

Moving Into the Home: HEALTHMAP'S SUCCESS IN INCREASING HOME DIALYSIS USE



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In 2022, more than 130,000 Americans developed end-stage renal disease (ESRD). While the majority started three weekly dialysis sessions in a dialysis center, only 15% chose to do dialysis at home.¹

Home dialysis includes peritoneal dialysis (PD), done by exchanging fluid in the abdominal cavity, and home hemodialysis (HHD), done by circulating blood across a dialysis filter. Both PD and HHD have multiple benefits over in-center hemodialysis (HD), including improved quality of life, greater flexibility in one's dialysis schedule, reduced post-treatment fatigue, less restrictive dietary and fluid recommendations, higher likelihood of kidney transplantation, and better clinical outcomes.

Given the benefits of home dialysis, there is a major effort to increase its utilization for all patients. This is particularly important for racial and ethnic minorities and those with lower socioeconomic status, as these individuals have historically had the lowest rates of home dialysis utilization. The reasons for this are rooted in a system that has long overlooked various health inequities facing these populations. Healthmap Solutions (Healthmap) is committed to increasing home dialysis utilization in an equitable manner for all its Kidney Health Management (KHM) program members.

Although there are many reasons why in-center HD is the predominant dialysis type in the U.S., one explanation lies in the fact that many patients nearing ESRD are not made aware of the option to perform dialysis in the home. Prior studies have found that between one-third and two-thirds of patients receiving in-center HD did not recall being educated about home dialysis or felt the decision to be treated by in-center HD had not been theirs.²⁻⁵ This is especially regrettable given the abundant evidence indicating that targeted pre-dialysis education improves home dialysis uptake.

At Healthmap, it is paramount that members with advanced chronic kidney disease (CKD) are educated about the different renal replacement therapy options using a patient-centered, evidence-based approach that considers a member's values and preferences. In medicine, this is called "shared decision-making." At Healthmap, we call it "doing the right thing."

How Does Healthmap Improve Home Dialysis Utilization?

1) Facilitating Nephrology Referral and Pre-dialysis Care: Studies show that improving pre-dialysis care ensures a smoother transition to ESRD. This means a person is more likely to have a planned dialysis start, begin dialysis with appropriate access, and is likely to have an overall healthier outcome when starting dialysis. Despite clear guidelines supporting a nephrology referral among patients with a CKD Stage 4 or 5 diagnoses, only 3 out of every 10 people initiating dialysis receive at least 12 months of pre-dialysis care from a nephrologist.⁶ This is particularly true among minority populations, who have less access to health prevention, patient educational resources, and routine nephrology care compared to White patients.

By focusing on timely nephrology referrals, Healthmap ensures people with advanced CKD are being evaluated by the correct specialists at the appropriate time. Based on our data, **before** Healthmap steps in to help manage members in our KHM program, 40% to 50% of patients with CKD Stage 4 or 5 have not been evaluated by a nephrologist in the previous year. Unfortunately, this range falls in line with national trends. In some populations we've studied, this percentage is even higher (up to 60%).

By working directly with providers, Healthmap identifies which patients have not yet been evaluated by a nephrologist and helps facilitate these important referrals. Healthmap ensures this is done in an equitable manner, ensuring that all our members, regardless of race, ethnicity, gender, socioeconomic background, geographic region, disability, insurance type, employment, or immigration status, have access to guideline-recommended care, specifically through nephrology referrals.

Our numbers speak louder than words.

After one year of engagement in our KHM program, we see an increase in nephrology referrals resulting in >70% of members with advanced CKD (Stages 4 and 5) establishing care with a nephrologist (a complete reversal of pre-program numbers).

2) Enhancing Pre-dialysis Education: Despite a strong correlation between pre-dialysis education and the eventual selection of home dialysis modalities, most people progressing to ESRD are never educated about their dialysis options. This is particularly distressing, given that targeted pre-dialysis education has been shown to nearly quadruple home dialysis uptake rates!⁷

When it comes to education, studies have shown time and again that it's not enough to simply hand out pamphlets on home dialysis and expect patients to come away with a desired decision (i.e., choosing home dialysis). Education on difficult topics, like dialysis options, is most successful when a shared decision-making approach is used. This refers to presenting patients with options in an evidence-based manner that also considers the individual's personal preferences. During this conversation, it is important for patients to come away with an understanding of the risks and benefits of a chosen course compared with a reasonable alternative.

