Field Test Report

Standardized Screening for Health-Related Resource Needs in North Carolina

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Leads

Unmet Health-Related Resource Needs

Impact and Action in North Carolina

The impact of unmet health-related resource needs — including food insecurity, housing instability, unmet transportation needs and interpersonal violence — on a person's health and well-being, and healthcare utilization and cost, is well-established.[1,2] Currently, 90% of healthcare spending in the United States is on medical care in a hospital or doctor's office. While access to medical services is crucial to being healthy, **research shows that up to 70% of a person's overall health is driven by social and environmental factors** — and the behaviors influenced by them.[3]

In North Carolina, people feel the impact of unmet resource needs every day. More than 1.2 million North Carolinians cannot find affordable housing and one in 28 of our state's children under age six is homeless.[4,5,6] North Carolina has the 8th highest rate of food insecurity in the United States, with more than one in five children living in food insecure households. In some North Carolina counties, this figure climbs to one in three children.[7] Additionally, nearly a quarter of North Carolina's children have faced adverse experiences — including physical, sexual or emotional abuse, or household dysfunction like living with someone struggling with a substance use disorder.[8] These and other social and environmental factors negatively impact health and drive higher healthcare costs.[9] We also know that intervening in and addressing needs in these areas can have a direct impact on the well-being of North Carolinians — and can yield strong short-term and long-term returns on health and economic outcomes.

To meet our mission to improve the health, safety and well-being of all North Carolinians, and to be responsible stewards of our resources, **the North Carolina Department of Health & Human Services (NCDHHS) aims to ensure that we are buying health — not only healthcare** — for our people. In collaboration with partners and stakeholders, NCDHHS envisions North Carolina as a national leader in cost-effective use of resources that optimizes the health and well-being of all people. This vision unites communities and healthcare systems to address the full set of factors that impact health.

NCDHHS has begun its work to address unmet health-related resources needs through a multi-faceted approach that includes: standardized screening questions for unmet health related resource needs, a statewide coordinated network of heathcare and human service providers with a shared technology platform, a geographic information system "hot spot" map of related indicators, and other elements embedded in Medicaid managed care.

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[1] B. C. Booske, J. K. Athens, D. A. Kindig et al., Different Perspectives for Assigning Weights to Determinants of Health (University ofWisconsin Population Health Institute, Feb. 2010).

[2] L. M. Gottlieb, A. Quiñones-Rivera, R. Manchanda et al., "States' Influences on Medicaid Investments to Address Patients' Social Needs," American Journal of Preventive Medicine, Jan. 2017 52(1):31–37.

[3, 9] Schroeder, S. "We Can Do Better—Improve the Health of the American People," The New England Journal of Medicine, Sept. 2007 357:1221-1228.

[4] The National Alliance to End Homelessness. "The State of Homelessness in America." 2016.

[5] The U.S. Department of Housing and Urban Development defines an affordable home as one that requires families to spend no more than 30% of household annual income on housing. Families who pay more than 30% of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care.

[6] Administration for Children & Families. "Early Childhood Homelessness in the United States: 50-State Profile." June 2017.

[7] NC Child. "North Carolina Child Health Report Card 2018." 2018.

[8] Data Resource Center for Child & Adolescent Health. "The National Survey of Children's Health." 2012.

Executive Summary

Standardized Screening for Health-Related Resource Needs in North Carolina

Need for Standardized Screening

As recognition grows that addressing unmet resource needs can improve outcomes and decrease healthcare costs, leading healthcare and human service organizations are developing new, innovative strategies to address individuals' unmet resource needs — such as access to healthy food, safe housing and affordable transportation. As a result, **many institutions have expressed interest in a standardized approach to screening** for these resource needs across patient and client populations.

A standardized approach helps to ensure health-related resource needs are proactively raised and addressed, rather than relying on issues to organically arise in conversation. And uniform data collected statewide during screening processes can prove powerful in efforts to improve outcomes and reduce costs.

North Carolina Field Test

In 2018, the North Carolina Department of Health & Human Services (NCDHHS) convened a diverse group of subject matter experts and stakeholders to develop a standardized set of screening questions. The initial screen was released for public comment and adjusted based on the resulting community feedback. In partnership with Health Leads, NCDHHS designed the field test described in this report to test these standardized screening questions.

Field tests were conducted across 18 clinical settings that received Community Health Grants from the North Carolina Office of Rural Health — as well as telephonic case management settings through North Carolina Medicaid's primary care management program. Through a multi-phase approach, **the field test engaged 804 patients using the standardized screening questions.** Combined with 735 responses from clinic staff, these patients were surveyed to gauge impressions of questionnaire length, whether the questions were easy to understand, and overall comfort with asking and answering the questions.

Results at a Glance

Across the two phases of the screening tool field test, patients and clinic staff had high rates of comfort and understanding of the questions.

- **95%** of patients and **97%** of clinic staff thought the length of the screening was appropriate
- **93%** of patients and **95%** of clinic staff reported that they understood the screening questions
- **92%** of patients and **89%** of clinic staff felt comfortable with the screening questions

The field tests also surveyed staff regarding the screen's impact on clinic operations. After the second phase, **81%** of participants said the screening questions were easily integrated into their workflows.

While the field test was not specifically conducted to identify prevalence rates of unmet resource needs across a population, **the results demonstrated that food insecurity was the highest reported need — followed by housing instability and transportation.** Of those who screened positive, a smaller subset wanted connections to community resources to meet their reported need, as described in this report.

Next Steps

Following the field test, NCDHHS published a final version of the screening questions. While the screen was created for all populations regardless of health insurance payor, the questions must be embedded in the initial care needs screenings conducted by North Carolina Medicaid's Managed Care Pre-Paid Health Plans (PHPs). Other North Carolina-based healthcare and human service organizations are strongly encouraged to implement or expand screening for unmet resource needs as well. NCDHHS will release additional guidance on best practices for implementation in winter 2019.

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Report Overview

This report outlines the findings of a multi-phase pilot that examined standardized screening for unmet resource needs related to food, housing, transportation and interpersonal safety. The standardized screening questions were developed by a Technical Advisory Group (TAG) convened by the North Carolina Department of Health & Human Services (NCDHHS) — made up of a diverse group of subject matter experts and stakeholders from across North Carolina and modified following public comment. The pilot, conducted by NCDHHS in partnership with Health Leads, was designed to test the standardized set of screening questions for the state of North Carolina and inform implementation.

Field tests were conducted across 18 North Carolina-based clinical settings that received Community Health Grants from the North Carolina Office of Rural Health, as well as telephonic care management settings through Community Care of North Carolina (the primary care management program for NC Medicaid).

Key Goals

The pilot sought to test the standardized set of screening questions to routinely identify unmet health-related resource needs. Key elements of the field test included:

- Testing questions at pilot clinics and through telephonic care management settings to obtain staff and patient feedback — including patients' comfort with and understanding of questions
- Assessing the prevalence of resource needs and requests for connection to resources
- Identifying methods for and barriers to administering screening questions

Process & Timeline[1]

Spring & Summer 2017

NCDHHS and Health Leads met with more than 80 key stakeholders across North Carolina who were either interested in or already working on initiatives related to addressing unmet resource needs. The goal was to learn more about existing practices and process — as well as to identify potential Department support to help advance this work. Following the initial series of meetings, DHHS conducted a review of proven practices related to screening tools and other methods of identifying health-related resource needs.

