

WHO web-based consultation on recommendations to strengthen and monitor diabetes responses within national NCD programmes, including potential targets

The International Society of Nephrology (ISN) welcomes the opportunity to provide feedback on the *WHO Discussion Paper: Draft recommendations to strengthen and monitor diabetes responses within national noncommunicable disease programmes, including potential targets* and on the document *Improving Health Outcomes of People with Diabetes Mellitus: Target Setting to Reduce the Global Burden of Diabetes Mellitus by 2030*

Circulatory diseases are the world's number one cause of disability and mortality. Chronic kidney disease affects 752 million individuals worldwide and over 850 million people are estimated to have some form of kidney disease¹. In 2016, the global burden of chronic kidney disease expressed in Disability-Adjusted Life Years (DALYs) amounted to over 60 million years and in over 49 million of Years of Life Lost (YLLs)².

Approximately 500 million people live with diabetes worldwide. The number of people living with diabetes has tripled over the last 20 years³. Diabetes-related mortality is on the rise in low, middle and high-income countries. Since 2000, the number of diabetes-related deaths has increased by 70% and, between 2000 and 2016, the probability of dying prematurely (30-70 years) from diabetes increased by 5%⁴. The risks of cardiovascular diseases and additional comorbidities will increase further. Efforts to prevent and control diabetes can have a positive impact in protecting kidney health, since adults living with the condition are ⁵, in up to 40% of cases, eventually suffer kidney failure⁵⁶, with dire consequences for both patients' health and health systems.

The close relationship between diabetes and kidney disease is evident by the fact that they are currently reported as one category by the Global Burden of Disease Study. Indeed, an impaired fasting glucose accounted for 58% of the age-standardized rate of chronic kidney disease DALYs in 2017⁷.

The Global Burden of Disease study⁸ (GBD) estimated that:

- In 2017, 1.2 million people died directly from chronic kidney disease, an increase of 34% since 2007.

¹ [https://www.kidney-international.org/article/S0085-2538\(19\)30786-0/pdf](https://www.kidney-international.org/article/S0085-2538(19)30786-0/pdf)

² Driving Sustainable Action for Circulatory Health. White Paper for Circulatory Health. <https://www.world-heart-federation.org/wp-content/uploads/2018/11/White-Paper-for-Circulatory-Health.pdf>

³ IDF Diabetes Atlas. Ninth edition 2019.

⁴ WHO: The top 10 leading causes of death. 9 December 2020. <https://www.who.int/news-room/factsheets/detail/the-top-10-causes-of-death>

⁵ Driving Sustainable Action for Circulatory Health. White Paper for Circulatory Health. <https://www.world-heart-federation.org/wp-content/uploads/2018/11/White-Paper-for-Circulatory-Health.pdf>

⁶ <https://www.kidney.org/atoz/content/diabetes>

⁷ [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(18\)32335-3.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(18)32335-3.pdf)

⁸ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5388903/>



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- One third of these deaths were attributed to diabetic kidney disease, which increased by 23% and 41% for type 1 and type 2 diabetes since 2007.

In addition,

- There are around 3 million people with end-stage kidney failure currently living on dialysis or with a kidney transplant⁹.
- At least as many people are estimated to die annually in lower-resource settings because they lack access to these therapies.
- Diabetes is the leading cause of end-stage kidney failure globally and, therefore, likely leads to many more deaths in these regions than is currently reported.

With regard to health systems, kidney disease is associated with a tremendous economic burden as high-income countries typically spend more than 2–3% of their annual health-care budget on the treatment of end-stage kidney failure, even though those receiving such treatment represent under 0.03% of the total population¹⁰. Prevention of kidney disease progression is key to save lives and reduce costs. Indeed, screening for kidney disease (case finding) has been shown to be cost-effective in high-risk populations, especially in those with diabetes¹¹.

As has been made painfully clear during the COVID-19 pandemic, patients with chronic illness, and especially those undergoing dialysis or living with a kidney transplant, are at the highest risk for severe illness and death¹².

Given the significant burden in terms of human life and suffering as well as economics and the strong causal relationship between diabetes and kidney failure, we encourage WHO Member States to increase the capacity of health systems to detect, diagnose and manage diabetes; integrate diabetes care into existing programs; scale-up health promotion efforts to prevent diabetes, particularly among young people; and provide patients suffering from diabetes with holistic care, which includes reducing the risk of chronic kidney disease, cardiovascular disease, strokes, peripheral vascular disease, infections and complications, and being able to access healthy affordable food.

Finally, regarding *Table 1: Domains, risk tiers, and potential metrics initially considered for the Diabetes Compact* of the document *Improving Health Outcomes of People with Diabetes Mellitus: Target Setting to Reduce the Global Burden of Diabetes Mellitus by 2030*, the ISN would suggest adding to the 'processes of care' column 'prescriptions for SGLT2i' or 'medications that help reduce cardiovascular risk' in this population. It may also be useful to separate into clinical vs. behavioural interventions/processes of care. Furthermore, the ISN would suggest adding a column with strategies on how to identify those who belong to the high risk group, so to better target education/counselling/structured support.

⁹ <https://pubmed.ncbi.nlm.nih.gov/25777665/>

¹⁰ <https://www.who.int/bulletin/volumes/96/6/17-206441/en/>

¹¹ <https://pubmed.ncbi.nlm.nih.gov/24529536/>

¹² [https://www.kidney-international.org/article/S0085-2538\(21\)00177-0/fulltext?dgcid=raven_jbs_aip_email](https://www.kidney-international.org/article/S0085-2538(21)00177-0/fulltext?dgcid=raven_jbs_aip_email)



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