

Leveraging Social Networks to Promote Cancer Prevention Health Behaviors

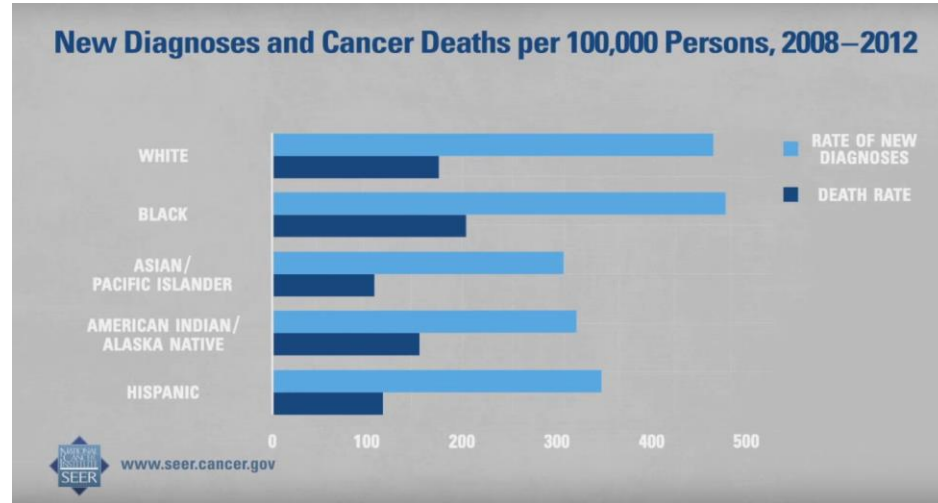
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Presentation Outline

1. Background & Significance
2. Specific Aims
3. Project Overview
4. Methodology
5. Predictors of Interest
6. Limitations
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8. Moving Forward
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Background

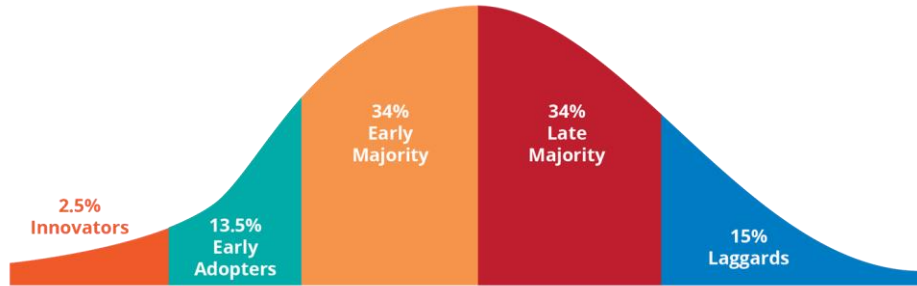
- 1 million Americans are diagnosed with cancer annually ²
- Racial and Ethnic disparities exist in cancer preventing behaviors ³
- Environment and lifestyle contribute to 90% of cancer cases in the U.S.¹
- Crucial role of Primary Care Providers in cancer prevention



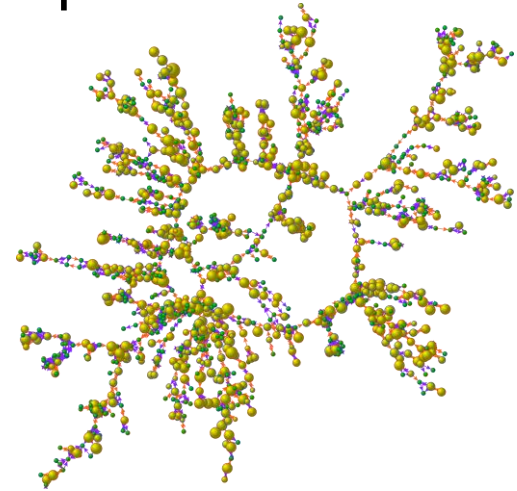
¹Anand P, Kunnumakara AB, Sundaram C, et al., 2008. ²2015. Atlanta: American Cancer Society ³Delva J, O'Malley PM, Johnston LD., 1986–2003.

Significance

How can PCPs leverage their patients' social networks?



Diffusions of Innovations Theory



Social Contagion Theory

Social network interventions may especially benefit minority populations

Hypothesis:

Leveraging the social networks of primary care patients will enhance the effects of strategies designed to promote adoption of cancer prevention behaviors.

