

Financial Assistance Processes and Mechanisms in Rural and Nonrural Oncology Care Settings

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QUESTIONS ASKED: What are the processes and mechanisms in place for providing financial assistance to patients and caregivers in rural and nonrural oncology practices across North Carolina? What barriers and facilitators do stakeholders perceive to addressing financial needs within current workflows, and how do these differ by rurality?

SUMMARY ANSWER: Existing financial assistance processes and mechanisms were characterized by core elements (screening, referrals, resource connection points, and financial resources). Although core elements were consistent across rural and nonrural practices, details related to each element's implementation differed by practice size and rurality. In contrast, facilitators and barriers to identifying and addressing patient financial needs were consistent across rural and nonrural sites.

WHAT WE DID: We conducted in-depth, semistructured interviews with stakeholders involved in financial assistance (ie, administrators, providers, and staff) at each of 10 oncology care sites in North Carolina. Five sites were located in rural counties, and five were located in nonrural counties. After conducting interviews with all stakeholders at each site, we developed a site-specific process map, which we reported back to site leadership and revised iteratively. We also conducted a coding-based thematic analysis to analyze stakeholder perspectives on barriers and facilitators to connecting patients and caregivers to financial assistance. After reporting all findings back to stakeholders, we synthesized themes and process maps across rural and nonrural sites separately, comparing emergent themes.

WHAT WE FOUND: We identified six core elements of existing financial assistance processes across all sites:

distress screening (including financial concerns), referrals, resource connection points, and pharmaceutical, insurance, and community/foundation resources. Processes differed by rurality; however, facilitators and barriers to identifying and addressing patient financial needs were consistent. Open communication between staff, providers, patients, and caregivers was a primary facilitator. Barriers included insufficient staff resources, challenges in routinely identifying needs, inadequate preparation of patients for anticipated medical costs, and limited tracking of resource availability and eligibility.

BIAS, CONFOUNDING FACTORS, DRAWBACKS: The experiences and processes described were drawn from practices located within a single state, which are unlikely to reflect the full diversity of financial assistance processes elsewhere. However, we purposefully recruited rural and nonrural, for-profit and nonprofit practices and a diverse sample of stakeholders from a large, geographically, and socioeconomically diverse state. In addition, we did not interview patients, despite patients being a key stakeholder in the financial assistance process. We plan to interview patients in future work after financial navigation implementation.

REAL-LIFE IMPLICATIONS: Both rural and nonrural sites had existing institutional processes in place to connect patients and their caregivers to medical and nonmedical financial assistance. However, existing processes were limited by insufficient staff resources, challenges in identifying patient needs, and inadequate infrastructure to track external resource availability and referrals. Our findings suggest several opportunities to improve current financial assistance processes through the implementation of financial navigation.

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ASSOCIATED CONTENT

Appendix

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abstract

PURPOSE Patients with cancer are at heightened risk of experiencing financial hardship. Financial navigation (FN) is an evidence-based approach for identifying and addressing patient and caregiver financial needs. In preparation for the implementation of a multisite FN intervention, we describe existing *processes* (ie, events and actions) and *mechanisms* (ie, how events work together) connecting patients to financial assistance, comparing rural and nonrural practices.

METHODS We conducted in-depth, semistructured interviews with stakeholders (ie, administrators, providers, and staff) at each of the 10 oncology care sites across a single state (five rural and five nonrural practices). We developed process maps for each site and analyzed stakeholder perspectives using thematic analysis. After reporting findings back to stakeholders, we synthesized themes and process maps across rural and nonrural sites separately.

RESULTS Eighty-three stakeholders were interviewed. We identified six core elements of existing financial assistance processes across all sites: distress screening (including financial concerns), referrals, resource connection points, and pharmaceutical, insurance, and community/foundation resources. Processes differed by rurality; however, facilitators and barriers to identifying and addressing patient financial needs were consistent. Open communication between staff, providers, patients, and caregivers was a primary facilitator. Barriers included insufficient staff resources, challenges in routinely identifying needs, inadequate preparation of patients for anticipated medical costs, and limited tracking of resource availability and eligibility.

CONCLUSION This study identified a clear need for systematic implementation of oncology FN to equitably address patient and caregiver financial hardship. Results have informed our current efforts to implement a multisite FN intervention, which involves comprehensive financial toxicity screening and systematization of intake and referrals.

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INTRODUCTION

Patients with cancer are at heightened risk of experiencing financial hardship, termed financial toxicity.¹⁻³ Associated with worse health-related quality of life and, in extreme cases, heightened mortality,⁴⁻⁶ financial toxicity is a threat to decades of advancement in cancer care. In addition, financial toxicity is more commonly experienced by low-income patients, patients of color, and patients living in rural areas.^{1,7} Thus, addressing patients' financial needs is essential for providing high-quality, equitable, and timely care to achieve optimal outcomes.

Promising research has identified financial navigation (FN) as an evidence-based practice to reduce

financial toxicity by detecting and addressing patient and caregiver financial needs.⁸⁻¹³ It is critical to understand how oncology practices currently address financial concerns to inform the adaptation and implementation of FN in diverse clinical contexts. Given differences between rural and nonrural health care settings (eg, patient volume and financial margins)¹⁴ and research suggesting that financial needs of rural patients may not be addressed as proactively as their urban counterparts,¹⁵ it is important to better understand differences in existing workflows.

