



2019

## Impact of Collaborations

A social network analysis report generated by Tyler Prochnow, MEd.

# Olympic Peninsula Healthy Community Coalition

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## INTRODUCTION

In the Fall of 2018, a survey was sent to coalition members regarding perceived satisfaction and success within the Olympic Peninsula Healthy Community Coalition (OPHCC). In addition, coalition members were asked to report the names of other coalition organizations with whom they collaborated and wished to have more collaborations. These nominations were used to create networks to determine the effects of collaborations within the coalition as reported by organization representatives. Social network analysis methods were used to determine the effects of collaborations on perceived satisfaction and success as well as factors which predict collaborative tie presence between two coalition organizations.

This report contains three main sections:

1. Summary of survey responses
2. Summary of network responses
3. Network Analysis Results

## Social Network Analysis

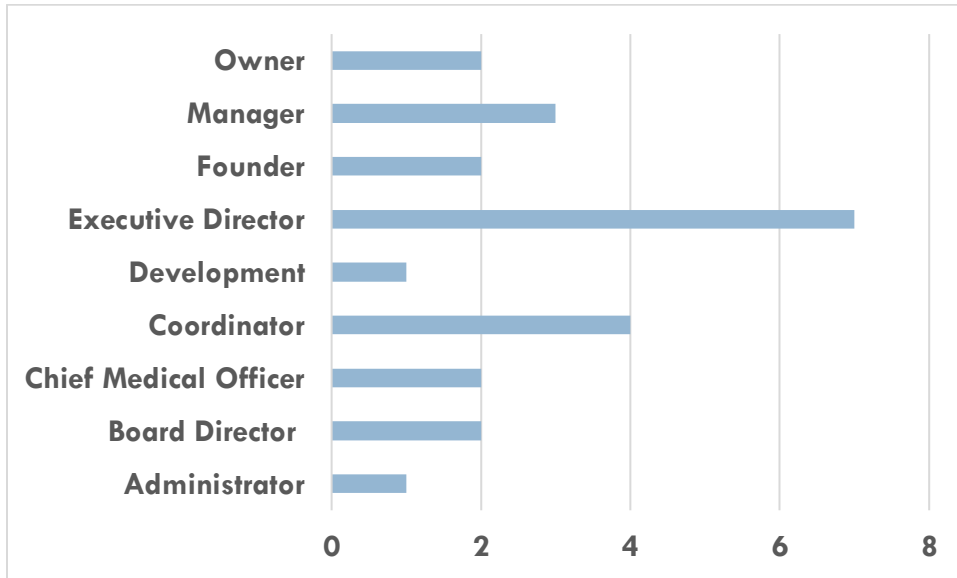
Social network analysis (SNA) is a set of methodologies and theories which aim to examine the meaning of connections between people or organizations. In other words, SNA gives researchers the ability to examine the impact of connections in the context of larger systems. For this report, organization representatives were asked to report on various relationships their organization may have with other organizations in the coalition. Various centrality measures were generated based on these nominations detailing various network dynamics. Advanced modeling (multi-level modeling and exponential random graph modeling) was then used to further examine the role of social structure within the coalition.

