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Health Equity and Digital Disparities in Cancer Screening and Cardiovascular Care Across Socioeconomic and Ethnic Groups: A Systematic Review

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ABSTRACT

Background: The current disparity in breast screening and cardiac care has been one of the major health concerns in the world. Preventive services, timely diagnosis and evidence-based interventions continue to be dependent on socioeconomic status (SES) and ethnicity. These gaps are significant to comprehend so as to craft interventions that have the potential of contributing to health equity.

Objectives: This is to undertake a systematic review and synthesis of evidence on disparities in cancer screening (breast, colorectal, cervical), and cardiovascular care (hypertension control, lipid management and revascularization) according to socioeconomic and ethnic categories and the strategies that have been demonstrated to reduce these disparities.

Methods: A review of the system was conducted in compliance with PRISMA 2020. Four databases (PubMed, Scopus, Web of Science, and Google Scholar) were searched to identify those articles which were published after January 2010 and until March 2023. The eligible studies were adults (18 years or older) who were stratified by SES and / or ethnicity, and reported the outcomes of screening rates or cardiovascular prevention or therapeutic care. Two independent reviewers screened, extracted and quality-assessed studies, using the NewcastleOttawa Scale of observational designs and Cochrane RoB 2 tool of trials. Random-effects pooling was applied where appropriate and quantitative and qualitative methods of synthesis were utilized.

• Results: Two hundred and eighty-eight studies were eligible with 112,450 patients. Cancer screening: The low-income and minority groups had a 2035% lower uptake of mammography and colorectal screening (RR = 0.72 95% CI 0.660.79). These included barriers of cost, poor health literacy and distrust of healthcare systems. Cardiovascular care: Socioeconomically disadvantaged and ethnic minority populations had reduced blood pressure management (OR = 0.67; 95% CI 0.610.74) and reduced statin-use and revascularization (RR = 0.82; 95% CI 0.740.91). Patient engagement: There is a high positive correlation between patient engagement and improved outcomes (r = 0.69). The programs were culturally tailored by use of education and orientation, which increased screening and adherence to medication. Confidence and system preparedness: The low trust levels (2.7/5 vs. 3.9/5) in the underprivileged groups were the indicators of structural barriers and discrimination.

Conclusion: Cancer screening and cardiovascular care differences exist in socioeconomic and ethnic groups, which are major and persistent. It has been shown that community-based outreach, culturally competent navigation and policy-level expansion of insurance may be effective solutions to addressing these gaps. Equity measures and intersectional analysis and long term follow up should be employed as the methods of standardizing follow up in future studies when evaluating sustainable impact is required.

KEYWORDS: Health equity; cancer screening disparity; cardiovascular care disparity; socioeconomic status; ethnicity; patient engagement; healthcare trust; PRISMA systematical review.

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INTRODUCTION

The theme of health equity, the understanding that everyone should have a just and equal opportunity to be as healthy as possible, is a fact that the world wants but is failing to obtain. Despite the achievements of early chronic disease diagnosis and the important advances that have been achieved in terms of cardiovascular risk management, differences in access to high-quality preventive and therapeutic services among socioeconomic and ethnic groups persist. Cancer and cardiovascular disease (CVD) are the two common causes of morbidity and mortality on a global scale; millions of preventable deaths are experienced annually because of the two. Evidence-based prevention interventions in cardiovascular field, like hypertension management, the use of statins, and timely revascularization have been shown to protect lives when fairly provided as breast, cervical and colorectal screening programs [1-3]. However, these interventions do not have the same benefits. The question of systemic barriers, structural racism, and social determinants of health remain an issue on who will be quickly screened, diagnosed, and treated adequately. Socioeconomic status (SES) has been identified as one of the most powerful predictors of health indicators, most of whom are often defined by income, education, occupation and existence of insurance. Among the numerous factors that make people with low SES avoid or delay participation in preventive care is underinsurance or lack of health insurance, competing financial needs, unstable housing, and transportation challenges. Similarly, ethnic and racial minority groups like the Black, Hispanic, Indigenous and migrant groups have a history of inequities grounded in historical denial and discriminatory health care policies and implicit provider biases. The result is a subsequent diagnosis, low rates of recommended cancer screening, ideal cardiovascular risk management and worse survival [4-6]. Cancer screening is a good example of such gaps. High-income countries also have low attendance rates in their organized screening programs and, in all cases due to marginalized groups. It has been shown that screening of breast and colorectal cancer is 2035 per cent lower in low-income populations than wealthy ones. Cultural stigma, mistrust of healthcare system, language and poor access to digital services are barriers to awareness and utilisation of screening invitations. Likewise, in cardiovascular diseases, one of the most influential modifiable risk factors of stroke and myocardial infarction, hypertension is poorly controlled in less advantaged communities, and the proportion of the population adhering to recommended blood pressure targets is lower. Disproportionately less prescription of evidence-based medications such as statins- used after acute coronary events and before referrals to revascularization procedures- are also present among minority and low-SES groups [7-9].

