## \#BeEthical

## A Call to Healthcare Leaders:

## Ending Gender Workforce Disparities is an Ethical Imperative

"With its unusually large proportion of highly educated and qualified women, medicine should be leading the way in gender equity. Leaders who have it within their power to address barriers to the advancement of women - and all underrepresented people - should behave ethically and resolve to act, expeditiously and with steadfastness."

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Julie K. Silver, MD
Associate Professor and Associate Chair
Department of Physical Medicine and Rehabilitation
Harvard Medical School
Spaulding Rehabilitation Network
Massachusetts General and Brigham and Women's Hospital
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## Executive Summary: Be Ethical Campaign

Women account for the majority of the healthcare workforce; however, a large body of research demonstrates unaddressed or poorly addressed disparities. The Be Ethical Campaign is a call to action for healthcare leaders to recognize that workforce gender equity is an ethical imperative and to take action to bring about change. Studies show that women in medicine get less pay for equal work, are promoted less frequently, have fewer opportunities to publish, and receive less recognition than their male counterparts. Gender disparities are discouraging women from reaching their full professional potentials. They must contend with biased language and behavior in everyday interactions with some colleagues and in more formal communications, such as interviews, evaluations, and recommendations. Too many endure sexual and other harassment. Being underpaid, undervalued, and disrespected contributes to burnout symptoms. An environment that does not treat women fairly compromises excellence in patient care and the advancement of medical research.

Traditional approaches to achievement of gender equity have not worked well enough. Leaders often point to anecdotal successes rather than system wide changes that can be quantified. A comprehensive scientific approach utilizing data analysis is the surest path toward workforce equity. This will require leaders to commit to prioritization, funding, implementation of metrics, and reporting of outcomes.

| Medical schools, | The campaign calls on leaders in 4 key <br> "gatekeeper" categories to: |  |
| :--- | :--- | :--- |
| hospitals, and <br> healthcare <br> organizations | $\square$ | Make workforce gender equity an ethical <br> imperative |
| Medical societies | $\square$ | Prioritize and properly fund initiatives to close <br> gender equity gaps |
| Medical journals | $\square$ | Avoid critical thinking errors |
| Funding sources | $\square$ | Use a systematic process and specific metrics <br> to evaluate disparities |
|  | $\square$ | Implement strategic interventions |

All healthcare leaders should be committed to creating a culture of professionalism and ethical conduct through, among other things, education about the current research on workforce disparities, analysis of data, and the use of scientific methodologies to drive desired outcomes.

## Be Ethical Campaign

## Why Focus on Women?

Women account for the majority of the U.S. healthcare workforce, yet there is a large body of research spanning more than two decades that demonstrates unaddressed or poorly addressed disparities for women in medicine. Therefore, women in medicine are uniting en masse across the country and internationally to accelerate equity and inclusion. The Be Ethical Campaign is a strategic initiative aimed at advancing gender workforce equity; however, women in medicine firmly advocate for and support an equitable environment for everyone. Equity, diversity, and inclusion are core leadership competencies and all leaders should be committed to creating a culture of professionalism and ethical conduct through, among other things, education about the current research on workforce disparities, analysis of data, and the use of scientific methodologies to drive desired outcomes.

## "The Be Ethical Campaign builds a comprehensive framework that leaders can use to promote equity for women in healthcare."

Elizabeth Ellinas, MD
Associate Professor of Anesthesiology
Associate Dean for Women's Leadership
Director, Center for the Advancement of Women in Science and Medicine
Medical College of Wisconsin

> "All healthcare leaders should receive formal training in order to understand the disparities that impact women and other underrepresented individuals in our organizations. We must commit to evidence-based management practices that are transparent and ethical in order to accomplish sustainable change." $\begin{aligned} & \text { Laurie K. Baedke, MHA, FACHE, FACMPE } \\ & \text { Director of Healthcare Leadership Programs } \\ & \text { Creighton University }\end{aligned}$
"Achieving parity for women in medicine will open the door to equity for other vulnerable populations, such as ethnic minorities, those with disabilities, and the LGBTQ community."

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## Women in Medicine

Women in the U.S. Healthcare Workforce
$87 \%$ of healthcare support occupations; including,

- $92 \%$ of medical assistants
- $89 \%$ of nursing, psychiatric, and home health aides

82\% of social workers
75\% of healthcare practitioners and technical occupations; including,

- $92 \%$ of nurse practitioners
- $92 \%$ of medical records and health information technicians
- $90 \%$ of registered nurses
- $71 \%$ of physician assistants
- 69\% of clinical laboratory technologists and technicians
- $68 \%$ of physical therapists
- $40 \%$ of physicians and surgeons

70\% of medical and health services managers

69\% of psychologists
(U.S. Bureau of Labor Statistics, 2017)

## Women in the U.S. Physician

 Workforce$47 \%$ of medical students
$46 \%$ of residents
$38 \%$ of medical school faculty
$21 \%$ of medical school full professors
$16 \%$ of medical school deans
$15 \%$ of medical school department chairs
(Association of American Medical Colleges, 2014)
"If women, who make up perhaps as much as 80\% of the healthcare workforce, have not achieved equity and inclusion, those of us who are Black and represent less
than 10\% of doctors in the United States, don't have a chance. We are tied in this fight together."

