

What is ACCORDS?

Adult and Child Center for Outcomes Research and Delivery Science

ACCORDS is a 'one-stop shop' for pragmatic research:

- A multi-disciplinary, collaborative research environment to catalyze innovative and impactful research
- Strong methodological cores and programs, led by national experts
- Consultations & team-building for grant proposals
- Mentorship, training & support for junior faculty
- Extensive educational offerings, both locally and nationally



ACCORDS Upcoming Events

January 23, 2023 Ed 2 North 1103	<u>Methods and Challenges in Conducting Health Equity Research</u> Racism as a Multilevel Construct and Linkages to Lifespan Health <i>Presented by: Danielle Beatty Moody, PhD (UMBC)</i>
January 25, 2023 *Virtual	<u>ACCORDS/CCTSI Community Engagement Forum</u> Understanding and Appreciating the Capacities of the Community: Pathways to Sustainability and Community Empowerment
February 1, 2023 Ed 2 North 1107	<u>Hot Topics in Mixed Methods and Qualitative Research</u> Applying Conversation Analysis to Healthcare Interaction <i>Presented by: Jeffrey Robinson, PhD (Portland State University)</i>
February 13, 2023 *Virtual	<u>Methods and Challenges in Conducting Health Equity Research</u> "Nothing About Us Without Us": Meaningful Engagement of Tribal Communities in Research <i>Presented by: Spero Manson, PhD</i>
June 5-6, 2023 10:00 -3:00 PM MT	<u>COPRH Con 2023</u> Reassessing the Evidence: What is Needed for Real World Research and Practice

*all times 12-1pm MT unless otherwise noted



Hot Topics in Mixed Methods and Qualitative Research

2023 Seminar Mini-Series

Network Science Methods Applied to Health, Public Health, and Social Service Systems



Presented by:
Danielle Varda, PhD



A complex network graph with numerous white nodes and thin white lines connecting them, set against a light blue and white gradient background. The graph is dense and spans across the top and middle of the slide.

Network Science Methods Applied to Health, Public Health, and Social Service Systems

Danielle Varda, PhD
CEO/Founder at Visible Network Labs
Associate Professor, University of CO Denver,
School of Public Affairs

Agenda

A. Problem We Are Solving:

- Social Connectedness as a SDOH

B. Network Science as a Unique Lens/Exercise

C. Mixed Methods Examples

There is Ample Evidence That the Quality of Social Connections Influence Health Outcomes



Social relationships
quantitative
behavioral
mortality
Mont
nine-
Robb

In a 2010 re
researchers
compelling e
a host of co
cardiovascul
high blood p
Umberson a

What we know:
Social connections influence mental/behavioral and health outcomes.

What We Don't Know:
How to translate that knowledge into better care coordination and treatments for people.

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Social Connectedness: Impact on Health

“Socially isolated women with breast cancer have a 40% higher risk of recurrence, a 60% higher risk of dying from breast cancer, and a 70% higher risk of dying from any cause when compared with socially integrated women.”

Kroenke CH, Michael YL, Shu XO, et al. Post-diagnosis social networks, and lifestyle and treatment factors in the After Breast Cancer Pooling Project [published online ahead of print December 12, 2016]. *Cancer*



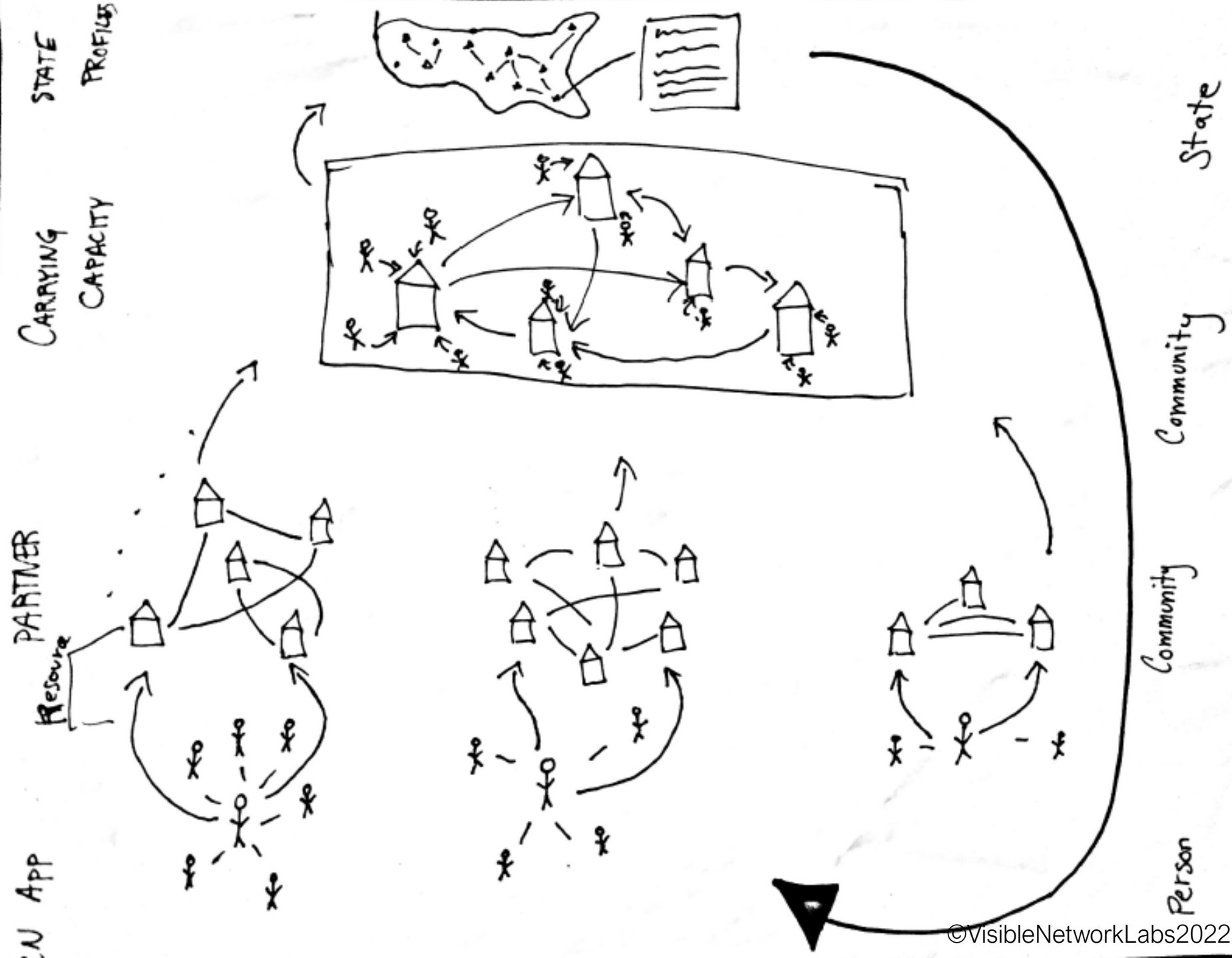
Visible Network Labs

www.visiblenetworklabs.com

Visible Network Labs

Make Invisible
Networks Visible

Network Science as a Unique Lens on Social Connectedness



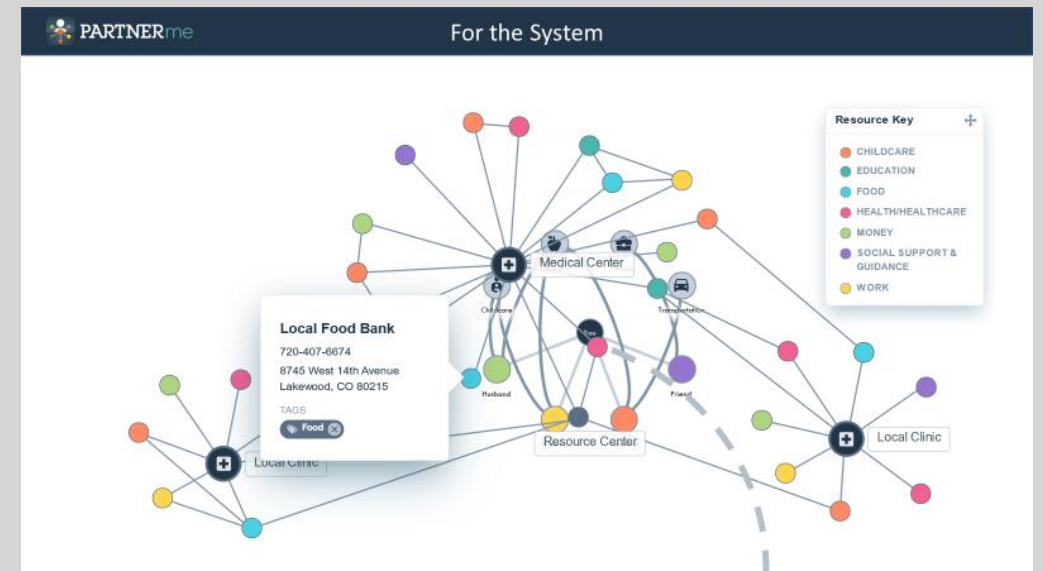
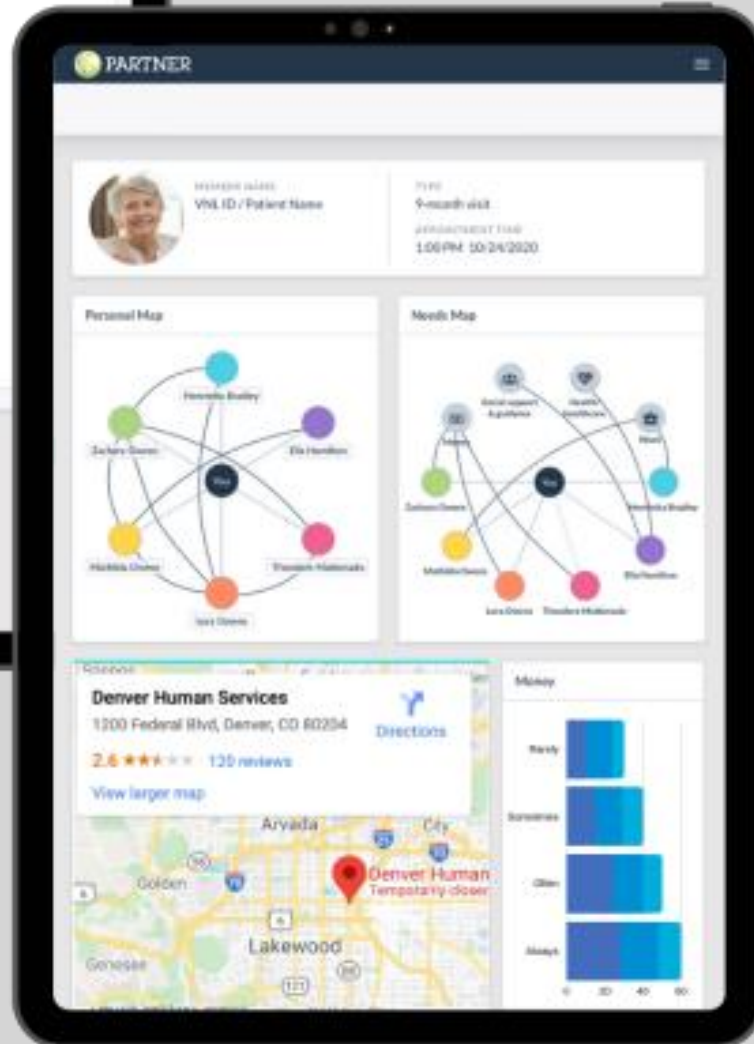


