



CHAMPIONS FOR TOTAL HEALTH

Chronic Kidney Disease, Vaccinations and Your Health



CKD and People of Color


CKD and Vaccines



Chronic Kidney Disease: An Overview



Stage	GFR*	Description
1	>90	Normal levels of GFR , with other evidence of kidney disease
2	60-89	Slight decrease of GFR with other evidence of kidney disease
3a	45-59	Moderate decrease of GFR with or without other evidence of kidney disease
3b	30-44	
4	15-29	Severe decrease of GFR with or without other evidence of kidney disease
5	<15	Established renal failure



*ml/min/1.7m²

progressive loss of kidney function. In the beginning stages, there are often no symptoms. Overtime, CKD can progress to near complete kidney failure called End Stage Renal Disease (ESRD). This requires dialysis or transplantation. Most individuals do not progress to kidney failure.

37 million Americans are estimated to have CKD, 90 percent who are unaware of their condition.

Nearly 25% of beneficiaries in Medicare FFS were diagnosed (2018 data), a number that is increasing.



genetic condition; lupus, diabetes, heart disease and hypertension are major factors. Family members of those with CKD are also at risk and ethnicities are at a higher risk as well.

Controlling risk factors, (such as managing diabetes and hypertension) for CKD, health screening, and medications are important components of CKD prevention and management.

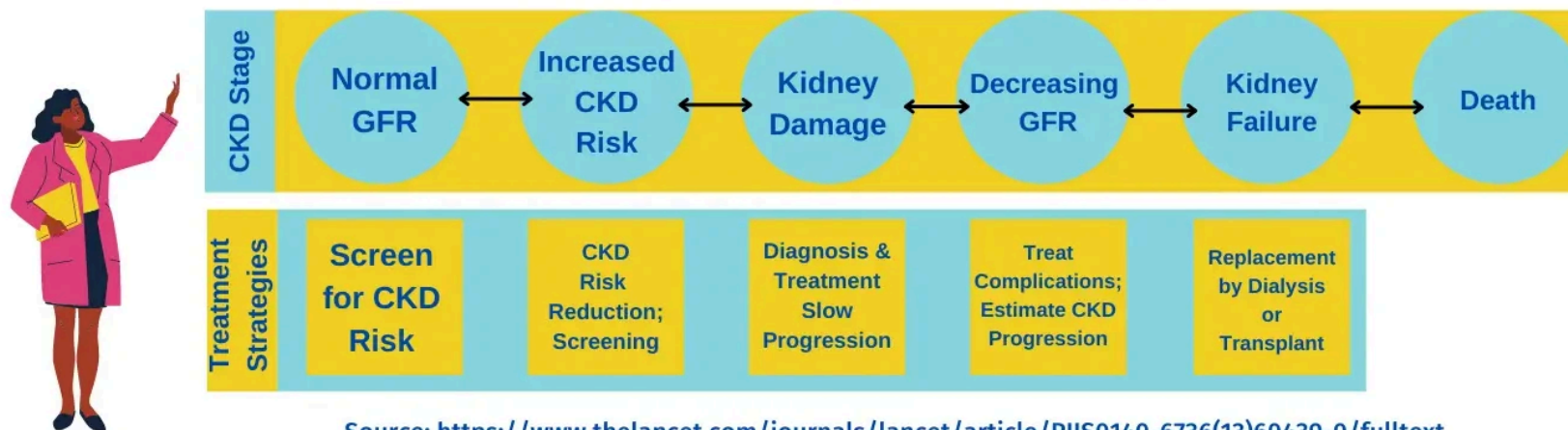
Screening includes measuring protein in the urine and calculating GFR (*glomerular filtration rate (GFR)* shows how well the kidneys are filtering).



positive difference to people with CKD.

Your primary care team, diabetes educator, and social worker can help prevent, screen for, provide education and treatment; a nephrology specialist provides advanced care.