Winter 2017-18

NCDHHS convened a Technical Advisory Group (TAG) made up of diverse subject matter experts and stakeholders from across the state. Together, NCDHHS and the TAG came up with a set of design principles for the screening questions, reviewed existing screening tools and questions and came to consensus on a recommended set of screening questions.

From this research four priority domains were identified:

- Food insecurity
- Lack of transportation
- Housing instability
- Interpersonal violence

Spring 2018

NCDHHS released a policy paper that included the initial proposed set of standardized screening questions. This paper and the questions were open for public comment, with feedback reviewed by NCDHHS and TAG. Later that spring, TAG reconvened to modify the questions based on this feedback.

Fall & Winter 2018

NCDHHS worked with 18 safety net clinical sites across North Carolina that received Community Health Grants to field test the screening questions.[2] In addition, NCDHHS worked with Community Care of North Carolina to test the implementation of the questions telephonically as part of care management. This report outlines findings from the field tests.

[1] Additional details at https://www.ncdhhs.gov/about/department-initiatives/healthy-opportunities/screening-questions
[2] See Appendix C

Design Principles

Development of standardized screening questions was grounded in the following principles:

Screening questions need to include domains where high-quality evidence exists linking them to health outcomes — and must identify needs for which there are some resources and services in the community available to address them.

Questions must be simple, brief and applicable to most populations so they can be easily integrated into workflows in diverse and varied settings across the state.

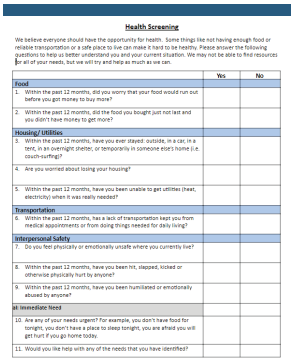
The questions do not have to address all nuances of need. Rather, a positive response on a screening question should trigger a more in-depth assessment — by a community health worker, care manager, social worker or other member of the care team — that allows for a greater understanding of specific needs and more targeted navigation to resources.

As questions are intended to be used by providers in diverse clinical settings and health plans, there should be sufficient flexibility to include additional domains as needed for the setting or population served.

Questions must be drawn from validated tools and proven practices — and written at accessible reading levels to ensure they can be effectively used.

To the greatest extent possible, questions should align with existing screening tools [e.g., Bright Futures Questionnaire, Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences (PRAPARE), Health Leads Screening Tool, Accountable Health Communities Health-Related Social Needs Tool, Pregnancy Medical Home Screen]. This intentional alignment will allow for easier implementation and similar data collection.

Pilot Instruments



Health Screening

We believe everyone should have the opportunity for health. Some things like not having enough food or reliable transportation or a safe place to live can make it hard to be healthy. Please answer the following questions to help us better understand you and your current situation. We may not be able to find resources for all of your needs, but we will try and help as much as we can.

	Yes	No
Food		
1. Within the past 12 months, did you worry that your food would run out before you got money to buy more?		
2. Within the past 12 months, did the food you bought just not last and you didn't have money to get more?		
Housing/ Utilities		
3. Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)?		
4. Are you worried about losing your housing?		
5. Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed?		
Transportation		
6. Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living?		
Interpersonal Safety		
7. Do you feel physically or emotionally unsafe where you currently live?		
8. Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone?		
9. Within the past 12 months, have you been humiliated or emotionally abused by anyone?		
If Immediate Need		
10. Are any of your needs urgent? For example, you don't have food for tonight, you don't have a place to sleep tonight, you are afraid you will get hurt if you go home today.		
11. Would you like help with any of the needs that you have identified?		

See Appendix for all screening and survey instruments

In addition to the screening questions, surveys were created specifically to obtain patient feedback on the questions and process, as well as from staff and clinic sites that administered the questions. A script was developed to help staff introduce both the screening questions and the post-screening surveys.

After the initial screen of standardized questions was completed with each patient, a brief assessment survey was administered to collect feedback. The survey was designed to determine patients' comfort with the length and understanding of the questions asked — as well as to understand the prevalence of resource needs and requests for connection to resources. Patients who marked 'yes' for any question were asked to explain why, and if they wanted to be connected to related resources. Patients who declined resource connections were asked to explain why. These questions provided deeper insight into the need prevalence of the population screened — along with the level of resource connection and follow-up that could be needed when implementing a full-scale social needs program.

Similar surveys were completed by participating staff to assess their experience administering the screening, comfort with its length and any perceived barriers to workflow integration. An additional overview survey provided insight into how screening was integrated and administered at each site, along with the number of screens completed in English and Spanish. The overview also captured feedback on what worked well and where improvements could be made to the screening questions and their implementation.

Clinical Site Pilots: Staff Training

In preparation for the pilot, all clinic sites participated in a one-hour webinar training session. The training served as an introduction to the pilot and its relevance to the overall NCDHHS Healthy Opportunities work. It covered specifics of the pilot such as expectations, workflow, screening questions and surveys to be used, and allowed time for questions from participants. The training module was required for anyone tasked with administering the screening questions, as well as those who might play a supervisory role for these individuals.

Clinical Site Pilots: Screening Guidelines

Pilot sites were given specific guidelines for administering the screening questions and post-screen surveys. These guidelines were specific to achieving the aims set out for the pilot initiative, and did not necessarily represent proven practices for screening implementation in broader settings (e.g., the post-screen survey was needed to assess questions and gather feedback, but added an additional step that is not recommended for broader implementation). Detailed screening guidelines and proven practices will be discussed in a forthcoming Implementation Guide.

SCREENING GUIDELINES

Set-Up

- Identify individuals who will screen patients at each site during the pilot period.
- Managers and supervisors are expected to remove barriers to enable the screen to be administered by trained staff.
- If front-line staff administering the screen and survey to patients are out of the office for any reason, there should be a plan in place for an alternate staff person or supervisor to conduct the screen and survey instead throughout the pilot period.
- Screen and survey 20 patients during the pilot timeframe, with a goal of reaching a random sample of diverse, representative patients. Think about a screening strategy that achieves this goal in your clinic. For example:
    - If you see a general population and have a generic scheduling template, you could screen as many patients on one day as you would like and finish up in a couple of days. Or you could screen the 10:00 am and 2:00 pm patient every day for 10 days.
    - If you have a scheduling template with a set appointment type at different times, screen the 8:00 am and 1:00 pm patient on Monday, the 9:00 am and 2:00 pm patient on Tuesday, and the 10:00 am and 3:00 pm patient on Wednesday, etc.
    - If you see certain types of patients on set days (e.g. Monday is prenatal, Tuesday is Pediatric), screen patients throughout the week to ensure the sample better represents the overall patient population.