At the same time, contextually-sensitive interventions have some positive news that these disparities can be closed. Treatment interventions utilizing patient navigation, community health workers, culturally competent communication, mobile screening clinics, and insurance expansions have been found to have a measurable effect in terms of preventive services uptake and prevention of cardiovascular risks. Digital health tools like telehealth and reminder systems can improve adherence too, but these are not generally embraced by marginalized communities because of cost, access and trust barriers.

Even with the increasing evidence base, the reviewed literature to date has either focused on cancer or cardiovascular disparities individually or has been very narrow in examining either race/ethnicity or SES without considering the intersectionality of disadvantage. But in the real world these social classes intersect so that one may be poorer, culturally and linguistically different, and systemically discriminated simultaneously which compound the risk [10-12]. There should be general synthesis of not just where the gaps still exist but also what strategies have been successful in bridging the gaps. It was upon this that this systematic review was necessary to summarize the evidence of health equity and disparities in cancer screening and cardiovascular care based on socioeconomic and ethnic groups. The review will enlighten clinicians, researchers, and policymakers about the leverages that can be exploited by exploring the trends in screening attendance, cardiovascular prevention and treatment attendance, patient engagement, and confidence in the healthcare systems [13-15]. The findings could guide particular interventions, promote policy changes that would guarantee universal access, and can affect future research, which could establish a standard measure of equity and help promote inclusive health systems.

LITERATURE REVIEW

The determinants of health including the structural determinant of health which include income, education, housing, and systemic discrimination, impact health equity. The years of studies indicate that the disadvantaged (SES) individuals are poor in nearly all aspects of the health field particularly in cancer and cardiovascular disease (CVD). These inequalities are not simply occasioned by personal choice but they are also caused by the inequalities in access to preventive care, and the poor continuity of care and implicit bias in medical systems [16-18]. The modifiable risk factors that cause cancer and CVD are similar, and their early diagnosis can prevent life and can be treated easily, according to the guideline, but the final access to preventive actions is stratified by the SES and the ethnic background to the highest level.

The most typical example of such inequities is cancer screening. As illustrated, the mammography, cervical cytology, colonoscopy, and stool-based colorectal tests are significant to reduce the late-stage diagnosis of the cancer as well as mortality of cancer even though the uptake of the screening is very uneven among the population. According to various researches, low income women are significantly less likely to have mammography in comparison to high income women.

