The National Kidney Foundation (NKF) is pleased to submit testimony to highlight the significant burden that chronic kidney disease (CKD), including irreversible kidney failure, places on patients, families, and our nation’s health care system. We urge the subcommittee to increase funding for programs and activities as a bold step to help transform CKD awareness, prevention, detection, and management. Specifically, NKF requests $15 million for CKD activities at the Centers for Disease Control and Prevention and a substantive increase, commensurate with or exceeding the increase for NIH as a whole, for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) for kidney research activities. We also urge greater collaboration between NIDDK and other Institutes studying related comorbidities and conditions, such as hypertension, cardiovascular disease, immunology, disparities, and genomics.

**About CKD**

CKD impacts an estimated 37 million American adults and was the nation’s 8th leading cause of death in 2020. Although it can be detected through simple blood and urine tests, an estimated 90% of CKD patients are undiagnosed, often until advanced stages when it is too late for interventions to slow disease progression. Alarmingly, some patients are not diagnosed until they have progressed to irreversible kidney failure (end stage kidney failure, or ESKD) and undergo urgent start dialysis. More than 750,000 Americans have irreversible kidney failure, requiring
kidney dialysis at least 3 times per week at a dialysis center; daily home dialysis, or a kidney transplant to survive. Medicare spends $130 billion on the care of people with a CKD diagnosis. Individuals with kidney failure represent 1% of Medicare beneficiaries but comprise 7% of Medicare fee-for-service expenditures. The need for a substantially increased federal commitment to address the societal and economic burdens of CKD is undeniable.

CKD is a disease multiplier, with many patients experiencing cardiovascular disease, bone disease, cognitive challenges, depression, and increased hospitalization. CKD also is an independent risk predictor for heart attack and stroke. Early-stage intervention can improve outcomes and lower costs, yet fewer than half of patients with high blood pressure or diabetes (which together are responsible for three-fourths of all cases of ESKD) receive CKD testing. To improve awareness, early identification, and early-stage intervention, NKF calls on Congress to invest in kidney health programs throughout HHS.

**Disparities**
CKD is characterized by racial, ethnic, and socioeconomic disparities. Blacks or African Americans, Hispanics, Asian Americans and Pacific Islanders, and Native Americans or Alaska Natives are at higher risk for CKD and ESKD. A common reason is the disproportionate incidence of chronic comorbidities such as diabetes and hypertension in many of these groups. While Blacks or African Americans make up 13 percent of the U.S. population, they account for 35 percent of Americans with kidney failure, and are almost four times more likely than Whites to progress to kidney failure. Hispanic Americans are 1.3 times more likely than Whites to have kidney failure. Blacks or African Americans and Hispanics experience more rapid decline of kidney function than Whites and are less likely to have had a visit with a nephrologist prior to
starting dialysis. Disparities are present in kidney transplant as well. Blacks have less access to the kidney wait list and experience a longer wait once listed. As of May 6, 2021, Black patients were 31.5% of the kidney wait list candidates, but in 2020 they received only 27% of kidney transplants. Hispanics represent 21% of the wait list and received 18.4% of kidney transplants.

**COVID-19**
COVID-19 has amplified the CKD and ESKD disparities discussed above, as kidney patients (including transplant recipients) are at risk for severe COVID-19 infection. This increased vulnerability is due to a series of factors, including compromised immune systems, multiple comorbidities, and exposure through the in-center dialysis care environment that necessitates close contact with others. Transplant recipients in particular face higher COVID-19 mortality risk. In addition, patients experiencing severe COVID-19 are at an increased risk of developing acute kidney injury (AKI), often requiring the need for acute dialysis and sometimes resulting in CKD or irreversible kidney failure.

**Kidney Public Awareness Initiative**
A key aspect of the Department of Health and Human Services’s 2019 Advancing American Kidney Health (AAKH) Initiative is increased awareness of CKD among the public and health care practitioners to improve early detection, provide early intervention and improve outcomes. Early intervention can slow the CKD progression and, in some instances, prevent kidney failure, reduce the impact of comorbidities, and reduce hospitalizations and readmissions. A sustained Kidney Public Awareness Initiative under the guidance of CDC will educate at-risk individuals to enhance awareness of the causes, consequences, and comorbidities of kidney disease, and educate clinical professionals on early detection and opportunities for intervention.
**CDC Chronic Kidney Disease Initiative**
The CDC Chronic Kidney Disease Initiative comprehensive public health strategy was created at the urging of Congress and NKF 15 years ago. Annual funding has fluctuated between $1.6 million and $2.6 million. This funding level has supported activities including the development of a web site for patients, surveillance and epidemiology activities, and assistance to the National Center for Health Statistics for CKD data collection. However, a more robust effort is needed to increase awareness and reduce incidence of CKD. The National Kidney Foundation requests additional funds to establish a CKD screening program to detect people at high risk and examine the benefits screening this population; determine changes in provider behavior and care, and monitor patients’ health outcomes. Additional funding would also expand capacity for national CKD prevalence surveillance to allow for repeated laboratory measures in the National Health and Nutrition Examination Survey (NHANES). Current national estimates of CKD prevalence using NHANES rely on single measurements of both serum creatinine and urinary albumin, preventing researchers from estimating CKD persistence. NKF requests $15 million to the CDC for these enhanced activities.

**NIH NIDDK**
Despite the high prevalence of CKD and its impact on patients and Medicare, NIH funding for kidney disease research is only about $700 million annually. NIH invests only $18 per CKD patient, a fraction of what it spends on other major diseases. Fiscal Year 2021 funding for NIDDK increased by less than 1%, the smallest percentage increase of any disease Institute under NIH. From FY 2015-2020, NIH monetary support for kidney research increased at half the rate of NIH funding increases overall. America’s scientists are at the cusp of many potential
breakthroughs in improving our understanding of CKD, including genetic kidney disease. Further advances can lead to new therapies to delay and treat kidney diseases, which has the potential to provide cost savings to the government like that of no other chronic disease.

In December 2020, NKF established Research Roundtables comprised of nephrology leaders from prominent academic institutions, the pharmaceutical industry, and key bodies with expertise in the multiple areas of pre-clinical and clinical research, including pediatric nephrology, genetics, epidemiology, drug development, public health, and health equity. In addition, kidney disease patients as well as family members of children with kidney disease and living kidney donors were recruited to share patient priorities and viewpoints on research needs. The Roundtables were charged with identifying pre-clinical and clinical areas of research in which additional funding could help bridge existing deficits in kidney disease treatments and reduce kidney disease incidence, reduce health disparities, and lower healthcare costs. Their final recommendations are expected in June 2021, which NKF will share with policy makers.

As the first step towards expanding kidney research opportunities, NKF requests a substantive funding increase for NIDDK in FY 2022 that is at least commensurate with if not exceeding the percentage increase to NIH as a whole. We also request additional support from other Institutes on kidney activities. Opportunities include NHLBI support for cardiorenal syndromes in CKD patients; NIAID initiatives to study CKD effects on the immune system; and NCI activities to study decreased kidney function in cancer patients. Thank you for your consideration of the National Kidney Foundation’s requests for Fiscal Year 2022.