

Implementation of a Social Determinants of Health Assessment Tool for Adult Cancer Patients

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Introduction

Research is clear that social determinant of health (SDOH) inequities have a negative impact on health outcomes of adult cancer patients. Such inequities may be related to limited access to care, race, geographical location, education level, etc. Routine SDOH screening will identify patients' SDOH needs but such screening needs to be implemented at an appropriate stage of treatment to better influence the ability for patients to afford medications, adhere to treatment plans, and have successful cancer outcomes.

Topic

- Determine if implementation of a screening tool within a case management service line is indicated, given the need to address barriers to receiving and completing care.

Problem

- There is a correlation between cancer outcomes and SDOH inequities
- Identification of and support for addressing SDOH needs will provide more holistic, comprehensive, and effective care which may impact clinical outcomes positively

Practice Setting

National case management service line for outpatient care

Team

Chief of Operations and Clinical Services – Project sponsor
RN Case Managers- Working members
Administrative Assistants - Working members

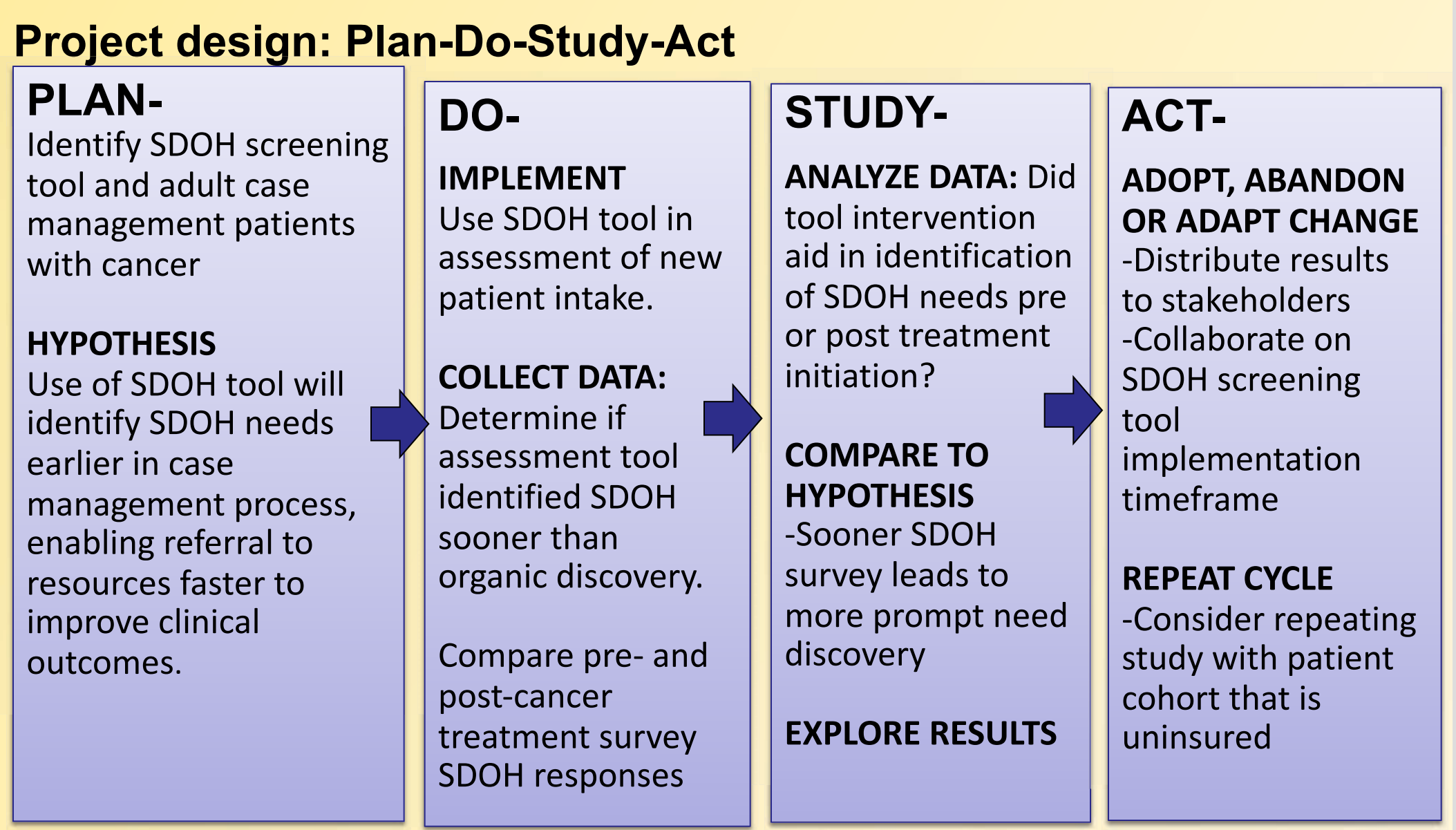
Aim

- To improve identification of SDOH disparities in the initial treatment of adult patients with cancer through the utilization of a SDOH assessment tool from none identified (because this is not currently addressed in the practice setting) to 50% identification over a period of 12 weeks.

Methodology

Project design: Plan-Do-Study-Act Measures

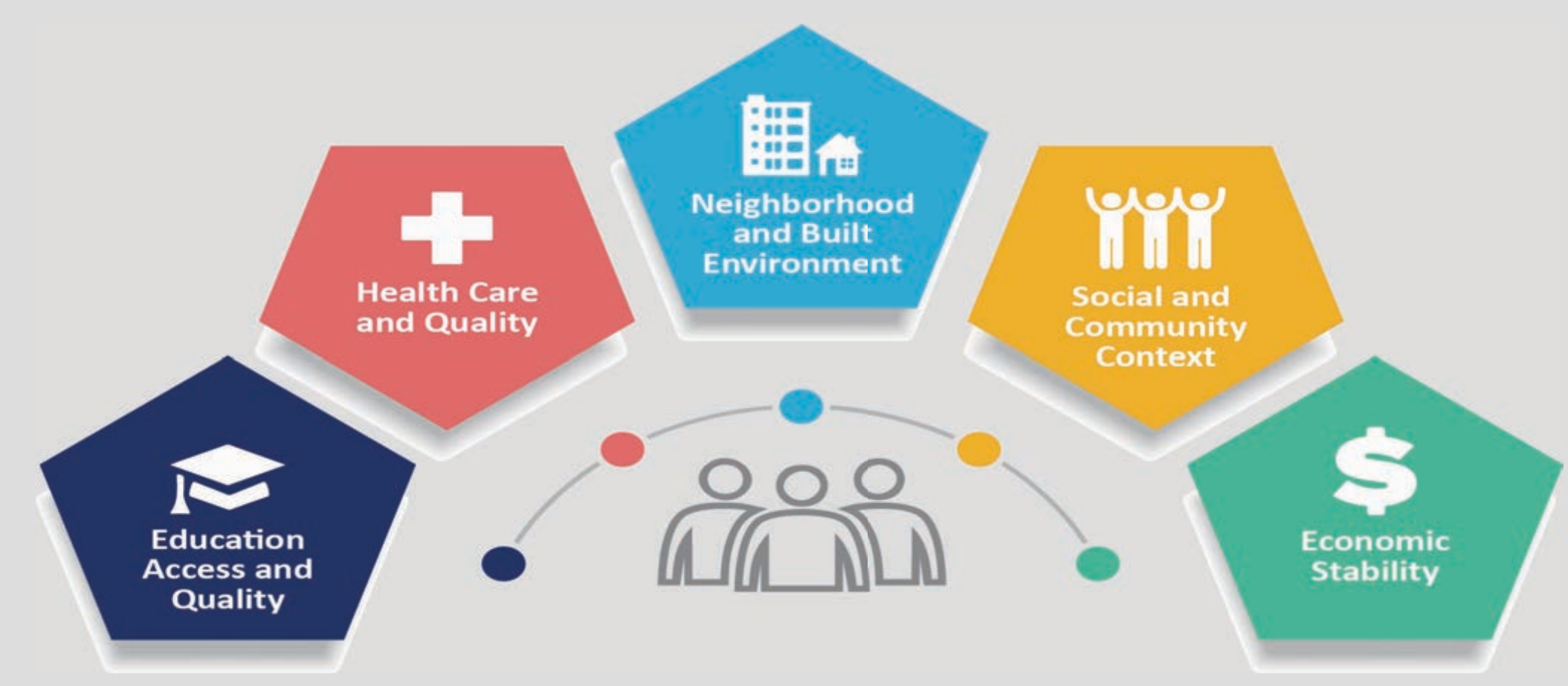
- To better assess specific SDOH needs, patients were assessed using the American Academy of Family Physicians Social Needs Screening Tool via phone call with RN.
- Pre-treatment screening took place within first 1-2 weeks following cancer diagnosis but prior to treatment initiation. Post-treatment screening took place following at least 2 cycles of chemotherapy/radiation treatment initiation.



