

Social Network Analysis of the CLHE Continuing Track

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Introduction

Purpose and Background

The Colorado Trust's Community Leaders in Health Equity (CLHE) initiative is an intensive equity and health equity leadership training and development program for Coloradans impacted by multiple forms of oppression and health inequities. Designed and implemented by Transformative Alliances LLC and funded by The Colorado Trust, CLHE's Continuing Track focused on community organizing and concrete skill building, as well as deepening health equity analysis so that participants are equipped to advocate for equity at a community level.

The American Institutes for Research® conducted a developmental and outcome evaluation of CLHE's Continuing Track to document how participants engaged with one another, the program's activities, and concepts. The mixed-methods evaluation, guided by a communities of practice (CoP) framework¹ used direct observation, feedback surveys, social network surveys, and focus groups. This brief presents our main findings from our analysis of social network data and documents the extent and intensity of network development achieved through CLHE Continuing Track activities.

¹Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

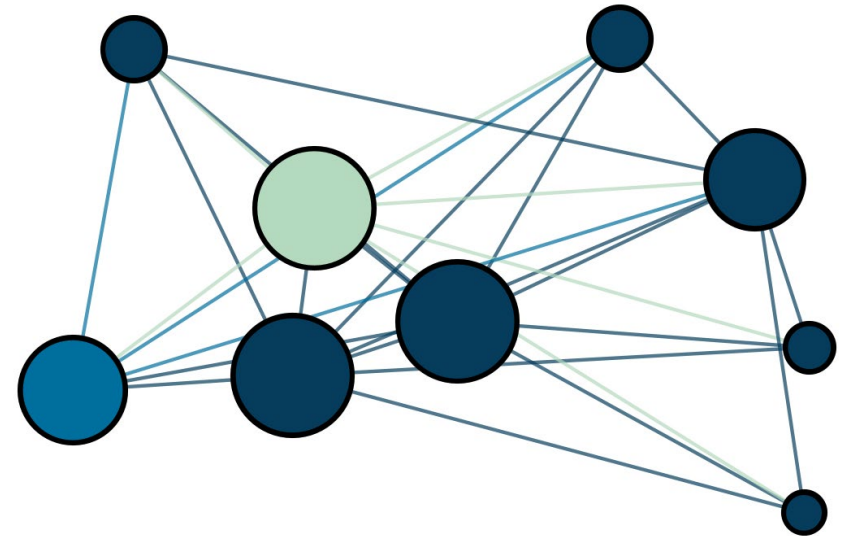
Introduction

Social Network Analysis

We used **social network analysis** to describe the connections among CLHE Continuing Track participants and document changes in the CoP over the course of the program. Our theory was that CLHE would serve as an intermediary to develop social networks of individuals and organizations interested in promoting health equity throughout Colorado.

- Data from the survey were used to create a series of **social network maps** that visually represent the Continuing Track participants and the connections between them (see example map to the right).
- In our maps, participants are represented by circles or “nodes,” and connections are represented by lines. Larger circles represent participants with more connections, and smaller circles represent participants with fewer connections. The color of the node indicates the language spoken by program participants.

Social network maps
are visual representations
of a network.



Methods

Data Collection

We administered the social network paper survey twice: in **October 2021** (about halfway through programming)² and in **May 2022** (at the end of programming). We invited all Continuing Track participants to complete the survey. We received responses from 17 of 23 participants (74%) in 2021 and 18 of 21 (86%) in 2022.³

Analysis

We created the social network maps using data from the 2022 survey (see slide 5). We then characterized connections at the end of the program relative to before the program and to those expected to continue after the program. Maps were **undirected**, meaning two nodes were connected if one reported knowing the other.

We also compared connections across language groups to reflect CLHE's commitment to language justice and explore how much network development aligned with these goals.

Lastly, we compared survey responses from 2022 to those from 2021 to capture changes in connections within the network that occurred during CLHE programming.

Study Limitations

The study uses self-reported data, meaning that participants may misreport their knowledge or interactions with others. For example, they may not remember knowing someone before the program started (*recall bias*) or may say they plan to stay connected with someone after the program because it is what they feel they are supposed to say (*social desirability bias*). Therefore, as you read this brief, please interpret our results and findings with caution.

²The initial administration was intended to take place earlier in the program, and was delayed due to COVID-19

³Two participants dropped out of the program between survey waves.

