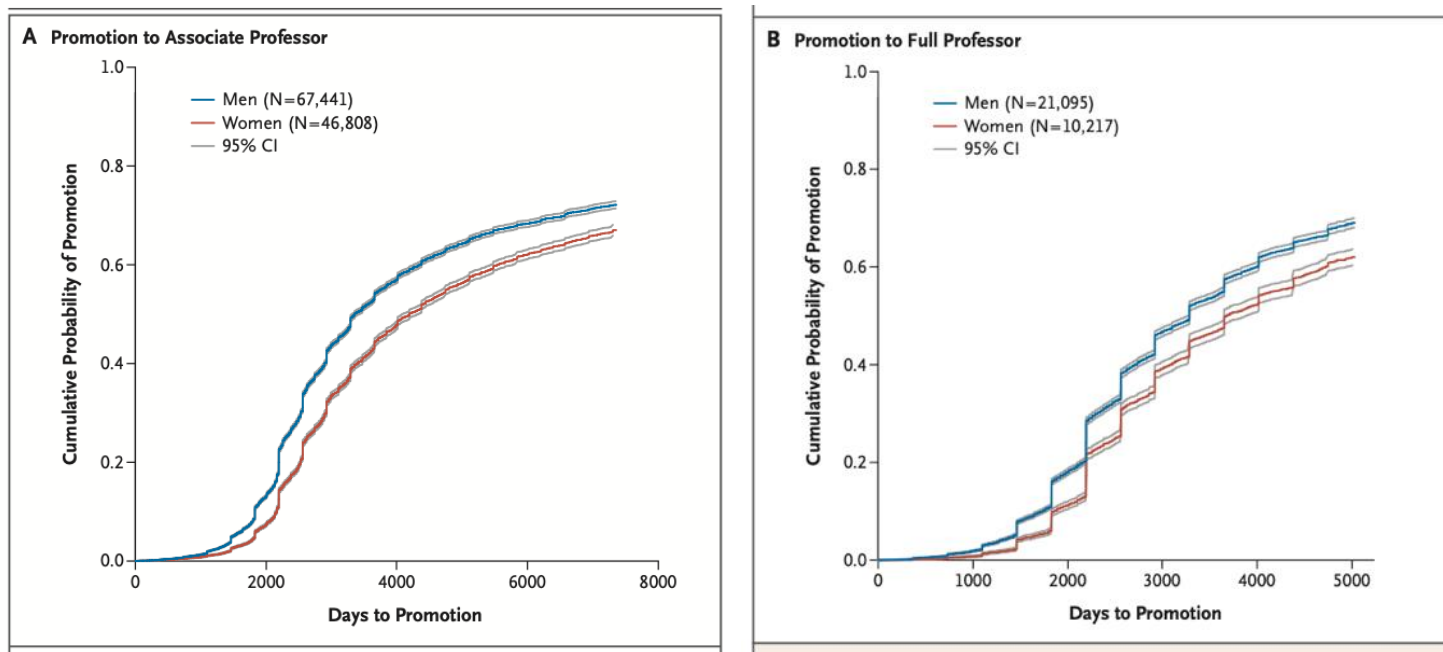




## SPECIAL ARTICLE

# Women Physicians and Promotion in Academic Medicine

Kimber P. Richter, Ph.D., M.P.H., Lauren Clark, M.S., Jo A. Wick, Ph.D.,  
Erica Cruvinel, Ph.D., Dianne Durham, Ph.D., Pamela Shaw, M.D.,  
Grace H. Shih, M.D., Christie A. Befort, Ph.D., and Robert D. Simari, M.D.



- In cohorts of med school grads from 1979-2013, women assistant professors were less likely than their male counterparts to be promoted to associate professor (HR, 0.76).
- Similar disparities existed in promotions to full prof (HR 0.77) and dept chair appts (HR 0.46).
- Sex differences in promotions and appointments **did not diminish over time and were not smaller in the later cohorts than in the earlier cohorts**. The differences were even larger in the later cohorts with respect to promotion to full professor.

