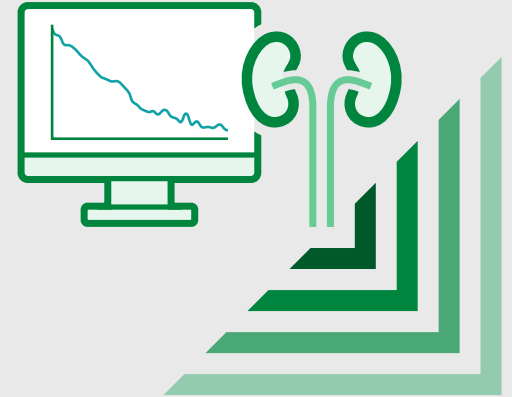




Virtual Solutions for Chronic Kidney Disease Management

HEALTH TECHNOLOGY ASSESSMENT | SEPTEMBER 2026

The Peterson Health Technology Institute (PHTI) evaluated virtual solutions for chronic kidney disease (CKD). CKD affects one in seven adults in the United States and generates substantial healthcare utilization and spending.¹ Based on PHTI's review of the evidence, virtual solutions aimed at treatment and management of moderate CKD (stage 3) through the transition to end-stage kidney disease (ESKD) do not slow disease progression or reduce total cost of care at a population level. Future payment models should focus on improving early diagnosis and increasing effective medication management.

ESKD is unique among clinical conditions in that it qualifies most individuals for Medicare at any age, creating a direct pathway into a federal entitlement program. Medicare coverage for people younger than 65 who progress to ESKD typically begins after a three-month waiting period for dialysis or immediately for a kidney transplant.³ For those with employer-sponsored insurance, Medicare is initially secondary to employer coverage for a 30-month coordination period, after which Medicare becomes the primary payer.⁴ In practice, however, one-third of patients transition to Medicare well before the coordination period ends—an average of 19 months early.⁵

Traditional Medicare spends more than \$141 billion annually on beneficiaries with CKD and spending rises sharply once

patients reach ESKD—approximately \$100,000 per patient annually.^{6,7} By 2023, Medicare Advantage spending for beneficiaries with ESKD exceeded spending under Traditional Medicare for the first time because enrollment restrictions for ESKD patients into Medicare Advantage were lifted in 2021.⁸

Early CKD diagnosis enables timely treatment to slow disease progression; however, nearly 9 out of 10 adults with CKD are unaware they have the disease, leaving them especially susceptible to adverse health effects.⁹ Increasing early diagnosis of CKD would require focused intervention with primary care clinicians to expand screening and timely referrals to a nephrologist. Effective management of CKD requires adherence to guideline-recommended medications. Two medication classes—ACE inhibitors/ARBs and SGLT2 inhibitors—have strong evidence of slowing disease progression, are available as generics, and remain underutilized.^{10–13} As kidney function declines, timely preparation for dialysis or transplant is essential.

The Centers for Medicare & Medicaid Services (CMS) have most recently sought to improve CKD care through their Innovation Center's Kidney Care Choices (KCC) model, which focuses on Medicare beneficiaries with advanced CKD (stages 4–5) and ESKD, as well as certain post-transplant patients.

CKD is a progressive condition characterized by persistent kidney damage or reduced kidney function, impairing the kidney's ability to filter waste from the blood. As CKD advances, patients face increasing risk of cardiovascular complications and premature death.² Early-stage CKD is often undiagnosed because it is typically asymptomatic and screening is inconsistent. Unfortunately, many patients are not diagnosed until the disease reaches an advanced stage, when treatment shifts from slowing progression to preparing for dialysis or kidney transplant.

PHTI RATINGS FOR VIRTUAL SOLUTIONS FOR CKD MANAGEMENT

● Positive ● Moderate/Mixed ● Negative
 ● Higher Evidence Certainty ○ Lower Evidence Certainty

Virtual Solutions	Clinical Effectiveness ^a	Economic Impact	Summary Rating ^b
DaVita IKC Evergreen Nephrology Healthmap Solutions Interwell Health Kidneylink Monogram Health Somatus Strive Health	 Results: Does not slow disease progression Increases planned dialysis initiation Evidence Certainty: Higher	 Does not reduce total healthcare spending at the population level May increase total spending due to program costs ^c	 Evidence does not support broader adoption

Source: PHTI, Virtual Solutions for CKD Management, September 2026. See [PHTI.org](https://phti.org) for complete report, methods, and recommendations.

