



Topic Brief: Impact of Social Determinants of Health on Patients' Experience with Cancer Treatment

Date: 12/27/2022

Nomination Number: 1027

Purpose: This document summarizes the information addressing a nomination submitted on November 2, 2022, through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: The evidence about how cancer patients experience treatment-related decision-making and treatment depending on non-medical factors influencing health outcomes, or social determinants of health, is important to understand because of well-documented disparities in cancer survival by socioeconomic status, race, education, poverty, and access to health insurance and medical care. An oncology nursing group is interested in using a review to develop guidance for its constituency.

[Link to nomination](#)

Findings: The scope of this topic met all EHC Program selection criteria and was considered for a systematic review. However, it was not selected.

Background

In 2019, there were 1,752,735 new cancer cases reported in the United States, or 439 new cancer cases per 100,000 people, and 599,589 deaths from cancer, or 146 deaths from cancer per 100,000 people.¹ The national patient economic burden associated with cancer care in 2019 was \$21.09 billion, consisting of out-of-pocket patient costs of \$16.22 billion, and patient time costs (the value of time that patients spend traveling to and from health care, waiting for care, and receiving care) of \$4.87 billion.²

The burden of cancer, including cost, may disproportionately affect more vulnerable subpopulations, as there are well-documented disparities in cancer survival by socioeconomic status, race, education, poverty, and access to health insurance and medical care.³ Such factors are known collectively as social determinants of health (SDOHs), which are non-medical factors that influence health outcomes, specifically the environments and conditions under which people live, and the systems such as economic policies, social norms, and political systems, that shape those conditions.⁴ There has also been increasing awareness of the importance of other SDOHs, such as access to safe and affordable housing, in improving health outcomes among patients with cancer and cancer survivors.³ Surveyed community oncologists have reported financial security/lack of insurance and access to transportation as the greatest barriers for their patients.⁵ While overall cancer mortality rates have declined in the United States in recent decades, disparities exist in regards to who has benefitted from advances in cancer prevention, early detection, treatment, and survivorship care, and disadvantaged populations bear a disproportionate burden.⁶ A qualitative systematic review on cancer patients' experiences with

the decision-making process about cancer treatment and cancer treatment could inform how to tailor treatment to the individual patient based on SDOHs.

Scope

How do patient characteristics including social determinants of health (SDOH) affect the experience of decision-making and treatment of adults with cancer in the United States?

Table 1. Key Question

Questions	Patient characteristics and cancer patients’ decision-making and treatment experiences
Perspective	From the perspective of adult (≥18 years) cancer patients of various age, race, social determinants of health (e.g., economic stability, education access and quality, health care access and quality, neighborhood/geographical location, social and community context), cancer stage at diagnosis/prognosis, and cancer type
Setting	Inpatient and outpatient clinical settings, including rural and urban
Phenomenon of interest/problem	How does experience of cancer treatment and decision-making about cancer treatment
Environment	Within the United States
Time/Timing	After diagnosis of cancer
Findings	Affect CTCAE grading of symptoms and side effects, informed decision making about treatment, clinical outcomes, quality of life, and patient satisfaction

Abbreviations: CTCAE=Common Terminology Criteria for Adverse Events.

Assessment Methods

See Appendix A.

Summary of Literature Findings

We did not find any systematic reviews that covered the scope of the nomination. We then reviewed the entire yield of primary qualitative studies (359) and found 12 that addressed the topic’s scope. These represented a range of cancer types and treatment components. Most of these studies centered on patient decision-making about treatment, and others reported findings on quality of life, clinical outcomes, and patient satisfaction. Of these studies, one focused on Black women, one on Latinas/Latinos, one on a racially/ethnically diverse people, one on people with mobility disability, one on people with low income (68% of the participants), six on older people, and one on young adults.

Table 2. Literature identified

Question	Systematic reviews (1/2020-1/2023)	Primary studies (1/2018-1/2023)
Question 1: Patient characteristics and cancer patients’ decision-making and treatment experiences	Total: 0	Total (all qualitative): 12 ⁷⁻¹⁸

See Appendix B for detailed assessments of all EPC selection criteria.

