

# More women in science will reduce gender bias in decisions

## COMMENT



HANNAH SIMBA

THE pandemic has killed more than 4 million people worldwide, tested and devastated health-care systems and affected economies. It has also reversed many gains for women's health, empowerment, rights and education.

The UN Educational, Scientific and Cultural Organization estimates that more than 11 million girls may not return to school once the pandemic subsides. This threatens decades of progress that has been made to keep girls in school.

We know that for a country to attain overall good health, fight diseases, protect the environment, achieve food security, and develop technologies and discoveries, it has to use the scientific knowledge and skills of all its people.

Unfortunately, women remain underrepresented in science, technology, engineering and mathematics (Stem), and occupy fewer positions at top universities.

Gender disparities in science persist and will probably worsen due to the effect of the pandemic. Women's Day, on August 9, is an opportune moment to drive home the message that the education and participation of women in science remains paramount and needs to be prioritised even during this time.

Today, women make up only 28% of all of the world's researchers. In Sub-Saharan Africa, the figure stands at 33%, with South Africa having reached gender parity in this regard, with 45% women researchers since 2015.

Female students represent only



WOMEN are underrepresented in science, technology, engineering and maths, and occupy fewer positions at top universities, says the writer. | Flickr/ African News Agency (ANA)

35% of all students enrolled in Stem-related fields of study globally. Only 6% of Nobel Prizes have been awarded to women. Female faculty members constitute one in five faculty members in computer science, mathematics, engineering and the physical sciences collectively. Additionally, women leave Stem disciplines in disproportionate numbers during their tertiary education, in what has been termed the "leaky pipeline" of academia.

There is an apparent glass ceiling that exists for female scientists because of the prevailing gender inequalities in science.

A lot more needs to be done to retain women in academia by providing the needed support and mentorship, and by levelling the playing field for women and men.

What can be done to get more women into science? Interest in Stem fields must be cultivated from an early age in school, through unbiased classrooms, career guidance, support from families and communities and introducing role models in science.

There must be support of women in science through mentorship, creating safe environments for education

and work, as well as funding, so that more women enter into science and also persist in Stem education and careers.

Mentorship can be used to retain women in academia and to address gender inequality and discrimination, and to stop the "leaky pipeline", or attrition.

We shouldn't underestimate the pivotal role teachers and the overall education system play in making sure that girls and boys have equal opportunities, that girls participate in science in safe spaces and environments, and that any bullying and discouragement from other pupils is addressed.

Training teachers to be sensitive to the issues and making sure the education system does not propagate inequalities and gender stereotypes is important. Families and communities can also get involved, by encouraging participation in science and socialisation and avoiding stereotypes such as women should not be doing science, or only men can be scientists.

Schools, universities, and Stem industries should also organise career guidance workshops and outreach programmes as these can go a long way

in showing girls what careers in Stem look like.

Sparkling the interest of girls to get into science needs an integrated approach, and I believe every science student, professional, institution and company has the capacity to get involved and play a role.

We should highlight the interesting and groundbreaking research of women scientists and celebrate their achievements as this increases their visibility, improves women's representation in science, and contributes positively to equity in the field. Representation in science matters, especially for girls.

Another important aspect is funding. The executive director and co-founder of Women in Global Health, Rhoopa Dhatt, says: "Funders should set quotas for funding allocation. Women's health research receives less than 5% of global health funding. It should be 50:50, but one option would be to make sure that at least 25% of that work goes to female researchers. We know women are more likely to research women's health, so making sure they have the resources to do that is one step forward."

In order to overcome the great challenges that we, as a country and a continent, face it is crucial that we increase the number of female African scientists, and provide support for upcoming and existing scientists.

To solve South Africa and Africa's problems, we'll need all hands on deck, and the inclusion of women in science will not only lead to more innovation, discoveries and applied knowledge, but also reduce gender biases in decision-making.

*Simba is a PhD candidate in public health (with the African Cancer Institute) at Stellenbosch University. She is also an ambassador for Working to Advance Stem education for African Girls, an organisation that advances education for African girls in science, technology, engineering and mathematics.*