Notes: ^a Not all solutions have clinical data that meet the inclusion standards for this report. Given the similarity of approaches across companies in this report, companies without solution-specific data are assumed to perform comparably. ^b Summary rating reflects the combination of clinical and economic results. ^c Costs may include quality bonuses, shared savings payments, and increased risk-adjustment coding associated with the CKD program.

KCC is a voluntary model that holds participating organizations accountable for quality and total cost of care. As of 2023, KCC covered approximately half of Traditional Medicare beneficiaries with CKD stages 4–5 or ESKD.¹⁴

Virtual solutions for CKD management seek to improve clinical outcomes and manage total healthcare spending as patients with CKD approach ESKD. These companies work with nephrology practices to provide financial and contracting support, risk sharing, data, analytic support, care coordination, and patient education resources.

Clinical and Economic Impact for Virtual CKD Solutions

PHTI's assessment used a [published framework](#) and included a systematic literature review of more than 5,400 pieces of evidence, identifying 34 unique studies that met inclusion criteria, including numerous randomized controlled trials. Despite substantial capital investment, the companies in the assessment have produced very few studies evaluating their specific interventions. The assessment also used data from the KCC model. In addition, PHTI received input from clinical advisors, patients with CKD, and companies selling digital health solutions.

Clinical Impact: Based on PHTI's review of the evidence, virtual solutions for CKD management show no consistent evidence of slowing disease progression—either by improving guideline-recommended medication use proven to slow kidney damage or by slowing the rate of kidney function decline—

compared with usual care. They demonstrate some benefit in improving the rate of planned dialysis starts, but these do not translate to meaningful reductions in hospitalizations or other healthcare utilization. Findings from the KCC model are largely consistent with the published literature in showing that these solutions have not demonstrated broad clinical impact compared with usual care.

Economic Impact: PHTI's budget impact model finds small reductions in healthcare spending (less than 0.2%) driven by improvements in planned dialysis transitions, which are immaterial when spread across the full attributed CKD population. Nonetheless, health plans may continue to value these solutions because they may improve risk coding, lower medical loss ratios, and increase budget predictability, all of which create value for the plan and company—even absent cost of care reductions—within current contracting structures. Evaluations from the 2022 and 2023 KCC model also found no reduction in total healthcare spending for patients attributed to participating companies and practices.

These findings reflect the design limitations of current solutions, the challenge of effectively delivering care to patients with CKD, and a payment and policy landscape that has primarily concentrated incentives on dialysis initiation and end-stage management rather than on upstream interventions that slow disease progression. Addressing these gaps will require coordinated action across innovators, purchasers, providers, and policymakers.

PHTI ESTIMATED ANNUAL BUDGET IMPACT OF VIRTUAL CKD SOLUTIONS

	Commercial	Traditional Medicare	Medicare Advantage
Annual Spending Per 1M Member Plan*	\$240M	\$4.5B	\$5.4B
Δ Spending with Virtual CKD Management Solutions (%)	–\$1.6M (0.66%)	–\$5.5M (0.12%)	–\$7.8M (0.14%)
Δ Spending Per Attributed Member with CKD	–\$401	–\$53	–\$62

Notes: Negative numbers represent healthcare savings and positive numbers represent healthcare spending. * Total spending estimated for patients with CKD stages 3–5 attributed to a virtual CKD solution.

Source: PHTI, Virtual Solutions for CKD Management, September 2026. See the full report for complete methods and results from PHTI’s budget impact analysis.

Realizing the Full Potential of Virtual CKD Solutions: Policy Implications

Given the treatment costs of ESKD, most healthcare interventions and payment models have focused on managing the later stages of CKD and improving the quality of transitions to dialysis. While this is a critical step for those who need it, it affects only a small share of people with CKD and misses the opportunity to shift emphasis upstream with a goal of avoiding progression to ESKD altogether.

