



# Screening for Social Determinants of Health Among Medicare Beneficiaries in Primary Care During the Covid-19 Pandemic in Prince George's County, Maryland

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## Abstract

Primary care providers in Prince George's County, Maryland reported inconsistencies in their ability to identify and refer patients with social care needs. This project aimed to improve health outcomes of Medicare beneficiaries by implementing social determinant of health (SDOH) screening to identify unmet needs and improve rates of referral to appropriate services. Buy-in was achieved from providers and frontline staff via stakeholder meetings at a private primary care group practice. The *Health Leads* questionnaire was modified and integrated into the electronic health record. Medical assistants (MA) were trained to conduct screening and initiate care plan referrals prior to visits with the medical provider. During implementation, 96.25% of patients (n=231) agreed to screening. Of these, 13.42% (n=31) screened positive for at least one SDOH need, and 48.39% (n=15) reported multiple social needs. Top needs included social isolation (26.23%), literacy (16.39%), and financial concerns (14.75%). All patients screening positive for one or more social needs were provided referral resources. Patients who identified as being of Mixed or Other race had significantly higher rates of positive screens ( $p=0.032$ ) compared to Caucasians, African Americans, and Asians. Patients were more likely to report SDOH needs during in-person visits (17.22%) compared to telehealth visits ( $p=0.020$ ). Screening for SDOH needs is feasible and sustainable and can improve the identification of SDOH needs and resource referrals. A limitation of this project was the lack of follow-up to determine whether patients with positive SDOH screens had been successfully linked to resources after initial referral.

**Keywords** Social determinants of health (SDOH) · Screening · Medicare Beneficiaries · Primary Care · Covid-19 Pandemic · Quality Improvement

## Introduction

An estimated 80% of the variation in healthcare outcomes is attributable to social determinants of health (SDOH), while traditional clinical care only accounts for 20% [1]. The World Health Organization (WHO), the Institute of Medicine, and

the Centers for Disease Control and Prevention recommend the implementation of evidence-based SDOH screening tools [2, 3]. The WHO defines SDOH as the conditions in which “people are born, grow, work, live, and age, as well as the set of forces and systems that shape daily life” [3]. Screening for SDOH consists of assessing an individual's unmet social needs, such as food supply, financial strains, housing status, and social support [4]. Increased SDOH needs are associated with increased emergency department utilization ( $p<0.0001$ ), frequent “no shows”  $p<0.0001$ , and greater likelihood of depression ( $p<0.0001$ ), diabetes ( $p>0.0001$ ), and hypertension ( $p=0.002$ ) [5]. Screening and referral for SDOH needs decrease unnecessary hospital utilization and promote better health outcomes by improving the management of acute and chronic diseases [6].

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Social isolation, financial concerns, and food insecurity needs were the most common patient needs identified by staff at the primary care practice where this project was implemented. Among all Medicare beneficiaries at this practice, 35% are dually eligible for Medicaid, compared to 14% for the state. Social needs reported by patients were expected to increase with COVID-19, which caused increased unemployment and financially unstable markets. By implementing social needs screening into clinical care, the intended effect was that all patients who were positive for social needs would receive referrals to comprehensive resources. The purpose of this quality improvement (QI) project was to improve rates of identifying and addressing social needs among Medicare patients by implementing a modified *Health Leads* SDOH screening, and by training office staff on how to appropriately respond to positive screens using a resource database to link patients to appropriate services.

**Evidence Review and Appraisal.** An evidence search was conducted using the Health Science and Human Services Library's OneSearch engine, which contains CINAHL, MEDLINE, PubMed, and numerous other databases. Six articles were selected for review and appraisal [5–10]. The review provided a synthesis of evidence supporting screening for SDOH with a standardized SDOH screening questionnaire in the outpatient adult population and a description of how SDOH influence health outcomes. The quality of research evidence was determined using Melnyk and Fineout-Overholt's level of evidence rating system and Newhouse's quality of evidence rating system [11, 12].