Methods

The survey asked Continuing Track participants about **prior connections** with other participants, **levels of interaction**, and **future plans** to stay connected.

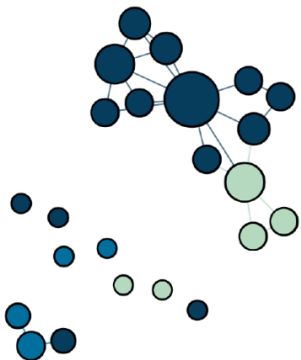
Before CLHE ⁴	End of Continuing Track	Future Plans
<p>Survey item: <i>Knew this person before CLHE (prior to April 2019).</i></p> <ul style="list-style-type: none">• Yes• No	<p>Survey item: <i>Rate how much you interact with each person.</i></p> <ul style="list-style-type: none">• No interaction• Minimal interaction• Occasional interaction• Frequent interaction	<p>Survey item: <i>Plan to stay connected with this person to share information/work together after the program is over.</i></p> <ul style="list-style-type: none">• Yes• No
<p>Participants are connected if one or both people answered “yes.”</p>	<p>Participants are connected if one or both people reported having at least “minimal” interaction.</p>	<p>Participants are connected if one or both people answered “yes.”</p>

⁴The “Before CLHE” data was collected retrospectively in May 2022.

Results: Maps by Participants' Language

Before CLHE

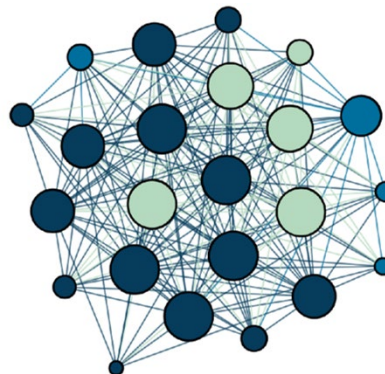
Prior to the program, only 13 of 23 participants knew another participant. These 13 participants had 23 **connections** prior to CLHE.



End of Continuing Track

Connections increased dramatically among participants during CLHE. By the end of the program,

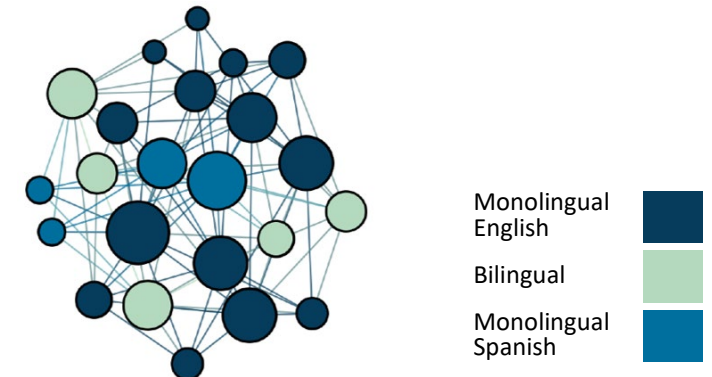
- the **23 participants** developed **205 connections**,
- all participants were connected with at least 10 other participants, and
- seven participants were connected to all participants.



Future Plans

Participants expected **93 of 205 connections to continue** after CLHE, and all participants were connected to between four and 13 others. These data suggest that

- CLHE helped support **long-term network development** but
- without the formal support of CLHE programming, **connectivity** among participants is at risk of **decreasing**.