Shifting incentives for payers, vendors, and providers to focus on earlier diagnosis and effective medication management would create opportunities to slow disease progression and prevent costly complications. It could also expand the benefit of virtual solutions that have demonstrated the ability to improve patient outcomes in conditions like hypertension, when medication management is a key component of treatment.¹⁵

To increase the impact of virtual solutions for CKD care:

- CMS should incentivize the use of guideline-recommended CKD medications proven to slow disease progression.** Modeling estimates show that SGLT2 inhibitor use could avoid \$99.3 billion in Medicare costs over four years, driven by reductions in kidney failure, sustained kidney function decline, and death—before accounting for the medication costs.¹⁶ However, less than 15% of people with CKD are prescribed these drugs.¹⁷ CMS should therefore strengthen incentives to identify and address gaps in guideline-recommended CKD medication use across both Traditional Medicare and Medicare Advantage. CMS should:
 - Update the kidney pathway in the Merit-based Incentive Payment System (MIPS) to include an SGLT2 inhibitor prescribing measure and adherence measures for both major classes of CKD medications;
 - Add a medication prescribing, initiation, and/or adherence measure with performance targets to the cardio-kidney-metabolic track of the Advancing Chronic Care with Effective, Scalable Solutions (ACCESS) model for patients with CKD. ACCESS tests clinical outcome-aligned payments for digital health tools in Traditional Medicare; and
 - Assess the need for a CKD-specific medication adherence measure for the Medicare Advantage Star Ratings program that captures beneficiaries with CKD. A CKD-specific measure would provide a clearer signal of whether Medicare Advantage plans are supporting appropriate medication use among the broader CKD population, rather than relying on measures designed primarily around diabetes.

2 CMS should retain effective elements of its Kidney Care Choices model and shift future models toward upstream care. With the KCC model scheduled to end in 2027, CMS should rely on the model evaluation findings when considering design of any extension or successor model. Future kidney care models should preserve what led to the improvement in planned starts for dialysis, while correcting the incentive and payment structures that failed to reduce spending in early evaluations.¹⁸ Critically, KCC’s design concentrated financial incentives on patients already progressing toward dialysis, limiting its ability to incentivize interventions that slow disease progression earlier. A successor model should shift incentives to include earlier-stage CKD when interventions can be more impactful, rather than concentrating resources only on the relatively small number of patients for whom kidney failure is imminent.

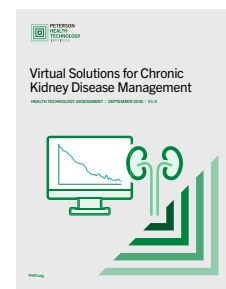
3 HHS should target efforts to improve earlier identification of CKD. Nearly 9 out of 10 adults with CKD are unaware they have the disease, leaving many patients without timely treatment to slow disease progression and prevent adverse health outcomes.¹⁹ The evidence base supporting earlier identification and treatment of CKD has continued to evolve. New validated screening approaches have improved diagnostic accuracy, and studies show CKD screening is cost-effective.²⁰ Randomized trials have also demonstrated that early treatment can slow CKD progression and reduce adverse outcomes.^{21,22} As part of this effort, the U.S. Preventive Services Task Force (USPSTF) should accelerate its ongoing work to update CKD screening recommendations for asymptomatic adults.²³ An updated recommendation with an A or B rating could substantially expand access to early CKD screenings by triggering requirements for many health plans to cover the recommended preventive service without patient cost-sharing.

About the Peterson Health Technology Institute

The Peterson Health Technology Institute (PHTI) provides independent evaluations of innovative healthcare technologies to improve health and lower costs. Through its rigorous, evidence-based research, PHTI analyzes the clinical benefits and economic impact of digital health solutions. These evaluations inform decisions for providers, patients, payers, and investors, accelerating the adoption of high-value technology in healthcare. PHTI was founded in 2023 by the Peterson Center on Healthcare. PHTI does not accept financial contributions.

Accessing PHTI’s Full Report

You can access the full report [here](#).



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