Several previous studies have described the availability of systematic financial assistance processes at US cancer centers.¹⁵⁻¹⁸ However, to our knowledge, this is the first study to pair qualitative interviews with process

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mapping to understand site-specific financial assistance workflows from the perspectives of multiple stakeholders. The objective of this study, therefore, was to use process mapping to prepare for the implementation of a multisite FN intervention. Process mapping aims to develop an explicit, visual representation of a stakeholders' understanding of a specific process, including the pathways, roles, and resources involved.^{19,20} We sought to describe the processes and mechanisms in place for providing financial assistance to patients and caregivers in oncology practices across North Carolina, comparing rural and nonrural sites. We defined processes as the series of events and actions involved in connecting patients to financial assistance resources and mechanisms as how these events work together with available resources to alleviate financial distress. We also sought to understand stakeholder perspectives on barriers and facilitators to addressing patient financial needs within current workflows and how these differ by geography.

METHODS

Study Setting, Sample, and Recruitment

We used process mapping in 10 oncology practices in North Carolina before implementing FN. Five sites were defined as rural on the basis of Rural-Urban Commuting Area codes. We recruited health system stakeholders involved in connecting patients to financial assistance via e-mail (average of three reminders). Stakeholders included administrators, clinicians, and support staff involved in connecting patients with financial assistance. Study staff originally interviewed Site Principal Investigators (PIs), who identified others involved in financial assistance through a snowball sampling approach. Of the 91 individuals approached, 83 completed an interview (91% response rate). Stakeholders were given a \$50 in US dollars (USD) gift card for participation.

Data Collection

Two study team members (M.M. and M.G.) conducted 45- to 60-minute in-depth, semistructured interviews by phone or secure video-conferencing platform between February 2017 and April 2021 (see the interview guide in [Appendix 1](#), online only). We interviewed consenting participants at each site until we reached thematic saturation. All interviews were recorded, transcribed verbatim, and deidentified.

Analysis

Using Dedoose (version 9.0.15),²¹ we inductively developed a codebook through initial review of transcripts from one site; this codebook was iteratively refined over time. Six coders (C.B.B., V.P., M.M., M.G., N.P., and L.P.S.) coded three transcripts, discussing discrepancies and refining code definitions until reaching consensus. Coders divided and independently coded remaining transcripts. For each site, two coders (C.B.B. and V.P.) analyzed coded excerpts using thematic analysis to identify emergent themes and develop a process map documenting financial assistance workflows.²² We presented deidentified themes and maps

back to the site PI, financial navigator, and other stakeholders invited by site PI at each site during a 1.5-hour videoconference. Report-backs highlighted the key individuals involved in connecting patients to financial assistance, challenges in the current workflow (eg, delays, insufficient screening, and limited staffing), and the complexity of existing referral pathways. We revised maps on the basis of stakeholder input.

After all site report-backs, we synthesized process maps across sites. The study team reviewed all finalized process maps, grouping rural and nonrural sites. We first identified common elements across all maps (eg, screening, referrals, and resources). We then noted similarities and differences within each element by site and compared rural and nonrural sites. Second, we synthesized stakeholder perspectives across sites by combining themes at the code level across all rural and nonrural sites. Two coders (C.B.B. and V.P.) iteratively identified overarching themes, grouping similar themes describing barriers and facilitators to connecting patients to financial assistance, and compared emergent themes between rural and nonrural sites. The institutional review board at UNC-CH deemed this study exempt (#20-3181).

RESULTS

Participant and Site Characteristics

We conducted 78 interviews with 83 stakeholders across five rural and five nonrural sites (several interviews included two or three participants). Interviewees occupied both clinical (41%) and nonclinical (59%) roles and had a median of 7 years of experience ([Table 1](#)). Cancer center type, hospital ownership structure, and facility size varied by rurality ([Table 2](#)).

Financial Assistance Process Mapping

We identified six core elements of existing processes: distress screening (including financial concerns), referrals, resource connection points, and pharmaceutical, insurance, and community/foundation resources. [Figure 1](#) presents a simplified process map documenting core elements across sites. Within each element, we describe commonalities and differences across all sites, followed by differences between rural and nonrural sites. [Table 3](#) includes a description of each element by site.

Distress Screening

To screen for financial distress, all sites used the National Comprehensive Cancer Network (NCCN) distress thermometer and problem list,²³ which includes practical problems such as insurance/financial and transportation. Most often, the distress thermometer was administered by a nurse, nurse navigator, or medical assistant. Administration frequency varied, ranging from once, at initial consult, to all key points in patient care. The site administering the distress screening at all key points noted the administrative burden associated with this frequency. Another site that

TABLE 1. Characteristics of Interviewed Stakeholders Involved in Financial Assistance, Stratified by Rurality

Stakeholder Characteristics	Overall (N = 83), No. (%)	Rural (n = 43), No. (%)	Nonrural (n = 40), No. (%)
Role ^a			
Administrator/leadership	27 (33)	17 (40)	10 (25)
Oncology nurse navigator	14 (17)	5 (12)	9 (23)
Financial counselor	14 (17)	6 (14)	8 (20)
Registered nurse	10 (12)	7 (16)	3 (8)
Social worker	11 (13)	5 (12)	6 (15)
Lay navigator	3 (4)	1 (2)	2 (5)
Pharmacist	3 (4)	2 (5)	1 (3)
Medical oncologist	1 (1)	0 (0)	1 (3)
Radiation oncologist	1 (1)	1 (2)	0 (0)
Others ^b	14 (17)	8 (19)	6 (15)
No. of patients with cancer seen in the past week, median, (IQR)	0 (0-15)	0 (0-20)	0 (0-10)
0 (not in a clinical role)	49 (59)	27 (63)	22 (55)
≤ 15	12 (15)	4 (9)	8 (20)
16-25	7 (8)	5 (12)	2 (5)
> 25	11 (13)	7 (16)	4 (10)
Missing	4 (5)	0 (0)	4 (10)
Years of experience, median (IQR)	7 (3-15)	8 (4-18)	6 (3-13)
≤ 2	13 (16)	7 (16)	6 (15)
3-5	17 (21)	10 (23)	7 (17.5)
6-10	19 (23)	12 (28)	7 (17.5)
> 10	20 (24)	12 (28)	8 (20)
Missing	14 (17)	2 (5)	12 (30)
Years in role at the current institution, median (IQR)	4 (2-8)	5 (1-8)	4 (2-6)
≤ 2	25 (30)	15 (35)	10 (25)
3-5	21 (25)	10 (23)	11 (27.5)
6-10	20 (24)	12 (28)	8 (20)
> 10	7 (8)	4 (9)	3 (7.5)
Missing	10 (12)	2 (5)	8 (20)

Abbreviation: IQR, interquartile range.