SCREENING GUIDELINES, CONTINUED

Administration	• The order of the screenings and surveys that should be administered:
	  ◦ Patient Screen » Patient Survey » Staff Survey
	• Ensure conversation privacy by meeting with patients in a private or semi-private location within the clinic (exam room, cubicle, administration office, etc.)
	• With each patient, establish a clear beginning, middle and end to the engagement that fits into your current workflow.
	• Staff will hand patients the paper screening form and ask them to fill it out, using the provided script.
	  ◦ The screen and survey are provided in written format, but can be verbally administered in cases of lower literacy skills or other barriers.
	  ◦ Use a translator when necessary, and allocate additional time to administer the screen and survey accordingly.
	• The screen and survey should be brief for most patients, but may take up to 15-20 minutes for some patients if a more in-depth discussion of need and resources is warranted.
	• Staff will continue with the script while reviewing the screen, then proceed with directions for administering the patient survey.
	• If the patient experiences a significant change in mood or behavior because of engaging in this screening process, use your judgment and engage in protocols to involve social services or seek additional support as needed.
	  ◦ If the patient is unable to complete the screen, note this in the staff survey.

Resource Referral	• Be prepared to provide specific information for resources related to patients' identified needs. • Staff will engage with patient if they screened positive and would like assistance and provide them resource referral numbers and information that is relevant.
Survey Completion	• Staff will dismiss the patient and complete the remaining staff survey. • Staff will complete the staff survey in the event the patient abandons the screening process at any point in the interaction. • All screens and surveys should be completed within the same day and as close to real time as possible to ensure the patient responses and feedback are captured accurately.
Next Steps	• At the end of the two-week period of the screening pilot, there will be an overall clinic survey administered to assess the experience of the staff. • You can expect communication with information about the survey results after the data collected from this pilot has been analyzed — including compensation information and how you can be involved moving forward.

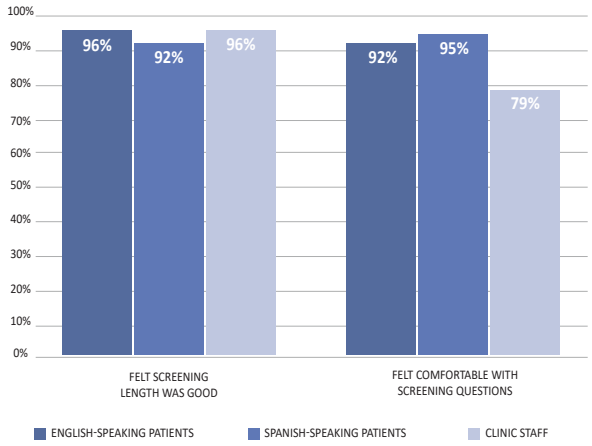
Phase 1 Field Test Summary

Results & Learning

In Phase 1 of the field test, the screen was tested among 381 patients at 18 different clinic sites throughout the state. Of that total, 321 screens were administered in English and 60 screens were administered in Spanish. In addition, 381 patient surveys, 378 staff surveys and 21 clinic surveys were completed.

When asked, the vast majority of English-speaking patients (96%), Spanish-speaking patients (92%) and clinic staff (96%) responded that the length of the screening was appropriate.

Ex 1: Screening Survey - Phase 1 Results



Similarly, most English-speaking patients (92%) and Spanish-speaking patients (95%) responded that they felt comfortable with the questions asked. Clinic staff, however, had a lower level of comfort (79%) with the questions *(see Ex 1)*.

One specific reason for clinic staff discomfort was noted plainly in a survey response:

> ***"I know about the abusive situation and I thought patient would be upset talking about it, but patient was okay."***

In some instances, clinic staff cited anticipating the discomfort of a specific patient — or anxiety of having uncomfortable conversations with patients overall — as a source of their discomfort with the screening questions.

Additional staff and patient feedback noted similarities between the two food insecurity questions:

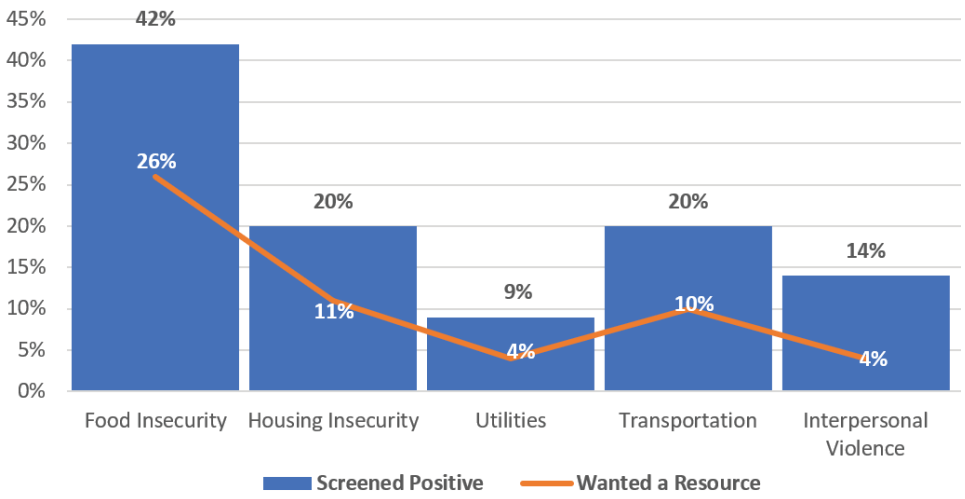
> ***"Question 2 is almost the same as question 1. Patients hate repeating questions."***

The two questions draw from the Hunger Vital Sign, a validated, two-question food insecurity screening tool used in many clinical settings. NCDHHS felt that it was important to include both questions as part of the standardized screening to maintain its validity. After reviewing the feedback and results from Phase 1, NCDHHS took steps to explain the rationale for continuing to include both questions in Phase 2.

Need Prevalence

Of the 381 screens administered, 445 health-related resource needs were identified by patients — with a number of patients identifying multiple needs. The most prevalent need was food insecurity, with 42% of patients screening positive. As per the post-screening survey, 26% of patients requested resources to address their need. While many patients noted they had accessed food assistance resources such as SNAP (known as Food and Nutrition Services in North Carolina) or local food pantries, survey responses indicate these resources were not always enough to meet their needs.

Ex 2: Need Prevalence & Resource Connection (Phase 1)



Housing insecurity and transportation challenges also ranked among the top needs — both at 20% for prevalence, and at 11% and 10% respectively for desired resources. Interpersonal violence was reported at 14%, but with only 4% desiring a resource to address their safety concerns. Of those who screened positive for experiencing interpersonal violence, most reported that they were no longer in the relationship or situation that made them feel unsafe — or already had access to resources such as counseling. Only 9% of patients reported facing utility challenges, with 4% requesting a resource to assist with that need.

Some patients indicated they didn't need a resource referral because they were already accessing resources — or that their situation had recently improved. It's important to note that the screening questions ask for patients to reflect on their needs within the last 12 months, and therefore the prevalence of need is significantly higher than the need for resource connection. Limited access to resources was also noted.

PATIENT FEEDBACK

"Most resources are not helpful because I don't have transportation to get to them."

"I know where the resources are."

"I have steady employment now."

Two sites noted an increase in patient need identification when using the standardized screening questions, as compared to screens previously used at their clinic *(see Caswell Case Study)*.

"An interesting find for us is that during the pilot we had a 50% 'yes' rate as compared to our normal process we have only been averaging a 7% 'yes' rate.

