

OeHI

Office of eHealth Innovation

eHealth Commission Meeting

VIRTUAL CONFERENCE

February 12, 2025

February Agenda



OeHI

Office of eHealth Innovation

Title	Start	Duration
Call to Order <ul style="list-style-type: none">• Roll Call and Introductions• Approval of Meeting Minutes• February Agenda and Objectives <i>Kaakpema “KP” Yelapaala, Chair</i>	12:00	5 mins
Announcements <ul style="list-style-type: none">• Welcoming Remarks• OeHI Updates-eHealth Commission Updates• Decision Items & Action Items <i>Stephanie Pugliese, Director, Office of eHealth Innovation (OeHI)</i> <i>All Commissioners and Advisors</i>	12:05	5 mins
Mapping Cancer Survivorship Resources in Colorado Results CDPHE PARTNER CPRM™ Project <i>Bing Walker, PhD Danielle Varda, PhD Jennifer Lawlor, PhD Andy Zheng, MA</i>	12:10	75 mins
Public Comment Period	1:25	5 mins
Closing Items <ul style="list-style-type: none">• Closing Remarks• Open Discussion• Recap Action Items• Adjourn Public Meeting <i>Kaakpema “KP” Yelapaala, Chair</i>	1:30	5 mins



OeHI and eHealth Commission Updates



Mapping Cancer Survivorship Resources in Colorado: Results from the CDPHE PARTNER CPRM™ Project

February 12, 2025

Bing Walker, PhD | Danielle Varda, PhD | Jennifer Lawlor, PhD | Andy Zheng, MA

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Presentation Overview

About CDPHE & Visible Network Labs

Alignment to CO Health IT Roadmap & Goals

About the Project: Cancer Survivorship Referral
Ecosystem in CO

Key findings from this work:

- Overview of cancer centers & community resources
- Services offered and perceptions of availability
- Referral network
- Referral duration and frequency
- Challenges and gaps for connecting survivors to resources

Platform Demo

Colorado Comprehensive Cancer Control Program

- Funded through the Centers for Disease Control and Prevention's (CDC) National Comprehensive Cancer Control Program (NCCCP)
- Purpose to increase cancer prevention and control across the continuum of care - primary prevention, screening and early detection, and cancer survivorship
- Fund policy, systems, and environmental (PSE) approaches through strategies that leverage data to identify needs, collaborate with partners across the state, and implement evidence-based interventions (EBIs) to improve screening and monitor and evaluate progress
- Project identifies survivorship resources and opportunities to provide technical assistance to cancer centers to increase connections to survivorship resources.
- Aligns with [Colorado Cancer Plan](#) Objective 8.3: Improve transitions throughout the continuum of care for all people affected by cancer.



COLORADO
Department of Public
Health & Environment

About VNL

Make Invisible Networks Visible

We are a social enterprise with a mission to strengthen social connectedness at the individual and systems levels, for better health, mental health, wellness, and economic opportunities.

We provide:

- Technology-based data and mapping tools
- Learning as Trainings and Workshops
- Opportunities for collaborative innovation

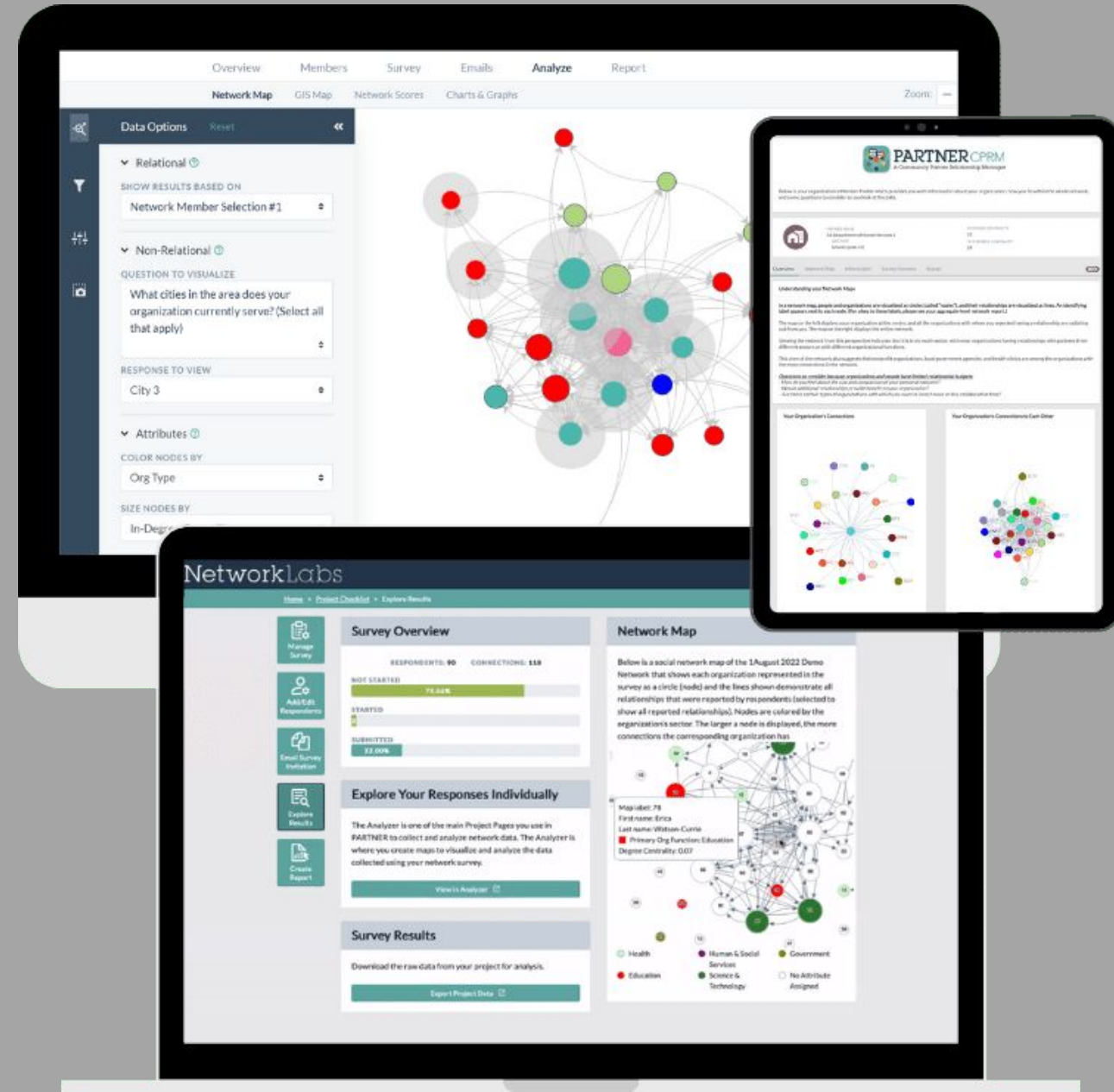




PARTNER^{CPRM}

A Community Partner Relationship Manager

Ecosystem Data Tracking & Learning Platform

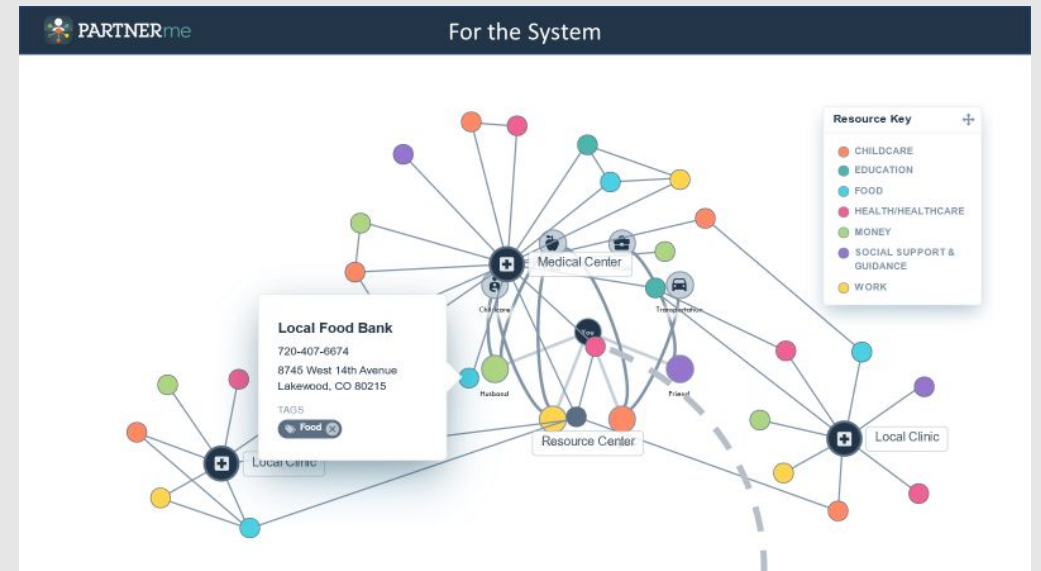
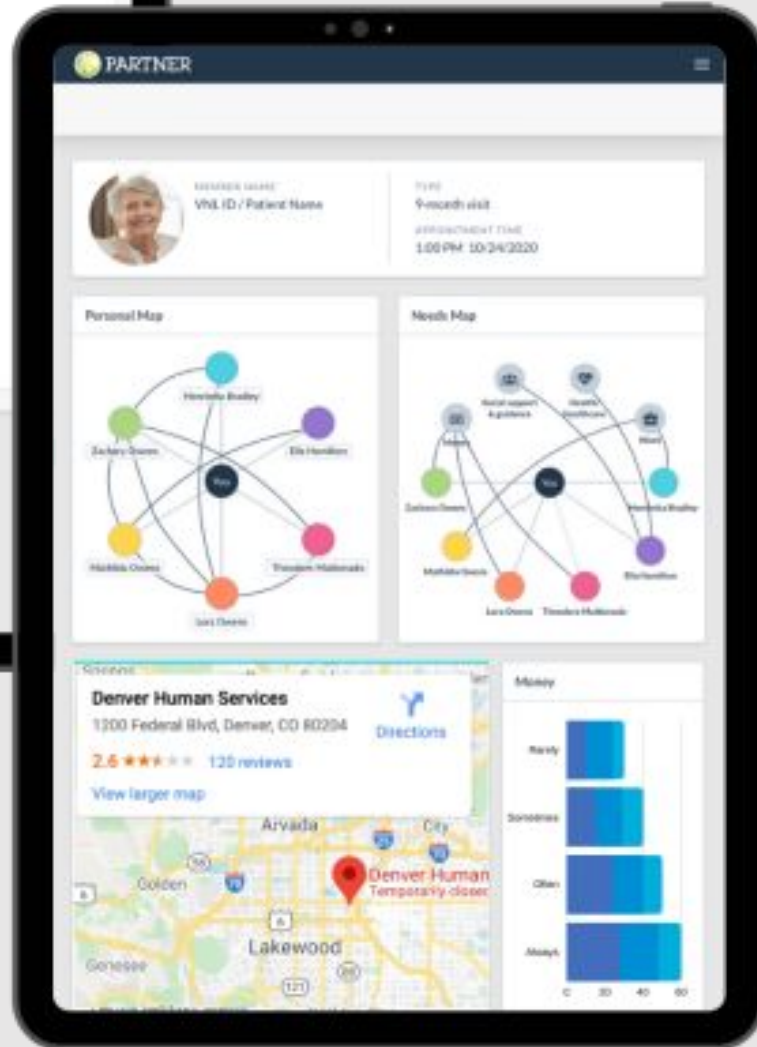




