

# Correspondence

## Vaccination certificates could entrench inequality

To pre-empt ad hoc vaccine mandates by private actors, governments should prioritize thoughtful and context-dependent regulation of vaccination certificates. Ten months after we detailed myriad problems with immunity passports for COVID-19 (N. Kofler and F. Baylis *Nature* **581**, 379–381; 2020), our ethical concerns have only grown. These are: inequality with respect to fair vaccine access, compromised privacy, heightened social stratification, increasing discrimination against minority ethnic and other marginalized groups, and the introduction of new forms of discrimination.

In specific circumstances to protect public health, proof of vaccination could be important, say, for those who live or work in long-term care facilities or for doctors and nurses – similar to influenza vaccine mandates for health-care workers in some US states. However, broad application of mandated vaccine certification for discretionary travel – or to access restaurants, sporting events, gyms, concerts and other leisure facilities – sharpens each of our concerns about increasing inequity.

Policy should be informed by a public-health ethic focused on the common good. It should aim to bolster community health by protecting those most vulnerable to COVID-19, not to entrench existing inequities that exacerbate those vulnerabilities.

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The Summer Internship for Indigenous Peoples (SING) Consortium hosts workshops to engage students and tribal members in genomics.

## Genomics data: the broken promise is to Indigenous people

In lamenting the “broken promise that undermines human genome research”, this journal implies that researchers have a right to access information across databases (see *Nature* **590**, 198–201; 2021). In our view, this problematically frames ‘equity’ and ‘progress’ for scientists and dismisses the rights of those who contributed the DNA. As Indigenous geneticists, we remind researchers of the broken promise to extend medical benefits to communities whose genomic data are publicly available.

The genomes of Indigenous people are sought for their unique variation: new genotype–phenotype associations in isolated, small populations are used to advance precision medicine. We take issue with the fact that the Human Genome Diversity Project publicly shares with industries that profit from the ‘big data’

economy genomic information gleaned from central-south American Indigenous individuals (K. Fox *N. Engl. J. Med.* **383**, 411–413; 2020). Meanwhile, wide disparities persist in the health of Indigenous people, owing to intractable power inequities, including in research, that precision medicine is unlikely to address (K. S. Tsosie *et al. Nature Rev. Genet.* **20**, 497–498; 2019).

We contend that the FAIR Principles (see [go.nature.com/2nqzcxo](http://go.nature.com/2nqzcxo)) for data sharing grant too much decision-making authority to researchers outside of tribal governances. To understand the duty to steward data, look instead to the CARE Principles (collective benefit, authority to control, responsibility and ethics; see [go.nature.com/3vsenhk](http://go.nature.com/3vsenhk)). Data are not a gift. At best, they are ‘on loan’, and hence revocable if misused. Data are a responsibility not an entitlement.

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## Pool patents to get COVID-19 vaccines and drugs to all

We call on pharmaceutical companies to contribute to a pool of patents set up by the World Health Organization (WHO). That will speed up the manufacture of generic, affordable COVID-19 vaccines and treatments while protecting firms’ incentives to invest in future research. The WHO’s COVID-19 Technology Access Pool has so far received no contributions from industry.

Asking governments in rich nations to donate vaccines to lower-income countries (see G. Yamey *Nature* **590**, 529; 2021) will not hasten manufacture. India and South Africa have proposed suspending patents related to COVID-19 products, but companies contend that this could dent drug development.

The practice of pooling patented technologies for the production of medicines (see *Nature* **581**, 240; 2020) already occurs for HIV, hepatitis C and tuberculosis treatments. Fees are typically lower when licences are negotiated as a bundle with generics producers, implying increased volume (J. Lerner and J. Tirole *Innov. Policy Econ.* **8**, 157–186; 2007). Yet firms can anticipate extra revenue from participation in a voluntary pool, and thus be more willing to maintain innovation and share know-how than with compulsory licensing.

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