

CHRONIC KIDNEY DISEASE

INPATIENT CLAIMS

What is it? What are the stages?

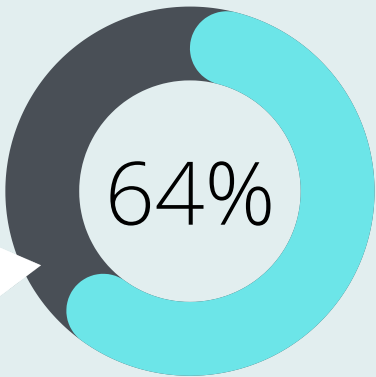
Chronic Kidney Disease, or CKD, is a gradual loss of kidney function. Your kidneys filter wastes and excess fluids from your blood, which are then removed in your urine. Advanced CKD can cause dangerous levels of fluid, electrolytes and wastes to build up in your body. In the early stages, you might have few signs or symptoms. Many don't realize they have kidney disease until the condition is advanced. This is part of why it is so costly, costing on average is \$82,130.71 per claim, but the elderly population can cost more than \$300,000 per claim.

Treatment

Treatment for CKD focuses on slowing the progression of kidney damage. Chronic kidney disease can progress to end-stage kidney failure, which is fatal without artificial filtering (dialysis) or a kidney transplant.



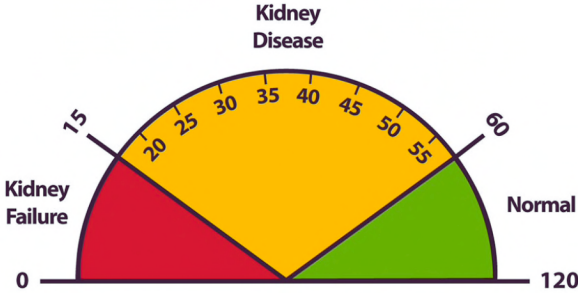
CKD affects 1 in 7 adults.



Sixty-four percent of patients, who are in the top two DRGs, have a major or extreme likelihood of dying.

Diagnoses

- Stage 1 - Mild damage, Kidneys work as well as normal
- Stage 2 - Mild Kidney damage, kidneys still work well
- Stage 3 - Moderate damage, Kidneys don't work as well as they should
- Stage 4 - Moderate damage, Kidneys are close to not working
- Stage 5 - Most severe damage, kidneys have stopped working

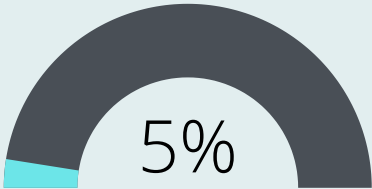


Total Claims CKD Related
1,617,197

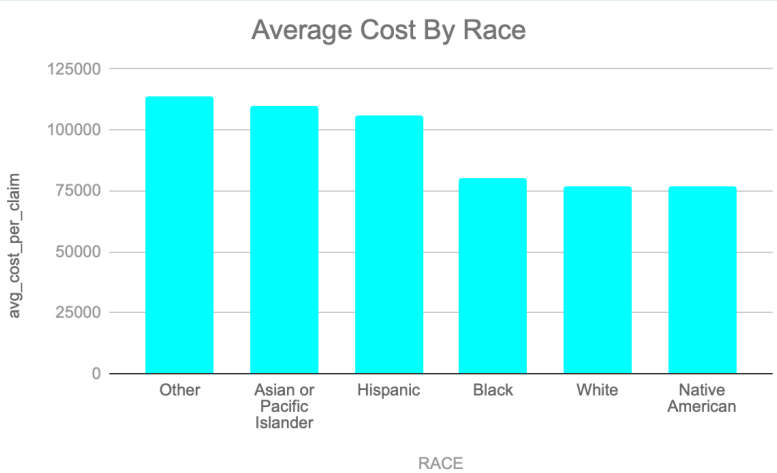
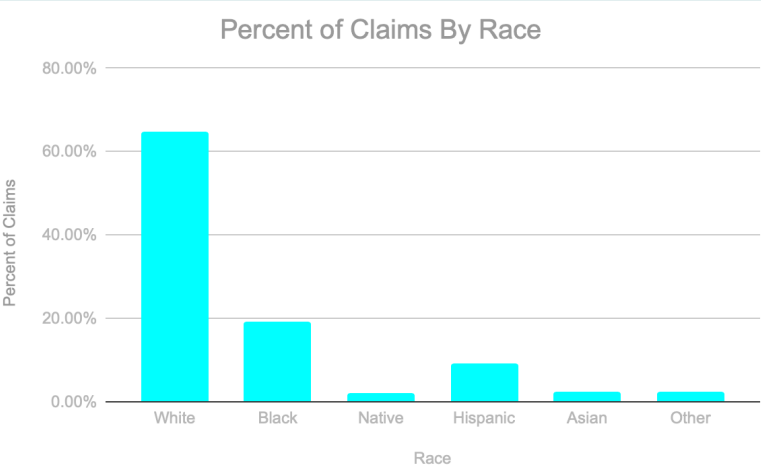
Total Charges CKD Related
\$132,821,530,914

85,072
Total Decesed

When considering all stages and all DRG levels of CKD claims, only five percent of patients actually die.