## RESULTS

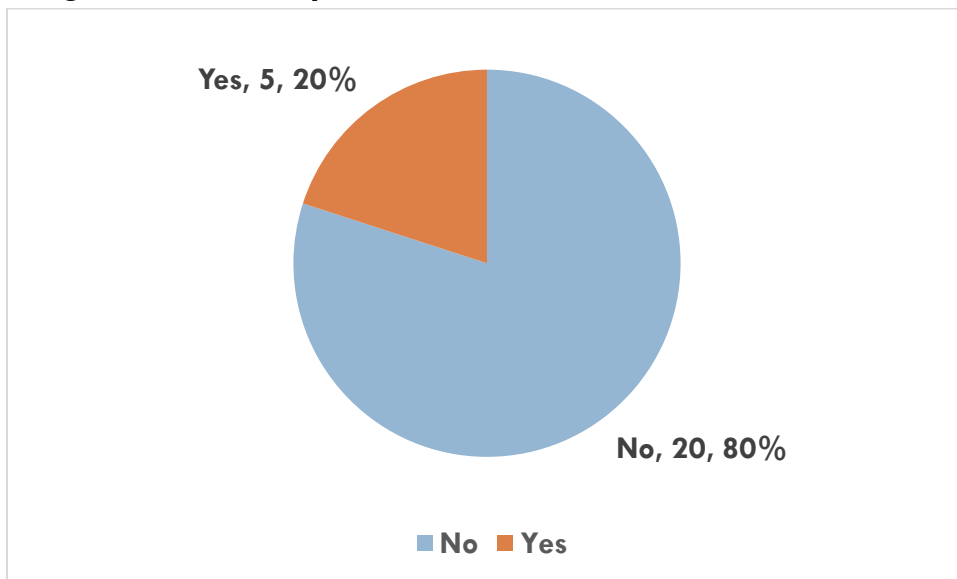
In total, 24 organization representatives responded representing 18 organizations within the coalition. Results listed below represent frequency of all responses.

### Summary of Survey Responses

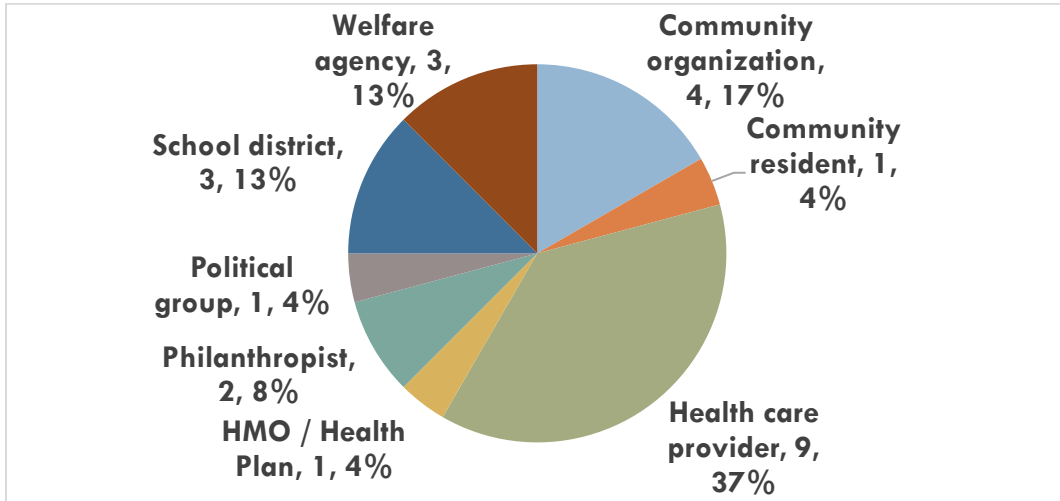
#### Q1 - What is your role in your organization?



#### Q2 - Is your organization for profit?



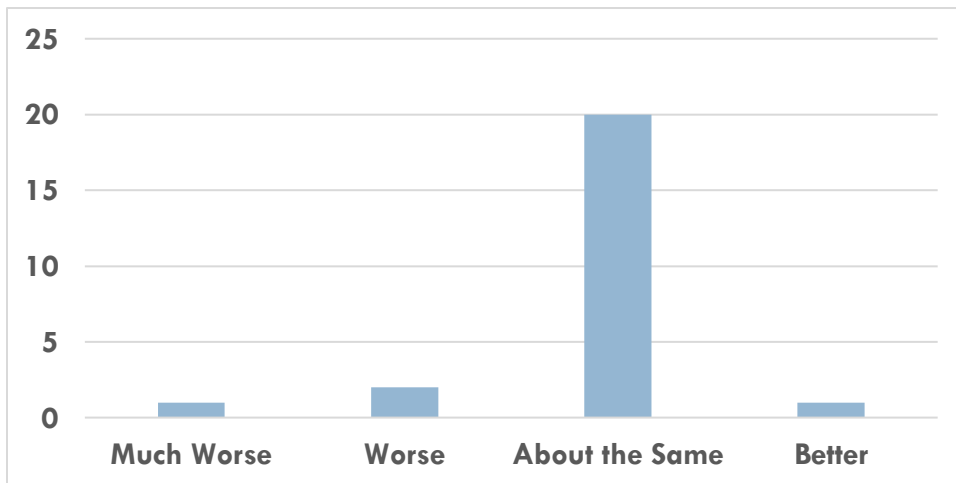
**Q3 - Please check the classification that best describes your organization.**