Cedrek McFadden, MD, FACS, FASCRS<br>Clinical Assistant Professor<br>Greenville Health System/University of South Carolina<br>School of Medicine Greenville<br>Co-founder, \#BlackMenInMedicine

## Why Is the Be Ethical Campaign Needed Now?

Professionalism, one of the six core competencies set forth by the Accreditation Council for Graduate Medical Education, includes "a commitment to carrying out professional responsibility and adherence to ethical principles." A contradiction exists, however, between the strongly held ethical code among medical professionals to treat patients fairly and the way in which women working in medicine have been and continue to be treated. Given the substantial proportion of highly educated and expert women within its ranks, medicine should be a model field for gender equity. Yet discrimination flourishes and disparities in leadership roles, promotion, wages, publication, and funding persist - and in some cases gaps are widening. In a myriad of ways, workforce inequities fan burnout rates, increase the likelihood of sexual harassment, and detract from patient care. Because implicit bias is unconscious and likely plays a much larger role in disparities than explicit (conscious and easily identifiable) bias, leadership accountability is critical. Leaders should document
and correct workforce disparities in an efficient and effective manner though the use
of scientific methodology, including ongoing (longitudinal) data analysis. Transparency in reporting the process, analysis, and results to all stakeholders, including women and their employers, is a hallmark of best practices and should be mandatory.

## The Evidence Is Clear:

Traditional Approaches Have Not Worked Well Enough

Organizational efforts to address disparities are often altogether absent. In some cases, leaders of organizations have used "diversity structures" such as task forces to address disparities. But without prioritization, proper funding, utilization of metrics, and/or accountability, these approaches may give leaders the false impression that gender disparities are being addressed - even when metrics reveal little or no improvement. This is unacceptable.

Grassroots initiatives by women in medicine abound, including the publication of disparity studies and development of formal and informal advocacy groups. This means that women are dedicating their own time and personal financial resources to an ongoing effort to be treated fairly. Women participate in these grassroots efforts despite research demonstrating that proactively engaging in activities that value diversity and inclusion may negatively impact their reputations and performance evaluations. This is a classic "double bind" situation in which either course of action acceptance of the status quo or engagement in grassroots advocacy - places women at further risk for discrimination. This is unacceptable.

Time's Up for Medicine? (N EngIJ Med, 2018)

The Gender Pay Gap for Women Doctors is Big And Getting Worse (CNN, 2018)

Gender Differences in Academic Medicine
(Acad Med, 2018)
Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine (National Academies Press, 2018)

Social Media and Advancement of Women Physicians
(N EngIJ Med, 2018)
Organizing Women in Anesthesiology (Int Anesthesiol Clin, 2018)
Recruitment, Promotion and Retention of Women in Academic Medicine: How Institutions are Addressing Gender Disparities (Womens Health Issues, 2017)

Women in Medicine: Evidence That More Evidence is Insufficient in Effecting. Improvements
(Acad Med, 2017)
Does Diversity-Valuing Behavior Result in Diminished Performance Ratings for Non-White and Female Leaders?
(Academy of Management Journal, 2017)

Understanding and Overcoming Implicit Gender Bias in Plastic Surgery (Plast Reconstr Surg, 2016)
The State of Women in Academic Medicine (Association of American Medical Colleges, 2014)
Presumed Fair: Ironic Effects of Organizational Diversity Structures
(J Pers Soc Psychol, 2013)
"How ethical are we in gender equality in healthcare?
Nowhere near the potential of the women who represent the vast majority of the healthcare workforce.

Tapping our most abundant resource in healthcare is a strategic and ethical imperative. The time is NOW for full equitable access and treatment in leadership roles within medical journals and medical schools, on hospital boards, in research studies, and in clinical practices."

Dani Monroe, MSOD<br>Vice-President and Chief Diversity Officer<br>Partners HealthCare

## The Path Forward: Calling On All Leaders to Be Ethical

| Medical schools, <br> hospitals, and | Calling on leaders in 4 key "gatekeeper" <br> categories to: |  |
| :--- | :--- | :--- |
| healthcare - Make workforce gender equity an ethical imperative |  |  |
| organizations | - | Prioritize and properly fund initiatives to close |
|  |  | gender equity gaps |

## "Gender equity is quite simply, the right thing to do."

Sasha K. Shillcutt, MD, MS<br>Associate Professor and Vice Chair<br>Department of Anesthesiology<br>University of Nebraska Medical Center

## The Facts

Documented disparities have profoundly hindered the careers of women in medicine.
Workforce discrimination jeopardizes patient care and scientific discovery.
Disparities tend to be greatest for women with intersectionality (e.g., women of color).
Workforce disparities contribute to physician burnout, and physician burnout is more prevalent in women than men.

Historical explanations, such as a lack of highly qualified women physicians, cannot account for today's disparities.