Collaborative Goal Setting

Specific Aims

Aim 1: To determine the relational characteristics of social networks among primary care patients

Aim 2: To examine associations between social network relational characteristics defined in Aim 1 and individual-level cancer prevention knowledge, attitudes, and behaviors

Aim 3: Conduct a pilot randomized controlled trial of an intervention that leverages social networks

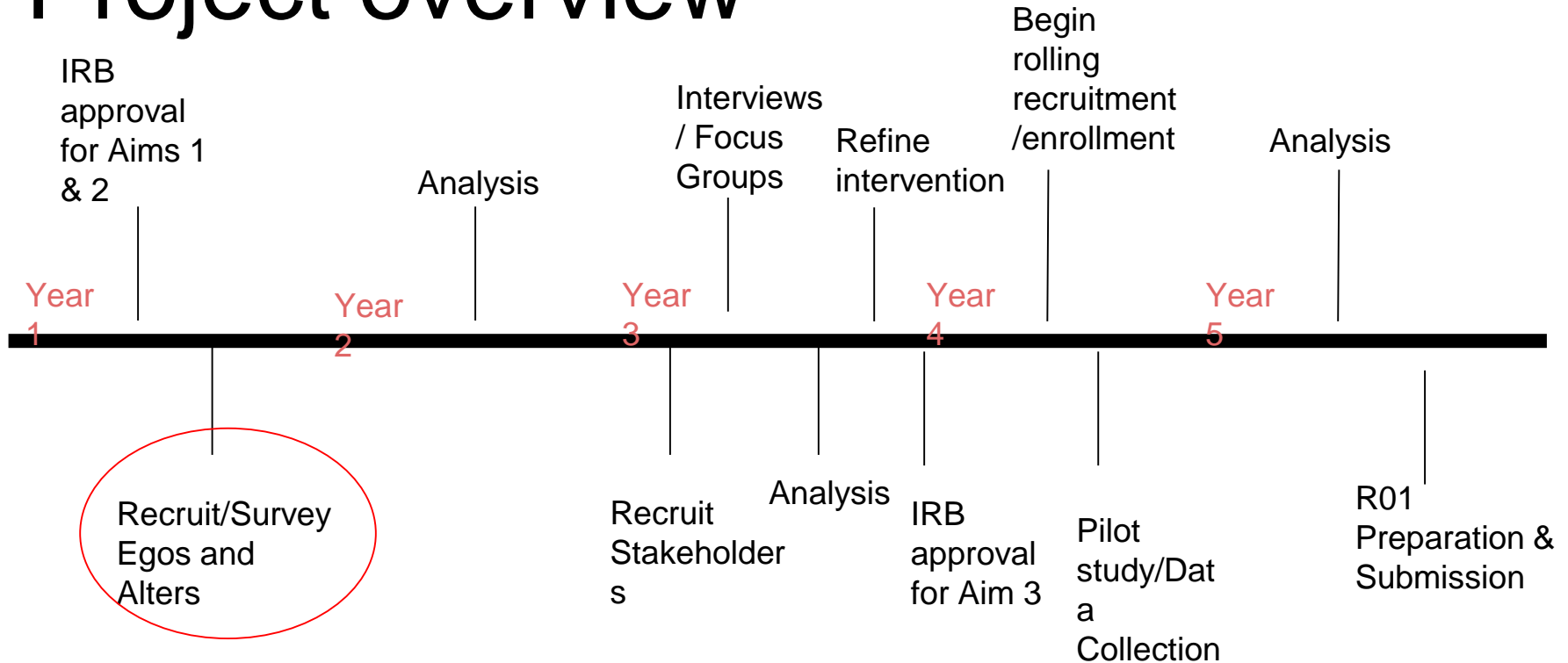
Specific Aims

Aim 1: To determine the relational characteristics of social networks among primary care patients