PARTNERme
Person-Centered Network Tool

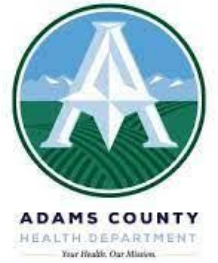
Social Needs/Social Connectedness
 Screener to Link People to Resources

www.visiblenetworklabs.com/partnerme





COLORADO
Governor's Office of
Information Technology



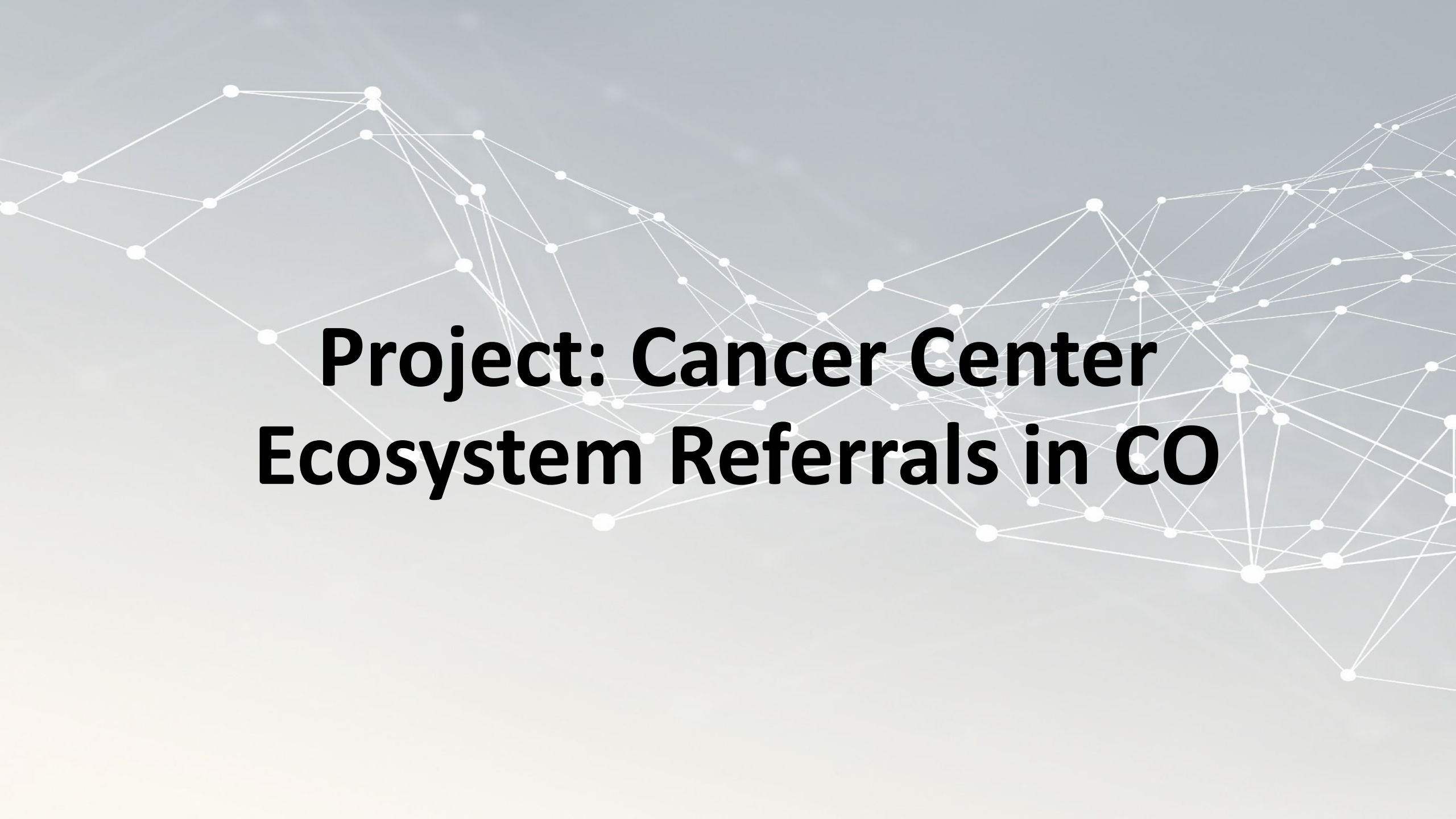
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OeHI
Office of eHealth Innovation

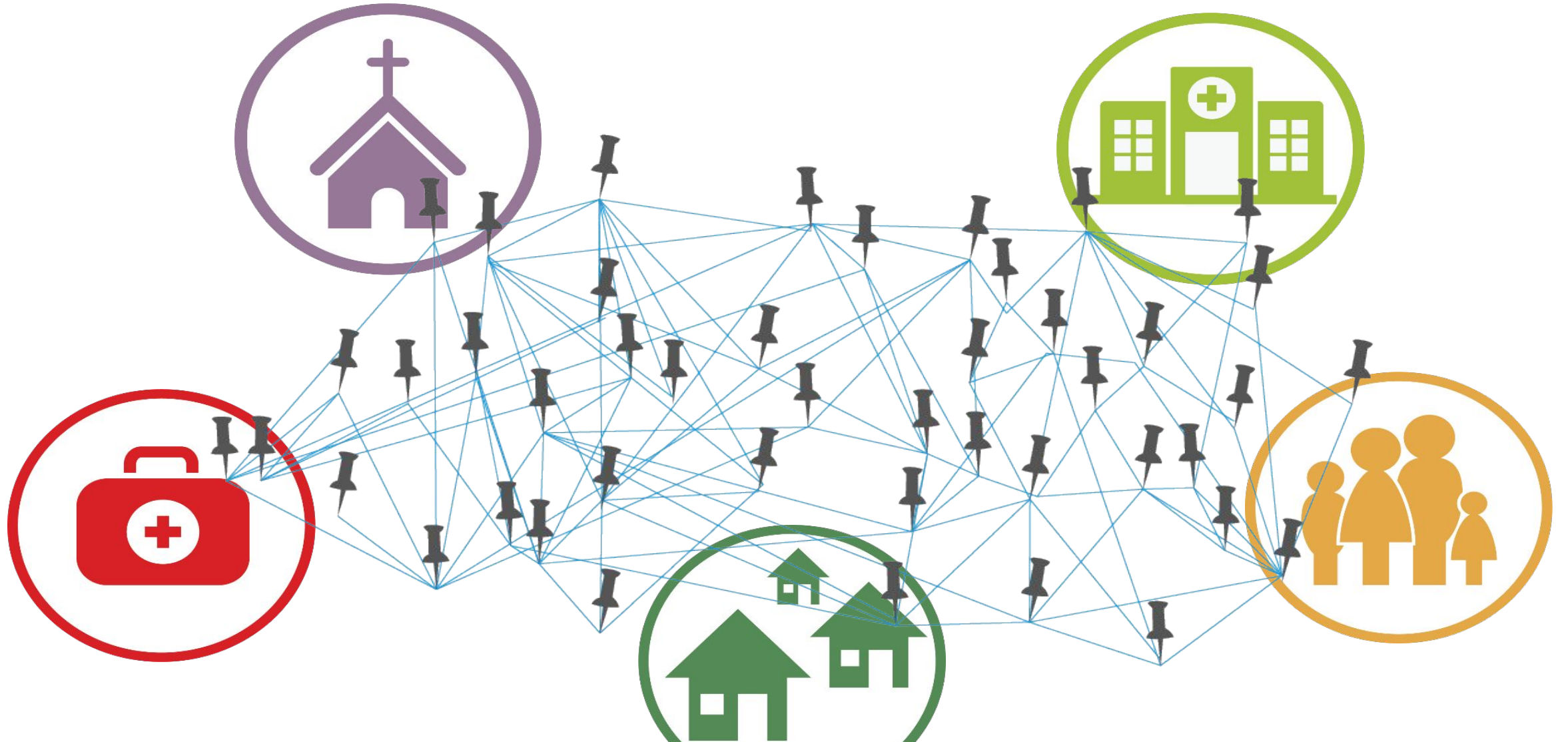
Current CO Projects

- CO Governor's Office
 - OeHI
 - Digital Equity
- Health Departments
 - Adams County
 - CDPHE
 - Cancer Survivorship
 - Chronic Disease Prevention
- Jeffco CPRM

A background graphic consisting of a network of white dots connected by thin white lines, forming a complex web-like structure. The dots are of varying sizes and are distributed across the frame, with a higher density of connections in the center and right side. The overall appearance is that of a data network or a social graph.

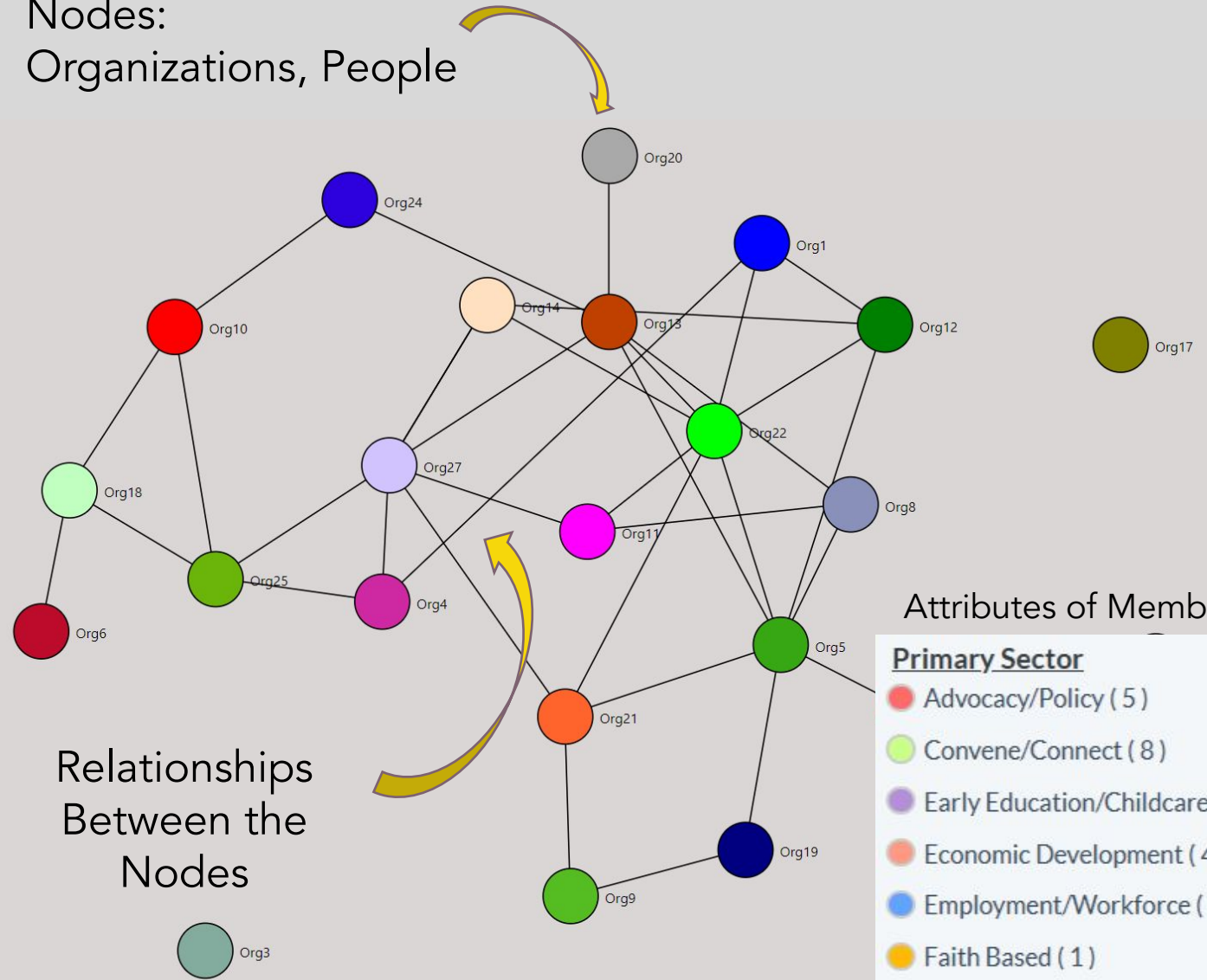
Project: Cancer Center Ecosystem Referrals in CO

The New Norm: The Network Way of Working



What Are Networks?