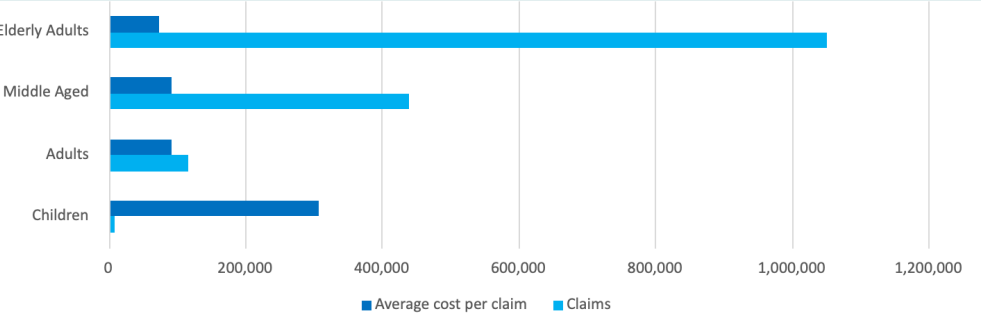


Percent Of Claims By Race



This information tells us that Chronic Kidney Disease is most common among the White population, followed by Black then Hispanic. However, the Asian population is the most costly to treat, followed by Hispanic.

Percent Of Claims By Age



Age_Group	avg_cost_per_claim
Children	\$ 307,866.66
Adults	\$ 92,751.92
Elderly Adults	\$ 74,898.67
Middle Aged	\$ 91,848.92
Age Missing	\$ 72,601.17

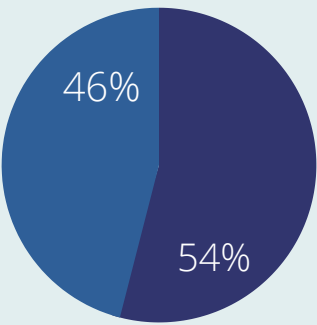
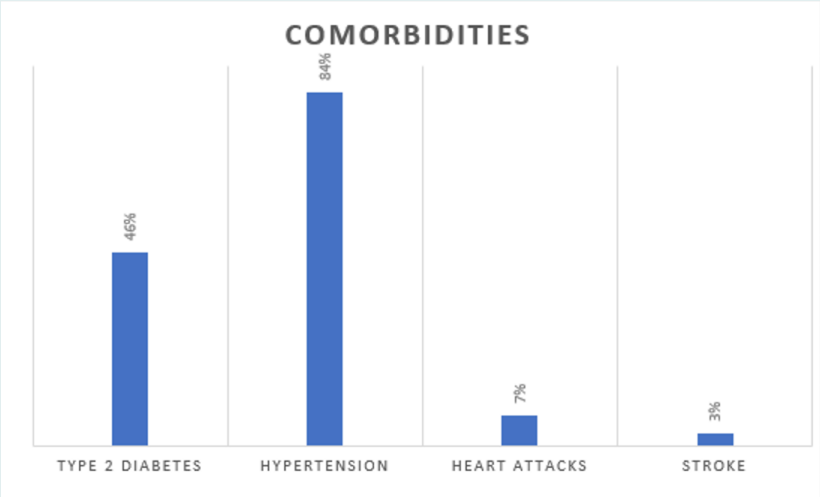
Children have the highest cost average per claim due to the lack of total claims compared to other age groups. Elderly Adult patients had the highest number of claims by age but relatively low cost average compared to other ages.

Comorbidities

CCs: Diabetes and Hypertension

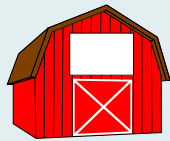
MCCs: Heart Attacks and Strokes

We can see from this data that a majority of CKD patients have high blood pressure while almost half have diabetes. Although it is rare for patients to have heart attacks or strokes from CKD, it still happens.



Sex

CKD is slightly more common in females than in males. Women account for 54% of claims while men account for 46%.



