

Chronic Kidney Disease

October 2022

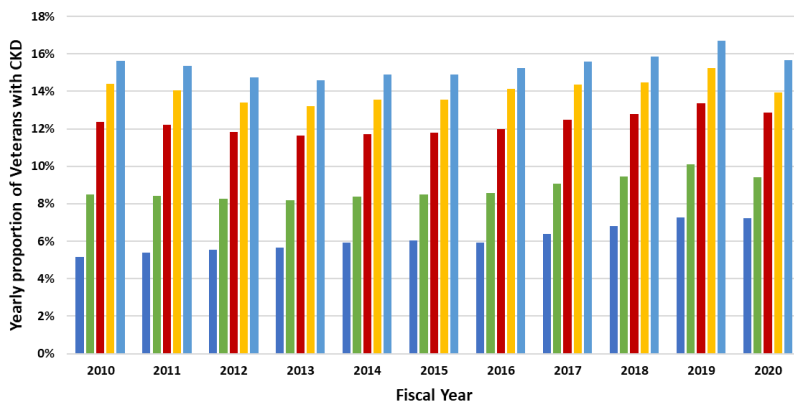
Fact Sheet: Data on Veterans Using VA Health Care

CSPEAR provides timely epidemiologic information on VA health care users. This fact sheet presents summary data to inform a broad community of VA leaders, investigators, and clinicians as they consider how best to address the needs of Veterans.

Introduction: The kidneys remove waste products and extra fluid and flush them from the body as urine. A diagnosis of chronic kidney disease (CKD) means that patient's kidneys have become damaged to the point where waste builds up, leading to severe health problems. According to the Centers for Disease Control & Prevention (CDC), 15% of US adults—37 million people—are estimated to have CKD [1]. Minimal data have been published on the prevalence of CKD in the Veteran population [2]. The estimate of CKD among the VA population ranges from 4% to 36%, depending on the criteria for CKD diagnosis [3].

Yearly proportion of Veterans with CKD, Fiscal Year (FY) 2010 – 2020

- CKD identified by icd 9/10
- either icd 9/10 or two outpatient eGFR<60 in the same fiscal year AND the distance between first and last measure is at least 90 days
- 1) ICD 9/10 in that fiscal year, OR 2) an outpatient eGFR <60 in that fiscal year AND another outpatient eGFR<60 90days -2 years prior
- at least one outpatient eGFR<60
- either icd 9/10 or at least one outpatient eGFR<60



Fast Facts

- In FY 2020, an estimated 12.8% (820,571/6,387,336 of Veteran VHA users met criteria for CKD diagnosis, highlighting the challenge to optimize Veteran kidney health outcomes.
- CKD affects all races, sexes and ages, but the condition is more common among the older population (>=60 years old).
- In FY 2020, VHA supported a variety of CKD studies across different ORD services and programs to better understand, diagnose and ultimately find new treatments for CKD.

Methods: Data were extracted from the VA Corporate Data Warehouse (CDW) [4], a national database that integrates clinical and administrative information in the VHA; and CSPEAR [5]. The population served by VHA health care includes both Veterans and non-Veterans. While protecting privacy, we first identified the number of Veteran users of the VHA in each fiscal year 2010 through 2020, and then identified those with a CKD diagnosis.

Definitions: For data presented in this Fact Sheet, a CKD diagnosis is based on: 1) an outpatient estimated glomerular filtration rate (eGFR) <60 cc/min/1.73m² [6] in that fiscal year, also had an additional eGFR<60 outpatient any time in the past at least 90 days-2years prior, or 2) 9th and 10th revisions of International Classification of Diseases (ICD-9 and ICD-10) codes in at least one outpatient visit or one inpatient hospitalization: ICD-9-CM 585*, 250.4*, 403.9*, 753.13, and 582* as well as ICD-10-CM N18*, E11.22, I12.9, Q61.2, and N03*. The yearly CKD Proportion is the proportion of Veteran VHA users who meet criteria for CKD diagnosis on record during the given FY. Visit the Centralized Interactive Phenomics Resource (CIPHER) for more information on the CKD phenotype: [https://phenomics.va.ornl.gov/web/cipher/phenotype-viewer?uqid=4d0da6883f79476987cf1c1529cd8adf&name=Chronic Kidney Disease CSPEAR](https://phenomics.va.ornl.gov/web/cipher/phenotype-viewer?uqid=4d0da6883f79476987cf1c1529cd8adf&name=Chronic%20Kidney%20Disease_CSPEAR).

Notes: This work was conducted under the auspices of CSPEAR's operational access to VA data. This material is the result of work supported with resources and the use of facilities at the VA Cooperative Studies Program Epidemiology Center in West Haven, CT. This fact sheet was completed in partnership with the VHA National Kidney Program. The contents do not represent the views of VA or the US Government.

Visit [CSPEAR's website](#) or contact CSPEAR@va.gov for more information.

