

A 3D anatomical illustration of two kidneys, shown in a cross-section view. The kidneys are rendered in a semi-transparent, teal color, revealing the internal structures including the renal cortex, medulla, and renal pyramids. The renal pelvis and ureters are also visible. The background is a dark teal color. A small, solid red rectangular shape is located in the top right corner of the image. The title "Burden of Kidney Disease" is centered over the kidneys in a large, white, sans-serif font. Below the title, the author's name "BY: MICKENA BUTLER" is written in a smaller, white, sans-serif font.

# Burden of Kidney Disease

BY: MICKENA BUTLER





# Need in the Community

- ▶ There is limited resources on kidney care education, risk factors and health measures to prevent kidney disease.
- ▶ Latin and Black American populations are most at risk for kidney disease onset.
- ▶ About 1 in 7—15% of U.S. adults are estimated to have chronic kidney disease—about 37 million people.
- ▶ “Without increased investment in prevention, the total number of patients with kidney failure will likely exceed 1 million by 2030.”

# Proposal

1

Gather reliable data on kidney disease, demographics, education and accessible resources.

2

Comprise data and convert information to plain language.

3

Assess which topics, resources and education are deemed most useful and effective.

4

Compile information in a user-friendly website to be easily accessed by the general public.



# Chronic Kidney Disease (CKD) Statistics

40% of people with severely reduced kidney function (not on dialysis) are not aware of having CKD.

Every 24 hours, 360 people begin dialysis treatment for kidney failure.

As many as 9 in 10 adults with CKD do not know they have CKD.

About 2 in 5 adults with severe CKD do not know they have severe CKD.

# Kidney Disease Data in Nevada

- ▶ Nevada has minimal data regarding kidney disease. Although we are working to gather more data, this may likely come from medical records.
- ▶ Implementing this website could encourage more data research within Nevada.
  - ▶ With more data, there may be more awareness of kidney disease.
    - ▶ Eventually we will see that more people are educated on kidney disease and the repercussions that come from having CKD.
    - ▶ In the future we hope for a decreased incidence of CKD.



# Diabetes, Hypertension & Lifestyle Risk Factors

- ▶ People with diabetes and hypertension are significantly at higher risk for kidney disease- lifestyle choices play a major part in one's kidney health.
- ▶ Lifestyle risk factors:
  - ▶ Smoking
  - ▶ Lack of exercise
  - ▶ Poor diet
  - ▶ Being overweight





# How Many People Require Dialysis or Treatment?

- ▶ “In 2018, 785,883 Americans had kidney failure, and needed dialysis or a kidney transplant to survive.”
- ▶ “About 130,000 people started Kidney Function Restoration Treatment (KFRT) in 2018, of which approximately 128,000 started dialysis as the initial mode of therapy.”
- ▶ “People with kidney disease are five to ten times more likely to die prematurely than they are to progress to KFRT. More than 100,000 people with KFRT died in 2018.”



