Sustainable development is key to improving global kidney health

Beyond the need to understand disease mechanisms and develop new therapies, the inequities that deprive individuals of a healthy life must also be addressed to ensure kidney health for all.

> “the SDGs must become everyone’s business — we are all accountable”

The 17 Sustainable Development Goals[1] (SDGs) were adopted by United Nations’ members in 2015 as a joint commitment towards ending poverty and hunger, reducing inequalities and tackling climate change, all of which are factors associated with kidney disease. Five years after the ratification of the SDGs, this issue of *Nature Reviews Nephrology* examines how sustainable development can improve global kidney health, the progress to date and the remaining challenges in meeting the SDGs by their 2030 target.

The 17 SDGs, which encompass 169 targets, have been grouped into 6 transformations that reflect governmental structures to facilitate their implementation. Each SDG is included in more than one transformation, which highlights how they are interconnected. For example, the ‘Health, well-being and demography’ transformation includes SDGs that focus on tackling poverty, hunger and inequalities, and promoting quality education, employment and economic growth, as well as health and well-being. Undeniably, looking after women’s health during pregnancy, providing adequate support during birth, enabling and promoting healthy diets and providing safe living environments and quality education all have a role in reducing kidney disease burden. The SDGs underlie a sustainable development agenda that is based on three dimensions — social, economic and environmental. Failing to address any of these dimensions perpetuates the inequities that deprive many individuals of the opportunity to thrive and enjoy a healthy life.

Poverty is an important risk factor for the development and accelerated progression of kidney disease, and its impact is exacerbated in those who are subject to racial discrimination[2]. Poor sanitation and housing conditions, lack of education and malnutrition all contribute to this increased risk in low socioeconomic settings. These inequities are evidenced by the unequal burden of chronic kidney disease (CKD), which is greatest in the three lowest quintiles of the socio-demographic index[3]. Moreover, in 2017, CKD was the 12th leading cause of global mortality but ranked 2nd in Central America, suggesting deep inequalities in the geographical distribution of CKD burden.

In addition to addressing socioeconomic risk factors, urgent solutions are needed to address the financial burden of CKD, which puts patients at high risk of poverty[4] and places a considerable strain on governmental health budgets, particularly owing to the high costs of dialysis. In many low-resource settings, patients with kidney failure die because lack of funding prevents them from accessing life-saving kidney replacement therapies. Universal health coverage (UHC) has been presented as a solution to this inequity but coverage is often incomplete, and cost-sharing policies place patients at high risk of catastrophic health expenditure. Moreover, without measures to ensure high quality of care, UHC implementation might not translate to improved patient outcomes. Accordingly, economic growth does not always lead to improvements in population health, even when governments increase their health-care expenditure. Implementation research is essential to ensure that health policies — whether focused on disease prevention, treatment or palliative care — are tested and tailored to local settings to increase their chances of delivering effective, high-quality care.

Finally, the environmental dimension of sustainable development must not be neglected. As climate change impacts food production, clean water availability, extreme weather and the spread of vector-borne diseases, failure to engage in climate action will further compromise global kidney health[5]. Importantly, the SDGs must become everyone’s business — we are all accountable and we can all make positive contributions, including addressing the factors that drive inequities, and implementing environmentally sustainable practices in research and health care. The SDGs provide a roadmap for a world that will enable healthy prosperous lives for everyone — we should all participate in efforts to meet these goals.

1. United Nations. The 17 goals. *Department of Economic and Social Affairs: Sustainable Development* https://sdgs.un.org/goals (2020).
2. Crews, D. C. & Novick, T. Social determinants of CKD hotspots. *Semin. Nephrol.* **39**, 256–262 (2019).
3. GBD Chronic Kidney Disease Collaboration. Global, regional, and national burden of chronic kidney disease, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* **395**, 709–733 (2020).
4. Morton, R. L. et al. Impact of CKD on household income. *Kidney Int. Rep.* **3**, 610–618 (2018).
5. Barraclough, K. A. & Agar, J. W. M. Green nephrology. *Nat. Rev. Nephrology* **16**, 257–268 (2020).