^aAs it pertains to patients with cancer, participants could select multiple roles as applicable.

^bOthers include research nurse, pharmacy technician, oncology coordinator, radiation therapist, patient financial services, nurse care manager, care coordinator, and medication assistance specialist.

only administered the screening at initial consult did so because patients viewed frequent screening as redundant.

Rural sites emphasized that, regardless of formal screening frequency, they constantly checked in with patients informally, enabled by the small size of their facility. "I'm always reassessing for distress and concerns and problems. ...in the beginning, they may not have any need...but as they get going in the process, needs will pop up" (Social Worker, Rural_3). Nonrural sites expressed concern about patients falling through the cracks. As described by one interviewee, if a patient does not mention their financial need on the screener, "I think people just sort of assume that everything is okay and you keep marching on" (Nurse Navigator, Nonrural_3).

Referrals

We categorized referrals as either patient-activated (ie, the patient was responsible for initiating contact with the referred resource) or provider-activated (ie, the provider would connect the patient to the referred resource). Whether referrals were patient-activated or provider-activated, patients would first connect with a staff member involved in financial assistance (categorized as resource connection points, discussed below), who would then either recommend resources for patients to seek out on their own (patient-activated) or connect the patient to resources directly (provider-activated). The majority of referrals across all sites were provider-activated. Proactive,

TABLE 2. Characteristics of Interviewed Oncology Settings

Oncology Practice Characteristics	Overall (N = 10), No. (%)	Rural (n = 5), No. (%)	Nonrural (n = 5), No. (%)
Cancer program type			
NCI-designated comprehensive cancer center	2 (20)	0 (0)	2 (40)
Community hospital cancer program	4 (40)	4 (80)	0 (0)
Community hospital comprehensive cancer program	2 (20)	1 (20)	1 (20)
Integrated cancer program	1 (10)	0 (0)	1 (20)
Teaching hospital cancer program	1 (10)	0 (0)	1 (20)
Hospital ownership structure			
Voluntary nonprofit			
Private	4 (40)	3 (60)	1 (20)
Others	3 (30)	1 (20)	2 (40)
Government			
State	1 (10)	0 (0)	1 (20)
Hospital district or authority	1 (10)	0 (0)	1 (20)
Local	1 (10)	1 (20)	0 (0)
Satellite locations associated with institution			
Yes	5 (50)	0 (0)	5 (100)
No	5 (50)	5 (100)	0 (0)
Total No. of staffed inpatient beds			
0-100	2 (20)	2 (40)	0 (0)
101-200	1 (10)	1 (20)	0 (0)
201-500	3 (30)	2 (40)	1 (20)
> 500	4 (40)	0 (0)	4 (80)
No. of counties in the catchment area			
1	3 (30)	3 (60)	0 (0)
2-10	4 (40)	2 (40)	2 (40)
11-20	1 (10)	0 (0)	1 (20)
> 20	2 (20)	0 (0)	2 (40)

Abbreviation: NCI, National Cancer Institute.

provider-activated referrals were viewed as an important way to prevent financial hardship from arising. “If we identify these things on the front end, then our patient is less likely to have a crisis in the middle of treatment because they’ve been carrying this burden” (Social Worker, Rural_4). Referrals to Medicaid and Social Security Disability (SSD) were most likely to be patient-activated.

Rural sites had less complex, more provider-activated referral pathways. Provider-activated referrals were noted as being particularly important in rural sites because of low patient health and technology literacy. Nonrural sites more commonly had patient-activated referrals to the hospital business office, which included financial assistance (charity care) and payment plan administration.

Resource Connection Points

Staff involved in financial assistance varied by site. Oncology social workers most commonly connected patients

to nonmedical resources, and financial counselors addressed medical financial needs. Lay navigators and patient advocates were typically volunteer positions designed to help to fill in the gaps. Nurse navigators were also involved in financial assistance at some sites. “[We don’t] necessarily have the answers, but we help find the answers through other people and other resources” (Nurse Navigator, Nonrural_5).

Rural sites had fewer people serving as connectors. However, nonrural site staff were responsible for a higher patient volume. “...they’re all wearing so many different hats and there’s only two social workers in this ginormous cancer center” (Clinical Nurse Specialist, Nonrural_3).

Pharmaceutical Resources

Sites used numerous strategies for connecting eligible patients to manufacturers’ assistance programs (eg, internal databases and software). One site recognized the