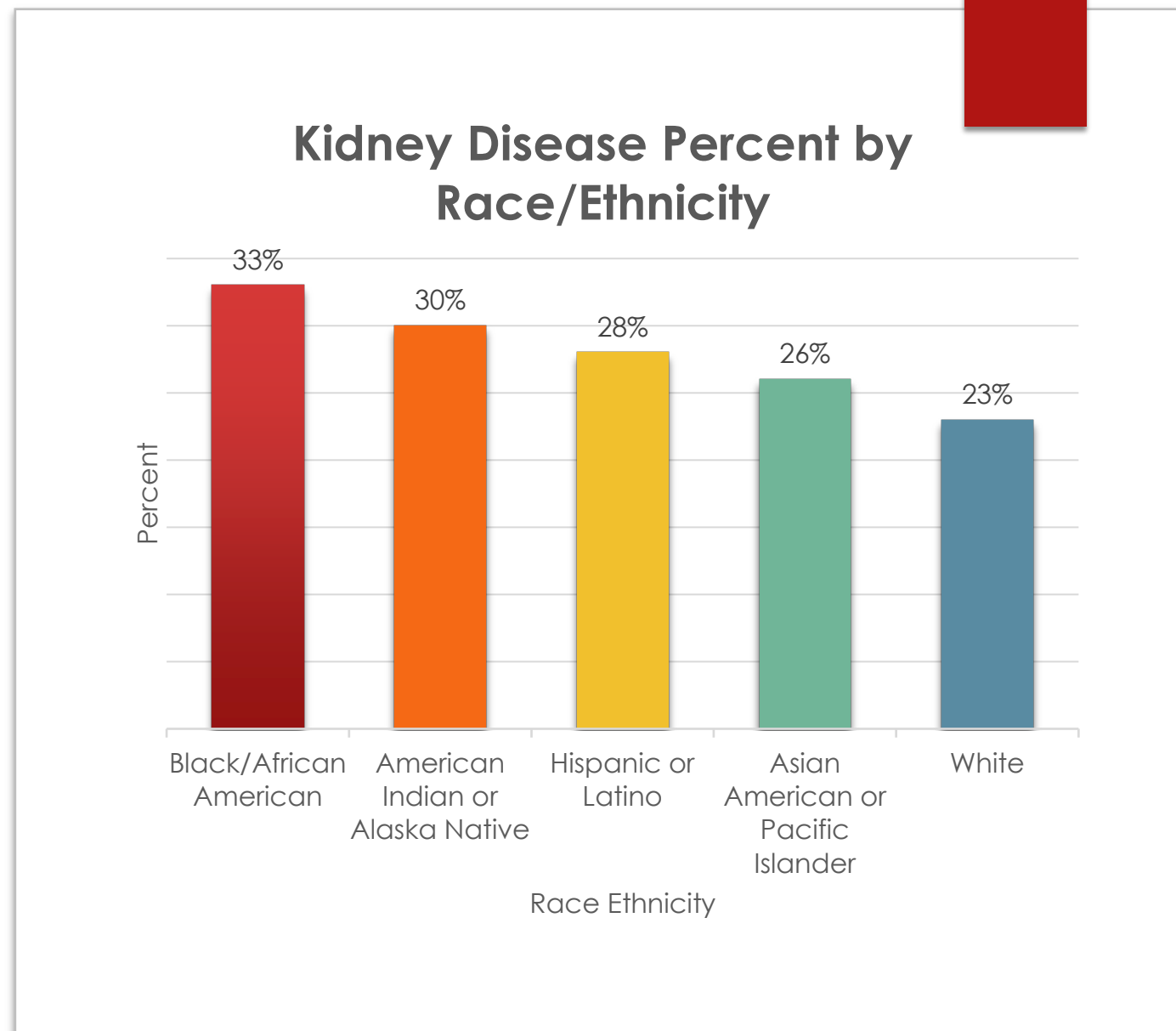


# Racial Factors

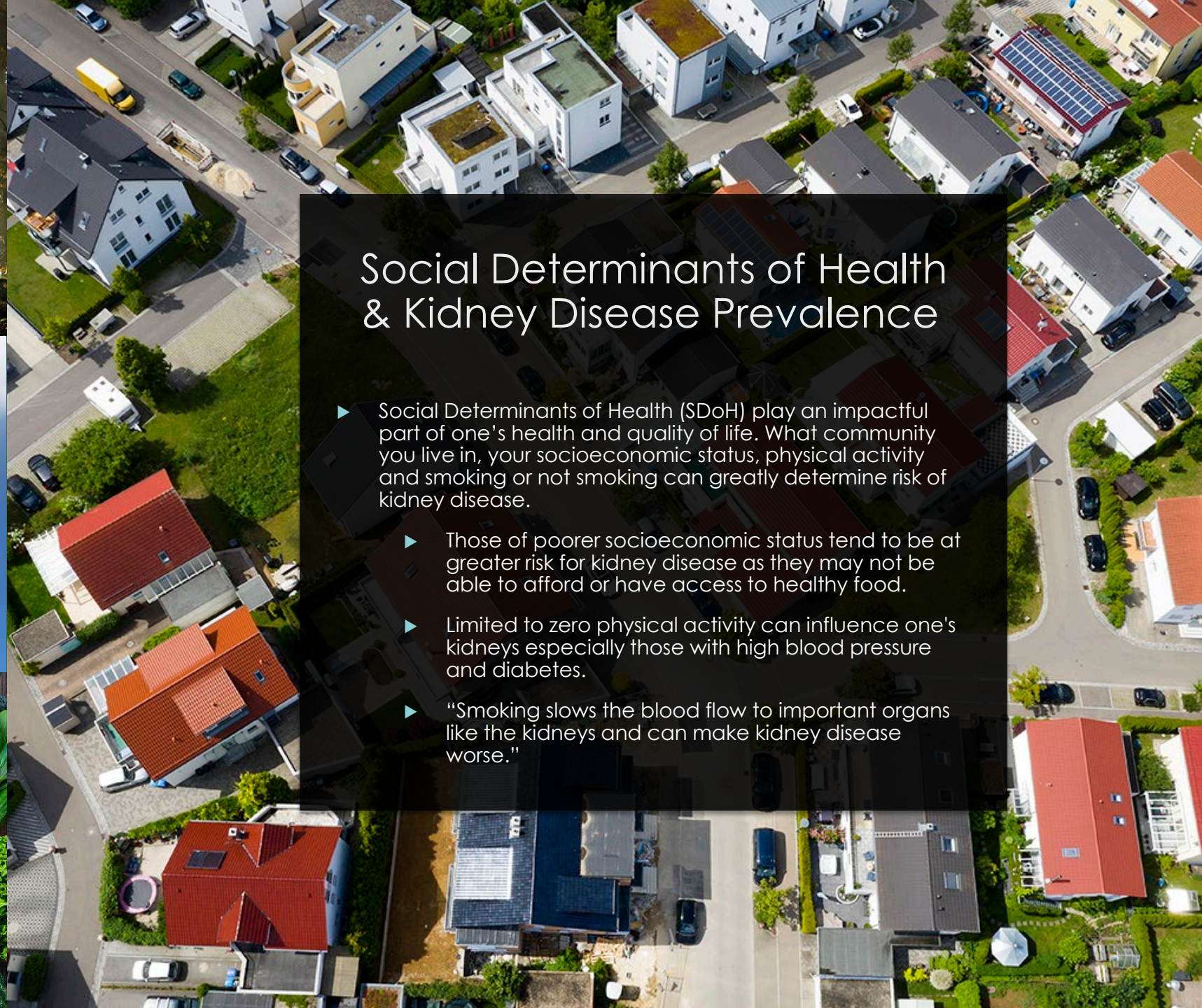
- ▶ “Patients receiving dialysis in areas with populations that are largely Black/African American, low-income, or of lower educational attainment, are less likely to have received pre-dialysis care from a nephrologist. One study found that 52% of Hispanic or Latino patients on hemodialysis had not received pre-dialysis care from a nephrologist, compared to 44% of non-Hispanic patients.”



# Kidney Disease Incidence in Fee-for Service Beneficiaries by Race/Ethnicity







## Social Determinants of Health & Kidney Disease Prevalence

- ▶ Social Determinants of Health (SDoH) play an impactful part of one's health and quality of life. What community you live in, your socioeconomic status, physical activity and smoking or not smoking can greatly determine risk of kidney disease.
  - ▶ Those of poorer socioeconomic status tend to be at greater risk for kidney disease as they may not be able to afford or have access to healthy food.
  - ▶ Limited to zero physical activity can influence one's kidneys especially those with high blood pressure and diabetes.
  - ▶ "Smoking slows the blood flow to important organs like the kidneys and can make kidney disease worse."



# Access to Care

- ▶ Many people are unaware that their kidney function is depleting or are at risk for kidney disease—so, providing blood tests for those without insurance or limited ability to pay for care could help identify kidney issues before they arise or worsen.