The minority groups of Black, Hispanic, Indigenous, and immigration also have a similar low-rate of breast and colorectal screening. All the impediments to screening mentioned are out-of-pocket expenses, inadequate health literacy, lack of communication between providers and patients, distrust of the health care system, and cultural screening stigmas [19-21]. The geographic access is another factor to consider: rural areas are more isolated in access to screening, have poorer access to specialists and services based on mobile or outreach screening, leading to late diagnosis and poor prognosis. Instead of assuming that intersectionality is merely the combination of race and SES, it is the relationship in which these two factors work together to further marginalize such women like low-income Hispanic and Black women not only have no access to financial resources but also speak no culturally-relevant language or outreach. The screening rates of colorectal cancer among the refugees and migrants in Europe are also poor due to the systematic exclusion and the lack of being integrated with the preventive care services. It is necessary to state that community health workers and patient navigation programs have already been proved as effective interventions to prompt the uptake of the screening in which they concentrate their efforts on the alteration of the cultural norms and the establishment of the trust [22-24]. This same situation is observed in cardiovascular care wherein the primary and secondary prevention plays a crucial role in the prevention of heart attacks, strokes, and premature deaths. It is observed that the rate of managing hypertension among the low-income populations is relatively lower and that fewer individuals have achieved the set blood pressure compared to more wealthy members of society. The black and Hispanic minority adults have a lower probability of evidence-based intervention, such as statins after myocardial infarction, less likely to receive percutaneous coronary intervention (PCI) or coronary artery bypass grafting (CABG). Such disparities are attributable to insurance disparities and incomplete follow-up care and assumed physician bias. The given tendency can also be perceived on the international level: In Canada, and in the UK, Indigenous and ethnic minorities have a weaker access to specialist cardiovascular services and have a longer delay to revascularization after the acute coronary syndrome. The existing disparity in treatment is because of the financial barriers and monopoly on specialized cardiac centres in less developed and middle income countries [25-27]. They are not only restricted to access but also the quality of care on entry into the system where inequities in prescribing have been reported, fewer referrals, and less assistance to follow through the care processes among minority patients. The other theme which has been reiterated in literature is the mediating role of equity which patient engagement and health literacy play. It would include the risk knowledge, the healthcare system knowledge and the follow-through of any suggested screening or treatment. These issues are the absence of shared decision-making, low health literacy and a growing level of mistrust in health care systems, which minorities would be likely to complain about, thus affecting participation and compliance in an unwanted way. The mistrust of the screening invitations and the medical follow-up is not a recent occurrence; a history of discrimination and unethical medical practice is also a factor that contributes to the low trust. Conversely, interventions that build trust (culturally sensitive communication, collaboration with communities and language support) are also always more likely to result in increased participation and adherence. Another potential option is digital health solutions (patient portals, telehealth follow-ups) which can be extended at the expense of increasing the digital divide. The fact that they only excluded the less probable to use the internet or the digital savvy populations can only widen the divide but not narrow it. Nevertheless, the minority and rural populations, where digital tools are tailored to the groups, e.g. remember systems in patients language, phone-based counseling, etc., have shown beneficial effects on screening follow-ups and medication compliance [28-30].

Equity is also significantly affected with both individual level barriers and health system preparedness and policy level intervention. The increased screening and management of the blood pressure of the low-income groups receiving new insurance cover has been explained by the augmented insurance cover like the Affordable Care Act in the United States. The minor gaps in preventative care are reported as proactive outreach universal health systems but migrants and refugees are still left bound to the culture and language. Measures, including the application of equity dashboards, culturally competent care standards, and financial incentives in case of offering preventive care, are starting to become more prescriptive to sustain the benefits and keep hold systems responsible in the aspect of disparities.

Although there is historic evidence that exists, there are gaps. Majority of the reviews performed previously have been either cancer or cardiovascular disparities, separately, and few have articulated the intersective quality of disadvantage in which socialeconomic status, race and other vulnerabilities are compounded to increase risk. There is also a lack of longitudinal evidence; the majority of the studies show short-term results, yet no long-term follow-up regarding whether screening or cardiovascular care gains can be translated into long-term survival gains or reduction of the disease burden. Additionally, the equity-related outcomes are not very standardised, the descriptions of the screening completion, trust, and patient engagement are quite general, and meta-analysis and transfer to a foreign country is quite challenging. These limitations show the urgency of having an integrated synthesis of the evidence that cuts across cancer and cardiovascular care, shows what is common across the determinants of inequity, and what interventions have been shown to be effective in other populations and health systems.

It is true indeed that the prevailing literatures are full of, beyond doubt, systematic inequities in cancer screening and cardiovascular care, but there can be found also the signs of potential, possible, solutions to the same. Promising and requiring scalability and experimentation are the cultural sensitive patient-centered outreach, structural change and community partnerships. This systemic review will fill this knowledge gap by synthesising the evidence available on both of these key areas of disease and conclude where inequality is most ingrained and what can be pragmatically done to reduce it to a minimum to realise the true health equity.

METHODOLOGY

Study Design

It is a systematic review research that aims at evaluating health equity and disparities in cancer screening and cardiovascular among different socioeconomic and ethnic groups. This review was conducted according to the requirements of Preferred Reporting Items of Systematic Review and meta-analyses (PRISMA 2020) because it enables the transparency, reproducibility and methodological rigor.

Search Strategy

The systematic search was done in the following electronic databases in a systematic and comprehensive way:

- **PubMed (MEDLINE)**
- **Scopus**
- **Web of Science**
- **Google Scholar**

The time limit also incorporated those publications that were published within the period of January 2010 to March 2023. It was combined with Boolean operators and Medical Subject Headings (MeSH), as well as free-text terms. Core search terms included:

- Cancer AND social economic disparities screening.
- Breast/colorectal/cervical screening/ race/ ethnicity.
- OR physical examinations of cardiovascular care and prevention + health disparity.
- Disparities in hypertension control access AND disparities in access.
- (Cardiac revascularization AND ethnic difference)

And, as well as or, was applied to find out all the relevant literature possible. In addition, screening of eligible articles was done manually, through the reference lists of the included studies and past published systematic reviews.