Progression of Chronic Kidney Disease



Source: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)60439-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60439-0/fulltext)



CKD Resources

**National Institute of
Diabetes and Digestive
and Kidney Diseases**

**Center For Disease Control
- CKD Facts**

**American Association of
Kidney Patients**

Medline Plus - CKD

**Center for Disease Control
- CKD Education**

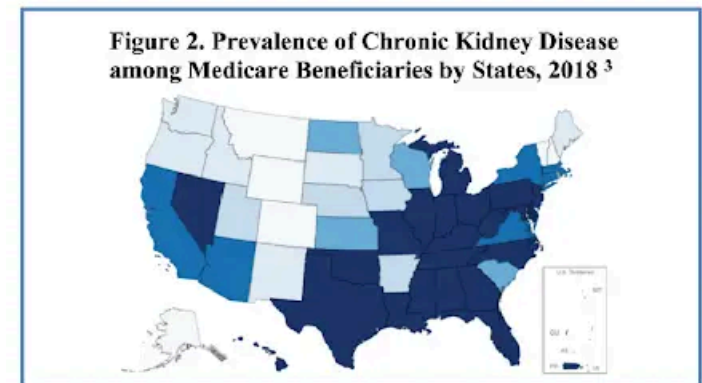
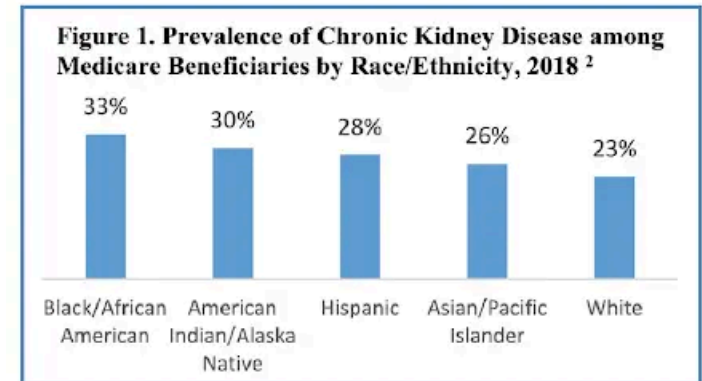
**Center for Disease Control
- CKD (PDF)**



People of Color

CKD reveals many racial and ethnic disparities. People of color are:

- More likely to develop CKD
 - 16% of Black adults, 14% Hispanic adults, and 13% of white adults are estimated to have CKD
 - 33% of Black Medicare FFS (Medicare fee-for-service) beneficiaries have CKD versus 23% of white beneficiaries



*The number of Medicare FFS enrollees with CKD also varied by geographic areas (Figure 2). Montana and Wyoming had the lowest prevalence rate (16%) and Florida had the highest prevalence rate (28%).



- For every white person who develops ESRD, 3 Black people develop ESRD
- For every 3 non-Hispanic people who develop ESRD, 4 Hispanic people develop ESRD
- Less likely to reduce CKD risk by achieving recommended treatment goals for blood pressure, diabetes, and cholesterol control
- More likely to progress from CKD to ESRD
- Present with kidney failure at younger ages
- Less likely to have been under the care of a nephrologist before starting dialysis
- Experiencing increased delays for kidney transplantation
 - Median wait time is longer for Black patients (59.9 months) than for white patients (41.3 months)
 - Median wait time is longer for Hispanic or Latino patients (55.8 months) than for non-Hispanic patients (47.4 months)



of the health system; lack of knowledge about CKD; increased levels of risk factors; lack of access or resources to obtain healthy food; provider knowledge and implementation of quality care; patient health literacy; provider and system engagement with communities of color; systemic racism

Nephrologists had noted anecdotally the striking disparities in rates of kidney disease in African Americans relative to white patients, but it was not widely reported in the medical literature until 1982, when a report titled *“Racial Differences in the Incidence of Treatment for End-Stage Renal Disease”* was published in the New England Journal of Medicine.

The authors found that in Jefferson County, Alabama, the risk of end-stage renal disease due to hypertension was approximately 18 times greater for African Americans relative to whites.