All appraised studies utilized a standardized screening tool to assess for SDOH among an adult population in primary care that was completed by the patient independently or by supplemental staff other than the primary care provider (PCP). Four studies [5–7, 9] utilized the *Health Leads* questionnaire, which is written at a fourth-grade reading level, has face validity, and has been reviewed by experts. Additionally, the *Health Leads* has been recognized for use in the Maryland Primary Care Program [7]. Broad convenience sampling was utilized for all studies except for the Schickedanz et al. study, which used stratified sampling and selected the highest risk patients for their study [6].

All studies offered linkage to services for patients with positive screens. Pladsen [10] offered one-time referrals to resources, while all other studies offered the option for additional follow-up by trained personnel. Post screening resources were provided on paper [10] or via a completely automated electronic method [8]. Berkowitz et al. conducted a retrospective cohort study that screened for SDOH with the *Health Leads* questionnaire at three primary care practices. Patients that received the *Health Leads* had a greater reduction in diastolic and systolic blood pressure

and low-density lipoprotein cholesterol [7]. Schickedanz et al. [6] conducted a prospective quasi-experimental cohort study at Kaiser Integrated Health System, in which 53% of patients screened positive for SDOH needs, yet only 10% were able to be connected to resources by staff. The study found that addressing identified social needs led to a 2.2% decrease in total health care visit utilization.

All studies determined that screening for SDOH and offering linkages to social services is feasible and leads to improved health outcomes. Berkowitz et al., [1, 2] and Schickedanz et al. [6] reported potential long-term benefits to a patient's physiological health, including reductions in blood pressure, cholesterol levels, hospital utilization, and health care costs. Therefore, the evidence was in favor of screening for SDOH, using a standardized screening tool. The *Health Leads* questionnaire was chosen for use in this project due to its face validity, short duration of time in screening, and low literacy requirements.

## Theoretical Framework

The project was informed by the World Health Organization (WHO) conceptual framework for SDOH [13] which outlines that there are key structural determinants of SDOH (socioeconomic and political context), that leads to intermediary determinants of health (material circumstances, behaviors, and psychosocial factors) that then has an impact on equity in health and well-being of an individual. The main concepts of the framework demonstrate how social, economic, and political environments lead to a set of socioeconomic positions such as income, education, occupation) that influence one's determinants of health status by placing people at a certain social status that then leads them more vulnerable to sickness.

Implementation was guided by the framework for complex innovations [14] which proposed that management support and innovation values fit were key factors in the organization's readiness for change. The four main concepts leading to implementation effectiveness include management support, financial resource availability, innovation values fit, and change champions. The practice where this project was implemented participates in the Maryland Primary Care Program (MDPCP) funded by Centers for Medicare and Medicaid (CMS) and therefore is required to conduct SDOH screening [15]. This requirement served as a strong motivator for preparing for the upcoming practice change; it reinforced the innovation values fit as well as provided financial incentives for implementation.

Screening selection, procedures, and policies were developed and presented to staff to obtain buy-in. The medical director and the office manager provided management support and served as key champions that inspired staff. The

champions promoted the change, implementation barriers were addressed, tracking of adherence to the protocol and there was incentive to ensure sustainability. This practice change will help to improve quality of care and patient health outcomes.

## Methods

The project took place over 15 weeks at a suburban and privately-owned primary care practice in Prince George's County, Maryland. It was implemented by seven medical assistants, five primary care providers (PCPs), and the office manager, under the guidance of a doctorally-prepared nurse from a nearby university. Buy-in was achieved via stakeholder meetings held with healthcare providers, the office manager, and other frontline staff.

### Pre-Implementation Phase

Prior to project implementation, there were no procedures in place for standardized SDOH screening or follow-up, although the PCPs would find resources for patients on a case-by-case basis if the patient brought up concerns during office visits. Pre-implementation (baseline) data were captured during Weeks 1–3 of the project. The office manager extracted information from the electronic medical record (EMR) for calculation of weekly percentages of Medicare patients who self-identified social needs (prior to implementation of the screening process), and/or had documented referrals for SDOH (housing, food, transportation, etc.) in their care plan.

Training for screening and care plan follow up was provided to MAs that work with PCPs in the practice. Initial training sessions were provided during the baseline phase and were repeated for new staff. The staff training was conducted using the gradual release of responsibility (“I Do, We Do, You Do”) framework to ensure competency and fidelity [16]. This model involved providing the MA with direct and guided instruction and then had the office manager sign off on their competence when they could properly perform screening and independently conduct referrals. Educational fliers were developed and displayed in the clinic to ensure that patients were aware that a screening initiative was being conducted.