# Compensation

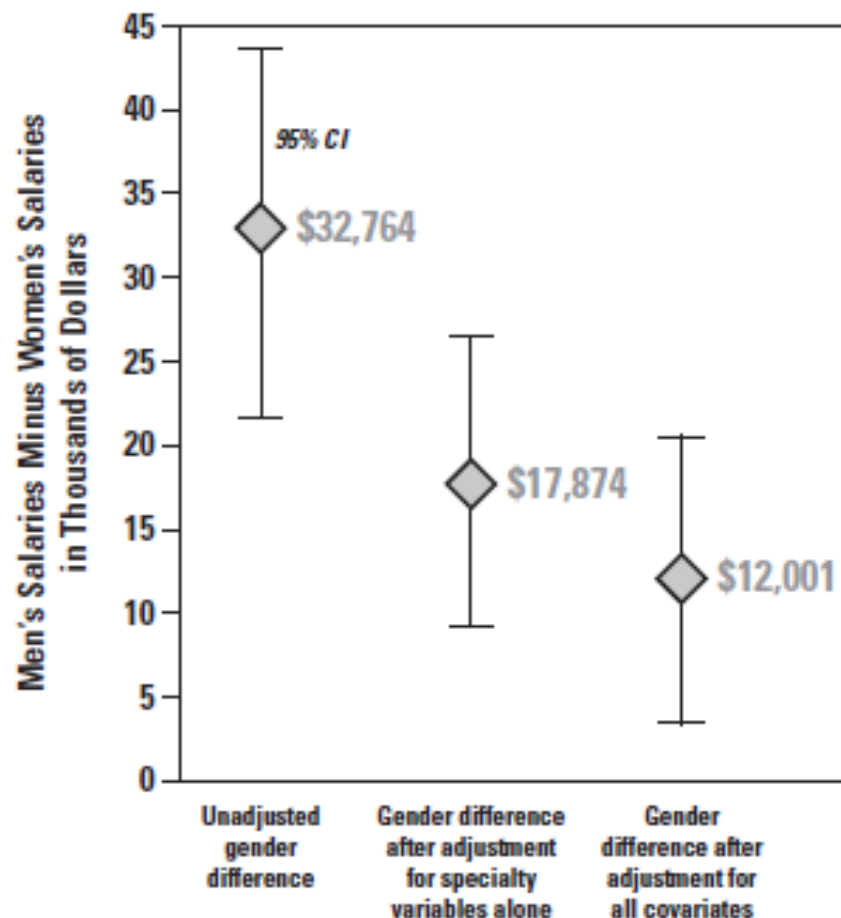
- 800 MDs who were still working at academic institutions responded to our surveys of K awardees from 2000-2003
- Significant gender difference in annual salary even after adjustment for numerous measures of success/productivity, specialization, and other factors
  - Age
  - Race
  - Marital status
  - Parental status
  - Additional doctoral degree
  - Academic rank
  - Leadership positions
  - Specialty
  - Current institution type (public/private)
  - Current institution region
  - Current institution NIH funding rank group
  - Whether changed institutions since K award
  - K award type
  - Years since K award
  - K award funding institute
  - Receipt of R01 or >\$1 million in grants
  - Publications
  - Work hours
  - Percent time in research

ORIGINAL CONTRIBUTION

**JAMA** The Journal of the  
American Medical Association

Reshma Jagsi, MD, DPhil  
Kent A. Griffith, MS  
Abigail Stewart, PhD  
Dana Sambuco, MPPA  
Rochelle DeCastro, MS  
Peter A. Ubel, MD

## Gender Differences in the Salaries of Physician Researchers



# What Drives These Differences?

- Specialty “choice”
  - Women may be encouraged to occupy lower-paid specialties, specialties chosen by women may pay less partly because they are predominated by women or involve less valued “feminine” behaviors
- Differences in productivity, hours, and “willingness” to change institutions
  - Constraints of a gender-structured society
- Differences in rank and leadership
  - May reflect biased processes for determining rewards
- But a substantial unexplained gender difference remained even after accounting for all of these factors and more

# Gender Differences in Values or Behavior?

- Perhaps mothers are more likely to sacrifice pay for unobserved job characteristics such as flexibility and fathers wish to earn more to support their families
  - Relatively homogeneous job type
  - No interaction between gender and parental status; even women without children had lower pay than men
- Perhaps women don't ask

# Differences in Employer Behavior towards Men and Women?

- Statistical discrimination
  - employers make inferences based on group characteristics (such as mean productivity level) rather than considering individual characteristics when setting salaries
- The concept of the family wage

# Unconscious Biases

- Deeply ingrained notions held by all
- NAS report
  - *“An impressive body of controlled experimental studies and examination of decision-making processes in real life show that, on the average, people are less likely to hire a woman than a man with identical qualifications, are less likely to ascribe credit to a woman than to a man for identical accomplishments, and, when information is scarce, will far more often give the benefit of the doubt to a man than a woman.”*

ARE EMILY AND GREG MORE EMPLOYABLE  
THAN LAKISHA AND JAMAL?  
A FIELD EXPERIMENT ON LABOR MARKET DISCRIMINATION

Marianne Bertrand  
Sendhil Mullainathan

Working Paper 9873  
<http://www.nber.org/papers/w9873>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
July 2003

## Science faculty's subtle gender biases favor male students

Corinne A. Moss-Racusin<sup>a,b</sup>, John F. Dovidio<sup>b</sup>, Victoria L. Brescoll<sup>c</sup>, Mark J. Graham<sup>a,d</sup>, and Jo Handelsman<sup>a,1</sup>

<sup>a</sup>Department of Molecular, Cellular and Developmental Biology, <sup>b</sup>Department of Psychology, <sup>c</sup>School of Management, and <sup>d</sup>Department of Psychiatry, Yale University, New Haven, CT 06520

Edited\* by Shirley Tilghman, Princeton University, Princeton, NJ, and approved August 21, 2012 (received for review July 2, 2012)

**Despite efforts to recruit and retain more women, a stark gender disparity persists within academic science. Abundant research has** gender disparity in science (9–11), and that it “is not caused by discrimination in these domains” (10). This assertion has r