Figure_1_PDSA Cycle

Results (n = 24)

Baseline Characteristics		
Patient Age	n	%
30-39	3	12
40-49	4	17
50-59	11	46
60-69	5	21
70-79	1	4
Patient Gender		
Female	14	58
Male	10	42
Region of United States Patient Resides in		
Pacific Northwest	17	71
West	5	21
Midwest	2	8
Patient Race		
African American	3	12.5
Caucasian	18	75
Alaska Native	2	8.3
Pacific Islander	1	4.2



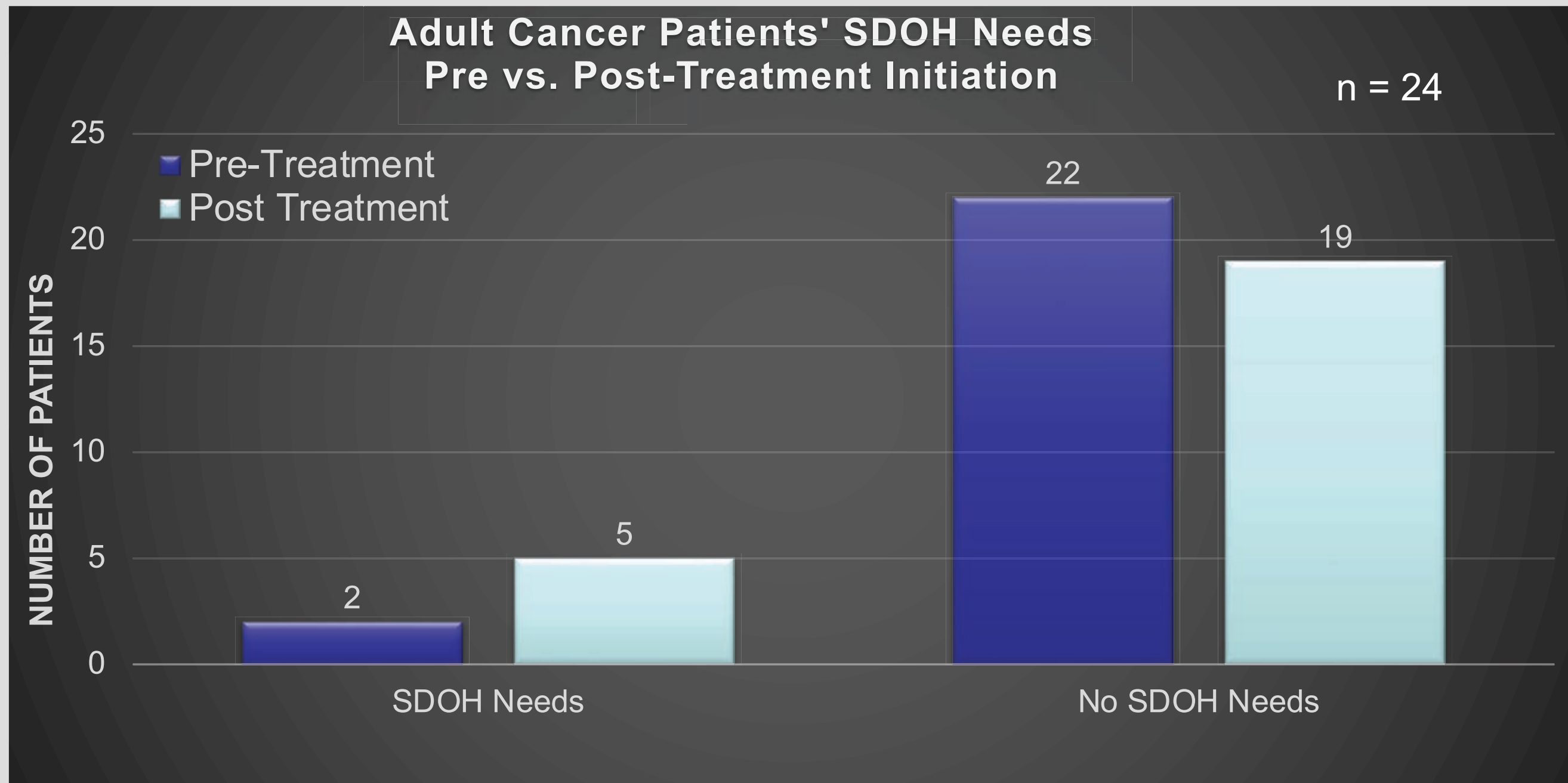
Figure_3_SDOH Variables
Source: CDC: Centers of Disease Control and Prevention. (2022, October 23). *Social determinants of health.* CDC: Centers of Disease Control and Prevention.