Tokenism has been cited as being harmful, particularly to the token individual(s).

## Critical Thinking Errors

Perpetuating myths
(e.g., there are not enough qualified women, or women are not as skilled or dedicated as men)

Holding the affected group - or their children - responsible for system deficiencies
(e.g., women have childcare responsibilities that interfere with their career advancement, women need to find better mentors, or women need to fix the disparities)

Preserving willful ignorance about the problem
(e.g., leaders not knowing the evidence-base on healthcare workforce disparities and/ or perpetuating critical thinking errors)

Medscape National Physician Burnout and Depression Report (Medscape, 2018)
The Evolving Surgeon Image (AMA J Ethics, 2018)

Microinequities in Medicine (PM\&R, 2018 in press)

Diversity and Inclusion are Core Leadership Competencies
(Becker's Hospital Review. 2017)

Breaking Down Barriers for Women Physicians of Color (The Greenlining Institute and Artemis Medical Society, 2017)

Changing the Culture of Academic Medicine (J Womens Health, 2017)

Women, Minorities, and Leadership in Anesthesiology: Take the Pledge (Anesth Analg, 2017)

Women's Health and Women's Leadership in Academic Medicine ( Womens Health, 2008)

## The Path Forward: Calling On All Leaders to Be Ethical (Continued)

## "Allowing things to continue as they have for women in

 medicine is accepting a system where potentially higherquality care is denied to patients due to sexism and bad practices."How Discrimination Against Female Doctors Hurts Patients
(Harvard Business Review, 2018)
"To truly be ethical, change must begin in the senior executive suites of healthcare leadership. Addressing disparity in senior executive healthcare leadership can no longer be ignored."

Tiffany A. Love, PhD, FACHE, GNP, ANP-BC, CCA, CRLC
Regional Chief Nursing Officer Coastal Healthcare Alliance
"Many early career physicians are deeply in debt due to the high cost of medical education and count on being fairly compensated upon completion of training to pay off their student loans. For women in all medical specialties, unequal pay often begins with their first job and persists throughout their careers. To suggest that women must negotiate to be paid equally is unquestionably unethical. Equal pay for equal work - this is not negotiable."
"A key to driving this change will be to engender accountability across all healthcare disciplines; this isn't just about doctors. Gender equity standards should be a part of every healthcare profession's code of ethics."

Nicole L. Stout DPT, CLT-LANA, FAPTA
Office of Strategic Research
Rehabilitation Medicine Department National Institutes of Health

# "Spaulding is fully committed to creating an inclusive environment and culture for our patients and for our staff at all levels. Gender equity is an essential component of this commitment, and we applaud the extraordinary work of the Be Ethical <br> Campaign to eradicate disparities." 

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David E. Storto, MA, JD
President
Partners Continuing Care and Spaulding Rehabilitation Network
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"For me, medicine is a calling - so the number of years of education and training it takes to obtain a medical degree was never a deterrent. But, I have accrued a tremendous amount of debt going to college, getting a Master's degree and now a medical degree. When I finish my training, research suggests that as a Black woman I will likely be paid less than all of my peers for the same work. This is a tragic state of affairs, and I am prepared and willing to fight for my generation and those that follow.

Our worth is non-negotiable."

## What Do We Know About Medical Schools, Hospitals, and Other Healthcare Organizations?

Women physicians are paid less than men for the same or similar work.
Women scientists (junior investigators) received approximately half a million dollars less from their institutions for start-up packages designed to launch their careers than men.

Women in academic medicine lag behind men in faculty promotions and leadership roles, even when they publish at similar or higher rates.

## Where Are Women in Medical Schools?



Approximately $85 \%$ of top dean positions are held by men.
In one study, nearly 40\% of U.S. medical schools reported no special programs for recruiting, promoting, or retaining women and described such programming as unnecessary.

Gender bias against women begins early in medical training and continues throughout their careers.

Institutional culture (e.g., an "old boys' network") may have a profoundly negative impact on healthcare organizations (e.g., seemingly supportive of sexual harassment).
> "As an interim chair of psychiatry and a former assistant vice chancellor for faculty development, I know the value of sponsorship by senior leaders to accelerate the careers of women faculty. Being an advocate means being mindful of gender gaps in one's institution in promotion and tenure, leadership opportunities, awards, salary, and recognition. And then comes the most important part - being persistent in addressing those gaps and speaking up both publicly and privately to solve them."

