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Under-representation of women in research: a status quo that is a scandal

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Among the failings of medical research, the under-representation of women and ethnic minorities in clinical studies is nothing short of a scandal. In 1994 the US National Institutes of Health made it mandatory for government funded research to include both these groups. The UK National Institute for Health and Care Research issued guidance on sex and gender in 2020. Yet, despite these and other requirements, increased awareness, and numerous pledges, progress is unacceptably slow.

Sidelining women reduces the wider applicability of research findings, because biological characteristics may influence disease presentation, pathophysiology, and responses to treatment (doi:10.1136/bmj.p845).¹ By some estimates only 5-14% of studies across disciplines examine outcomes by sex (doi:10.1136/bmj.p1303).² Gender matters too. How people identify themselves, for instance, may affect access to healthcare, clinical assessment, and decision making. A sensible and equitable research agenda, therefore, considers both sex and gender in study design and analysis.

Taking the example of cardiovascular research, Trisha Greenhalgh and colleagues examine the implicit biases in research about women's cardiovascular health (doi:10.1136/bmj-2023-075031).³ They argue for greater focus on social and economic factors to overcome implicit biases, and their demand is clear and unarguable: "Researchers should recruit both sexes equally, disaggregate data by sex, and be aware of gendered assumptions and expectations that can lead to hidden biases." This is a position that *The BMJ* supports, and we are part of a George Institute project to develop recommendations on sex and gender reporting.⁴

Medical science has moved some way from the "Mr Fit" trial of the 1970s that screened 325 000 white men and no women for cardiovascular risk (doi:10.1136/bmj-2023-075031).³ One of the incentives for trial participants is that they should all be offered a beneficial new intervention once the trial is concluded. In the case of Mr Fit the benefit was offered only to white men. When such a new intervention is rolled out to a wider population that includes women and ethnic minorities, how can we be sure that it will be safe and effective? Other major studies, such as the Physicians Health Study, were also limited to white men.

A recent *BMJ* collection of articles ([bmj.com/gender-and-pandemic-response](https://www.bmj.com/gender-and-pandemic-response)) examined the global impact of the covid-19 pandemic on sex and gender inequalities. It drew a clear and troubling conclusion that decades of hard won gains had been "wiped out," and it mapped out a shared research agenda for future pandemics and crises, again emphasising

the importance of both sex and gender in design and analysis of research (doi:10.1136/bmj.p1213).⁵ In other settings we are almost daily reminded of the harms experienced by women in healthcare and from research (doi:10.1136/bmj.p2090 doi:10.1136/bmj.p2078 doi:10.1136/bmj.p2044).⁶⁻⁸

Change will come. It will come when women and ethnic minorities are better represented in research funding bodies and academic research departments, provided that those people are willing to speak out (doi:10.1136/bmj.p2051).⁹ It will come because the public, and therefore politicians, will no longer accept the status quo of a costly research enterprise engineered primarily for the benefit of white men. It will come in the selfish realisation of people who reinforce the inequalities hardwired into medical research that eradicating inequalities in health and research also benefits the dominant group.

But why wait? We already know enough to act. Funders, institutions, research ethics committees, medical journals and publishers, individual researchers and clinicians—as is the case with clinical platform trials—can all play a part (doi:10.1136/bmj.p1809).¹⁰ And they must play it now. The under-representation of women in research is a status quo that is more accurately described as an enduring international scandal.

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