Disparities in Survival of Hematologic Malignancies in the Context of Social Determinants of Health: A Systematic Review

Marisol Miranda Galvis PhD[1], Kellen Tjioe PhD[1], Andrew Balas MD, PhD[2], Gagan Agrawal PhD[3], Jorge Cortes MD[1]

[1]Georgia Cancer Center. [2]Institute of Public and Preventive Health. [3]School of Computer and Cyber Sciences, Augusta University, Augusta, US

BACKGROUND

- In recent years, there has been a tremendous improvement in the survival expectation of patients with hematologic malignancies.
- Certain disadvantaged groups experience higher mortality rates.
- Social determinants of health (SDH) have been reported as relevant factors responsible for cancer outcomes inequities.

STUDY OBJECTIVES

- To define the methodologies used to assess SDH in oncology.
- To determine SDH that have been evaluated for their impact in treatment outcomes.
- To evaluate the effect of SDH in hematologic malignancy outcomes.

DESIGN

- PROSPERO CRD42022346854.
- PubMed, Cochrane, EMBASE, Scopus, and Web of Science databases.
- **P**articipants: Patients with hematologic malignancies.
- **E**xposure: Any SDH.
- **C**omparison: There is no comparison.
- **O**utcome: Any treatment outcome.
- Types of **S**tudies: Observational studies conducted in the US.

RESULTS

Table 1. Characteristics of included studies

Characteristic	No. (%) n=41
# Patients. Mean	24,353
Range	95-132,402
Study Setting	
National	26 (63.4)
State	8 (19.5)
Institutional	7 (17.1)
Data Source	
NCDB	17 (41.5)
SEER	7 (17.1)
CIBMTR	1 (2.4)
State database	8 (19.4)
Medical records	6 (14.6)
SEER/NCDB and medical records	2 (4.8)
Hematologic Malignancy	
HL, NHL, BL	16 (34.1)
MM, PM	11 (31.7)
AML, ALL, MDS	12 (29.3)
CML, CLL	2 (4.9)
Outcome Evaluated	n=57
OS	41 (73.2)
CSS	5 (8.9)
Early Mortality	6 (10.7)
Other (PFS, DFS, TRM)	4 (7.2)

Figure 1. Mapping of individual variables of SDH domains explored

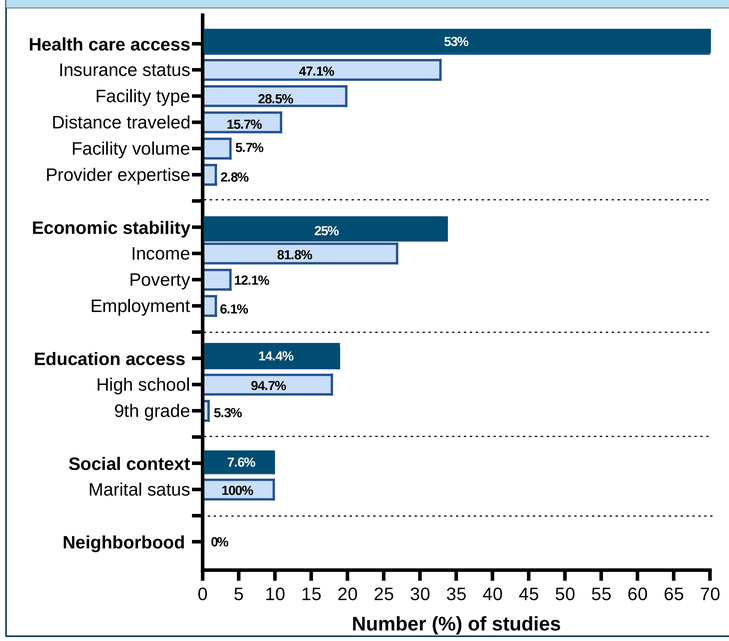
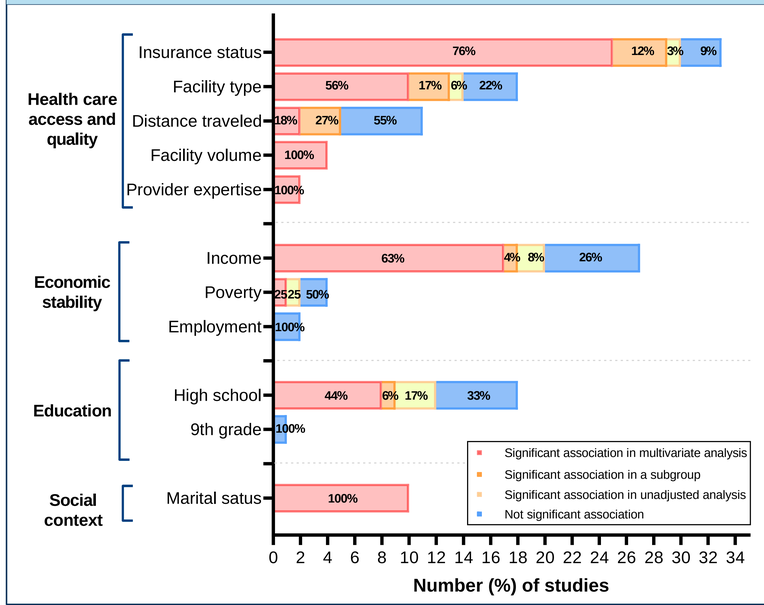


Table 2. SDH associated with worse survival

Variable	Patients experiencing survival disadvantage
Insurance Coverage	-Medicaid -Medicare -Uninsured
Facility Type	-Community Cancer Center -Comprehensive Community Cancer Center -Integrated Network Cancer Programs
Distance Traveled	-Inconclusive
Facility Volume*	-Lower-volume facilities
Provider Expertise*	-General hematologists/oncologists -Community-based providers
Marital Status	-Unmarried: single, divorced, widowed, or separated
Household Income	-Lower income
Poverty Rate*	-Inconclusive
Unemployed Rate*	-No significant correlation
High-school Education	-Low education level
Ninth-grade Education*	-No significant correlation

Figure 2. Distribution of studies according to the impact of SDH on cancer-treatment outcomes



CONCLUSIONS

Factors attributing to outcomes inequities in the US:

- Lack of health insurance or having government insurance.
- Receiving oncologic treatment at a non-academic facility.
- Low household income and education level.
- Being unmarried.

CLINICAL APPROACHES

Identify underserved patients and implement socially targeted interventions:

- Increasing access to preventive healthcare.
- Reducing delayed cancer diagnosis and treatments.
- Expanding access to novel evidence-based therapies.
- Implementing shared care models.
- Providing a social network.

RESEARCH PERSPECTIVES

Filling gaps of the literature:

- Data collected for other purposes.
- Deficiency of individual patient data.
- Lack of data in other SDH domains.

Abstract MDS-044

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