[Read more.](#)



Resources

**Designing Interventions to
Address Structural Racism
Reduce Kidney Health
Disparities**

**Burden, Access, and
Disparities in Kidney
Disease**

**CKD Disparities:
Educational Guide for
Primary Care**

**National Institute of
Diabetes and Digestive
and Kidney Diseases**



Vaccines

VACCINES RECOMMENDED FOR ADULTS ON DIALYSIS*	
Vaccine	Dosage
Flu (influenza)	1 dose per year
Hepatitis B virus (HBV)	3 doses Ask your healthcare provider about timing and dosage**
Hepatitis A virus (HAV)	2 doses
Pneumococcal Pneumonia (2 types of vaccines)	1 or 2 doses Ask your healthcare provider about timing and spacing
Tetanus, diphtheria, pertussis (Td/Tdap)	1-time dose of Tdap, then Td booster every 10 years
Measles, mumps, and rubella (MMR)	1 or 2 doses
Human papillomavirus (HPV)	Female: 3 doses up to age 26 Male: 3 doses up to age 21
Haemophilus influenzae type b (Hib)	1 or 3 doses
Varicella (Chickenpox)	1 dose
Meningococcal (meningitis)	Use if needed, 1 or more doses (dependent on patient)

Patients with CKD have a higher risk of complications due to vaccine-preventable illnesses such as flu and COVID-19.

A person suffering from CKD is more likely to experience chronic dry cough and fatigue as a result of COVID-19. And job-related disabilities due to other illnesses.

In addition to getting vaccinated, it's important to protect yourself by taking additional precautions such as wearing a mask, washing your hands,



FROM COVID-19 AND OTHER ILLNESSES
when you have CKD.

CKD and Vaccines: Transplantation

People who have received a kidney transplant should receive age-appropriate inactivated vaccinations (a vaccine consisting of virus particles, bacteria, or other pathogens that have been grown in culture and then killed to destroy disease-producing capacity) as recommended for the general population.

People with a kidney transplant should not receive live vaccines.

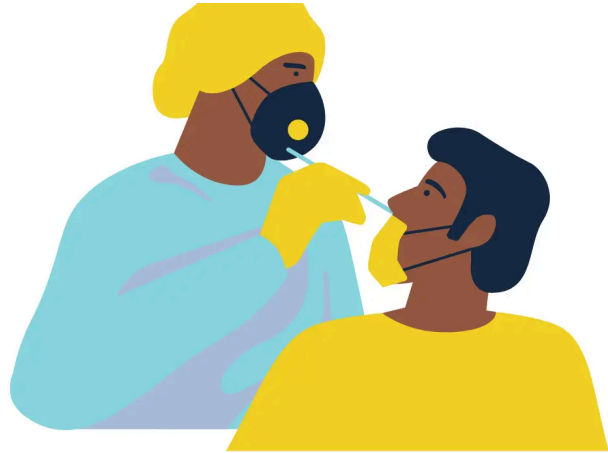




transplantation, after immunosuppression is less intense, before getting a vaccine.

Family members, care-takers, household contacts and health care providers involved with people who have received a transplant should all be vaccinated.

CKD and Vaccines: The Flu Vaccine



undergoing dialysis, are at high risk of developing serious flu complications due to weakened immune response.

Annual flu vaccination is recommended to prevent serious illness of people with CKD. Injectable flu shots – NOT THE NASAL SPRAY – are recommended for use in people with CKD

Flu vaccination is associated with lower rates of hospitalization due to pneumonia/influenza and heart disease, especially with more advanced disease.

For more information you can check our [Health Champions](#) or [SHC](#) resources.

CKD and Vaccines: COVID-19



17.

- Except for advanced age, it's now thought that CKD is the most common risk factor for severe COVID-19 worldwide.
- A recent study found that people with COVID-19 and ESRD were 11 times more likely to be hospitalized than people who didn't have kidney disease.
- People of color have added risk.
- A significant number of patients who survive COVID-19 need kidney replacement therapy after leaving the intensive care unit.

It is important to continue with regularly scheduled dialysis treatments and take necessary precautions as recommended by health care providers.





