[**COMMENTARY**](https://catalyst.nejm.org/topic/catalyst-article-type/commentary)

Screening for Unmet Social Needs: Patient Engagement or Alienation?

As social needs screening gains steam, health systems should take steps to make their screening programs more patient centered and effective.

·       Elena D. Butler, AB,

·       Anna U. Morgan, MD, MSc, MSHP, and

·       Shreya Kangovi, MD, MS

NEJM July 20, 2020

**Summary**

The importance of addressing unmet social needs has been recently underscored by Covid-19 racial disparities and a massive economic recession. However, as the rush to implementation outpaces research and rigorous evaluation, we are seeing the potential for unintended consequences. Here we offer guidance that will enable health care leaders to ensure that their organizations’ social needs screening programs engage patients rather than alienate them.

The momentum behind social needs screening is mounting, spurred by National Academy of Medicine guidelines, risk-based managed-care contracts, and electronic health record (EHR) vendors.[1](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r1)-[3](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r3) Even with external incentives, social needs screening has not exactly been embraced by providers: only 16% of physician practices and 24% of hospitals currently screen for key social risk domains.[4](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r4) Perhaps more importantly, “screen and refer” programs have had low uptake by patients and minimal effect on outcomes.[5](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r5)-[7](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r7) The recent CONNECT trial evaluated a program in which the Johns Hopkins Health System used the Healthify platform to screen and refer high-risk patients to community-based organizations addressing the social determinants of health.[6](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r6) This program did not affect emergency room visits or hospitalizations, the rates of referral to services, or the resolution of social needs. These results may be explained by staff-reported barriers, including uncertainty about the quality of services being offered and the inability to follow up with patients after referral.

Beyond these disappointing early data on the benefits of social needs screening, patient advocates are increasingly concerned about the potential for harm.[8](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r8) Social needs screening probes the most private and potentially stigmatized areas of patients’ lives, including poverty, racism, and intimate-partner violence. Screening without careful deliberation can harm patients through trauma, discrimination, or legal consequences such as loss of child custody or deportation.[9](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r9),[10](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r10) Early social needs screening in many health care settings can be insensitive to these risks, with untrained clinical staff speeding through a rote checklist, often without explicit consent. Moreover, when clinicians are not able to offer effective solutions to patients who disclose dire needs, they may set unrealistic expectations and frustrate patients.[8](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r8),[9](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r9),[11](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r11)

Despite a relatively small evidence base and valid concerns about patient harm, widespread social needs screening is upon us and will involve significant resources and millions of patients. In this article, we offer pragmatic advice to help health care leaders make their social needs programs more patient centered and effective. Our recommendations span organizational and technology considerations, the setting and frequency of screening, and strategies for minimizing harm. We close by highlighting interventions that go beyond “screen and refer” to address social needs and measurably improve health outcomes.

**Organizational Readiness for Social Needs Screening**

On the basis of interviews with staff members at eight community health centers, Gruß et al. identified three factors that were associated with the successful implementation of screening programs: (1) external motivators (e.g., grant funding, professional association recommendations), (2) flexibility in workflow design based on initial pilots, and (3) identification of an internal advocate for the program.[12](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r12)

Despite a relatively small evidence base and valid concerns about patient harm, widespread social needs screening is upon us and will involve significant resources and millions of patients.

In addition to these design factors, it is imperative that health care organizations train all staff to understand the importance of social determinants of health and how to engage with patients on these sensitive topics. A basic level of understanding across the institution can help health care leaders to advance social care programs and protect patients from insensitivity caused by ignorance. Publicly available training modules such as those created by the University of Pennsylvania’s [IMPaCT program](https://chw.upenn.edu/sdoh-healthcare-providers/), the [American Medical Association](https://edhub.ama-assn.org/health-systems-science/interactive/17498806), or the [Oregon Primary Care Association](https://www.orpca.org/initiatives/empathic-inquiry) are useful resources.

**Start with a Well-Designed Tablet Application . . .**

As an approach to identifying unmet social needs, we recommend universal screening with a well-designed tablet application, followed by personal conversations with patients who screen positive.

