

# Gender Diversity in Medicine: US and Japan

Kenneth Olivier, MD

Professor of Radiation Oncology

Chair of Education



# Outline

- Disclaimers
- About the speaker
- Why should we care about gender diversity?
  - Doctor should look like their patients
  - Medicine needs the best talent
- What can be done to improve gender diversity?
  - Leveling the playing field
  - Men/leadership need to engage
- Conclusions



# Disclaimers

- The topic is very big. This is my opinion based on my experience and interpretation of the data.
- The data presented is mostly from the American experience, so it may be different in Japan.
- We will not discuss racial diversity.
- I am a man. 😊





First trip to Japan in 2007

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- Conclusions





# About Me

- College: small liberal arts college in MI
- Med School: Wayne State University, Detroit MI
- Residency: Mayo Clinic, Rochester, MN (chief resident)
- Fellowship: K12 awardee, Melanoma vaccine research
- University of Florida 2003-2008:
  - Lead SBRT/SABR program
  - Met Dr. Saito 😊



# About Me

- Mayo Clinic 2008-now:
  - Program director for 8 years
  - Served as head of program directors for ASTRO (ADROP)
- ADROP (Association of Directors of Radiation Oncology Programs)
  - Overseeing all of RadOnc residency programs
  - **First interest was gender diversity in RadOnc**
  - But in 2019...
    - Crash in ABR scores
    - Crash in applications to Radiation Oncology
    - Pandemic



# About me

- Full professor at Mayo for 10 years
- Held multiple leadership roles in and out of Mayo
- Vice Chair of Education in Radiation Oncology
- Won teaching and mentorship awards at department, institution, and national level
- White male, 53 years old
- Father of 2 men (18 and 20 yrs old, will show pictures\*)







Second trip in 2015

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# Why should we care about gender diversity in Medicine?

**1: Doctors should look like their patients (societal level)**







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CARDIOVASCULAR MEDICINE AND SOCIETY

## Does Patient-Physician Gender Concordance Influence Patient Perceptions or Outcomes?



Emily S. Lau, MD,<sup>a</sup> Sharonne N. Hayes, MD,<sup>b</sup> Annabelle Santos Volgman, MD,<sup>c</sup> Kathryn Lindley, MD,<sup>d</sup>  
Carl J. Pepine, MD,<sup>e</sup> Malissa J. Wood, MD,<sup>a</sup> and the American College of Cardiology Cardiovascular Disease in Women  
Section

- Meta-analysis of studies in Cardiology
- Women have no preference in gender of doctor
- Female doctors caring for female patients had higher probability of appropriate interventions (management of lipids, etc)

# Comparison of Hospital Mortality and Readmission Rates for Medicare Patients Treated by Male vs Female Physicians

Yusuke Tsugawa, MD, MPH, PhD; Anupam B. Jena, MD, PhD; Jose F. Figueroa, MD, MPH; E. John Orav, PhD; Daniel M. Blumenthal, MD, MBA; Ashish K. Jha, MD, MPH

- 1.5 million hospitalizations (600k men, 900k women)
- Compared patient outcomes between female and male doctors
- Patients cared for by female doctors had:
  - Better 30-day mortality
  - Lower readmission rates (differences small)
- Women are excellent physicians



SPECIAL ARTICLE

# Physician Work Hours and the Gender Pay Gap — Evidence from Primary Care

Ishani Ganguli, M.D., M.P.H., Bethany Sheridan, Ph.D., Joshua Gray, M.B.A.,  
Michael Chernew, Ph.D., Meredith B. Rosenthal, Ph.D.,  
and Hannah Neprash, Ph.D.

- Analyzed 24 million primary care visits
- Female doctors spent 2.4 min **longer** with patients
- Billed 10% less (pay gap)