Howard Y. Liu, MD
Interim Chair and Associate Professor
Department of Psychiatry
University of Nebraska Medical Center

Compensation Disparities by
Gender in Internal Medicine
(Ann of Internal Med, 2018)
Gender Differences in
Academic Medicine
(Acad Med, 2018)
Medscape National Physician
Burnout and Depression
Report
(Medscape 2018)
Achieving Gender Equity in
Physician Compensation and
Career Advancement
(Ann Intern Med, 2018)
Deck the Halls with Diverse Portraits
(JAMA, 2018)
Should Medical Schools Do More to Foster an Unbiased Learning Environment? (AMSA, 2018)

In an About-Face, Hospital Will Disperse Portraits of Past White Luminaries, Put the Focus on Diversity
(The Boston Globe, 2018)
Women and the Decision to
Leave, Linger, or Lean In
(J Womens Health, 2018)
Wellness Opportunities (J Grad Med Educ, 2018)

Journal Club: Women in Interventional Radiology (Am J Roentgenol, 2018)
What's Better: Mentorship or Sponsorship?
(KevinMD, 2018)
Recruitment, Promotion and Retention of Women in Academic Medicine: How Institutions are Addressing Gender Disparities (Womens Health Issues, 2017)

Changing the Culture of Academic Medicine (J Womens Health, 2017)
The Decanal Divide
(Acad Med, 2017)
Surgical Mentorship
(Ann Surg, 2017)

## What Do We Know About Medical Schools, Hospitals, and Other Healthcare Organizations? (Continued)

Approximately 1 in 3 women in academic medicine have reported experiencing sexual harassment.

Disparities exist for women in nearly all categories of speaking opportunities; especially the most prestigious lectures such as keynotes, grand rounds, and lectureships.

The physical environment in medical institutions is often not reflective or inclusive of today's diverse workforce (or the patients being served), including the art, portraits and statues, names of buildings, etc.

There is no lack of qualified and interested women candidates for leadership positions; the selection process is flawed.

Retention (i.e., the "leaky pipeline") is challenging in part because women are not equally valued or compensated, and they know that gender disparities will likely limit their earning potential and career advancement.

## "Everyone in medicine should be treated equally AND ethically. In an ideal world, the term 'motherhood tax' would no longer exist, and opportunities for career advancement would be based on performance and achievement rather than on misperception and unconscious bias."

Amy S. Oxentenko, MD, FACP, FACG, AGAF
Residency Program Director and Associate Chair
Department of Medicine
Professor of Medicine
Mayo Clinic College of Medicine

Discriminatory practices surrounding pregnancy and maternity leave are well-documented.

Women physicians reported burnout at higher rates than men.
Women physicians have similar and sometimes superior clinical outcomes compared with those of male colleagues.

Studies show that organizations with diverse workforces perform better financially.

[^1]Comparison of Hospital Mortality and Readmission Rates for Medicare Patients Treated by Male vs Female Physicians
(JAMA Intern Med, 2017)
Gender Differences in Attending Physicians' Feedback to Residents
(J Grad Med Educ, 2017)
Impact of Pregnancy and Gender on Internal Medicine
Resident Evaluations
(J Gen Intern Med, 2017)
Representation of Women Among Academic Grand Rounds Speakers (JAMA Intern Med, 2017)

Sexual Harassment and Discrimination Experiences of Academic Medical Faculty (JAMA, 2016)

The Development of Best Practice Recommendations to Support the Hiring, Recruitment and Advancement of Women Physicians in Emergency Medicine (Acad Emerg Med, 2016)

A Values Affirmation Intervention to Improve Female Residents' Surgical Performance (J Grad Med Educ, 2016)

Why Diversity Matters
(McKinsey \& Co, 2015)
Inadequate Progress for Women in Academic Medicine (J Womens Health, 2015)

Sex Differences in Institutional Support for Junior Biomedical Researchers
(JAMA, 2015)
The State of Women in Academic Medicine (Association of American Medical Colleges, 2014)

Experiencing the Culture of Academic Medicine
(J Gen Intern Med, 2013)
Women's Health and Women's
Leadership in Academic
Medicine
(J Womens Health, 2008)
"ELAM has been training women leaders in academic medicine for nearly 25 years, and we currently have over 1000 graduates. The pipeline to leadership positions is bursting with highly qualified women.

So where is the parity when it comes to the number of women deans, chairs, or other top positions? The issue isn't the pipeline. The issue is the lack of intentional effort to recruit and hire women for these positions, and then provide appropriate support to ensure they will be successful in a realm that has many proven barriers."

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Nancy D. Spector,MD
Professor of Pediatrics
Executive Director, Executive Leadership in Academic Medicine (ELAM)
Associate Dean of Faculty Development
Drexel University College of Medicine
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"We all must commit to behaving ethically, and those of us in leadership must use our positions to speak out, to hold ourselves and others accountable, and to effect change. Our patients, our colleagues, indeed all of society deserve the riches of the entire healthcare community, not just a subset."

Misty Hathaway, MIA<br>Chief Marketing Officer<br>Senior Director, Specialized Healthcare Services<br>Massachusetts General Hospital

## Are You an Ethical Leader?



## Ethical

- I am knowledgeable about the research on workforce gender equity and can cite specific studies and statistics.
- I avoid committing critical thinking errors and blaming women in medicine for the disparities they face.
- An audit of what I control in my organization would likely demonstrate that women are represented equitably, and they are paid and promoted equitably at every level.
- I have used my influence and resources to address workforce gender equity issues and can demonstrate my successes through anecdotes as well as a systematic, data-driven, and transparent approach to promoting equity.
- Because I am regularly collecting the data I need, I have already and will continue to develop goals, policies, and procedures to successfully address any existing or developing disparities.
"Among the most important things the
Be Ethical Campaign will encourage is for leaders
and organizations to focus on self-reflection.
Self-reflection will inevitably guide many leaders
to the conclusion that good enough is not
good enough."