### Implementation Phase

Implementation strategies and tactics included using small cyclical tests of change, providing training sessions, posting educational flyers, and providing weekly progress reports. During the implementation phase (Weeks 4 to 15), all

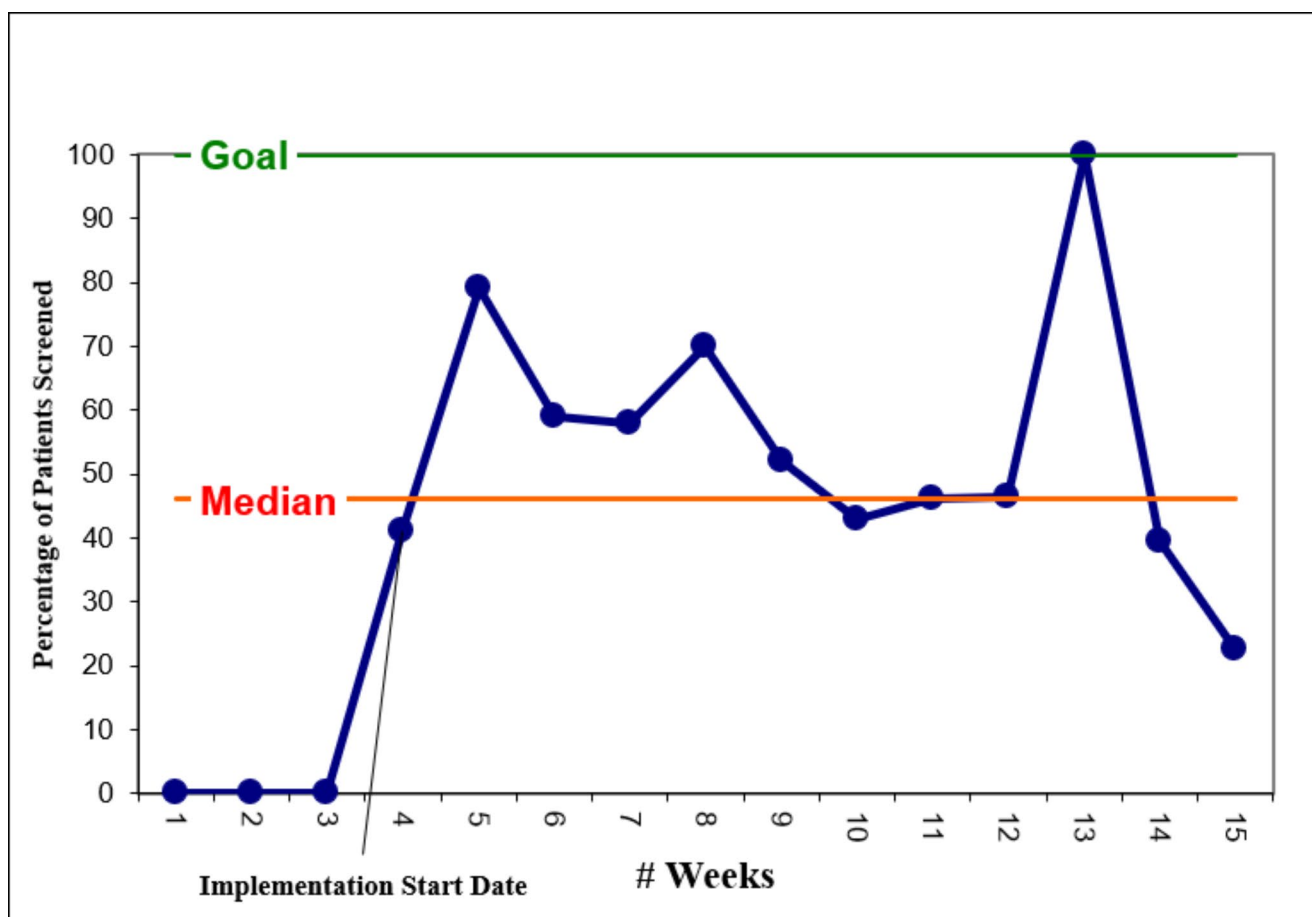
Medicare beneficiaries (predominantly those over 65 years of age or persons with disabilities) were offered screening. All Medicare beneficiaries that received telehealth or in office visits were eligible for screening unless they chose to opt out. Upon patients checking in for their appointments, and before they were examined by the provider, the MA conducted the SDOH screens, using a modified version of the *Health Leads* questionnaire. *Health Leads* is under Creative Commons license that allows free use and adaptation [17]. All original *Health Leads* questions were utilized in the screening except for the question about access to child-care because the target population was Medicare patients who likely had no school age children. For continuity of care, the PCPs discussed results of the SDOH screen with patients, and incorporated screening results and resource referrals into the approved patient care plan in the EMR. Referrals were made for identified social needs such as transportation, food, and social isolation. A one-page hand-out of vetted resources was provided to each patient that screened positive for one or more SDOH needs.

