concern (PHEIC). The handful of Ebola cases confirmed in Uganda have involved people who travelled from the DRC, and there is no evidence that the virus is being transmitted within Uganda. One criterion that the WHO uses to determine whether an outbreak is a global emergency is whether a disease is spreading in more than one country.

The WHO's Emergency Committee of independent medical experts decided against declaring an emergency in part because doing so could trigger the DRC's neighbours to close their borders. That could halt trade and damage the country's economy, while preventing thousands of people from escaping violence in the northeastern DRC, which is home to dozens of armed groups. At least 50 people were killed during recent violence in Ituri, one of two provinces in which Ebola is spreading, the DRC government said on 13 June.

"Of course it is an emergency of international concern, translated literally," says Chikwe Ihekweazu, director-general of the Nigeria Centre for Disease Control in Abuja, who advised the deliberations. "But making this additional declaration — to be honest, I don't see the extra benefit it would bring."

Other experts argue that an emergency declaration would help to bring the current Ebola outbreak under control. "I'm baffled," says Lawrence Gostin, a health-law and policy specialist at Georgetown University in Washington DC. "The WHO was roundly criticized for delaying for six months its declaration of an emergency in West Africa, and now it's repeating history."

He had hoped that an emergency declaration for the DRC outbreak would prompt an outpouring of financial help and other assistance from governments and aid organizations — similar to that seen during the 2014–16 Ebola outbreak in West Africa. The WHO has said that it needs another US$54 million to support its Ebola response until the end of July.

But Ghebreyesus says that the declaration of a public-health emergency should not be viewed as a fundraising exercise. "You don't wait to patch the roof until after the storm comes," he told *Nature*. "Using a PHEIC to mobilize resources is dangerous because, by then, it's too late." ■

ETHICS

African academy leads push for ethical data use

The goal is to create the continent's first cross-disciplinary guidelines for sharing data.

BY LINDA NORDLING

The African Academy of Sciences (AAS) has started work on the continent's first cross-disciplinary guidelines on how to collect, store and share research data and specimens in ways that protect study participants from exploitation and benefit African citizens.

Members of the AAS Data and Biospecimen Governance Committee, who met for the first time on 10 and 11 June in Nairobi, Kenya, hope to address these issues, which pose persistent challenges for African nations and researchers. The committee's guidance won't have legal authority — rather, the goal is to provide a resource for governments creating their own policies and to guide researchers, according to committee members.

The AAS holds significant political clout on the continent, says John Mugabe, a science-policy specialist at the University of Pretoria in South Africa. He says that some of the AAS fellows are senior government officials in their countries or members of the countries' legislative assemblies, and that the academy holds observer status in the African Union.

The AAS committee includes about a dozen African bioethicists, data specialists and legal experts. And it plans to gather input from other disciplines and groups, including patient organizations and community advocates. "The composition of this is basically African, to hear the African voice," says Jenniffer Mabuka-Maroa, an AAS research programme manager based in Nairobi and the convener of the committee meeting.

PIUS UTOMI EKPEI/AFP/GETTY

African science academy is pushing for better data-sharing guidance for fields including health research.

ETHICS CODES

Other groups and communities in Africa have produced data-sharing guidance or ethics codes. But the AAS committee's work is the first attempt at multidisciplinary guidelines for all of Africa.

At the meeting last week, the group reviewed common challenges for collecting and handling research data in Africa, including sensitive and potentially lucrative information gathered for medical research and bioprospecting — scanning natural resources such as plants and animals for compounds that can be turned into drugs or other commercial products.

Data sharing, particularly in genomics and biodiversity, is a hot topic across Africa. In South Africa, an information-protection bill due to come into effect next year could

block research for which scientists collect data or biological samples such as blood and tissue under 'broad consent', whereby study participants agree that researchers can keep and analyse their samples for unspecified purposes. Some local scientists are lobbying the government for an exemption, saying that restrictions could hamper work on diseases such as HIV and tuberculosis.

Procedures during disease outbreaks are also controversial. Foreign medical workers and researchers who came to West Africa during the 2014–16 Ebola outbreak exported blood samples from some of the affected nations — sometimes without the donors' consent — to their home countries for quicker analysis. Despite attempts to recover these specimens, or to find out what happened to them, many samples remain in foreign laboratories, and it's unclear whether Africans will share in any benefits from the research, such as new treatments.

