PROJECT DESIGN PHASE-I - SOLUTION FIT TEMPLATE

Project Title: Early Detection Of Chronic Kidney Disease Using Machine Learning.
Team ID: PNT2022TMID08848

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CKD is more common in **people aged 65 years or older** (38%) than in people aged 45–64 years (12%) or 18–44 years (6%). CKD is slightly more common in women (14%) than men (12%).

6. CUSTOMER CONSTRAINTS

CC

- Control your blood pressure.
- Monitor your blood glucose.
- Eat a kidney-friendly diet and exercise regularly.
- Use caution when taking over-the-counter supplements and medicines.
- Stay informed.

5. AVAILABLE SOLUTIONS

AS

The main treatments are: **lifestyle changes** – to help you stay as healthy as possible. medicine – to control associated problems, such as high blood pressure and high cholesterol. dialysis – treatment to replicate some of the kidney's functions, which may be necessary in advanced (stage 5) CKD.

Explore AS, differentiate

Focus on J&P, tap into BE, understand

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

They may also losing weight, if necessary, exercising more, limiting alcohol consumption, and quitting smoking. You may be able to lower blood pressure by eating a diet rich in fruit, vegetables, fish, nuts, legumes, and healthy fats, such as olive oil. Reducing stress may also help lower blood pressure.

9. PROBLEM ROOT CAUSE

RC

Diabetes is the most common cause of kidney disease. Both type 1 and type 2 diabetes. But also heart disease and obesity can contribute to the damage that causes kidneys to fail. Urinary tract issues and inflammation in different parts of the kidney can also lead to long-term functional decline.

7. BEHAVIOUR

BE

Neuropsychiatric conditions including depression, anxiety disorders, and cognitive impairment are prevalent in patients with chronic kidney disease (CKD). These conditions often make worse the quality of life and also lead to longer hospitalizations and higher mortality.

Focus on J&P, tap into BE, understand

Identify strong TR &EM

3. TRIGGERS

TR

A severe decrease in kidney function can lead to a buildup of toxins and impurities in the blood. This can cause people to feel **tired, weak and can make it hard to concentrate**. Another complication of kidney disease is anemia, which can cause weakness and fatigue.

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4. EMOTIONS: BEFORE / AFTER

EM

Before : low mood, anxiety, panic attacks, feelings of being a burden on others, guilt, loss of control, unacceptance and disbelief.

After : Relieved , calm , confident , happy.

10. YOUR SOLUTION

SL

Medication helps manage symptoms. In later stages, filtering the blood with a machine (dialysis) or a transplant may be required.

8. CHANNELS of BEHAVIOUR

CH

ONLINE

eGFR Calculator. Helps medical professionals estimate kidney function using five separate eGFR calculators. Also includes an easy-to-use reference list and other information to help clinicians identify risk factors, evaluate for CKD.

OFFLINE

- Blood tests. Kidney function tests look for the level of waste products, such as creatinine and urea, in your blood.
- Urine tests.
- Imaging tests.
- Removing a sample of kidney tissue for testing.

Identify strong TR &EM