Incidence Rate versus Death Rate in Adults
Sarah Stepanek, PharmD Candidate 2021
Karolina Jekielek, PharmD Candidate 2022
Midwestern University - Chicago College of Pharmacy

Background
- Cancer is the second leading cause of death in the U.S and accounts for approximately 16% of deaths worldwide, making it a disease state that affects all ages, ethnicities, and socioeconomic classes.
- Cancer death rates are the best way to determine the progress of current treatment.
- Cancer data lags about 2-4 years due to the time it takes to collect and analyze the data, so we often have to base many current trends from estimations rather than actual data.

Objective
- To observe trends in cancer diagnoses and cancer deaths within the U.S.
- Understand how geographic location can influence the amount of diagnoses and deaths seen.

Methods
- Compiled information available through the CDC, American Cancer Society, and the Journal of the National Cancer Institute regarding cancer incidences and cancer death rates.
- Analyzed all found data to collate trends and themes seen within the past 4 years in the United States.

Discussion
- Over the years we have seen an increase in cancer cases every year; however, a decrease in cancer deaths has been noted.
- Cancer incidence rates for many preventable cancer are overall on the decline
  - Lung, bronchus, and larynx due to a decline in tobacco use
- Cancer incidence rates due to sedentary lifestyle are overall on the incline
  - Uterus, postmenopausal breast, colorectal cancer due to excess weight and physical inactivity
  - Increase in excess body weight
  - Liver, kidney and thyroid cancer

Conclusion
- As seen by the CDC depiction, cancer appears to be more prevalent in north-eastern United States.
  - Possibly due to:
    - Cold weather causing a more sedentary lifestyle.
    - Healthier lifestyles on the west coast
    - More environmental burdens on the east coast
- Cancer incidence rates have remained unchanged
  - The amount of new diagnoses increases each year
  - The rate stays the same due to the constantly increasing population
- Cancer deaths have declined
  - Advances in pharmacotherapy
  - Lifestyle modifications
  - Early intervention

References