

Prevalence of Gastrointestinal Cancers Rapidly Increasing among Middle-Aged Patients in Statewide Database of Over Five Million Patients



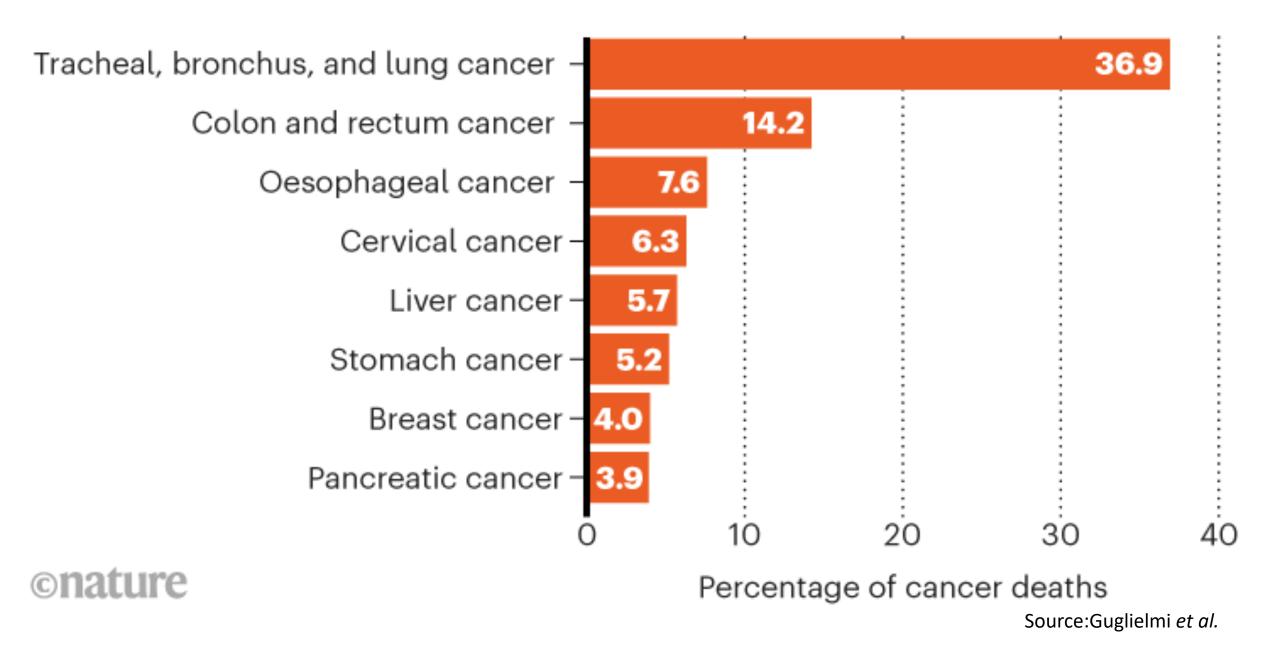
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Background

CANCER DEATHS BY TUMOUR TYPE

In men and women, among cancers caused by preventable risk factors, tumours of the lung, trachea and bronchus were the leading cause of death. Smoking was the biggest risk factor associated with those cancer deaths.



- GI cancers are leading causes of cancer-related death worldwide
- Historically mostly older patients
- Increasing incidence in young patients
- Ongoing improvement in early diagnosis and long-term treatment

Methods and Materials

- OneFlorida Clinical Database Research Network
- De-identified health data on 40% of Floridians
- Queried for ICD-9 and ICD-10 codes for esophageal, gastric, pancreatic, and colorectal cancers
- Included: all living patients ages 45 to 64
- Excluded: deceased, younger than 45, older than 64
- Primary endpoint: prevalence of GI cancer in years 2012-2019
- Secondary endpoints: differences in prevalence across gender and race
- Linear regression model used to calculate trends in prevalence for each cancer type