# Why should we care about gender diversity in Medicine?

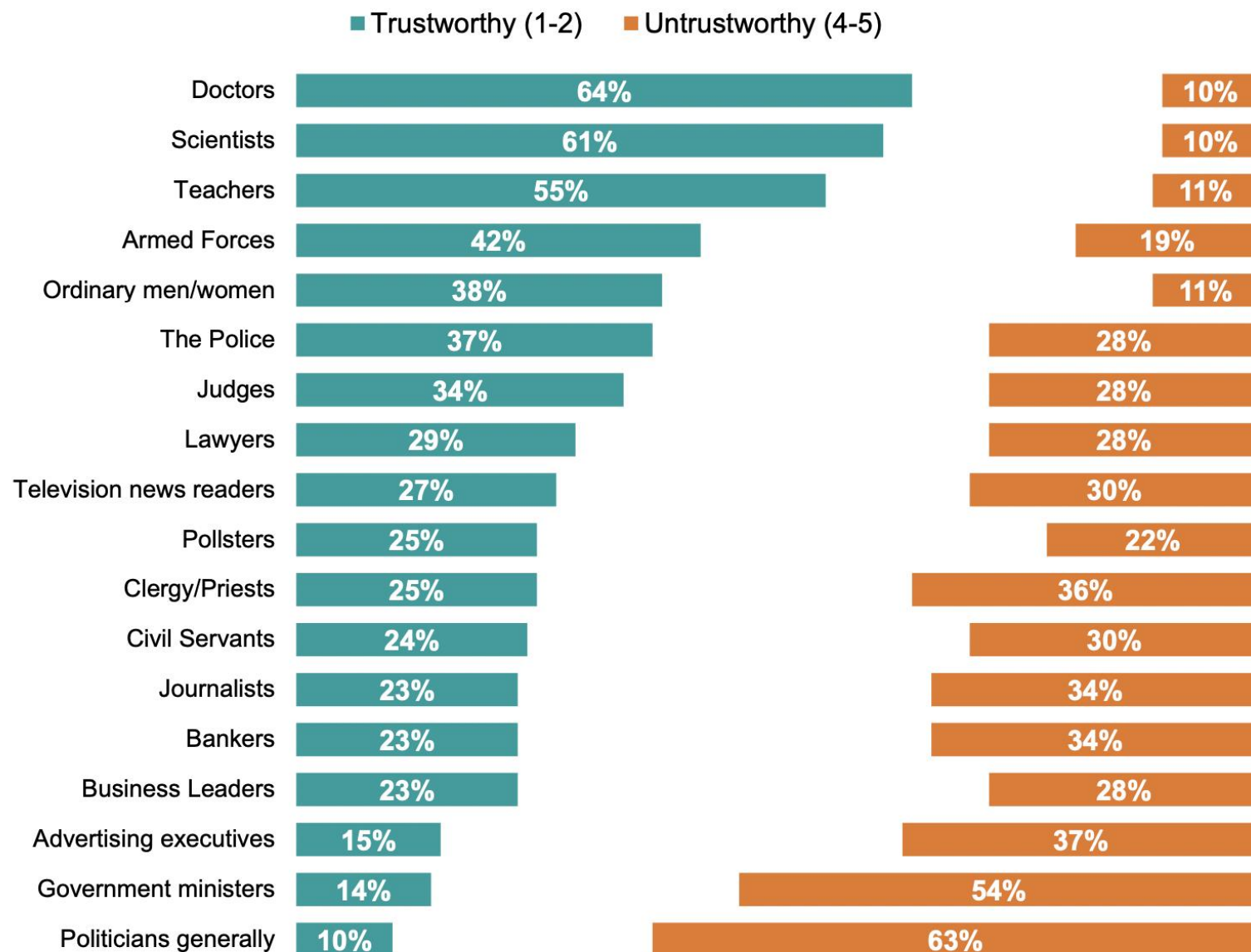
## **2: Medicine needs the best talent**



# GLOBAL TRUSTWORTHINESS RANKING 2021

Please look at this list of different types of people. In general, do you think each is trustworthy or untrustworthy in your country?

Please use a scale of 1 to 5, where 1 is very trustworthy and 5 is very untrustworthy



Ipsos Global Trustworthiness Index 2021 – 19,570 participants across 28 countries, interviewed online 23 April – 7 May 2021

Online samples in Brazil, Chile, mainland China, Colombia, India, Malaysia, Mexico, Peru, Romania, Russia, Saudi Arabia, South Africa, and Turkey tend to be more urban, educated, and/or affluent than the general population

This "Global Country Average" reflects the average result for all the countries where the survey was conducted. It has not been adjusted to the population size of each country or market and is not intended to suggest a total result.

# Trustworthy is an asset

- Improves our ability to care for patients
- Maintains our status in society
- Maintains our salaries
- **BUT it is not a GUARANTEE**
  - Depends on our ability to advance science
  - Make the right diagnoses
  - Honorable in our approach to patients and society
- **We need the most talented students to remain trustworthy**