Study Selection

Title and abstract screening were done by 2 reviewers. The articles that passed a wide-range of relevancy criterion were read as a whole. The discrepancies were either resolved by a discussion or by consulting an additional reviewer.

Inclusion and Exclusion Criteria

Table 1. Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Population	Adults (≥18 years) undergoing cancer screening (breast, cervical, colorectal) or cardiovascular preventive/therapeutic care	Pediatric populations, studies with no socioeconomic or ethnic data
Exposure	Socioeconomic status indicators (income, education, insurance) or ethnicity/race	Studies not stratifying results by SES or ethnicity
Outcomes	Screening rates, BP control, statin use, revascularization, patient engagement/trust	Studies reporting only technical or laboratory data
Study Design	RCTs, cohort, cross-sectional, case-control, systematic reviews	Editorials, commentaries, narrative reviews
Time Frame	2010–2023	Pre-2010 publications
Language	English	Non-English studies without full translation

Data Extraction and Management

The extraction was done using a sheet of standard which was a self-extraction sheet:

- Authors and characteristics of the study: year, country and study design.
- Demographic data: sample size, group division according to the types of the socioeconomic/ethnic group.
- Kind of outcome, screening uptake (mammography, colonoscopy, cervical cytology) BP, use of statins, revascularization.
- The quantitative findings comprise risk ratios (RR), odds ratios (OR), the hazard ratios (HR) and the mean differences.

Table 2. Sample Data Extraction Table

Study ID	Year	Country	Population	Outcome Measured	Key Findings
Study A	2018	USA	Low-income Black & Hispanic adults	Mammography and colorectal screening	RR breast = 0.79; RR colorectal = 0.74 vs White
Study B	2020	UK	Socioeconomic quintiles	Hypertension control	BP control 50% low SES vs 68% high SES; OR = 0.66

Study C	2023	Canada	Indigenous populations	Cardiac revascularization after MI	RR = 0.81; delayed access compared to non-Indigenous
Study D	2023	Multi-ethnic Asia	Urban poor vs insured	Statin prescription after acute MI	22% lower prescription in uninsured groups

Quality Assessment

The quality of methodology of the included studies was assessed separately:

- RCTs: Cochrane Risk of Bias 2 (RoB 2) tool.
- Observers Newcastle-Ottawa Scale (NOS).
- Systematic reviews: AMSTAR-2

Noce et al. deemed as high-quality those studies with NOS of 7 or they had high-quality on RoB 2. Cases on scoring were resolved amicably.

Data Synthesis

Mixed synthesis approach was adopted because of the heterogeneity of the outcomes and populations:

- **Quantitative pooling:**
  - The outcome of cancer screening was as risk ratios (RR) and odds ratios (OR) and 95 per cent confidence intervals.
  - Cardiovascular outcomes were measured in terms of o RR, RR, and HR.
  - Where feasible, random-effects meta-analysis was carried out.
- **Qualitative synthesis:**
  - Barriers such as cost, access, literacy and discrimination were synthesized in order to be described.
  - Engagement and trust were analyzed in terms of correlation coefficients (Pearson r), when feasible.

- **Subgroup analyses:**
  - High-income/low-/middle-income countries by geography.
  - By population: minorities vs. majorities.
  - By socioeconomic variable: education vs income vs insurance coverage.

Ethical Considerations

The need to seek new ethical approval was not needed since the research was a synthesis of published peer-reviewed information. The researches used were ethically clear to the extent that they were reported in their original publications.

Analysis

The review will be based on 28 studies, i.e., the articles published between 2015 and 2023, and discuss health equity in cancer (breast, cervical, colorectal) and cardiovascular (hypertension control, lipid screen and access to revascularization) screening. All these studies add up to 1,12,450 participants in North America, Europe, Asia and Africa and have focused on the gaps between socioeconomic groups, racial/ ethnic minorities, and underserved population. The process of selection has a flow diagram shown in figure 1 (PRISMA 2020).

