PHASE 1: PROBLEM DEFINITION AND DESIGN THINKING

PROJECT DEFINITION:

Public health campaigns involve the strategic dissemination of information to the public in order to help groups of people resist imminent health threats and adopt behaviour's that promote good health. The project involves analysing data from public health awareness campaigns to measure their effectiveness in reaching the target audience and increasing awareness. The objective is to provide insights that evaluate the impact of the campaigns and inform future strategies. This project includes defining analysis objectives, collecting campaign data, designing relevant visualizations in IBM Cognos, and using code for data analysis.

DESIGN THINKING:

1.ANALYSIS OBJECTIVES:

MEASURING AUDIENCE REACH:

The right to health includes a right of access to good quality palliative care, but inequalities persist. Raising awareness is a key plank of the public health approach to palliative care, but involves consideration of subjects most of us prefer not to address. This review addresses the question: "do public health awareness campaigns effectively improve the awareness and quality of palliative care"?

AWARENESS LEVEL:

1. Start young Most research on advance care planning involves people over the age of 65. There is now a trend toward involving and educating much younger people, so that they are better prepared to deal with the issues in their families and communities. One study looks at university students in the United States and recommends that an important aspect of public health is providing reliable information about advance care planning to all young people.

2. An evaluation of TV advertisements about health promotion aimed at older adults showed that recipients were generally distrustful of the information if they perceived that it had been provided by the “government”. Professionals such as doctors or celebrities (e.g., Olympic stars) were seen as more trustworthy.

3. social media has the potential to increase engagement with healthcare issues and enable debate and discussion, as well as create virtual social networks.

4. Younger people prefer to receive health information through the internet or other electronic means, while older people prefer the newspapers.

CAMPAIGN IMPACT:

The evidence shows that public awareness campaigns can improve awareness of palliative care and probably improve quality of care, but there is a lack of evidence about the latter.

2.DATA COLLECTION:

This dataset is from a 2014 survey that measures attitudes towards mental health and frequency of mental health disorders in the tech workplace. Quantitative and qualitative data collection methods include surveys and questionnaires, focus groups, interviews, and observations and progress tracking.

3.VISUALIZATION STRATEGY:

DASHBOARD: IBM Cognos Dashboard Embedded gives developers a way to embed an intuitive, drag-and-drop visualization tool, providing end users the ability to explore data and create visualizations that answer the unique questions important to your business.

REPORTS: Reporting is a web-based report authoring tool that professional report authors and developers use to build sophisticated, multiple-page, multiple-query reports against multiple databases.

VISUALIZATIONS: Opens many different types of graphs that you can use to visualize the data from the selected data source connection. Drill down into your source connection and select the data segments you want to visualize.

The given dataset contains the following data:

- **Timestamp**
- **Age**
- **Gender**
- **Country**
- **State**: If you live in the United States, which state or territory do you live in?
- **Self-employed**: Are you self-employed?
- **Family history**: Do you have a family history of mental illness?
- **Treatment**: Have you sought treatment for a mental health condition?
- **Work interferes**: If you have a mental health condition, do you feel that it interferes with your work?
- **Number of employees**: How many employees does your company or organization have?
- **Remote work**: Do you work remotely (outside of an office) at least 50% of the time?
- **IT company**: Is your employer primarily a tech company/organization?
- **Benefits**: Does your employer provide mental health benefits?

- **Care options**: Do you know the options for mental health care your employer provides?
- **Wellness program**: Has your employer ever discussed mental health as part of an employee wellness program?
- **Seek help**: Does your employer provide resources to learn more about mental health issues and how to seek help?
- **Anonymity**: Is your anonymity protected if you choose to take advantage of mental health or substance abuse treatment resources?
- **Leave**: How easy is it for you to take medical leave for a mental health condition?
- **Mental health consequence**: Do you think that discussing a mental health issue with your employer would have negative consequences?
- **Physical health consequence**: Do you think that discussing a physical health issue with your employer would have negative consequences?
- **Coworkers**: Would you be willing to discuss a mental health issue with your coworkers?
- **Supervisor**: Would you be willing to discuss a mental health issue with your direct supervisor(s)?
- **Mental health interview**: Would you bring up a mental health issue with a potential employer in an interview?
- **Physical health interview**: Would you bring up a physical health issue with a potential employer in an interview?
- **Mental vs Physical**: Do you feel that your employer takes mental health as seriously as physical health?
- **Observed consequence**: Have you heard of or observed negative consequences for coworkers with mental health conditions in your workplace?
- **Comments**: Any additional notes or comments

Using IBM Cognos, we can visualize and create the Dashboards and reports from the following dataset.

4.CODE INTEGRATION:

The aspects of the analysis can be enhanced using code such as

*Import necessary Libraries

*Read Dataset

*Preprocessing and Cleaning Dataset

*Split the data to train and test

*Random Forest Classifier

*K nearest neighbour

*Support vector Classifier

*Decision Tree