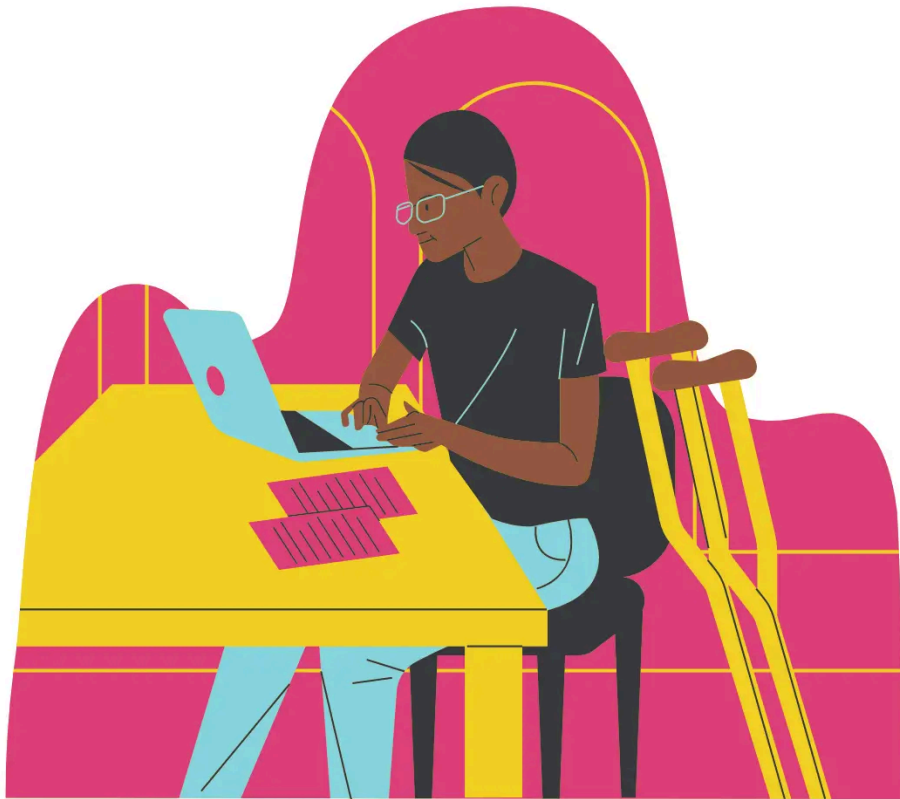
People with a kidney transplant should keep taking anti-rejection medicines.

Patients of CKD should receive the COVID vaccine.

- Currently, a total of four doses are recommended preferably with an mRNA COVID-19 vaccine – the Pfizer and Moderna vaccines.

Whenever possible, COVID-19 vaccines should be administered at least 2 weeks before initiation or immunosuppressive therapies.

In addition to vaccination, continue to take precautions, including:





often, avoid crowds and during an outbreak stay home as much as possible.

It is important for family and household members and care-givers to be fully vaccinated and otherwise minimize exposure.

Stay up-to-date by talking with your health care team and follow updates from the [CDC](#) and [kidney.org](#).

CKD and Vaccines: Resources

Center for Disease Control -CKD
Flu Vaccine

Kidney.org - Flu Shot



RECOMMENDATIONS

Health Champions

COVID-19 and CKD

Kidney.org - COVID-19 Vaccine

SHC - NMQF

Center for Disease Control Recommended Vaccine Schedule

Chronic Kidney Disease – *The Patient and Caregiver Perspective*

CKD is common among US adults, CKD patients can find comfort in knowing they are not alone in their struggles.



patients to find support and wellness tips for healthy living.

Watch Dietta's story from the National Kidney Foundation of Michigan for some inspiration and support.





Caregivers

National Kidney Foundation of Michigan

Renal Support Network

National Kidney Foundation - Coping Support

Davita Kidney Care

American Association of Kidney Patients

Healthline Community Support

Watch Now: Kidney Disease, Health and You



Watch NMQF's Center for Sustainable Health Care Quality and Equity's and the National Kidney Foundation of Michigan for a Health Champion's discussion from the eyes of CKD experts and a patient voice. Originally aired March 25, 2022.

Health Champion webinars occur on the last Friday of each month. Be sure to [subscribe to the Health Champions newsletter](#) for details.



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