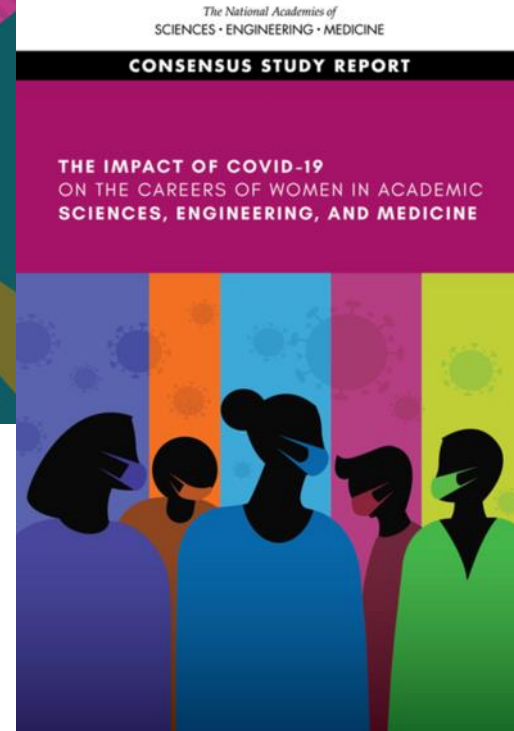
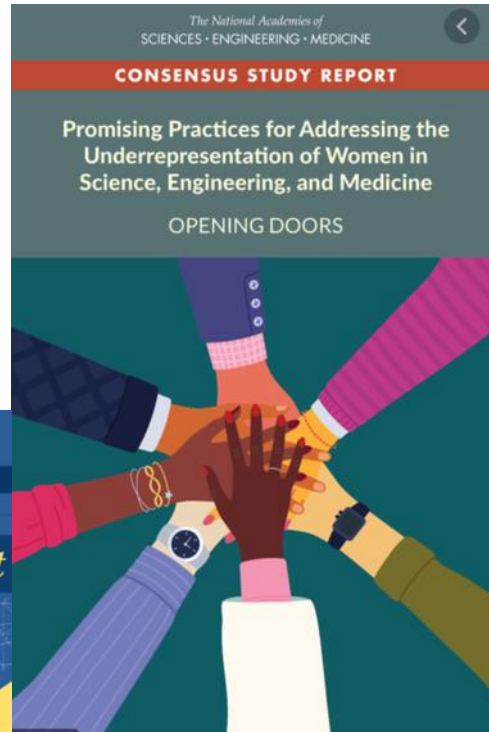
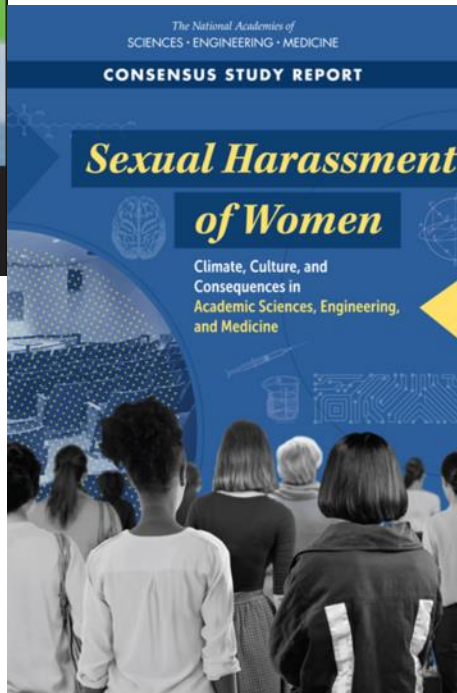
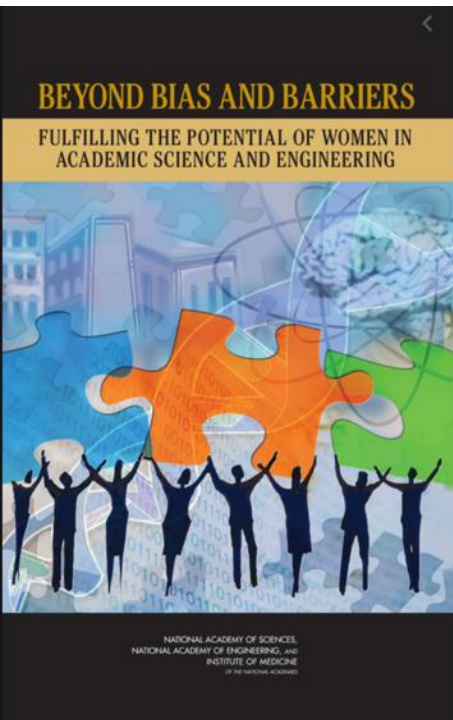
# Multiple Identities

Jagsi R. How Deep the Bias? *JAMA* 2008.