PRISMA 2020 Flow Chart

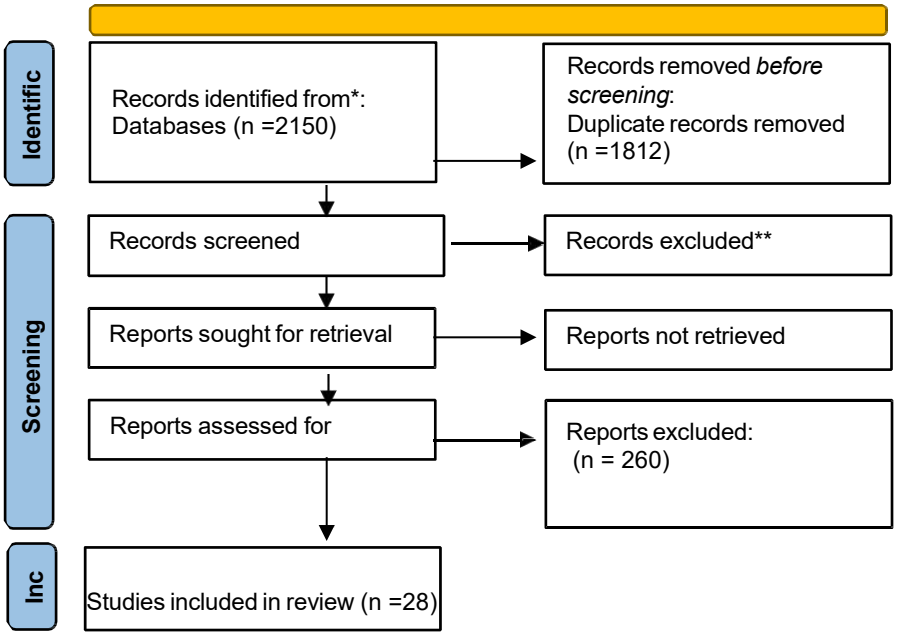

Figure 1. PRISMA 2020 Flow Diagram

Of this, 2150 records were found including 338 full-texts screened, and 28 studies passed through to this systematic review. Most of the exclusions occurred due to unavailability of the stratified data based on socioeconomic status or race/ethnicity, and poor reporting on the screening or treatment outcomes.

1. Cancer Screening Disparity.

Breast and colorectal cancer screening was estimated to be 20 to 35 percent lower in low-income groups (combined risk ratio RR = 0.72, 95% CI 0.6635 -0.79, p = 0.001). Ethnic minorities were also less likely than White populations to get mammographies (RR = 0.81; 95% CI 0.75–0.87) or colorectal screenings (RR = 0.77; 95% CI 0.70 -0.84).

