



REDLINING AND CANCER RELATED OUTCOMES- A SCOPING REVIEW

Feranmi Bello, Kaveer Chatoorgoon, MD, Andrew Loehrer, MD
Geisel School of Medicine at Dartmouth, Dartmouth Hitchcock Medical Center

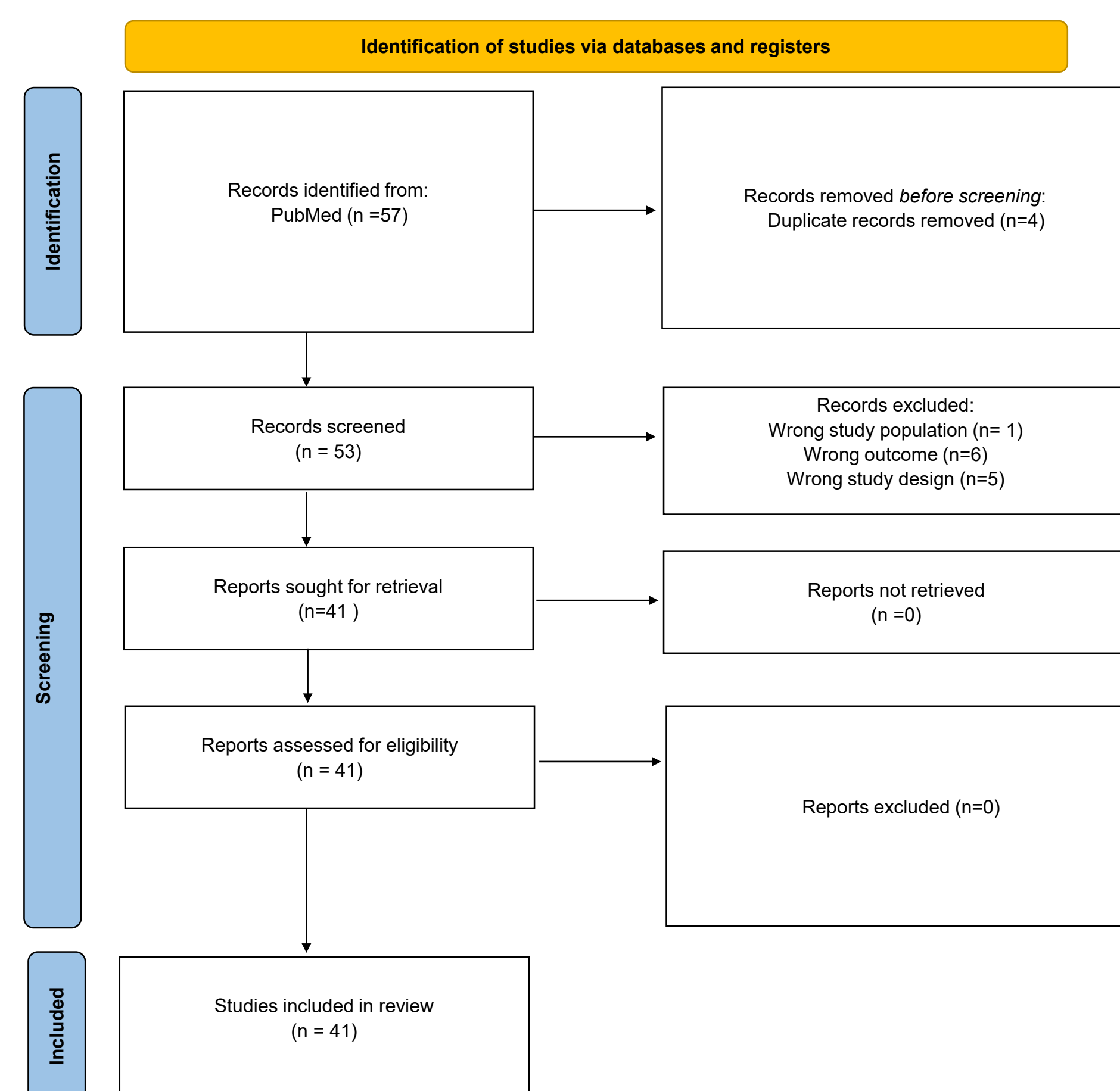


INTRODUCTION

Cancer remains one of the leading causes of death in the United States. Several factors contribute to disparities in cancer care and outcomes, including income, residential environment, and education. These structural drivers of inequities are shaped by current and historic policies and social practices. For instance, redlining is a form of structural inequity that prevented people from obtaining mortgages based on their neighborhoods and socioeconomic status, and largely confined African Americans to the most poorly supported areas. Various studies have been conducted that have highlighted ways by which redlining affects healthcare. In this review, we sought to summarize current information on the effects of redlining on cancer outcomes and identify existing knowledge gaps.