Nodes:
Organizations, People



Attributes of Members

- Primary Sector**
- Advocacy/Policy (5)
 - Convene/Connect (8)
 - Early Education/Childcare (19)
 - Economic Development (4)
 - Employment/Workforce (18)
 - Faith Based (1)
 - Family Services (26)
 - Food Security/Food Access (18)

Aligning with the CO Health IT Roadmap & Goals

To support the Health IT Ecosystem in CO, and provide accessible, equitable, and coordinated care to people in CO, this project aligns in the following ways:

Goals to Support the Health IT Ecosystem in CO:

Community Engagement - PARTNER CPRM engagement/collaboration methods and features

Data Sharing - features designed for safe and accessible data sharing

Innovation - applying Science of Networks to community partnerships and care coordination

Care Coordination:

Colorado Social Health Information Exchange (CoSHIE)

Provider directory

Community resource inventory

Cancer Survivorship Resource Referral Ecosystem in CO

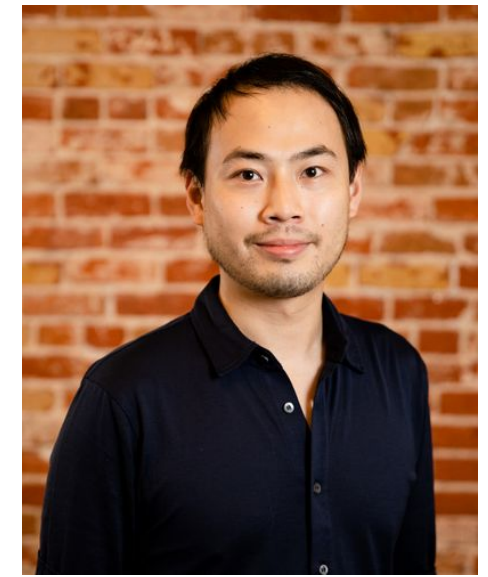
Purpose: To map the ecosystem of resources for cancer survivors in Colorado and the referral pathways that facilitate survivors in accessing them.



Bing Walker, PhD
Comprehensive Cancer Grant
Manager, CDPHE



Jennifer Lawlor, PhD
Director of Data Science & Insights
Visible Network Labs



Andy Zheng, MPA
Senior Network Analyst
Visible Network Labs

Project Background

Need: Map the Referral Ecosystem for Cancer Survivors in CO

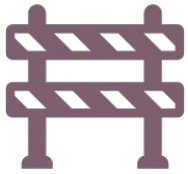
Tool Development: In partnership with VNL, the CDPHE team customized the PARTNER CPRM™ as a tool to collect, store, map, and analyze the referral ecosystem.

Method:

- Compiled and uploaded ecosystem members (a list of Cancer Centers and Organizational Resources in CO)
- Developed questions that capture info about members and their connections
- Launched a survey of cancer centers in Colorado
- 17 cancer centers identified community resources to which they refer survivors, and described their referral experiences

How to Use the Data:

Developing Data-Informed Strategies for Action



Identifying barriers to service and gaps in services to cancer survivors



Identifying strengths in services and referral relationships




Characterizing the existing referral relationships in terms of their quality, length, and origin

Project Deliverables & Resources

Live Dashboard

Colorado Cancer Survivorship Community Resource Referral Network

Author: Visible Network Labs



Introduction

About this project

Referrals of cancer survivors from cancer centers to community resources have been increasing and it can be difficult to track the developing ecosystem of cancer centers and their relationships with community resources. Such referrals are important to cancer survivors as there are various non-medical factors that influence their health outcomes (social determinants of health). The goal of this project is to gain a better understanding of partnerships between cancer center-community resources focused on providing both cancer treatment and whole-person care options for patients such as social services and lifestyle change programs. Several resource referral platforms have emerged that some providers use, and still more common are the ad-hoc referral networks activated between community and clinical partners. There is little evidence of how many of these types of referral partnerships exist, how they vary and change across urban-rural areas, and to what degree they are strengthening or how many gaps still exist. There is no common approach, method, database, or ability to track these partnerships, making it difficult to determine their effectiveness.

In partnership with the Visible Network Labs, the Colorado Department of Public Health and Environment embarked on a study of the network of organizations and community partners for cancer survivorship care. The study aimed to visualize the cancer center and resource connections.

<https://shorturl.at/S9Onl>

Policy Brief

Colorado Cancer Control Survivorship Resource Referral Network Policy Brief

Colorado Department of Public Health & Environment

Executive Summary

Key Points

- Colorado's cancer control survivorship resource referral network includes an **extensive array of services and long-standing partnerships** but faces critical gaps.
- Challenges include **transportation barriers, the rural-urban service divide, and limited support for underserved populations** such as immigrants, refugees, non-English speakers, and the homeless.
- Most relationships in the network operate at a **low intensity**, focused on awareness rather than integrated collaboration.

Recommendations

- Enhance visibility of the community resource referral network for cancer survivors with an online tool mapping cancer centers, community resources, and their services.
- Strengthen collaboration across sectors to improve services for vulnerable populations and expand transportation access.

Background and Method

Background. While referrals of cancer survivors from cancer centers to community resources are increasing, tracking the growing ecosystem of partnerships between these entities remains challenging. These referrals are critical, as many non-medical factors, or **Social Determinants of Health (SDOH)**, significantly influence cancer survivors' outcomes. Survivorship care should integrate both cancer treatment and whole-person care, including social services, lifestyle changes, and psychological support.

Currently, several resource referral platforms are used sporadically by providers, but ad-hoc referral networks

<https://shorturl.at/RZaNW>

Full Report

Colorado Cancer Control Community Resource Referral Network

Aggregate Report 2024

Colorado Department of Public Health & Environment

VisibleNetworkLabs

<https://shorturl.at/o85do>

A network diagram consisting of numerous white circular nodes connected by thin white lines, set against a light gray background. The nodes are arranged in a somewhat horizontal, wavy pattern, with some nodes having multiple connections, creating a complex web of relationships.

Identifying Members of the Cancer Center Ecosystem in CO

No Comprehensive List of Cancer Center Exists

After many attempts to find one, the project team worked to compile a list of cancer centers across CO.

Populating the Ecosystem Database:

Cancer centers identified in CO: 92

Community resources identified: 117

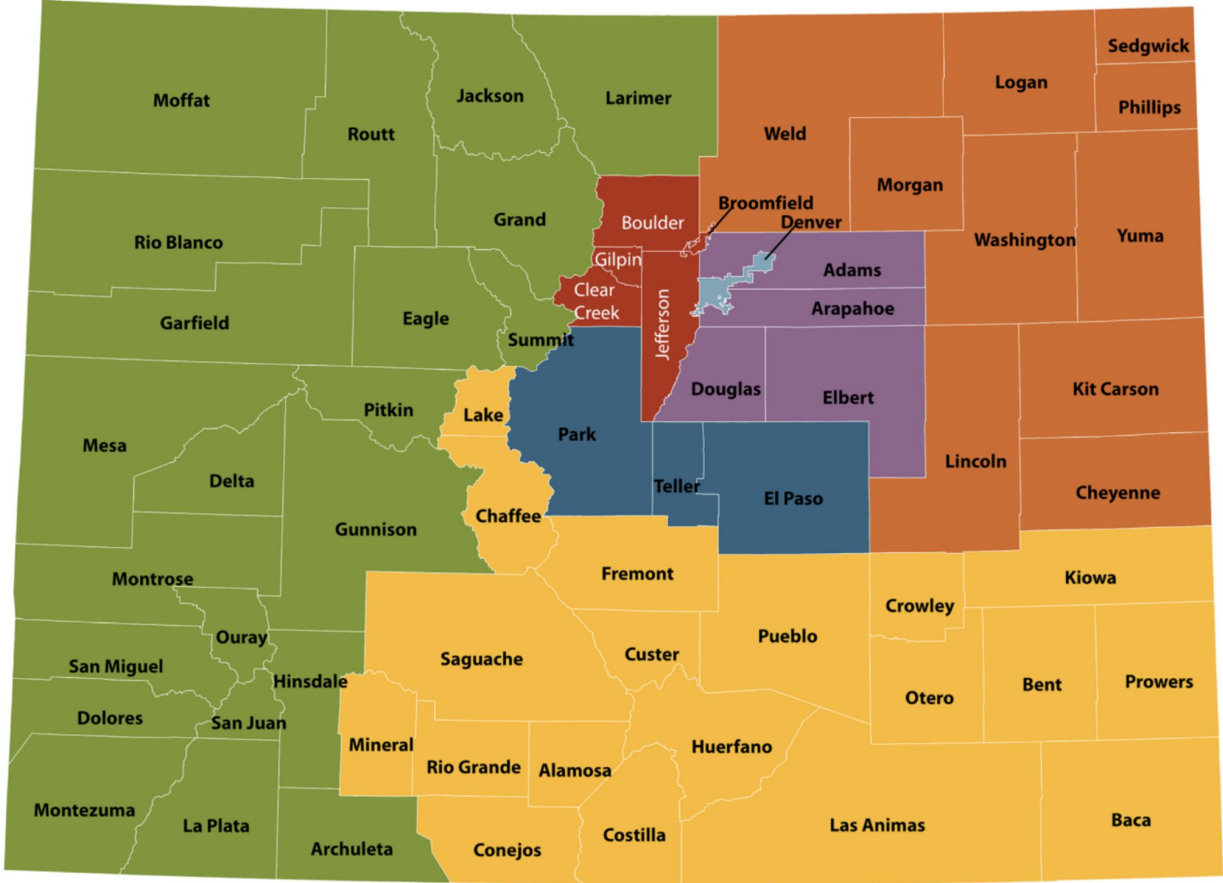
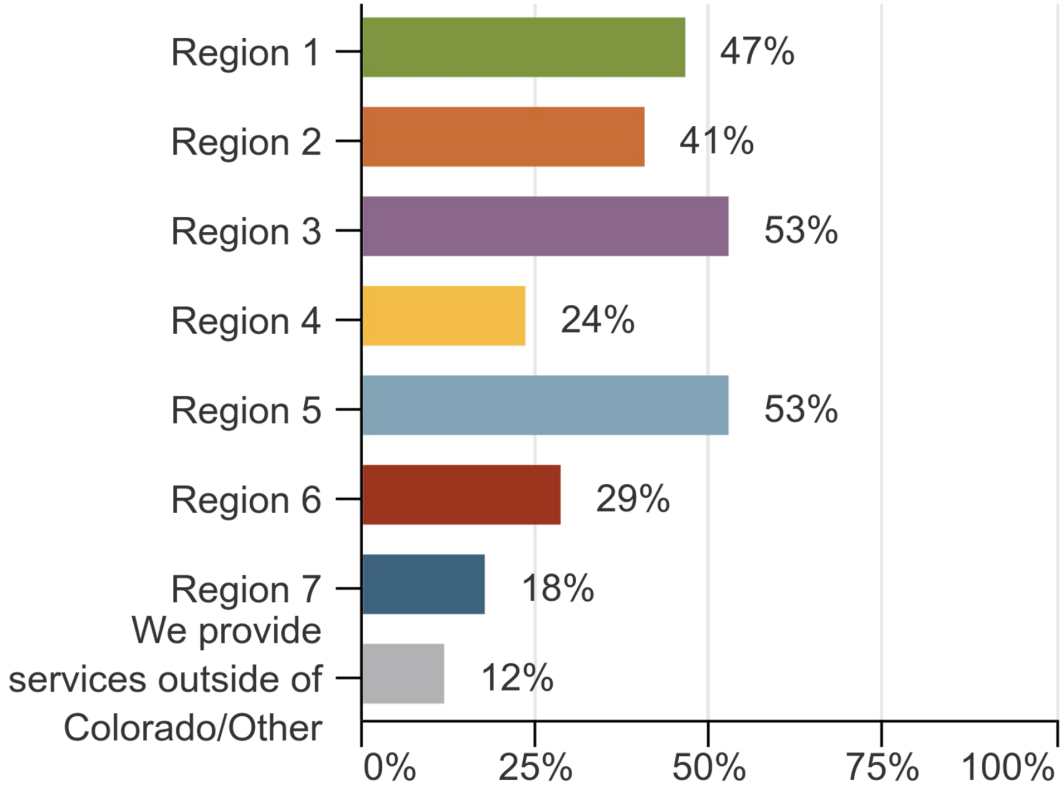
(some cancer centers also serve as resources)

