

Call to action from AHA & KDIGO for CKD: FIND IT EARLY, TREAT IT EARLY

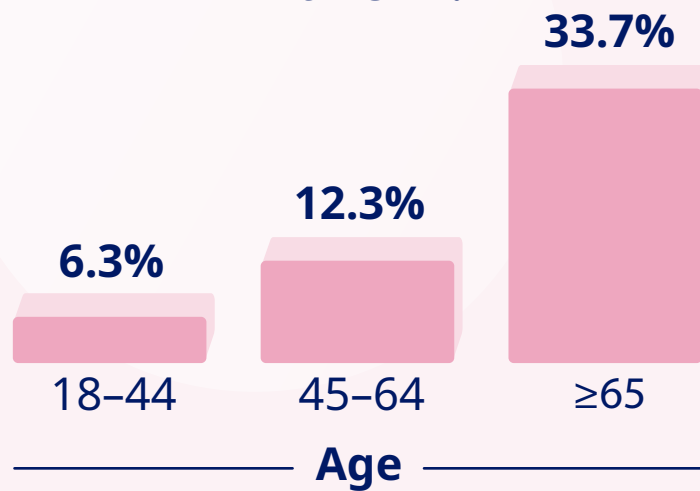
>1 in 7
US adults have CKD
(35.5 million people)¹

As many as
9 in 10
adults with CKD **do not**
know they have CKD¹

Individuals with CKD often
remain asymptomatic
until the disease is in its
advanced stages¹

Percentage of US adults
with CKD:¹

Annual Medicare
cost of CKD³



\$87.2
billion

Adverse SDOH are associated with higher incident obesity and diabetes, subsequent complications of these conditions, greater disability, and **worsened outcomes**⁴

Top comorbidities of CKD are also critical risk
factors contributing to its development⁵⁻⁷

In the US, CKD affects:



~1 in 3

adults with diabetes^{1,2}



~1 in 5

adults with HTN^{1,2}



~1 in 3

adults with CVD^{1,2}



~1 in 6

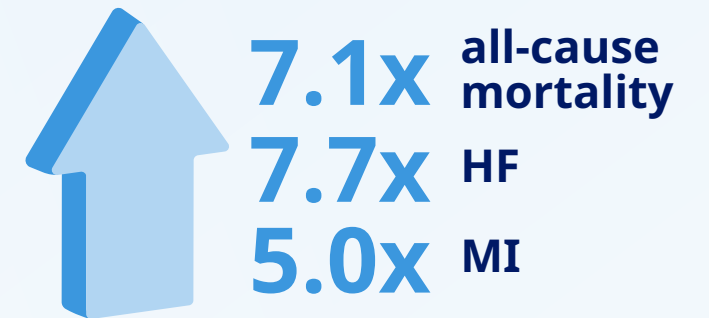
adults with obesity^{7,8}

CKM syndrome is a **systemic disorder** characterised by pathophysiological interactions among metabolic risk factors, CKD and the cardiovascular system, leading to **multiorgan dysfunction** and a high rate of **adverse CV outcomes** - AHA⁴



Systemic **inflammation** is a central process in this progression and may be a contributing factor to morbidity and mortality⁹⁻¹¹

Compared to those with
normal kidney function,
patients with advanced CKD
are at greater risk for:^{12*}