- ▶ Promoting kidney education could mean the difference between unknowingly having kidney disease or worsening kidney function to preventing kidney issues down the road.
- ▶ While getting a routine check-up, healthcare providers (HCPs) should recommend healthy lifestyle choices not only to everyone but especially for those who are at risk for kidney disease. HCPs should encourage blood tests to determine creatinine and blood glucose levels.

# Execution



Create	Create a website that is accessible to the public
Implement	Implement thoughtful organization
Provide	Provide resources, education, statistics, risk factors, symptoms and treatment options
Ensure	Ensure that the language used is easy to understand/read





# Thank You

-Mickena Butler: Health Equity Analyst (NV DPBH)

# Sources

- ▶ <https://www.cdc.gov/kidneydisease/publications-resources/ckd-national-facts.html#:~:text=CKD%20Is%20Common%20Among%20US%20Adults&text=More%20than%201%20in%207,are%20estimated%20to%20have%20CKD.&text=As%20many%20as%209%20in,not%20know%20they%20have%20CKD.>
- ▶ <https://www.kidney.org/news/newsroom/fsindex#what-s-behind-racial-disparities-kidney-disease>
- ▶ <https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/diabetic-kidney-disease>
- ▶ <https://www.kidneyfund.org/all-about-kidneys/quick-kidney-disease-facts-and-stats>
- ▶ <https://www.kidney.org/atoz/content/smoking>