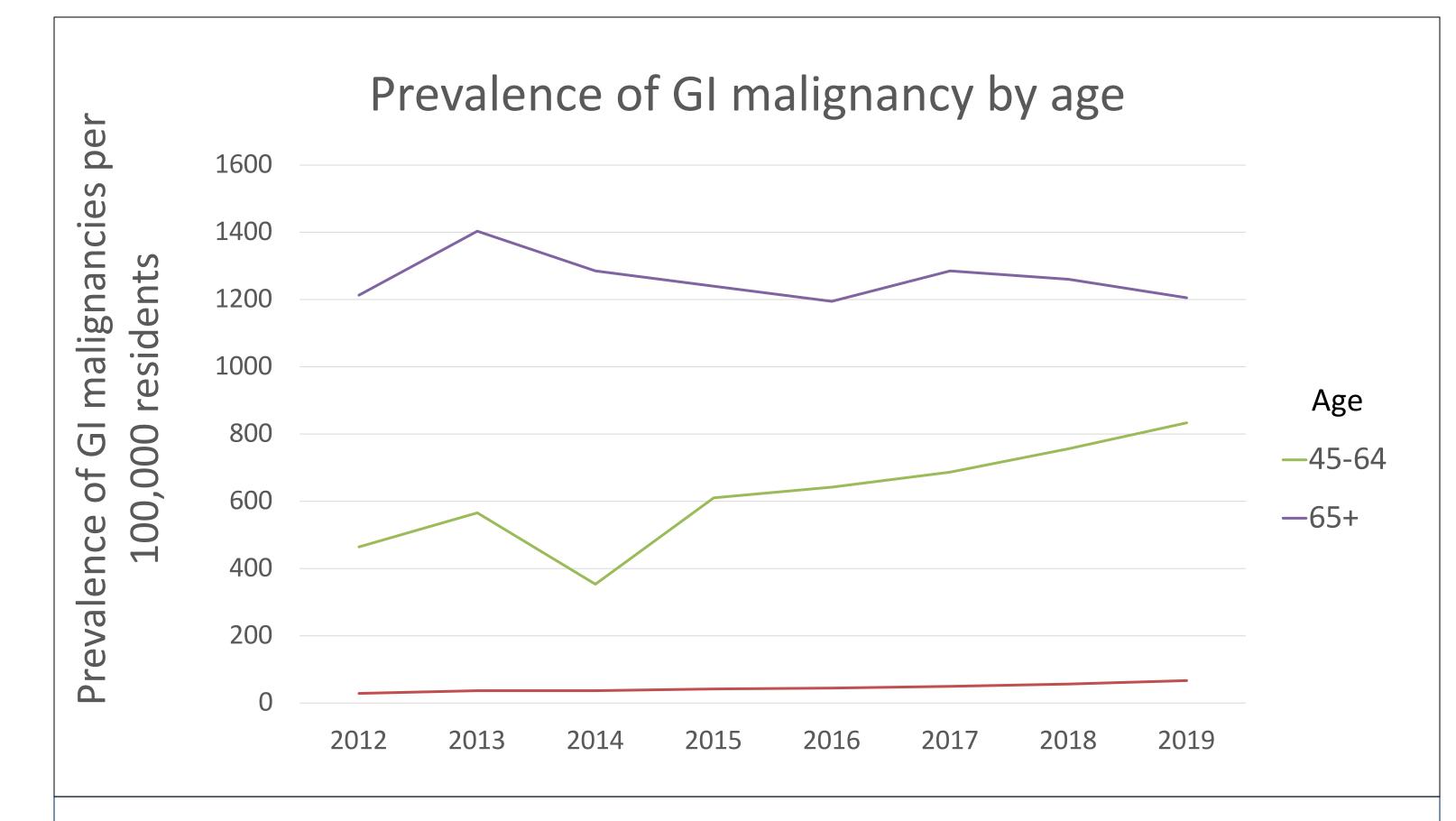


Figure 1. Prevalence of esophageal, gastric, pancreatic, and colorectal cancers by age in a statewide database. The prevalence among 45 to 64-year-olds increased by 54 per 100,000 per year.