For shared decision-making to be implemented successfully, the following two steps are necessary: 1) A healthcare professional must be fluent in the language of renal replacement therapy options, including site of service, and they must be comfortable discussing the different options with patients and their loved ones; and 2) Educational materials must be easy to understand and serve as a guide for patients navigating this complex topic. There is a strong consensus in the nephrology literature that a shared decision-making approach should be utilized during pre-dialysis education.^{8,9} When done correctly, this approach results in:

- **Increased** home dialysis use
- **Increased** patient knowledge
- **Improved** quality of decisions
- **Satisfaction** with dialysis modality choice
- **Adherence** to selected treatment

Because Healthmap's care management model uses a multidisciplinary Care Navigation team, consisting primarily of registered nurses who specialize in kidney medicine, to reach out to our CKD members on a regular basis, we are perfectly poised to ensure our members receive education on home dialysis in the most effective way. Not only do we incorporate a shared decision-making approach, but we also ensure that both **equity** and **cultural competence** are embedded in everything we do.

Once more, our attention to detail in creating an impactful pre-dialysis education program is evinced by our results:

- **Over 75% of members** with advanced CKD (Stages 4 and 5) receive education on the different dialysis options and kidney transplant
- Planned dialysis starts (i.e., those avoiding a costly "crash" into dialysis) **increase by up to 65%** after program engagement
- As a result, we have seen an **increase in new home dialysis start rates by two to four times**

As a testament to the success of our program, members and providers say the following:

- **Over 90% of KHM members** who engaged with a Care Navigator strongly agree that the CN provides information that helps them understand their kidney health better and helps them follow their doctor's recommendations better

One member described their experience as follows: *"The KHM program is really useful. Before this program was introduced, I used to be so overwhelmed. **The Care Navigator helped me understand my kidney health management. She understands my needs and answers all the questions I have.**"*

- **More than 90%** of KHM members would recommend the Healthmap program to a friend
- **More than 80%** of surveyed providers found Healthmap insights to be helpful and valuable to their management of CKD patients, and a majority would recommend our program to both their patients and colleagues

Re-Imagining Solutions for Equity in Home Dialysis

COMPREHENSIVE APPROACH:

Education on home dialysis is offered to all Healthmap KHM members with advanced renal disease, which comprehensively covers renal replacement therapy options, including home dialysis modalities, in-center HD, renal transplant (with an emphasis on preemptive transplant when possible), and conservative care. Members are encouraged to invite their family members, loved ones, or caregivers to these conversations. Our Care Navigation team takes the time to answer all our members' questions on this difficult, often overwhelming topic, in order to allay fears associated with advancing CKD. Often, more than one conversation is necessary, as is expected with such a complex condition. As a final step, pre- and post-education assessment scores on knowledge and readiness for home dialysis and transplant are shared with the nephrologist overseeing the members' care so that he or she can take any necessary subsequent steps. From start to finish, our interactions focus on supplementing the care nephrologists are already providing. Healthmap is here to reinforce healthful practices, make sure patients keep their appointments and act as an extension of the provider's office.

CULTURALLY COMPETENT CARE:

When education is tailored to the culture and language of the recipient, it has a powerful impact on many aspects of care, including visit and medication adherence, healthful behaviors, as well as patient engagement in their care. For these reasons, when possible, Healthmap ensures that patients are matched with Care Navigators who speak their preferred language. In addition, all Healthmap educational materials on home dialysis education are developed and reviewed by our nephrology and clinical care team. Materials are written as low as at a 4th-grade reading level to ensure that adults with lower health literacy understand the information shared with them, can engage in and promote their own well-being, and so that Healthmap does not further contribute to health inequities among those with low health literacy (health literacy is an intermediate social determinant of health). In addition, our materials meet national culturally and linguistically appropriate services (CLAS) standards and are available in Spanish, the second most commonly spoken language in the United States.

CARING FOR THE WHOLE PATIENT:

Healthmap is keenly aware of the fact that unforeseeable circumstances often arise in life that prevent a member from being able to put their health first. To account for this, Healthmap's Care Navigators routinely ask members about existing barriers to care. Not surprisingly, Care Navigators often uncover barriers related to food or housing insecurity, transportation, or financial difficulties related to paying for necessary medications or health care. Our team of social workers, dieticians, and pharmacists work with local community resources to identify ways to bridge these barriers.