PARTNERme
Person-Centered Network Tool

Social Care Platform

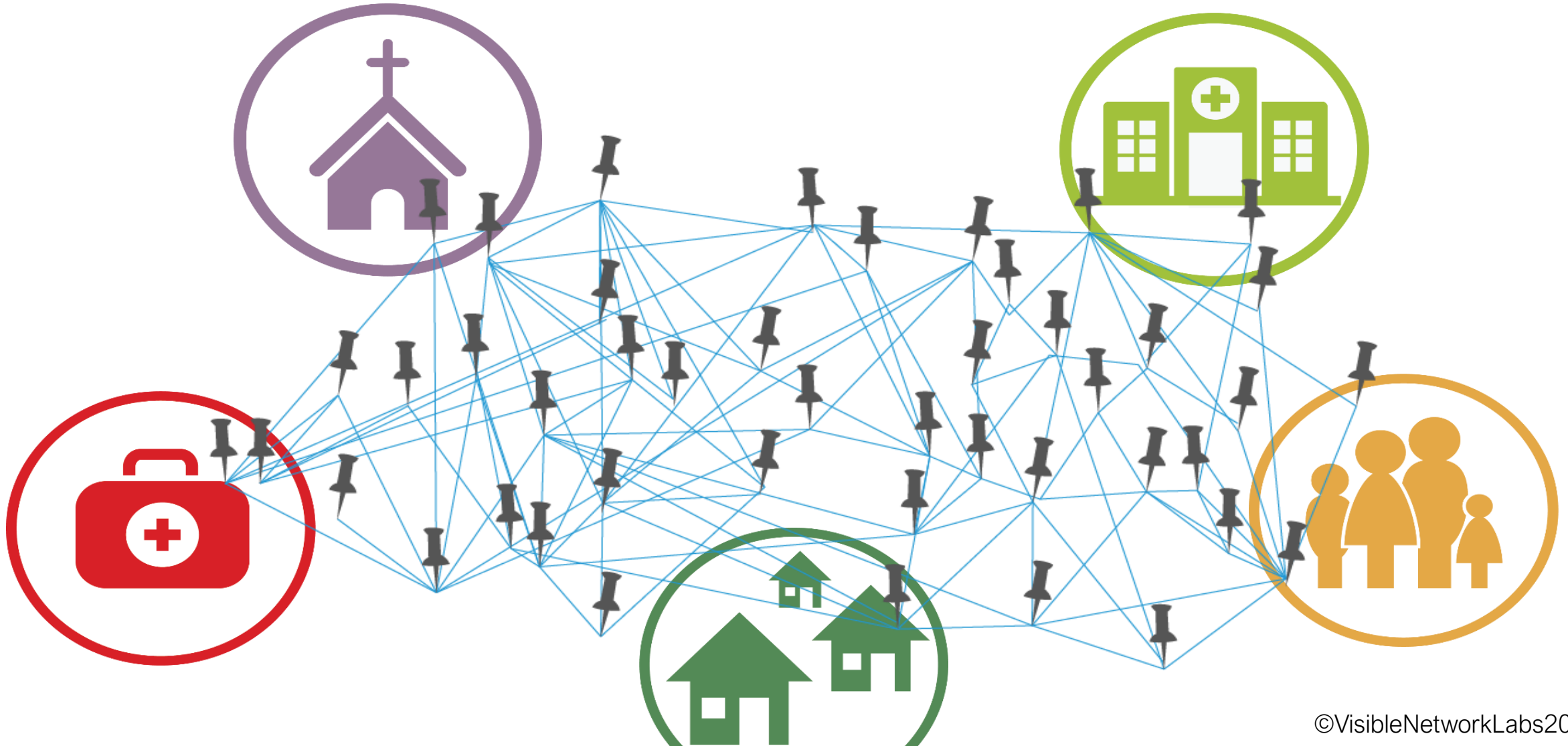
Screeners to Link People to Resources

www.visiblenetworklabs.com/partnerme



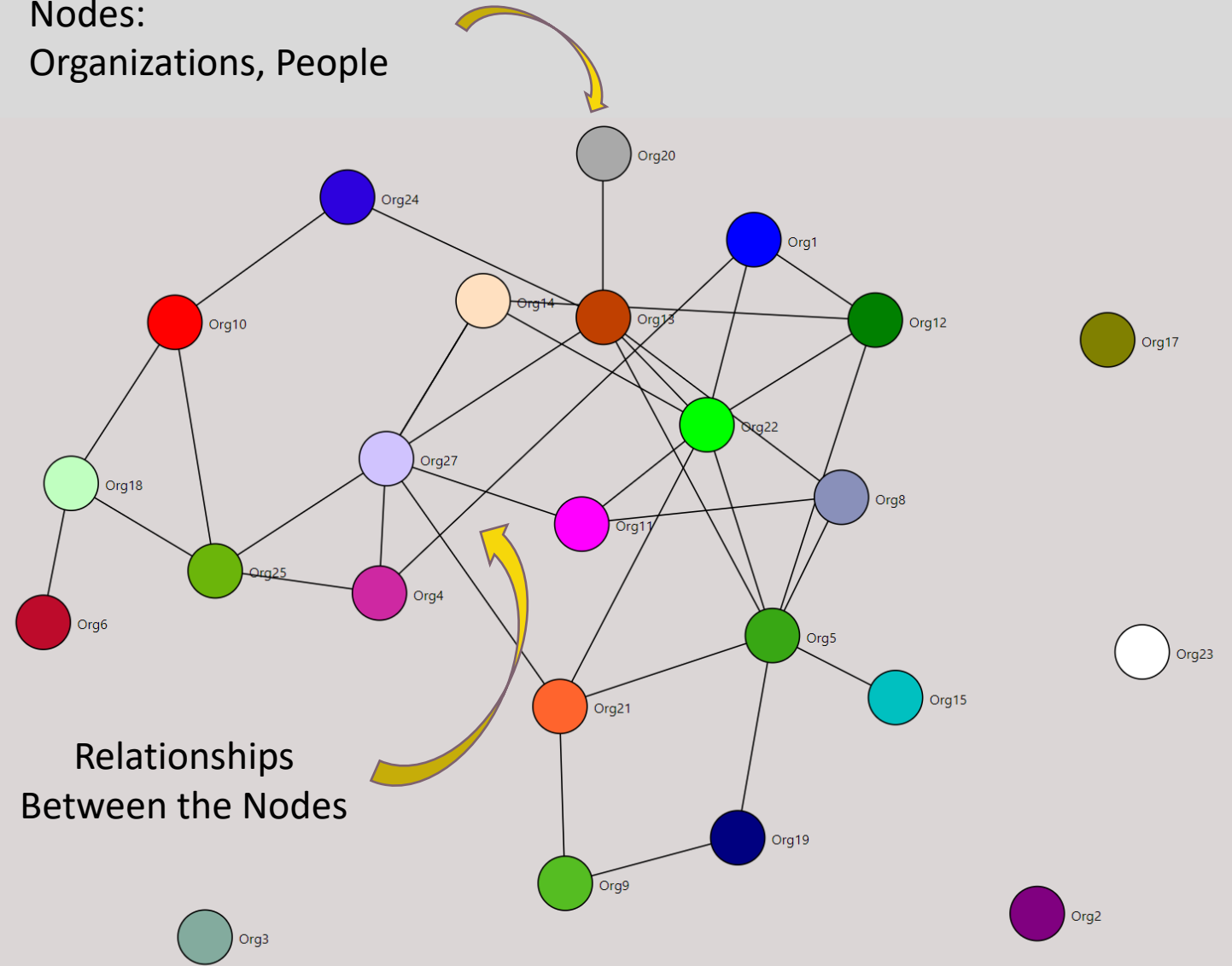
Network Science as a Unique Lens

The New Norm: The Network Way of Working



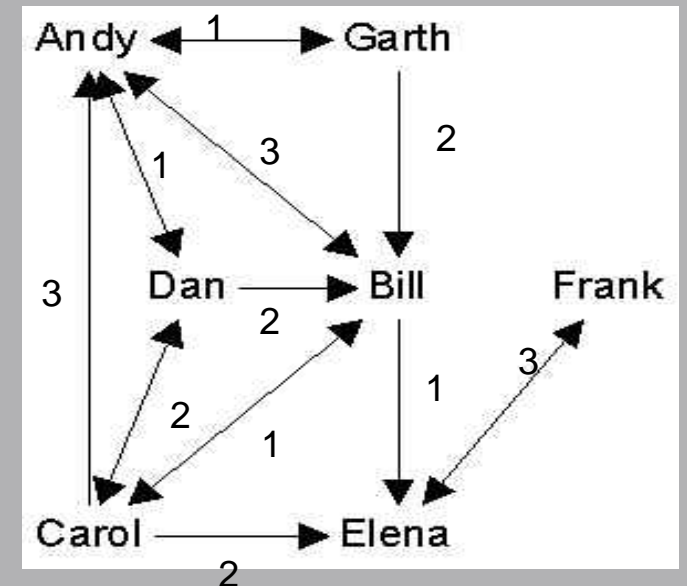
What Are Networks?

Nodes:
Organizations, People



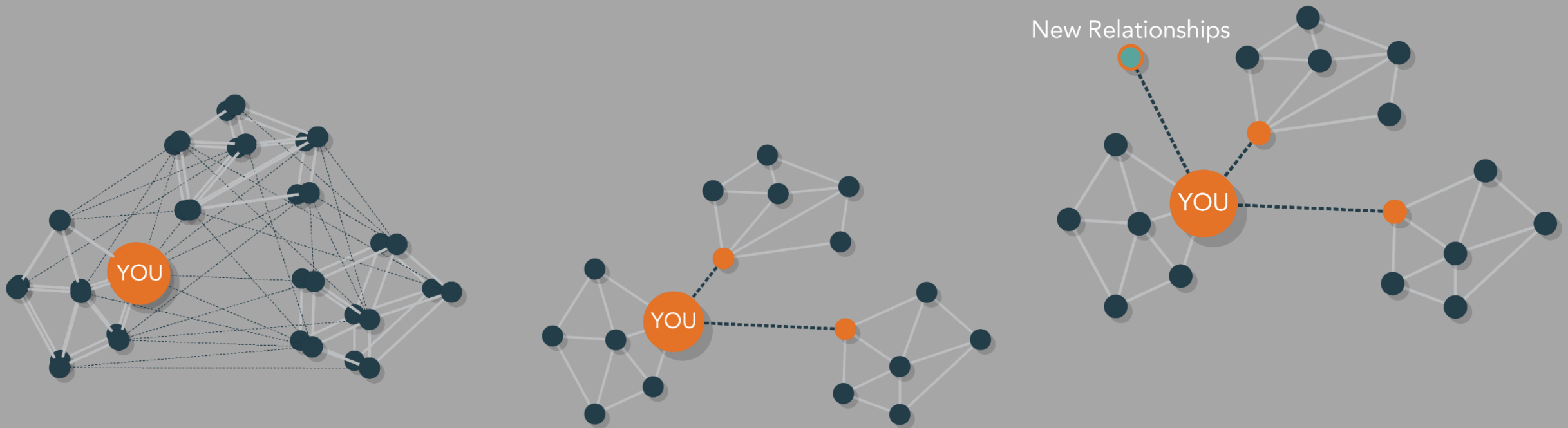
Social Network Analysis

- Collects data on who is connected to whom
- How those connections vary and change
- Focus on patterns of relations
- Type, Extent, Quality of Connections
- Nodes (People, Orgs, Etc)
- Lines (Relationships)



Network Science as a Unique Lens

Basic Network Science Principle: More is Not (Always) Better



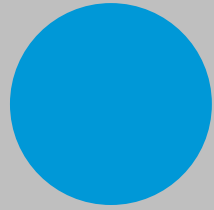
You can manage relationships to create a network strategy,
but you need data to do it.