METHODS

Before conducting the literature search, variables for abstraction were decided by consensus among the research team. A PUBMED search was then conducted using the MESH headings "racial segregation" and "cancer outcomes". Papers were excluded if non-English, not using US data or if cancer was not clearly an outcome measure. The abstracts of the remaining 57 articles were reviewed to include only original papers concerned with the association of Redlining with cancer outcomes. Data from the full text of the remaining 41 papers were then extracted.



PRISMA diagram showing flow chart for included studies

RESULTS

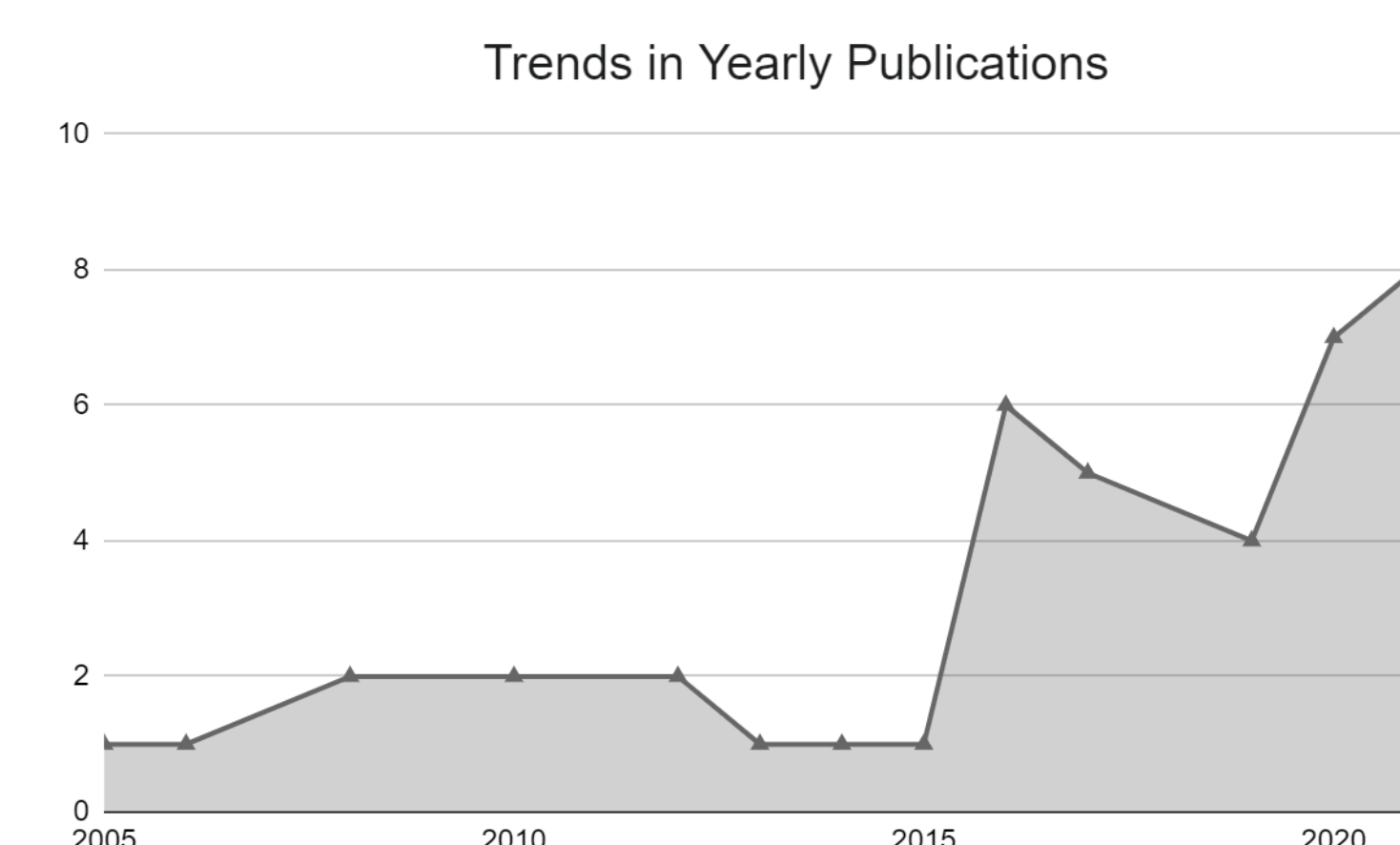


Figure 1 showing trends in number of yearly publications about the effects of redlining on cancer outcomes.

