

Time to sound the alarm about the hidden epidemic of kidney disease

With rates rising around the world, public-health leaders must prioritize prevention, treatment, funding and data.

A quiet epidemic is building around the world. It is the third-fastest-growing cause of death globally. By 2040, it is expected to become the fifth-highest cause of years of life lost. Already, 850 million people are affected, and treating them is draining public-health coffers: the US government-funded health-care plan Medicare alone spends US\$130 billion to do so each year. The culprit is kidney disease, a condition in which damage to the kidneys prevents them from filtering the blood.

And yet, in discussions of priorities for global public health, the words ‘kidney disease’ do not always feature. One reason for this is that kidney disease is not on the World Health Organization (WHO) list of priority non-communicable diseases (NCDs) that cause premature deaths. The roster of such NCDs includes heart disease, stroke, diabetes, cancer and chronic lung disease. With kidney disease missing, awareness of its growing impact remains low.

The authors of an article in *Nature Reviews Nephrology* this week want to change that (A. Francis *et al.* *Nature Rev. Nephrol.* <https://doi.org/10.1038/s41581-024-00820-6>; 2024). They are led by the three largest professional organizations working in kidney health – the International Society of Nephrology, the American Society of Nephrology and the European Renal Association – and they’re urging the WHO to include kidney disease on the priority NCD list.

This will, the authors argue, bring attention to the growing threat, which is particularly dire for people in low- and lower-middle-income countries, who already bear two-thirds of the world’s kidney-disease burden. Adding kidney disease to the list will also mean that reducing deaths from it could become more of a priority for the United Nations Sustainable Development Goals target to reduce premature deaths from NCDs by one-third by 2030.

As of now, rates of chronic kidney disease are likely to increase in low- and lower-middle-income countries as the proportion of older people in their populations increases. Inclusion on the WHO list could provide an incentive for health authorities to prioritize treatments, data collection and other research, along with funding, as with other NCDs.

Kidney disease often accompanies other conditions that do appear on the NCD list, such as heart disease, cancer and diabetes – indeed, kidney-disease deaths caused

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specifically by diabetes are on the list. But the article authors argue that “tackling diabetes and heart disease alone will not target the core drivers of a large proportion of kidney diseases”. Both acute and chronic kidney disease can have many causes. They can be caused by infection or exposure to toxic substances. Increasingly, the consequences of global climate change, including high temperatures and reduced availability of fresh water, are thought to be contributing to the global burden of kidney disease, as well.

The WHO secretariat, which works closely with the nephrology community, welcomes the call to include kidney disease as an NCD that causes premature deaths, says Slim Slama, who heads the NCD unit at the secretariat in Geneva, Switzerland. The data support including kidney disease as an NCD driver of premature death, he adds.

The decision to include kidney disease along with other priority NCDs isn’t only down to the WHO, however. There must be conversations between the secretariat, WHO member states, the nephrology community, patient advocates and others. WHO member states need to instruct the agency to take the steps to make it happen, including providing appropriate funding for strategic and technical assistance.

Data and funding gaps

Three reports based on surveys by the International Society of Nephrology since 2016 highlight the scale of data gaps (A. K. Bello *et al.* *Lancet Glob. Health* **12**, E382–E395; 2024). In many countries, screening for kidney disease is difficult to access and a large proportion of cases go undetected and therefore uncounted. For example, it is not known precisely how many people with kidney failure die each year because of lack of access to dialysis or transplantation: the numbers are somewhere between two million and seven million, according to the WHO. Advocates must push public-health officials in more countries to collect the data needed to monitor kidney disease and the impact of prevention and treatment efforts.

Even with better data, treatments for kidney disease are often prohibitively expensive. They include dialysis, an intervention to filter the blood when kidneys cannot. Dialysis is often required two or three times weekly for the remainder of the recipient’s life, or until they can receive a transplant, and it is notoriously costly. In Thailand, for example, it accounted for 3% of the country’s total health-care expenditures in 2022, according to the country’s parliamentary budget office.

These costs could come down if people who have diabetes or high blood pressure, for example, could be routinely screened for impaired kidney function, because they are at high risk of developing chronic kidney disease. This would enable kidney damage to be detected early, before symptoms set in, opening the way for treatments that do not immediately require dialysis or transplant surgery.