Surveying Cancer Centers:

Responding cancer centers: 17

Referral relationships identified: 339

Cancer Centers' Service Areas by RAE Region

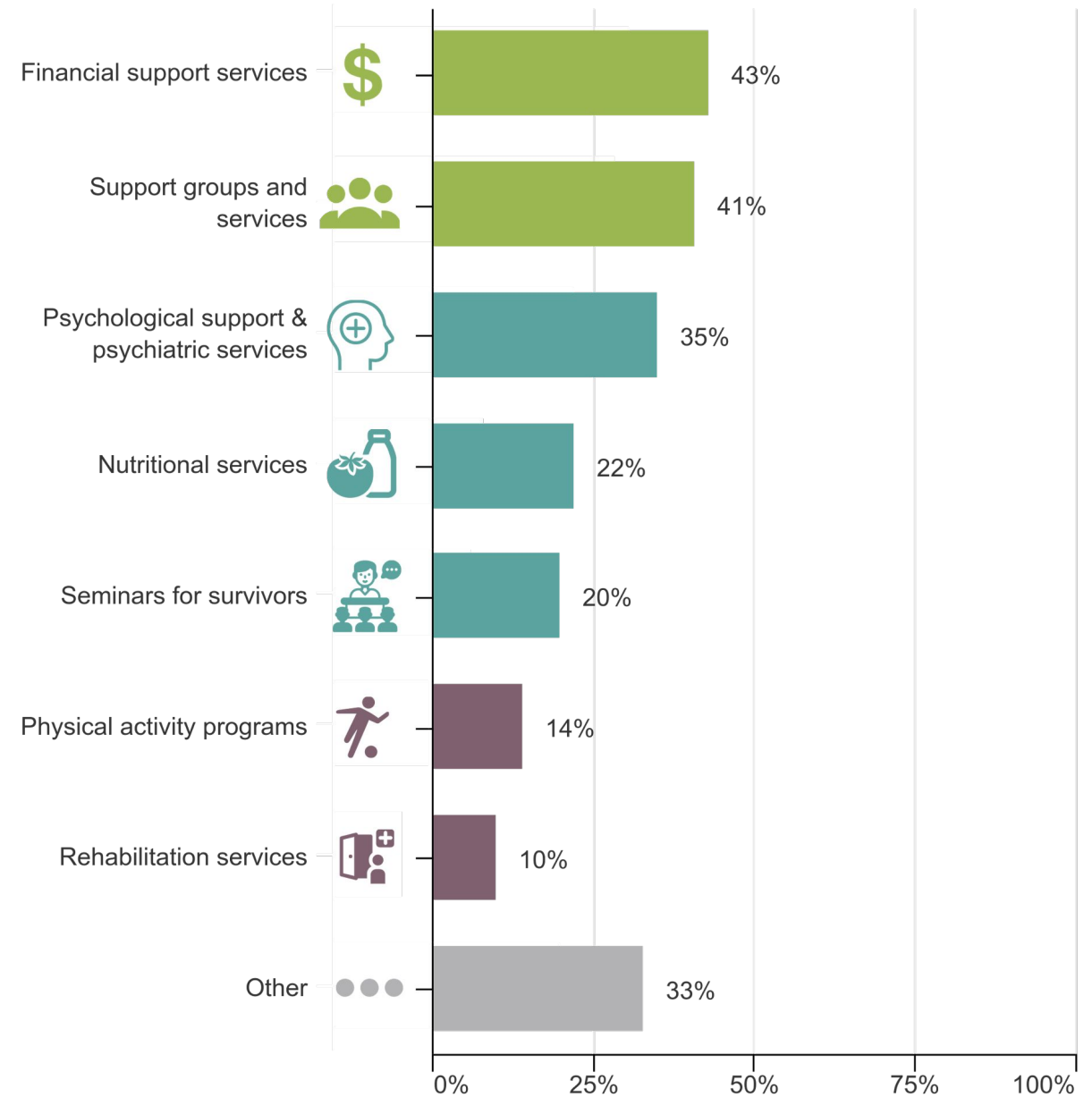


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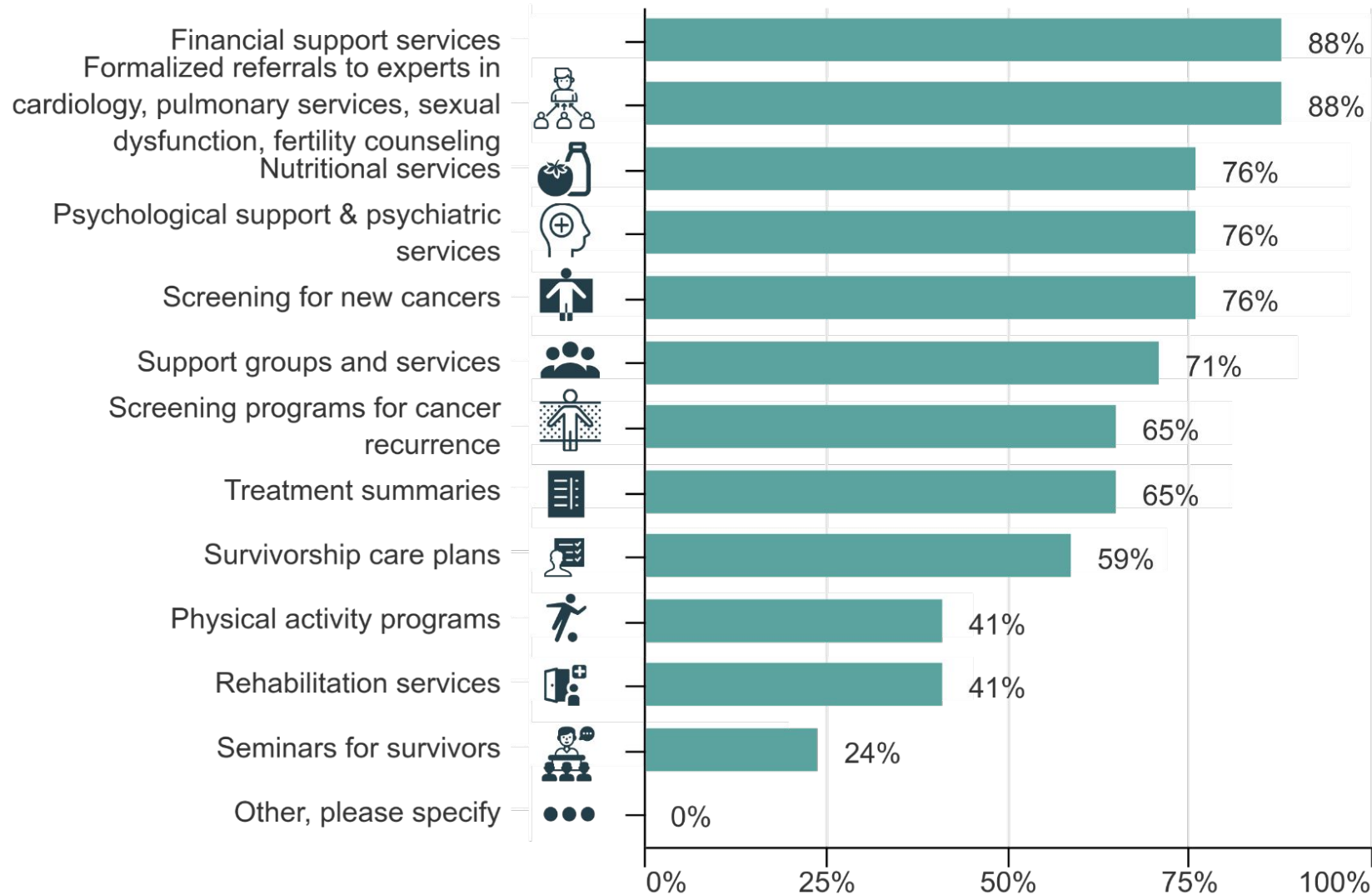
**What services do cancer centers
and community resources offer?**

Services for Which Cancer Centers Refer to Community Resources

Resources most often provide financial support services. Rehabilitation services are the least common.



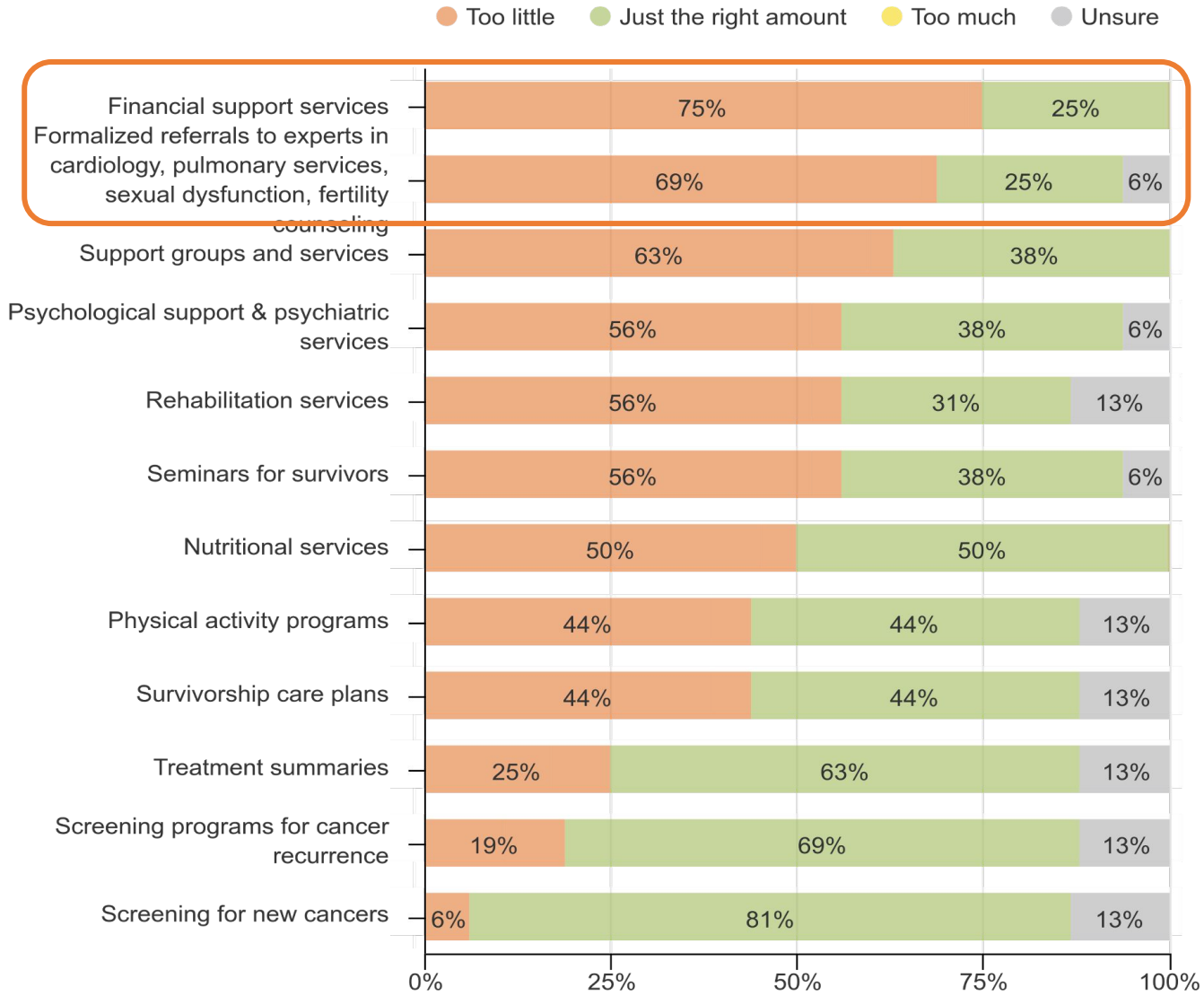
Services Offered by Cancer Centers for Survivors