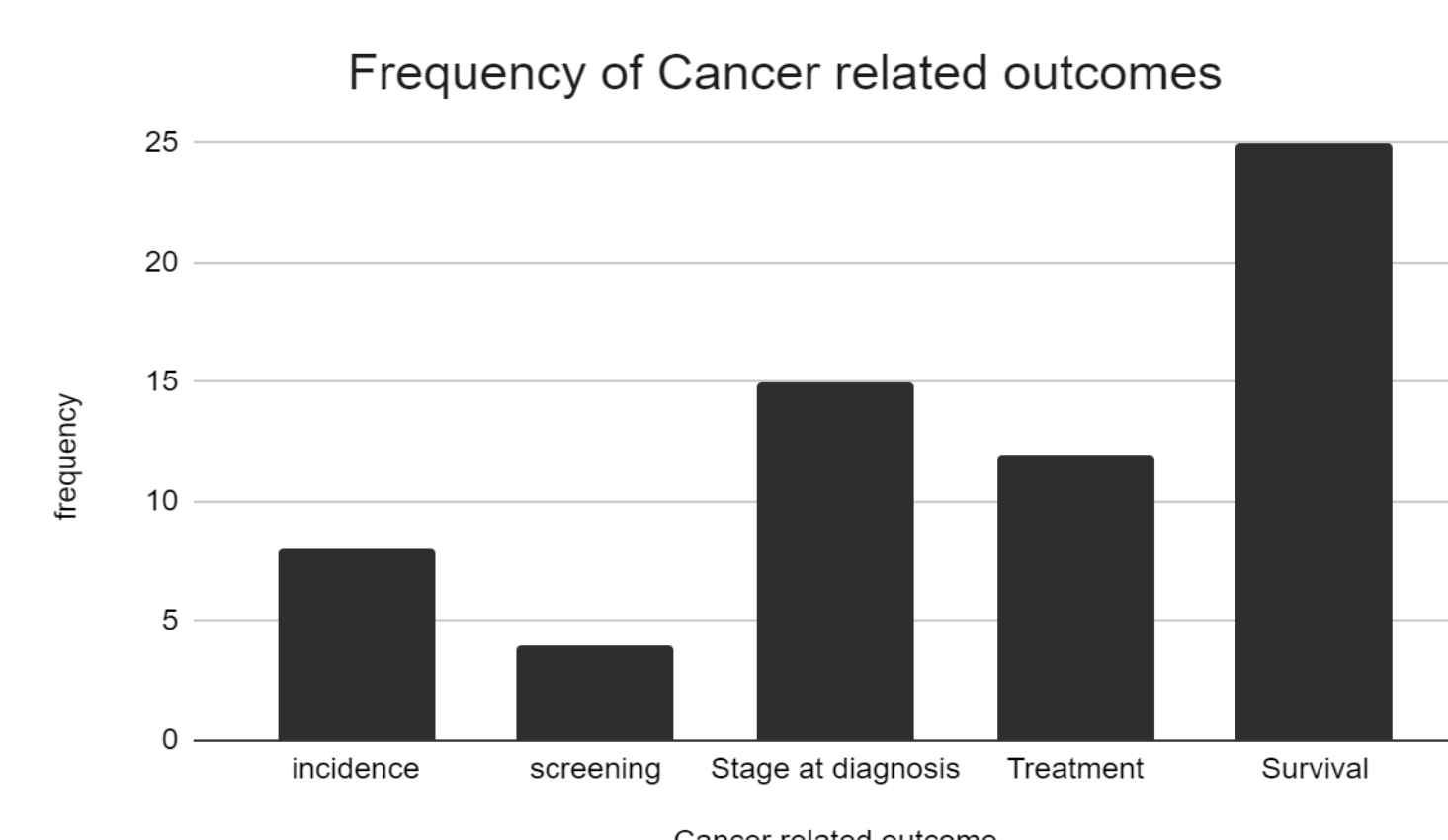


Figure 2 showing the frequency at which each cancer-related outcome was studied.

