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Delivery of Cancer Screening and Treatment in Critical Access Hospitals

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KEY FINDINGS

- In a survey of 135 Critical Access Hospitals (CAHs), 40% worked with visiting providers (oncologists and/or other physicians) to provide cancer treatment and/or screenings for their patients.
- Of those CAHs with visiting or non-local providers (n=44), over half (55%) ordered care for CAH patients with cancer.
- Non-local providers or telemedicine can be used by CAHs to provide cancer care services for their patients to reduce barriers to seeking care outside of their community, but there remains a need for continued collaboration among CAHs and other non-local providers to provide access to cancer screening and treatment.

PURPOSE

Critical Access Hospitals (CAHs) can play an important role in providing cancer screening and treatment services to rural residents with cancer, who may otherwise be unable to access recommended screenings, cancer treatment, and other supportive care services in a timely way. However, CAHs may face major barriers to providing this care for a variety of reasons, including a lack of personnel on-site with a specialized oncology background and technology to provide needed care. This policy brief summarizes survey findings to further understand cancer screening and treatment provided by CAHs, including the use of non-local providers (oncologists and other physicians) and telemedicine.

BACKGROUND

Rural individuals with cancer often face significant challenges accessing guideline-recommended care within a reasonable distance, a factor that contributes to higher rates of late-stage diagnosis and higher trends in cancer mortality in rural areas when compared to urban areas.¹⁻⁴

One major cause of these access issues is that only 3% of the nation's oncologists work in rural areas.⁵ Based on the authors' analysis of the 2020 American Hospital Association Annual Survey data,⁶ CAHs are also less likely than non-CAHs to provide certain cancer care services with only 22.9% of CAHs offering comprehensive oncology services (e.g., inpatient and outpatient services for individuals with cancer),⁷ 27.5% offering chemotherapy, and 3.6% offering radiation therapy in their facility. Rural hospitals, including CAHs, also face high rates of uncompensated care and other financial issues, which may limit a hospital's ability to recruit oncologists at a competitive wage, as well as offer guideline-recommended cancer treatment, screening, diagnostic testing, and supportive cancer care services to rural patients.⁸⁻¹⁰



CAHs that do not offer oncology services or cancer treatment at their facility may be able to use other strategies to connect local patients with cancer care. One method to combat the shortage of oncologists in rural areas is for CAHs to work with traveling oncologists from larger hospitals to serve rural cancer patients directly in rural communities.¹¹⁻¹³ Traveling oncologists increase access to cancer care for rural individuals with cancer by directly delivering care as well as providing knowledge, training, and 2 connections to rural practitioners.¹¹⁻¹⁵ These traveling oncologists can greatly improve the care for rural cancer patients by allowing them to stay close to home and avoid long travel times.^{11, 15}

Another method to improve access to limited rural cancer care is through use of teleoncology, a subfield of telemedicine, to connect patients to cancer specialists. Teleoncology allows oncologists to provide remote consultations, prescriptions, and supervision of chemotherapy, and it can also reduce or eliminate the need for patients to travel long distances for cancer treatment, screening, diagnostic tests, and follow-up appointments.¹⁶⁻¹⁸ Reducing travel burdens can decrease the financial and logistical hardships rural patients encounter which can cause them to forgo treatment entirely.^{14,19} While teleoncology is not a new field, it is not widely adopted, particularly in rural areas, and has historically had many challenges and limited uptake due to financing.²⁰ This study surveyed CAHs to understand how they provide access to cancer screening and treatment to individuals with cancer in their communities, including through the use of non-local providers and telemedicine.

APPROACH

CAHs for this study were selected using stratified random sampling to create a sample of 50 CAHs in each of the four U.S. Census Bureau-designated regions²¹ to generate a total sample of 200 CAH facilities. Out of a total of 200 CAHs contacted, a response rate of 67.5% was achieved (n=135 CAHs). The survey was fielded between March 1, 2022, and April 30, 2022, and

participants answered questions about their hospital's provision of cancer care services (defined as cancer screening, diagnostics, treatment, and care coordination).

The survey included questions on topics including availability of cancer care services, health care staff involvement in cancer care, mode of provision of cancer care services, and hospital policies and practices for oncology care. Chief Nursing Officers or hospital staff in similar positions were contacted via phone to complete the survey. Participants could also elect to receive an email with the link to an online version of the survey for completion and/or designate another staff member to respond to the survey on their behalf. Over half of the respondents completed the survey over the phone (n=79), while the remainder completed the survey through an online form (n=56).

Qualitative data from two of the survey's open-ended questions were included for this analysis: 1) What is the role of the non-local oncologists or other physicians providing cancer care at the hospital? and 2) For what services does the hospital use telemedicine for cancer care? Responses were coded by two members of the research team using conventional inductive content analysis to identify key themes.