Ross Zafonte, DO<br>Earle P. and Ida S. Charlton Professor and Chair<br>Department of Physical Medicine and Rehabilitation<br>Harvard Medical School<br>Senior Vice President of Medical Affairs, Research and Education<br>Spaulding Rehabilitation Network<br>Chief, Physical Medicine and Rehabilitation<br>Massachusetts General Hospital<br>Chief, Physical Medicine and Rehabilitation<br>Brigham and Women's Hospital

## What Do We Know About Medical Societies?

Members who pay dues to medical societies expect equitable inclusion.
Medical societies are, in part, financially supported by women in medicine and their employers.
> "At the 2017 Harvard women's leadership CME course, we surveyed participants about professional societies. Nearly 90\% of the respondents reported belonging to one or more societies. However, the majority (63\%) stated that they would reduce their own support, and encourage those they lead to reduce support, for societies that do not demonstrate metricsdriven inclusion of women members."

## Saurabha Bhatnagar, MD, FAAPMR

Associate Director, Physical Medicine and Rehabilitation (PM\&R) Residency Program
Harvard Medical School/Spaulding Rehabilitation Network
Assistant Course Director
Career Advancement and Leadership Skills for Women in Healthcare

Medical societies are gatekeepers - controlling access to key resources (e.g., national committee leadership roles) - that are part of the formal promotions criteria in many medical schools.

The National Academies convened a workshop focused on the role these organizations have in advancing the careers of women more than 15 years ago.

Despite being a national priority, more than half of physician professional societies have been documented to be doing little to address disparities, particularly health disparities for ethnic and minority patients, but also workforce disparities.

Until recently societies have received little formal scrutiny in peer-reviewed studies published in medical journals.

Disparities exist in recognition awards - sometimes with women among recipients at zero or near zero levels.

## "The relationship between physicians and medical societies should be a symbiotic one. Yet there is clear evidence that women are excluded from the full professional benefits of recognition and promotion by their respective societies. Women physicians are expected to support their medical societies without reciprocity. For the benefit of patients, societies, and women physicians, this inequity must stop."

Rekha K. Chandrabose, MD
President, Women in Anesthesiology
Assistant Professor, Department of Anesthesiology
University of California San Diego

Overwhelming Support for Gender Equity at the American Medical Association (Doximity, 2018)

Association of Academic Physiatrists Women's Task Force Report
(Am J Phys Med Rehabil, 2018)
Ensuring Equity, Diversity, and
Inclusion in Academic Surgery
(Ann of Surg, 2018)
Women Physicians Underrepresented in American Academy of Neurology Recognition Awards
(Neurology, 2018)
Women Physicians are
Underrepresented in
Recognition Awards From the Association of Academic
Physiatrists
(Am J Phys Med Rehabil, 2018)
Where are the Women?
(PM\&R, 2017)
Why are Women Excluded from
Medical Society Awards?
(STAT, 2017)
Female Physicians are Underrepresented in Recognition Awards from the American Academy of Physical Medicine and Rehabilitation (PM\&R, 2017)

Why Diversity and Inclusion are Critical to the American College of Emergency Physicians' Future Success
(Ann Emerg Med, 2017)
Invisible Women
(STAT, 2016)
A Study of National Physicians' Organizations Efforts to Reduce Racial and Ethnic Health Disparities in the United States.
(Acad Med, 2012)
Achieving XXcellence in Science: Role of Professional Societies in Advancing
Women in Science
(National Academies Press, 2004)

Guidelines for Inclusion of Women, Minorities, and Persons with Disabilities in NIH-Supported Conference Grants
(NIH, 2003)

## What Do We Know About Medical Societies? (continued)


#### Abstract

Societies frequently do not adhere to published guidelines from the National Institutes of Health regarding the inclusion of women and other underrepresented groups as speakers.

Medical society marketing personnel frequently use photographs or images of women and quotations by women in brochures, newsletters, and on websites to suggest an equitable and inclusive environment - thereby encouraging member retention or attracting new members. This marketing strategy may create an "illusion of inclusion," but is a serious ethical concern if the society is demonstrably inequitable and is using women for its own financial gain.


Disparities exist in the selection of conference speakers/presenters, and often women are excluded altogether from the most prestigious speaking opportunities such as lectureships, plenaries, and keynotes.

Because medical societies often provide their members' contact information to affiliated journals so that publications can be sent to members - thereby positively impacting the journals' reputation, bibliometrics (e.g., impact factor), and financials through a variety of means (e.g., advertising revenue) - women in medicine and their employers expect medical societies to affiliate with journals and other organizations that demonstrate a strong track record of gender equity. Moreover, women in medicine expect medical societies to be ethical and disassociate themselves from any organization, including affiliated journals, that demonstrate ongoing or poorly addressed gender equity issues.
> "Organized medicine, such as state and specialty medical societies and the AMA, must demonstrate commitment to the very values of equity and inclusion that they expect physicians and healthcare to uphold.