Main Take Aways

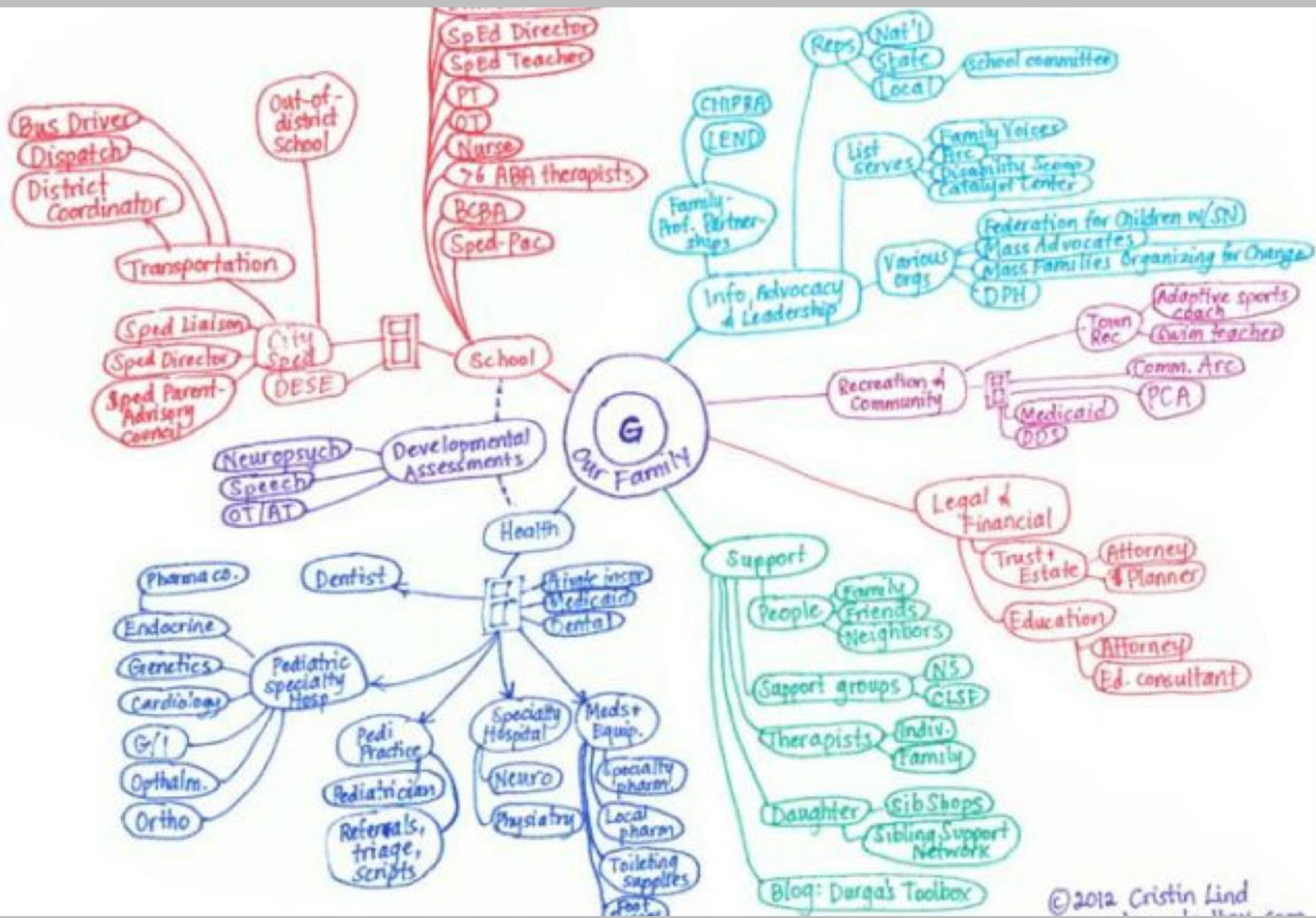
1. Building and managing a network doesn't have to be left to chance – there is a science to help guide you.
2. You are already a network scientist. You use network science every day.
3. You can manage network relationships to develop a strategy, but you need data to do it.
4. More networking is not better networking.
5. You can identify redundancy and holes in your network, which can inform the strategy.

Example:

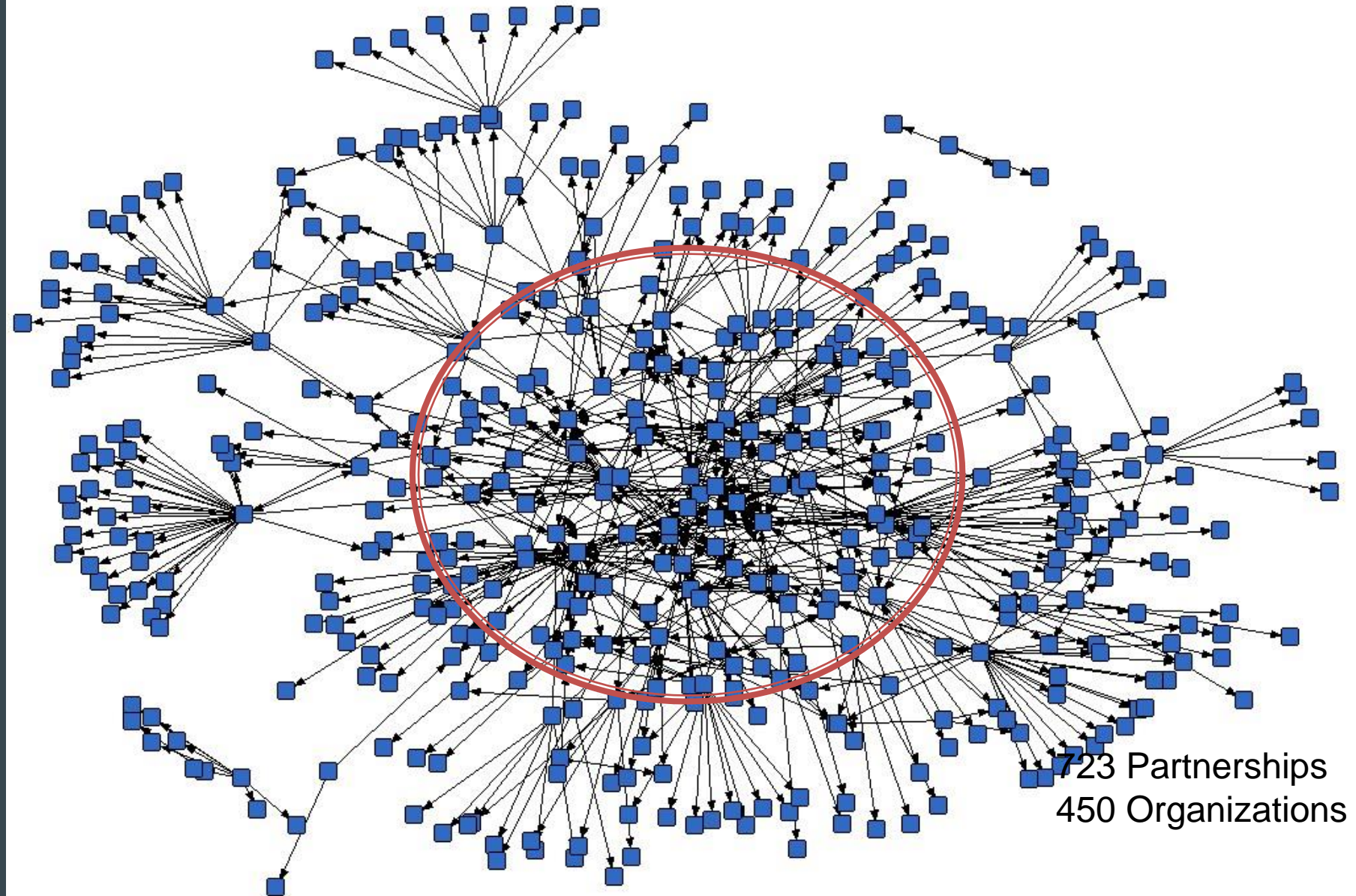
Systems of Care for Babies and Young Children
With Health and Developmental Needs



With funding from
The Colorado Trust



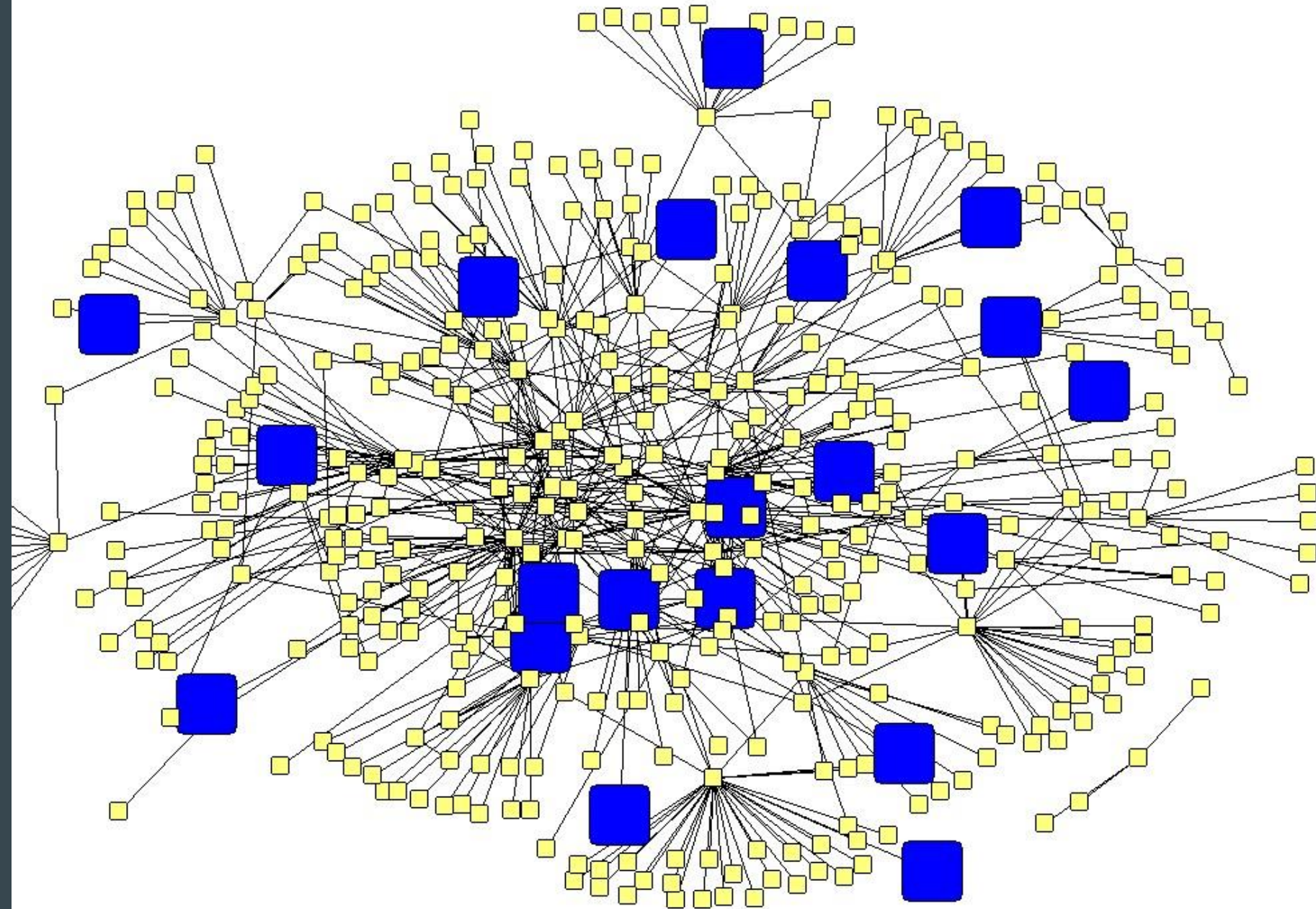
System of Care for Babies & Young Children With Special Healthcare & Developmental Needs