Summary of Selection Criteria Assessment

The evidence about patients experience with cancer treatment-related decision-making and treatment varies on non-medical factors influencing health outcomes, or SDOH, is important to understand because of well-documented disparities in cancer survival by socioeconomic status, race, education, poverty, and access to health insurance and medical care. There are no guidelines, and the nominator, an oncology nursing society, would like a systematic review that would be used to inform the development of guidelines. In a review of literature on the topic, we did not find any systematic reviews that address the scope and found 12 primary qualitative studies addressing the nomination.

Please see Appendix B for detailed assessments of individual EPC Program selection criteria.

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Conflict of Interest: None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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Appendix A: Methods

We assessed nomination for priority for a systematic review or other AHRQ Effective Health Care report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one. See Appendix B for detailed description of the criteria.

Appropriateness and Importance

We assessed the nomination for appropriateness and importance.

Desirability of New Review/Absence of Duplication

We searched for high-quality, completed or in-process evidence reviews published in the last three years January 31, 2020 – January 31, 2023 on the questions of the nomination from these sources:

- PROSPERO Database (international prospective register of systematic reviews and protocols) <http://www.crd.york.ac.uk/prospéro/>
- PubMed <https://www.ncbi.nlm.nih.gov/pubmed/>
- Joanna Briggs Institute <http://joannabriggs.org/>
- WHO Health Evidence Network <http://www.euro.who.int/en/data-and-evidence/evidence-informed-policy-making/health-evidence-network-hen>
- Epistemonikos <https://www.epistemonikos.org/>

Impact of a New Evidence Review

The impact of a new evidence review was qualitatively assessed by analyzing the current standard of care, the existence of potential knowledge gaps, and practice variation. We considered whether it was possible for this review to influence the current state of practice through various dissemination pathways (practice recommendation, clinical guidelines, etc.).

Feasibility of New Evidence Review

We conducted a limited literature search in PubMed from the last five years January 31, 2018- January 31, 2023 on parts of the nomination scope not addressed by earlier identified systematic reviews. We reviewed all identified titles and abstracts for inclusion and classified identified studies by question and study design to estimate the size and scope of a potential evidence review.

Search strategy

Ovid MEDLINE ALL 1946 to January 30, 2023

Date searched: January 31, 2023

1 exp *Neoplasms/ (3353549)

3 or/1-2 (4059662)

2 (cancer* or carcinom* or malignan* or metastat* or neoplas* or onco* or tumor\$1 or tumour\$1).ti,kf. or (cancer* or oncolog*).jw. (2946968)

3 or/1-2 (4059662)

4 Decision Making/ or Decision Making, Shared/ (105137)

5 (decid\$3 or decision*).ti,kf. (110027)

6 or/4-5 (176577)

7 exp *Therapeutics/ or th.fs. (4165231)

8 (intervention\$1 or manag* or "side effects" or symptom* or treat* or therap*).ti,kf. (3535475)

9 or/7-8 (6455888)