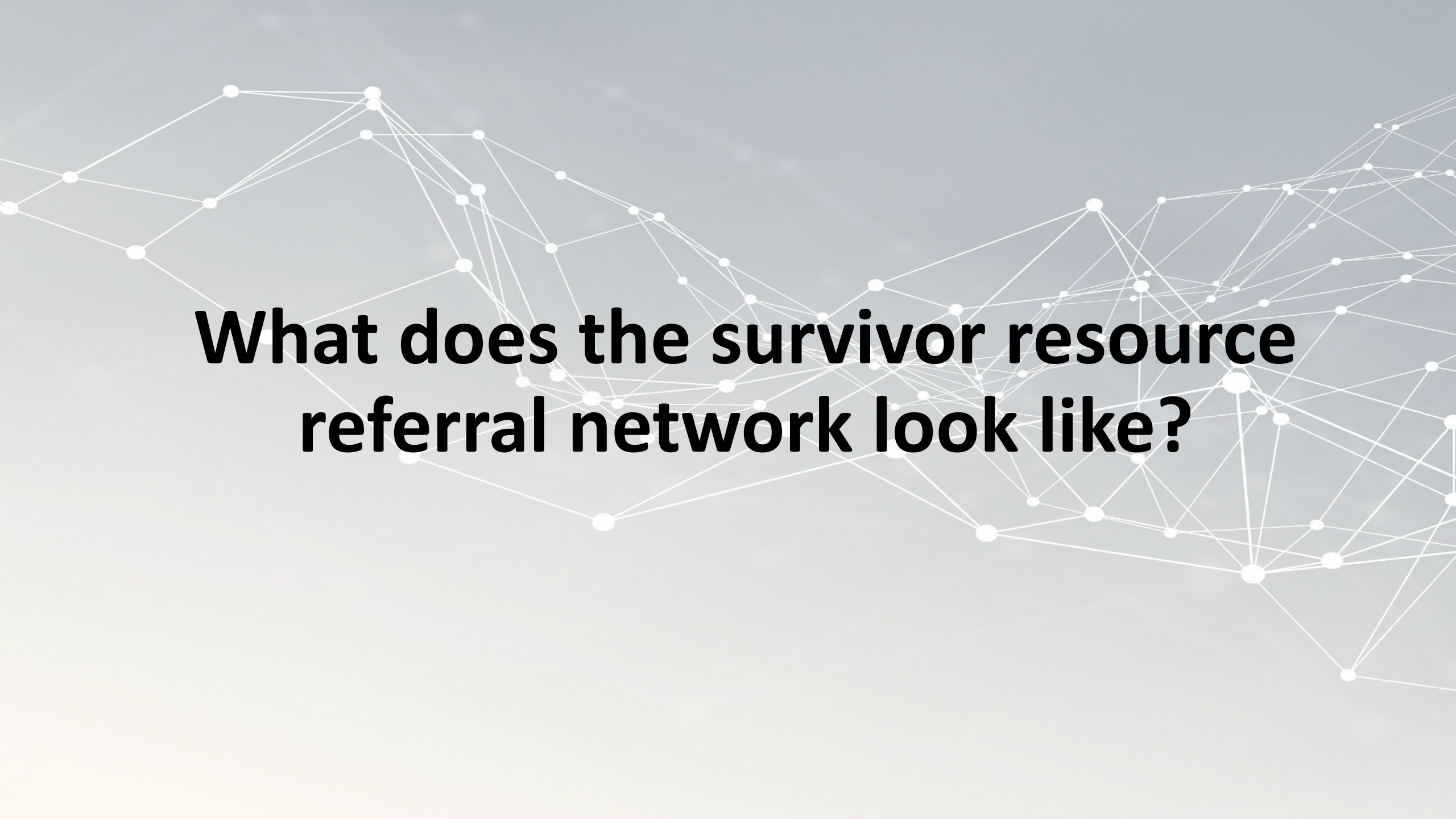


Each responding cancer centers reported offering multiple services. The most common service is financial services.

Perceptions of Service Availability

Cancer centers' most commonly offered services are also the services perceived to be most lacking.

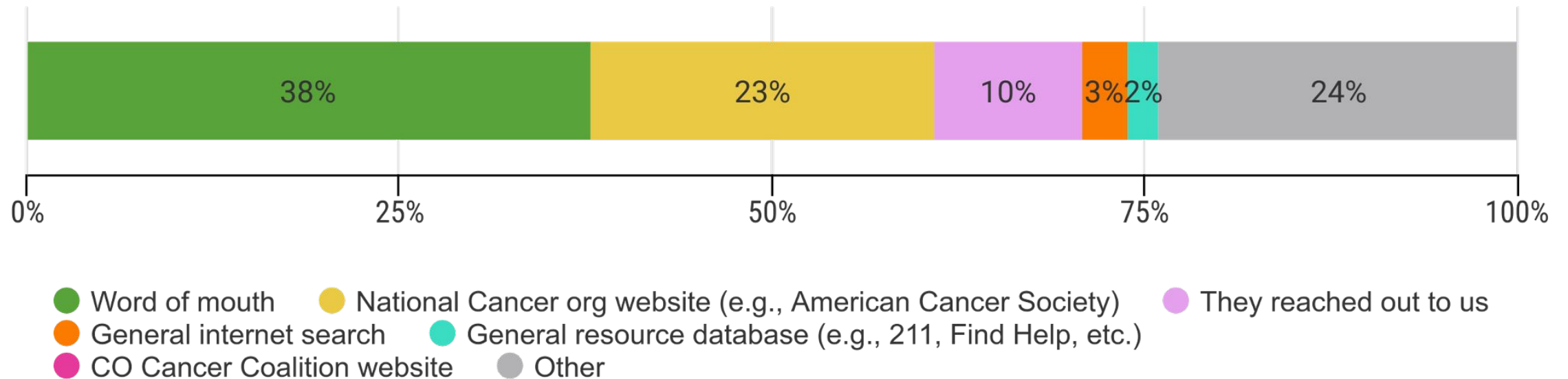


A network diagram consisting of numerous white circular nodes connected by thin white lines, set against a light gray background. The nodes are arranged in a somewhat horizontal, elongated pattern, with some nodes having multiple connections, creating a complex web of relationships. The overall appearance is that of a social or organizational network.

**What does the survivor resource
referral network look like?**

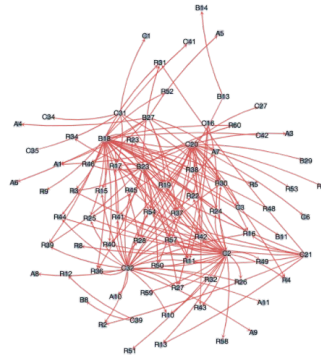
Origin of Referral Relationship

Referral relationships were most commonly formed through word of mouth or through a national cancer org web site.



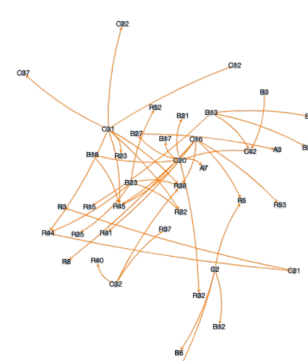
Intensity of Referral Relationships

The majority of referrals relationships are **AWARENESS ONLY**, leaving a lot of opportunity to formalize and strengthen relationships.



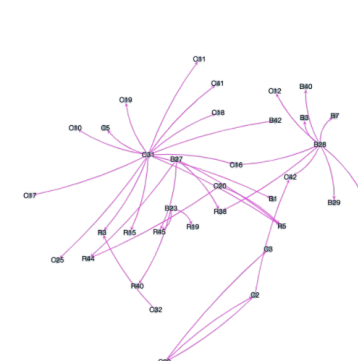
Awareness Only
(166 relationships)

Involves awareness only of the organization's services, mission, etc. (Example: Understanding of services, offered, resources available, mission goals)



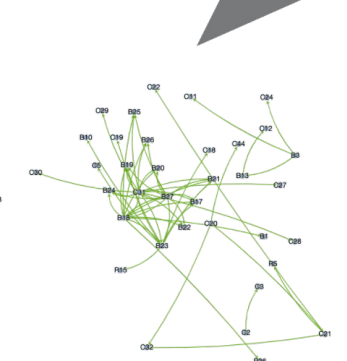
Cooperation
(43 relationships)

Involves exchanging information, attending meetings together, and sharing resources (Example: Informs other programs of RFA release)



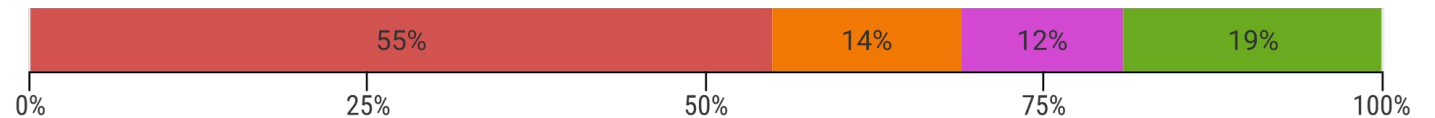
Coordination
(37 relationships)

Involves synchronization of activities for mutual benefit (Example: Separate granting programs utilizing shared administrative processes and forms for application review and selection.)



Integration
(57 relationships)

Involves a formal or binding relationship that may involve contracts, grants, etc. (Example: Developing and utilizing shared priorities for funding effective strategies. Funding pools may be combined.)