# Key NASEM Reports



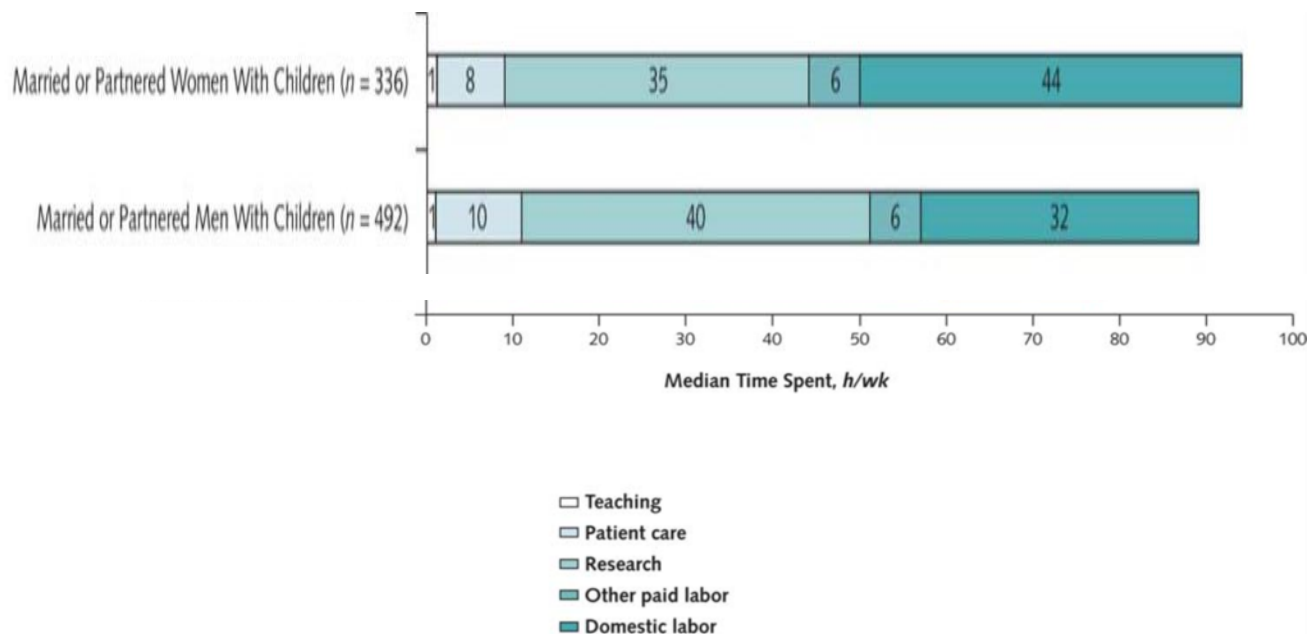


# Not a Level Playing Field

- Seemingly gender-neutral norms, practices, and policies can have a disparate negative impact upon women
  - Examples
    - Leave policies
      - Jagsi, Weinstein, Tarbell, *N Engl J Med* 2007
      - Magudia, Bick, Cohen, Ng, Weinstein, Mangurian, Jagsi, *JAMA* 2018
      - Weinstein, Mangurian, Jagsi, *N Engl J Med* 2019
    - Expectations regarding work hours
      - Jagsi & Surender, *Soc Sci Med* 2002
    - Tenure clocks & limits on grant eligibility
  - Mechanisms
    - forcing collision of biological & professional clocks
    - magnifying the inequities of the traditional gendered division of labor

## Gender Differences in Time Spent on Parenting and Domestic Responsibilities by High-Achieving Young Physician-Researchers

Ann Intern Med. 2014;160(5):344-353. doi:10.7326/M13-0974



- Among married or partnered respondents with children, after adjustment for work hours, spousal employment, and other factors, women spent 8.5 more hours per week on domestic activities.
- In the subgroup with spouses or domestic partners who were employed full-time, women were more likely to take time off during disruptions of usual child care arrangements than men (42.6% vs. 12.4%).