10 *Cancer Survivors/ or *Inpatients/ or *Outpatients/ or *Patients/ (40262)
11 (inpatient\$1 or outpatient\$1 or patient\$1 or survivor\$1).ti,kf. (2357240)
12 or/10-11 (2365395)
13 Health Disparity, Minority/ or Health Equity/ or Health Status Disparities/ or Healthcare Disparities/ or exp Population Characteristics/ or Social Determinants of Health/ (2248636)
14 (adult* or Afro* or aged or American\$1 or BIPOC or Black\$1 or bias or Chican\$2 or communit* or cultur* or demographic* or determinant* or disab* or disadvantag* or discriminat* or disparit* or economic* or education* or elder\$2 or equal* or equit* or ethnic* or gay or gender or geographic or geriat* or Hispanic\$1 or homeless* or homosexual* or housing or identity or indigen* or inequit* or LGBT* or Latin\$2 or lesbian\$1 or MSM or Medicaid or Medicare or minorit* or Native or neighborhood\$1 or older or poor or poverty or prejud* or psychosocial* or race or racial or racism or racist or regional or retire* or rural or social* or SDOH or SES or socio* or transgender\$2 or transport* or underprivileged or under-privileged or underrepresent* or under-represent* or underserved or under-served or unequal* or underinsured or under-insured or uninsured or un-insured or urban or vulnerable or zip).ti,ab,kf. (9046208)
15 or/13-14 (10045987)
16 (attitud* or barrier or barriers or benefit or benefits or context* or emotion* or facilitator* or experienc* or narratives or opinion or opinions or perception or perspective or perspectives or preference or preferences or react* or theme or themes or value or values or valuing or viewpoint or viewpoints or view or views).ti,ab. (7815911)
17 and/3,6,12,15-16 (1922)
18 limit 17 to english language (1876)
19 limit 18 to "all adult (19 plus years)" (1222)
20 18 not (adolescen* or boy\$1 or child* or girl\$1 or infant\$1 or school or pediatric or paediatric or prepubesc* or pubescen* or student\$1 or teen* or toddler\$1 or youth\$1).ti. (1800)
21 or/19-20 (1854)
22 limit 21 to yr="2020 -Current" (478)
23 and/3,9,12,15-16 (38315)
24 limit 23 to english language (36656)
25 limit 24 to "all adult (19 plus years)" (25253)
26 24 not (adolescen* or boy\$1 or child* or girl\$1 or infant\$1 or school or pediatric or paediatric or prepubesc* or pubescen* or student\$1 or teen* or toddler\$1 or youth\$1).ti. (34773)
27 or/25-26 (35765)
28 limit 27 to yr="2020 -Current" (9954)
29 (((integrative or interpretive or "mixed method" or "mixed methods" or qualitative or realist or thematic) adj3 (synthes* or review*)) or ((framework or narrative) adj2 synthes*)).ti,ab,kf. (27797)
30 (mega-ethnograph* or megaethnograph* or meta-aggregat* or metaaggregat* or meta-ethnograph* or metaethnograph* or meta-interpret* or metainterpret* or meta-method* or metamethod* or meta-narrative* or metanarrative* or meta-study or metastudy or meta-synthe* or metasynthe* or meta-summary or metasummary or meta-triangulat* or metatriangulat*).ti,ab,kf. (3350)
31 (CERQUAL or CONQUAL or JBI-QARI or QualSys or "Mixed Methods Appraisal Tool" or MMAT).ti,ab. (1436)
32 or/29-31 (29678)
33 and/22,32 (7)
34 and/28,32 (123)
35 limit 21 to yr="2018 -Current" (823)
36 limit 27 to yr="2018 -Current" (15043)

37 Focus Groups/ or Grounded Theory/ or "Interviews as Topic"/ or Qualitative Research/ or (constructivist or "constant comparative" or "content analysis" or "critical race" or discourse or descriptive or "focus group" or "focus groups" or "grounded theory" or interview* or realism or realist or ethnograph* or ethnolog* or hermeneutic* or heuristic* or phenomenolog* or purposive or semiotic* or thematic or qualitative).ti. (252557)

38 ((intervention\$1 or manag* or "side effects" or symptom* or treat* or therap*) adj5 (adult* or Afro* or aged or American\$1 or BIPOC or Black\$1 or bias or Chican\$2 or communit* or context* or cultur* or demographic* or determinant* or disab* or disadvantag* or discriminat* or disparit* or economic* or education* or elder\$2 or equal* or equit* or ethnic* or gay or gender or geographic or geriat* or Hispanic\$1 or homeless* or homosexual* or housing or identity or indigen* or inequit* or LGBT* or Latin\$2 or lesbian\$1 or MSM or Medicaid or Medicare or minorit* or Native or neighborhood\$1 or older or poor or poverty or prejud* or psychosocial* or race or racial or racism or racist or regional or retire* or rural or social* or SDOH or SES or socio* or transgender\$2 or transport* or underprivileged or under-privileged or underrepresent* or under-represent* or underserved or under-served or unequal* or underinsured or under-insured or uninsured or un-insured or urban or vulnerable or zip)).ti,ab. (712152)