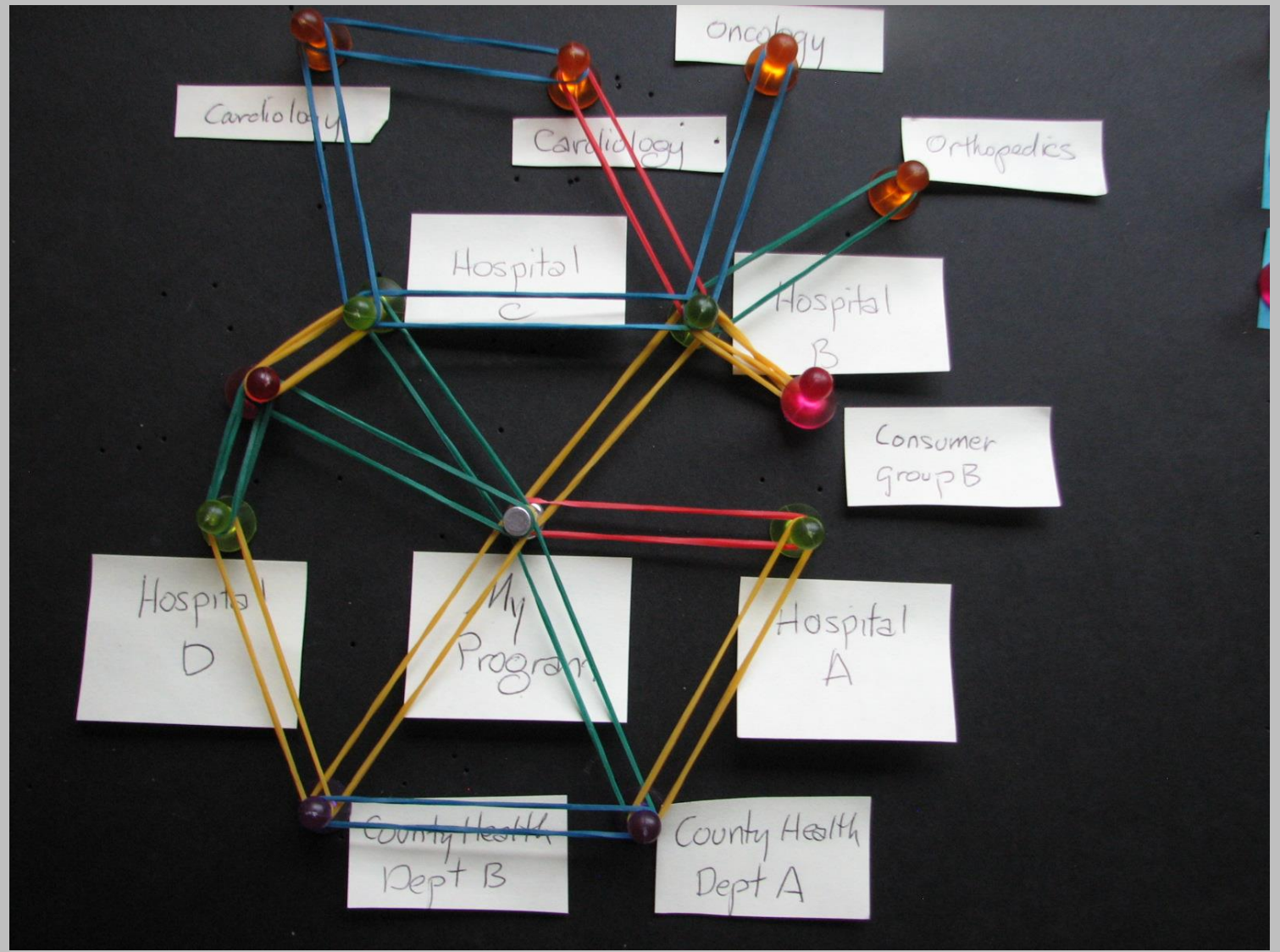


Mental Health Agencies:

Agencies:

Geographically
Dispersed but not
Connected to Each
Other





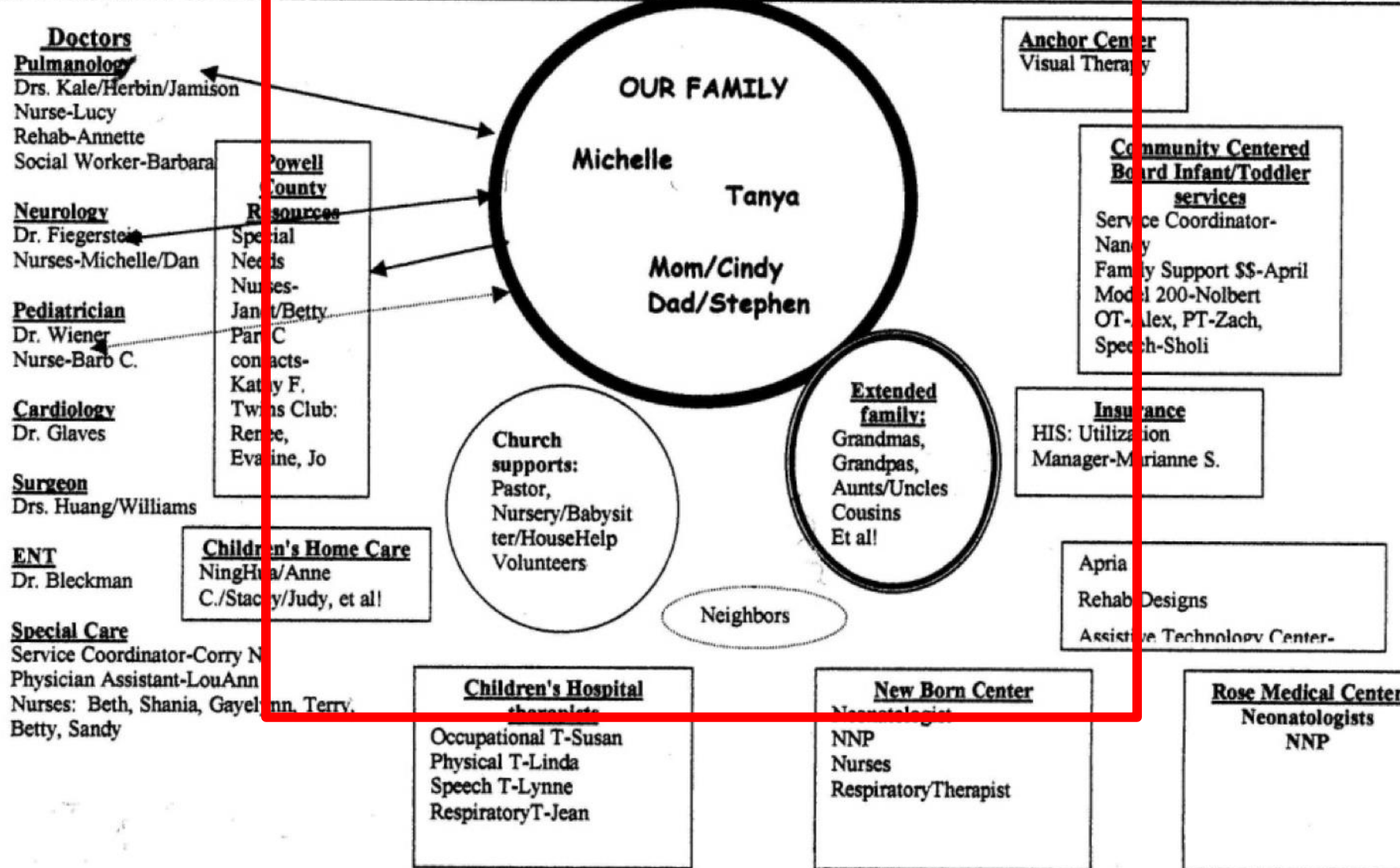


A Family Map Example

All the different persons with whom the family need to relate.

(The twin girls were born prematurely with multiple complications.)

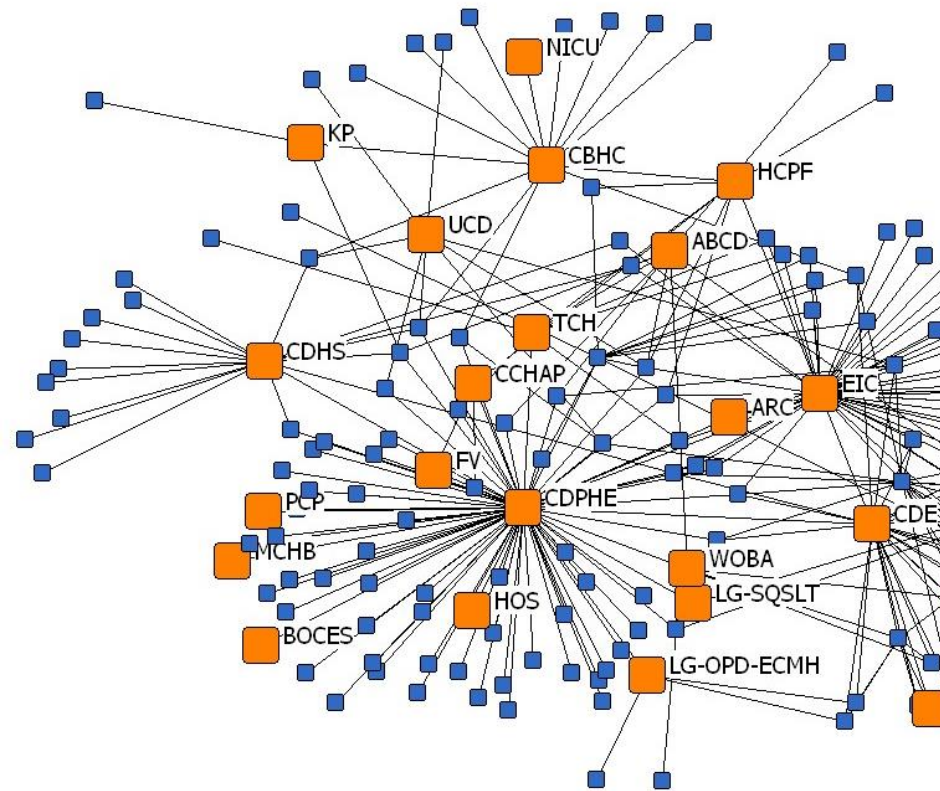
Please Note: Arrows are only beginning examples. Imagine them all filled in!



Family Blueprint Shows a Fragmented System

Slide Courtesy of Debra Paul and Ayelet Talmi

Systems vs. Family Networks

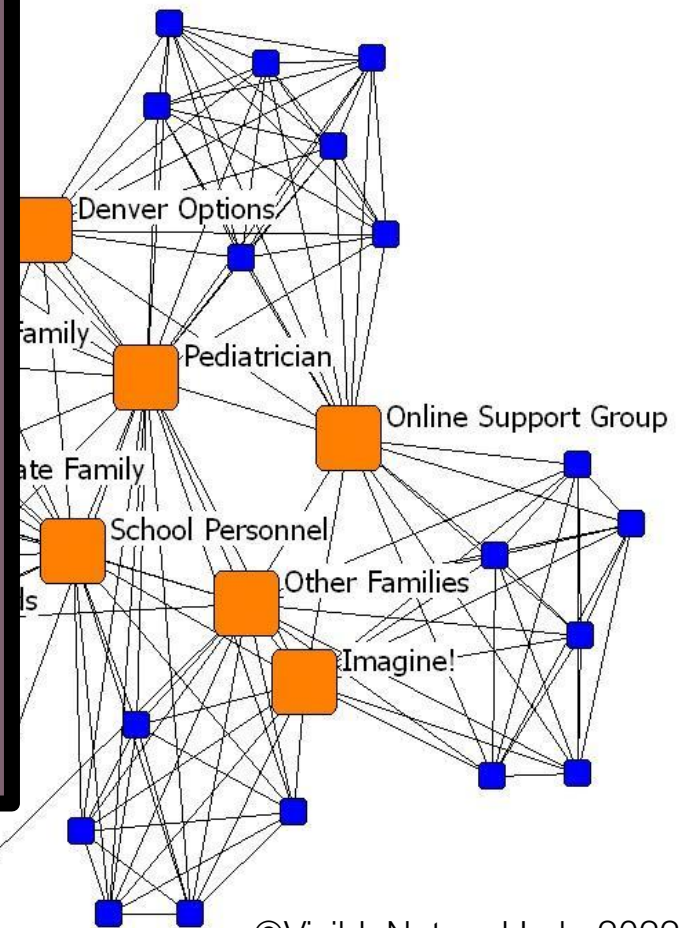


SYSTEM NETWORK

1 – Families have a preference for tapping into their informal supports for help first; then they will use the system when that's not enough.

2 – People want to help themselves...they want to be resilient, not dependent or a burden.

FAMILY NETWORKS



This is Interesting - But Can We Use This to Help People?

- ▶ Question: Why do we expect people to fit into the system? Why don't we expect the system to fit around people?

First

Understand
personal
support
networks
and needs

Then

Build an
adaptive
system to
respond to
variations

- ▶ Hypotheses reflected
- ▶ Outcome personal system is

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know the



PARTNERme

A Person-Centered Network Tool



PARTNERme
Person-Centered Network Tool



Please rate your own health?

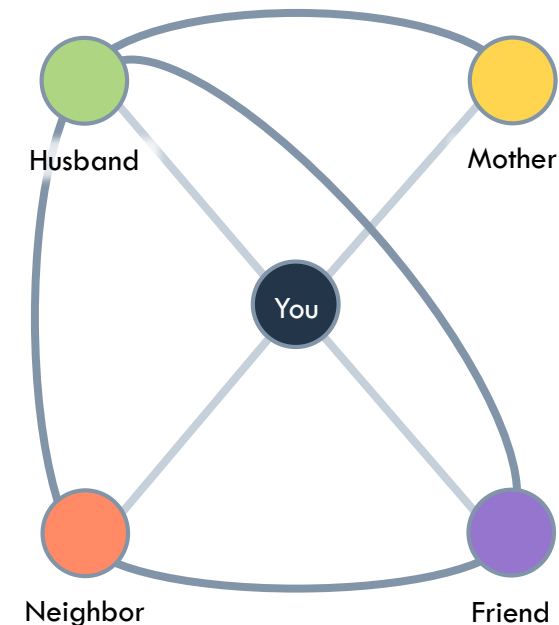


How often do you feel lonely?