We believe these questions are a little more specific than the ones we currently use. We also have only been giving our survey to new patients where in the pilot we offered the survey to all patients."

Case Study: Caswell Family Medical Center

Effectiveness of Standardized Screening

Caswell Family Medical Center (CFMC) is a rural Federally Qualified Health Center (FQHC) located in Caswell County, near the North Carolina/Virginia border. Prior to the NCDHHS pilot initiative, CFMC began screening their patients for challenges around housing, transportation and personal safety — integrating one question for each domain into the nursing intake in their Electronic Medical Record.

Clinic staff were surprised to find that less than 1% of patients identified housing, transportation or personal safety issues during the first few months of the screening initiative — and worked with Health Leads to test several changes to their process. CFMC decided to join the NCDHHS pilot and test the new standardized screening questions, using an approach where patients would self-administer the screen with assistance from clinic staff as needed.

During Phase 1 of the pilot, CFMC deployed the screening questions with a team of three nurses. The team administered 20 screens total, with 17 self-administered and three administered with assistance from a nurse. The change from CFMC's original screening approach was striking: seven out of 20 patients identified a need — a 35% positive screening rate.

Patients and staff also completed assessment surveys as part of the screening pilot. No significant issues were raised regarding the length of the screen or discomfort with the questions reported. Only one patient reported difficulty in understanding the housing insecurity question. One staff member expressed discomfort after a patient screened positive for multiple needs, citing concern over the lack of available resources in the area.

Encouraged by these initial results, the clinic went on to implement a second phase of testing, with five care teams screening two patients each. Of the 10 patients screened, two reported a need — a 20% positive screen rate. As in the first phase, no major issues with the screening questions were reported by patients, and all nurses agreed that the screen was easy to administer. CFMC planned to implement the new screening process clinic-wide beginning April 1, 2019.

Integrating Screening & Surveys into Clinic Workflow[3]

70% of clinics said the screening questions were easily integrated.

Perspectives varied in how well screening was integrated into each clinic's workflow, due in large part to the diversity of the sites themselves. Some clinics already had a workflow in place to screen for health-related resource needs, while others created a new workflow specifically for this screening pilot *(see Appendix for example workflow)*.

Clinician feedback in the first phase of testing was mixed. Some clinicians thought the screening questions would be easily integrated into the workflow; others cited barriers such as time and staff constraints. This highlights the importance of securing buy-in from frontline staff from the onset of the project.

CLINICIAN FEEDBACK

"The length of the screening tool is appropriate. It won't be too hard to integrate into the clinic workflow."

"We already have a SDOH survey so this is built into our process."

"I would love to use this tool in place of ours, along with optional questions. It's short and sweet and patients feel it was a good length, so it seems easy to fit into the workflow."

"Clinic workflow is fast paced with little time for nursing staff to break normal routine. Equal buy-in was not obtained from all providers for SDOH questionnaire pilot. One nurse was out for surgery during this period, so staff resources were especially stretched."

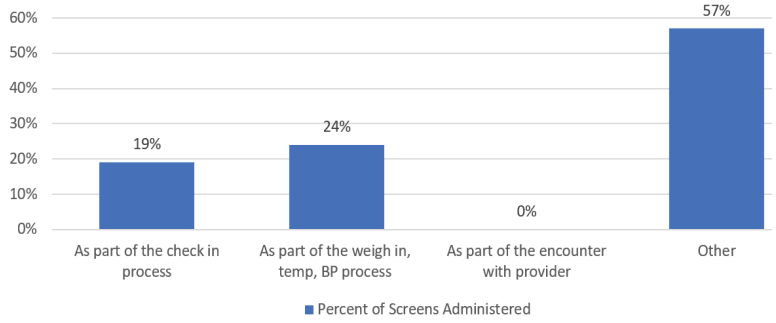
"It is difficult to add another step in a busy clinic. Time constraints were especially noticeable when patients screened positive and/or when interpretation was necessary."

[3] Though workflow conditions were outside the scope of this pilot, how and when screening questions are administered is an important consideration for a successful social needs program, and will be covered more extensively in the Implementation Guide.

Administering Screening Questions & Surveys

While clinics were provided with direction on how to administer the screening, the pilot was not prescriptive on when and where the screenings should take place. Aministration therefore varied depending on the pilot site's workflow *(see Ex 3)*. In addition, the workforce tasked with administering and reviewing the screen with patients varied across sites with clinical staff — including nurses, social workers, care managers, registration staff and volunteers.

Ex 3: Point at which the Screen was Administered (Phase 1)



'Other' category includes responses such as "in between the check-in process and the weigh-in," "between nurse intake and provider," "during the check-out process," "in sessions with care managers" and "varied by physician and provider preference". Notably, none of the sites chose to administer the screen as part of the encounter with the provider.

In some cases, privacy concerns were cited by staff — especially in clinics where the screen was offered at registration and patients began responding in the waiting room. It is important to note that the waiting room is not an ideal setting to respond to sensitive questions, in particular questions regarding interpersonal violence. As several staff mentioned in their feedback, patients might not be able to honestly answer questions if their abuser was attending the appointment with them.

CLINICIAN FEEDBACK

"Tool was administered during check in, follow-up questions were asked once patient was roomed."

"For our purposes, the safety questions won't be appropriate. Our intake process isn't completely private; patients come with family, etc., so they won't answer truthfully if their abuser is with them."

"Patients were asked to complete the survey as they were sitting in the waiting room."

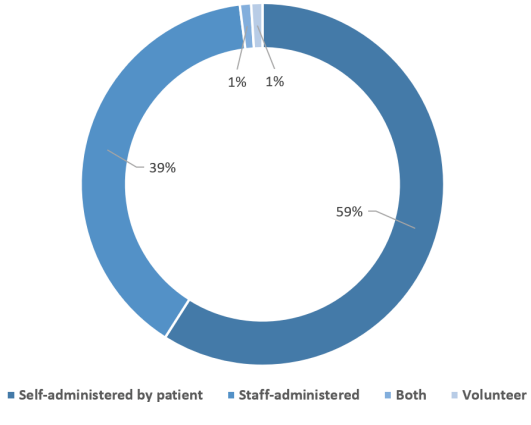
At most sites, the screen was self-administered by the patient and then discussed with clinic staff at a later point in the visit *(see Ex 4)*. At times, staff administered the screen based on a patient's preference or limitations — such as impaired vision, lower literacy, language barriers or cognitive capabilities — as seen in these explanations from clinic staff:

"I personally like to administer the survey orally becauseit reduces issues around low literacy and also helps me to build rapport with the patient. Done orally, the survey becomes more of a conversation and less just paperwork that they are trying to quickly complete."

"The patient's vision did not allow reading; staff completed."

"Was easier for the patient to hear the questions from me."

