



Statement on behalf of the International Society of Nephrology (ISN) to the 66th Session of the WHO Regional Committee for Europe on “Health in the 2030 Agenda for Sustainable Development and its relation to Health 2020” (Agenda item 5a)

The International Society of Nephrology (ISN), as the leading, global organisation dedicated to advancing kidney health, continues to build its global network and programs to facilitate and promote the provision of sustainable, equitable, ethical care for people with kidney disease in all regions and countries of the world. ISN therefore welcomes the clear recognition of health and, specifically, tackling the burden of non-communicable diseases (NCDs) as key priorities in the 2030 Agenda for Sustainable Development and Health 2020. We hope that the European region will demonstrate strong progress in the implementation of the Health 2020 policy framework and provide a successful model to be used as inspiration and impetus for other regions of the world.

Kidney disease worldwide is an important, yet “neglected” NCD. Although it is not highlighted among the 4 major NCDs targeted by the WHO’s Global Action Plan (2013-2020), it is acknowledged that “conditions such as kidney disease result from lack of early detection and management of hypertension and diabetes, and therefore are closely linked to major non-communicable diseases”.¹

Both acute and chronic kidney disease are important public health concerns. Around 1 in 10 Europeans is living with chronic kidney disease (CKD), but concerningly around 90% of those affected are unaware of the condition.² Improved awareness among communities and health care workers is urgently needed. CKD often remains asymptomatic until late stages and therefore requires proactive screening for early detection in high-risk individuals to permit interventions to delay worsening of the disease. The major risk factors for CKD in developed countries are diabetes, age and hypertension, conditions which are all increasing and are contributing to the rising prevalence of CKD globally. The important implications of CKD lie not only in the risk of end-stage kidney disease (ESKD), which necessitates dialysis or transplantation for survival, but also in the significant multiplication of cardiovascular risk among patients with CKD that leads to many excess strokes and heart attacks yearly.² A frequently underappreciated fact is that CKD alone is a stronger risk factor for coronary events than diabetes alone, and when the two conditions co-exist (which occurs in 1 in 3 patients with diabetes), the risk of cardiovascular events and overall mortality is further multiplied.^{2,3} A recent survey of 16 European countries revealed that the incidence of ESKD lies between 81 and 195 per million population and the prevalence lies between 309 and 1670 per million population.⁴ In several countries, the prevalence of CKD is unknown and only 5 countries reported an official CKD strategy.⁴ In most countries, the costs of ESKD consume around 2% of health expenditure to treat 0.1% of the population.² Estimated direct costs of ESKD are around €15 billion per year, not accounting for costs associated with frequent hospitalizations and management of other comorbidities.² Kidney failure is therefore very expensive for any health system and proactive prevention and management strategies would be highly cost-effective.



Acute kidney injury (AKI) occurs in around 20% of hospitalized Europeans and is highly associated with mortality and increased costs as a significant proportion of these patients require intensive care management.⁵ Major risk factors for AKI are age, underlying chronic kidney disease, infections and use of nephrotoxic agents. Increased awareness of AKI risk in hospitalized populations is urgently needed to implement prevention strategies. In some patients with AKI kidney function will recover, however many patients will be left with some residual CKD or even ESKD, which will impact their longer-term morbidity and mortality.

Kidney disease also lies at the interface between communicable and non-communicable diseases. Acute infections may lead to AKI, but chronic infections such as hepatitis B and C and HIV are also important causes of CKD.

A broad system-wide approach is therefore required to tackle the problem of kidney disease. Many structural factors including poverty, education, nutrition, gender inequality, substance abuse, lack of access to primary care and overall health all directly increase the risk of kidney disease, therefore the holistic approach of the Sustainable Development Goals (SDGs) promises to have a positive impact on kidney disease globally.⁶ The emphasis of a life-course approach to the prevention of NCDs in the Global Action Plan is also highly relevant to kidney disease, where the risk is known to begin in fetal life and early childhood and accrues over time.^{1,7} Striving for the global targets of reduction in blood pressure, diabetes and obesity, reduction in salt, alcohol and tobacco use, increase in physical activity and improved access to early diagnosis and appropriate essential medications are all well recognized strategies to reduce risk and improve outcomes in patients with kidney disease.

In the continued fight against kidney disease, the international kidney community therefore strongly supports the goals and implementation of the 2030 Agenda and Health 2020, together with Global and European Action Plans for the prevention and control of NCDs. At the same time, it also calls for heightened awareness of the clinical, economic and social burdens of kidney disease, which are at present frequently underestimated.

1. World Health Organization. Global Action Plan for the prevention and control of noncommunicable diseases. 2013-2020. In: Organization WH, editor. Geneva, Switzerland: World Health Organization; 2013.
2. European Kidney Health Alliance. Recommendations for sustainable kidney care. In: Alliance EKH, editor.: European Kidney Health Alliance; 2015.
3. Tonelli M, Muntner P, Lloyd A, et al. Risk of coronary events in people with chronic kidney disease compared with those with diabetes: a population-level cohort study. *Lancet* 2012; **380**(9844): 807-14.
4. International Society of Nephrology. Kidney Health for Life (KH4L). Chronic kidney disease multinational inventory. International Society of Nephrology: International Society of Nephrology; 2014.
5. Mehta RL, Cerda J, Burdmann EA, et al. International Society of Nephrology's 0by25 initiative for acute kidney injury (zero preventable deaths by 2025): a human rights case for nephrology. *Lancet* 2015.
6. United Nations. Sustainable Development Goals. 2015. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.
7. Luyckx VA, Brenner BM. Birth weight, malnutrition and kidney-associated outcomes--a global concern. *Nat Rev Nephrol* 2015; **11**(3): 135-49.