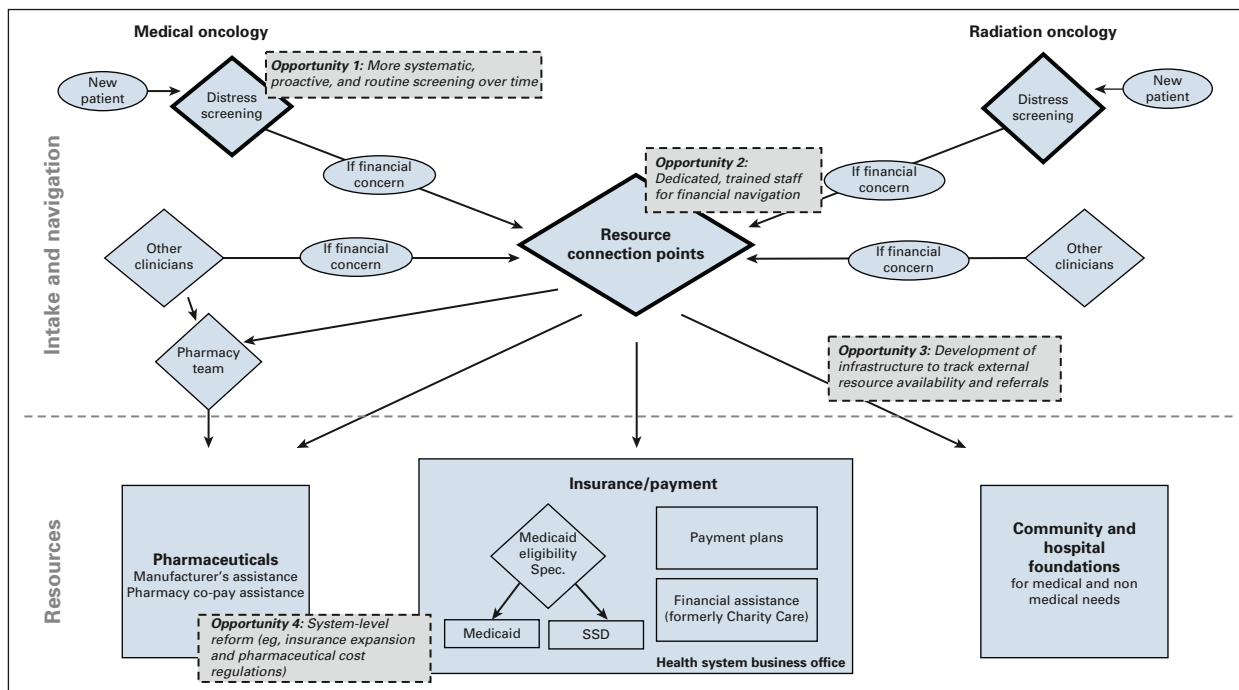


FIG 1. Overview of financial assistance workflows and opportunities for improvement. The figure presents a simplified, deidentified process map documenting how patients entering a cancer center for treatment are screened for financial distress and directed to resources for medical and nonmedical needs. Opportunities for improvement in existing workflows identified through the interviews and process mapping exercises are overlaid on existing processes. SSD, Social Security Disability.

benefit of manufacturers' assistance but underscored that it was not a comprehensive solution: "...we've figured out how to get everybody free drug...that's not a solution, that's a Band-Aid" (Nurse Navigator, Nonrural_3).

Rural sites less commonly had an in-house pharmacy, but some partnered with community specialty pharmacies for co-pay assistance using hospital foundation funds. Two of the nonrural sites had pharmacy teams dedicated to manufacturers assistance.

Insurance Resources

Medicaid application assistance, financial assistance (or charity care), and payment plans were typically housed in the hospital business office, most often physically located outside of the cancer center. We observed differences across sites in financial assistance eligibility criteria (eg, residency and citizenship requirements) and application review times (ranging from two weeks to more than 100 days). Most sites used the previous year's tax returns to verify income, and sites varied in how broadly financial assistance was advertised. Hospital-based financial assistance was seen as a resource of last resort after exhausting other resources. Interviewees across sites expressed frustration with the administrative burden of Medicaid and SSD applications. "It's all just complicated...I think...a lot of people are denied disability because they've turned in a badly-completed application" (Patient Assistance Coordinator, Nonrural_5).

In rural sites, business offices were more commonly located in another county because of being a satellite site of a main hospital. This inhibited the ability of providers to assist patients with financial assistance applications and created confusion surrounding who was responsible for Medicaid and SSD application assistance.

Community and Foundation Resources

Community nonprofit agencies and hospital foundations were particularly important for covering nonmedical costs. However, staying current with resources and eligibility criteria was time-consuming. Hospital foundation funds were used to supplement needs after exhausting external resources. "We like to spend everybody else's money before we spend our own" (Administrator, Rural_3). Funds were distributed in wide-ranging amounts, typically with an annual cap (from \$50 to \$5,000 (USD) per year). One site used foundation funds to operate a food pantry within the cancer center. Overall, interviewees emphasized the constraints of foundation and community funds in relation to patient needs. "[It] doesn't nearly meet the need... if you're not able to work for three to six months ... 500 bucks or even a maximum of a thousand dollars barely touches what you're going to need to get through that time" (Administrator, Nonrural_5).

Fewer resources were available in rural counties. As a result, rural sites relied more on internal foundations to meet patients' nonmedical needs. After a patient indicated

TABLE 3. Comparison of Financial Distress Screening and Management Process Across Sites