# Work-Related Burnout in Physician-Scientists

## Surveyed 816 Participants

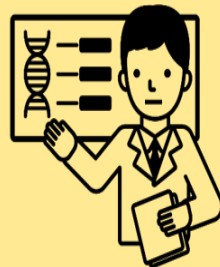


NIH K grant recipients still in academia 5 to 8 years after award

## Prevalence of Work-Related Burnout



Women  
41%



Men  
32%

## Drivers of Gender Differences in Burnout

Time pressures



Perceptions of work climate



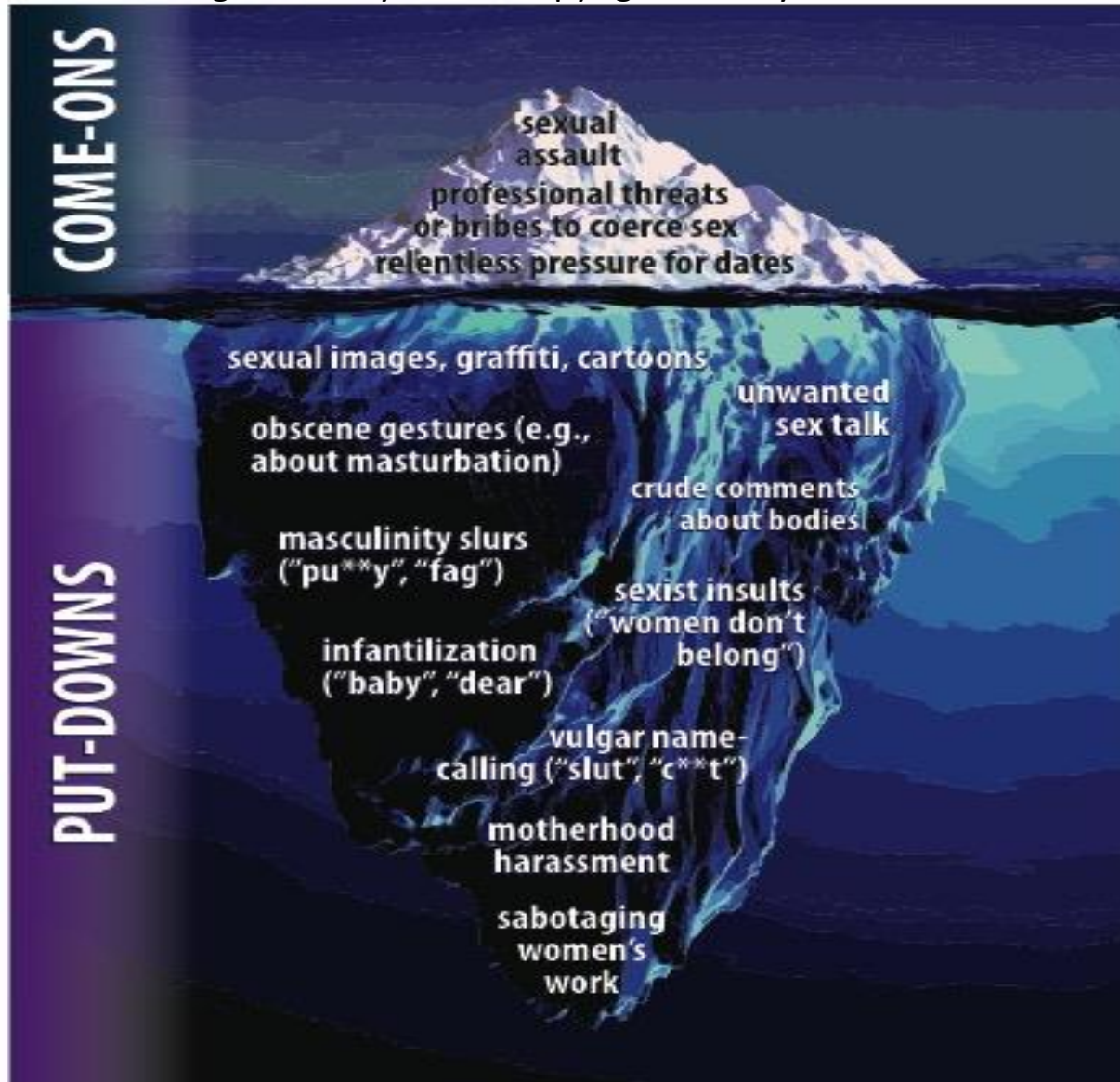
## Implications



Need to improve work climate through civility & respect and mitigate competing demands

# The Iceberg of Sexual Harassment

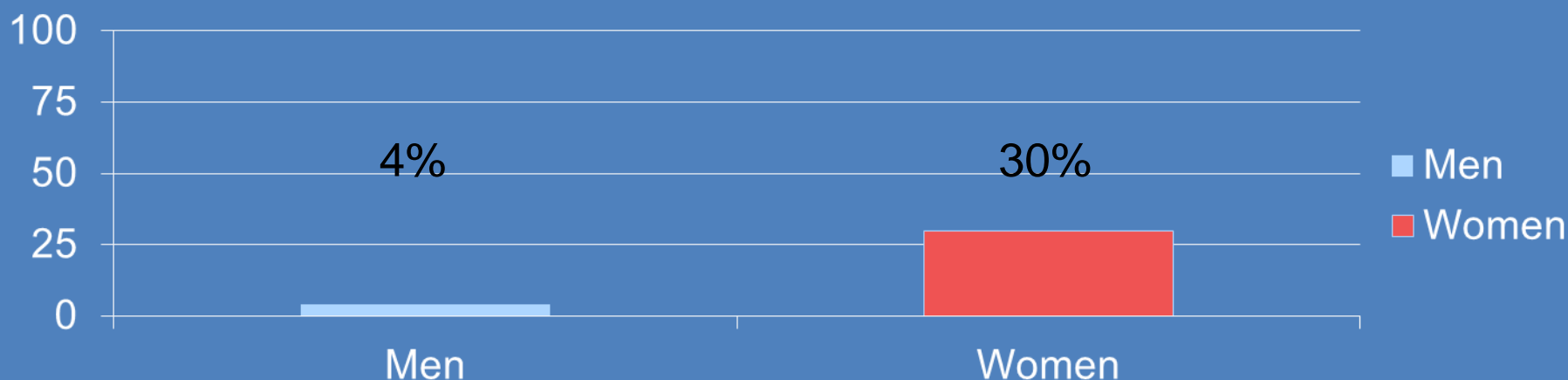
Image courtesy of and copyright held by Lilia Cortina



Reshma Jagsi, MD, DPhil  
Kent A. Griffith, MS  
Rochelle Jones, MS  
Chithra R. Perumalswami, MD  
Peter Ubel, MD  
Abigail Stewart, PhD

## Sexual Harassment and Discrimination Experiences of Academic Medical Faculty

In your professional career, have you encountered unwanted sexual comments, attention, or advances by a superior or colleague?