### Data Analyses

The MAs entered screening results in the EMR daily, per usual office protocol. The office manager queried the EMR, extracted client-level data from the EMR based on the date of service, removed identifiers, and submitted a secure file with the de-identified data to the project lead on a weekly basis. The project lead entered the de-identified data into Microsoft Excel for statistical analyses and prepared weekly feedback reports. Run charts captured as process measures were the percentage of Medicare beneficiaries screened per week (Fig. 1) and weekly percentages of beneficiaries who screened positive for at least one SDOH need (Fig. 2). Run charts were also utilized for frequent feedback to motivate staff to continuously improve screening rates. More frequent check-ins with MAs were provided to improve adherence when screening rates dropped in week 6.

Baseline data included self-identified social needs and referrals documented in the care plan. Implementation data included responses to the *Health Leads* questions and referrals made. Descriptive information for both time periods included gender, age, race, and Medicaid dual enrollment (Yes/No). Structural measures included the incorporation of the SDOH screen in the EMR, staff training materials, and educational fliers for patients. Outcome measures included the percent of beneficiaries with positive SDOH screens who received referrals to social needs agencies. Descriptive statistics based on anonymous data were calculated (Table 1).

The proposal for this QI project was reviewed by the University of Maryland Human Research Protection Office



**Fig. 1** Percentage of Medicare Patients Screened Weekly (N=231)  
*Note.* Last two weeks of implementation was affected by staff shortages due to COVID-19  
 Accessibility Caption for Fig. 1. Image of a Run Chart (line graph) indicating the weekly percentage of Medicare patients screened for SDOH. Weeks 1–3 (Baseline) show no standardized SDOH screens were implemented during the Pre-implementation Phase. Screening

implementation started in Week 4 and continued through Week 15. The percent of patients screened per week ranged from just above 40% in Week 4 to 100% in Week 13. There were two peaks (80% in Week 5; 100% in Week 13). During Weeks 14 and 15, the rates dropped to 40% and 20% respectively, due to COVID-19 related staff shortages, bringing the median rate for Weeks 4–15 to 46% overall.

(HPRO) and received a Non-Human Subjects Research (NHSR) designation. For patient protections, all digital information was stored on a password protected computer. To ensure patient privacy, the project lead had no access to the EMR or other protected health information. Patient participation was voluntary and there was no denial of services or other ramifications for patients who declined to be screened.

