60% of them are gender blind in their policies and programmes, and two-thirds do not disaggregate their performance data by sex.

These findings of sex and gender blindness represent the continuation of centuries-old archetypes that see male sex as the norm, resulting in a unidimensional view of humanity. Larivière and colleagues have provided strong empirical evidence that change to two-dimensional vision is possible—and have shown that change happens when the people doing the research also change.

There could be some truth in the trope that people measure what they treasure. A shift to a more diverse and inclusive research community might result in research outputs that carry greater meaning and potential benefit for more people in more parts of the world. Such a shift would be transformative—but the extent to which this shift is feasible and effective depends on the measurement being treasured more widely. The research community and funders need to move beyond a measurement revolution to an accountability revolution—one that is based on respect and realisation of universal human rights[12] to ensure that scientific research is universally beneficial and not limited by sex, gender, ethnicity, nationality, income, or any other intersecting index of inequality. Such a revolution towards accountability in research is more likely to occur when the research community itself becomes more inclusive, diverse, and representative, and works to ensure that everyone counts.

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From #MeToo to #TimesUp in health care: can a culture of accountability end inequity and harassment?

A 2018 report by the US National Academies of Science, Engineering, and Medicine identified sexual harassment as an enduring problem in scientific fields, and especially in medicine.[1–3] Harassment and inequity are interdependent processes, and it is no coincidence that harassment is rife in environments that foster gender disparities in compensation, opportunity, and advancement.[4–6] Flagrant examples of abusive and discriminatory treatment continue to emerge, such as sexual harassment and assault of trainees doing scientific fieldwork,[7] manipulation of entrance examination scores to limit the number of women at a Japanese medical school,[8] and the unremitting gender pay gap in medicine and science in North America and other countries.[9,10] Potential corrective actions are hampered by a hierarchical, male-dominated culture that accepts abusive behaviour as part of professional socialisation and avoids holding offenders accountable, particularly when they are leaders, well-funded researchers, or deemed valuable to the organisational mission.[11] The estimated costs of workplace harassment are staggering, with established detrimental impact on

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Panel: **What "Time's Up" in health care would facilitate in organisations**

Structures

- Establish standardised policies, procedures, and resources for addressing sexual harassment and discrimination
- Provide concrete prevention strategies, such as civility and bystander training interventions
- Ensure adequate staffing to support prevention, surveillance, and investigatory activities
- Provide adequate and safe reporting pathways, including options for "complaint handlers" (diverse in every way, including position within organisation)
- Provide protections constraining retaliation against reporters of harassment
- Provide routine education of the entire workforce
- Establish procedures to detect bias and discrimination in recruitment, hiring, dismissal, mentoring, and allocation of compensation and other resources, promotion, and leadership roles

Processes

- Identify process measures to ensure existing policies and procedures are implemented effectively and to track intermediate benchmarks pending downstream outcome changes
- Support means of adapting standardised policies to be optimally acceptable for an individual practice setting (eg, means of incorporating input from a diverse group of employee stakeholders)
- Provide visibility and transparency of progress
- Ensure processes are adapted regularly to meet or exceed current standards
- Explore and implement organisational and cultural restructuring to avoid steep, vertical hierarchies
- Perform root cause analysis of harassment cases to shed light on organisation factors fostering harassment and inequities

Outcomes

- Identify, measure, and track critical outcomes, including:
  - occurrence of discrimination and harassment
  - objectivity of hiring and dismissal
  - equity in allocation of compensation and other resources, promotion, and leadership roles
  - disproportionate attrition of women or under-represented minorities
  - numbers of formal complaints, investigations, and lawsuits
  - perceptions of overall culture of safety and respect
  - occupational, mental, and physical health outcomes of targets after harassment
  - sanctions against confirmed transgressors
- Create internal and external incentives for achieving outcome targets—eg, tie progress in these outcomes to individual and organisational financial incentives

physical, psychological, and professional wellbeing of both the targets and bystanders.[12]

The #MeToo movement has brought the scope and severity of harassment and inequity to the forefront of public consciousness. The hashtag trended in at least 85 countries. Women in medicine[13] and science[14] participated using hashtags such as #metoomedicine, #metooscience, and #metooSTEM. #MeToo was tremendously effective in raising awareness and, crucially, was a bridge to action, giving rise to goal-oriented organisations such as TIME'S UP, which coordinates responses to gender discrimination and harassment and develops solutions to address them. Initiatives of TIME'S UP have included establishing the TIME'S UP Legal Defense Fund, issuing strong statements from high-visibility platforms such as major entertainment industry events, and shining a light on harassment and inequity outside of entertainment, including among food service employees.[15]

What would it mean to have a Time's Up initiative in health care? The potential impact of moving from #MeToo to #TimesUp in medicine and science is no less important than for entertainment and media. It is but a small leap from systemic mistreatment of a subset of health-care workers to disparate poor health outcomes in populations that differ demographically from their health-care providers or researchers. As data of the global health benefits of female leadership emerge,[16] ensuring an inclusive work environment that allows the full biomedical and health-care workforce to thrive and advance becomes imperative.