RESULTS

Overall, 130 of 135 CAHs responding to the survey provided some type of cancer care screening and/or treatment, while 5 did not. Respondents were asked several questions about staff at their hospital that participate in cancer care services (including treatment, screening, and diagnostics), as well as the role of non-local/visiting providers (oncologists or other types of physicians/surgeons) in providing this type of care at their facility. Of the 135 CAH respondents, over 40% (n=55 CAHs) noted that they worked with non-local providers to provide cancer care in their hospital. Of those 55 CAHs using non-local providers, 36% (n=20 CAHs) provided both cancer screening and treatment, while 49% (n=27 CAHs) provided only cancer screening and 15% (n=8 CAHs) provided



only cancer treatment (Figure 1).

Respondents from CAHs that worked with non-local providers were asked a follow-up question to describe the role of those providers. Forty-four respondents answered this question, and over half of these CAHs (n=24) noted that non-local providers worked with their CAH to order cancer-related care for patients (Figure 2). One CAH responded that their model included services where “one oncologist comes once a week, orders chemotherapy and coordinates additional treatment.” Patient visits and follow-up care, as well as screening and diagnostics, were also common roles for non-local providers, with both categories being mentioned by 19 CAHs. Use of oncology-focused telemedicine was also mentioned by 7 CAHs, though always in conjunction with another response category (e.g., patient visits via telemedicine or ordering care via telemedicine). One example provided by a respondent mentioned that “the visiting providers oversee and manage the chemotherapy regimen that is administered in our facility. They use telehealth to examine the patient when not on site before chemotherapy administration.”

Similarly, respondents were asked about their use of telemedicine for cancer treatment and screening. Only 22 CAHs (16%) of all CAHs surveyed mentioned using telemedicine for cancer care in their hospital. Of those CAHs using telemedicine, half (11 CAHs) used it for both screening and treatment, while 5 CAHs used it solely for screening and 6 CAHs solely for treatment purposes (Figure 3).

The 22 CAHs providing telemedicine for cancer care were also asked a question about what specific services were provided via telemedicine, resulting in 18 responses. Nearly all of the responses (16 CAHs) included statements about types of visits (e.g., follow-up visits, consultations, or general appointments), while some only mentioned specific care, such as “genetic counseling”.

Many of the responses described situations in which they used telemedicine for cancer care, such as “We

FIGURE 1: Use of Non-local Providers for Cancer Treatment and Screening (n=55)

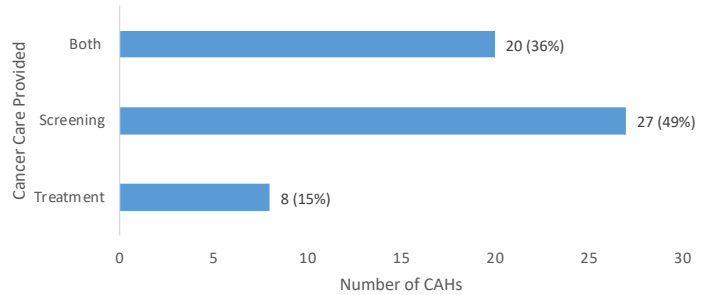
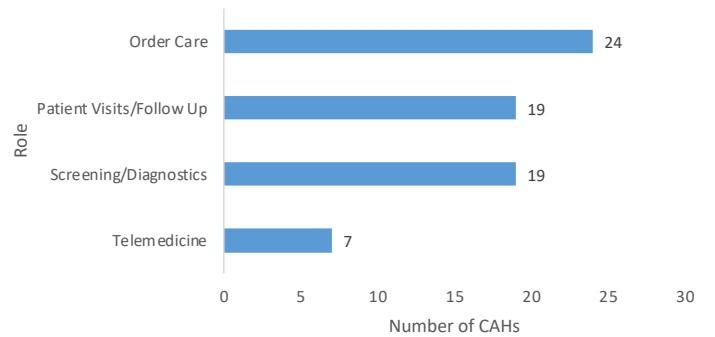
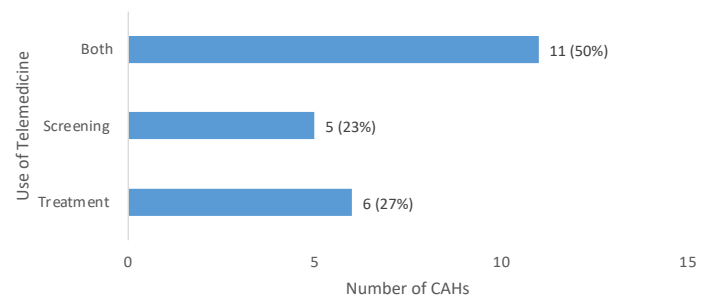


FIGURE 2: Role of Non-local Providers (n=44)



Note: Responses could include more than one category, so the total number of roles identified may exceed the number of CAHs.