## Results

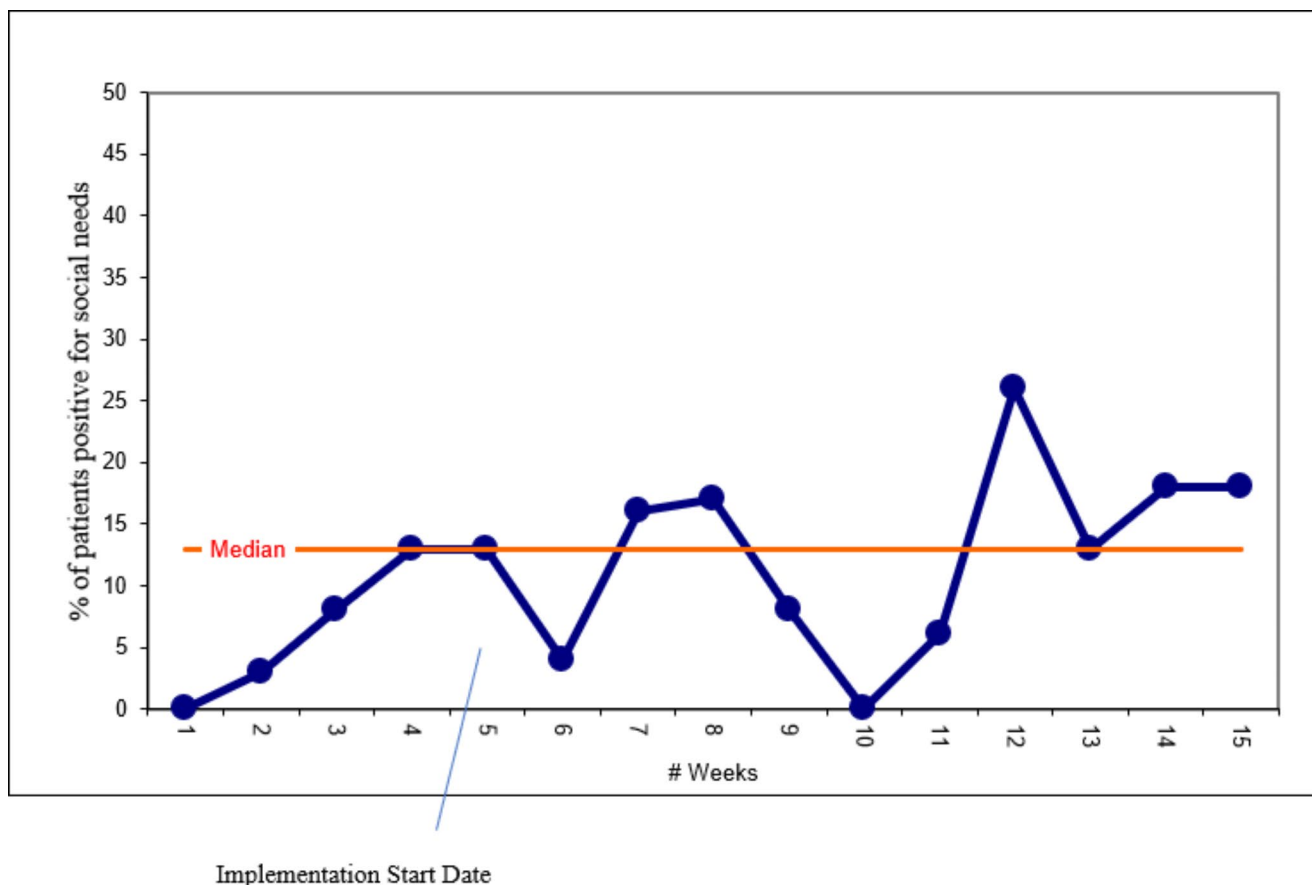
### Patient Screening Results

The project was implemented over 15 weeks between September and December 2020. During baseline data collection phase (Weeks 1–3), no structured SDOH screenings were

offered, yet four patients self-reported their multiple SDOH needs to their PCP and were referred to community-based programs.

Throughout the 12 weeks of implementation (Weeks 4–15), 240 patients were offered screening for SDOH needs, and 231 (96.25%) consented to the screening. The majority of patients that were screened were female (71.25%), above 65 years of age (85.42%), and not Medicaid dual eligible (88.33%).

Of patients that were screened, 13.42% (n=31) screened positive for at least one SDOH need (Table 2). Of the 31 patients with positive screens, 48.39% (n=15) reported multiple social needs (two or more needs). The top SDOH needs identified were social isolation (52%, n=16), literacy (32%, n=10), financial concerns (29%, n=9), safety (26%, n=8), transportation (23%, n=7), food (19%, n=6),



**Fig. 2** Percentage of Patients Screening Positive Weekly (N=31)  
 Accessibility Caption for Fig. 2. Image of a Run Chart (line graph) indicating the weekly percentage of Medicare patients with positive SDOH screens. Weeks 1–3 (Baseline) show positivity rates of zero to 10%, as some patients self-identified as having an SDOH concern

utilities (10%, n=3), and housing (6%, n=2). Of 31 patients with positive screens, 100% received referral resources.