Stages of CKM⁴



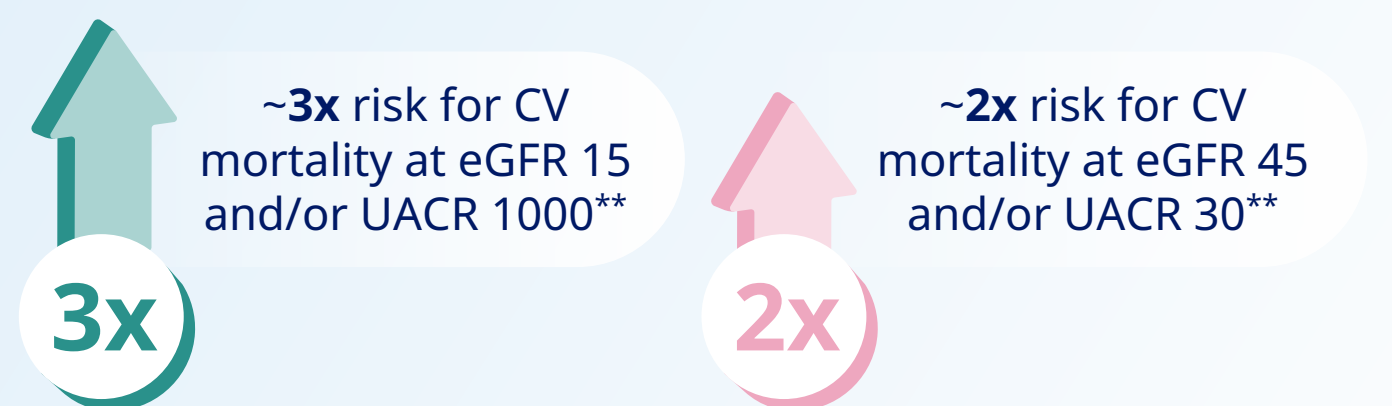
SDOH have a prominent impact on CKM health, as effective management relies heavily on patient access to care (screening, diagnosis, and intervention opportunities) and CV health behaviors (e.g. physical activity, nutrition)^{4,13-15}

The heightened risk for CVD begins at the earliest stages of kidney disease, the latter of which is most easily recognized by the presence of albuminuria. **There is significant underuse of UACR measurement in concert with eGFR to fully characterize CKD-associated risk**¹¹

Early treatment delays kidney failure by multiple years¹⁶⁻¹⁸



UACR and eGFR are independent predictors of CV mortality and should be used to manage CKD-associated risk¹⁹



FIND IT EARLY, TREAT IT EARLY

CKD screening, coupled with risk stratification and treatment should be implemented immediately for people with risk factors for CKD^{12,20}

ISN toolkit + algorithm for early CKD identification and intervention in primary care²¹

1. Centers for Disease Control and Prevention. Chronic Kidney Disease in the United States, 2023. <https://www.cdc.gov/kidney-disease/media/pdfs/CKD-Factsheet-H.pdf>; 2. NIH. NIDDK. USRDS. Kidney Disease Statistics for the United States, 2024. Available at: <https://www.niddk.nih.gov/health-information/health-statistics/kidney-disease>. Accessed May 2025; 3. Chronic Kidney Disease: Common - Serious - Costly, <https://www.cdc.gov/kidney-disease/ckd-facts/index.html>; 4. Ndumele CE, et al. Circulation. 2023;148(20):1606-35; 5. Umanath K et al. Am J Kidney Dis. 2018;71:884-895; 6. House AA et al. Am J Kidney Dis. 2018;72(2):284-295; 7. Stenvinkel P et al. J Am Soc Nephrol. 2013;24(11):1727-1736; 8. NIH. NIDDK. USRDS. 2024 Annual Data Report: Chronic Kidney Disease. Figure 1.1: Prevalence of CKD in U.S. Adults, see the Obesity tab <https://usrds-adr.niddk.nih.gov/2024/chronic-kidney-disease/1-ckd-in-the-general-population>; 9. Tinti F, et al. Life (Basel). 2021;11(5):419; 10. Jankowski J, et al. Circulation. 2021;143(11):1157-1172; 11. Ndumele CE, et al. Circulation. 2023;148(20):1636-1664; 12. KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. Kidney Int. 2024;105(4S):S117-S314; 13. Tangri N, et al. Adv Ther. 2023;40(6):2869-2885; 14. Hussien H, Apetrii M, Covic A. Expert Rev Pharmacoecon Outcomes Res. 2021;21(1):43-54; 15. Norton JM, et al. J Am Soc Nephrol. 2016;27(9):2576-95; 16. Fioretto P, et al. Nat Rev Nephrol. 2022;18(2):78-79; 17. Brenner BM et al. N Engl J Med 2001; 345(12):861-869; 18. Brosius FC, et al. Clin J Am Soc Nephrol. 2021;16(10):1590-1600; 19. Chronic Kidney Disease Prognosis Consortium; Matsushita K, et al. Lancet. 2010;375(9731):2073-81; 20. Shlipak MG, et al. Kidney Int. 2021;99(1):34-47; 21. ISN-KDIGO CKD Early identification & intervention toolkit. <https://www.theisn.org/initiatives/toolkits/ckd-early-screening-intervention/> #PrimaryCare22.