Ex 4: Administration of Screening Questions (Phase 1)



Phase 2 Field Test Summary

Phase 2 Adjustments

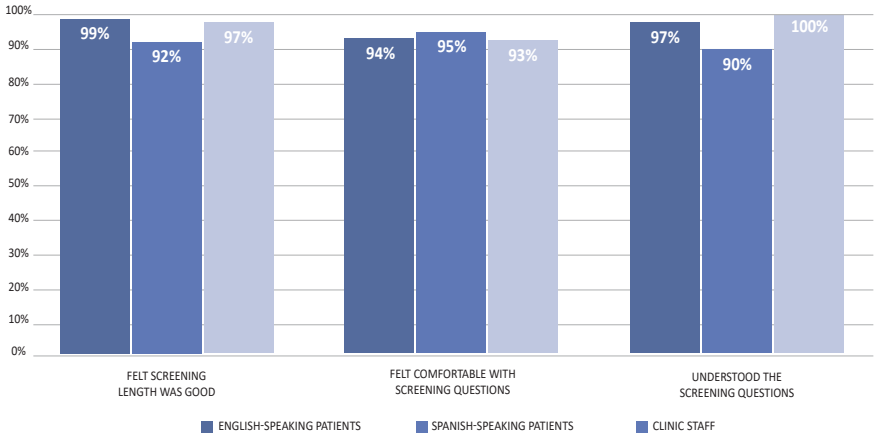
After reviewing the survey data and feedback, adjustments were made prior to the second phase of testing. Phase 1 results were shared with pilot sites for their review, along with an explanation of the following changes:

- Asked to increase responses from Spanish speaking patients based on the patient population of the clinic
- Removed question from clinic survey about patient ability to understand the screening questions and included directly into patient survey
- Added question to note the title/role of the person administering the screen
- Explanation of the validated *Hunger Vital Sign* screening questions for food insecurity to staff
- Reformatted screening response categories to appear in a unified column to the right of questions

Results & Learning

One of the main goals of the pilot's second phase was to increase the number of screens administered to Spanish-speaking patients — both to ensure a sufficient population was screened to form conclusions, and to further assess if the questions were understandable and appropriate.

Ex 5: Screening Survey - Phase 2 Results



In Phase 2, 360 screens were administered across 18 clinical sites that participated in Phase 1 of testing. Of these screens, 278 were administered to English-speaking patients and 82 were administered to Spanish-speaking patients — representing a 37% increase in responses from Spanish-speaking participants. In all, 360 patient surveys, 357 staff surveys and 21 clinic overview surveys were completed.

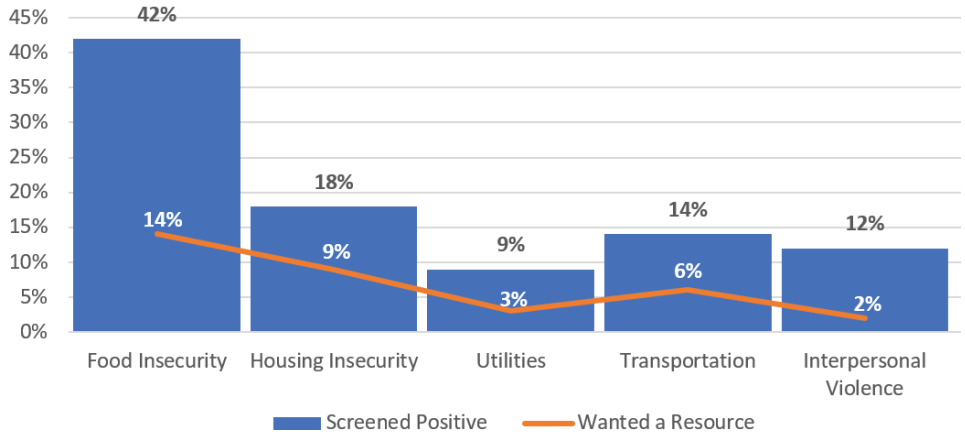
Phase 2 of the pilot resulted in a similarly high response rate of patient comfort in terms of screening tool length and the questions asked. Additionally, patients were asked directly about understanding the questions, rather than asking clinical staff if patients understood. At least 90% of patients responded that the questions were well understood. Clinicians did not report experiencing issues with patient understanding of questions *(see Ex 5)*.

Need Prevalence

Prevalence results mirrored what was seen in Phase 1 of testing. Once again, the prevalence of reported needs was higher than requests for resource connection, in part because patients are asked to respond based on their needs within the last 12 months.

Food insecurity remained the highest reported need at 42%, with desire for additional resources at 14% *(see Ex 6)*. Housing insecurity followed at 18%, with 9% of respondents seeking resources. Transportation related needs were reported at 14%, though only 6% requested a transportation resource connection. Assistance in paying for utilities remained the lowest need category with 9% reporting a need and only 3% of requesting resources.

Ex 6: Need Prevalence & Resource Connection (Phase 2)



Interpersonal violence was reported at 12%, but only 2% stated a need for resources or support. Based on patient feedback, this disparity is again partially attributed to safety concerns being resolved prior to the screening. One patient specifically stated:

> *"You should ask about last two weeks. Something bad happened four months ago, but now it's ok."*

While this type of patient feedback is common, it is important to note that most validated screening questions ask patients to reflect on their circumstances over the last 12 months. This is particularly important in clinical settings where many patients are seen annually at well visits, as it may be one of few opportunities to surface non-medical resource needs that affect health in between visits.

Integrating Screening & Surveys into Clinic Workflow

81% of clinics said the screening questions were easily integrated, compared to 70% during Phase 1.

Positive views of screening integration may have increased as clinic staff became more comfortable and familiar with the screen and related workflow processes. Clinical staff comments such as these were common in Phase 2 feedback:

> *"The tool was more easily integrated into the clinic workflow during this Phase 2 compared with integration from Phase 1."*

Concerns over privacy remained an issue during Phase 2, as some screening processes continued to play out in waiting room settings. Staff feedback included points such as:

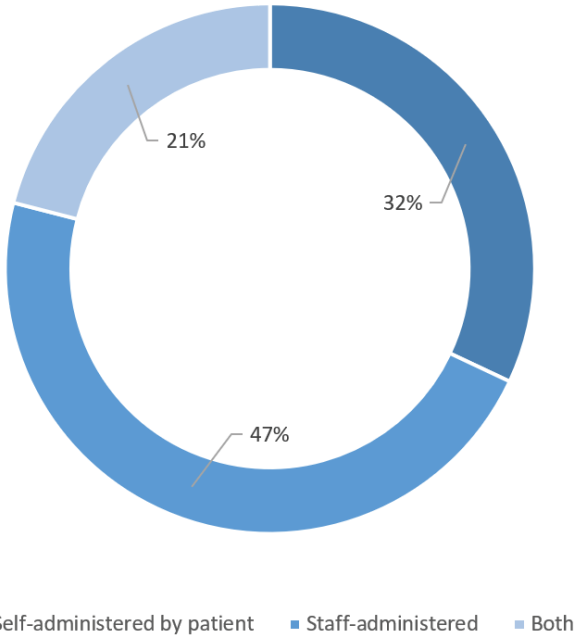
> *"Patient did not like answering these questions in the waiting room and had concerns about privacy."*

Administering Screening Questions & Surveys

In Phase 2, a higher percentage of screens were administered by staff than self-administered by the patient — or some combination of the two.

"Staff asked patient survey questions as patient's child became fussy. Staff administering survey in this circumstance was helpful to patient."