Of the 31 patients with positive SDOH screens, 26 (83.87%) were identified during in-person visits, compared to five (16.13%) who were identified during telehealth visits. Compared to those with negative screens, patients with positive screens were more likely to be identified during in-person visits (17.22%, n=26 of 151) rather than during telehealth visits (6.25%, n=5 of 80);  $\chi^2$  (df=1, N=231)=5.4148,  $p=0.020$ .

Identification of SDOH need was not associated with gender ( $p=0.714$ ), age ( $p=0.061$ ) or Medicaid dual eligibility ( $p=0.708$ ). However, having one or more SDOH needs was significantly associated with race (Table 2). Patients who identified as being of Mixed or Other race (n=4, 36.36%) had significantly higher rates of positive screens ( $\chi^2$  [df=3, N=231]=8.828,  $p=0.032$ ), compared to Caucasians (n=13, 16.36%), African Americans (n=12, 12.77%), and Asians (n=2, 4.35%).

before standardized screening commenced in Week 4. During week 4–15 implementation, positive screening rates ranged from 0–26%. There was a median at 12.5%, with the rate peaking at 26% during week 12.

**Staff Screening Rates**

The practice had 388 unique patient visits by Medicare beneficiaries over the entire 15-week project; 240 of these patients were screened for SDOH needs (61.86%). Weekly screening rates ranged from 0% at baseline to a high of 100% during week 13 (mean=43.74; SD=23.07; median=46.00). In weeks 14 and 15, rates of screening decreased below the median rate (Fig. 1). Anecdotal reports from the MAs revealed that some reasons for not screening included having a documented screen already on file from a previous visit (the protocol planned for SDOH screening only once per year), or understaffing combined with increased patient volume (the project was implemented at the peak of the COVID-19 pandemic). However, no quantitative data were captured for confirmation of these reports.

**Table 1** Demographic Characteristics of Medicare Beneficiaries Offered Screening for Social Determinants of Health (N=240)

|                          | Num-ber (n) | Per-cent (%) | Range | Mean (Standard Deviation) |
|--------------------------|-------------|--------------|-------|---------------------------|
| Age (years)              | ---         | ---          | 22–97 | 72 (10.27)                |
| ≥ 65                     | 205         | 85.42        | ---   | ---                       |
| < 65                     | 35          | 14.58        | ---   | ---                       |
| Gender                   |             |              |       |                           |
| Male                     | 69          | 28.75        | ---   | ---                       |
| Female                   | 171         | 71.25        | ---   | ---                       |
| Medicaid Dual Enrollment |             |              |       |                           |
| Yes                      | 28          | 11.67        | ---   | ---                       |
| No                       | 212         | 88.33        | ---   | ---                       |
| Visit Type               |             |              |       |                           |
| Telehealth               | 80          | 33.33        | ---   | ---                       |
| In-Person                | 160         | 66.67        | ---   | ---                       |
| Race                     |             |              |       |                           |
| Caucasian                | 85          | 35.42        | ---   | ---                       |
| African American         | 97          | 40.41        | ---   | ---                       |
| Asian                    | 46          | 19.17        | ---   | ---                       |
| Other/Mixed Race         | 12          | 5.00         | ---   | ---                       |

*Accessibility Caption for Table 1.* Table 1 describes demographic characteristics of Medicare beneficiaries offered SDOH Screening during the implementation phase (Weeks 4–15). The table shows that 85.42% of patients were above age 65; 71.25% of patients were female; 88.33% of patients were not Medicaid dual eligible; 66.67% of visits were conducted in person. In terms of race, 40.41% of patients were African American, followed by 35.42% Caucasian, 19.17% Asian, and 5% Other/Mixed Race

## Discussion

Screening for SDOH needs among Medicare patients was successfully incorporated into this primary care group practice setting during implementation of this QI initiative. Since the conclusion of this pilot project, SDOH screening has been expanded to all populations at the site, and to an additional practice site as well. The project was able to sustain universal SDOH screening by utilizing a standardized screening instrument, embedding the screening process in the EMR, educating and engaging providers and staff, frequently monitoring data, and developing processes and resources for community-based referrals.

