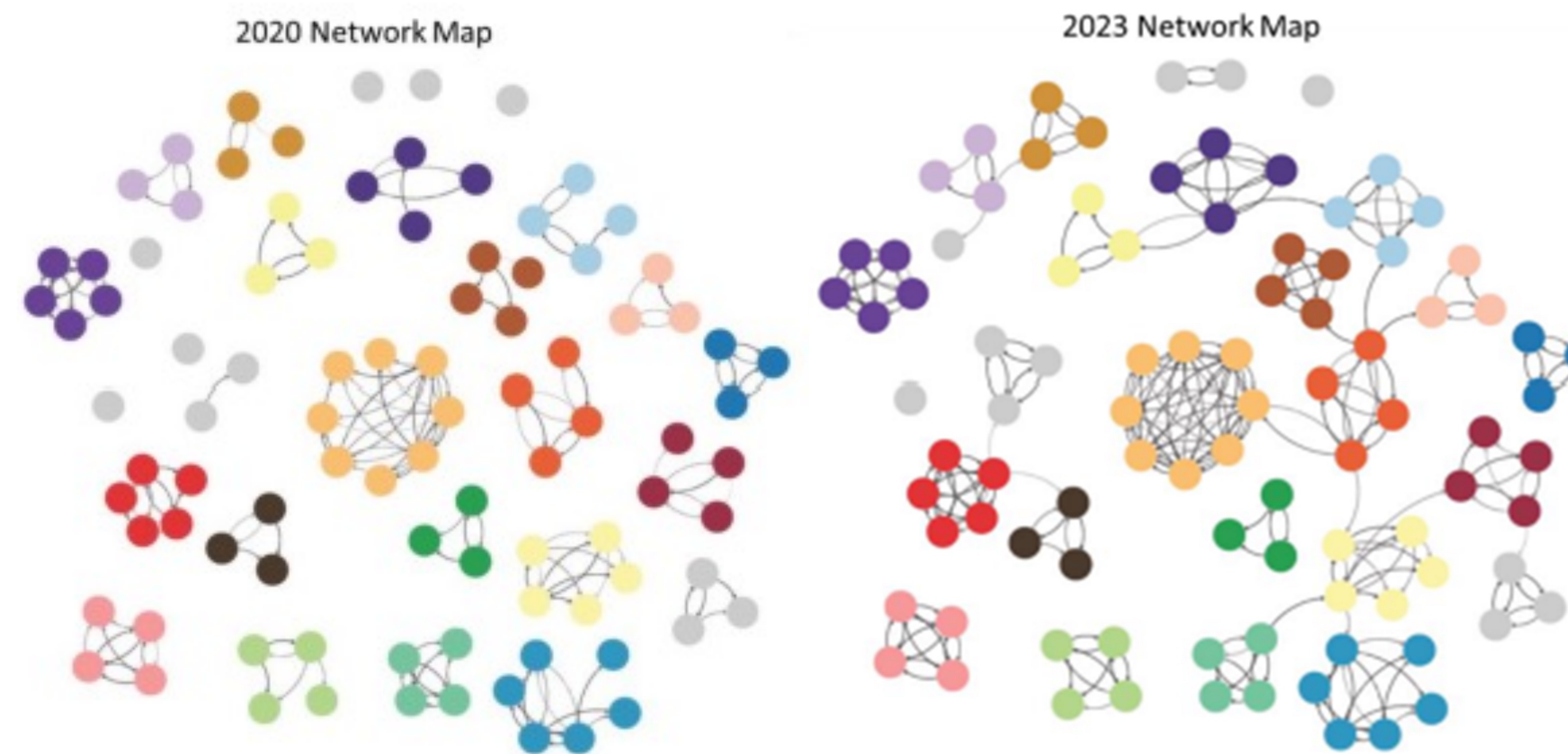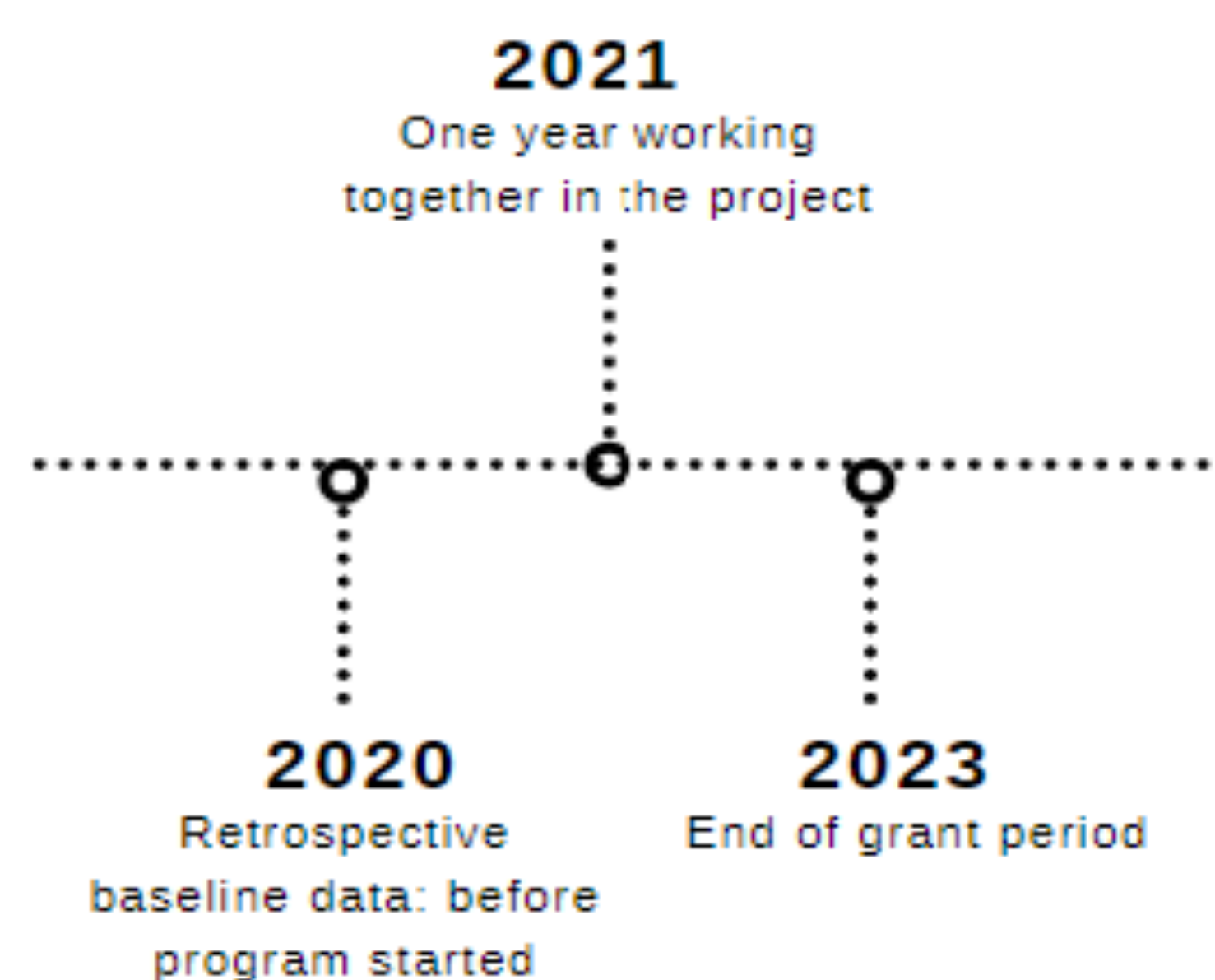# Application of social network analysis to evaluate community power building