Who do you rely on when you have problems?

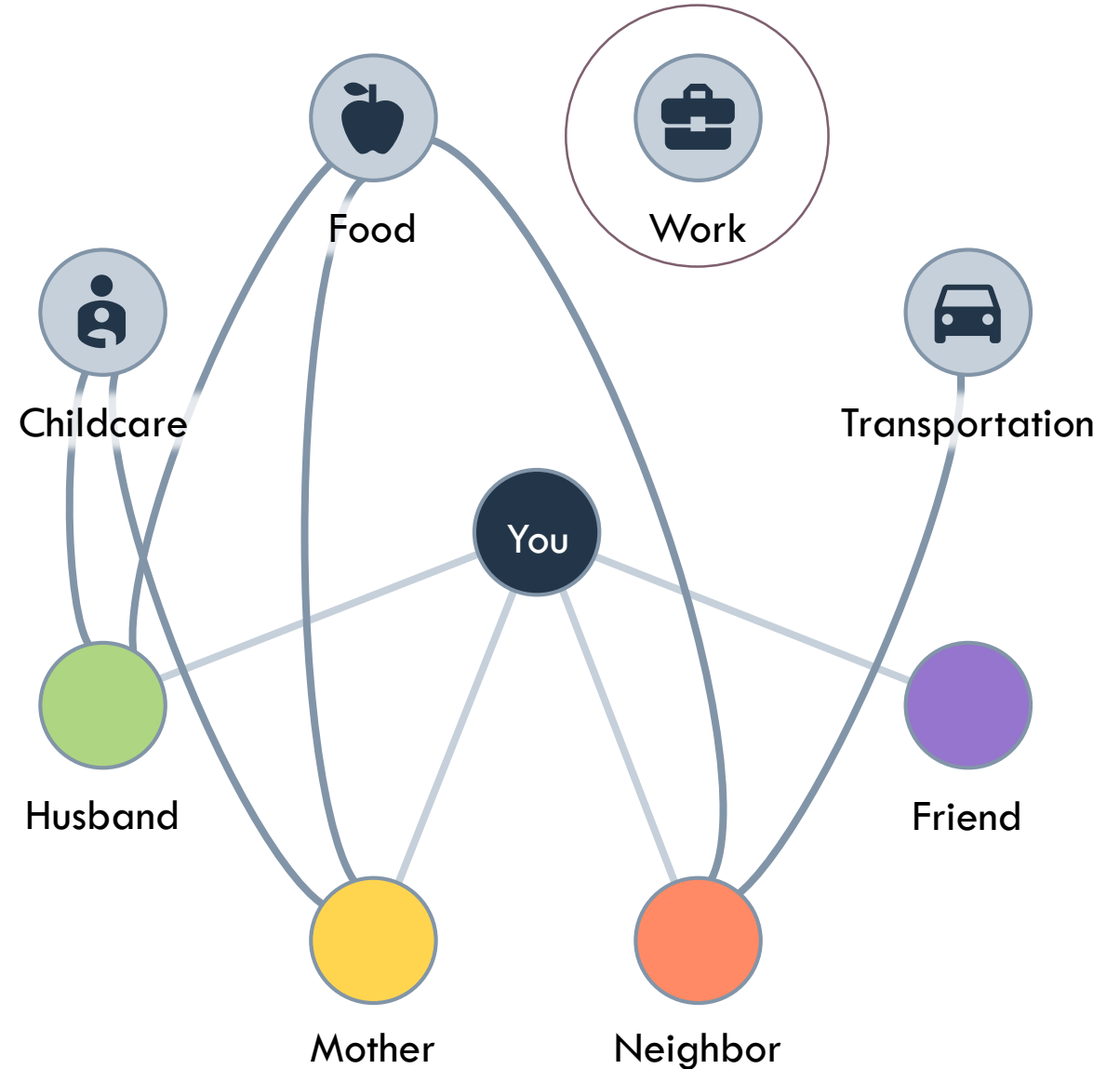
- To what degree do you trust this person to help you when you need it?
- To what degree do you depend on them?



What are your most pressing concerns?

- Childcare
- Education
- Emergency needs
- Health/healthcare
- Food
- Housing & Utilities
- Legal matters
- Mental/behavioral health
- Money
- Social support and guidance
- Transportation
- Work

Who helps you with these concerns?





MEMBER NAME
VNL ID / Patient Name

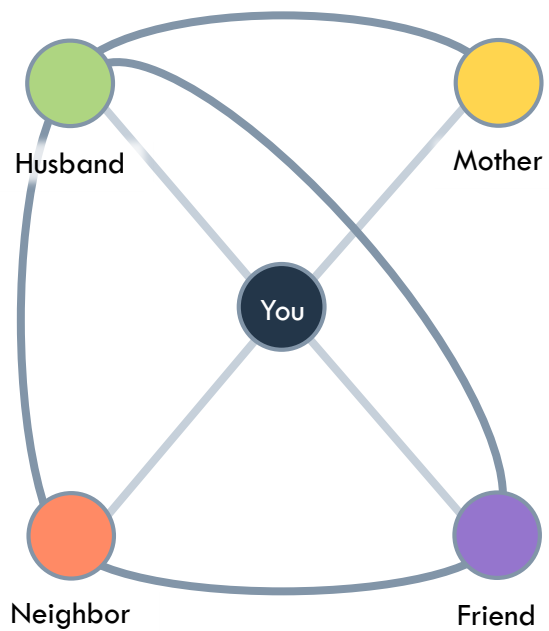
TYPE

9-month visit

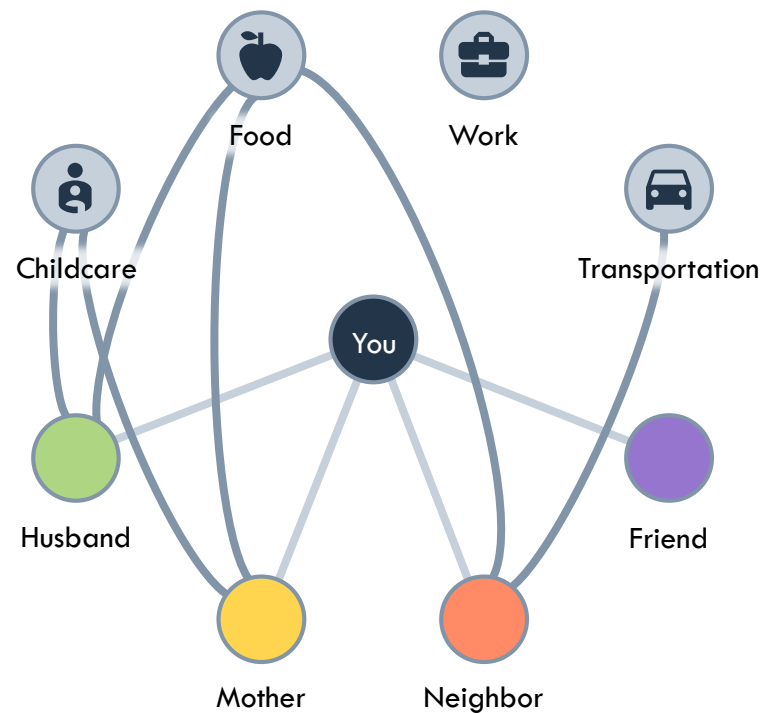
APPOINTMENT TIME

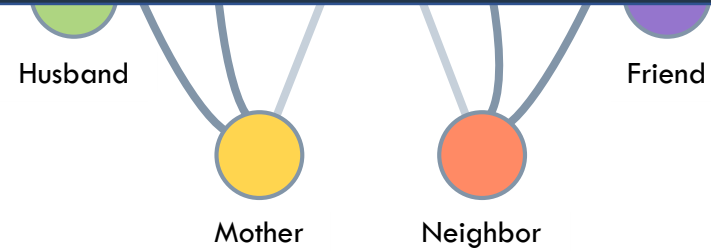
1:00 PM 10/24/2020

Personal Map



NeedsMap



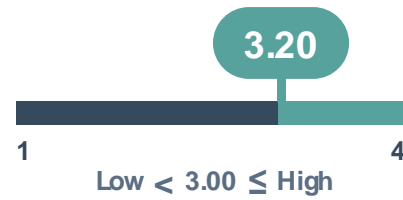


Trust Score



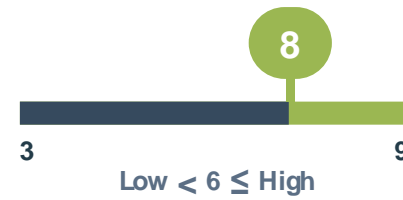
Low trust rating for members in their social support system.

Dependency Score



Highly dependent on members in their social support system.

Loneliness Score



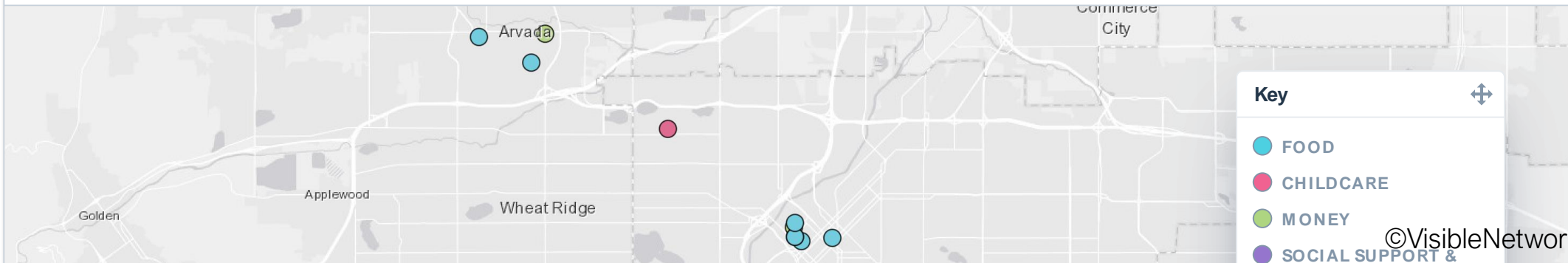
Scores that range from 6 to 9 indicate that this person does identify as lonely.

Social Connectedness Level

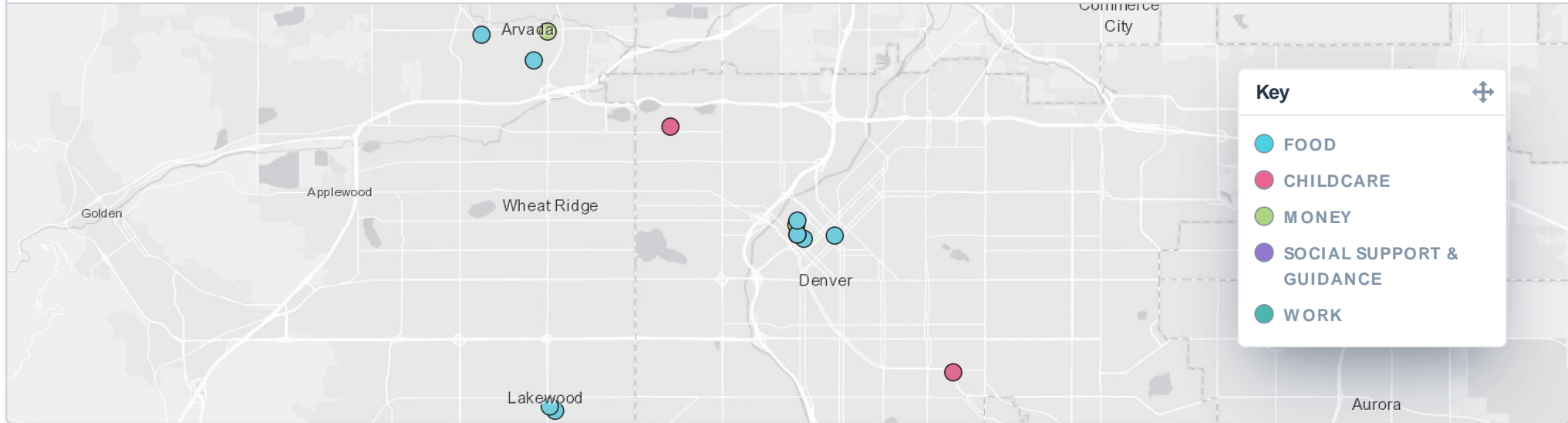


This person is at medium risk.