A Time's Up effort in health care would ask organisations to confront each of the obstacles to preventing and addressing inequity and harassment: unclear policies and reporting structures; poor adherence to procedures and follow-through on reported cases; little to no support or protection for targets of harassment or inequity; undue reliance on formal complaints or lawsuits to focus organisational attention on harassment; a punitive environment for whistleblowers; minimal consequences for perpetrators of harassment or discrimination; and absence of standardised approaches to ensure accountability. In practice, strategies to eliminate harassment and inequity would be modelled after other quality

improvements in health care through improved structures, processes, and outcomes (panel).[17] Such a framework would establish minimum standards for addressing harassment and discrimination, while encouraging institutions to excel in this arena.

Time's Up for health care would demand a commitment to the implementation of global changes across the health-care sector and to the acknowledgment that organisational tolerance of harassment contributes to its perpetuation.[18] Leaders of health-care organisations would be asked to visibly dedicate themselves to mitigating harassment and discrimination as a priority by assigning responsibility to offices and individuals empowered to impact overall culture change and allocating adequate resources to this mission. A wide spectrum of health-care professions, specialties, and settings would need to be engaged to convey a unified message that health care and biomedical science values and expects accountability. Consumers, regulators, philanthropists, and policy makers would all play a part in establishing expectations for health-care organisations to participate—or even excel—in these activities.

Similarly, leaders of a Time's Up initiative in health care should represent the full range of diverse perspectives of professionals, including members who have historically been marginalised. Through in-person sessions and outreach, leaders could engage health-care practices, hospitals, and other institutions on an individual level, providing concrete resources—eg, templated measurement tools for repeated evaluation of institutional culture in relation to gender equity and sexual harassment.[19] Members of the movement would also engage with media to transform public expectations of behaviour within health-care settings.

The health-care industry is one of the largest employers in the world and accounts for a global market projected to reach US$11·8 trillion by 2021.[20] Bringing safety and equity to its workforce is necessary to sustain the vitality of the health-care professions. These professions cannot meet productivity goals or fulfil their promise to society unless women are fully included—not only in numbers but also in respect, influence, and authority. A host of improved medical, surgical, and public health outcomes[21–24] are associated with workforce and leadership heterogeneity, reinforcing what has been observed in other settings: diversity and inclusion improves collective intelligence. The health of our patients requires that systemic inequities be addressed. Now is the time for Time's Up in health care.

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The good, the bad, and the ugly of implicit bias

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The concept of implicit bias, also termed unconscious bias, and the related Implicit Association Test (IAT) rests on the belief that people act on the basis of internalised schemas of which they are unaware and thus can, and often do, engage in discriminatory behaviours without conscious intent.[1] This idea increasingly features in public discourse and scholarly inquiry with regard to discrimination,[1] providing a foundation through which to explore the why, how, and what now of gender inequity. Attention to the gender gap in academia, particularly pronounced in the science, technology, engineering, mathematics, and medicine (STEMM) fields,[2] has led many institutions to mandate implicit bias training.[1,3] Here we critically explore the impact of such interventions, illuminating the good, the bad, and the ugly of implicit bias and the implications for women in science. Although it is essential to promote awareness of gender inequities, the current focus on implicit bias risks masking broader social, structural, and political barriers to women's advancement.

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Scholarship in implicit bias has helped to unveil a troubling gender bias in academia, whereby men's competencies, skills, productivity, leadership potential, and quality of work are consistently judged to be superior on the basis of gender identification alone.[1,4] Implicit bias training can make individuals aware of their unintentional involvement in the perpetuation of discrimination and inequity as well as the unrecognised advantages they enjoy based on group membership. Such training encourages individuals to confront their own biases and unearned privileges and to learn strategies aimed at reducing discriminatory thoughts and practices.[5] Additionally, as the concept of implicit bias has gained popularity, it has enriched public consciousness and discourse on gender inequity.[5] These are all important building blocks for creating change and thus represent inherent goods of the implicit bias trend.

Implicit bias training has had some success in changing individual-level beliefs and actions,[4] but meta-analyses suggest it is largely ineffective in diminishing institutional inequities.[6] For instance, women remain disproportionately less likely to receive faculty appointments, obtain leadership positions, earn comparable wages, receive grant funding, and are more likely to leave the academy prematurely.[1,3,7,8] A focus on implicit bias partly contributes to this lack of change by emphasising agency (eg, individual choice) over structure (eg, institutional, organisational, and