Nubia Goodwin, MPH[1], Sofia Ladner, MPH[1], Carolyn Fisher, PhD[1], Amanda Robinson, PhD[1], Ben Goldberg[1], Ranjani Paradise, PhD[1]

[1] The Institute for Community Health, Malden, MA

Background

- A **social network analysis (SNA)** is a storytelling tool that can help visually portray a network's overall relational structure. It is used to quantify and analyze relationships within a network.
- **Community power** is defined as power collectively held by people and communities most impacted by inequity[1]
- ICH conducted an evaluation of a national program that provides grants and other support to organizations committed to health justice, racial justice, and anti-racism work. In order to understand how grantee organizations' relationships to each other changed over the course of the grant, a goal of the program, ICH conducted an SNA of state team networks.
- About this SNA:
  - 93 organizations working in 25 projects across 24 states
  - Each project team consisted of 1-8 organizations
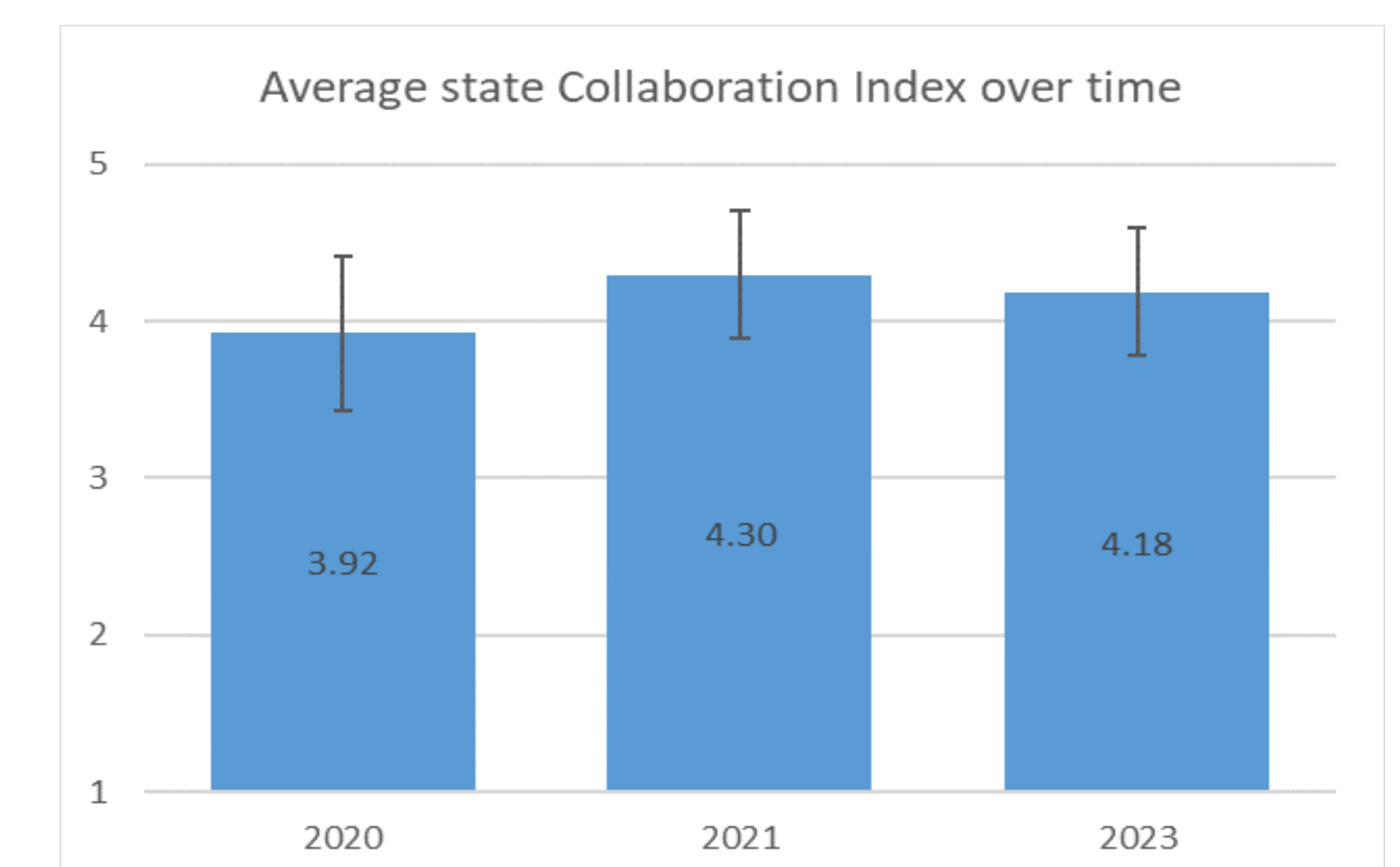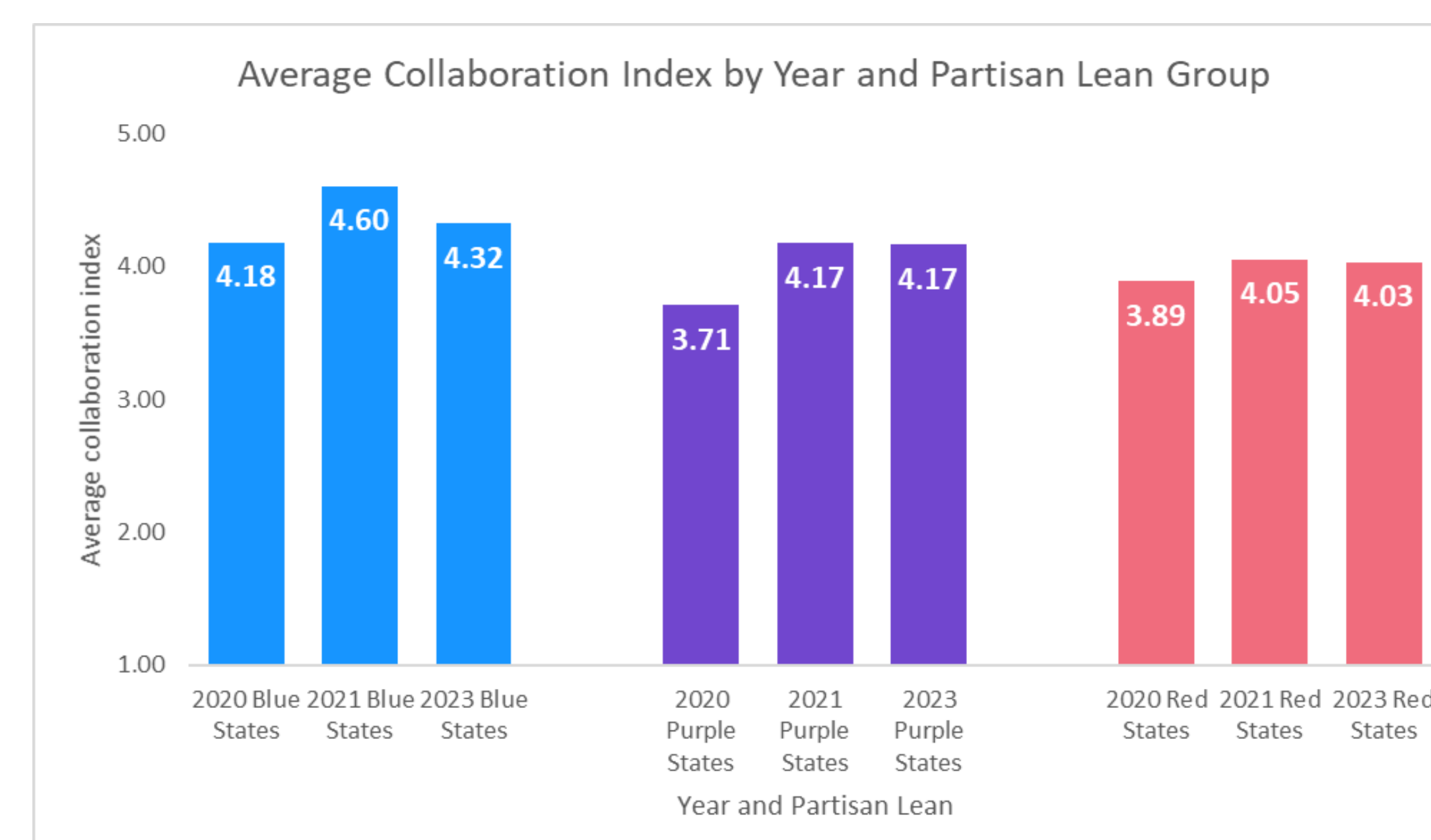 - Response rates for 2021 and 2023 surveys were 84% and 86%, respectively