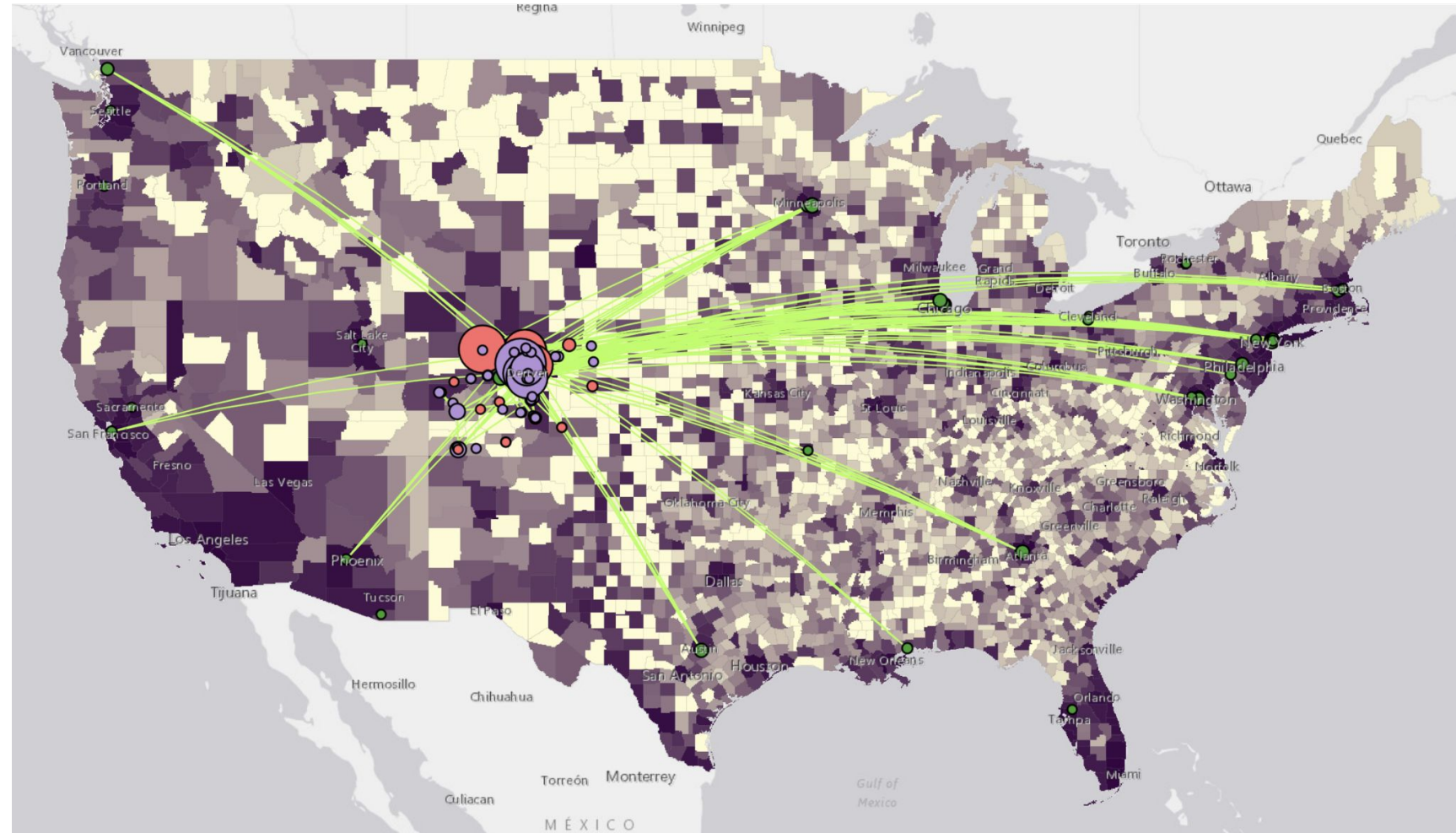


Distribution of Cancer Centers and Referral Resources

Cancer centers in CO refer survivors to community resources within CO and across the US.

Organizational Type

- Cancer Center (31)
- Community Resource Organization (56)
- Both Cancer Center and Community Resource (30)

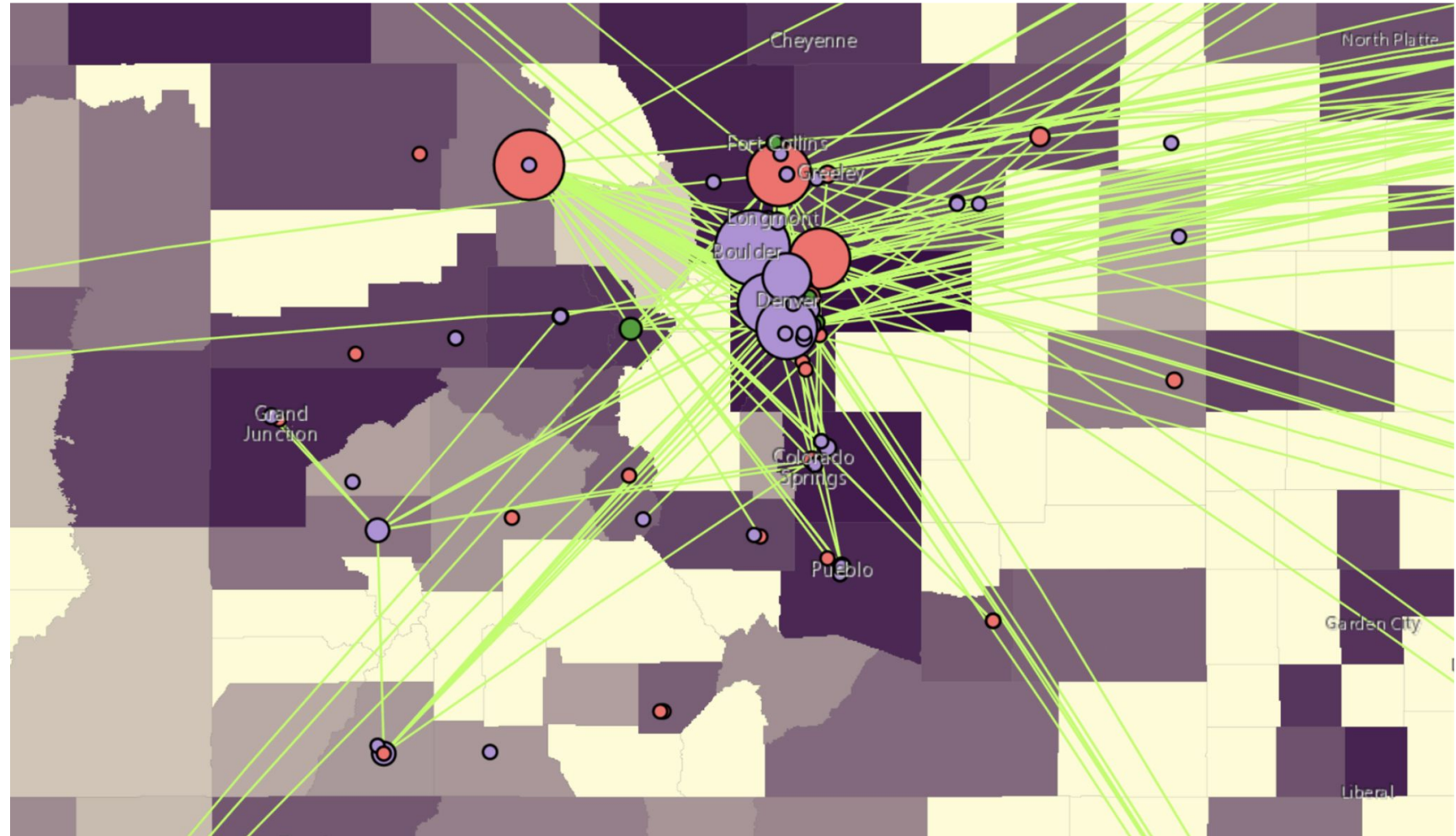


Responding cancer centers and resources were most commonly within urban areas, with some representation from rural communities.

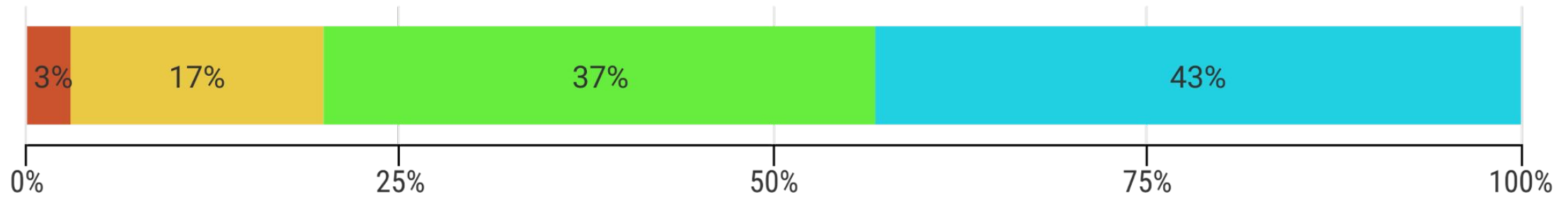
Future work could focus more directly on cancer centers in rural communities.

Organizational Type

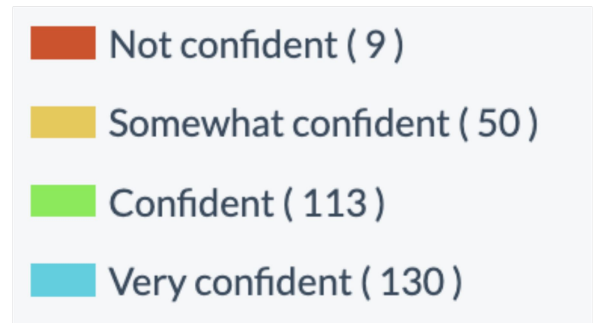
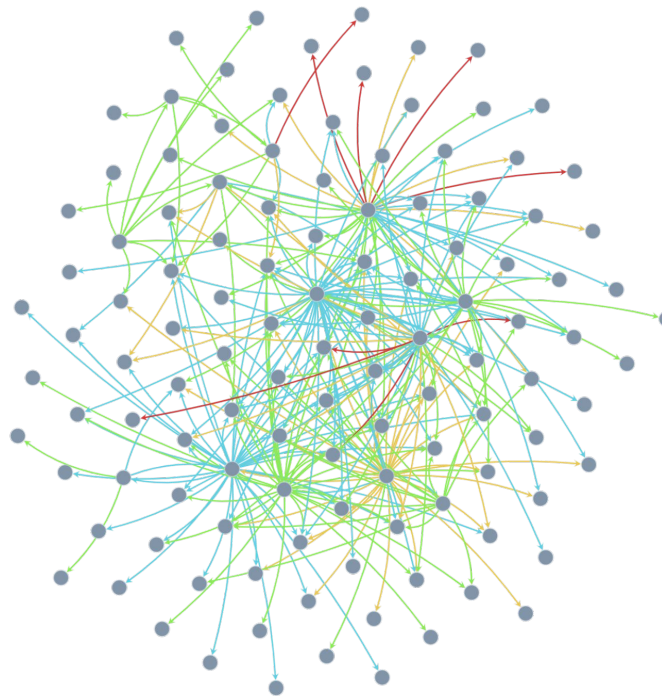
- Cancer Center (31)
- Community Resource Organization (56)
- Both Cancer Center and Community Resource (30)



Confidence in Resource Value



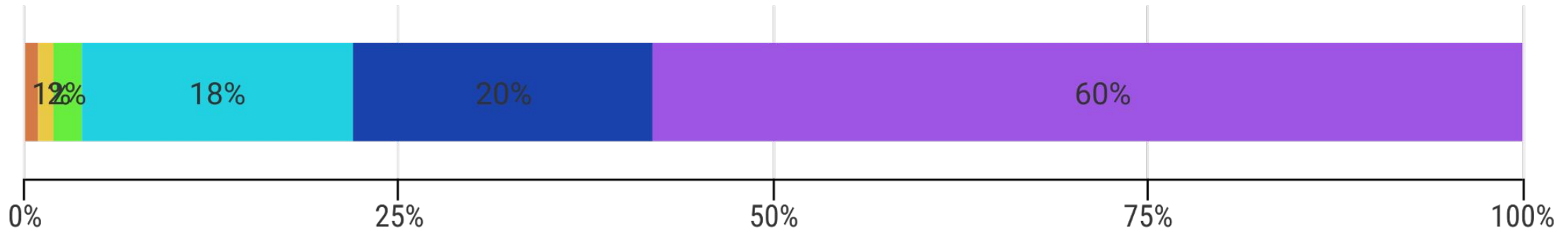
Cancer centers have confidence in the value of their referral resources. A couple of cancer centers refer to resources they are not confident in.