RURAL

133,474 Claims

Average \$38,600.94 per claim

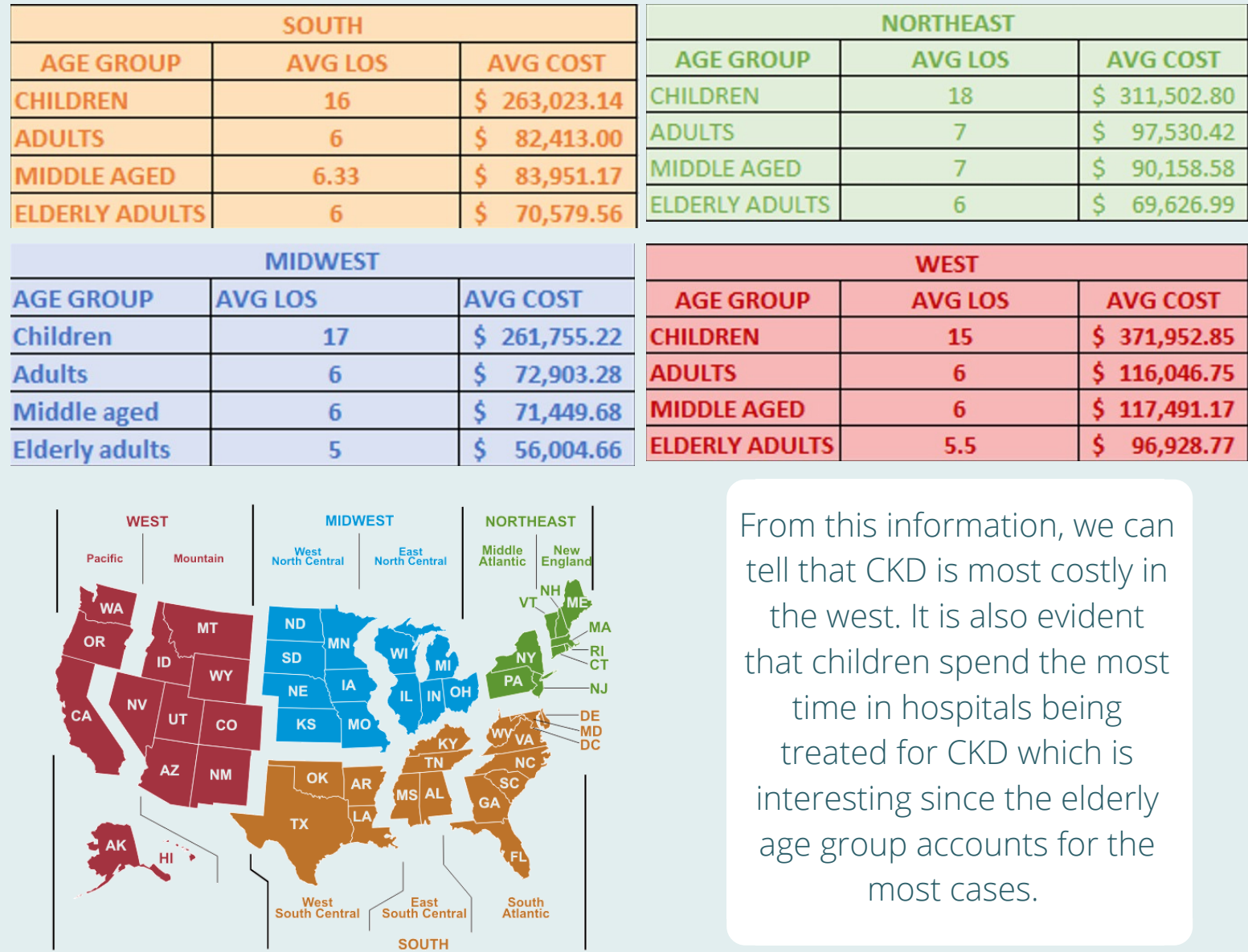
URBAN

1,483,723 Claims

Average \$ 86,046.45 per claim



Census Division/Average Length of Stay



From this information, we can tell that CKD is most costly in the west. It is also evident that children spend the most time in hospitals being treated for CKD which is interesting since the elderly age group accounts for the most cases.

Healthcare Cost & Utilization Project Database (HCUP)

Sources:

- (1) "Chronic Kidney Disease Basics." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 28 Feb. 2022, <https://www.cdc.gov/kidneydisease/basics.html>.
- (2) National Institute of Diabetes and Digestive and Kidney Diseases. "What Is Chronic Kidney Disease?" National Institute of Diabetes and Digestive and Kidney Diseases, U.S. Department of Health and Human Services, <https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/what-is-chronic-kidney-disease>.
- (3) NHS. (n.d.). Diagnosis Chronic Kidney Disease. NHS choices. Retrieved May 3, 2022, from [https://www.nhs.uk/conditions/kidney-disease/diagnosis/#:~:text=Chronic%20kidney%20disease%20\(CKD\)%20can,may%20not%20be%20working%20normally](https://www.nhs.uk/conditions/kidney-disease/diagnosis/#:~:text=Chronic%20kidney%20disease%20(CKD)%20can,may%20not%20be%20working%20normally).
- (4) HCUP National Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP). 2019. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/nisoverview.jsp