Tablet-based screening is promising because it is less labor intensive than in-person screening, is acceptable to patients, and is linked to higher disclosure rates across multiple sensitive domains, presumably because social desirability bias is minimized.[13](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r13)-[15](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r15) A trial of electronic versus face-to-face screening by Gottlieb and colleagues demonstrated that electronic screening had significantly higher disclosure rates for sensitive topics, including household violence and substance abuse.[13](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r13)

Even among ethnically diverse older patients, data on tablet acceptability are encouraging.[16](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r16),[17](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r17) However, tablet-based screening should *not* simply be transposition of EHR screening questions into a tablet application or browser page. Tablet-based screening tools should be designed to promote usability by older or low-literacy patients by incorporating audio-assist options, bilingual enhancements, and graphical icons. These types of applications are still in the early stages of design. A promising initial example is the sexual health screening tool for adolescents in the emergency department, described by Goyal et al., which employs audio enhancements to overcome literacy barriers.[15](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r15) Ultimately, 77% of participants preferred the tablet survey to face-to-face interviews.

. **. . and Follow Up with a Personal Interview**

Tablet-based screening with [validated closed-ended questionnaires](http://www.nachc.org/research-and-data/prapare/toolkit/)[18](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r18),[19](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r19) allows health care organizations to easily collect and aggregate consistent data. The drawback is that questionnaires do little to build rapport with care teams and preclude patients from communicating nuanced individual needs and preferences. Therefore, we recommend that patients who screen positive be engaged by a care team member who conducts a personal follow-up conversation and offers tailored support.

Ultimately, 77% of participants preferred the tablet survey to face-to-face interviews.

It is important to acknowledge that this follow-through requires additional time and resources, which are especially scarce in primary care.[20](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r20) Non-clinician team members, particularly community health workers or social workers, can be well suited to this work and can offload time-strapped providers. At the University of Pennsylvania, [IMPaCT](https://chw.upenn.edu/about/) community health workers use semi-structured questions to get to know patients as people and to develop tailored action plans for addressing patient needs.[21](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r21) This approach minimizes the risk of alienating patients with complex needs or glossing over substantive challenges with the use of a pro-forma checklist.

**Streamline When and Where**

Multiple areas of any health system (e.g., primary care,[1](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r1),[22](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r22) behavioral health, emergency departments,[13](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r13),[18](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r18) etc.[\_ENREF\_17](https://catalyst.nejm.org/doi/full/10.1056/_ENREF_17)) may be conducting social needs screening. Even within a single health center, lack of communication can lead to redundant efforts; in one case, an administrator and a group of community health workers separately developed two different approaches to social needs screening.[12](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r12) Some health care organizations, such as Kaiser Permanente, are even experimenting with remote screening of patients through EHR portals.[2](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r2) Therefore, institutions must create streamlined policies that minimize patient and staff burden and ensure patient safety.

We recommend that organizations use a standardized approach — i.e., a single tablet-based screening application and playbook for follow-up conversations — across the institution. We also recommend a flexibly designed survey, such as the Patient-Reported Outcomes Quality of Life (PROQoL) tool, developed by Ridgeway and colleagues.[23](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r23) The PROQoL asks patients for their “single biggest concern” at the time of the appointment and focuses screening questions on that topic. Thus, even if multiple departments offer screening, patients need not repeat their responses to questions that they have previously answered, allowing the focus to shift to areas of current concern.

If screening is performed remotely (either for expediency or social distancing), we recommend that organizations consider safety protocols — such as those used in telephonic mental health interventions[24](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r24) — to address urgent issues uncovered or triggered by screening.

**Minimize Harm**

The recommendations that we have provided thus far are designed to promote uptake and minimize the harm associated with *collecting* social needs data — namely, patient distress or stigma. Once the data have been collected, there are still two important areas of potential harm that need to be addressed.

Screening may lead to a rise in all forms of mandated reporting; this effect could compromise therapeutic relationships while penalizing patients who are living in poverty, worsening inequity in the health care system.

The first area pertains to legal consequences, including deportation, involuntary commitment, and loss of child custody. For example, if screening reveals that a parent of young children has unstable housing, clinicians may be faced with a decision about whether to report the situation as a matter of child welfare, which could lead to custody challenges. In general, screening may lead to a rise in all forms of mandated reporting; this effect could compromise therapeutic relationships while penalizing patients who are living in poverty, worsening inequity in the health care system.[25](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r25),[26](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r26) To mitigate this harm, institutions also must craft clear policies to prevent undue reporting while ensuring the [reporting of abuse or neglect](https://www.childwelfare.gov/pubPDFs/define.pdf#page=4&view=Standards%20for%20reporting) that causes unreasonable risk of harm to the child’s health or welfare.

The second category pertains to data-driven discriminatory practices — for example, health systems targeting high-risk patients for emergency room diversion programs, providers cherry-picking low-risk patients, or insurance companies using social needs data to selectively hike premiums. The potential for harm in this area is vast and underreported, and these risks are difficult to prevent entirely as they are inherent to the notion of profiling individuals based on their social characteristics. To decrease the potential for harm, we recommend that organizations obtain explicit patient consent for collecting and sharing social needs data. With the rise of integrated health systems, lines between care team and insurer are blurring, so it is important to be very clear about who has access to these sensitive data.

