

## 1. Business Case

### a. Problem and benefits to end users

Sexually transmitted diseases (STDs) are among the most common infectious diseases in the United States today. More than 20 STDs have been identified and they affect an estimated 19 million men and women in this country each year. The annual treatment cost of STDs in the United States is estimated to be in excess of \$14 billion. The goal of this project is to provide easy availability of resources and education for the public.

### b. Solutions

- a) Daily notification regarding information about different STDs as well as ways to prevent that
- b) Interactive self-diagnose tool and suggested treatment plans
- c) Doctor appointment system
- d) Testing recommendation

## 2. Research

### a. Market context

So much information and assessment tests are out there but the information is so disorganized. Thus, it becomes important to create awareness as well as provide easy availability of resources for potential patients.

### b. Research method

- a) Online research of current available web and mobile applications
- b) Survey to find out patients' needs

## 3. Data Sources

Daily news	<a href="https://www.cdc.gov/std/news.htm">https://www.cdc.gov/std/news.htm</a>
Diagnose	<a href="https://www.cdc.gov/std/general/default.htm">https://www.cdc.gov/std/general/default.htm</a> <a href="https://www.health.state.mn.us/diseases/index.html">https://www.health.state.mn.us/diseases/index.html</a> <a href="https://www.calculators.org/health/std-risk.php">https://www.calculators.org/health/std-risk.php</a> <a href="http://www.sfcityclinic.org/stdbasics/stdchart.asp">http://www.sfcityclinic.org/stdbasics/stdchart.asp</a> <a href="https://www.stdcheck.com/std-test-recommender.php">https://www.stdcheck.com/std-test-recommender.php</a> <a href="http://erepository.uonbi.ac.ke/bitstream/handle/11295/30038/Main%20article.pdf?sequence=1">http://erepository.uonbi.ac.ke/bitstream/handle/11295/30038/Main%20article.pdf?sequence=1</a>
Treatment	<a href="https://www.cdc.gov/std/tg2015/2015-wall-chart.pdf">https://www.cdc.gov/std/tg2015/2015-wall-chart.pdf</a>
Testing/ Doctor recommendat ion	<a href="https://www.cdc.gov/std/prevention/screeningreccs.htm">https://www.cdc.gov/std/prevention/screeningreccs.htm</a> <a href="https://gettested.cdc.gov/search_results">https://gettested.cdc.gov/search_results</a> (can we simply embed this tool in our app?) embeded google map search?
Related apps	<a href="https://www.stdcheck.com/">https://www.stdcheck.com/</a> <a href="https://www.stdlabs.com/">https://www.stdlabs.com/</a>

4. How to use FHIR?

- a) Sign up user into EHR (especially age/gender for diagnose and zip code for booking appointment)
- b) Pull historical information using FHIR