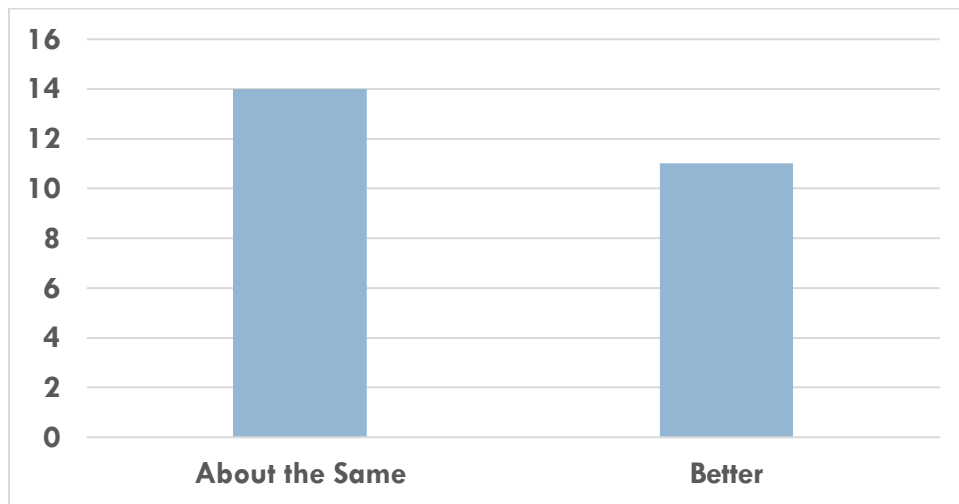
**Q4 - What role best describes your organization's contribution to the goals of OPHCC?**



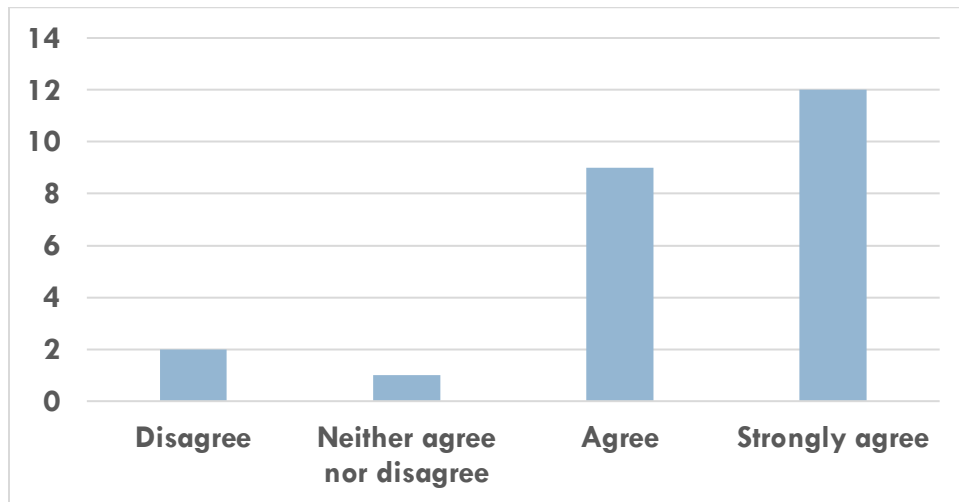
**Q5 - Compared to one year ago, the problem of chronic diseases in our area is:**