**Maximize Benefits**

Even when screening for unmet social needs does not cause harm, the question remains about how to address issues that are uncovered during screening. While it may seem intuitive that a light-touch “screen and refer” approach would be efficient and effective, several recent evaluations have suggested otherwise.[5](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r5)-[7](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r7) A randomized controlled trial of CommunityRx, a community resource referral system that generates prescriptions for social and health services, found that only 14% of patients used their prescribed resource.[7](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r7) Furthermore, the study found no difference in mental or physical health-related quality of life for patients who received a personalized list of services. Similar findings were reported in studies of the Healthify platform in Baltimore (discussed above) and a telephonic Health Leads navigator program within the Kaiser Permanente Southern California health system.[5](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r5),[6](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r6)

These results may be explained by the theoretical limitations of the “screen and refer” approach. One possibility is that these programs are often light-touch interventions that provide mostly informational, rather than instrumental, support. Fiori et al. demonstrated an association between more robust support (i.e., more than four outreach encounters, more than 30 days of follow-up) and successful screening and referral of patients to social services.[27](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r27) However, a recent randomized clinical trial by Gottlieb et al. demonstrated no difference in outcomes for caregiver-child dyads who received longitudinal, in-person support in comparison with those who received written instructions about available social services.[28](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r28) This null result was surprising given the level of in-person support (mean, 4.34 touchpoints with navigators) and the results of a prior trial that demonstrated the superiority of in-person assistance.[29](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r29)

We recommend that organizations obtain explicit patient consent for collecting and sharing social needs data.

These heterogeneous results may be explained by systemic barriers, such as limited housing supply and complex application processes. Additionally, a longitudinal, navigator-led program may not always be nuanced or tailored enough to address more subtle individualized barriers, such as isolation or perceptions of stigma.[11](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r11) Finally, existing “screen and refer” platforms are seldom informed by the important complexities of social or behavioral science theory.

In contrast, the health system–based social interventions that have been clinical trial–proven to improve health outcomes are typically theory-based programs that provide longitudinal, tailored support ([Table 1](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#t1)). For example, a randomized controlled trial demonstrated that offering housing with case management to chronically ill homeless patients decreased hospital days and emergency department visits by 29% and 24%, respectively.[31](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r31) Geriatric Resources for Assessment and Care of Elders (GRACE), a 2-year, home-based care management program for low-income seniors, showed significant improvements in general health, social functioning, and mental health.[30](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r30) The Nurse-Family Partnership, a longitudinal home visitation program for women and firstborn children living in highly disadvantaged urban neighborhoods, significantly reduced all-cause maternal mortality and preventable-cause mortality for children over 2 decades.[33](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r33)

**Table 1.**

Selected Examples of Clinical Trial–Proven, Health Care–Based Social Interventions\*

*Scroll table to see more*

| **Study** | **Setting** | **Population** | **Intervention** | **Outcomes** |
| --- | --- | --- | --- | --- |
| Counsell et al. (2007)30 | Community health centers affiliated with a university-affiliated urban health care system in Indianapolis, IN | 951 adults ≥65 years of age, with annual income <200% of the federal poverty level | • 2 years of home-based care management by a nurse practitioner a social worker | • Intervention group had improved general health, vitality, social functioning, and mental health• No group differences for activities of daily living or death• 18% reduction in emergency department ED visits in intervention group• No difference in hospitalizations |
| Sadowski et al. (2009)31 | Public teaching hospital and private, nonprofit hospital in Chicago, IL | 407 social worker-referred homeless adults with chronic medical illnesses | • Transitional housing after hospitalization• Placement in long-term housing• Case management on site at primary study sites and housing sites | • Intervention group had 29% relative reduction in hospitalizations, 29% relative reduction in hospital days, and 24% relative reduction in ED visits32 |
| Olds et al. (2014)33 | Public system of obstetric and pediatric care in Memphis, TN | 1,138 women and children living in highly disadvantaged neighborhoods | • Prenatal, postpartum, and infant/toddler home visiting by nurses | • Significant reduction in maternal all-cause mortality for families who received home visits• At 20 years, preventable-cause child mortality rate significantly lower for intervention groups |
| Kangovi et al. (2014)34 | Two urban, academically affiliated hospitals in Philadelphia, PA | 446 adults who resided in high-poverty ZIP codes, were uninsured or Medicaid insured, and were admitted to hospital and expected to be discharged home | • During hospital admission, CHWs worked with patients to create individualized action plans for achieving recovery goals• CHWs provided support for a minimum of 2 weeks | • Patients in intervention arm more likely to obtain timely post-hospital primary care• Intervention patients had greater mental health improvements• Groups had similar physical health outcomes• Intervention group less likely to have multiple 30-day readmissions |
| **Kangovi et al. (2018)32** | **Three primary care facilities in Philadelphia, PA** | **592 adults who resided in a high-poverty ZIP code, were uninsured or publicly insured, and had ≥2 chronic diseases** | **• All participants set a chronic disease management goal with their primary care physician• Patients randomized to the CHW intervention received 6 months of tailored support** | **• Patients in intervention group were more likely to report highest quality of care• Intervention group spent fewer total days in the hospital at 6 and 9 months (absolute event rate reduction, 65%)• Participants in intervention group had lower rates of repeat hospitalization, including 30-day readmission• Groups had similar improvements in physical health** |
| Powers et al. (2020)35 | Integrated health plan and care delivery system in Memphis, TN | 253 adult Medicaid patients in top 5% of total medical expenditures, and/or top 5% of chronic illness intensity index, and/or nominated by care team | • Multidisciplinary care team consisting of CHW, social worker, and primary care provider• Patient and team codeveloped tailored care plan• Regular follow-up for 12 months | • 37% lower total medical expenditures• 59% lower inpatient utilization• Fewer specialist visits• No impact on care center or ED visits |