FIGURE 3: CAH Use of Telemedicine for Cancer Treatment and Screening (n=22)





utilize telemedicine only if our traveling doctors are working the inpatient service at their cancer center or are at a different facility and cannot make it” and allowing for telemedicine “appointment[s] with oncology if [the] patient is unable to travel [the] distance to [their] primary oncologist.”

Additionally, one respondent described their collaborative procedures in depth, “They [patients] need to see the doctor before we can get the go-ahead to give the chemo. They’ll come in, and there’s a room with a TV and speakers. We have a stethoscope so the nurse and the doctor in [the urban setting] can hear the heart sound, we can hear the heart sounds. We just use the stethoscope as we would normally, they can hear. They can see all their lab work and they just visit with them over the TV.” Though the responses regarding use of telemedicine varied, they all provided insight into how CAHs were leveraging this mode of care to increase access for their patients.

DISCUSSION

Despite overall decreases in cancer rates nationwide, rural areas have seen higher death rates from cancer, with differences between urban and rural areas growing over time.²² These growing disparities highlight the need to ensure access to timely cancer screening and guideline-recommended treatment in rural areas. Our data has demonstrated that some CAHs are beginning to find ways to address this growing need in a variety of ways including through models of care that utilize non-local providers and, in a small subset of CAHs, telemedicine to improve access to these critical services for rural individuals.

Previous research has shown that the distances individuals must travel to receive cancer care may further exacerbate urban-rural cancer disparities, with one study finding that women with breast cancer who live farther from radiation therapy facilities were significantly less likely to receive guideline-recommended care.²³ Yet, our survey results suggest that provision of cancer screening and treatment services by CAHs may

not meet the growing demand for cancer screening and treatment in rural areas, with only 40% of CAHs in our survey indicating they work with non-local providers to provide these services, though additional studies are needed to inform this finding. These results mirror historical studies of cancer care among CAHs that found that in 2008 only 30.4% of CAHs surveyed provided chemotherapy and 2.9% provided radiation therapy services,²⁴ with levels decreasing over time. This shortage may occur for several reasons, including the oncology workforce shortage in rural areas. In 2020, an estimated 66% of rural counties had no oncologist, translating to approximately 32 million rural Americans without access to an oncologist in their county.²⁵ With an expected surge of oncologist retirements over the coming years (19.7% of oncologists are nearing retirement age), 25 rural areas will require innovative models to address these growing shortages. While not all cancer care services should be expected to be provided at every CAH nationally, access to services such as screening and diagnostics will remain integral to improving the health outcomes of patients in all rural communities.

As we identified in this brief, CAHs provide a variety of services across the cancer care continuum to address the cancer care needs of individuals in their communities. They have adopted a set of strategies to provide these services including working with non-local providers and adopting telemedicine to reduce access barriers. While few CAHs reported using telemedicine for cancer care services, this method should be explored by other CAHs as a way to improve access to care for individuals with cancer in their communities. As the COVID-19 pandemic upended the delivery of cancer care, many oncology providers (both rural and urban) transitioned to telemedicine.²⁶ Many patients have also indicated their satisfaction with using this new modality of cancer care.²⁷ With the expansion of Medicare and other reimbursement for many telemedicine services,²⁸ this modality of cancer care may provide added access to rural populations and provide opportunities for expanded services and capacity among CAHs going forward, particularly for



consultations. Further study of the use of telemedicine for cancer care as well as other services in the years after the initial pandemic-related uptake will be necessary to assess continued use and best practices.

Models of care that include non-local providers will also continue to play an important role as seen in our survey. The finding that 40% of CAHs surveyed worked with non-local providers to treat individuals with cancer shows that this model is possible and can positively impact access to cancer care in rural communities. Whether these appointments are conducted by non-local providers or through telemedicine in CAHs, they allow for rural individuals with cancer to remain closer to home to receive their care, or at least some of their care (e.g., follow up appointments and other consultations), and provide potential solutions to barriers including transportation issues, long travel times, and reduced financial toxicity, among others.^{11, 14} With new initiatives, including the newly established NIH Centers of Excellence to study telehealth for cancer care, there will be increasing opportunities to evaluate optimal models for delivering teleoncology in a variety of settings, including expanded use within CAHs in the future.²⁹

CONCLUSION

While CAHs may be unable to provide every type of service that patients in their communities need, new models can help to connect patients with other services and providers, particularly in cancer care. Through visiting non-local providers and telemedicine, CAHs can reduce barriers their patients face to receive necessary care, including long drive times to reach specialty services. While none of the CAHs in this survey noted assistance from their State Flex Programs (SFPs) related to the cancer care provided in their hospitals, SFPs can help their CAHs by supporting these models using non-local providers and/or telemedicine that will help patients access needed care for cancer, as well as other chronic conditions in need of specialized care.

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