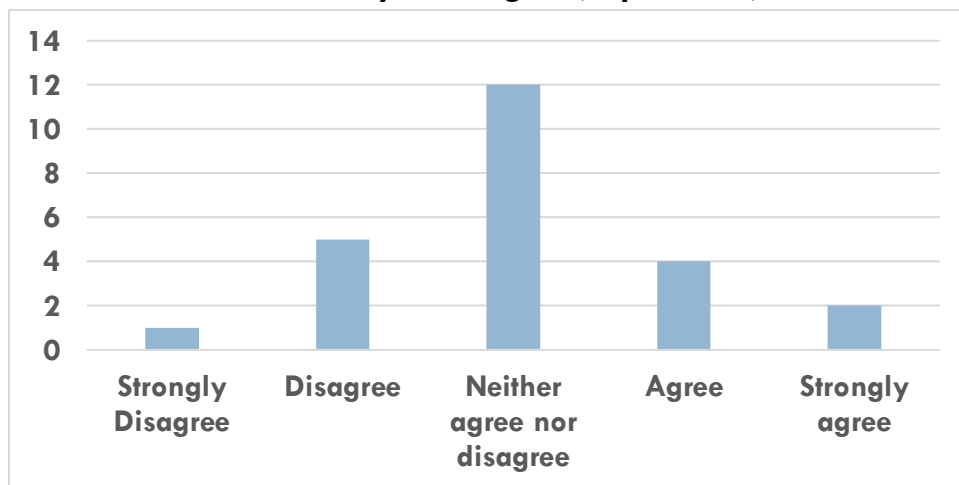
**Q6 - One year from now, I expect the problem of chronic diseases in our area to be:**



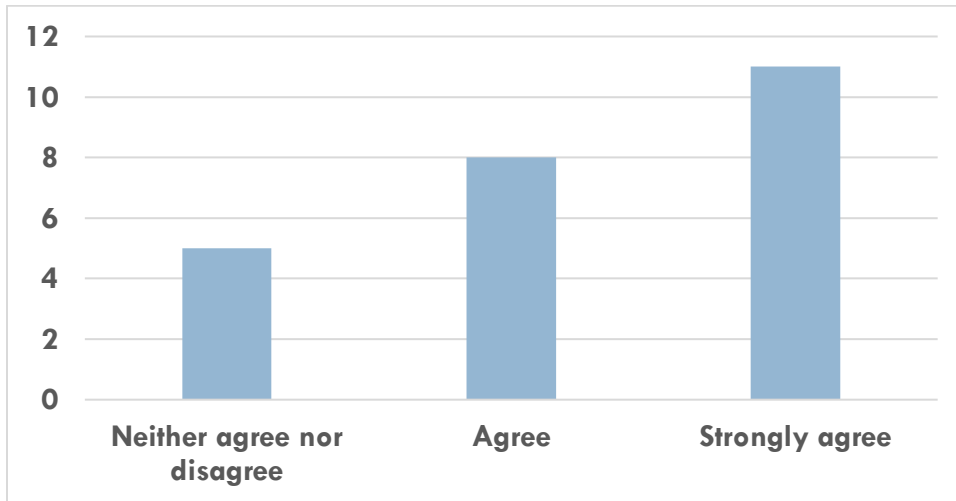
**Q7 - Everyone is involved in discussion not just a few**



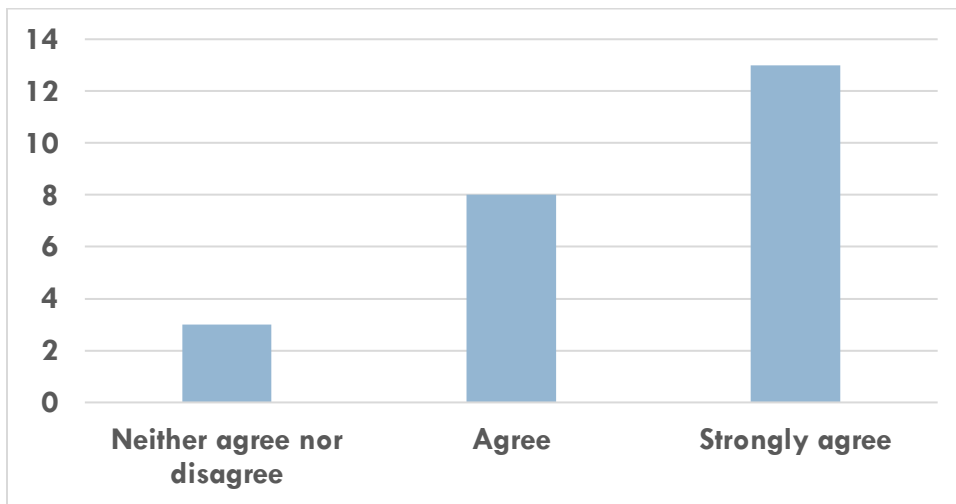
**Q8 - The coalition is hierarchically managed (top-down)**