Similarly, Healthmap understands that individuals with advanced CKD are predisposed to behavioral health conditions such as anxiety or depression. For this reason, all

members engaged with a Care Navigator are screened for these conditions. When identified, our team helps facilitate referrals to a behavioral health professional so that underlying disorders do not become a barrier to engaging in care. Finally, Healthmap's behavioral health clinicians can assist members outside of a provider's office, facilitating adherence to the provider's plan of care.

SEAMLESS TRANSITION TO ESRD:

Last but certainly not least, once a member selects a dialysis modality, we work with them to ensure the transition to dialysis is seamless. Care Navigators continue to provide support to members as they navigate their multiple provider visits, undergo procedures for dialysis access placement, and continue to provide education as needed on topics like transplant evaluation.

By reducing unplanned dialysis starts up to 65%, Healthmap helps improve patient outcomes while at the same time reducing inpatient utilization and avoidable medical expense.

CONCLUSION

In summary, home dialysis remains significantly underutilized in the U.S., particularly among individuals of racial and ethnic minority backgrounds or those with lower socioeconomic status. Our goal at Healthmap is to ensure all members with advanced CKD receive comprehensive, easy-to-understand, and culturally appropriate education about their renal replacement therapy options, and to do so in an equitable manner, so as to continue increasing the use of home dialysis modalities among our KHM members.

¹ United States Renal Data System. 2022 *USRDS Annual Data Report: Epidemiology of Kidney Disease in the United States*. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2022.

² DeJong RW, Stel VS, Rahmel A, et al. Patient-Reported Factors Influencing the Choice of their Kidney Replacement Treatment Modality. *Nephrol Dial Transplant*. 2022;37(3):477-488.

³ Fadem SZ, Walker DR, Abbott G, et al. Satisfaction with Renal Replacement Therapy and Education: the American Association of Kidney Patients Survey. *Clin J Am Soc Nephrol*. 2011;6(3):605-612.

⁴ Dahlerus C, Quinn M, Messersmith E, et al. Patient Perspectives on the Choice of Dialysis Modality: Results from the Empowering Patients on Choices for Renal Replacement Therapy (EPOCH-RRT) Study. *Am J Kidney Dis*. 2016; 68(6):901-910.

⁵ King A, Lopez FY, Lissanu L, et al. Renal Replacement Knowledge and Preferences for African Americans with Chronic Kidney Disease. *J Ren Care*. 2020;46(3):151-160.

⁶ Purnell TS, Bae S, Luo X, et al. National Trends in the Association of Race and Ethnicity with Predialysis Nephrology Care in the United States from 2005 to 2015. *JAMA Netw Open*. 2020;3(8): e2015003.

⁷ Devoe DJ, Wong B, James MT, et al. Patient Education and Peritoneal Dialysis Modality Selection: A Systematic Review and Meta-Analysis. *Am J Kidney Dis*. 2016;68(3):422-433.

⁸ Moss AH. Revised Dialysis Clinical Practice Guideline Promotes More Informed Decision-Making. *Clin J Am Soc Nephrol*. 2010; 5(12):2380-3.

⁹ Yu X, Nakayama M, W MS, et al. Shared Decision-Making for a Dialysis Modality. *Kidney Int Rep*. 2022;7(1): 15-27.



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John Danziger, MD

John Danziger, MD currently serves as Healthmap's Regional Medical Director. He received his undergraduate degree at the University of Pennsylvania, his medical degree from the Southwestern Medical School of the University of Texas, and a Master of Philosophy from Cambridge University in England, before completing his nephrology fellowship at Beth Israel Deaconess Medical Center in Boston. He is an assistant professor at Harvard Medical School, and is active in patient care, medical education, and clinical research. He lives with his family in Brookline and enjoys swimming and rock climbing in his free time.



Howard Shaps, MD, MBA

Howard Shaps, MD, MBA is a board-certified emergency medicine physician with more than 15 years of healthcare management experience and currently serves as Healthmap's Chief Medical Officer. Additionally, he has extensive experience leading Quality, Care Management, and Utilization Management teams. He previously served as Deputy Chief Medical Officer at Centene Corporation, where he had direct oversight of medical management and supported the policy, vendor management, and clinical strategy teams. Prior to joining Centene, he was Deputy Chief Medical Officer for WellCare Health Plans, responsible for medical management, policy, and value-based care programs. Howard earned his bachelor's degree in Psychology from the University of Michigan, his Doctor of Medicine from the Boston University School of Medicine, and his MBA, with distinction, from the University of Louisville College of Business. He is also a diplomat of the American Board of Emergency Medicine.

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