- 59% perceived a negative effect on confidence in themselves as professionals
- 47% reported that these experiences negatively affected their career advancement

## What Can Medicine Learn From Social Science Studies of Sexual Harassment?

Lilia M. Cortina, PhD; Reshma Jaggi, MD, DPhil

Perspective

# Interventions



- To address strikingly high rates of harassment in medicine, must learn from evidence:
  - Gather data
    - Improve understanding (especially regarding women in under-represented or vulnerable groups)
    - Inform interventions
    - Demonstrate commitment
  - Facilitate reporting and offer choices
  - Clarify policies
    - *Lowest rates of sexual harassment in organizations that proactively develop, disseminate, and enforce sexual harassment policy (Gruber 1998)*
  - Address harassment by patients & families



# An Ethical Imperative to Act



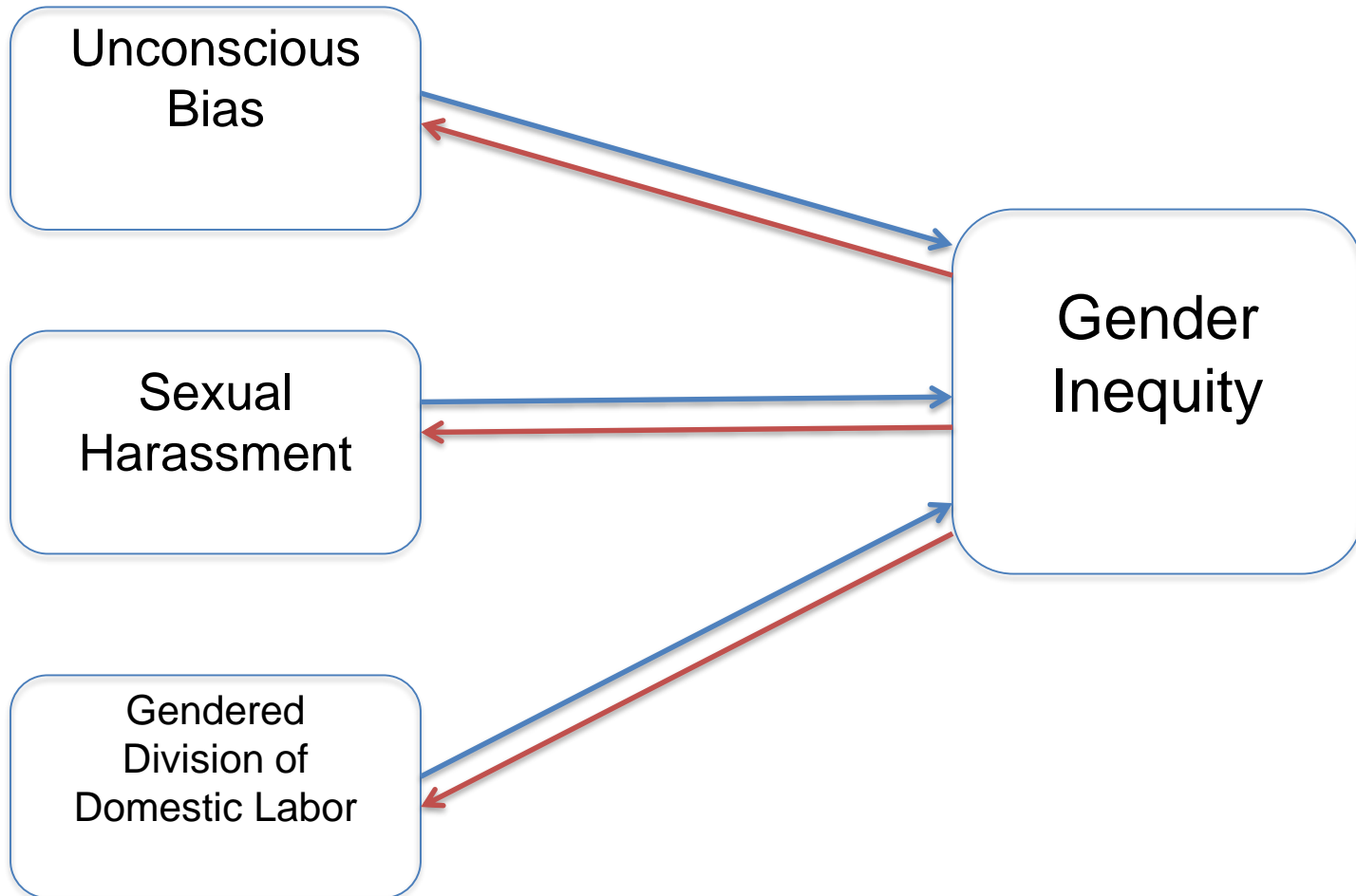
*The* NEW ENGLAND JOURNAL *of* MEDICINE

Perspective  
APRIL 9, 2020

## **Standing Up against Gender Bias and Harassment — A Matter of Professional Ethics**

Michelle M. Mello, J.D., Ph.D., and Reshma Jagsi, M.D., D.Phil.