In this project, identification of SDOH need was significantly associated with race, supporting current literature that race plays a factor in whether someone experiences one or more SDOH needs. Current literature links race with different levels of insurance access and median income [18]. Racial and ethnic minorities are more likely to have reduced healthcare access, and the spread of Covid-19 has highlighted those disparities [19]. People in racial minority groups are also disproportionately affected by COVID-19 [20]. This paper found that persons with Mixed or Other race

**Table 2** Associations between Demographic Variables and Screening Results

|                        | # Positive Screen (Row %) N=31 | # Negative Screen (Row %) N=200 | Total # Screened N=231 | p-value |
|------------------------|--------------------------------|---------------------------------|------------------------|---------|
| Age                    |                                |                                 |                        | 0.061   |
| ≥ 65                   | 23 (11.68)                     | 174 (88.32)                     | 197                    | ---     |
| < 65                   | 8 (23.53)                      | 26 (76.47)                      | 34                     | ---     |
| Gender                 |                                |                                 |                        | 0.714   |
| Male                   | 8 (12.12)                      | 58 (87.88)                      | 66                     | ---     |
| Female                 | 23 (13.94)                     | 142 (86.06)                     | 165                    | ---     |
| Medicaid Dual Eligible |                                |                                 |                        | 0.708   |
| Yes                    | 3 (11.11)                      | 24 (88.89)                      | 27                     | ---     |
| No                     | 28 (13.73)                     | 176 (86.27)                     | 204                    | ---     |
| Visit Type             |                                |                                 |                        | 0.020*  |
| Telehealth             | 5 (6.25)                       | 75 (93.75)                      | 80                     | ---     |
| In-Person              | 26 (17.22)                     | 125 (82.78)                     | 151                    | ---     |
| Race                   |                                |                                 |                        | 0.032*  |
| Caucasian              | 13 (16.25)                     | 67 (83.75)                      | 80                     | ---     |
| African American       | 12 (12.77)                     | 82 (87.23)                      | 94                     | ---     |
| Asian                  | 2 (4.35)                       | 44 (95.65)                      | 46                     | ---     |
| Other/Mixed            | 4 (36.36)                      | 7 (63.63)                       | 11                     | ---     |

**Note:** \*Significance  $p < 0.05$ ; analyses conducted using chi-square statistics

*Accessibility Caption for Table 2.* Table 2 describes demographic characteristics of screened patients as they correlate with screening results (positive and negative). Visit type and race both had significant p values  $< 0.05$

had an increased likelihood of having unmet SDOH needs compared to Caucasians, African Americans, and Asians. Additional epidemiological research about the relationships between race/ethnicity and rates of positive SDOH screening results is needed.

Almost half of patients with a positive SDOH screen reported more than one need, suggesting that SDOH concerns can overlap and co-occur and amplify each other, like co-occurring medical and behavioral health disorders. The top identified SDOH need was social isolation (52%), which, during this project timeframe, aligned with COVID-19 quarantine requirements. Social isolation can be linked to higher risk of mortality [21]. Lack of transportation is also an indicator of wellbeing because it can also create barriers to other medical services, access to food, and job prospects [22].

The fact that Medicaid dual eligible patients were not significantly associated with a positive SDOH screen could indicate that patients on Medicaid are well connected with existing resources and the SDOH needs they may have had were already being fulfilled. In future studies, assessing whether patients have already received resources for SDOH

through another resource may provide meaningful information regarding SDOH gaps that may have already been met at the time of screening.

The finding that more patients had a positive SDOH screen or reported more SDOH needs during in-person visits compared to telehealth visits has not been well studied in the existing literature. While Livet et al. conducted a pilot study involving telehealth screening for SDOH [23], no known studies have examined the differences in SDOH screening between in-person and telehealth visits. It is possible that patients with access to computer or smartphone technology for telehealth, either through their own equipment or that of a friend or family member, may have more support and fewer SDOH needs. Choi, et al. [24] evaluated Survey of the National Health and Aging Trend Study data and found that telehealth use increased to 21.1% during the COVID-19 pandemic, compared to 4.6% pre-pandemic. Logistic regression models demonstrated that older age and lower income were negatively associated with telehealth use, while having an interconnected device (cell phone, computer, tablet), online shopping experience, and the ability to learn a new program were associated with an increased use of telehealth [24]. Therefore, in our QI project, those that had access to technology may have felt less isolated and more supported during the pandemic compared with people who came for in-person office visits.