\*ED = emergency department, CHW = community health workers. Source: The Authors.

In addition to improving health outcomes, these programs are beginning to show significant impacts on utilization and cost. IMPaCT, an intensive community health worker intervention for addressing social needs, has been tested in three randomized controlled trials, with rigorous analysis demonstrating that the program reduces total hospital days by 65% and returns $2.47 for every dollar invested by Medicaid.[36](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r36) IMPaCT also has been shown to improve mental health, chronic disease control, and quality of care.[32](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r32),[36](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r36) CareMore’s complex care management program in Memphis, Tennessee, which matched high-need, high-cost Medicaid patients with a care team consisting of a community health worker, a social worker, and the patient’s primary care provider, reduced total medical expenditures by 37% (absolute reduction, $7,732 per member per year) and inpatient utilization by 59%.[35](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r35) While these interventions are by no means inexpensive, when they generate thousands of dollars in savings, they pay for themselves.

**Proceed with Cautious Optimism**

Health care is still in the early days of engaging with patients around their social needs. This nascent field carries tremendous opportunity to address social injustice and improve health. It also carries the potential for ineffectiveness and harm. We offer three final principles to guide ongoing work.

Existing ‘screen and refer’ platforms are seldom informed by the important complexities of social or behavioral science theory.

First, given the evolving nature of best practices, policy makers and managed care organizations should avoid being overly prescriptive in ways that stifle innovation or escalate momentum toward ineffective approaches. States should consider waiving financial incentives for social needs screening[3](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r3) until the field has had a chance to reach agreement on major issues such as optimal screening approaches and settings, minimizing risks associated with mandatory reporting, and the implementation of effective interventions for patients who screen positive.

Second, with few exceptions,[11](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r11),[37](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037#r37) the voices of patients — particularly those with unmet needs — have been largely absent from this discourse. This needs to change. Developers of screening tools and interventions should use human-centered design principles to engage with these patients at all stages of the design process: initial ideation, pilot testing, implementation, and scaling up. Health care leaders should ask these patients to serve on the committees that develop institutional policies for social screening and care.

Finally, health care organizations should not approach this work as a technology-driven exercise in box-checking. Social needs screening and referral as a light-touch, standalone intervention does not appear to adequately address systemic issues like racism in health or food deserts in poor communities. While effective interventions may well be more complex or resource intensive than an online referral, health care organizations that hope to make disadvantaged patients healthier must commit the effort and investment required to achieve this goal.

·       Elena D. Butler, AB

Medical Student, University of Pennsylvania Perelman School of Medicine

·       Anna U. Morgan, MD, MSc, MSHP

Assistant Professor, Division of General Internal Medicine, University of Pennsylvania Perelman School of Medicine; Director, Care Management and Community Health, Division of General Internal Medicine, University of Pennsylvania Perelman School of Medicine

·       Shreya Kangovi, MD, MS

Associate Professor, Division of General Internal Medicine, University of Pennsylvania Perelman School of Medicine; Executive Director, Penn Center for Community Health Workers, University of Pennsylvania

·       [Disclosures](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037)

·       [References(37)](https://catalyst.nejm.org/doi/full/10.1056/CAT.19.1037)