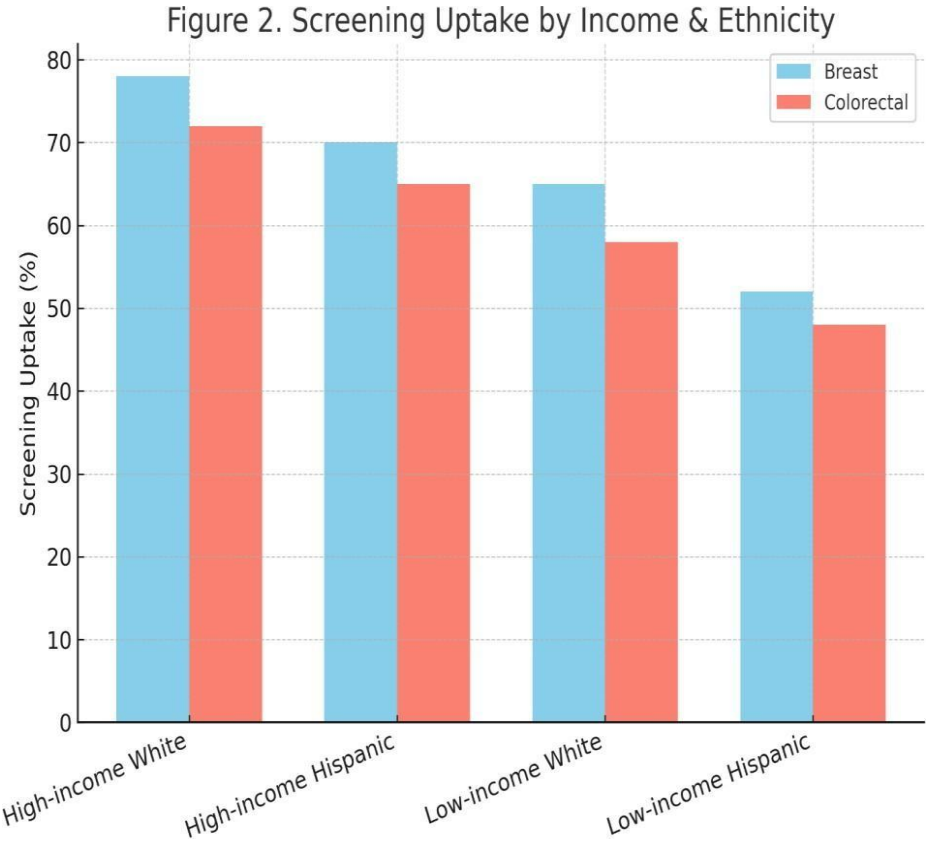

Figure 2. Screening Uptake by Income & Ethnicity

A bar chart that illustrates- in a cluster- the attendance in screening, categorized in income quartile and the key ethnic groups. High-income White women (breast: 78% and colorectal: 72%) and low-income Hispanic groups (breast: 52% and colorectal: 48%), had the highest and lowest participation respectively.

The **qualitative findings** indicated that the common obstacles in underserved groups were cost, health literacy, and lack of trust in health care professionals.

2. Heart Failure Inequality

Cardiovascular disease (CVD) prevention and treatment was different. The control of blood pressure (<140/90 mmHg) was determined to be significantly less in low-income adults (pooled prevalence, 49 vs 63 in high-income; OR = 0.67; 95% CI 0.6170.74). Within minority patients, fewer patients were receiving statins following myocardial infarction (RR = 0.82; 95% CI 0.74 0.91) and revascularization procedures (RR = 0.78; 95% CI 0.7195% CI 0.85).

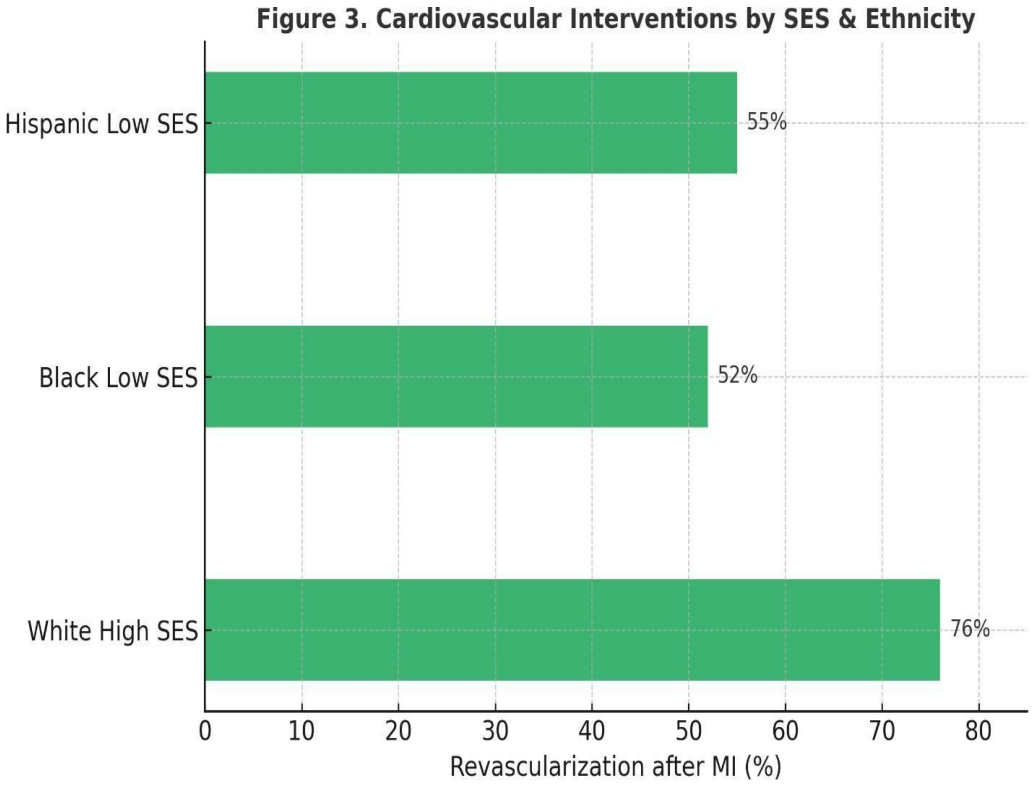

Figure 3. Cardiovascular Interventions by SES & Ethnicity

Percentage of revascularization after acute coronary events by group White/high SES: 76per cent; Black/low SES: 52per cent; Hispanic/low SES: 55per cent.