> I am proud that our AMA adopted policy this past June to commit to reducing gender bias by working with medical societies to create initiatives to address institutional and structural bias within medicine - a policy that our Massachusetts Medical Society will soon be considering for adoption.

> The sweeping new national policy includes specific directives to reduce gender bias, promote objective criteria for equal base pay, create guidance for transparency in compensation, and establish educational initiatives on institutional and structural bias within medicine. It also requires a continued commitment by the AMA to provide leadership opportunities for women physicians to help shape the national discussion on health care issues."

> Maryanne C. Bombaugh, MD, MSc, MBA, FACOG
> President-elect, Massachusetts Medical Society
> American Medical Association (AMA) Delegate, Massachusetts
> Gynecologist, Community Health Center of Cape Cod

## What Do We Know About Medical Journals?


#### Abstract

"Medical literature is the currency of medicine in which we share ideas, research, and gain traction in our careers. It is the pathway to speaking opportunities, promotion, and leadership positions. If all of our co-authors, co-committee members, and editors look and think alike, we are not doing justice to our patients or to the future of medicine."


Susan M. Moeschler, MD
Program Director, Pain Medicine Fellowship
Associate Professor of Anesthesiology
Division of Pain Medicine
Department of Anesthesiology and Perioperative Medicine
Mayo Clinic, College of Medicine

Journals have been publishing reports on gender disparities within their own editorial ranks for more than 20 years.

Disparities, including those that are completely under the control of journal leaders (e.g., editorial board representation and invited editorials, reviews, perspectives, etc.), have not been adequately addressed in an expedient, systematic, and transparent manner.

Women face many well-documented barriers to publishing.
Many journals are affiliated with medical societies that include a high proportion of women among members who, along with their employers, financially support the societies, and thereby the journals.

Journals have a long track record of increasing their distribution through use of member lists provided by medical societies, including the contact information for women members. Women, who positively impact the journal's reputation, bibliometrics (e.g., impact factor), and financials (e.g., advertising revenue) expect to be equitably represented.
"It is nearly impossible to find a Hispanic female physician on the board of a journal that is not exclusively targeting Hispanic populations. Journal leaders are doing an incredible disservice to women, especially minority women, by ignoring internal disparities - excluding them from being heard and limiting the voices they publish and invite. This behavior has far-reaching consequences for patients who undoubtedly would benefit from the intellectual contributions that female and minority physicians and scientists have to offer."

[^2]The Gender Gap in Science (PLoS Biology, 2018)
Assessment of Women Physicians Among Authors of Perspective-Type Articles Published in High-Impact Pediatric Journals (JAMA Network Open, 2018)

Gender Gap, Disparity, and Inequality in Peer Review (Lancet, 2018)

Journals Invite Too Few Women to Referee (Nature, 2017)

Publishing While Female (University of Cambridge, 2017)

Where are the Women Editors?
(Acad Psychiatry, 2014)
Women Underrepresented on Editorial Boards of 60 Major
Medical Journals
(Gender Medicine, 2011)
Women on Professional
Society and Journal Editorial Boards
(J Natl Med Assoc, 2007)
The "Gender Gap" in
Authorship of Academic
Medical Literature
(N Engl J Med, 2006)
Women on the Editorial
Boards of Major Journals (Acad Med, 2001)

Is There a Sex Bias in Choosing Editors?
(JAMA, 1998)
"Women patients, and particularly women patients of color, face serious health inequities across several domains including cancer, cardiovascular disease, and maternal/fetal health. We have an obligation and an urgency to examine how research is conducted to integrate women's experiences and voices in all aspects of research and care. Reducing health inequities for women is a moral imperative."

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Nawal Nour, MD, MPH
Chief Diversity & Inclusion Officer for Faculty, Trainees, and Students
Director of the African Women's Health Center
Director of the Ambulatory Obstetrics Practice
Brigham and Women's Hospital
Associate Professor of Medicine
Harvard Medical School
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# "It is time for journal editors to acknowledge their role in creating and perpetuating systemic 

 gender discrimination in medicine. Advancement in academic medicine is tied to productivity partly measured by publications and involvement on editorial boards. Journal editors hold the keys to advancement for women, yet significant gender disparities are apparent in representation over the past two decades.We call on journal leaders to end gender inequity in medicine by involving qualified women on editorial boards and all opportunities in editing and publishing."

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Lillian Erdahl, MD, FACS
Clinical Assistant Professor, Department of Surgery
University of Iowa Carver College of Medicine
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## What Do We Know About Funding Sources?

Women receive disproportionately low levels of funding and recognition from nearly all sectors; this includes, but is not limited to, government and foundation grants, philanthropy, industry, and venture capital.

Gender diversity pays substantial research and productivity dividends.
Barriers to successful grant applications may include gender imbalance among reviewers.

The quality and tone of reviewers' comments and committee feedback to women applicants, important components of the revision and resubmission process, have been cited as a concern.

