On behalf of the National Kidney Foundation, the 37 million Americans with chronic kidney disease, (CKD), and the more than 800,000 Americans with end stage renal disease (ESRD), we write in strong support of policy solutions that help improve access to home dialysis.

Kidney Failure and Dialysis

Kidneys play an important role in maintaining health. They remove toxins from the blood, control the production of red blood cells, produce vitamins and hormones, regulate blood pressure, balance nutrient levels, and perform other important functions. When the kidneys fail, a person requires a transplant or dialysis to survive. Due to the shortage of donor organs for transplant, most people with kidney failure – more than 550,000 adults in America – require dialysis to replace their kidney function.

"Dialysis is difficult...If it's not cramp, it's itching. There are times when I get cramps and ...so, so painful.

And then there are times when I feel so weak, I feel like a wilted vegetable. It's hard. Dialysis is hard."

- Ron¹

There are two types of dialysis. Hemodialysis (HD) is a process where a dialysis machine and a special filter are used to clean the blood. Doctors access the blood through an access point, usually in the patient's arm. Over the course of several hours, blood flows from the access point, through tubes to the dialyzer, where waste products are removed and washed away, before returning to the patient's body. A hemodialysis session typically takes three to four hours.

Peritoneal dialysis (PD) is a slightly different process where lining of the patient's abdomen is used as the filter. In PD, the abdominal area is slowly filled with dialysis fluid through a catheter. The fluid, also called dialysate, draws waste products out of the blood, through the membrane in the patient's abdomen, and are absorbed into the dialysate, which is then drained and discarded. PD can be done several times over the course of the day or can be performed overnight while the patient sleeps.

Home Dialysis in the United States

In the United States, most patients – approximately 85 percent -- receive hemodialysis that is provided in a dialysis center. In-center dialysis requires patients to receive treatments three to four hours a day, typically three days a week. This can be time consuming and taxing on the body. Patients often feel fatigued and washed-out after in-center dialysis, leaving them unable to work, drive, or enjoy recreation or leisure time with their families. Approximately 12 percent of patients receive peritoneal dialysis that they typically perform in their homes, and only about three percent of patients receive home hemodialysis. Patients who dialyze at home often have more flexibility around the duration, time, and frequency of their dialysis treatments.

Among the population receiving either home hemodialysis or peritoneal dialysis, there are stark racial and ethnic inequalities. Even though they only make up 13 percent of the population,

 $^{^1\,}https://usrds-adr.niddk.nih.gov/2023/end-stage-renal-disease/12-patient-experience-narratives-from-people-receiving-hemodialysis$

African Americans make up 35 percent of in-center dialysis patients. Only 7.3 percent of African American and 7.4 percent of Hispanic or Latino patients receive home dialysis, compared to 9.4 percent of White patients. ²

There are also significant geographic variations in access to home dialysis. Only approximately 50 percent of dialysis providers even offer home dialysis as an option and among those programs, most serve less than 20 home dialysis patients. Home dialysis utilization is higher in some rural areas, but still not adequate to meet demand.

Benefits of Home Dialysis

Home dialysis patients often experience improvements in quality of life, including, improved sleep, ability to consume a more "normal diet," and less time traveling to and from dialysis. Thanks to the improved quality of life, home dialysis patients are two to three times more likely than in-center patients to be employed³

Beyond quality of life, many patients on home dialysis experience better clinical outcomes. In one study, patients on home hemodialysis experienced better BP control, showed reduced inflammation, and enjoyed improved nutrition and better phosphorus control. Evidence also shows that patients on PD have better residual renal function, better circulation, and reduced risk of certain kinds of stroke⁴. Patients on PD have a 40 percent lower mortality rate than patients receiving in-center dialysis.⁵

Barriers to Home Dialysis

Many patients express a desire to dialyze at home, but often face barriers accessing home dialysis, including:

- Inadequate patient education
- Insufficient number of providers who offer home dialysis
- Staffing shortages that impede access to home dialysis training
- Inadequate staff assistance for home dialysis patients
- Misaligned reimbursement and quality incentives

The National Kidney Foundation has long supported policy solutions that address many of these barriers. Specifically, Kidney Disease Education (KDE) is highly effective in promoting informed dialysis selection, optimal dialysis starts, and home-dialysis use. Unfortunately, less than one percent of patients with kidney failure receive Medicare KDE prior to dialysis

² Rizzolo, Katherine; Cervantes, Lilia; Shen, Jenny I.. Racial and Ethnic Disparities in Home Dialysis Use in the United States: Barriers and Solutions. JASN 33(7):p 1258-1261, July 2022. | DOI: 10.1681/ASN.2022030288

³ https://www.dovepress.com/home-hemodialysis-a-comprehensive-review-of-patient-centered-and-econ-peer-reviewed-fulltext-article-CEOR

⁴ Tang SCW, Lai KN. Peritoneal dialysis: the ideal bridge from conservative therapy to kidney transplant. J Nephrol. 2020 Dec;33(6):1189-1194. doi: 10.1007/s40620-020-00787-0. Epub 2020 Jul 11.

⁵ https://www.healio.com/news/nephrology/20231017/turkish-study-shows-40-lower-mortality-for-patients-on-hhd-vs-incenter-dialysis

initiation. Current regulations restrict qualified health care professionals from delivering services and limits coverage to specific, finite settings. NKF believes that safe and effective care can be achieved by health care teams who are located outside of the same physician office setting, while also expanding beneficiary access to much needed services, in particular those beneficiaries who were limited to access because of challenges related to transportation, long commutes to physician offices, inflexible work schedules, and/or provider shortages.

We also support changes to the ESRD Conditions for Coverage to expand the types of entities who can offer home dialysis services. Current requirements are centered around the bricks-and-mortar dialysis model and impede innovation and proliferation of new provider access points. NKF supports efforts to update the CFCs to foster more innovation, create more flexibility, increase transparency and accountability, and create a more patient centric system.

Finally, NKF supports legislation that increase staff assistance and training for home dialysis. The draft *Improving Access to Home Dialysis Act of 2024* authorizes Medicare to cover trained, professional staff assistance for patients in the home and ensure that all patients are given the education and support they need to utilize this modality if they so choose. It would also work to reduce the backlog in training wait-times by utilizing telehealth and group training, where possible, and expand the roles of other care-team partners to address the nephrology workforce shortage. It also includes a patient quality of life measure for all dialysis patients and a study on the racial disparities in the utilization of home dialysis.

In closing, the National kidney Foundation applauds the Committee for its interest in this issue and stands ready to work on these policy proposals and other strategies to increase patient access to home dialysis.