Gagandeep Kang, a virologist at the Christian Medical College in Vellore, India, who also advises the WHO on immunization.

Other platforms induce more-targeted responses against specific parts of the virus, which might be why they are more effective. The mRNA vaccines encode the 'spike' protein that SARS-CoV-2 uses to enter cells, so they trigger high numbers of antibodies that block that protein.

Most COVID-19 vaccines are given in two doses, and studies are under way to assess whether individuals will need to get booster shots after that. This question might be especially relevant for those who receive inactivated-virus vaccines such as CoronaVac and Sinopharm's shot, because they produce fewer antibodies, scientists say. But the priority for now should be to get as many people vaccinated with their first two doses as possible, says Kang.

The other vaccines that the WHO has approved for emergency use are the Moderna and Pfizer–BioNTech shots, as well as those made by Johnson & Johnson and the University of Oxford and AstraZeneca, and a version of the Oxford–AstraZeneca vaccine known as Covishield, which is produced by the Serum Institute of India in Pune.

WILL SCIENTISTS USE GREEK NAMES FOR CORONAVIRUS VARIANTS?

From Alpha to Omega, the WHO's labelling system aims to avoid confusion and stigma.

By Ewen Callaway

When researchers in South Africa spotted a highly mutated strain of coronavirus driving the country's second wave in late 2020, they called it variant 501Y.V2. Other scientific naming schemes have called it B.1.351, 20H/501Y.V2 and GH/501Y.V2. But many media outlets — and some scientists — describe the same virus as 'the South African variant'.

To quell such confusion and avoid geographical stigma, everyone should now just call it 'Beta', according to a naming scheme announced on 31 May by the World Health Organization (WHO) in Geneva, Switzerland, and described in *Nature Microbiology* (F. Konings *et al*. *Nature Microbiol.* https://doi.org/10.1038/s41564-021-00932-w; 2021).

The names, taken from the Greek alphabet (see 'Variants of concern'), are not intended to replace scientific labels, but will serve as a handy shorthand for policymakers, the public and other non-experts who are increasingly losing track of variant names.

"It is a lot easier for a radio newsreader to say 'Delta' than bee-one-six-one-seven-two," says Jeffrey Barrett, a statistical geneticist leading SARS-CoV-2-sequencing efforts at the Wellcome Sanger Institute in Hinxton, UK. "So I'm willing to give it a try to help it take off."

"Let's hope it sticks," says Tulio de Oliveira, a bioinformatician and director of the KwaZulu-Natal Research Innovation and Sequencing Platform in Durban, South Africa, whose team identified the Beta variant.

In an online poll by *Nature*, the vast majority of respondents said that they planned to adopt the new labels, either alone or together with the scientific designations (see 'Greek naming system preferred').

The system could be especially useful in countries battling a number of variants, such as South Africa, where a variant found in the United Kingdom and known to scientists as B.1.1.7 — now called Alpha — is on the rise. And researchers such as de Oliveira are watching out for cases of the B.1.617.2 variant identified in India, now called Delta.

Confusion isn't the only reason to go with a simplified naming system, say advocates of the new system. Terms such as 'the South African variant' and 'the Indian variant' can stigmatize countries and their residents, and might even discourage nations from running surveillance for new variants. "The geographical names, we have to stop with that — really," says de Oliveira. He is aware of countries in Africa where health ministers have been reluctant to announce the discovery of new local variants because of concerns about being made pariahs.

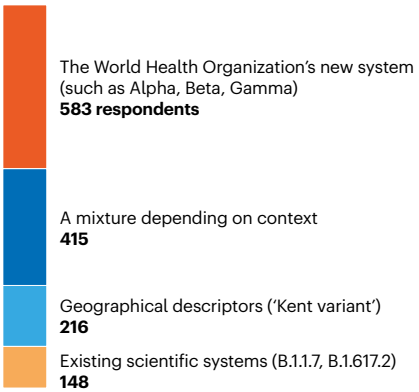
"I can understand why people just call it 'the South African variant' — they don't mean anything by it," says Salim Abdool Karim, an epidemiologist at the Centre for the AIDS Program of Research in South Africa in Durban. "The problem is, if we allow it to continue, there are people who have an agenda and will use it."

Barrett intends to embrace the new system in media appearances, but suspects geographical descriptors won't go away quickly. "The reason we use country names (which is problematic) is that it ties the variants to the story of the pandemic in a way that's easier to remember," he wrote in an e-mail to *Nature*. "The new system is still very anonymous and it will still be hard for the public to remember who's who."

In recent months, most scientists have settled on a single lineage-naming system that describes variants' evolutionary relationships. With time, the WHO's naming system might gain the same currency among the general public, says Jeremy Kamil, a virologist at Louisiana State University Health in Shreveport.

GREEK NAMING SYSTEM PREFERRED

Nature asked readers how they thought they would describe coronavirus variants in future. Of 1,362 respondents, most said they would use the new Greek naming system, or a mixture of names depending on context.



SOURCE: *NATURE* POLL

VARIANTS OF CONCERN

WHO label	Pango lineage	GISAID clade	Nextstrain clade	Earliest documented samples	Date of designation
Alpha	B.1.1.7	GRY	20I/S:501Y.V1	UK, Sept 2020	Dec 2020
Beta	B.1.351	GH/501Y.V2	20H/S:501Y.V2	South Africa, May 2020	Dec 2020
Gamma	P.1	GR/501Y.V3	20J/S:501Y.V3	Brazil, Nov 2020	Jan 2021
Delta	B.1.617.2	G/452R.V3	21A/S:478K	India, Oct 2020	May 2021

Source: WHO