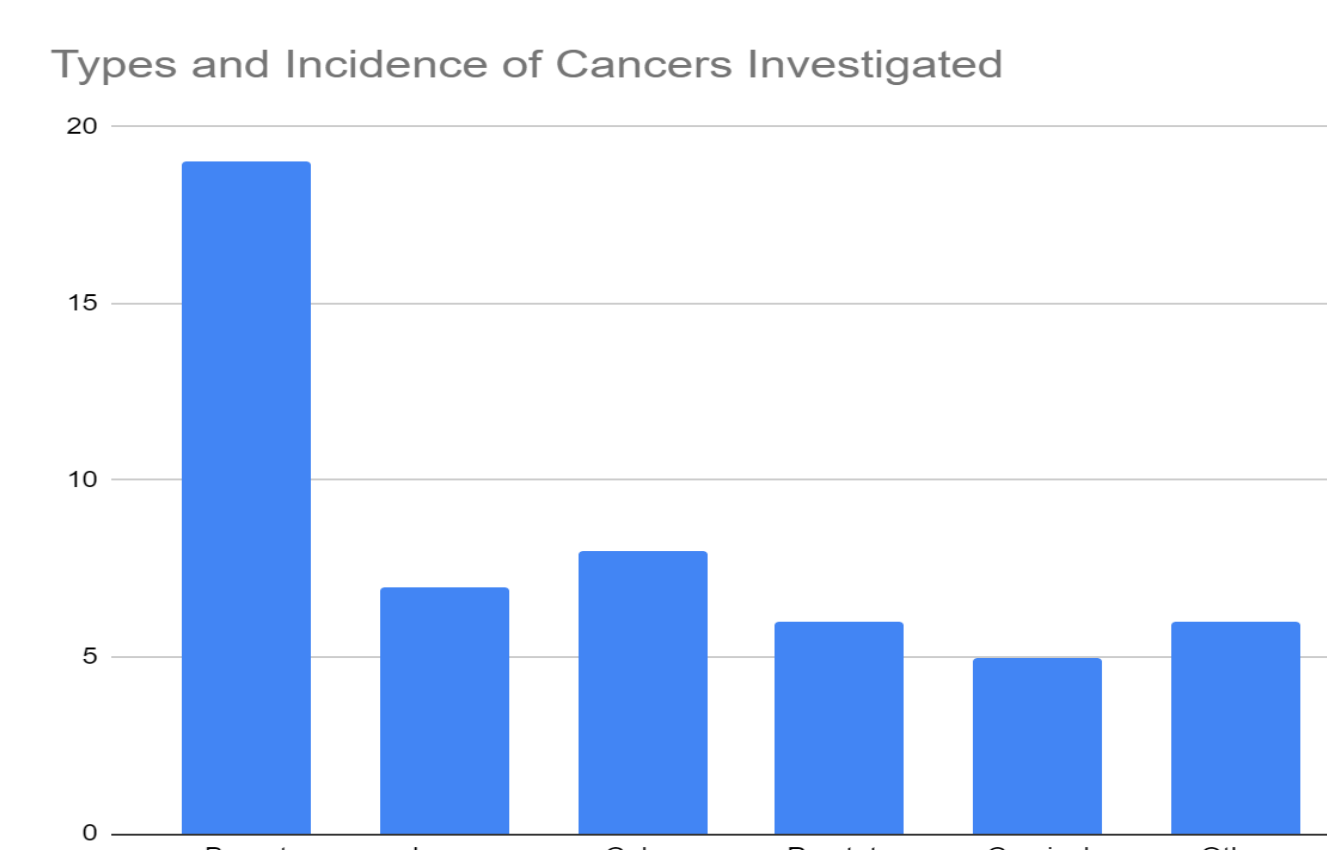


Figure 3 showing different types of cancers studied and the frequencies.