Site	Frequency of Distress Screening and Provider(s) Involved	Patient-Activated Referrals* (all others provider-activated)	Resource Connection Personnel	Type of Pharmaceutical Assistance and Provider(s) Involved	Key (in)Eligibility Criteria for Financial Assistance (charity care)	Health System Foundation Funds Available
Rural_1	Nurses provide screening at every physician visit	SHIIP SSD Medicaid	Social workers	Social worker and nurse navigator via in-house pharmacy co-pay assistance and manufacturer's assistance	Income eligibility on the basis of previous year's tax return	Cancer center fund and health system fund
Rural_2	Nurses provide screening at initial consult only	Medicaid Food pantry Community nonprofit resources	Social worker Lay navigators	Nurse navigation via partnership with community pharmacy (no manufacturer's assistance, MedOnc owned separately)	Not mentioned	Hospital: breast cancer fund and general fund
Rural_3	Nurse navigator (Med) or nurse (Rad) provides screening at initial consult only (unless patient mentions need)	None (all provider-activated)	Social worker Financial counselor Lay navigators	Pharmacists and pharmacy technicians via partnership with community pharmacy and manufacturer's assistance	Administered through external main hospital	Health system: general patient assistance fund
Rural_4	Clinic nurse (Med), patient access representative (Med), or nurse manager (Rad) provides screening at key points in patient care	None (all provider-activated)	Social worker Financial coordinator Lay navigators	Pharmacy assistance representatives in main hospital via in-house pharmacy co-pay assistance and manufacturer's assistance	Administered through external main hospital	None
Rural_5	Nurse or medical assistant provides screening at initial consult only	None (all provider-activated)	Financial navigator Front desk manager	Front desk manager and pharmacist via partnership with community pharmacy and manufacturer's assistance	Administered through external main hospital	Hospital: women-specific fund for medical costs
Nonrural_1	Nurse navigator (Med) provides screening at initial consult Nurse (Rad) provides screening at initial consult and at the end of treatment	Financial counselors (payment plans and charity care)	Social worker Financial counselor	Oral chemotherapy nurse and financial counselor via in-house pharmacy co-pay assistance and manufacturer's assistance	Medicaid denial required	Health system: general patient assistance fund
Nonrural_2	Nurse or social worker provides screening at all clinic visits	Financial counselors (charity care) Medicaid (if underinsured)	Social workers Financial counselor	Financial counselors via in-house pharmacy co-pay assistance and manufacturer's assistance	Medicaid denial required	Cancer center: patient assistance fund
Nonrural_3	Nurse and medical office assistant provide screening at the first visit, first treatment, and last treatment	SHIIP Financial services (payment plans and charity care)	Social workers Nurse navigators	Pharmacy liaison team (business office) via in-house pharmacy co-pay assistance and manufacturer's assistance	Medicaid denial required, undocumented individuals eligible, and ineligible if bill has gone to collections	Health system: general patient assistance fund
Nonrural_4	Nurse navigator and population navigator provide screening (frequency not mentioned)	None (all provider-activated)	Nurse navigator Population navigator Patient advocates	Nurse navigator and pharmacy charity care via in-house pharmacy co-pay assistance and manufacturer's assistance	Medicaid denial required, undocumented individuals eligible, and must live in institution's service area	Cancer patient support program funding (parking, meals, etc)
Nonrural_5	Front desk clerk provides screening at outpatient oncology clinic visits and screening reviewed by clinic nurse	Patient Family Resource Center SSD ACA Navigator Community programs	Social worker Patient assistance coordinator Nurse navigator Financial counselor Lay navigators	Medication assistance program coordinators via in-house pharmacy and community-based co-pay assistance and manufacturer's assistance	Income eligibility on the basis of previous year's tax return, screened for Medicaid first, ineligible if visa expired, and must have proof of NC residency	Cancer center: general patient assistance fund

Abbreviations: Med, Medical Oncology; NC, North Carolina; Rad, Radiation Oncology; SHIIP, Seniors' Health Insurance Information Program; SSD, Social Security Disability.

*We categorized referrals discussed by interviewees as either patient-activated (ie, the patient was responsible for initiating contact with the referred resource) or provider-activated (ie, the provider would connect the patient to the referred resource).

a nonmedical financial need, one rural site interviewee said “But what do we do with it? Because I don’t have any way to address this necessarily” (Nurse Manager, Rural_5).

Barriers and Facilitators to Connecting Patients to Financial Assistance

Interviews revealed stakeholder perspectives on barriers and facilitators to connecting patients to financial assistance within existing workflows. In comparing stakeholder attitudes between rural and nonrural sites, the most notable differences were related to the influence of facility size on communication. Interviewees from rural sites emphasized that their small size made multidirectional communication easier. “One of our strengths here is that we are such a small clinic that we know all the patients by name. We’re constantly seeing them... I think a lot of our patients, if they need help with something, I think they feel comfortable coming to us for help” (Social Worker, Rural_2). By contrast, one nonrural site described the large size of their institution as a barrier to patient communication. Because social workers covered multiple sites, they were rarely able to meet with patients in person. This made it harder to connect and understand patient needs. Several nonrural sites also emphasized that their large size made communication among providers—about patients, available resources, and process changes—more challenging. “...part of the issue could be not working in silos...in such a big place like this one, [working in silos is] a challenge because [it] seems that...in some departments, they may be duplicating efforts...there should be more communication across departments” (Patient Navigator, Non-rural_4).

Otherwise, stakeholders across rural and nonrural sites described similar facilitators and barriers to addressing patient financial needs (Table 4).

Facilitators

Stakeholders emphasized the importance of honesty and trust, both with patients and among providers, in identifying patients’ financial needs and connecting them to assistance. Building rapport with patients was critical to enabling open communication. Stakeholders described the importance of detecting needs indirectly (described as reading between the lines) since patients did not always verbalize their needs.

An individual’s institutional knowledge, developed through years of experience, was also a key facilitator to connecting patients to resources. Sharing curated lists of available resources, guides for how to complete complex applications, and relationships with community nonprofit organizations were invaluable. Unfortunately, this knowledge was not systematically captured and was often lost with staffing changes.

Barriers

Several barriers to connecting patients to financial assistance were identified. The lack of systematization in existing

processes resulted in a reliance on idiosyncratic organizational systems to track financial assistance. Stakeholders described developing their own processes—using calendars, binders, and sticky notes—to track patients and the status of various applications. Stakeholders at the majority of sites expressed frustration that referrals for financial assistance had not been built into their electronic health record systems. Lacking dedicated staff time for patient financial assistance was also noted as a barrier, given that staff involved in financial assistance processes were commonly serving in multiple capacities. In larger health systems, expansion of clinical operations often resulted in the number of providers and patients outpacing support staff. The absence of space for private financial conversations was also noted as a barrier in several sites.