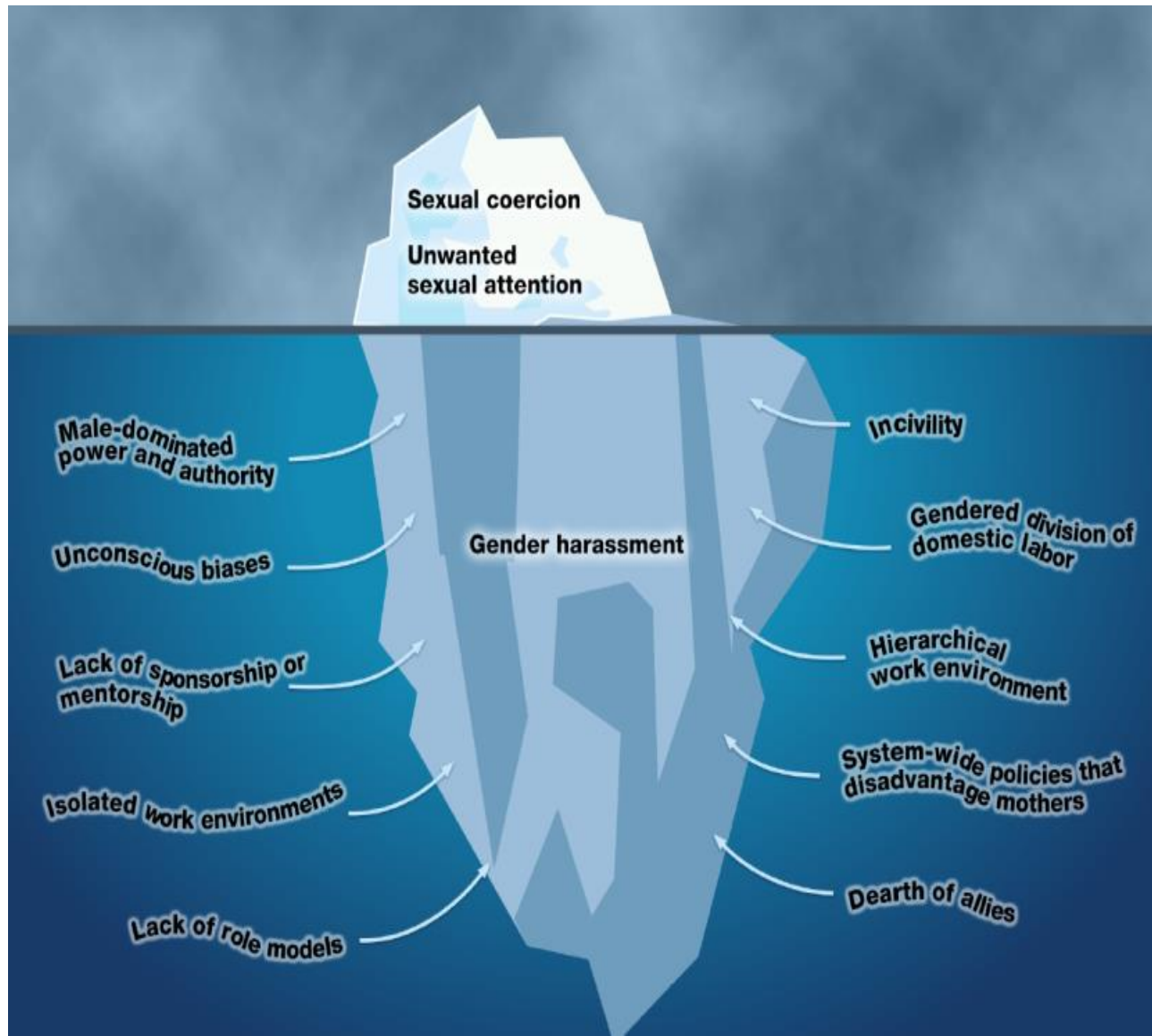
# Causal Mechanisms





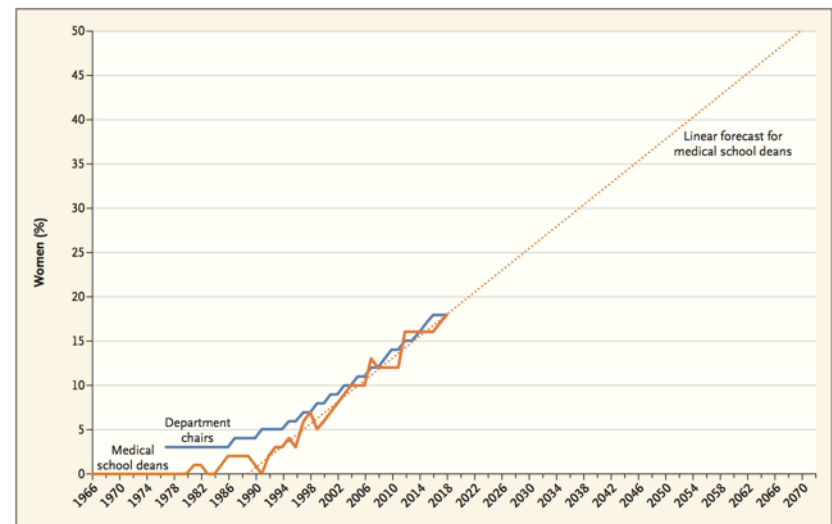
# Why Does the Iceberg Form?

Beeler, Cortina, Jagsi. JCI 2019.





# The NEW ENGLAND JOURNAL of MEDICINE



**Trends in Female Representation among Leaders in Academic Medicine.**

The percentages of permanent, acting, or interim department chairs (blue) and medical school deans (orange) who are women have risen slowly over time.<sup>1</sup> A linear forecast of trends in female representation among deans since 1992 demonstrates that it could take another 50 years to reach gender parity unless the rate of change accelerates.

## Perspective

# Unplugging the Pipeline — A Call for Term Limits in Academic Medicine

Whitney H. Beeler, M.D., Christina Mangurian, M.D., M.A.S., and Reshma Jagsi, M.D., D.Phil.