Sources of Redlining/segregation data

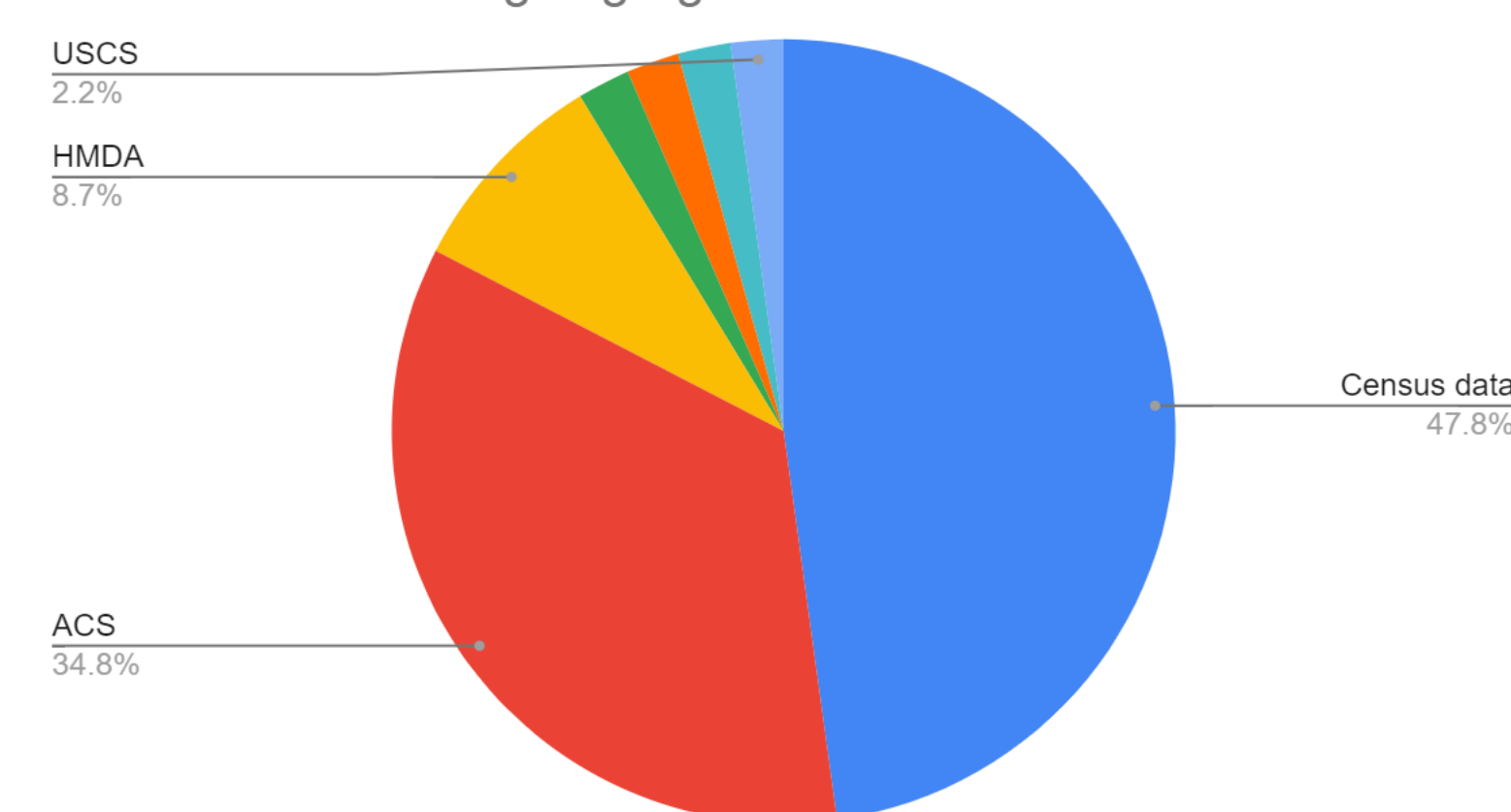


Figure 4 showing the sources of redlining data used in studies.

