# Delivering a "New Deal" of Kidney Health Opportunities to Improve Outcomes Within the Veterans Health Administration

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Just as the "New Deal" aimed to elevate the "forgotten man" of the Great Depression through governmental relief and reform, so does the Department of Veterans Affairs (VA) health care system aim to improve the health of veterans with the invisible illness of chronic kidney disease through a concerted series of health care delivery reforms. Augmenting its primary care platform with advances in informatics and health service delivery initiatives targeting kidney disease, the VA is changing how nephrology care is provided to veterans with the goal of optimized population kidney health. As the largest provider of kidney health services in the country, the VA offers an instructive case study of the value of comprehensive health care coverage for people with chronic kidney disease. Recent reports of kidney health outcomes among veterans support the benefit of the VA's integrated health care delivery system. Suggestions to optimize veterans' kidney health further may be equally applicable to other health systems caring for people afflicted with kidney disease.

*Complete author and article information provided before references.*

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*The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.*

*- Franklin D. Roosevelt*

## Introduction

The "New Deal" was a coordinated sequence of domestic federal initiatives undertaken in the United States in response to the population's needs in the Great Depression of the 1930s.[1] Enacted by President Franklin D. Roosevelt, the program aimed to elevate the "forgotten man," that category of persons receiving less than merited attention, through governmental reforms of a broad scope of human endeavors.[2] Like the forgotten man, the population with chronic kidney disease (CKD) merits greater attention to secure relief from the impoverishment, impaired quality of life, and premature death that the illness exacts. The question is, how might we do better today to deliver a New Deal of kidney health initiatives to those with CKD?

Recent analyses indicate improvement in kidney health outcomes among veterans receiving care from the Department of Veterans Affairs (VA).[3,4] Scrutiny of the agency's current care model may identify population health initiatives associated with improved outcomes that could potentially be adopted by other health care systems.

## Risk and Burden of Kidney Disease in the VA

Risk factors for CKD abound in the veteran population; rates of diabetes mellitus, hypertension, and overweight/obesity exceed those of the general population at 24%, 46%, and 78%, respectively.[3] Depending on definitions and the ascertainment method used, estimates of CKD among the VA population range from 4% to 36%, again greater than in the general population.[3,5,6] In 2011 in the United States, the prevalence of stages 3 to 4 CKD in the VA population was 11.1% as compared to 6.7% among the general adult population.[3] Non–dialysis-dependent CKD (NDD-CKD) afflicts 16% of VA enrollees, or more than a million veterans.[6] Veterans with CKD differ from general VA enrollees in that they are disproportionately older (78% are >65 years), and more than two-thirds (68%) are nondiscretionary enrollees, having either a military service–connected disability or meeting the low income criterion for VA care.[5]

Causes of CKD in the VA are similar to those in the private sector, with diabetes and hypertension accounting for 42% and 31% of end-stage renal disease (ESRD), respectively.[7] Prevalence rates of stages 4 and 5 CKD are a fraction of the prevalence of stage 3, but due to the large size of the VA enrollee population, the number of veterans initiating dialysis therapy is approximately 13,000 per year, which accounts for 11% of the incident ESRD population in the United States.[7]

Estimates of the aggregate expenditures for veterans with NDD-CKD show that although costs increase by CKD stage, the majority of expenditures result from the large CKD3 population.[8] Total annual costs of care of the NDD-CKD population have increased steadily during the past decade to $18 billion in fiscal year 2016.[8] Similar to the private sector's experience with ESRD costs, the VA allocates a disproportionate share of its medical budget to the care of veterans with CKD. Thus, CKD aptly deserves the moniker of a "high-needs" illness. The upside to this stark picture is the identification of a population for which upstream prevention initiatives offer enormous potential for return on investment with respect to improved patient outcomes and health system cost containment.

## What Is the VA's Model for Delivery of Health Services?

The VA's national health system provided more than 83 million outpatient visits in fiscal year 2016.[9] With an

appropriated budget and responsibility for the delivery of comprehensive care to all enrollees, the VA is the quintessential accountable health care organization, with an enrollee population similar to Medicare's male population.[10]

Since the 1990s, the VA has transformed itself from an acute hospital care provider to a prevention-focused primary care platform.[11] In 2010, the VA expanded its primary care model to a comprehensive patient-aligned care team (PACT).[12]

Enrolled veterans are assigned a primary care provider who orchestrates the delivery of "whole health" to them through their PACT, including primary care, medical nutrition guidance, behavioral health counseling and intervention programs, and mental health services. Social services include transportation, housing, and referral for vocational training and higher education benefits.