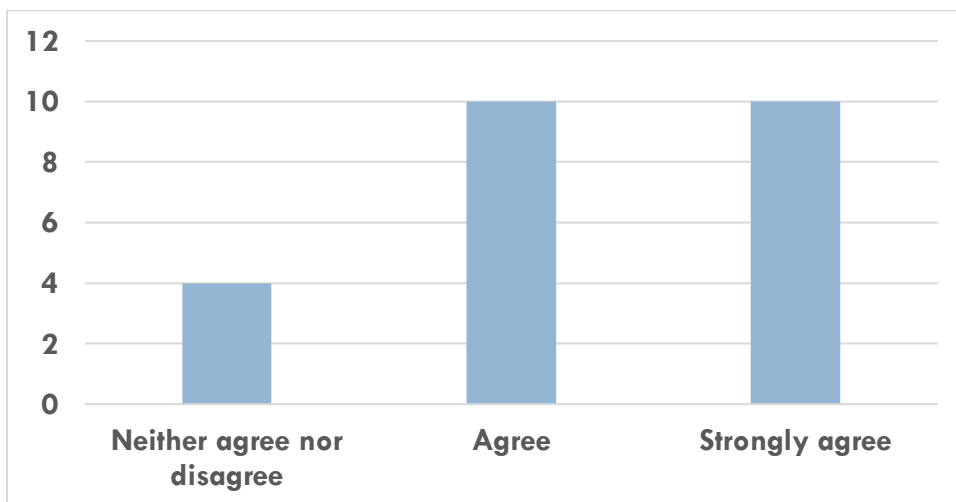
**Q9 - The coalition meetings are organized and efficient**



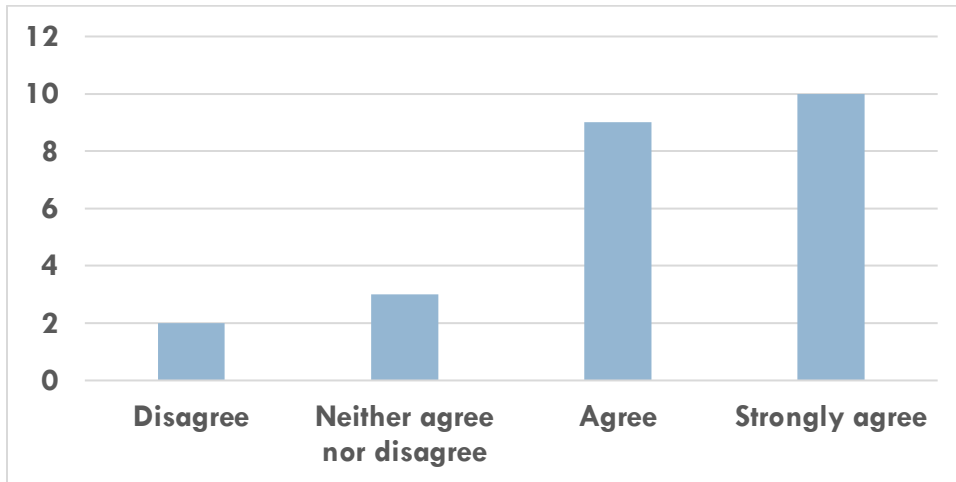
**Q10 - There is a clear leader(s) of the coalition**