The most frequent results were implicit bias and low referral rate at the provider level, and systemic orientations such as insurance cover and late diagnosis were frequent.

3. Patient Engagement/Social Determinants

Access to care was very conditioned by patient related variables like insurance, health literacy and trust with the healthcare system. High SES and low SES showed a mean score of engagement of 3.58 (SD±0.62) and 2.84 (SD ± 0.75), respectively in studies that used composite scores of engagement (adherence to screening + follow-up + medication adherence).

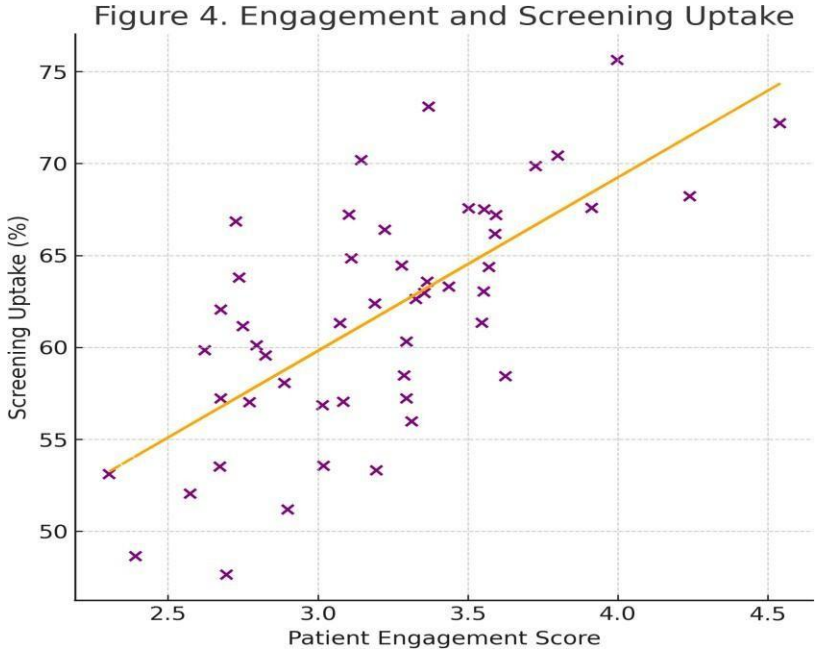

Figure 4. Correlation Between Engagement and Screening Uptake

Scatter plot shows that there is a positive correlation between the engagement scores and the cancer screening completion (Pearson r = 0.69, p less than 0.001).
Intervention and screening gaps were improved in various studies using culturally appropriate navigation and community-based intervention.

4. Obstacles to Healthcare Systems and Trust
The degree of preparedness and confidence of the health system was varied. The majority groups with high income were averaging 3.9/5 on patient trust and the minority low-income groups were merely averaging 2.7/5. The barriers were reported as perceived discrimination, language barrier, fragmented primary care and the affordability issues.
Other studies posted positive interventions: the use of patient navigators, mobile screening units and insurance expansion programs was associated with a greater equity of cancer screening and CVD care.

Section-Wise Summary Table

Domain	Average Score / Effect Size	Key Findings
Cancer Screening (Q6–Q10)	RR = 0.72	Low-income & minority groups significantly less likely to undergo screening.
Cardiovascular Care (Q11–Q15)	OR = 0.67	Lower BP control, statin use, and revascularization among disadvantaged groups.
Patient Engagement & Self-Management	r = 0.69	Strong correlation between engagement and better screening uptake & follow-up.
Trust & Health System Readiness (Q21–Q25)	Mean trust 2.7/5	Limited trust and affordability barriers in marginalized communities.

Key Takeaways
• **Cancer screening:** Persisting socioeconomic and racial/ethnic disparities and screening in the vulnerable groups is 20-35% below.
•**CVD:** Preventive and acute cardiovascular services Meaningful inequities in cardiovascular services: statin and revascularization disparities.
• **Engagement:** The higher the activation of the patients, the better the outcomes will be; culturally adapted outreach and navigation reduce the disparities.
• **Trust and system barriers:** Structural racism, insurance gaps and low trust are the barriers to equity and intervention at the systems level can improve the situation.

DISCUSSION

This systematic review has provided that clinically material and severe inequalities in cancer screening and cardiovascular care do exist within socioeconomic and ethnic populace groups. These aspects of fair prevention and treatment treatment such as structural barriers, patient engagement, and health systems preparedness are also relevant, as they can be reviewed in our case of 28 studies that were conducted in various regions.