The VA delivers kidney health services through the PACT in a health promotion–focused model of longitudinal care. Kidney care is delivered by collaborative primary-specialty care partnerships supported by evidence-based policy, a universal electronic medical record, performance measurement, teletechnology-enabled access, research, innovation, and veteran education (Fig 1). Recommendations for the primary care management of veterans with CKD are outlined by evidence-based clinical practice guidelines codeveloped by the VA with the Department of Defense.[13] Indications for nephrology consultation include estimated glomerular filtration rate < 30 mL/min/1.73 $m^2$, when there is evidence for a rapid decline in estimated glomerular filtration rate (>5 mL/min/1.73 $m^2$ per year), complications of CKD (eg, anemia and calcium or phosphorus abnormalities) arise, nephrotic-range proteinuria exists, the underlying cause of CKD or proteinuria is unclear, or the patient's severity of disease exceeds the primary care provider's level of comfort.[13] All VA clinical practice guidelines, including those targeting health behavior modifications, are designed for upstream implementation within the PACT and are communicated broadly using VA channels. A standard framework promotes harmonization of VA clinical practice guidelines and shared decision making to advance the VA's goal of delivering integrated veteran-centric care.

Nephrology and collateral providers collectively deliver kidney health services to veterans using a variety of enabling resources in a graduated consulting fashion (Fig 2). In fiscal year 2016, there were nearly 350,000 encounters for nephrology services, not including dialysis.[14] Together, the VA national guidelines for nephrology referral and its intrafacility-level collaborative care agreements support the VA's delivery of kidney care on a rational basis.[15]

To extend the reach of nephrology to regions with limited capacity, the VA offers a portfolio of standardized connected care services, including secure messaging, e-consultation, and video telenephrology, among others[16] (Fig 3). Veteran satisfaction with virtual services is high and evidence suggests that VA telenephrology care may enhance patient adherence and achieve outcomes similar to conventional care.[17,18]

In- and outpatient dialysis are offered at 125 and 74 VA facilities, respectively. Because of its finite dialysis capacity, the VA is highly reliant on community providers for the delivery of maintenance dialysis services to veterans. To secure access to community care, in 2013, the VA issued a national contract with 23 outpatient dialysis providers, adopting Medicare's payment methodology as a base.

Home dialysis and kidney transplantation are available to veterans suitable for such modalities. Approximately half the VA dialysis programs offer home dialysis directly, whereas the remaining centers contract with community providers. Seven regional VA kidney transplantation centers exist, with transportation and indefinite immunosuppressant medications provided. Although less likely to receive kidney transplants than privately insured individuals, veterans are as likely as Medicare enrollees to be kidney transplant recipients.[19] Opportunities to promote veteran kidney transplantation and home dialysis use include increased CKD patient education, VA tele-transplantation consultation, and potentially, legislation to extend veteran benefits.

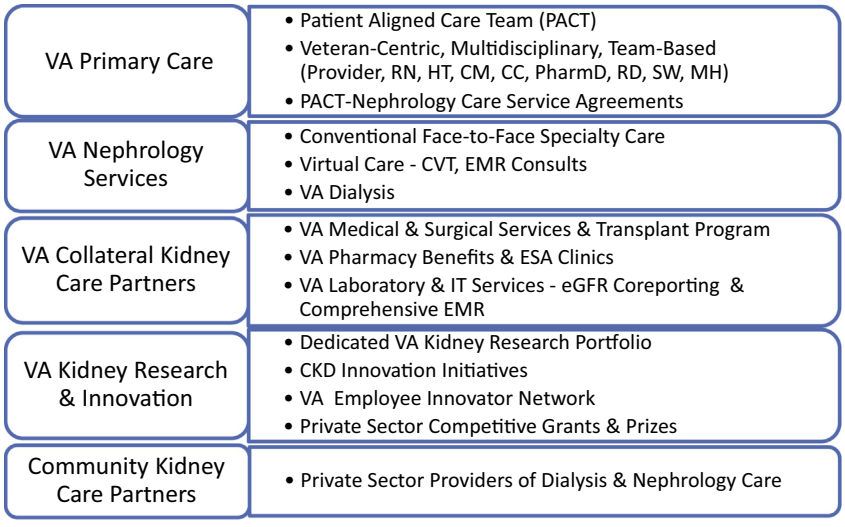


**Figure 1.** Department of Veterans Affairs (VA) Health Services for the care of veterans with kidney disease. Abbreviations: CC, care coordinator; CM, case manager; CVT, clinic video teleconsultation; EMR, electronic medical record; HT, health technician; IT, information technology; MH, mental health; RD, registered dietician; SW, social work.