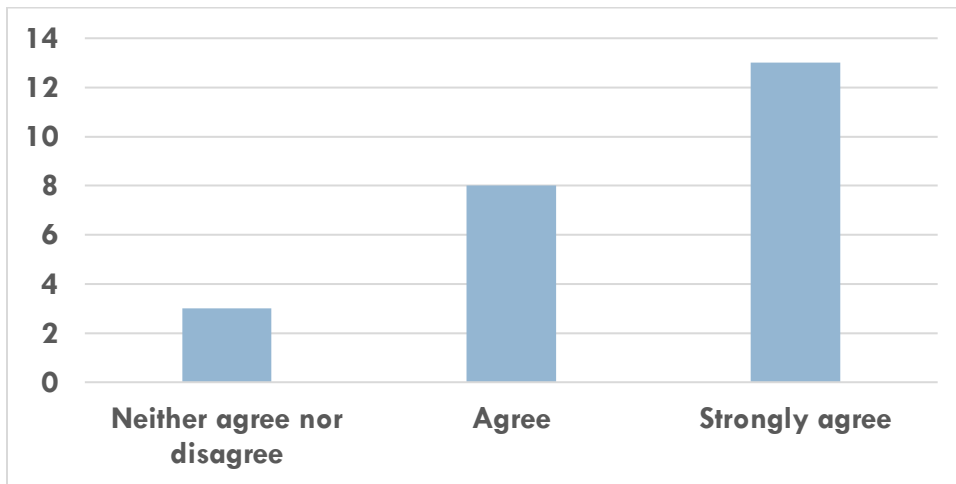
**Q11 - The coalition is able to move from talk to action**



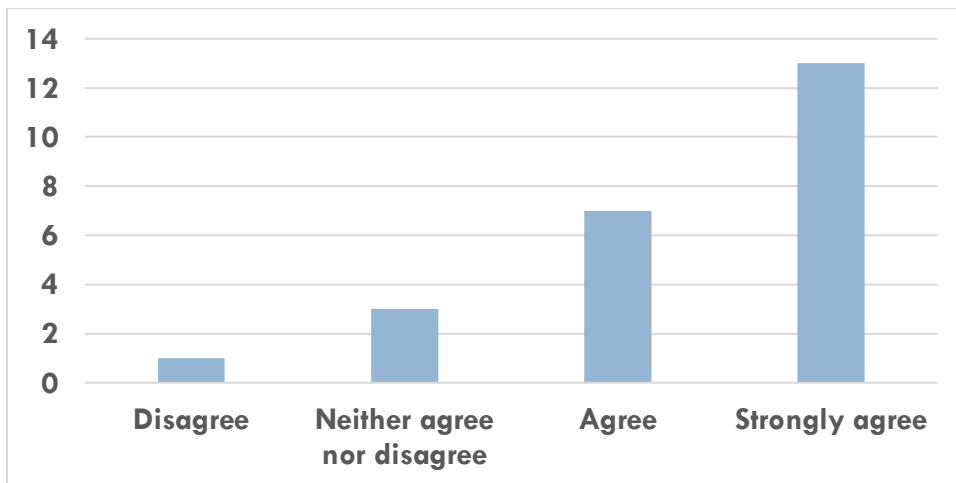
**Q12 - The coalition uses the abilities of all not just a few**