Ex 7: Administration of Screening Questions (Phase 2)



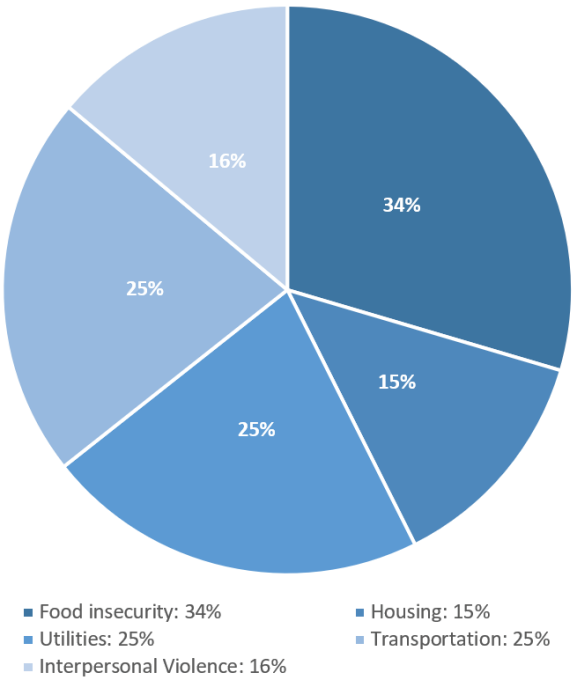
Telephonic Field Test Summary

Results & Learning

In addition to the field test at the clinic sites, screening questions were tested telephonically among 63 patients and 21 *Community Care of North Carolina* staff members. Other than the difference in setting, the telephonic test followed the same methodology and process as the clinic tests.

The results were comparable to administering the screening questions in person — reinforcing their viability and flexibility to be applied in varied care settings. In the telephonic test, 95% of patients reported that the screening length was appropriate, 93% reported that they understood all questions and 85% reported that they were comfortable with the questions. Four patients reported that they were embarrassed to admit they had a certain need.

Ex 8: Need Prevalence (Telephonic)



Need prevalence for the 63 patients screened telephonically broke down similarly to in-person screening in phases one and two, though 25% reported utility and transportation needs, respectively, and 16% screened positive for interpersonal violence — all higher than in-person screening rates.

All 21 staff responded that the screening questions provided the right information to address unmet health-related resource needs. 95% of staff reported that they were comfortable with the questions and that the patients easily understood the questions.

STAFF FEEDBACK

"[I was only uncomfortable] when member's mother reported that she was 'embarrassed'. I tried to normalize the situation and provide encouragement."

"I gather similar information from each member I speak with. Some are more forthcoming than others... ...Many are relieved that someone is interested enough to ask and they share freely."

Next Steps

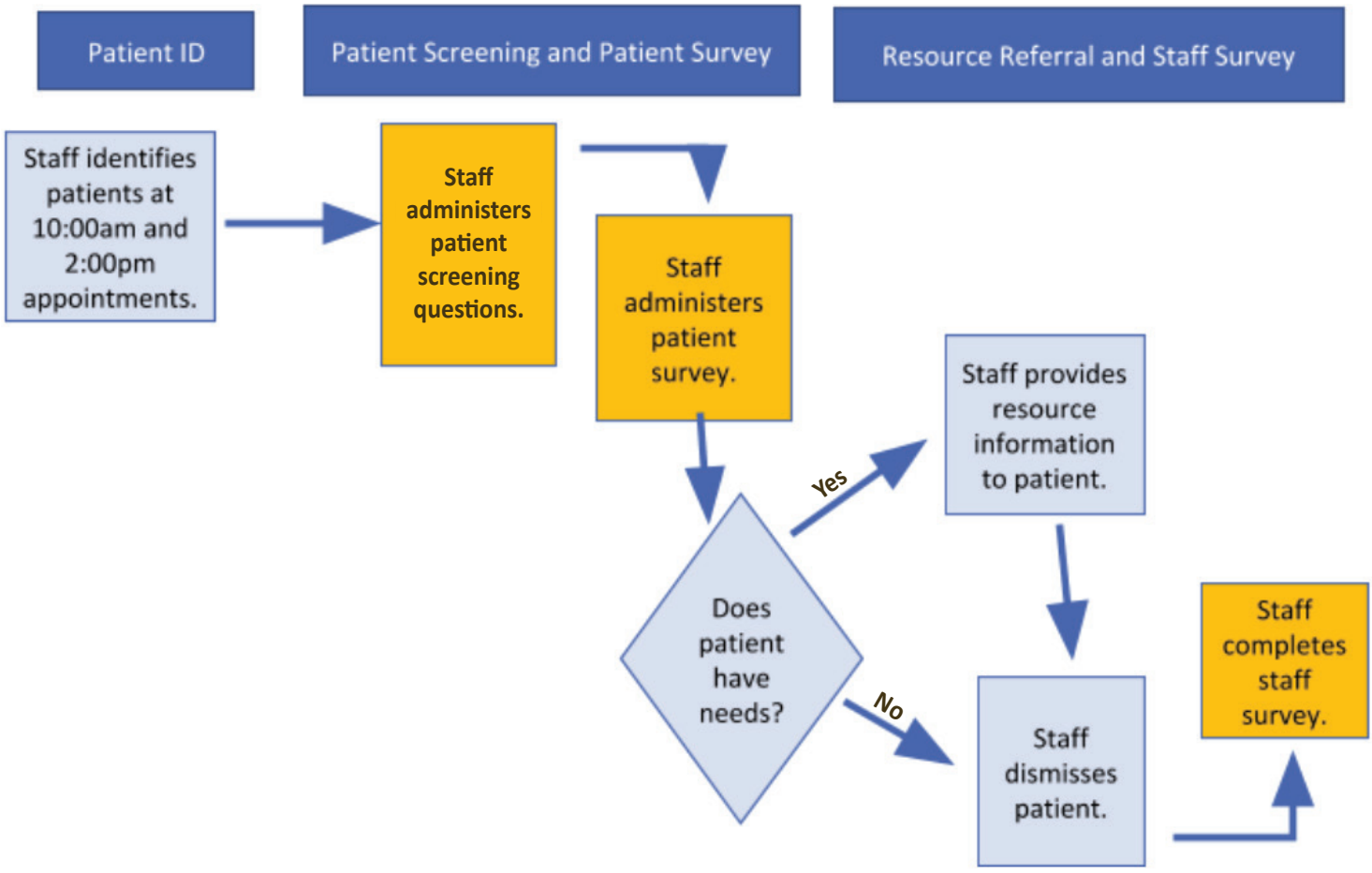
While the screening questions were created with the flexibility to screen all North Carolinians to identify resource needs that may drive their health and well-being, NCDHHS will only require that screenings be completed by Medicaid Pre-Paid Health Plans (PHPs) through their initial Care Needs Screening once the state transitions to Medicaid managed care. However, NCDHHS encourages organizations across healthcare and human services to adopt these questions to help identify individuals' resource needs. Similarly, PHPs are encouraged to consider using the questions at additional points of contact with people enrolled in their plans.

To support organizations in implementing these screening questions, NCDHHS and Health Leads will publish guidance on screening for unmet resource needs in the forthcoming Screening Implementation Guide. The guide will outline practices for successful implementation of screening — highlighting local and national examples of innovation in the field. In addition, NCDHHS is translating the screening questions into Arabic, French, Swahili, Vietnamese, German and Mandarin Chinese to facilitate full population screening.