Resource Map



Resource Map



Food

**Adventist Community Services
LIFT**
(303) 783-3777
2575 SBroadway
Denver, CO 80210
www.acslift.org
OTHER INFO
Food pantry

Arvada Community Food Bank
303-424-6685
8555 W. 57th Ave
Arvada, CO 80002
OTHER INFO
Food Assistance 12X per year

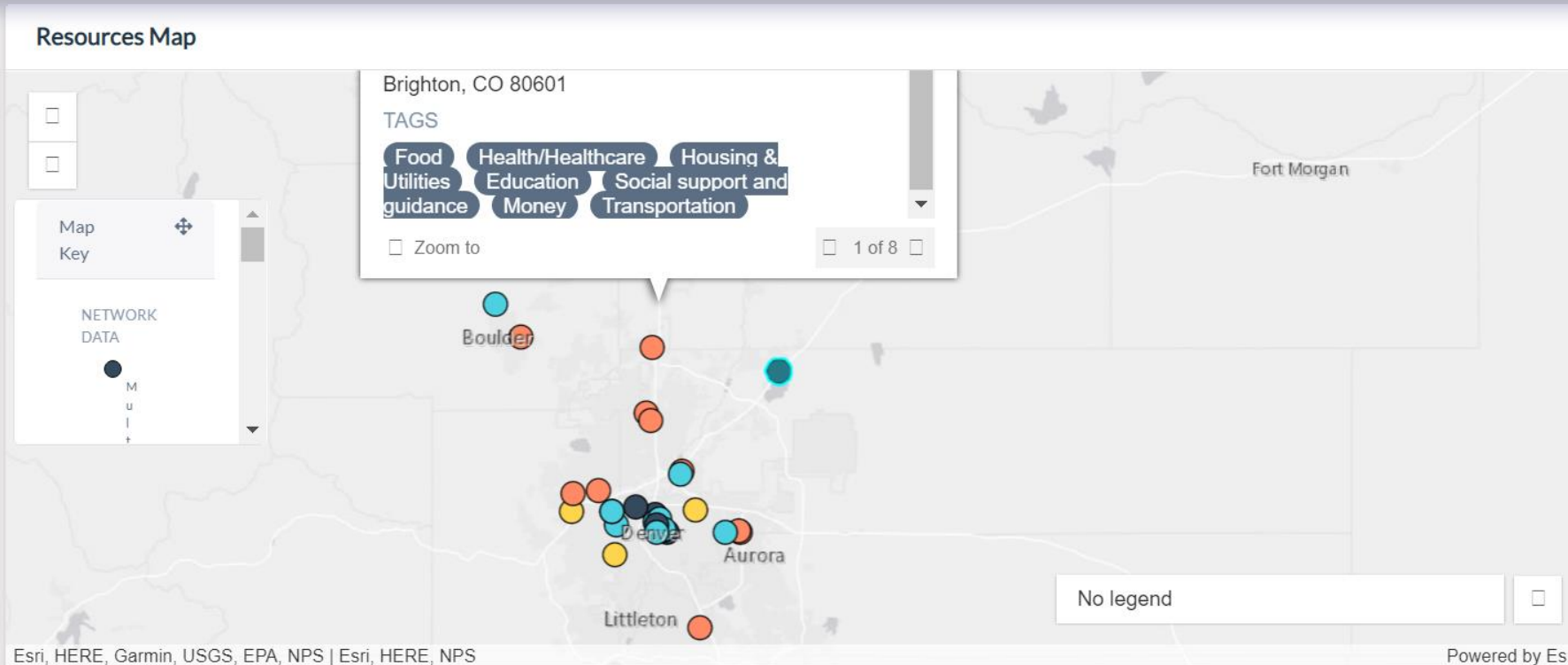
Aveanna
(720) 498-5045
OTHER INFO
Baby formula

Bienvenidos Food Bank
(303) 935-7389
5045 W 1st Ave
Denver, CO 80219
www.bienvenidosfoodbank.org
OTHER INFO
Food pantry

[See More](#)

Social Care Plan

Summary Add Respondent Assign Attributes Assign Tags



Social Care Coordination

- Provider Notes
- Provider Suggested for You

Patient Interaction

- See their Social Care Plan
- See their resources
- Track their behaviors

Resources & Referrals

- Community Resources
- Internal Processes (to other parts of organization)
- Online Resources

Suggested For You

🔍 Kids in Need of Dentistry (KIND)
 303-733-3710
 4201 E. 72nd Ave. Suite D
 Commerce City, CO 80210
<https://kindsmiles.org/>

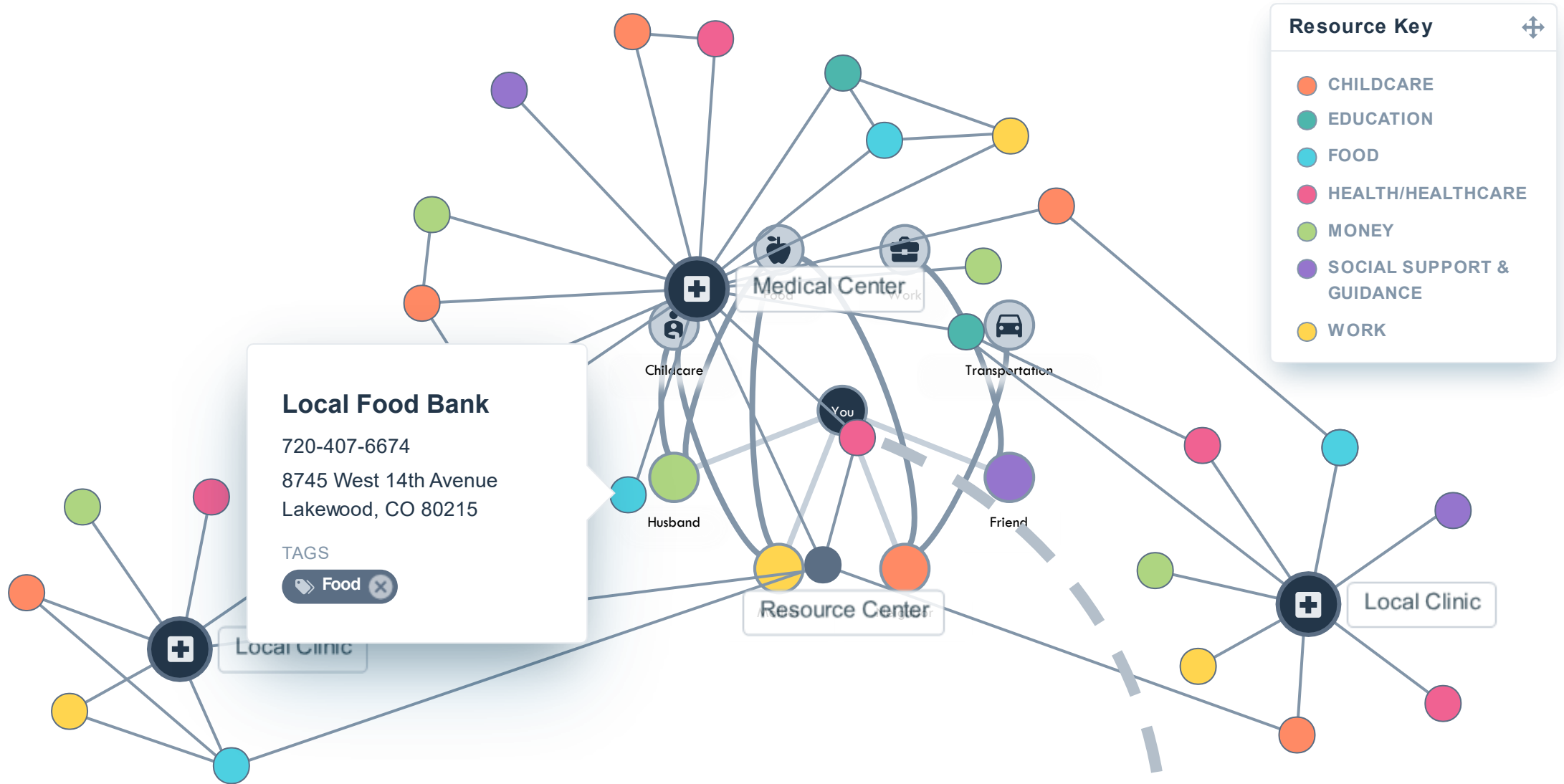
🔍 Boulder Community Health
Pediatric Rehab
 303-415-7000
 4747 Araphahoe Avenue
 Boulder, CO 80303
<https://www.bch.org/>

DESCRIPTION

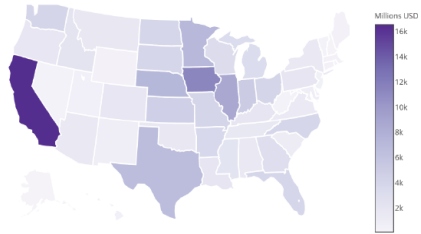
OT/ST/ PT

ELIGIBILITY

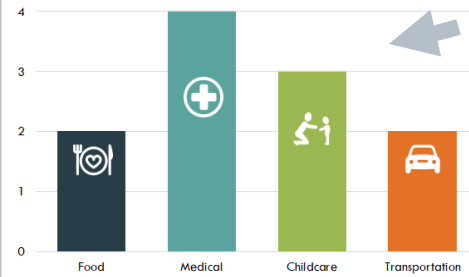
Most major insurances and



SOCIAL NEEDS BY REGION

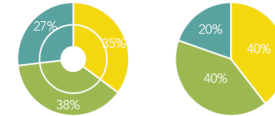


REFERRALS IN THE LAST MONTH



POPULATION HEALTH REPORT

NEEDS BY COUNTY
TOTAL CLIENTS ASSESSED: 1,582
SUPPORT NETWORK STRENGTH DISTRIBUTION



Connected
Community
Lab

Draw Maps

Find Resources

Data Analytics

Build a Care Plan



Cara Flowers, 62yr Female
Moderate Risk
Connections Made: 3

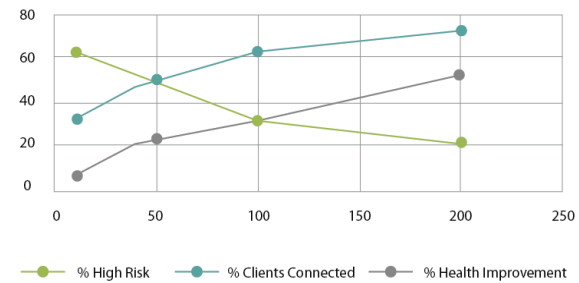
82%
Complete



Pablo Munoz, 28yr Male
Low Risk
Connections Made: 1

33%
Complete

SYSTEM OUTCOMES



Social Care Plan

Demio Client

Your Social Support Network Map

You may have heard the expression, "No man is an island," or, "It takes a village." They mean, at one time or another, we rely on other people, institutions—a social support network—for help, support, or advice. It's common to rely on others, most of us have never stopped to help us with what. Furthermore, most of us have no idea what our social support networks look like, even those of our closest friends.

The illustration below maps all the people and organizations you know (if they can work together to help you, there is a line between them) and how much you trust and depend on each member of your social support network (indicated by the color of the line between you and that member).

Your Social Support Network

Which of these people work together to coordinate care for you?

— HIGH TRUST — LOW TRUST
 - - - - LOW TRUST — HIGH DEPENDENCY

Looking at the Quality of Your Support Relationships

It's hard to feel supported when you can't trust the people (or organizations) you may not get the help you need. By contrast, having a network to get the support you need. While we expect some dependency on others, it's best to have more high-trust relationships than just one or two.

So, one of the most positive things a person can report is that they have a high-trust relationship with someone who is likely a more important quality than dependency.

Below are your dependency, personal trust, and social connection scores.

Dependency Level

In the figure below, you will see a score for each of the people (and organizations) in your social support network. It is calculated on a scale of 1-5. Higher levels mean that you depend on that member more. Levels below 3 indicate that you do not depend on that member.

Summary Add Respondent Assign Attributes Assign Tags

Depression Score

4.00

Depression Severity: 0-4 none, 5-9 mild, 10-14 moderate, 15-19 moderately severe, 20-27 severe.