Numerous barriers were related to the challenges of anticipating and identifying financial needs. Stakeholders described needing to balance patient informational and emotional needs. Despite wanting to proactively prepare patients for the financial consequences of treatment, they recognized that patients were often not able to simultaneously process both health and financial distress. In addition, stakeholders described the challenge of accurately estimating patient out-of-pocket costs although some sites developed informal calculators. Many stakeholders felt that NCCN distress screening was insufficient, particularly when administered without explanation of the tool’s importance. Stakeholders also noted limitations associated with electronic health record–triggered flags for the uninsured, which cannot identify underinsured patients. In addition, stakeholders recognized that patient financial needs often compounded and changed over time, rendering one-time screening at intake insufficient. Consequently, stakeholders felt that resources were directed to patients who were most comfortable speaking up.

DISCUSSION

Both rural and nonrural sites had existing institutional processes in place to connect patients and their caregivers to medical and nonmedical financial assistance. However, existing processes were limited by insufficient staff resources, challenges in identifying patient needs, and inadequate infrastructure to track external resource availability and referrals. Our findings add to those of previous studies of financial services in US cancer centers^{15,17,18} by documenting how oncology practices in diverse rural and nonrural settings screen for financial hardship and route patients to assistance.

Challenges with existing financial assistance processes identified in previous studies include a lack of cost transparency,¹⁶ patient reluctance to ask for help,¹⁶ inadequate staffing,^{15,18} and the need for better integration of financial advocacy into oncology practice.¹⁸ Each of these challenges was also identified by stakeholders across both rural and nonrural sites in our analysis, but rural sites felt that the

TABLE 4. Facilitators and Barriers to Identifying and Addressing Patient Financial Needs

Key Theme (and subthemes)	Representative Quotes From Rural and Nonrural Sites
Facilitator 1: Open communication with patients and among providers	
Building rapport and trust with patients	<p>“[social worker] has a way of talking to people that really allows them to tell them what’s going on” (Administrator, Rural_2)</p> <p>“What I do is I tell them that I am here to help them, and I don’t care what the question is or what the need is. It doesn’t matter how personal it is. If it’s a need, then let me know it, and I’ll try to help” (Nurse Navigator, Nonrural_5)</p>
Identifying needs not directly expressed	<p>“...[Patients] say things to us like, I’m trying to work and I need my appointment on this day or I need my appointment at this time or my transportation said this... And that automatically alarms us...and we will ask for the social worker and the financial counselor to visit with them...” (Infusion Nurse, Rural_3)</p> <p>“Unless you have somebody that’s having a conversation with them that’s pretty astute and kind of listening to some of the things that they say...we’re more reactive than proactive” (Nurse Navigator, Nonrural_3)</p>
Facilitator 2: Knowledge base and experience of individuals connecting patients to resources	
Institutional knowledge and partnerships with community resources	<p>“And being able to know, based on where the patient is located, what may be available to them, it’s just something that I kind of took on and...spent a little while on Google and just started making a list. You know, if the patient has these needs, refer them to this agency, this church, this outreach, so that has kind of become part of the role unofficially” (Financial Assistance Coordinator, Rural_1)</p> <p>“...this is like a daily thing where... I’m going through like six, seven, eight, nine different co-pay assistance foundations out there just searching it because it does change day by day. ... We do have a website called NeedyMeds.com, but I don’t solely rely on that. I will just, you know, I’ll Google to see if there’s some new programs out there...” (Medication Assistance Program Specialist, Nonrural_5)</p> <p>“There’s—so community resources, like our food banks... And so [community event coordinator]... she’s developing some unique partnerships with even some of our local restaurants who will donate food and things like that....most of my navigation team has been doing it for a while” (Clinical Nurse Specialist, Nonrural_3)</p>
Barrier 1: Existing processes have not been systematized	
Reliance on personal organizational systems to track financial assistance	<p>“I’ll have any new patients that come through, I print off just certain things: their treatment plan, their demographics, their insurance. And so everybody has their own folder. I’ve got binders up here...their authorizations go in there. And they also go in the computer....Post-its. I live by post-its” (Financial Counselor, Rural_4)</p> <p>“It was basically like a little estimator that we just put together on an Excel spreadsheet to say here is what your out-of-pocket might be for each cycle of chemotherapy, so when I say Excel spreadsheet, that is all that that was” (Office Manager, Nonrural_1)</p>
Limited EHR routinization of financial referrals	<p>“[The social workers] don’t have a work queue ... So, what happens is I put the order in [the EHR] ... and then I have to send her an email letting her know the referral is there, because otherwise she wouldn’t know...it’s duplicate work for me” (Nurse Navigator, Rural_3)</p> <p>“So, right now, on that distress screening tool, there is refer to chaplain, refer to nurse navigator, refer to nutrition...But, I’m asking her to add refer to social work, so that’s literally in process ...And, then I’ll actually have a systematic referral process. But, until now, it’s been calling me, emailing me, or word of mouth” (Social Worker, Nonrural_1)</p>
Barrier 2: Resources and dedicated staff time for patient financial assistance are limited	
Staff stretched thin	<p>“...sometimes it’s hard to find that time to really be able to dedicate enough attention to the patients that are having all these financial needs” (Social Worker, Rural_2)</p> <p>“Just because they’re all wearing so many different hats and there’s only two social workers in this ginormous cancer center. So you can see where there be areas for patients to easily get missed” (Clinical Nurse Specialist, Nonrural_3)</p>
Physical space limited for private financial conversations in rural sites	<p>“We are cramped for space...[financial coordinator] is actually having to move out of her current office into another office that’s going to be smaller.... And you wouldn’t want two people in there talking about their finances at the same time” (Infusion Pharmacist, Rural_3)</p>
(continued on following page)	

TABLE 4. Facilitators and Barriers to Identifying and Addressing Patient Financial Needs (continued)

