Leading Causes of Death in NYC 2007-2014

Kathleen Schaffer Capstone Project Data 201 - Python for Data Analytics January 25, 2022

Research area, data source

Area of interest: Wanted to focus on public health issues in NYC

Data source: NYC Open Data Source

Data set: NYC Leading Causes of Death

Inspecting and Cleaning of Data

Columns: Year, Leading Cause (20 in total), Sex, Race Ethnicity, Deaths, Death Rate, Age Adjusted Death Rate (7 in all). All columns were object except for Year (int64)

Rows: 1094

Total number of deaths in data set: 424,998

	Year	Leading Cause	Sex	Race Ethnicity	Deaths
1	2013	Influenza (Flu) and Pneumonia (J09-J18)	F	Hispanic	204
3	2007	Essential Hypertension and Renal Diseases (I10, I12)	F	Not Stated/Unknown	5
4		Cerebrovascular Disease (Stroke: 160-169)	F	White Non-Hispanic	418
5	2009	Essential Hypertension and Renal Diseases (I10, I12)	M	Asian and Pacific Islander	26
6	2013	Influenza (Flu) and Pneumonia (J09-J18)	M	White Non-Hispanic	618

Cleaning data

Missing data: Only in Deaths, Death Rate, Age Adjusted Death Rate

Removed columns: Death Rate, Age Adjusted Death Rate **Changing data:** Changed period in Death column to NaN, shortened text for causes of death.

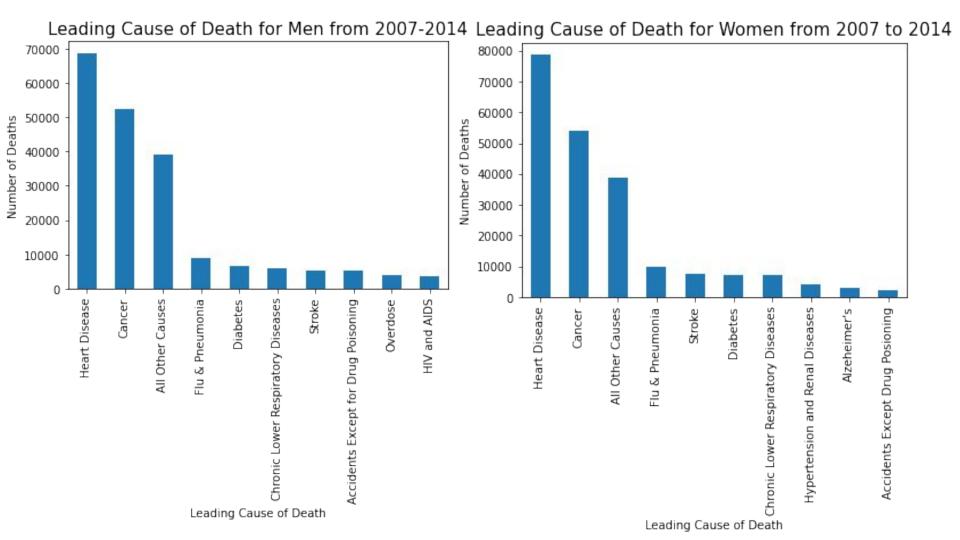
Removed rows: Created new DF and removed NaN (reduced rows from 1094 to 956 (assumption being that there was no death in that category that year).

Research Question

WHAT ARE THE TOP 5 LEADING CAUSES OF DEATH IN NYC BETWEEN 2007 AND 2014 AND IS THERE ANY DIFFERENCE BY GENDER?

Top 5 Causes of Death from all years

Diseases of Heart (100-109, 111, 113, 120-151)	147,551
Malignant Neoplasms (Cancer: Coo-C97)	106,367
All Other Causes	77,999
Influenza (Flu) and Pneumonia (J09-J18)	18,678
Diabetes Mellitus (E10-E14)	13,794



Conclusion

- 83% of all deaths are from heart disease, cancer, other causes, and the flu (which are the top four causes for both men and women).
- Smaller difference between genders on the top 4-10 causes of death.
 - Similarities: Stroke, Diabetes, Chronic Lower Respiratory Diseases, Accidents Except Drug Poisoning,
 - Differences
 - For men: Overdoses and AIDS related complications
 - For women: Hypertension, Alzheimer's.