In addition, it is important to not only identify resource needs, but also to connect individuals and families with resource needs to the appropriate community resources. NCDHHS is working with partners to deploy NCCARE360, a first-of-its-kind statewide coordinated care network that will serve as core infrastructure for North Carolina's move toward-whole person health and health system transformation *(see Appendix H for details)*.

Additional information on these and other DHHS initiatives can be found on the North Carolina Healthy Opportunities website.

APPENDIX A: SAMPLE CLINIC WORKFLOW FOR PILOT SCREENING



APPENDIX B: SCREENING SCRIPT

Introduction

Hi, I am [name] and I work here as a [role/job title] and I am part of a team focused on understanding our patients' life circumstances or essential needs so that we can provide the best healthcare services possible. Would you help us, and fellow patients, today by answering some questions? [If yes, proceed. If no, say "Understood. And continue with normal visit.]

At [name of clinic or office or community health center location], we have learned that life circumstances – like trouble affording food, housing, utilities, or transportation – affect the health of many of our patients. We are working on a way to learn more about our patient's life circumstances, so we can try and help our patients be healthy. I have a set of questions I would like you to answer. If you don't want to answer a question, then you don't have to and you can move on. Does that sound okay?

[Give screening questions to patients.]

Screening Positive

[If the patient screens positive for any question (a "yes" to ANY question), proceed with this script:]

We are asking patients these questions in select communities across North Carolina. I have a few more follow up questions to help us understand if these questions were the right ones to ask and determine how we can assist you and other patients in our communities in the future. Is it okay if I ask you a few more questions?

[If yes, proceed to the survey for patients and then populate the staff survey and submit. If no, thank them for their time and complete the survey for staff only.]

Screening Negative

[If the patient screens negative for all questions (a "no" to ALL questions), proceed with this script:]

Thank you for answering these questions. I want to make sure that these issues don't impact your health. It looks like these items are not a concern for you right now. If your circumstances change in the future, we would be happy to try and connect you to resources in the community.

We are asking patients these questions in select communities across North Carolina. I have a few more follow up questions to help us understand if these questions were the right ones to ask and determine how we can assist you and other patients in our communities in the future. Is it okay if I ask you a few more questions?

[If yes, proceed to the survey for patients and then populate the staff survey and submit. If no, thank them for their time and complete the survey for staff only.]

APPENDIX C: ENGLISH SCREENING QUESTIONS

Health Screening

We believe everyone should have the opportunity for health. Some things like not having enough food or reliable transportation or a safe place to live can make it hard to be healthy. Please answer the following questions to help us better understand you and your current situation. We may not be able to find resources for all of your needs, but we will try and help as much as we can.

	Yes	No
Food		
1. Within the past 12 months, did you worry that your food would run out before you got money to buy more?		
2. Within the past 12 months, did the food you bought just not last and you didn't have money to get more?		
Housing/ Utilities		
3. Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)?		
4. Are you worried about losing your housing?		
5. Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed?		
Transportation		
6. Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living?		
Interpersonal Safety		
7. Do you feel physically or emotionally unsafe where you currently live?		
8. Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone?		
9. Within the past 12 months, have you been humiliated or emotionally abused by anyone?		
Optional: Immediate Need		
10. Are any of your needs urgent? For example, you don't have food for tonight, you don't have a place to sleep tonight, you are afraid you will get hurt if you go home today.		
11. Would you like help with any of the needs that you have identified?		

APPENDIX D: SPANISH SCREENING QUESTIONS

Evaluación de salud

Nosotros creemos que todas las personas deberían tener la oportunidad de estar sanas. Algunas cosas como no tener suficiente alimento, transporte confiable o un lugar seguro dónde vivir, pueden hacer difícil que se encuentre sano. Por favor responda las siguientes preguntas para ayudarnos a entender mejor su situación actual. Quizá no podamos encontrar recursos para todas sus necesidades, pero intentaremos ayudarle en todo lo posible.

	Sí	No
Alimentos		
1. En los últimos 12 meses, ¿tuvo la preocupación de que se le iba a acabar el alimento antes de tener dinero para comprar más?		
2. En los últimos 12 meses, ¿el alimento que compró no le rindió y no tuvo dinero para comprar más?		
Vivienda/Servicios públicos		
3. En los últimos 12 meses, ¿ha tenido que quedarse a la intemperie, en un auto, tienda de campaña, refugio público o temporalmente en casa de alguien -quedándose en el sofá-?		
4. ¿Le preocupa la posibilidad de perder su casa?		
5. En los últimos 12 meses, ¿no le fue posible tener servicios públicos -calefacción, electricidad- cuando tenía gran necesidad de ellos?		
Transporte		
6. En los últimos 12 meses, ¿la falta de transporte le ha impedido llegar a citas médicas o realizar actividades de la vida diaria?		
Seguridad interpersonal		
7. ¿Se siente usted inseguro física o emocionalmente en donde vive actualmente?		
8. En los últimos 12 meses, ¿alguien le ha golpeado, cacheteado, pateado o lastimado físicamente?		
9. En los últimos 12 meses, ¿alguien le ha humillado o ha abusado emocionalmente de usted?		
Opcional: Necesidad Inmediata		
10. ¿Son urgentes sus necesidades? Por ejemplo: usted no tiene comida para esta noche, usted no tiene un lugar para dormir esta noche, o si usted tiene miedo de ir a su casa porque puede confrontar problemas.		
11. ¿Le gustaría tener ayuda en cualquiera de las necesidades que usted ha identificado?		

APPENDIX E: PATIENT SURVEY (ENGLISH, PG1)

To be asked to patient by staff:

Read question and answer choices aloud to patient and ask them to choose one answer.

Q1. How was the length of the questionnaire?

- ○ Too long. There were too many questions and you had a hard time finishing it.
- ○ Too short. There were not enough questions to be able to share information about your needs
- ○ Length was ok. You could finish it and could share enough information about your needs.

Read question and answer choices aloud to patient and ask them to choose one answer.

Q2. Were you uncomfortable answering any of the questions on the screening questions?

- ○ I was comfortable answering these screening questions.
- ○ I was uncomfortable answering some of these screening questions.

If the patient selected the second response, "I was uncomfortable answering some of these screening questions," show them the screening tool again and ask them which of the screening questions made them uncomfortable and why. Check which questions they identified in the space below and document the reason the patient described.

Screening Question	Patient uncomfortable and why
1. Within the past 12 months, did you worry that your food would run out before you got money to buy more? (Y/N)	
2. Within the past 12 months, did the food you bought just not last and you didn't have money to get more? (Y/N)	
3. Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)? (Y/N)	

APPENDIX E: PATIENT SURVEY (ENGLISH, PG2)

4. Are you worried about losing your housing? (Y/N)	
5. Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? (Y/N)	
6. Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living? (Y/N)	
7. Do you feel physically and emotionally unsafe where you currently live? (Y/N)	
8. Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone? (Y/N)	
9. Within the past 12 months, have you been humiliated or emotionally abused by anyone? (Y/N)	

Q3. **If the patient did NOT answer "yes" to any of the screening questions, skip this question. This question is meant to help identify situations where a patient didn't understand the question as it was asked and will help us learn if we need to modify the wording of the screening question.**

If the patient did answer "yes" to any of the screening questions, then:

- **Mark an X next to each of the questions they marked "yes" to on their questionnaire.**
- **Ask them:** "I see you marked yes, to [insert question they marked "yes" to]. Tell me more about why you put a yes to this question."
- **Take notes of why the patient marked "yes", including if that answer was what the patient meant or if the patient misunderstood the question.**

Do this for each question they marked "yes."