**Q13 - People in the coalition trust each other**

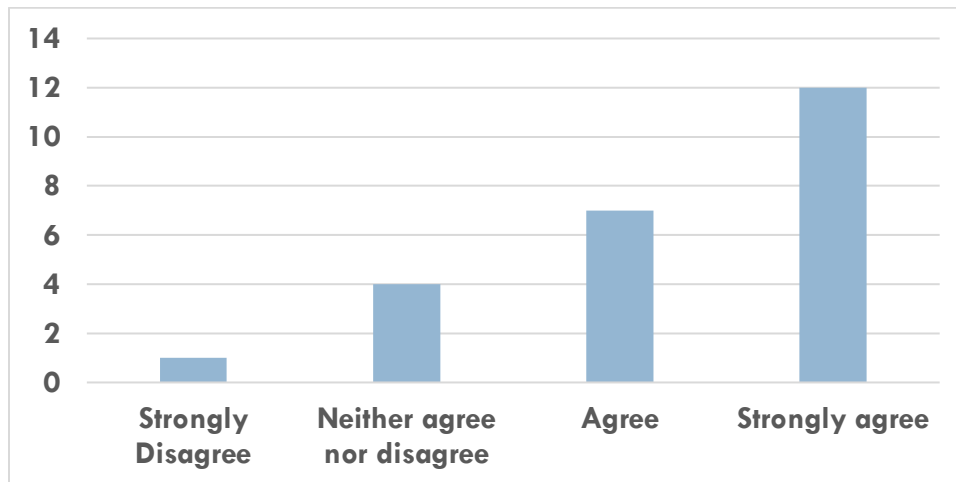


**Q14 - Overall, my organization is satisfied with the collaboration within OPHCC**





**Q15 - My organization benefits from being in OPHCC**



**Q16 - Describe any activities that have facilitated collaboration.**

- NOLT's Annual Breakfast
- Fun Walk & Health Fair, Farmers Market, Field Days
- OPHCC has given me an opportunity to engage with other people in this community that are passionate with a similar heart for gleaning, food reclamation and creating business models that benefit our people and the environment. I see the unique impacts of these groups and people, its really inspiring and encouraging, I love how collaborative this community is to developing models for a healthier food and society!
- 5210 Healthy Leader Challenge
- Attended several OPHCC meetings that resulted in networking & development of new programs related to 5210. Sequim Farmers Market hosted OPHCC in a community booth on opening day where activities and outreach occurred.
- Many of OPHCC's scheduled activities are collaborative efforts among partners. Some of these activities include back-to-school fairs, health fairs, festivals, and school field days.
- Attending monthly meetings. Participating in 5210 events. Leadership challenge. Promoting 5210 in various community groups and organizations.

## Summary of Network Responses

To build the network, organization representatives were asked to select any and all organizations that met the criteria for each relationship from a roster of all OPHCC organizations. Representatives were not limited on the amount of organizations they could select but they were limited to only organizations present on the roster as of Fall 2018. Nominations were consolidated for organizations which had multiple representatives respond to the survey as to retain all ties reported for each organization. It should be noted that organizations who did not participate in the survey could end up in the final network if they were nominated by a participating organization.

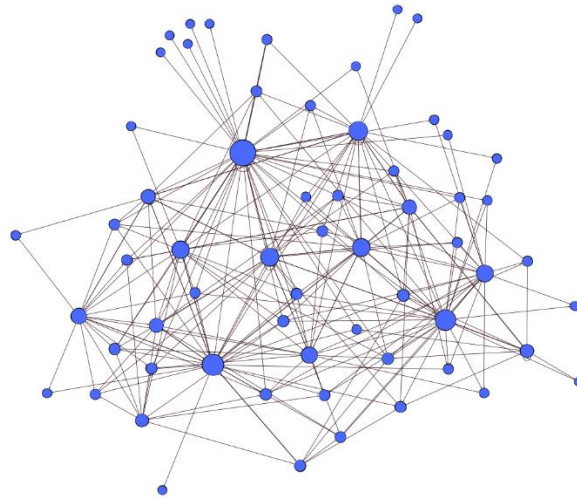
In the figures below, nodes (organizations) are sized by their relative number of connections they had in the corresponding network.

Definitions of SNA terms below:

- Density – A measure of the amount of connections observed as a percentage of the total amount possible.
- Degree – Number of connections a given organization has.
- Degree Centralization – A measure of the variation in degree measures of individual organizations in the network.
- Core – Periphery – A measure related to the structure of the network having clear core / periphery members.

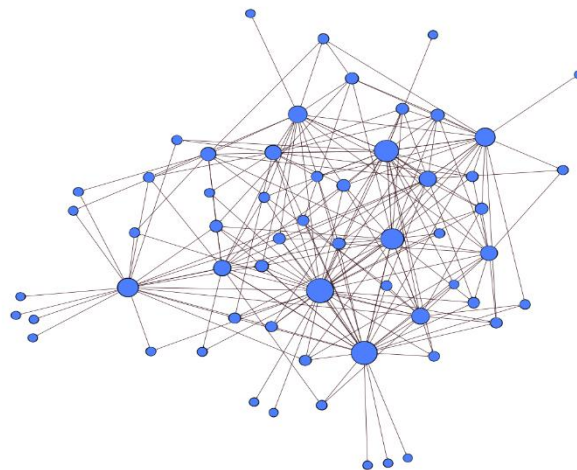
## Collaboration

Ties	Density	Degree Centralization	Average Degree	Max Degree	Core-Periphery
247	0.06	52%	3.8	36	0.55