### Facilitators and Barriers

During an informal focus group prior to implementation, MAs and PCPs indicated that they recognized that the practice had inadequate screening and follow up for SDOH needs; this helped to facilitate their motivation to implement SDOH screening. After implementation, this primary care practice achieved an Advanced Practice Maryland Primary Care designation due to their successful efforts to implement SDOH screening. The team found that the practice change was practical, feasible, and sustainable, largely because the *Health Leads* questionnaire was implemented into the EMR at no cost. Staff provided feedback that patients appreciated the resources given to them.

Rates of screening varied from week to week based on staffing and patient volume. Barriers encountered by staff were related to their challenges in fitting the screening and referral process into their workflow on busy days, especially during the surge of COVID-19 patients. While the SDOH screening only took about three minutes, other screenings like medication reconciliation, alcohol, smoking, diet, vital signs, and review of system questions could take up to 10 min of screening time. During sick visits that may only be scheduled for 20 min total, there was pressure to quickly get the patient ready to see the provider. Other

barriers included staff turnover. Two MA were brought on board during the implementation period, and they had to be trained, so there were some gaps in screening during those weeks. Furthermore, while a one pager resource guide was developed for this project for patient referrals, it was cumbersome for the resource guide to be continually updated as time went on.

### Limitations

This project focused on improving clinical practice through implementation of an evidence-based screening process under real-life conditions; it was not intended to be primary experimental research aiming to isolate the effect of certain variables on specific outcomes. Therefore, as universal, systematic SDOH screening was new to this practice, there were no comparison data for SDOH need prior to implementation of screening efforts. While data were collected on a small number of patients, this was a small group practice, and all patients participating in the Medicare insurance program were offered the intervention.

The project was implemented during the peak of the COVID-19 pandemic, but no pre-pandemic SDOH need data were available for comparison of SDOH positivity rates prior to vs. during the pandemic. Some patients may have felt more comfortable talking about their SDOH needs with their medical provider than they did with the MA. Anecdotally, a small but unknown number of patients screened negative on the *Health Leads* questionnaire with the MA prior to the medical visit, but revealed having one or more social needs before the visit was over with their provider.

Future implementation projects should attempt to capture information about SDOH needs identified outside the formal screening process (e.g., self-report or notification by family or other providers). Additionally, it is recommended that primary care practices planning future implementation of any screening project should attempt to capture quantitative information about reasons for missed screens if feasible.

### Conclusions

Patients were overwhelmingly willing to be screened for SDOH, and anecdotally, they appreciated the resources provided. Point-of-care screening for SDOH during a health care provider visit is feasible and can increase detection of SDOH needs and referrals to community resources. SDOH screening by trusted providers in convenient locations where patients frequently visit helps to decrease stigma, improve access to services, reduce inequities, and improve health outcomes. Future development includes plans to implement the SDOH screening questionnaire in other locations and

measure long term goals and impacts of SDOH on health outcomes such as blood pressure or diabetes. Additional research on how SDOH is impacted by race and method of in-person versus telehealth formats is indicated.

To maintain their Advanced Practice Maryland Primary Care designation, this practice will continue to sustain SDOH screening and spread it to other locations. Implementing International Classification of Disease (ICD) codes related to SDOH needs will also improve monitoring/follow-up and support eventual reimbursement from insurance providers for addressing SDOH needs [8]. The future gold standard of primary care will include SDOH screening domains as recommended by the US Preventive Services Task Force [25].

**Data availability** The dataset generated for this project is not publicly available, because it contains only deidentified patient-level data extracted from the patients' medical records, but the data can be made available from the corresponding author based on reasonable request.

## Declarations

Author Wendy J Zhang previously was a consultant with the site where the study took place, but no funding was received to assist with the study or the preparation of this manuscript.

Author Katherine Fornili has no competing interests to disclose.

**Ethical Approval** This study received exemption from the Health Sciences Research Institutional Review Board as a Quality Improvement project.

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