New drugs that boost weight loss and treat type 2 diabetes could also help to prevent or reduce stress on the kidneys, but these, too, are too expensive for many people in need. That is why something needs to be done to make drugs more affordable. The pharmaceutical industry,

which has become extremely profitable, has a crucial role. In Denmark, for example, the industry's profits helped to tip the national economy from recession into growth in 2023, according to the public agency Statistics Denmark. The COVID-19 pandemic showed that making profits and making drugs available, and affordable, to a wide population need not be mutually exclusive. Similarly innovative thinking is now needed. "The whole world needs to reckon with this kidney problem," says Valerie Luyckx, a biomedical ethicist at the University of Zurich in Switzerland.

The WHO adding kidney disease to its priority list could also attract funding for treatment, research and disease registries. That could jump-start the development of new treatments and help to make current treatments more affordable and accessible.

NCDs are responsible for 74% of deaths worldwide, but the world's biggest donors to global health currently devote less than 2% of their budgets for international health assistance to NCD prevention and control, and not including kidney disease. Drawing more attention to the quiet rampage of kidney disease among some of the most vulnerable people would be one important step in turning these statistics around.

The EU's ominous emphasis on 'open strategic autonomy' in research

A reboot of the European Union's research-cooperation fund risks prioritizing a mindset geared towards security over open collaboration.

Last month, the European Commission published a 'course correction' for its Horizon Europe research fund, which is worth around US\$100 billion over seven years, from 2021 to 2027. It's not easy to make major alterations at the mid-way point of such a large enterprise, whose two predecessors funded 1.5 million collaborations across 150 countries. But the European Union has made substantial changes in the fund's latest strategic plan that researchers need to be aware of.

One of the most important is a phrase now peppered throughout the document: open strategic autonomy.

This political concept means that the EU will strengthen its self-sufficiency while remaining open to cooperation with other regions. The term is not new – in Horizon Europe's first strategic plan (for 2021–24), open strategic autonomy was one of four priority areas for funded projects, alongside the green transition, the digital transition

and building a more resilient, competitive, inclusive and democratic Europe.

The EU has reduced these four priorities to three – and open strategic autonomy has been upgraded. It is now an overarching theme for all research funded by Horizon Europe from 2025 to the end of 2027. Barring a sudden outbreak of world peace, this mode of thinking and action is expected to influence – if not dominate – the next iteration of Horizon Europe, called FP10, which will start in 2028.

This change of priorities is concerning researchers. The European Research Council (ERC), which funds investigator-led research and is part of Horizon Europe, issued a statement at the end of January, saying: "The ERC's independence and autonomy must be protected under FP10."

But for now, just as a tanker cannot be turned around at full speed, Horizon Europe retains key elements of the original plan. The EU wants to maintain its climate funding (35% of the total Horizon Europe budget) and increase biodiversity funding to 10% of the budget, which are both welcome decisions. It is also committed to the idea of moonshot-style missions: specific goal-oriented funds to tackle urgent global challenges, such as improving soil health and establishing carbon-neutral cities. It plans to meaningfully integrate social-sciences and humanities researchers into collaborations – not just include them as afterthoughts – and to improve diversity and equity. And it is continuing to reach beyond its borders.

Last week, it was announced that South Korea's researchers will be able to participate in EU-funded projects related to global challenges. Last November, Canada also joined the programme. And New Zealand before that. The United Kingdom's researchers are also back, after a gap of nearly four years after Brexit. These are, broadly speaking, all representative democracies with which EU countries have defence- and security-cooperation agreements. The principle of open strategic autonomy will make it more difficult to cooperate with countries for which this is not the case.

The EU is obviously responding to the world-changing events of the past decade. When discussions about the first iteration of Horizon Europe were beginning, wars, pandemics and the election of populist leaders mostly seemed to be twentieth-century concerns. As the EU – and its international partners, too – responded to levels of instability that few were expecting, heavier emphasis on a research agenda to strengthen supply chains, ensure resilience of essential infrastructure and establish more manufacturing at or closer to home is understandable.

But a security mindset cannot be baked into what is fundamentally an open and autonomous research cooperation fund. In addition to sharing research and cooperating in the development of new technologies, Horizon Europe – originally called the Framework Programme – was created to re-establish trust between Europe's nations in the second half of the twentieth century. It was part of a larger effort to prevent them from going to war with each other.

Strategic plans have to remain flexible. Circumstances change, and it's important to be able to make adjustments when that happens. But making open strategic autonomy a theme for all EU funding is neither sensible nor desirable.



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