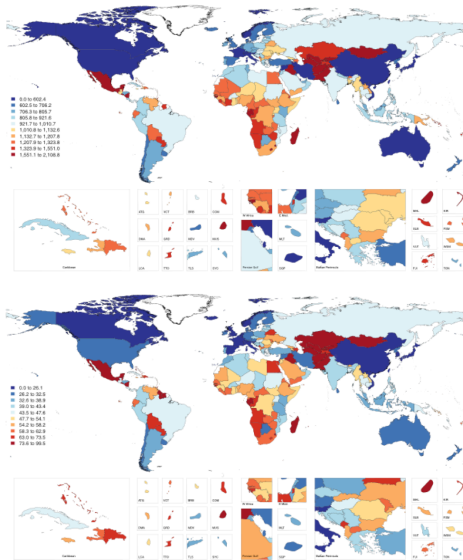


# Kidney disease is a major cause of cardiovascular deaths

13 April 2017



**Global reduced-GFR mortality and Disability-Adjusted Life Years in 2013**  
**a:** Age-standardized deaths per 100,000 attributed to reduced glomerular filtration rate (GFR);  
**b:** Age-standardized disability-adjusted life years per 100,000 attributed to reduced GFR  
 In 2013, 2.2 million deaths were associated with reduced GFR (a). Nearly 52 million DALYs were associated with reduced GFR (b).

Global reduced-GFR mortality and disability-adjusted life years in 2013. **a:** Age-standardized deaths per 100,000 attributed to reduced glomerular filtration rate (GFR); **b:** Age-standardized disability-adjusted life years per 100,000 attributed to reduced GFR. In 2013, 2.2 million deaths were associated with reduced GFR (a). Nearly 52 million DALYs were associated with reduced GFR (b). Credit: Thomas

A new analysis indicates that by 2013, cardiovascular deaths attributed to reduced kidney function outnumbered kidney failure deaths throughout the world. The findings, which appear in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*, provide insights on the true impact of kidney disease on societies and underscore the importance of screening for kidney disease.

Reduced [kidney function](#) can have detrimental

effects on cardiovascular health, increasing individuals' risks of congestive heart failure, heart attacks, and strokes. To understand the impact of [chronic kidney disease](#) (CKD) on [cardiovascular health](#), Bernadette Thomas MD, MS (University of Washington), along with dozens of international collaborators as well as the International Society of Nephrology and the Chronic Kidney Disease Prognosis Consortium, estimated the prevalence of reduced kidney function categories (CKD stages 3, 4, and 5) for 188 countries at 6 time points from 1990 to 2013 as part of the Global Burden of Disease Study.

The investigators estimated that in 2013, reduced kidney function was associated with 4% of deaths worldwide, or 2.2 million deaths. More than half (1.2 million) of these attributable deaths were cardiovascular deaths, while 0.96 million were deaths from [kidney failure](#). Compared with metabolic risk factors, reduced kidney function ranked below high systolic blood pressure, high body mass index, and high fasting blood sugar and similarly with high total cholesterol as a risk factor for disability-adjusted life years (the number of years lost due to ill-health, disability, or early death) in both developed and developing world regions.

"Understanding the true health impact of [kidney disease](#) on society necessitates considering cardiovascular as well as end-stage renal disease deaths and disability," said Dr. Thomas. "This is especially important within the developing world, where the death rate has increased since 1990."

**More information:** "Worldwide cardiovascular and ESRD outcomes attributable to reduced GFR," *Journal of the American Society of Nephrology* (2017). [DOI: 10.1681/ASN.2016050562](https://doi.org/10.1681/ASN.2016050562)

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