Anxiety Score

4.00

Anxiety Severity: 0-4 none, 5-9 mild, 10-14 moderate, 15-19 moderately severe, 20-27 severe.

Emotional Loneliness Score

1.00

The Emotional Loneliness Score is a measure of how often you feel lonely. A score of 1.00 indicates a low level of loneliness.

Your Most Pressing Need

QUESTION 4
Which of the following are your most pressing concerns at this time (that apply)?

- Childcare
- Food
- Mental/behavioral health

QUESTION 5
Of the pressing concerns listed above, which is the most immediate concern for you now?

- Food

Resources Map

County and City of Denver, County of Arapahoe, Bureau of Land Management, Esri, HERE, Garmin, USGS, EPA, NPS | Esri, HERE, NPS
 Powered by Esri

Suggested For you

Denver Urban Ministries
 1717 E. Colfax Ave
 Denver, CO 80218
 303-355-4896
<https://denum.org/who-we-are/>

RESOURCE DESCRIPTION
 services provided include employment services, food pantry, rent and utility assistance, identification and birth certificates, legal assistance, health clinic and SNAP enrollment.

Food

Food Bank of the Rockies
 10700 E 45th Ave
 Denver, CO 80239
 303-371-9250 *1
<http://www.foodbankrockies.org/>

Food

Empower Center of Excellence in Family Behavioral Health
 6530 S Yosemite St Ste 210
 Greenwood Village, CO 80111
 720-778-4077
<http://www.empowercenters.org/>

Mental/behavioral health

Food

Denver Urban Ministries
 1717 E. Colfax Ave
 Denver, CO 80218
 303-355-4896
<https://denum.org/who-we-are/>

RESOURCE DESCRIPTION
 services provided include employment services, food pantry, rent and utility assistance, identification and birth certificates, legal assistance, health clinic and SNAP enrollment.

Suggested for you

Food Bank of the Rockies
 10700 E 45th Ave
 Denver, CO 80239
 303-371-9250 *1
<http://www.foodbankrockies.org/>

Suggested for you

Senior Assistance Center
 2839 W. 44th Ave
 Denver, Co 80211
 303-244-9642
<http://seniorassistancecenter.org/>

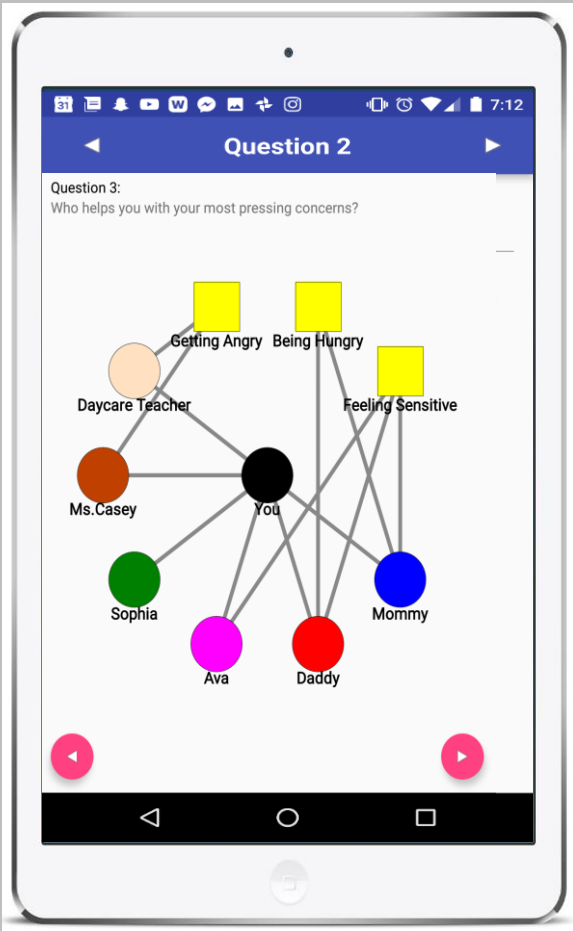
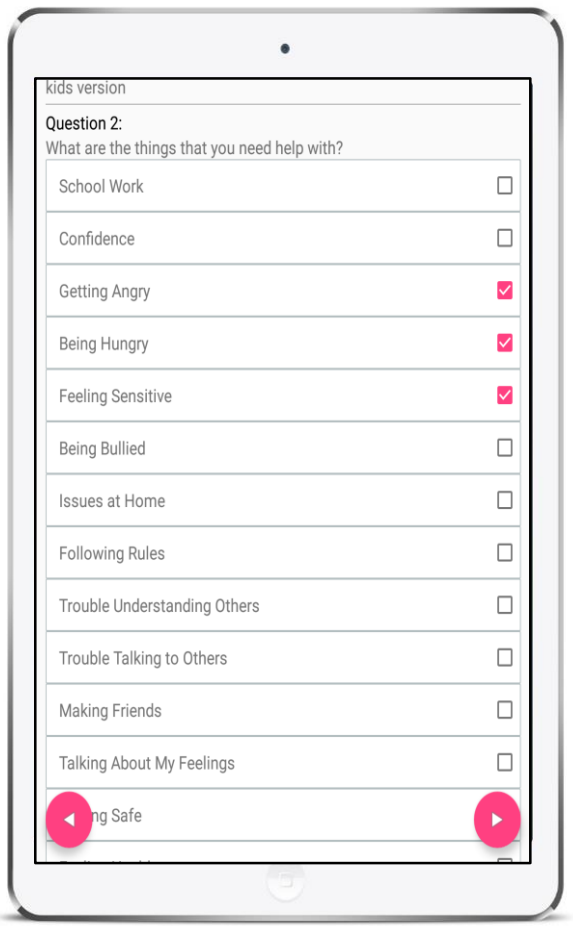
HOURS
 Tues & Wed 10am-2pm

Senior Support Services
 846 E. 18th Ave
 Denver, CO 80218
 303-832-1622
<http://www.seniorsupportservices.org/>

HOURS
 Mon, Wed & Fri 10am-1pm

ELIGIBILITY
 Must be 55 and older

We are also discovering the other ways we can apply this – for kids!



An end-to-end Social Care Coordination solution to improve health and wellbeing.



PARTNERme
A Person-Centered Network Tool



Data Considerations in Different Settings

🕸️ When in the workflow the data are collected

🕸️ How much time does the patient/provider have

🕸️ Intake, At-Home, Pre-Check In

🕸️ Who sees the data and when

🕸️ Mental health clinics/Providers: generally want to review data with their clients/patients instead of having clients/patients view data alone

🕸️ Capacity to understand the data

🕸️ Varies widely; however becomes more routine

Challenges and Successes

❧ Challenges

- ❧ Very hard to change a clinical flow
- ❧ Providers are tired and burned out – reluctance to adopt new innovations
- ❧ Electronic Health Record (EHR) integration

❧ Successes

- ❧ Implemented as a clinical screener (not a research project)
- ❧ Design thinking approach provides rapid feedback, changes, and adaptations
- ❧ Policy and funding for Social Care Coordination increasing
- ❧ Success billing and reimbursement in clinical settings

Example:

Adolescent Youth Social
Connectedness Fellowship

- Funded by the Annie E Casey Foundation -

Adolescent Connectedness



Youth Connectedness Is an Important Protective Factor for Health and Well-being



The Annie E. Casey Foundation develops solutions to build a brighter future for children, families and communities.

<https://visiblenetworklabs.com/social-support-research-fellowship/>

Youth Social Support Research Fellowship Resources

The Youth Social Support Research Fellowship seeks to create insights into the ways young people think about, build, and leverage support networks and relationships. By better understanding this unique perspective on social connectedness, we can build improved tools for measuring and strengthening support networks for youth. Learn more about our project, our team of fellows, and the resources we've created below.

[Explore our Resources >](#)

[Meet the Fellows >](#)

Fellowship Resources, Articles, & Tools

Strengthening Social Connectedness Among Young People: A Solution to the Mental Health Crisis?

This article discusses the role of social connectedness as a component of the ongoing youth mental health crisis in the United States.

[Read more >](#)

Two-Page Project Brief: How Do Young People View Social Connectedness and Access Resources?

This short Project Brief includes a high-level overview of our findings from our first semester of research with our Social Support Research Fellows.

[Read more >](#)

Full Project Summary Report: How Young Adults View Social Connectedness and Access Resources

This detailed Summary Report provides an in-depth overview of our findings from our first semester of research with our Social Support Research Fellows.

[Read more >](#)



**Martha
Gonzalez**

Youth Social Support
Research Fellow

Visible Network Labs



**Zoe
Crocker**

Youth Social Support
Research Fellow

Visible Network Labs



**Kyra
Stoute**

Youth Social Support
Research Fellow

Visible Network Labs

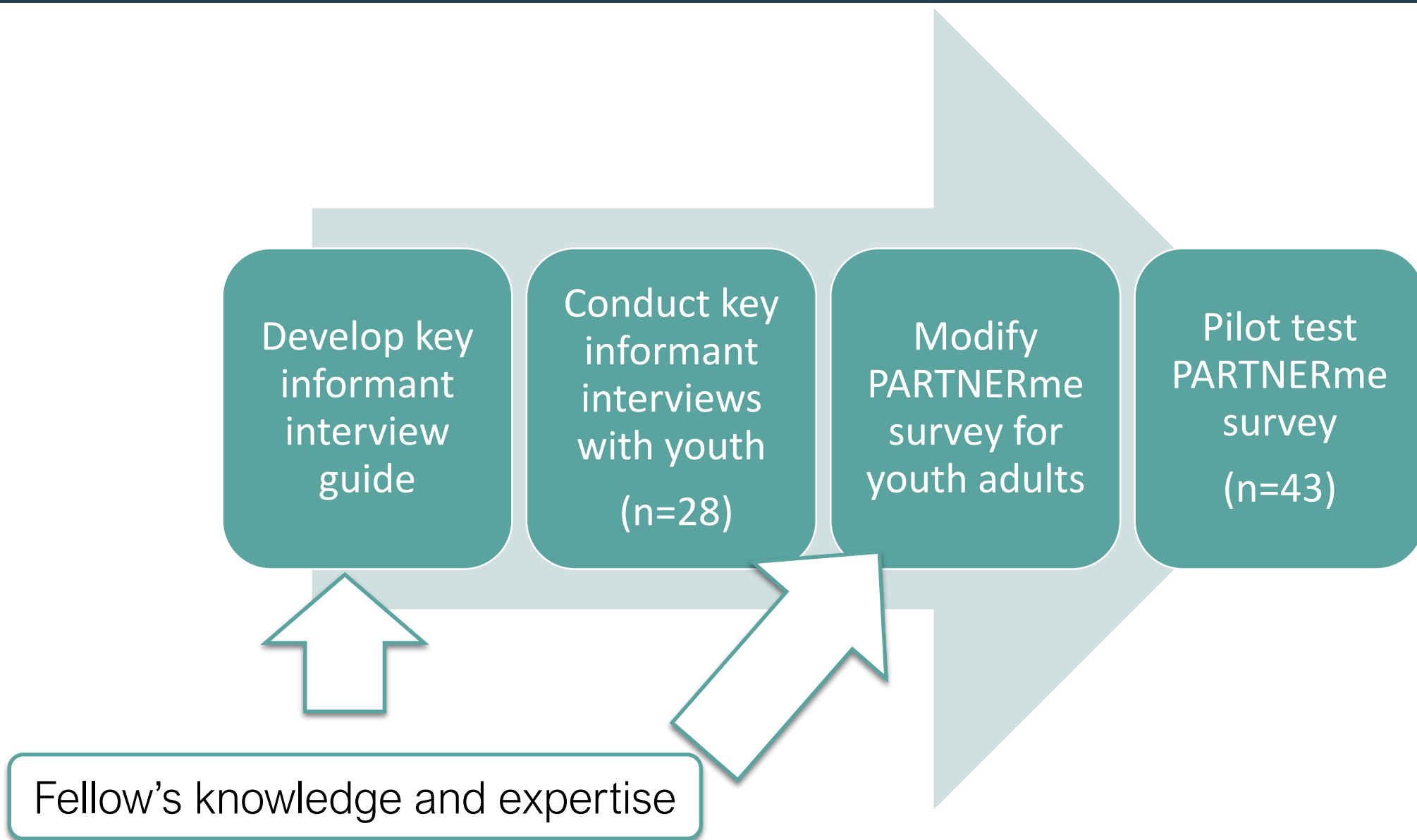


**Kimberly
Spring**

Director of Research
and Evaluation

Annie E. Casey Foundation

Overall Methods



Areas where white youth reported receiving more help than youth of color



Anxiety

Youth of Color	White Youth
56%	72%



Depression

Youth of Color	White Youth
6%	72%

35% of youth of color indicated none of these were areas they needed help with



Reflections and Learnings

Reflections on Results

- Youth of color socialized to not ask for help vs. their white peers
- Talking about mental health, encouragement to “be strong”, sharing is not really supported
- Focus on and value financial needs, basic necessities, housing, food insecurities, as well as future, career, school
- Rising epidemic of suicide among black men; video – many older black men do not have family, burned bridges, no family in their corner
- Youth tended to feel stigmatized for asking for help because they don't like feeling judged and they needed to build trust