Question	Questions the patient responded "yes"	Why did the patient mark yes? (in the patient's words)
Within the past 12 months, did you worry that your food would run out before you got money to buy more? (Y/N)		
Within the past 12 months, did the food you bought just not last and you didn't have money to get more? (Y/N)		
Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)? (Y/N)		
Are you worried about losing your housing? (Y/N)		

APPENDIX E: PATIENT SURVEY (ENGLISH, PG3)

Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? (Y/N)		
Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living? (Y/N)		
Do you feel physically and emotionally unsafe where you currently live? (Y/N)		
Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone? (Y/N)		
Within the past 12 months, have you been humiliated or emotionally abused by anyone? (Y/N)		

Q4 **This question is meant to help understand if the screening questions identify current needs and reasons why patients may not want help accessing resources for their needs. If the patient did NOT answer "yes" to any of the screening questions, skip this question. If the patient did answer "yes" to any of the screening questions, then:**

- **Mark an X next to each of the questions they marked "yes" to on their questionnaire in column B.**
- **Ask them:** "I see you marked yes, to [insert question they marked "yes" to]. Can we try to help you find a resource in your community that might meet this need?"
- **Mark their response in column C.**
- **If they said no for column C, ask them "**Would you like to tell me more about why you aren't interested in receiving more information on resources in your community at this time?**" and take notes of their response in Column D.**

Do this for each question they marked "yes."

Column A	Column B	Column C	Column D
Question	**Questions the patient responded "yes" on initial questionnaire**	**"Can we try to help you find a resource need in your community that might meet this need?"**	**If patient answered no, their answer to, "why?"**
SAMPLE: Within the past 12 months, did you worry that your food would run out before you got more money to buy more? (Y/N)	X	Sample patient responded: "No thank you, not at this time."	Sample patient responded: "I was out of work 7 months ago and had a hard time getting food, but now I am back at work and don't need help."
Within the past 12 months, did you worry that your food would run out before you got money to buy more? (Y/N)			
Within the past 12 months, did the food you bought just not last and you didn't have money to get more? (Y/N)			

APPENDIX E: PATIENT SURVEY (ENGLISH, PG4)

Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)? (Y/N)			
Are you worried about losing your housing? (Y/N)			
Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? (Y/N)			
Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living? (Y/N)			
Do you feel physically and emotionally unsafe where you currently live? (Y/N)			
Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone? (Y/N)			
Within the past 12 months, have you been humiliated or emotionally abused by anyone? (Y/N)			

APPENDIX F: STAFF SURVEY

To be filled out by clinic staff.

Q1. Survey Information

Name of Clinic: _____

Name of Staff Person: _____

Date of Screen: _____

Time of Screen: _____

Q2. How was the screening tool administered?

☐ Patient-administered ☐ Staff-administered ☐ Other:

Q3. How was the length of the survey tool?

☐ Too long (patients had difficulty completing the tool or too long to fit into the clinic workflow)

☐ Too short (tool did not provide enough information to understand the patient's needs)

☐ Length was appropriate (providers received enough information to understand the patient's needs)

Q4. Was the patient able to complete the screening tool?

☐ Yes ☐ No

Q4a. If yes, anything worth noting?

_____

Q4b. If no, why?

☐ Too long ☐ Difficulty reading

☐ Time constraints ☐ Declined to complete survey

☐ Other: _____

Q5. Did you feel comfortable having patients answer these questions?

☐ Yes ☐ No

Q5a. If no, please explain.

_____

APPENDIX G: CLINIC OVERVIEW SURVEY

Please complete this survey at the end of the two-week period after you have completed all surveys. The person(s) who administered the screening questions and surveys to patients and their direct supervisor should complete the survey.

Q1. How many patients did you screen? _____

Q2. How many of these patients used the Spanish survey? _____

Q3. How did you randomly select which patients to screen? _____

Q4. At what point during the visit did you use the SDOH screening tool?

- ☐ As part of the check-in process
- ☐ As part of the weigh-in, temp, BP process
- ☐ As part of the encounter with the provider
- ☐ Other: _____

Q5. How was the screening tool administered?

- ☐ Self-administered (by patient)
- ☐ Staff-administered

Q6. On average, did patients have difficulty understanding the screening questions?

- ☐ Yes
- ☐ No

Explain: _____

Q7. On average, did you find that patients felt uncomfortable completing the screening questions?

- ☐ Yes
- ☐ No

Explain: _____

Q8. Was the tool easily integrated into the clinic workflow?

- ☐ Yes
- ☐ No

Explain: _____

Q9. Do you have any recommendations for how to improve the screening questions?

_____

Q10. Do you have any recommendations or best practices on how to best integrate the screening questions into a clinic's workflow?

_____

APPENDIX H: NCCARE360 OVERVIEW

NCCARE360 **is North Carolina's first statewide coordinated care network**, and will serve as the core infrastructure for the state's move toward whole-person health and health system transformation. NCCARE360's goal is to create a collaborative network of healthcare and human service organizations with a shared technology platform. This platform will support a coordinated, community-oriented, person-centered approach to delivering care in North Carolina.

NCCARE360 enables providers to electronically connect individuals with identified needs to community resources, and allows for a feedback loop on the outcome of that connection. This solution ensures accountability around services delivered, provides a "no wrong door" approach, helps to close the loop on every referral made and reports on the outcome of those connections.

NCCARE360 has multiple functionalities including:

- A robust statewide resource directory that will include a call center with dedicated navigators, along with a data team to verify resources, and both text and chat capabilities.
- A data repository to integrate resource directories across the state to share resource data.
- A shared technology platform that enables healthcare and human service providers to send and receive secure electronic referrals, seamlessly communicate in real-time, securely share client information and track outcomes.
- A community engagement team working with community-based organizations, social service agencies, health systems, independent providers, community members and more to create a statewide coordinated care network.

NCCARE360 implementation began in January 2019. The goal is to have NCCARE360 available in every county in North Carolina, with full statewide implementation by end of 2020.

NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES

The vision of the Department of Health & Human Services (DHHS) is to advance innovative solutions that foster independence, improve health and promote well-being for all North Carolinians. In collaboration with our partners, DHHS provides essential services to improve the health, safety and well-being of all North Carolinians.

Learn more about the Department's mission, vision, values, goals and initiatives at www.ncdhhs.gov.

Health Leads

Health Leads is a national non-profit organization working toward a vision of health, well-being and dignity for every person in every community. For over two decades, we've worked closely with hospitals and clinics to connect people to essentials like food, housing and transportation alongside medical care. Today, we're partnering with local organizations and communities to address systemic causes of inequity and disease — removing the barriers that keep people from identifying, accessing and choosing the resources everyone needs to be healthy.

Learn more about our work to advance health equity across the United States at www.healthleadsusa.org.