EARLY DETECTION OF CHRONIC DISEASES

or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

**AS**

**5. AVAILABLE SOLUTIONS**

Which solutions are available to the customers when they face the problem

What constraints prevent your customers from taking action or limit their choices

of solutions? i.e. spending power, budget, no cash, network connection, available devices.

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

Who is your customer?

i.e. working parents of 0-5 y.o. kids

**Explore AS, differentiate**

**Focus on J&P, tap into BE, understand RC**

**Deﬁne CS, ﬁt into CC**

**Focus on J&P, tap into BE, understand RC**

In our project the people who affected by ckd is customer

Chronic kidney disease affects 47 million people in the United States and is associated with significant health care costs, morbidity, and mortality. Because this disease can silently progress to advanced stages, early detection is critical for initiating timely interventions.

You might experience a period of grief, similar to losing someone special, your previous lifestyle or independence, or a change in work or leisure activities. If you feel this way, you may find that you gain more control and feel less sad by learning more about CKD

You might feel guilty about having a long-term condition and its impact on others. Many patients feel like this at different times over the course of their treatment. This is normal, and feelings of guilt may be addressed by seeking  assistance from a counsellor or psychologist.

Emotional resilience is an important ability in dealing with the feelings associated with chronic kidney disease. Kidney Care UK and The Renal Association produced this guide to help you develop you emotional resilience.

You might feel angry about having CKD and how it affects your lifestyle, perhaps because you feel you have no control of the situation. By reading this booklet you are taking control and learning more about your condition. Feelings of anger may reduce as you gain more control over your health and the treatment.

High blood pressure medications can initially decrease kidney function and change electrolyte levels, so you might need frequent blood tests to monitor your condition.but not every people have money to frequently take test

Dialysis artificially removes waste products and extra fluid from your blood when your kidneys can no longer do this. In hemodialysis, a machine filters waste and excess fluids from your blood. But more amount require to dialysis

Transplanted kidneys can come from deceased or living donors.After a transplant, you'll need to take medications for the rest of your life to keep your body from rejecting the new organ and this treatment is cost effective so its not suitable for poor peoples

i.e. directly related: ﬁnd the right solar panel installer, calculate usage and beneﬁts; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

**BE**

**7. BEHAVIOUR**

What does your customer do to address the problem and get the job done?

**RC**

**9. PROBLEM ROOT CAUSE**

What is the real reason that this problem exists? What is the back story behind the need to do this job?

i.e. customers have to do it because of the change in regulations.

**J&P**

**2. JOBS-TO-BE-DONE / PROBLEMS**

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

Chronic kidney disease occurs when a disease or condition impairs kidney function,

causing kidney damage to worsen over several months or yearsFactors that can increasing the risk of chronic kidney disease include:Diabetes,High blood pressure,Heart (cardiovascular) disease,Smoking.Chronic Kidney Disease prediction is one of the most important issues in healthcare analytics. The most interesting and challenging tasks in day-to-day life is prediction in medical field. 10% of the population worldwide is affected by chronic kidney disease (CKD), and millions die each year because they do not have access to affordable treatment. chronic kidney Disease can be cured, if treated in the early stages.

**There's no cure for chronic kidney disease (CKD), but treatment can help relieve the symptoms and stop it getting worse.**Your treatment will depend on the stage of your CKD.The main treatments are: to solve their problem

lifestyle changes – to help you stay as healthy as possible

medicine – to control associated problems, such as [high blood pressure](https://www.nhs.uk/conditions/high-blood-pressure-hypertension/) and [high cholesterol](https://www.nhs.uk/conditions/high-cholesterol/)

[dialysis](https://www.nhs.uk/conditions/dialysis/) – treatment to replicate some of the kidney's functions, which may be necessary in advanced (stage 5) CKD

[kidney transplant](https://www.nhs.uk/conditions/kidney-transplant/) – this may also be necessary in advanced (stage 5) CKD

Test for CKD regularly in patient(customer) who have diabetes, high blood pressure, or other risk factors for CKD. People with CKD may not feel ill or notice any symptoms until CKD is advanced.

The only way to find out if patient(customer) have CKD is through simple blood and urine tests. The blood test checks for the level of creatinine, a waste product produced by muscles, to see how well the kidneys work. The urine test checks for protein, which may indicate kidney damage.

We check their symptopms to find out in early stage

Most people may not have any severe symptoms until their kidney disease is advanced. The patient feel more tired and have less energy and have trouble concentrating, poor appetite,have trouble sleeping,have muscle cramping at night,have swollen feet and ankles,have puffiness around patient eyes, especially in the morning,have dry, itchy skin,need to urinate more often, especially at night

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| --- | --- | --- | --- | --- |
| **Identify strong TR & EM** | **3. TRIGGERS TR**  most of the people not aware of ckd ,because CKD usually has no symptoms at early stages.  some people may be they hear from their relatives or friends about ckd.  or may be they goes with the kidney patient for their treatments ,that time they hear docters guidence.  some people have knowledge about ckd disease and they taking action when they feel the following symptoms :  Urinating more or less,  High blood pressure (hypertension) that's difficult to control,  What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efﬁcient solution in the news. | **10. YOUR SOLUTION SL**  If you are working on an existing business, write down your current solution ﬁrst, ﬁll in the canvas, and check how much it ﬁts reality.  early prediction and proper treatments can possibly stop or slow the progression of this disease to end stage.Usually, people are not aware that medical tests we take for different purposes could contain valuable information concerning kidney diseases. Consequently, attributes of various medical tests are investigated to distinguish which attributes may contain helpful information about the disease. The information says that it helps us to measure the severity of the problem and we make use of such information to build a machine learning model that predicts Chronic Kidney Disease  The main aim of this project is to predict whether the patient have chronic kidney disease or not, in more accurate and faster way based on certain diagnostic measurements like Blood Pressure (Bp), Albumin(Al).    If you are working on a new business proposition, then keep it blank until you ﬁll in the canvas and come up with a solution that ﬁts within customer limitations, solves a problem and matches customer behaviour. | 1. **CHANNELS of BEHAVIOUR CH**     1. **ONLINE**   What kind of actions do customers take online? Extract online channels from #7  In online they offer highest quality, personalized, specialized care that is cost effective and evidence based and they provide individualized care to maintain continuity and visit patients in hospitals and other healthcare places at times patient will need them most.    Ex :kidney diseases consultancies   * 1. **OFFLINE**   What kind of actions do customers take ofﬂine? Extract ofﬂine channels from #7 and use them for customer development.  They follows the doctor’s prescription  Ex :[Control your blood pressure](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "one),[Meet your blood glucose goal if you have diabetes](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "two),[Work with your health care team to monitor your kidney health](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "three),[Take medicines as prescribed](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "four),[Work with a dietitian to develop a meal plan](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "five),[Make physical activity part of your routine](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "six),[Aim for a healthy weight](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "seven),[Get enough sleep](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "eight),[Stop smoking](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "nine),[Find healthy ways to cope with stress and depression](https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing" \l "ten) | **Extract online & ofﬂine CH of BE** |
| **4. EMOTIONS: BEFORE / AFTER EM**  Financial burden of Treatment  Time commitment for dialysis  Feeling like a burden to others  Fearing that Treatment may cause pain  Unable to have restful sleep  Changes in employment  Eating restrictions  Worrying about dialysis impacting your family, work, social and love life.  How do customers feel when they face a problem or a job and afterwards?   1. e. lost, insecure > conﬁdent, in control - use it in your communication strategy & design. |