Efforts to blind reviewers to applicant gender has improved hiring rates for women, most notably among female musicians.

Women were more successful in the grant review process if applicant gender was masked and only the research was evaluated.
> "Women physicians are not as likely as men to be asked to serve on industry advisory boards or to speak at sponsored events. Industry leaders may have the false impression that women are not key opinion leaders, when in fact many are. I would urge pharmaceutical, device, and other companies to invite expert women and other underrepresented physicians and scientists to participate. Their clinical and research experience is invaluable, and companies need their intellectual insights to develop the best possible treatments for patients."

> Meridith J. Englander, MD, FSIR
> Associate Professor, Department of Radiology
> Albany Medical College
> Inaugural Chair, Women in Interventional Radiology

Researchers found that NIH career development awards (K-awards) for surgery and anesthesiology were more likely to go to men than women.

Authors of a study assessing gender among applicants for NIH RO1 grants found that overall there was no significant gender difference in awards; however, there was still a notable gap for women of color.

Gender Differences in Career Development Awards in United States' Anesthesiology and Surgery Departments (BMC Anesthesiol, 2018)

NIH Director's Pioneer Award Recipients
(NIH, 2018)
The Giants of Cancer Care Program Winners
(OncLive, 2018)
Female Founders Got 2\% of Venture Capital Dollars in 2017 (Fortune, 2018)

Gender Tokenism and Bias Prevail in Biotech Boardrooms (Nature Biotechnology, 2017)
Gender Diversity Leads to Better Science (PNAS, 2017)

Female Grant Applicants are Equally Successful When Peer Reviewers Assess the Science, but Not When They Assess the Scientist
(bioRxiv, 2017)
Are Female Applicants
Disadvantaged in National Institutes of Health Peer Review?
(J Womens Health, 2017)
Where are the Women? (PM\&R, 2017)

Funding: What Stops Women
Getting More Grants
(Nature, 2016)
Gender Differences in Physicians' Financial Ties to Industry
(PLoS One, 2015)
A Quantitative Linguistic Analysis of NIH R01 Application Critiques From Investigators at One Institution (Acad Med, 2015)

Threats to Objectivity in Peer Review (Trends Pharmacol Sci, 2014)

NIH Director's Pioneer Awards: Could the Selection Process be Biased Against Women?
(JWomens Health, 2005)

## What Do We Know About Funding Sources? (Continued)

Women often receive disproportionately low levels of prize or recognition awards funded by government agencies, foundations, and businesses; sometimes at zero or near zero levels.

The 2017 NIH Director's Pioneer Award was given to 1 woman and 11 men.


The 2017 Giants of Cancer Care Award, sponsored by at least four pharmaceutical companies, was given to 0 women and 12 men.

From 2013 through 2018, the Giants of Cancer Care Award recognized 71 men and 12 women.


In 2017, women founders received 2\% of venture capital funding.
At 432 pharmaceutical, device, and biomaterials companies, women physicians were given less money than their male colleagues for similar work (e.g., speaker fees), sponsored research, and education.

Implicit bias may cause leaders to steer donors toward supporting men more than women.
"Among many factors that contribute to disparities for women in medicine, one may be the role of philanthropy and donor giving. Leaders in development need to systematically analyze their data and proactively and creatively work with other institutional leaders to address disparities."

Aparna Parikh, MD
Instructor, Department of Medicine
Harvard Medical School
Massachusetts General Hospital

Women have been engaged to support department or institutional financial goals without being adequately compensated for their time and effort. For example, women have been asked to support philanthropic efforts by meeting with prospective donors, attending philanthropic events, and posing for photos that are used in campaign brochures, only to find that the resulting funds are distributed mostly to male counterparts.

Philanthropic gifts can be directed to supporting the work of women in medicine, and organizations such as Women Moving Millions are having an impact in leveling the playing field.
"Women still face barriers to full advancement in medicine. We need to commit to creating gender equity by systematically examining data, implementing change and tracking our success in creating an ethical and equitable work environment."

Kathryn M. Rexrode, MD, MPH
Chief, Division of Women's Health, Department of Medicine
Faculty Director, Office for Women's Careers, Center for Diversity \& Inclusion
Brigham and Women's Hospital
Associate Professor of Medicine, Harvard Medical School

The Solution = Systematic Process + Metrics

## 6-Step Process:*

## 1 Examine gender data through the lens of an organization's mission, values, and ethical code of conduct.

## 2 Report the results transparently to all stakeholders.

3 Investigate causes of disparities.
4 Implement strategies to address disparities.
5 Track outcomes and adjust strategies as needed.
6 Report/publish results.