**TABLE 2: DISTRIBUTION OF RESIDENTS BY SPECIALTY, 2005 COMPARED TO 2015**

Specialty	Total Number of Women and Men Residents in Specialty	Total Number of Women Residents in Specialty	Women Residents as % of Total Women and Men Residents in Specialty		Percentage of Women Residents in Specialty		Percentage of Men Residents in Specialty	
	2015	2015	2005	2015	2005	2015	2005	2015
Allergy and Immunology	279	186	47.0%	66.7%	0.3%	0.3%	0.2%	0.1%
Anesthesiology	6,126	2,254	31.1%	36.8%	3.7%	4.2%	6.0%	6.1%
Colon and Rectal Surgery	83	31	26.1%	37.3%	*	0.1%	0.1%	0.1%
Dermatology	1,398	880	61.1%	62.9%	1.6%	1.6%	0.7%	0.8%
Emergency Medicine	6,057	2,258	35.8%	37.3%	3.5%	4.2%	4.7%	6.0%
Family Medicine	10,750	5,863	51.7%	54.5%	11.5%	10.9%	7.9%	7.7%
Internal Medicine	23,090	9,985	42.3%	43.2%	21.3%	18.6%	21.4%	20.7%
Internal Medicine Subspecialties	11,168	4,120	32.4%	36.9%	6.9%	7.7%	10.7%	11.1%
Medical Genetics	128	84	55.6%	65.6%	0.1%	0.2%	0.1%	0.1%
Neurological Surgery	1,327	229	10.4%	17.3%	0.2%	0.4%	1.3%	1.7%
Neurology	3,024	1,465	41.4%	48.4%	1.8%	2.7%	1.9%	2.3%
Nuclear Medicine	82	29	28.9%	35.4%	0.1%	0.1%	0.2%	0.1%
Obstetrics and Gynecology	5,117	4,237	75.3%	82.8%	8.2%	7.9%	2.0%	1.4%
Ophthalmology	1,349	575	35.6%	42.6%	1.1%	1.1%	1.4%	1.2%
Orthopaedic Surgery	3,977	589	10.9%	14.8%	0.9%	1.1%	5.2%	5.4%
Otolaryngology	1,545	557	26.4%	36.1%	0.8%	1.0%	1.7%	1.6%
Pain Medicine (Multidisciplinary)	297	69	50.0%	23.2%	*	0.1%	*	0.4%
Pathology: Anatomic and Clinical	2,763	1,436	51.4%	52.0%	3.2%	2.7%	2.3%	2.1%
Pediatrics	12,276	8,730	66.5%	71.1%	16.3%	16.3%	6.0%	5.6%
Physical Medicine and Rehabilitation	1,313	523	37.1%	39.8%	1.0%	1.0%	1.3%	1.2%
Plastic Surgery	1,034	371	21.0%	35.9%	0.3%	0.7%	0.9%	1.0%
Preventive Medicine	285	133	43.6%	46.7%	0.3%	0.2%	0.3%	0.2%
Psychiatry	6,098	3,302	53.2%	54.1%	6.9%	6.2%	4.5%	4.4%
Radiation Oncology	712	204	31.8%	28.7%	0.4%	0.4%	0.6%	0.8%
Radiology: Diagnostic	5,042	1,300	27.4%	25.8%	3.0%	2.4%	5.8%	5.9%
Surgery: General	8,155	3,116	28.0%	38.2%	4.8%	5.8%	9.2%	8.0%
Surgery Subspecialties	904	350	21.1%	38.7%	0.2%	0.7%	0.5%	0.9%
Thoracic Surgery	377	83	10.1%	22.0%	0.1%	0.2%	0.5%	0.5%
Urology	1,299	332	18.7%	25.6%	0.3%	0.6%	1.3%	1.3%
Transitional Year	863	301	35.5%	34.9%	1.0%	0.6%	1.3%	0.9%
<b>TOTAL</b>	<b>116,918</b>	<b>53,592</b>	<b>42.4%</b>	<b>45.8%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

# The Majority of U.S. Medical Students Are Women, New Data Show

December 9, 2019

Women comprise the majority of enrolled U.S. medical students for the first time, according to 2019 data released today by the AAMC (Association of American Medical Colleges). This progress builds on the milestone reached in 2017, when, for the first time, women comprised the majority of first-year medical students.


The proportion of women students has been rising over recent years, from 46.9% in 2015 to 49.5% in 2018. In 2019, women comprise 50.5% of all medical school students.

**Stuart Heiser, Sr. Media  
Relations Specialist**

✉ [sheiser@aamc.org](mailto:sheiser@aamc.org)

📞 202-828-0059





60% of College  
students are now  
women

The pipeline for  
talent is  
increasingly female

## A Generation of American Men Give Up on College: 'I Just Feel Lost'

The number of men enrolled at two- and four-year colleges has fallen behind women by record levels, in a widening education gap across the U.S.