Clinical Implications

Results from the study indicate no improvement in identification of SDOH disparities by introduction of a SDOH screening tool at the time of cancer diagnosis in adult patients surveyed. Based upon this finding, a second SDOH screening was performed using the same tool following treatment with chemotherapy, radiation, or both. Initial estimates that the screening tool would identify up to 50% greater needs over a period of 12 weeks, post-screening tool implementation were false. Only 2 of 24 adult cancer patients surveyed identified any SDOH needs at the time of cancer diagnosis.

On the contrary, the screening tool was then introduced following initiation of cancer treatment (at least 8 weeks into treatment). Findings were indicative of an increase in identification of SDOH needs once cancer care had been initiated.

Ongoing SDOH screening evaluations should occur in this practice setting and should include a larger sample size. It would be beneficial to screen patients from fully insured Federal healthcare plans to compare with the cohort of patients on the with self-insured medical coverage through an employer-sponsored plan. This would allow the inclusion of employment scarcity as a SDOH variable.



Figure_2_Pre and Post Treatment Initiation SDOH Screening

Results: A two-tailed Wilcoxon signed rank test revealed that SDOH needs were slightly more readily identified following cancer treatment initiation rather than prior to treatment initiation following a diagnosis of cancer for adult cancer patients with private insurance. The standardized effect size was small (0.17). Participants ranged from 33-79 years old ($M = 58, SD = 15.14$).

Limitations

- Limitations:**
- Small sample size
 - Limited geographical locations and race representation does not allow for geographic/race specific correlation to SDOH needs
 - Model of SDOH survey chosen does not allow for Likert scale representation
 - Non-in person assessment may decrease rapport and trust of respondents
 - No control for confounding variables: family support, SSDI, social work intervention, use of National Cancer Compendium Network (NCCN) guideline care, and any associated disproportionate prevalence of cancer in populations with more SDOH needs

Recommendations

- Areas for further research:**
- Study whether NCCN supported care changes the outcome of SDOH needs (making needs greater due to clinical trials?)
 - Study affects of SDOH survey within non-insured patient populations of adult cancer patients
 - Study affects of SDOH screening tool in pediatric cancer patients with and without insurance