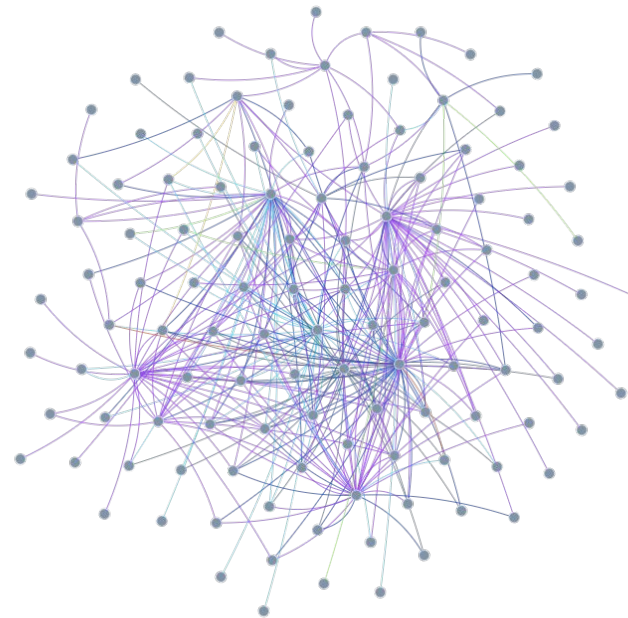
A network diagram consisting of numerous white circular nodes connected by thin white lines, forming a complex web of relationships. The nodes are distributed across the frame, with a higher density in the center and right side. The background is a light gray gradient.

Relationships Between Cancer Centers and Community Resources

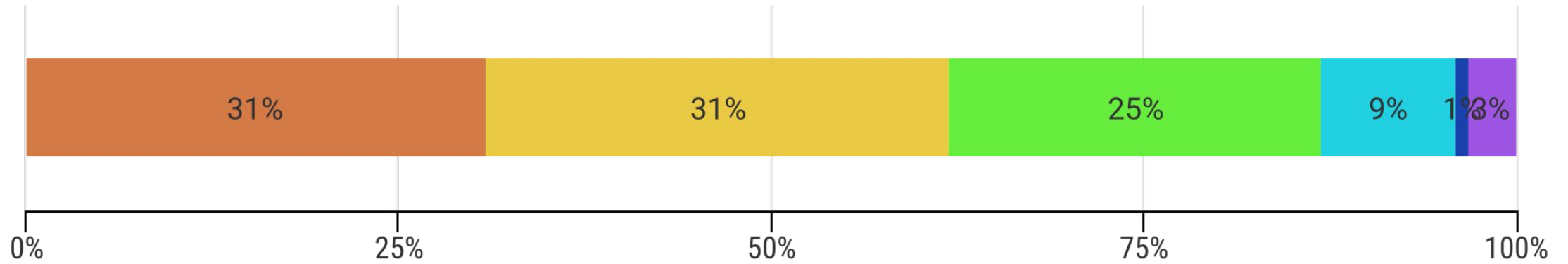
Length of Referral Relationship



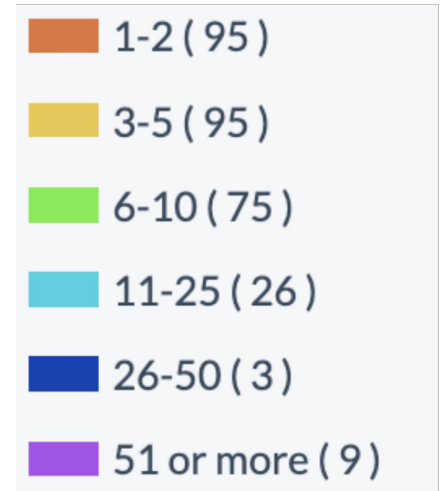
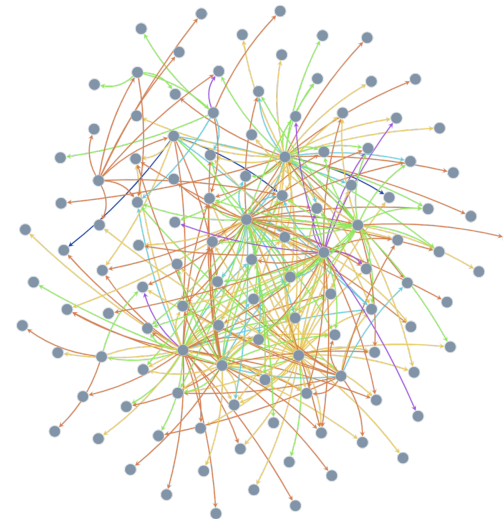
Most relationships between cancer centers and community resources are long-standing.



Number of Survivors Referred



Cancer centers most commonly reported referring five or fewer survivors to each community resource.

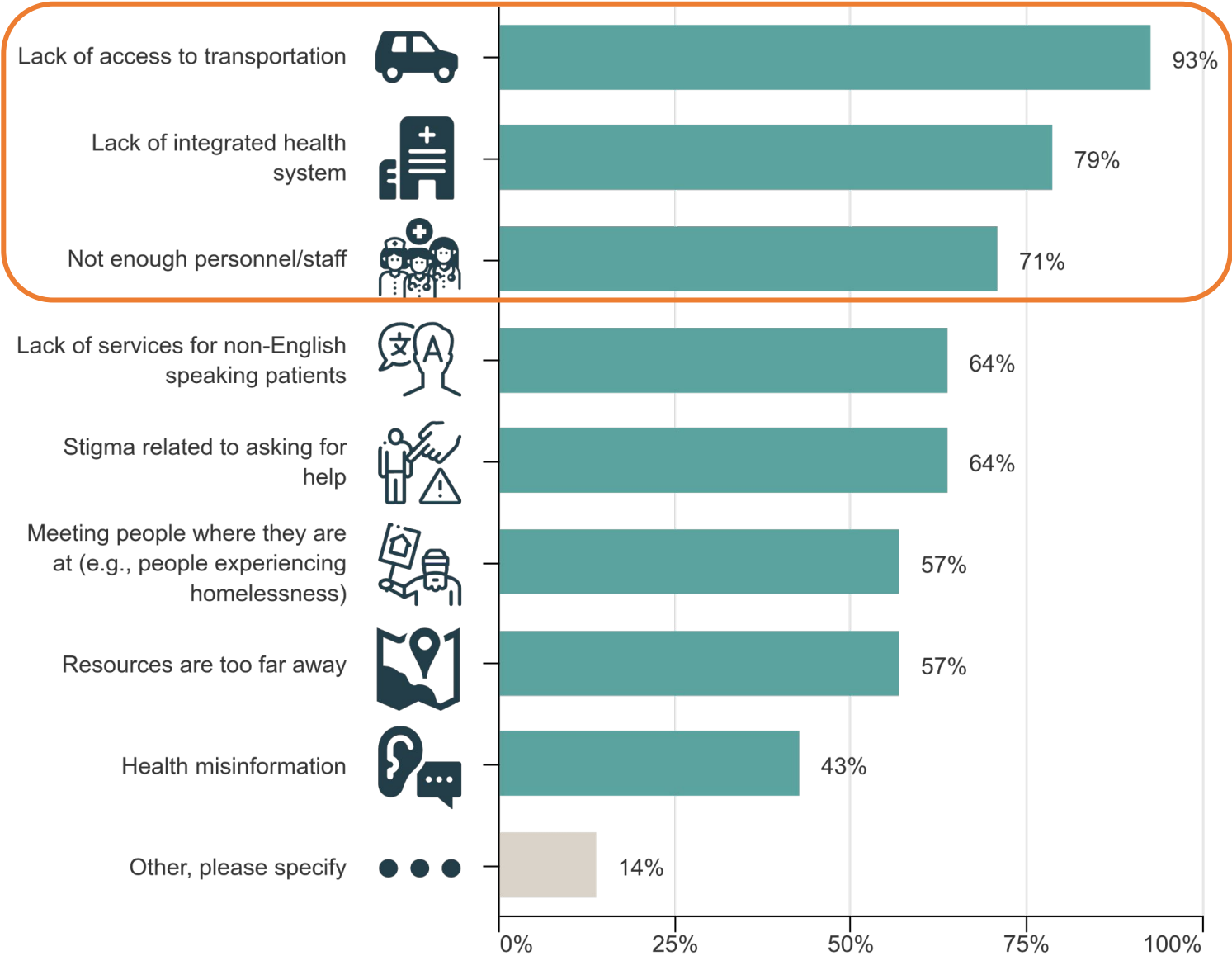


A network diagram consisting of numerous white circular nodes connected by thin white lines, set against a light grey background. The nodes are arranged in a somewhat irregular, interconnected pattern, with some nodes having multiple connections. The overall shape of the network is roughly rectangular, spanning most of the width of the image.

What are the challenges in serving survivors? What gaps exist in serving across populations?

Barriers & Challenges to Serving Survivors

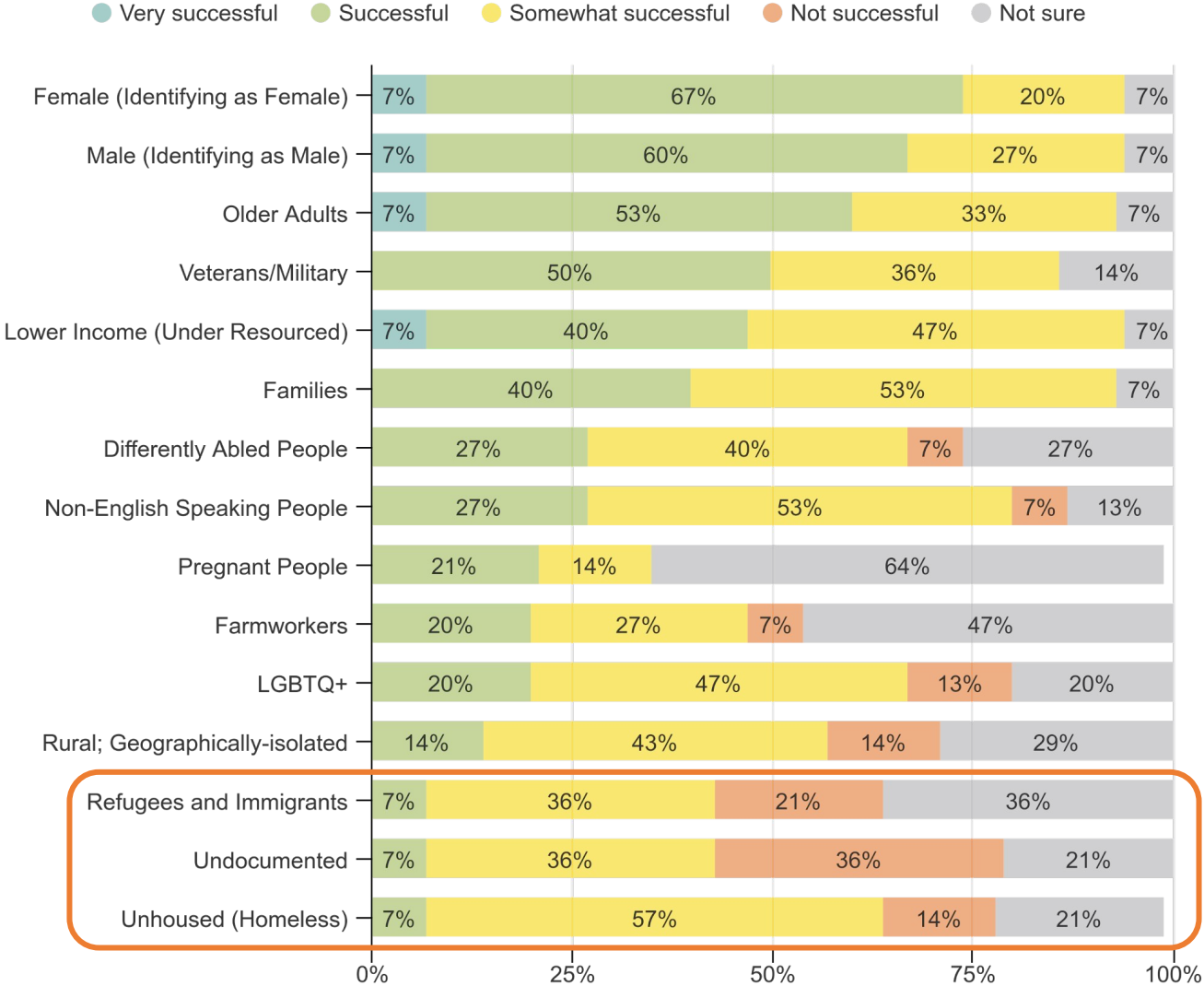
Transportation, health system integration, and personnel/staff were the most common barriers to serving survivors.