## EDUCATION

# Women beat men in Japan medical school acceptance rate for 1st time

Education Ministry starts publishing admission data after score-rigging scandal



The entrance to Tokyo Medical University, which once inflated entrance exam scores for the sons of Education Ministry bureaucrats. (Photo by Kosaku Mimura)

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Science

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SCIENCEINSIDER | [ASIA/PACIFIC](#)

# Japanese medical university admits to discriminating against female applicants

School says it rigged admission test scores to favor men

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8 AUG 2018 • BY [DENNIS NORMILE](#)

derived from concerns that women would leave their careers after having children, the investigators reported. Officials feared such an exodus would cause staffing problems at



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# Why should we care: Summary

- Doctors should look like their patients (as a profession)
  - Female physicians provide great care to women and men
  - Outcomes for some metrics may be better than men
- Medicine needs the best talent
  - Doctors need to be trustworthy
  - Trends in medical school admission mirror college admissions (more women than men) which affects the talent pipeline





Third trip in 2017



# Outline

- Disclaimers
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  - Medicine needs the best talent
- **What can be done to improve gender diversity?**
  - Leveling the playing field
  - Men/leadership need to engage in the issue
- Conclusions





# What can be done?

1. **Leveling the playing field (opportunities and challenges should be the same)**





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8 AUG 2018 • BY [DENNIS NORMILE](#)

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Original Investigation | Diversity, Equity, and Inclusion

## Experiences of Work-Family Conflict and Mental Health Symptoms by Gender Among Physician Parents During the COVID-19 Pandemic

Elena Frank, PhD; Zhuo Zhao, MS; Yu Fang, MSE; Lisa S. Rotenstein, MD, MBA; Srijan Sen, MD, PhD; Constance Guille, MD

*JAMA Network Open.* 2021;4(11):e2134315. doi:10.1001/jamanetworkopen.2021.34315

- 215 physicians surveyed (53% women)
- Women physicians were more likely to:
  - Be responsible for childcare (25% vs 1%!)
  - Be responsible for housework (31% vs 7%)
  - Work from home (40% vs 22%)
  - Have depression and anxiety symptoms ( $p = 0.01$ )
  - **Decrease their work hours (19% vs 9%)**





**Diversity And Inclusion**

# **Why So Many Women Physicians Are Quitting**

by Jessica Dudley, Sarah McLaughlin, and Thomas H. Lee

January 19, 2022

- Home and childcare responsibility differences
- Pay differences (2 million less over 40 yr career)
- Leadership and pipeline issues
- Recommends:
  - Flexibility in schedules
  - Respect in decision making
  - Establishing a pipeline for leadership and development





## Residency Leave Policy for Exam Details

Exam Breakdown and Timing

**Exam Policies**

# Residency Leave Policy

Last verified on June 30, 2021

- ASTRO Gender diversity group crafted ABR leave policy
- Allows for 12 weeks of **Parental Leave**
  - Same for both parents
  - Can be use flexibly (not defined by date of birth)
  - Eliminates the bias associated with childbirth



# Exodus of women is not obligatory

- Women need support for complex work/family obligations including flexible schedules
- Male partners should be encouraged to share household responsibilities
- Parental leave policies should be the SAME across genders to avoid bias





# What can be done

2. **Men/leadership need to actively engage in the issue**



*The* NEW ENGLAND JOURNAL *of* MEDICINE

MEDICINE AND SOCIETY

Debra Malina, Ph.D., *Editor*

# Medicine Is Not Gender-Neutral — She Is Male

Kiki M.J. Lombarts, Ph.D., and Abraham Verghese, M.D.

N ENGL J MED 386;13 NEJM.ORG MARCH 31, 2022

**Original Investigation** | Medical Education

# A Qualitative Analysis of Career Advice Given to Women Leaders in an Academic Medical Center

Gianrico Farrugia, MD; Christina K. Zorn, JD; Amy W. Williams, MD; Kate K. Ledger, MFA

- 40 female leaders at Mayo surveyed
- Women felt:
  - Leadership characteristics can be perceived as masculine (tough, decisive, etc)
  - Leadership skills require planning
  - Conflicts with personal life are inevitable and OK
  - Leadership pathways for women have obstacles, require courage

# Mayo Clinic reports record revenues for 2021

Monday morning release shows a return to pre-pandemic earnings with a record high of \$1.2 billion operating income in 2021. That's a 65 percent jump from \$727 million in 2020.

- Mayo set a goal for 30% of leadership to be female before 2030 (average in academics in US is 18%)
- As of 2022, 34% of leadership roles are held by women (including my department chair)
- Mayo continues to thrive and grow
- **Meaningful improvement in gender diversity requires a plan with goals and engagement by (male) leaders**



# What can we do: Summary

- Level the playing field (equal risks and benefits)
  - Improving family leave for **women AND men**
  - Eliminating pay disparities
- Men/leadership play a vital role
  - Reconsidering definitions of leadership
  - Allowing flexibility in scheduling
  - Encouraging men to share roles



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Forth trip in 2022



# Conclusions

- Gender diversity in medicine is ENEVITABLE
  - Trends in education and admissions are not deniable
- Smooth transitions to shared roles is better for both men and women
- Older male physicians in leadership are crucial for that smooth transition
- Thank-you for the invitation to speak.
- Several papers from this talk are available thru Dr. Saito
- Happy to answer any questions. [Olivier.Kenneth@mayo.edu](mailto:Olivier.Kenneth@mayo.edu)