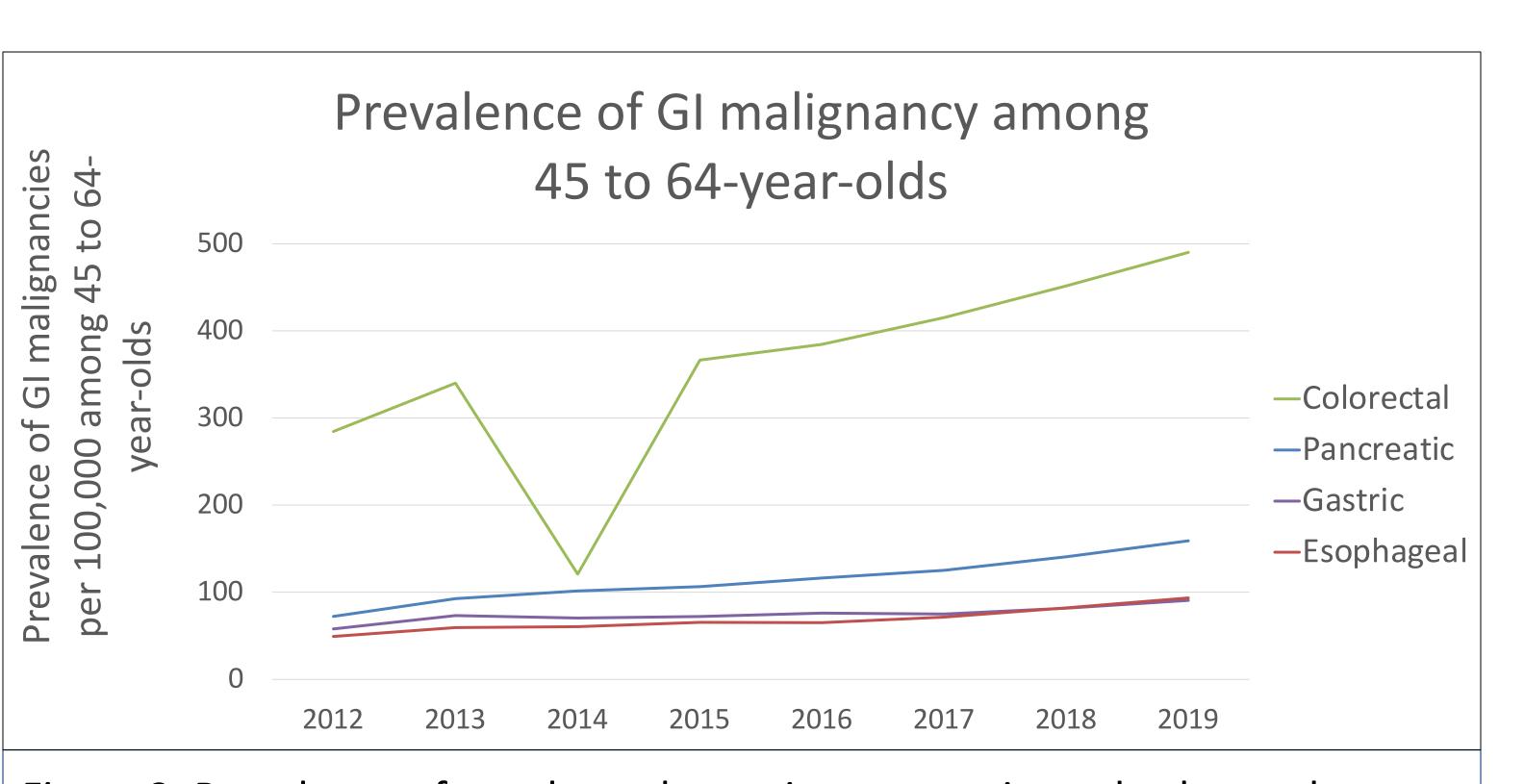


Figure 2. Prevalence of esophageal, gastric, pancreatic, and colorectal cancers by race and gender in statewide database of over 5 million patients. For White and Asian American vs. African Americans and for men vs. women, P < 0.0001 in each year.

Results

- Patient population
 - 808,493 patients
 - 57% female
 - 40% White
- Prevalence per 100,000 (Fig. 1)
 - Esophageal: 45 → 64
 - Gastric: 58 → 91
 - Pancreatic: 72 → 159
 - Colorectal: $285 \rightarrow 490$
- Increase in prevalence per 100,000 per year
 - Esophageal: 5.4
 - Gastric: 3.4
 - Pancreatic: 11.1
 - Colorectal 34.5
- Remain more prevalent in men
- Remain more prevalent among White and Asian-American patients

Discussion

- Prevalence, not incidence
 - May be diagnosing earlier
 - Patients may be surviving longer
 - May reflect increase in incidence from social or environmental factors
- Strengths
 - Enormous patient population (>4 million)
 - Multi-center
- Weaknesses
 - Aggregate billing data
 - Mostly tertiary centers
 - 2014 outlier
 - Does not identify causes of increase

Contact

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