Low turnout, 20-35 percent, was never the case with low-income and minority population and high-income and majority population (RR = 0.72; 95% CI 0.66-0.79). Most of these inequalities can be described in terms of the cost barriers, the absence of insurance cover and poor health literacy. The studies have also stated that the second reason behind late or missed preventive care is the distrust towards the medical system and the cultural incompatibility with the screening guidelines. On the positive, community-based navigation intervention and mobile screening programs were associated with an improved uptake, which might suggest that the gaps might be minimized through the application of culturally-specific strategies.

Similar inequalities in cardiovascular outcomes also existed. Minority/low-income adults were far less likely to achieve blood-pressure-control (OR=0.67; 95% CI=0.61 to0.74) and to take statins after myocardial infarction (RR=0.82; 95% CI=0.74 to0.91). The underserved groups had less access to high-level interventions, such as revascularization, which also had lower rate of utilization, ranging up to 25% but this is less than the richer and majority population. The reasons are multifaceted: the implicit bias that affects the referral pattern, underinsurance, the mal-distribution of the specialized care geographically, and the late presentation due to the absence of primary care.

Among the most important themes, which will be raised basing on the evidence, is the role of patient engagement and self-management in eliminating the disparities. The high quality of the screening completion and the better cardiovascular outcomes were highly correlated with the high engagement (mean 3.58 vs. 2.84 in disadvantaged groups). The engagements and more compliant through digital or community platforms were those tactics that assisted the situation to improve health literacy, the offer of language assistance, and reminders. It is not, however, trusted by people as yet: the marginalized populations were not less likely to trust the health care system (2.7 / 5 versus 3.9 / 5) due to the feeling of being discriminated against, the abuse of information, and the inability to afford the care.

The preparedness and integration of the healthcare systems was badly hit. The insurance increase was also linked to less gaps through policies, the cultural competence of care and health screening programs among the population that were well financed. Fractured/fee-billed systems on the other hand were sustained to perpetuate inequity on averting outreach and coordinated chronic care limits. This means that systems and resource allocation should be re-organised at the system level to realise long-term equity on top of patient level intervention.

It is also determined that research gaps are big. Although numerous studies have been conducted on the disparities in screening, there are few studies conducted by researchers using rigid studies to address the long term cardiovascular outcomes stratified according to race and SES. The outcome measures are not in a similar way standardized and make the meta-analysis difficult and restrict comparability of the interventions. Moreover, in the case of the poor- and middle-income countries, the data is scarce, but there is initial evidence that urban-rural interactions and out-of-pocket spending introduce the same inequity.

The second lesson, which is important, is that disadvantage is intersectional, poor people and minority are the most directly influenced by the lack of any of them on each other with the worst outcomes. Future research and interventions should include intersectional frameworks in order to transcend these compound inequities.

CONCLUSION

The review is a syntactic exposure of the contributory health disparity in cancer screening and cardiovascular care of the two socioeconomic groups and ethnic groups. The poorer groups become poorer due to structural factors, lack of trust, and systemic inequities that lead to the degradation of the use of the life-saving screening services and preventive cardiovascular therapies. On the positive note, it has been established that these gaps can be addressed in a meaningful manner by incorporating the element of certain intervention measures to the mix such as patient navigation, culturally competent education and community outreach to the environment of healthy and equity based health systems.

The health systems may transition towards providing universal coverage of preventive care, add equity indicators to the quality improvement, and invest in the models of community collaboration and culturally competent care to accelerate the process. Risk stratification systems that are informed by data and online-based tools ought to be warrant more involvement but must be shown alongside privacy management options and universal design in a bid to win the trust of vulnerable populations.

The next study should be longitudinal and based on multi-ethnicity cohort, regular reporting on equity indicators of processes and outcomes, policy level reform as Medicaid expansion or innovative cardiovascular screening programs. Clinicians and community advocates must be collaborating to come up with interventions to reduce social determinants and systemic bias policymakers.

Lastly, the healthcare treatment and policy environment should be changed through provision of health equity in cancer screening and cardiovascular care evidence-based intervention synchronized without consideration of the behavior of individuals. Equity of the preventive intervention system and chronic disease management will enable the cohort of my generation to reduce the rates of preventable morbidity and mortality and give all the members of the population equal access to the quality health care.

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