Gaps in Connecting Survivors to Resources

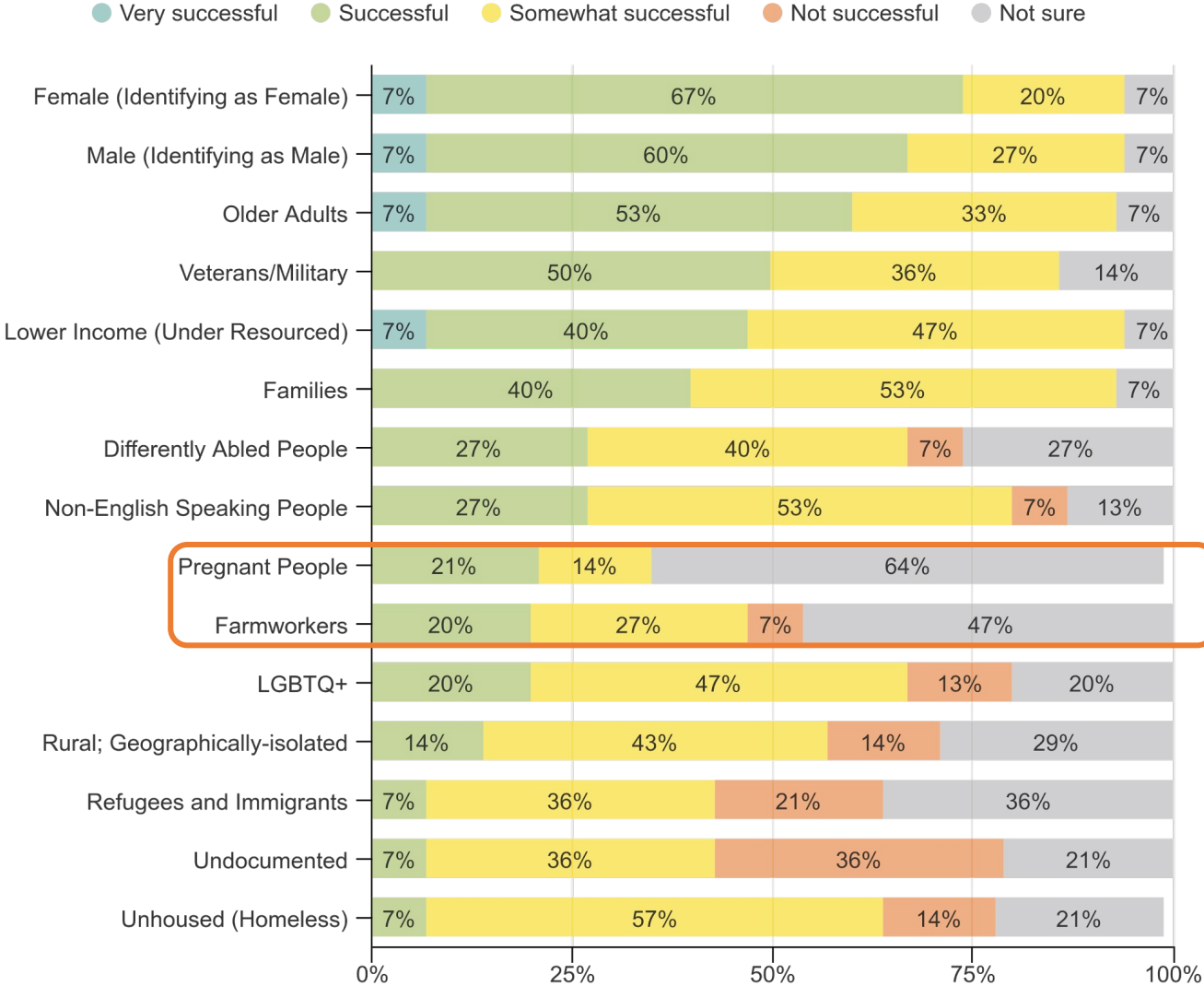
Cancer centers are less successful in connecting:

- people without documents
- refugees and immigrants
- individuals experiencing homelessness with resources



Gaps in Connecting Survivors to Resources

Cancer centers have high uncertainty about whether they are successful in connecting pregnant people and farmworkers with resources.



A network diagram consisting of numerous white circular nodes connected by thin white lines, set against a light gray background. The nodes are arranged in a roughly horizontal line, with some nodes having multiple connections, creating a complex web of relationships. The overall appearance is that of a data network or a social graph.

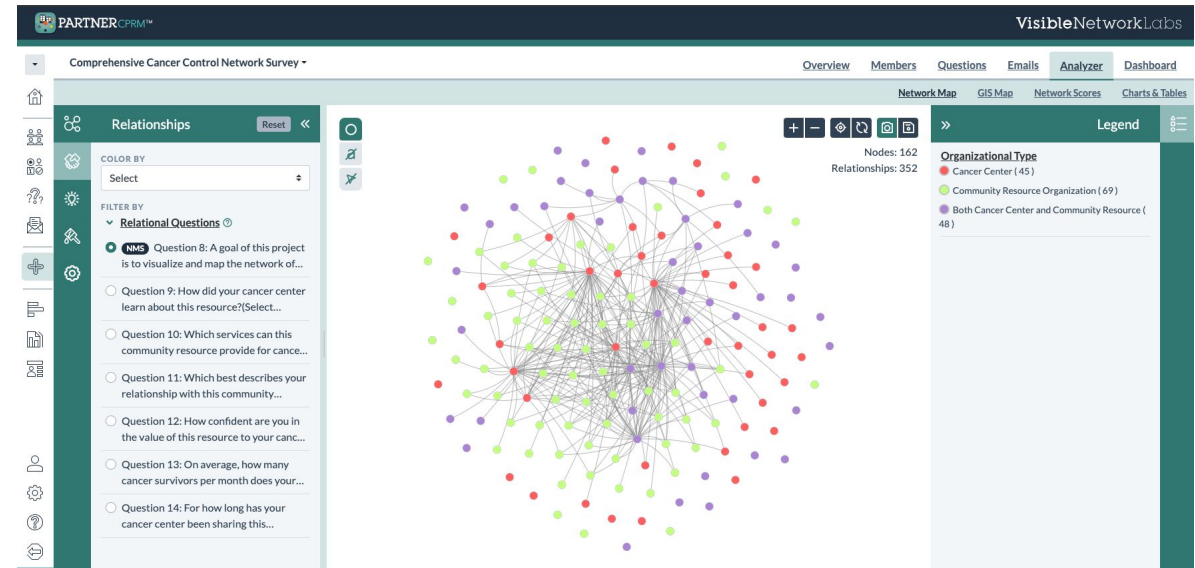
Summary & Insights

Key Insights

- Cancer centers offer and refer survivors to a number of services but perceive that some are lacking (e.g., financial supports, formalized referrals)
- Many referral relationships:
 - Are longstanding but include a low volume of referrals; Most refer less than 5 survivors to each resource
 - Considered as “Awareness Only”, with opportunities to strengthen
 - Report confidence with community referral partners
- Gaps and challenges:
 - Transit, healthcare integration, personnel
 - Perception that we are less successful in serving immigrant & refugee populations, unhoused, and undocumented populations
 - Uncertainty about successfully serving pregnant people & farmworkers

Suggested Action Steps

- Engage with the PARTNER CPRM™ ecosystem to explore this data further using the analyzer tool & member table
- Consider capturing data from additional cancer centers to deepen understanding of services and referrals across the state, particularly in rural regions



Colorado Comprehensive Cancer Control Program

- Research shows that a majority of cancer survivors will experience health challenges even after their treatment has ended
- Cancer survivors today report high levels of unmet physical, psychosocial, and financial needs, which impact their long-term health and quality of life
- Results of this project will guide efforts to provide technical assistance to cancer centers to increase connections to survivorship resources with the intention to work together to impact Colorado's cancer burden



COLORADO
Department of Public
Health & Environment

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Platform Demo

Demo: Project Deliverables & Resources

Live Dashboard

Colorado Cancer Survivorship Community Resource Referral Network

Author: Visible Network Labs



Introduction

About this project


Referrals of cancer survivors from cancer centers to community resources have been increasing and it can be difficult to track the developing ecosystem of cancer centers and their relationships with community resources. Such referrals are important to cancer survivors as there are various non-medical factors that influence their health outcomes (social determinants of health). The goal of this project is to gain a better understanding of partnerships between cancer center-community resources focused on providing both cancer treatment and whole-person care options for patients such as social services and lifestyle change programs. Several resource referral platforms have emerged that some providers use, and still more common are the ad-hoc referral networks activated between community and clinical partners. There is little evidence of how many of these types of referral partnerships exist, how they vary and change across urban-rural areas, and to what degree they are strengthening or how many gaps still exist. There is no common approach, method, database, or ability to track these partnerships, making it difficult to determine their effectiveness.

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<https://shorturl.at/S9Onl>

Policy Brief

Colorado Cancer Control Survivorship Resource Referral Network Policy Brief



Executive Summary

Key Points

- Colorado's cancer control survivorship resource referral network includes an **extensive array of services** and **long-standing partnerships** but faces **critical gaps**.
- Challenges include **transportation barriers**, the **rural-urban service divide**, and **limited support for underserved populations** such as immigrants, refugees, non-English speakers, and the homeless.
- Most relationships in the network operate at a **low intensity**, focused on awareness rather than integrated collaboration.

Recommendations

- Enhance visibility of the community resource referral network for cancer survivors with an online tool mapping cancer centers, community resources, and their services.
- Strengthen collaboration across sectors to improve services for vulnerable populations and expand transportation access.

Background and Method


Background. While referrals of cancer survivors from cancer centers to community resources are increasing, tracking the growing ecosystem of partnerships between these entities remains challenging. These referrals are critical, as many non-medical factors, or **Social Determinants of Health (SDOH)**, significantly influence cancer survivors' outcomes. Survivorship care should integrate both cancer treatment and whole-person care, including social services, lifestyle changes, and psychological support.

Currently, several resource referral platforms are used sporadically by providers, but ad-hoc referral networks


<https://shorturl.at/RZaNW>

Full Report

Colorado Cancer Control Community Resource Referral Network Aggregate Report 2024



VisibleNetworkLabs



<https://shorturl.at/o85do>

Want more network science resources? Sign up for our monthly newsletter!

Thank you!

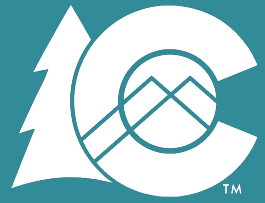
Questions, comments, ideas? Please reach out!

Learn more: www.visiblenetworklabs.com

Get in touch: jenny@visiblenetworklabs.com

Connect: facebook.com/VisibleNetworkLabs
[@VNetworkLabs](https://twitter.com/VNetworkLabs)

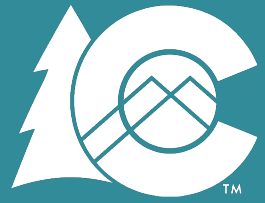




OeHI

Office of eHealth Innovation

Public Comment Period



OeHI

Office of eHealth Innovation

Closing Remarks