Results: Network Development by Participants' Language

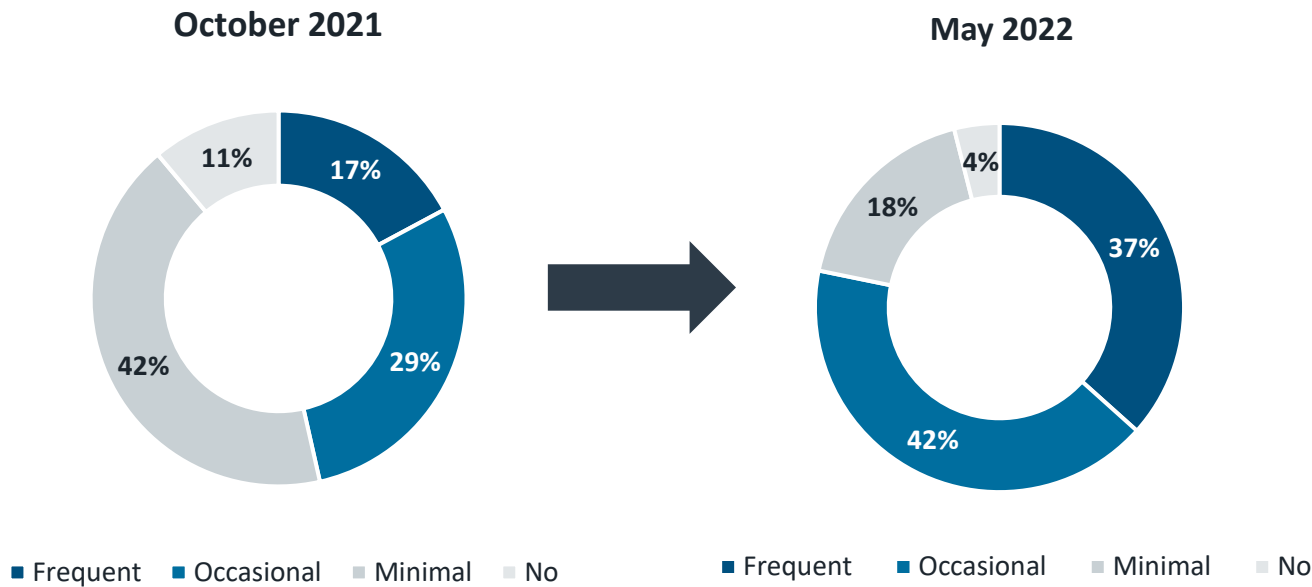
Across language groups, participants developed numerous connections with each other, many of which they expect to continue beyond the program.

- At the end, participants had an average of **17.8 connections** (of 22 possible) with other participants.
- **Bilingual speakers had slightly higher connections** than average, whereas monolingual Spanish speakers had slightly fewer connections.
- Participants expected to maintain **an average of 8.1 connections** with other participants in the future.
- Differences in expected connections across linguistic groups were minimal, suggesting that all groups have **similar intentions to continue interacting**.
- Notably, **no gap in expected connections** appeared between monolingual Spanish speakers and monolingual English speakers.

Average Number of Connections		
Language	End of Continuing Track	Future plans
Bilingual	20.0	8.6
Monolingual English	18.1	7.9
Monolingual Spanish	14.0	8
Overall	17.8	8.1

Results: Frequency of Interaction

Frequency of interaction among Continuing Track participants **increased** across time.



Respondents reported on their level of interaction with other participants in October 2021 and May 2022.

- In 2021, participants reported that 11% of their relationships with other participants involved no interaction, 42% involved minimal interaction, 29% involved occasional interaction, and 17% involved frequent interaction.
- **In 2022**, interactions were much more likely to be rated as occasional or frequent.
- In 2022, 4% of relationships involved no interaction, 18% involved minimal interaction, 42% involved occasional interaction, and 37% involved frequent interaction.

Summary of Findings

A participant's perspective

"I saw a lot of those relationships [across language groups] being built, and it was great to see that they were all really trying to maintain those relationships, and to find ways to communicate with each other ... Really it was the interpretation that made it possible for [monolingual speakers] to expand their networks."

Analytical results of the CLHE Continuing Track suggest that the program fostered and intensified network development among participants throughout the program and potentially beyond. By the end, all participants identified interacting with at least 10 other participants, or 43% of the group, and all participants indicated that they intended to have interactions with other participants in the future.

There were minor differences in connections between the different language groups, and these data show that network development can successfully occur in mixed language groups. CLHE's language justice approach and use of live interpretation was a likely driver in breaking down language barriers and creating these connections, supporting the development of a bilingual CoP focused

on health equity in Colorado.

Finally, participants across language groups intend to stay connected beyond the program. Although some connections may not be realized without the formal structure of the program, those that do remain will largely be attributable to the CLHE program. These connections have been built on a foundation of language justice, learning about equity, and learning how to advocate for and spread equity within participants' respective communities in Colorado. Each participant is now connected to a bilingual state-wide network of resources to continue their work advocating for equity.

Final reporting on the complete CLHE evaluation will be available in spring 2023.

For more information on the CLHE program, please visit <https://www.coloradotrust.org/strategies/community-leaders-in-health-equity/>.

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