INST 760 - Project Discrepancies

CODENAME: </ CANCER>

Visualization project aimed to aid improvement in cancer treatment and future research

Anuja Bendre, Devanshi Shah
University of Maryland, College Park, MD, USA
E-mail: abendre@umd.edu, dshah2@umd.edu

This article provides a description of the discrepancies between the final release version of the project vs the goals and objectives we set out to build, as written in the proposal document.

In the proposal, we aimed to create the following visualizations:

1. Different types of cancer prominent across the globe
2. Cancer impacts across different demographics - Breast Cancer
3. Number of cancer related deaths vs. detection (early or late)
4. Number of surgeries performed in cancer patients and survival rate(Only california)
5. High-risk cancer patients and genetic information

For the final release, we created the following visualizations:

1. Country Rankings by incidences - This is a variation of #1 in the proposal
2. Cancer Incidences by Cancer Type
3. Cancer Deaths by Cancer Type
4. Number of cancer survivors by Cancer Type based on Gender
5. Linear Regression Models for diagnosis of Breast Cancer Patients
6. Survival Rate based on Surgery Type
7. Breast Cancers Incidences and Deaths based on Race information
8. Cancer Diagnosis based on cancer stages
9. Prediction Models for Cancer Incidence and Mortality

Due to lack of significant data and time constraints, we were not able to visualize and analyze causality between genetically recurring cancers and early detection. We were not able to work on the california surgeries data due to poor quality, hence we replaced it with a dataset depicting high risk cancer surgeries related for breast cancer patients and their survival rates.

We were able to cover demographics such as race, gender and age, but we were not able to incorporate correlations between lifestyle and cancer prevention/ survival rate, which we would like to explore beyond the scope of this project in the future.