2021
One year working together in the project

2020
Retrospective baseline data: before program started

2023
End of grant period

References

1. https://ssir.org/articles/entry/a_new_framework_for_understanding_power_building

2020 Network Map

2023 Network Map

What did we measure?

- <u>Collaboration index (CI) (strength of relationships):</u> Calculated based on three survey items assessing Partnership, Commitment, and Communication. Items use a 5-point Likert response scale (5 = Strongly agree; 1 = Strongly disagree). CI can range from 1 (weak relationship) to 5 (strong relationship)
- <u>Network density:</u> Calculated as the total number of connections that exist within a network divided by the total number of possible connections within that network; thus density ranges from 0 to 1. We counted a connection in the density calculation if its Collaboration Index was >3

Findings

- **Notable increase in the density of the state team networks from 2020 to 2023**, demonstrating that organizational relationships within each state were developed over the project period.
- **Partisan lean of a state impacts the average strength of the networks** and the degree to which the program is able to impact this. Purple states (partisan lean between -10 and 10, meaning relatively less partisan that other states) saw the greatest increase in collaboration index.

- **Growth in the strength of the relationships** between organizations on state teams over the project period, measured by the Collaboration Index. A small increase in Collaboration Index from 2020 to 2021 and then a slight decrease from 2021 to 2023. The overall increase over the project period (2020 to 2023) was small (0.26) but statistically significant (p = 0.0183, paired t-test).

Average Collaboration Index by Year and Partisan Lean Group

Average state Collaboration Index over time

Conclusion

Multiple factors will influence relationships between organizations supporting organizing and advocacy efforts toward health and racial equity. The SNA is a useful tool to show how relationships evolve over time and what factors can influence those relationships, from type and availability of grants to state political environments. This project has been given another multi-year funding round, and the evaluation will continue to explore the networks within states through the SNA.