# Don't Fix the Women: Fix the Systems

- Gender equity must be promoted through recognition and changes at the institutional level
  - Mentorship and Sponsorship Programs
    - Decastro R, Sambuco D, Ubel PA, Stewart A, Jagsi R. Mentor Networks in Academic Medicine: Moving Beyond a Dyadic Conception of Mentoring for Junior Faculty Researchers. Acad Med 2013.
    - Patton E, Griffith K, Jones R, Stewart A, Ubel P, Jagsi R. Differences in Mentor-Mentee Sponsorship in Male vs Female Recipients of National Institutes of Health Grants. JAMA Intern Med 2017.
  - Evidence-based implicit bias training
    - Carnes M et al. The effect of an intervention to break the gender bias habit for faculty at one institution: a cluster randomized, controlled trial. Acad Med 2015.
  - Cultural transformation
    - Michigan ADVANCE, Hopkins Task Force
    - Pati S et al. Tradition meets innovation: transforming academic medical culture at the University of Pennsylvania's Perelman School of Medicine. Acad Med 2013.
  - Transparent and consistent criterion-based evaluation, promotion, compensation processes
    - Gold, Roubinov, Jia, Griffith, Carethers, Mangurian, Jagsi. Gender Differences in Endowed Chairs in Medicine at Top Schools. JAMA Internal Medicine 2020.

# Promote Work-Life Integration

## Family/Medical Leave Policies

## Distinguished Scholar Awards

- Jagsi R et al. A Targeted Intervention to Promote Women's Careers in Academic Medicine. Arch Intern Med 2007.
- Jagsi R et al. An Innovative Program to Support Gender Equity and Success in Academic Medicine: Early Experiences from the Doris Duke Charitable Foundation's Fund to Retain Clinical Scientists. Ann Intern Med. 2018;169(2):128-130

## On-Site Childcare and Facilitating Use of Funds to Support Dependent Care Expenses

- Knoll M, Griffith K, Jones R, Jagsi R. Association of Gender and Parenthood With Conference Attendance Among Early Career Oncologists. JAMA Oncol 2019.
- Ormseth C, Mangurian C, Jagsi R, et al. Implementation of Federal Dependent Care Policies for Physician-Scientists at Leading US Medical Schools. JAMA Int Med 2019.

## Time Banking

- Fassiotto MA, Maldonado YA. A time banking system to support workplace flexibility. <http://wellmd.stanford.edu/content/dam/sm/wellmd/documents/Time-banking-system.pdf>.





@reshmajagsi

# Social Media

Knoll M, Jagsi R. JAMA Oncology 2018.



## *#WomenWhoCurie*

In honor of Marie Curie's birthday on November 7th, the Society for Women in Radiation Oncology (SWRO) is spearheading the *#WomenWhoCurie Day* which aims to:

- celebrate the amazing female radiation oncologists across the world that are treating patients with cancer and conducting research
- increase awareness of radiation oncology alongside other oncologic specialties
- increase awareness of radiation oncology as a fantastic specialty among female medical students who are interested in oncology.

Similar to the recent *#ILookLikeASurgeon* social media movement, we encourage you to take a picture of yourself and/or female physician colleagues that captures what it means to be a radiation oncologist. Examples include posing next to your LINAC, engaging in treatment planning, or performing a brachytherapy procedure. Then post to social media (Twitter, Facebook, Instagram, department's website, etc) on 11/07/2018 with *#WomenWhoCurie!*







# *The* NEW ENGLAND JOURNAL *of* MEDICINE

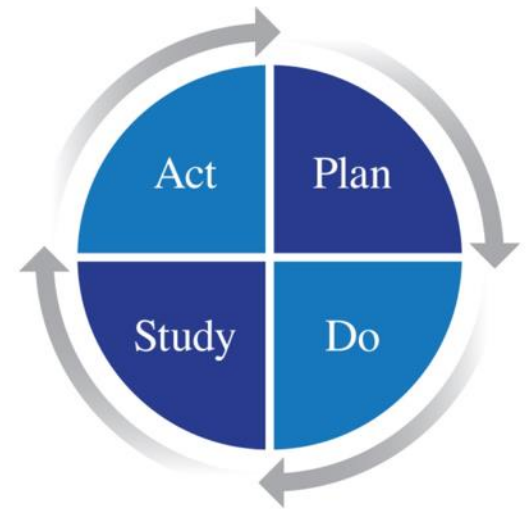
Perspective  
JUNE 17, 2021

## **Promoting Equity for Women in Medicine — Seizing a Disruptive Opportunity**

Reshma Jagsi, M.D., D.Phil., Elena Fuentes-Afflick, M.D., M.P.H., and Eve Higginbotham, M.D., M.L.

# Conclusions

- We inhabit a momentous time in history
- Opportunity to move from awareness to action
- Principles
  - Dignity, safety, equity
    - Fair equality of opportunity
    - Equal pay for equal work
- Health care quality improvement framework
  - Structures, processes, outcomes
  - Not treating symptoms—treating the underlying cause!



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- Lauren Szczygiel,
- Christina Chapman, MD
- Michelle Mello, JD, PhD
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- Bridget Keenan, MD
- Many others!

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