Key Theme (and subthemes)	Representative Quotes From Rural and Nonrural Sites
Barrier 3: Challenging to uniformly identify and proactively anticipate patient needs	
Balancing patient informational and emotional needs	<p>“...depending on how stressed they are or how anxious they are...they may not verbalize [financial need] to us right away. It may be because they’re also dealing with the fact they just got a cancer diagnosis. So sometimes they haven’t even thought about the financial aspect of it” (Radiation Oncologist, Rural_4)</p> <p>“They’re overwhelmed with the system, they’re overwhelmed with their diagnosis, they’re overwhelmed with their own lives and then we’re going to ask them to call one more place and be on hold for 25 minutes where they may or may not get help? Sometimes they just don’t want to do it. And I can totally understand that” (Nurse Navigator, Nonrural_4)</p>
Difficulty in estimating out-of-pocket costs	<p>“We don’t really have a good solid process for helping patients to understand what their financial burden is going to be” (Administrator, Rural_4)</p> <p>“You want to be transparent with the—the cost, but you also don’t want to completely freak people out because it is going to be a lot of money.... But, there definitely are people... who hear how much it’s going to cost and are like, “Okay, I don’t—I don’t want to get treatment right now,” which is the worst possible thing that could happen” (Oncologist, Nonrural_1)</p>
Formal screening alone without an explanation insufficient	<p>“Because there have been challenges with the distress screening tool... It’s a challenge to get buy-in from other staff that this is important....they’re focused in on what their role is and their responsibilities.... So, getting the buy-in from the staff that this is important, this impacts their care” (Social Worker, Rural_4)</p> <p>“I think that requires a little more tailoring and sitting down with the patient and saying, ‘You know, this is something that’s very important document. We’re assessing your ... distress level.... We want to know in real-time where you’re living so we’re able to help you with all the resources that we have available.’ And I just don’t think that that is how it’s presented, [it’s] more as ‘this is a thing we need you to do to check a box’” (Clinical Nurse Specialist, Nonrural_3)</p>
Automated flags (ie, insurance status) unable to identify underinsured patients	<p>“...there’s co-pays and other things that [patients] have out-of-pocket. They fall into these little holes and little pockets of responsibilities that they can’t afford” (Infusion Pharmacist, Rural_3)</p> <p>“I think one of them is resources available for patients who have middle of the road insurance....It’s these people who make just enough with their—they get by, but they tend to be ineligible for all the programs that are out there” (Oncology Pharmacist, Nonrural_5)</p>
Resources directed to patients who are most comfortable speaking up	<p>“Unless the patient identifies that they have a need, they may get overlooked” (Social Worker, Rural_1)</p> <p>“...the squeaky wheel is going to get the oil. So, the ones who squeak the most, and ask for the most...get those resources” (Administrator, Nonrural_2)</p>
Patient financial needs compound over time	<p>“The more we screen, the more we ask, the less likely we’re going to have something, crisis, just pop up ... because it’s a lot easier to fix before it snowballs into something bigger” (Social Worker, Rural_4)</p> <p>“But then as treatment goes on, and they notice that...now I’m not working and I can’t pay the mortgage, I’m behind on the car. You know, all these other things start to add up as people are also getting more tired and worn out from treatment....on top of that, you have chemo brain. So if somebody forgets to pay the mortgage bill and now they’re two months behind, and there’s penalty fees, and things can just really snowball quickly” (Social Worker, Nonrural_2)</p>

Abbreviation: EHR, electronic health record.

smaller size of their facilities enabled them to better respond to patients’ needs. In addition, stakeholders in our study described how the lack of cost transparency in routine oncology care and patient health and financial literacy limitations compounded the challenges of delivering assistance.

Our findings suggest several opportunities to improve current financial assistance processes through the implementation of FN (overlaid on current workflows in Fig 1). First, screening both proactively and comprehensively throughout treatment ensures equitable allocation of financial resources. Although distress screening is a critical component of high-quality oncology care,²⁴ single checkboxes for patients to identify financial or insurance concerns are not

sufficient to capture the full scope of patient financial needs,^{25,26} particularly if the screening tool is not administered routinely or with sufficient explanation. Although more work is needed to study the implementation of financial screening in clinical practice, the FN intervention will pair a validated patient-reported outcome measure of financial toxicity, the COST tool,²⁷⁻²⁹ with distress screening to increase the likelihood that patient financial concerns are systematically identified. Systematic screening should also help to address noted staffing shortages by triaging on the basis of the level of need, thus optimizing the time that navigators spend with patients and caregivers.

Second, FN will provide an infrastructure to support patient intake and referral tracking. This will streamline existing

processes, document resources to which patients are successfully referred, and limit reliance on personal organization systems. Finally, FN involves building networks of financial navigators across cancer centers and connecting navigators to nonprofits with experience in navigation. This will facilitate knowledge sharing and support new navigators who lack institutional knowledge, a key facilitator to connecting patients to resources. FN is critical to addressing gaps and inefficiencies identified in financial assistance workflows. However, we must not overlook the importance of system-level reforms, such as insurance expansion and pharmaceutical cost regulations.³⁰

Results should be viewed in the context of several limitations. First, the experiences and processes described were drawn from practices located within a single state, which is unlikely to reflect the full diversity of financial assistance

processes elsewhere, particularly given state-level policy differences (eg, North Carolina has not expanded Medicaid). However, we purposefully recruited rural and nonrural, for-profit and non-profit practices and a diverse sample of stakeholders from a large, geographically, and socioeconomically diverse state. Second, we did not interview patients, despite patients being a key stakeholder in the financial assistance process. We plan to interview patients after FN implementation.

In conclusion, this study characterizes processes and mechanisms in place to identify and address patient financial needs from both rural and nonrural cancer sites. Barriers and facilitators identified by stakeholders illuminate the need for the systematic implementation of FN in diverse oncology settings to equitably address patient financial hardship.