Where are the Women?
(PM\&R, 2017)

## Metrics For All Leaders

- Compensation at all levels and across all domains
- Hiring and/or promotion at all levels and across all domains
- Executive and departmental leadership
- Board representation
- Newsletter, website, and press release content
- Promotional materials
- Introductions
(e.g., biased language)
- Space allocations
(e.g., office, laboratory, clinic, reception)
- Supplies
(e.g., office, equipment, research)
- Financial allocation (i.e., size of budget)
- Financial control
(i.e., independence in decision-making)
- Financial priority
(e.g., President's reception versus women's task force initiatives)
- Assistant allocation (administrative, clinical, research) and other personnel support
- Assistant type
(e.g., full-time equivalent, shared with others)
- Consultant budget
(e.g., attorneys, accountants, advisors)
- Training opportunities/programs
(e.g., type, participants, directors, faculty, speakers)
- Mentors/Mentees
(e.g., assignments, success in publishing, satisfaction with relationship)
- Amount of financial support going to organizations and businesses with a demonstrable track record of workforce equity and inequity
(e.g., medical societies)
- Formal complaints of harassment or mistreatment
- Workplace culture surveys
> "A recent National Academies of Science, Engineering, and Medicine report made clear that we under measure - thus incompletely understand, and inadequately address - the occurrence of sexual and gender harassment in medicine. It's the same for any disparities experienced by women: we need to systematically define, measure, and track important outcomes as we set targets and implement interventions to improve the culture for women. Otherwise all our good intentions may fall flat. We need to be rigorous and analytical in our approach to strengthening the health care workforce in the same way that we are in our efforts to advance health care."

Esther Choo, MD, MPH
Associate Professor
Center for Policy and Research in Emergency Medicine
Oregon Health \& Science University

## Additional Metrics

## Medical Schools, Hospitals, and <br> Healthcare Organizations

- Students, trainees and employees
- Committees and task forces (particularly those with high-impact responsibilities, large budgets, or financial steering)
- Internal funding
(e.g., internal research grants, start-up packages for investigators, sundry funds)
- Recognition and other awards
- Speakers
(e.g., grand rounds, lectureships, plenary/keynote, CME courses, panels)
- Physical surroundings
(e.g., statues, portraits)
- Named structures, places, or events
(e.g., buildings, rooms, lectures, task forces)
- Financial and other support going to medical journals with a documented track record of workforce equity and inequity
- Endowed faculty positions


## Medical Societies

- Membership
(e.g., gender, ethnicity, age, career stage, practice setting)
- Annual meeting program
- Conference speakers
(e.g., nomination processes, selection processes, recipients)
- Recognition awards
(e.g., criteria, nomination processes, selection processes, recipients)
- Grants, scholarships, and other funded awards
- Affiliated journal metrics (see: medical journal metrics)
- Committee and task force leaders and members
- Office, laboratory, and other space allocations (e.g., size, location)
- Physical surroundings at headquarters and annual/committee meetings
(e.g., statues, portraits)
- Named structures, places, or events (e.g., buildings, rooms, lectures, task forces)


## Funding Sources

- Application or nomination processes
- Award categories and criteria
- Selection processes
- Funding categories
(e.g., grants, scholarships, recognition and other awards)
- Funding allocations
(i.e., size of award)
- Funding control
(i.e., independence in decision-making)
- Funding acceptance rates
- Funding reviews
(e.g., biased language or criteria)
- Funding renewals
- Sundry funds
- Funding to organizations with a documented track record of workforce equity and inequity
(e.g., medical societies, hospitals)
- Speaking engagements, formal and informal
- Invitations to fundraising or other key events
- Fundraising roles
(e.g., host, presenter, audience member, supporter)
- Physical surroundings at events
(e.g., statues, portraits, themes)
- Named structures, places, or events
(e.g., buildings, rooms, lectures, task forces)
+ Diversity and inclusion are not just gender issues, and the described 6-step process and metrics may be used to identify and fix disparities for other groups of underrepresented people. This should be an ongoing process that uses a variety of tools to longitudinally measure outcomes and report progress.
* This is not intended to be a complete list of metrics.


## Medical Journals

- Editors
- Editorial fellows
- Peer and other reviewers
- First authors, senior authors \& coauthors of:
- Original research
- Reviews
- Editorials
- Commentaries
- Perspectives
- Consensus statements
- Guidelines
- Print versus online only articles
- Other article types


# "More data describing the existence of gender disparities are not needed. The time to act is now. <br> Our colleagues and leaders who accept inequities <br> in pay, promotion, and opportunities for their female colleagues are complicit in prolonging these disparities." 

Katherine M. Sharkey, MD, PhD, FAASM<br>Associate Professor<br>Departments of Medicine and Psychiatry \& Human Behavior<br>Assistant Dean for Women in Medicine and Science<br>Alpert Medical School of Brown University


[^0]:    Lindsey Migliore, DO
    Resident Physician
    Georgetown University Hospital/National Rehabilitation Hospital

[^1]:    "The healthcare gender gap in pay, promotion, opportunity, and recognition must end. The Be Ethical Campaign shines a much needed spotlight on these issues."

    Diane M. Radford, MD, FACS, FRCSEd
    Associate Professor of Surgery
    Cleveland Clinic Lerner College of Medicine
    Case Western Reserve University

[^2]:    Laura Flores
    Medical Student, MD-PhD Scholar
    University of Nebraska Medical Center