Clinical Data Source

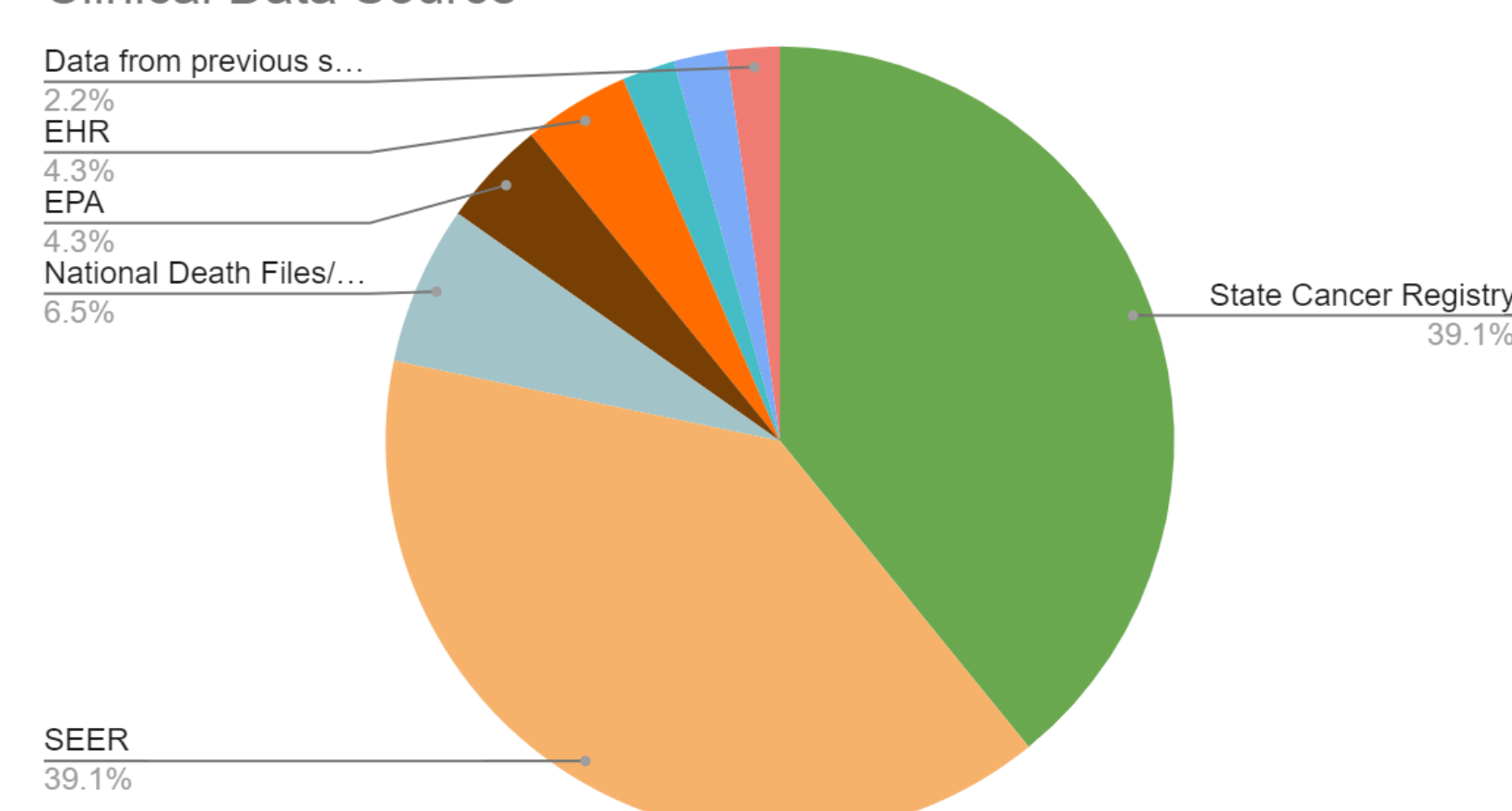


Figure 5 showing the sources of clinical data used in studies.

DISCUSSION

This review summarizes studies investigating the effects of redlining on cancer and related outcomes. Forty-one studies were included, and the cancer related outcomes were incidence, screening, stage at diagnosis, treatment and survival. Most studies obtained redlining data from ACS and census data while cancer data was largely collected from state cancer registries and the Surveillance, Epidemiology and End Results program (SEER). Thirty-eight of the included studies found significant associations between segregation or redlining and cancer-related outcomes.

A strength of our review is that our search covered about fifteen years of research. However, some of the studies investigate the effects of redlining in combination with other measures such as racial segregation and deprivation, making it challenging to extract the effects of redlining alone on cancer-related outcomes.

FUTURE STEPS

- Geospatial study evaluating the effects of residential segregation and Area Deprivation Index (ADI) on cancer related outcomes.

REFERENCES

Krieger, N., Feldman, J. M., Kim, R. & Waterman, P. D. Cancer Incidence and Multilevel Measures of Residential Economic and Racial Segregation for Cancer Registries. *JNCI Cancer Spectrum* 2, (2018)

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