39 and/35,37 (140)

40 and/36-38 (275)

Value

We assessed the nomination for value. We considered whether or not the clinical, consumer, or policymaking context had the potential to respond with evidence-based change, if a partner organization would use this evidence review to influence practice, and if the topic supports a priority area of AHRQ or the Department of Health and Human Services.

Appendix B. Selection Criteria Assessment

Selection Criteria	Assessment
1. Appropriateness	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the United States?	Yes.
1b. Is the nomination a request for an evidence report?	Yes.
1c. Is the focus on effectiveness or comparative effectiveness?	Not applicable. This is a qualitative SR.
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	Yes.
2. Importance	
2a. Represents a significant disease burden; large proportion of the population	There are well-documented disparities in cancer survival by socioeconomic status, race, education, poverty, and access to health insurance and medical care. ³ This topic is focused on highlighting the experiences of people representing a range of SDOHs and patient characteristics.
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the United States population or for a vulnerable population	Yes. In 2019, there were 1,752,735 new cancer cases reported in the United States., or 439 new cancer cases per 100,000 people, and 599,589 deaths from cancer, or 146 deaths from cancer per 100,000 people. ¹ The national patient economic burden associated with cancer care at this time was \$21.09 billion, made up of patient out-of-pocket costs of \$16.22 billion and patient time costs (the value of time that patients spend traveling to and from health care, waiting for care, and receiving care of \$4.87 billion). ²
2c. Incorporates issues around both clinical benefits and potential clinical harms	Yes.
2d. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	The national patient economic burden associated with cancer care at this time was \$21.09 billion, made up of patient out-of-pocket costs of \$16.22 billion and patient time costs (the value of time that patients spend traveling to and from health care, waiting for care, and receiving care of \$4.87 billion). ²
3. Desirability of a New Evidence Review/Absence of Duplication	
3. A recent high-quality systematic review or other evidence review is not available on this topic	Yes. We did not find any SRs that covered the scope of the nomination.
4. Impact of a New Evidence Review	
4a. Is the standard of care unclear (guidelines not available or guidelines inconsistent, indicating an information gap that may be addressed by a new evidence review)?	Yes. There are no guidelines on this topic.
4b. Is there practice variation (guideline inconsistent with current practice, indicating a potential implementation gap and not best addressed by a new evidence review)?	Yes. There are well-documented disparities in cancer survival by socioeconomic status, race, education, poverty, and access to health insurance and medical care. ³
5. Primary Research	

<p>5. Effectively utilizes existing research and knowledge by considering:</p> <ul style="list-style-type: none"> - Adequacy (type and volume) of research for conducting a systematic review - Newly available evidence (particularly for updates or new technologies) 	<p><i>Size/scope of review:</i> We found 12 primary qualitative studies out of a review of the entire yield of 359 studies. We estimate that the size of a systematic review would be limited.</p>
<p>6. Value</p>	
<p>6a. The proposed topic exists within a clinical, consumer, or policy-making context that is amenable to evidence-based change and supports a priority of AHRQ or Department of Health and Human Services</p>	<p>Yes. A systematic review would be used to inform the development of guidelines to influence more accessible, equitable, and affordable health care, which is in alignment with AHRQ's priorities.</p>
<p>6b. Identified partner who will use the systematic review to influence practice (such as a guideline or recommendation)</p>	<p>Yes. The Oncology Nursing Society would use a systematic review to develop guidelines. They have a set of guidelines on their website (https://www.ons.org/ons-guidelines) that are also posted on the ECRI Guidelines Trust website. No guidelines are currently in development.</p>

Abbreviations: AHRQ=Agency for Healthcare Research and Quality; SDOHs=social determinants of health; SR=systematic review.