Learnings

- Our assumptions are not always right
- Need to authentically ask and listen to people

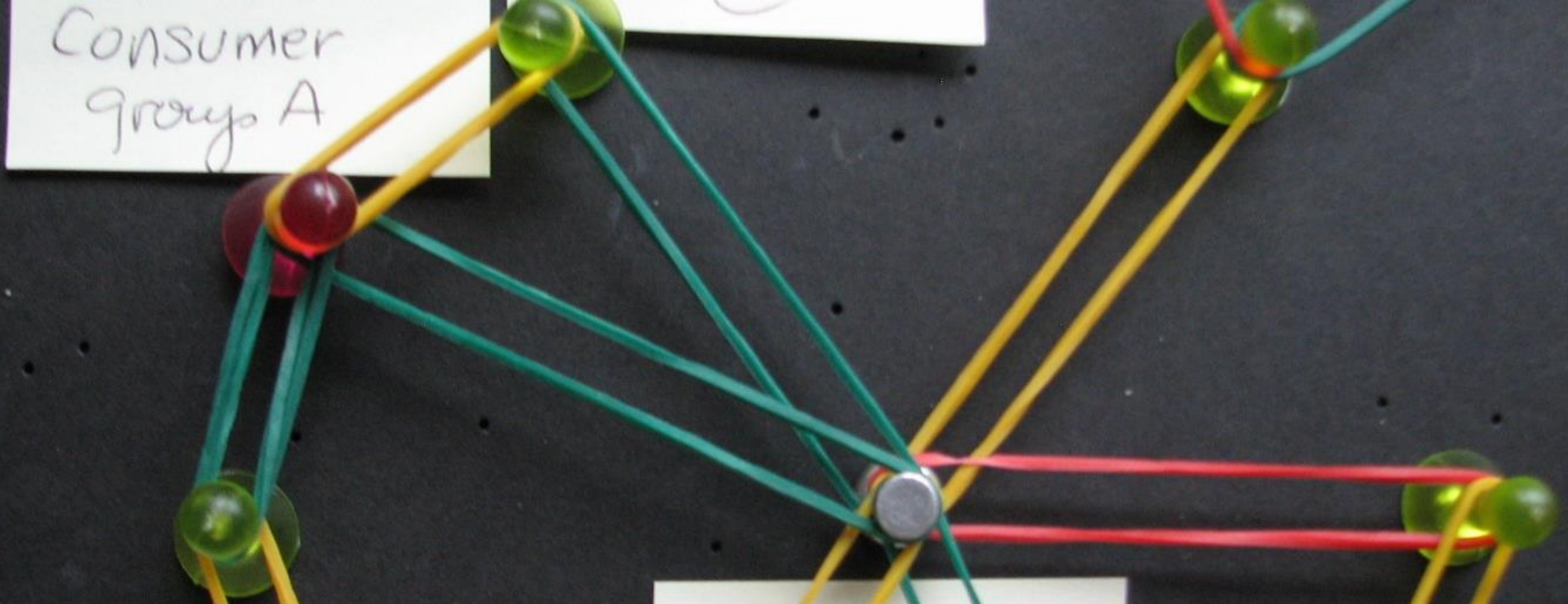


Questions/Ideas?



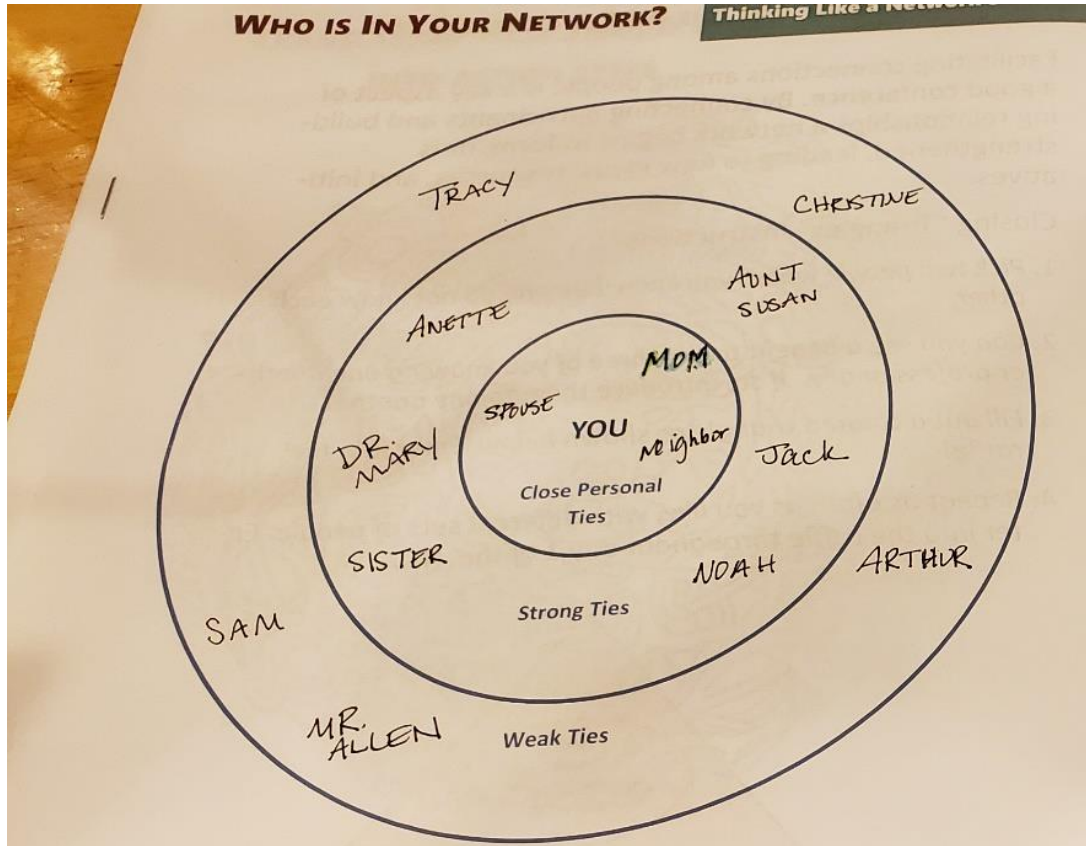
danielle@visiblenetworklabs.com
www.visiblenetworklabs.com

A Network Mapping Tool (Resource)

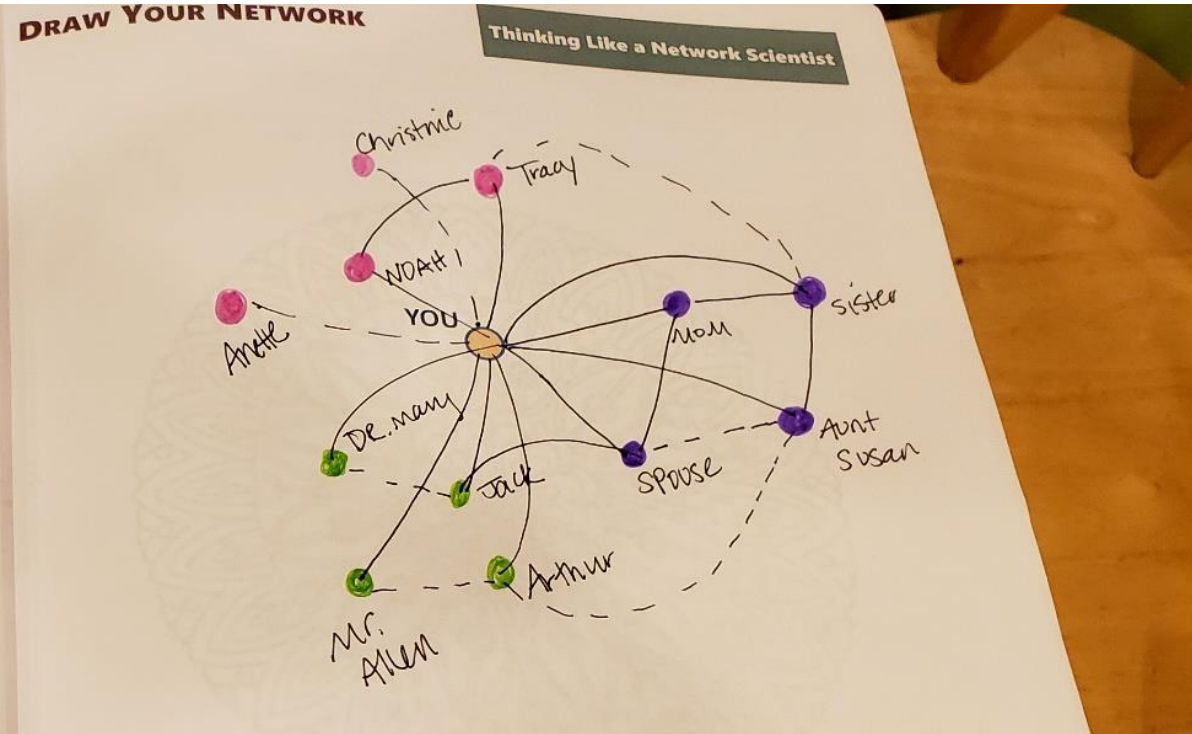


Mapping Your Personal Network

Mapping Your Personal Network



Thinking about your networks as "nodes" and "lines" is a helpful way to quickly visualize who is connected to whom, where redundancies exist, and where there might be gaps. In this exercise we will practice drawing our personal support networks. In this first worksheet, list out the people who "help you with the things you need". It is up to you to decide if you want this to be a personal or professional network.

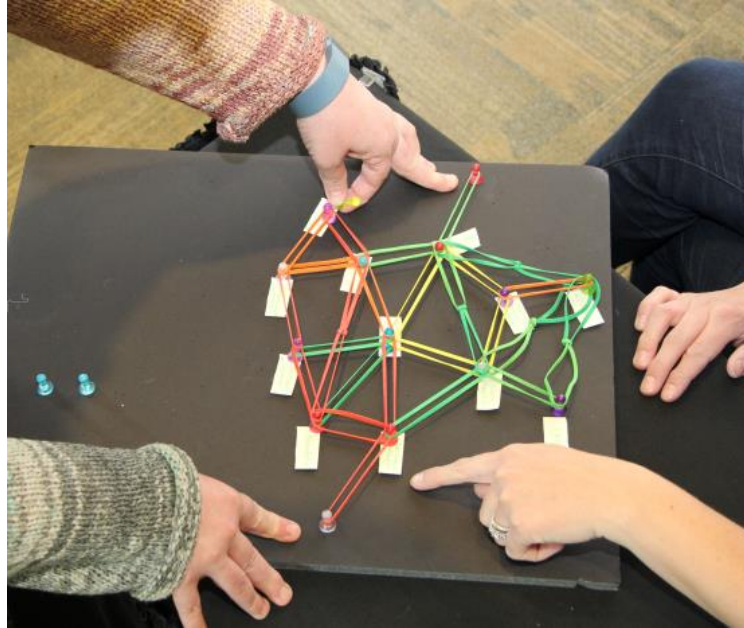


Now, take the list of people (places and things) that you listed on the previous sheet. Draw a circle (a node) for each person and then draw the lines between them to show who has a connection to each other. You might want to use colors to define different types of connections, or dotted or thin/skinny lines. You might make the nodes different colors or sizes to show their differences. Keep track of your decisions in the "Key" box.

Is your network more open?
Or do you have a more closed network?

KEY:

- FAMILY
- CO-WORKER
- FRIENDS
- strong tie
- - - - weak tie



...now you try it.

Personal Network Maps

—

If you can make one intentional change, what would it be?