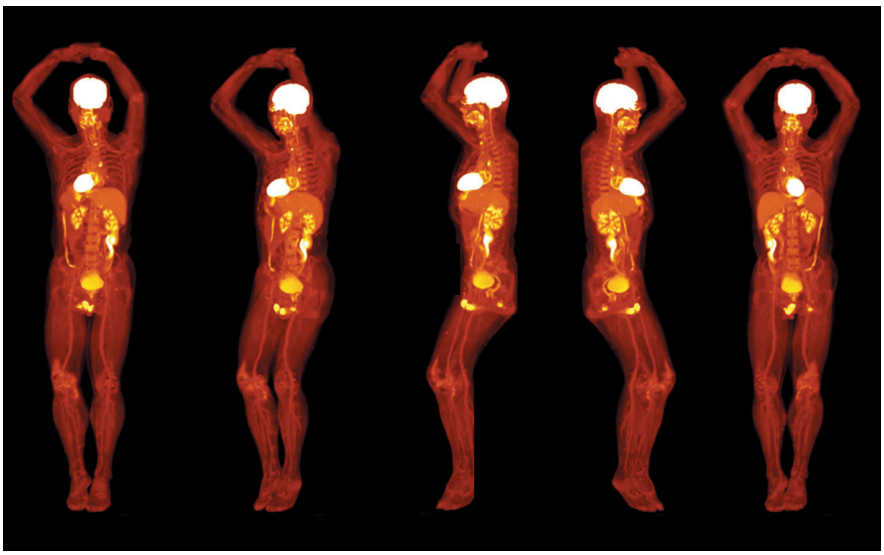
These issues are among many that the AAS committee might consider while drawing up its guidelines.

Even when data-sharing policies are negotiated as part of international partnerships, African scientists might feel unable to push back against the wishes of powerful donors or research partners. African scientists might not question unfair policies for fear of harming their funding chances — and instead simply accept the grants and their inequitable conditions, says an African researcher who didn't want to be named because of the sensitivities of the situation. This is especially problematic for younger researchers, the scientist says.

Clear national or institutional data-sharing policies could help scientists who find themselves in such a position, the AAS committee said. "By having these frameworks, researchers will become less vulnerable and be better able to engage with their donors to achieve mutual respect and benefit."

Whatever way the AAS committee guidelines address the practical challenges of data sharing, it's important that they also uphold African values, says Collet Dandara, a geneticist at the University of Cape Town in South Africa. Communities that take a group-centred approach to participation in research projects, such as the San people in southern Africa, can run into problems with the individualized approach to data ownership and benefit sharing that is common in Western science. Deciding how to proceed would involve working closely with communities that have some claim to the information being gathered, Dandara says, including asking members how they think the work should be done.

Some people say the communities wouldn't understand the research, Dandara says. "But if they don't understand, why are we researching them? Maybe it's us who don't understand." ■



UC DAVIS; ZHONGSHAN HOSPITAL; UNITED IMAGING HEALTHCARE

Images from the device can be used to study how drugs or infections move through the human body.

TECHNOLOGY

Whole-body scans made in seconds

A modified PET scanner requires less radiation exposure, vastly broadening its applications.

BY SARA REARDON

A medical imaging device that can create 3D renderings of the entire human body in as little as 20 seconds could soon be used for a wide variety of research and clinical applications.

The modified positron emission tomography (PET) scanner is faster than conventional PET scans — which can take an average of 20 minutes — and requires less radiation exposure for the person being imaged. Researchers presented video taken by the device at the US National Institutes of Health's High-Risk, High-Reward Research Symposium in Bethesda, Maryland, earlier this month.

The machine could be especially helpful for imaging children, who tend to wiggle around inside a scanner and ruin the measurements, as well as for studies of how drugs move through the body, says Sanjay Jain, a paediatrician and infectious-disease physician at Johns Hopkins University in Baltimore, Maryland.

Standard PET scanners detect γ-rays from radioactive tracers that doctors inject into the person being imaged. The person's cells take up the molecules, which release γ-rays, and break them down. A ring-shaped detector positioned around the person measures the angle and speed of the rays and reconstructs their origin, creating a 3D map of the cells that are metabolizing the molecule.

The ring is just 25 centimetres thick, however, so physicians can image only a small portion of the body at a time. Capturing larger areas requires them to dose the person with more of the radioactive molecule — it decays quickly, which means the signal fades fast — and move them back and forth through the ring.

"The whole-body machine is another quantum jump in medical imaging."

Biomedical engineer Ramsey Badawi and his colleagues at the University of California, Davis, solved this problem by connecting eight PET scanner rings into a 2-metre-long tube that can image the entire body at once. It creates a rendering in 1/40 of the time of a conventional scanner, using 1/40 of the radiation dose and so reducing the radiation risk. The researchers can also leave someone in the scanner for longer periods and take motion-capture images to follow a radioactive tracer through their body.

The US Food and Drug Administration approved the modified scanner for use in the United States last December, and Badawi plans to scan the first patients ▶