## More Collaboration Desired

Ties	Density	Degree Centralization	Average Degree	Max Degree	Core-Periphery
211	0.05	43%	3.2	30	0.38

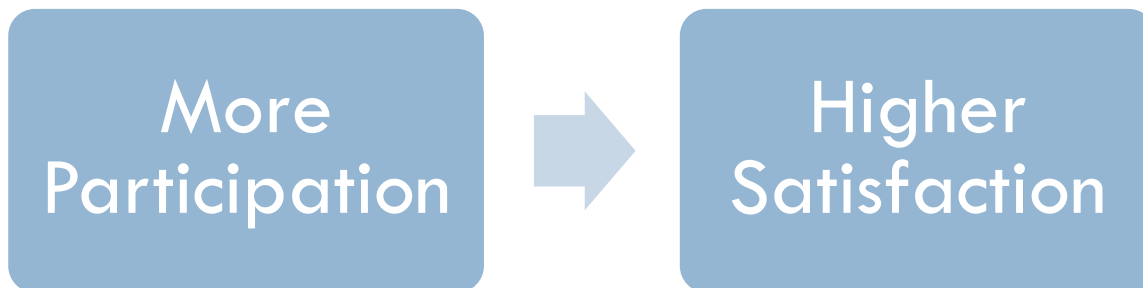


## Network Analysis Results

Advanced models were used to determine the role of social structure within the collaboration network to predict organization representative perceived satisfaction and success within the coalition. Interpretation of models have been supplied below.

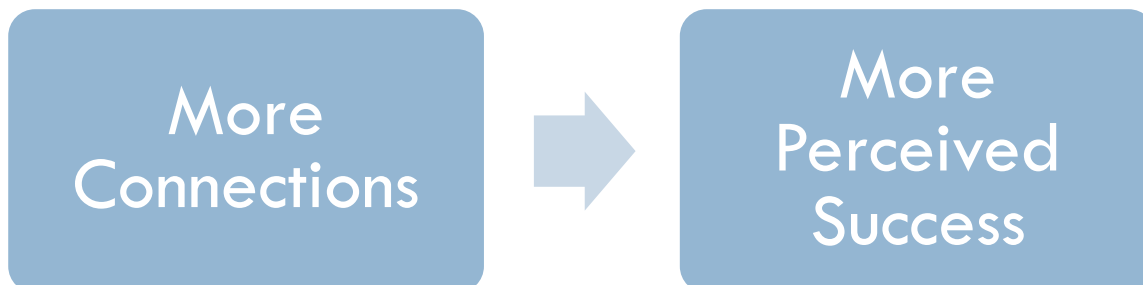
### Perceived Satisfaction

Models predicting perceived satisfaction were not significantly affected by the addition of social network centrality scores, however, organizations which attended more OPHCC meetings were shown to report greater satisfaction on average.



### Perceived Success

Models predicting perceived success were improved when the amount of connections an organization had was included.



## Predictors of Collaborative Ties

Using simulated networks based on data collected with this coalition, several factors were determined which increased the odds of a collaborative tie being present within the coalition.

### Transitivity (Rule of Three)

- Collaborations in this network were significantly more likely to occur between organizations who share a collaborative partner.
- Example: If organizations A and B both collaborate with organization C, then A and B are more likely to collaborate.

### Activity Status

- Collaborations in this network were significantly more likely to occur between organizations with greater participation.

### For-Profit Status

- Collaborations were statistically more likely to occur between organizations that differed on for-profit status. Example:
- Example: Not-for-profit organizations collaborating with for-profit organizations.

### Perceived Satisfaction

- Collaboration ties were significantly less likely to be present between organizations who reported higher perceived satisfaction.

## CONTACT INFORMATION

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