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APPENDIX 1. KEY STAKEHOLDER SEMISTRUCTURED INTERVIEW GUIDE

Introduction:

Thank you for your interest in this study. Thank you so much for completing the online survey we sent prior to this interview. The aim of this interview is to help us understand how your practice responds to patients with financial problems. Your responses to both the survey and the interview will help us understand how to improve cancer programs' ability to respond to patients with financial problems moving forward.

We expect that our discussion will last about 45 minutes to an hour. Are you in a place where you feel comfortable and like you can speak freely, ie, in an office with a door that closes? Everything you tell us will remain confidential and will only be reported as part of a bigger group, without your name attached to it. Before we begin, I would like to ask your permission to audio record our discussion (for research and training purposes). Would it be OK with you if I record this interview? (*If participant refuses to be audio-recorded, the project coordinator will take notes instead*) The interview will be turned into written notes, but your name or any identifying details will not be associated with any of the notes. The audio recordings will be erased once the project is complete.

Do you have any questions before we begin?

If you have any questions, please reach out to the study staff or the Principal Investigator for this study.

1. Role in the organization
2. I'd like to start by asking you what might happen if I were a patient in your cancer program, and I asked for help with finances related to my cancer treatment.

Depending on the extent to which the interviewee responds to the question above and gives a clear sense of the context of the cancer program as it relates to financial counseling, including determinants of whether and how services are offered, you may also choose to ask the following questions:

Prompts:

- a. What happens when a patient mentions having trouble paying for personal expenses (eg, rent, electricity, gas) due to the costs of their treatment?

3. What would happen if I were a patient in your cancer program, and I needed help with my finances related to my cancer treatment, but I didn't ask anyone for help?

Prompts:

- a. Are all patients asked about their financial assistance needs? Who is responsible for asking patients about their financial assistance needs?

- b. What happens when a patient is having trouble paying for personal expenses (eg, rent, electricity, gas) due to the costs of their treatment?

4. Now, I'd like to discuss potential barriers and facilitators to implementing a specific program to help patients deal with their financial issues in your organization.

The financial navigation program consists of (1) identification of cancer patients at high risk for or currently experiencing financial difficulties related to their cancer treatment; (2) connecting these patients to a dedicated oncology financial navigator in your organization (supported by a UNC grant in this context), who will use a comprehensive assessment tool to determine financial needs and one-on-one appointments to direct patients to specific financial support resources and assist with applications; and (3) routine tracking and monitoring of patients' financial and health outcomes. The patients referred to a financial navigator will have at least two visits with the navigator with some patients receiving more intensive, needs-dependent support.

Could you please talk about how implementing an intervention like this in your organization might work? Are there things that would facilitate the intervention's implementation? What about things that might make implementing the intervention challenging?

Prompts

Consolidated Framework for Implementation Research (CFIR): outer setting

Patient needs and resources	How do you think the individuals served by your organization will respond to the intervention? What barriers will the individuals served by your organization face to participating in the intervention?
Cosmopolitanism	Do you exchange information with others outside of your organization regarding helping patients deal with financial issues? What professional networking do you engage in? Local or national conferences? Social media?
Peer pressure	Can you tell me what you know about any other organizations that have implemented the intervention or other similar programs? To what extent would implementing the intervention provide an advantage for your organization compared with other organizations in your area?
External policy and incentives	How has the COVID-19 crisis impacted your ability to help patients with financial needs? Are there any local or national guidelines that play a role in whether or not/how you help patients deal with financial issues? Are there financial incentives provided by your practice or another organization that would influence whether or not/how you help patients deal with financial issues?
CFIR: process	
Engaging	Are there key influential individuals that would affect whether/how patients get help with financial issues?
CFIR inner setting	
Structural characteristics	Do you think how your cancer center is organized affects how people in your organization decide whether or not/how to help patients deal with financial issues? (eg, social architecture, age, maturity, size, or physical layout)
Networks and communication	How do you typically find out about new information within your organization/practice, such as new initiatives? How would information about how to help patients deal with financial issues be shared in your practice?
Culture	Are there any aspects of your organization's culture (general beliefs, values, assumptions that people embrace) that affects whether or not/how you help patients deal with financial issues in your organization?
Implementation climate	Do you think there is support to change whether/how you help patients deal with financial issues in your practice? Are there standard work processes and practices regarding helping patients deal with financial issues in your practice? Does helping patients deal with financial issues conflict with other priorities in your organization?
CFIR: individual characteristics/theoretical domains framework (TDF) domains	
Knowledge (TDF)/knowledge and beliefs about the intervention (CFIR)	Can you talk to me about your understanding of the proposed program?
Beliefs about capabilities (TDF)/self-efficacy (CFIR)	How confident are you in rolling out this program to your patients? +(Prompts: <i>problems you may encounter/additional expertise or experience needed</i>)
Beliefs about consequences (TDF)	Based on what you know so far, do you think this program is going to be helpful to your patients?
Motivation and goals (TDF)	How important is it to you to help patients deal with financial issues?
Memory, attention, and decision processes (TDF)	Are there any systems or processes you have worked out for yourself that you always do when working with a patient about financial issues?
(continued on following page)	

(continued)

Consolidated Framework for Implementation Research (CFIR): outer setting

Social influences (TDF)/individual identification with the organization (CFIR)	How might views or opinions of others, such as colleagues, patients, and professional groups, or others in your practice influence whether/how you help patients deal with financial issues? Is there consensus in the profession about whether/how patients should be helped with financial issues?
Emotion (TDF)	How might patient emotions such as worry/concern influence whether or not/how you help patients deal with financial issues?

Thank you so much for talking with us. We would like to get the perspectives of 5-10 people within your organization, who else do you think we should interview within your organization?