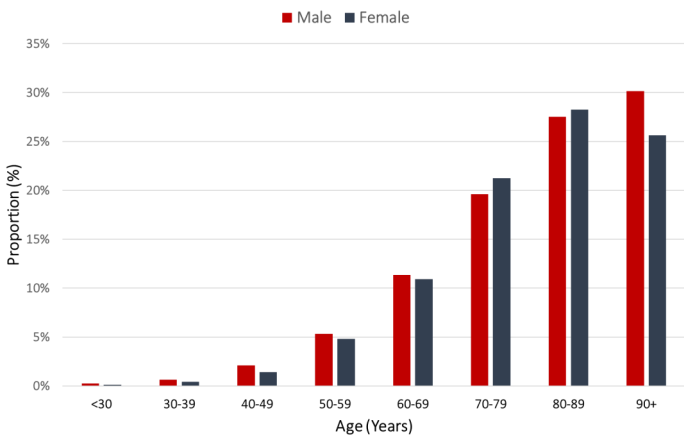
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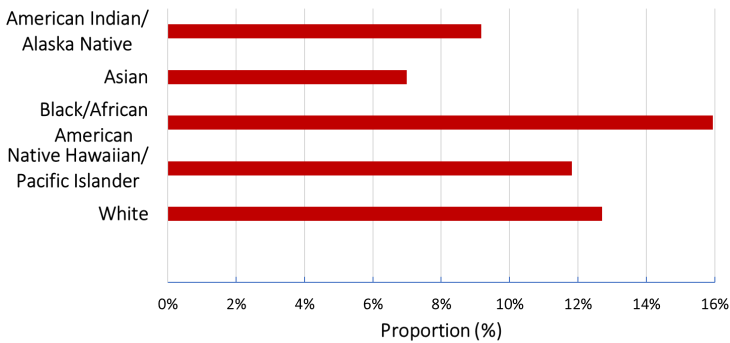
CSPEAR Fact Sheet for CKD — continued

CKD Proportion by Age and Sex in FY 2020



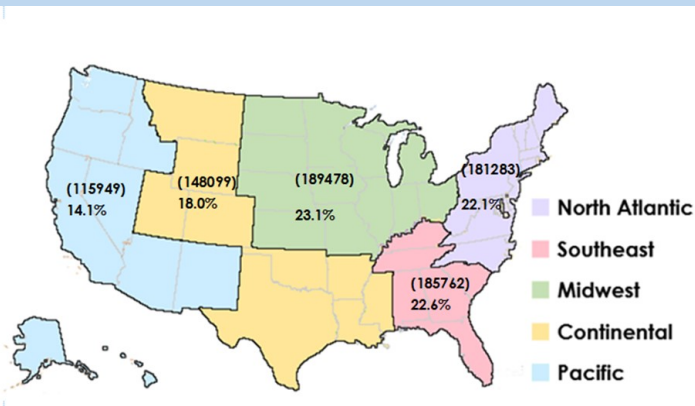
The CKD proportion here is defined as the percentage of VHA Veterans who met criteria for CKD diagnosis in FY 2020. CKD proportions vary by age and sex, while rates increase with age.

CKD Proportion by Race in FY 2020



Proportion of CKD among different races in FY 2020 (“other/multiple” race not shown).

Geographic Distribution of CKD in FY 2020



The map shows how the 820,571 Veteran users of the VHA meeting criteria for CKD diagnosis are distributed across wide geographic regions.

VHA Research Projects on CKD

VHA supported more than 20 studies in FY 2020 that focus directly on kidney disease including CKD, helping to improve the future quality of life for Veterans with CKD.

Clinical Science R&D

- representative project: [Deoxycholic Acid and Outcomes across Stages of Chronic Kidney Disease](#).

Cooperative Studies Program (CSP) R&D

- representative project: [CSP #2008 - Pentoxifylline in Diabetic Kidney Disease](#) (Study CSP#2008 including CKD patients).

Health Services R&D

- representative project: [Improving Outcomes in Veterans with Heart Failure and Chronic Kidney Disease](#).

Biomedical Laboratory R&D

- representative project: [Treating bone deterioration associated with chronic kidney disease](#).

References and resources

- [Centers for Disease Control and Prevention](#). Accessed October 2022.
- [VA/DoD clinical practice for the management of chronic kidney disease](#). Accessed October 2022.
- [Crowley ST, Murphy K. \(2018\). Delivering a “new deal” of kidney health opportunities to improve outcomes within the Veterans health administration. Am J Kidney Dis. 72\(3\):444-450.](#) Accessed October 2022.
- [Corporate Data Warehouse \(CDW\)](#). Accessed October 2022.
- [Cooperative Studies Program Epidemiology Analytics Resource \(CSPEAR\)](#). Accessed October 2022.
- [Formula for the estimated glomerular filtration rate \(eGFR\)](#). Accessed October 2022.
- [VA kidney research publications](#). Accessed October 2022.
- [VHA National Kidney Program](#). Accessed October 2022.
- [VHA Directive 1053 Chronic Kidney Disease Prevention, Early Recognition, and Management](#). Accessed October 2022.

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