Logo

Description automatically generated

**Group Project — Find Dataset Proposal**

**By**

**Vidhi Manojkumar Patani, Kevin Tushar Pandya, Neha Ajinkya Nagurkar, Elvis Opoku,**

**Smit Pareshbai Ranpariya**

**College of Professional Studies: Northeastern University**

**Prof.:  Shahram Sattar**

**Subject: ALY6040 - Data Mining**

**Date: April 15, 2024**

**Disability and Health Data System**

**Introduction:**

The Disability and Health Data System (DHDS) stands as an essential repository, furnishing state-level insights into the realities faced by adults with disabilities. Through this proposal, we delineate DHDS's framework, content, and potential utility. Our paramount objective is to furnish an exhaustive understanding of the health statuses, requirements, and inequalities experienced by adults across varied functional disability classifications. By assimilating and scrutinizing data about six distinct functional disability types, DHDS endeavors to empower evidence-based decision-making, drive policy formulation, and catalyze research initiatives, all aimed at enhancing the health and welfare of individuals with disabilities.

**Objective:**

- The primary objective of DHDS is to offer comprehensive insights into the health status, needs, and disparities faced by adults with disabilities across different functional categories.

- By collating and analyzing data on six functional disability types, DHDS aims to facilitate evidence-based decision-making, policy formulation, and research initiatives to improve the health and well-being of individuals with disabilities.

**Scope:**

- DHDS encompasses data from various sources, including the Centers for Disease Control and Prevention (CDC) and the National Center on Birth Defects and Developmental Disabilities.

- It covers a wide range of indicators related to disability status, functional limitations, health behaviors, and health outcomes among adults aged 18 years and older.

**Data Description:**

- The DHDS data set consists of 644,000 rows and 32 columns, providing a rich repository of information for analysis.

- Each row represents a unique observation, while columns contain diverse variables such as year, location, data source, category, indicator, response, and data values.

- Data values include percentages, confidence intervals, and raw counts, allowing for comprehensive statistical analysis.

**Potential Applications:**

- DHDS data can be utilized for various applications, including:

1. Assessing the prevalence of different types of disabilities across states and demographic groups.

2. Identifying disparities in health outcomes, health behaviors, and access to healthcare services among individuals with disabilities.

3. Evaluating the impact of policy interventions and public health programs on the health and well-being of people with disabilities.

4. Informing resource allocation, program planning, and advocacy efforts aimed at addressing the needs of individuals with disabilities.

**Proposed Analysis:**

- Possible analyses using DHDS data include:

1. Trend analysis to track changes in disability prevalence and health indicators over time.
2. Geographic mapping to visualize regional variations in disability prevalence and healthcare access.
3. Conduct chi-square tests to compare the prevalence of disabilities among different states and demographic groups.
4. Apply logistic regression to evaluate the impact of socio-demographic factors on disability status.
5. Subgroup analysis to examine disparities in health outcomes by demographic factors such as age, sex, race/ethnicity, and socioeconomic status.
6. Regression modeling to identify factors associated with poor health outcomes and healthcare disparities among individuals with disabilities.

**Data Access and Sharing:**

- DHDS data will be stored and managed securely, with access provided to researchers, policymakers, healthcare professionals, and advocacy organizations.

- Efforts will be made to promote data transparency, reproducibility, and collaboration through data-sharing platforms and open-access publications.

**Conclusion:**

In summation, DHDS emerges as an invaluable asset for comprehending and redressing the health exigencies of adults grappling with disabilities. By harnessing the power of DHDS data, stakeholders can propel forward research endeavors, policy prescriptions, and practical interventions aimed at fostering health parity and ameliorating outcomes for this segment of the populace. DHDS stands as not just a repository of information but a catalyst for action, paving the way toward a more inclusive and equitable healthcare landscape for individuals with disabilities.

**References:**

The CDC (2024) is the Centers for Disease Control and Prevention. Regarding the Health and Disability Data System (DHDS). taken from the announcement page at [https://www.cdc.gov/dhds.](https://www.cdc.gov/dhds.%20)

The NCBDDD stands for the National Center on Birth Defects and Developmental Disabilities. (2024). Information & Figures Regarding Developmental Disability and Birth Defects. taken from data.html at <https://www.cdc.gov/ncbddd>