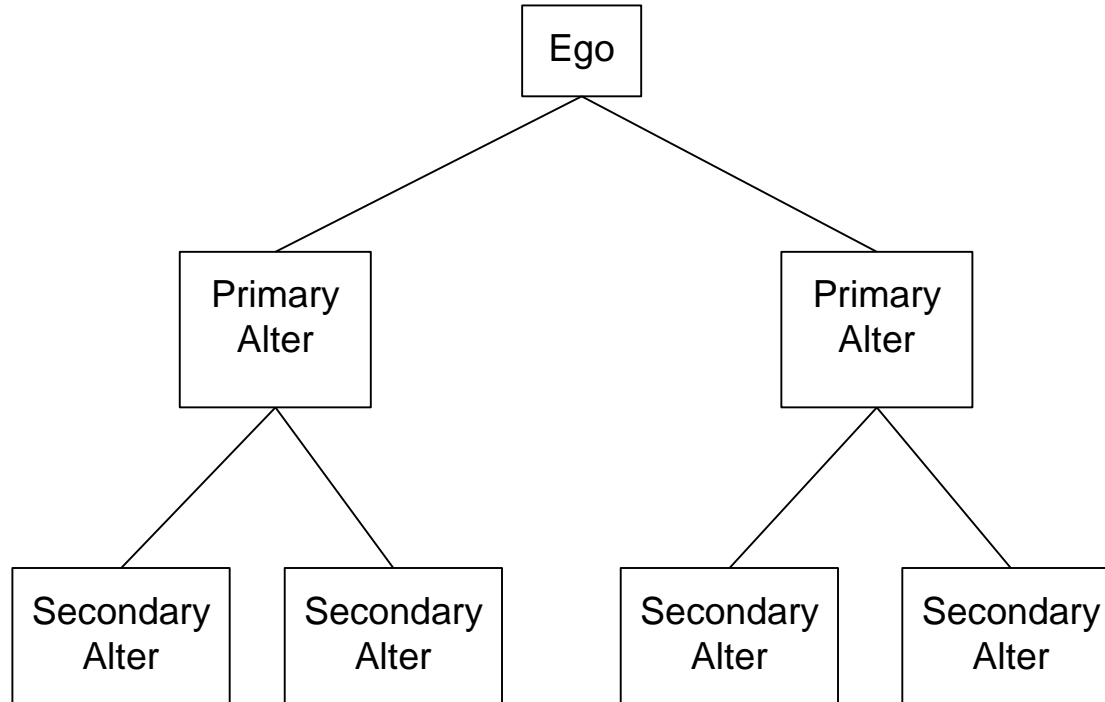
Aim 2: To examine associations between social network relational characteristics defined in Aim 1 and individual-level cancer prevention knowledge, attitudes, and behaviors

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Project overview



Terminology

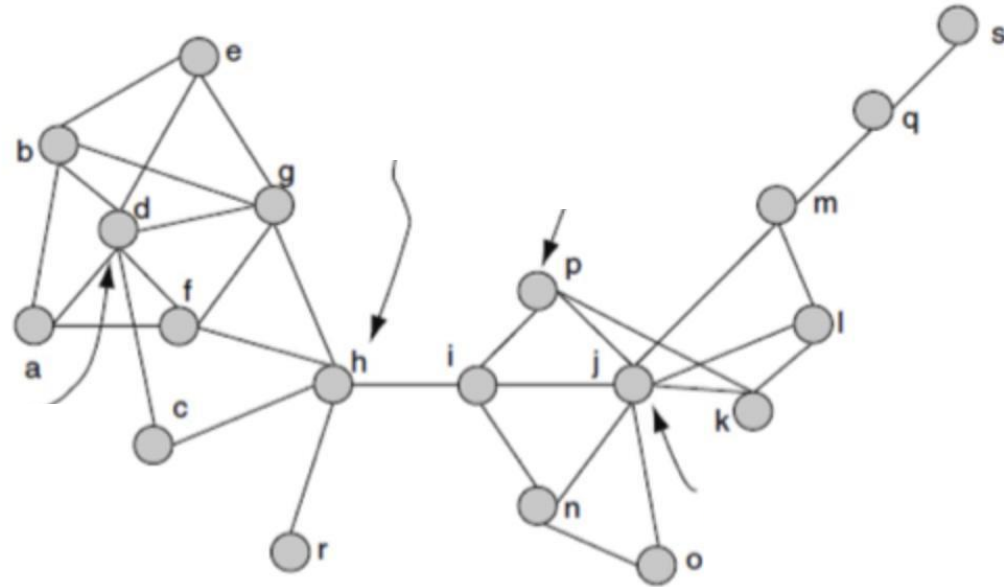


Methods

Primary Data collection

- Waiting Room recruitment vs. Phone Recruitment
- Eligibility Criteria
- Active Vs. Passive Snowball Recruitment
- Administered a 60 minute 73 item survey
 - Relational Characteristics
 - Social Capital
 - Social Norms

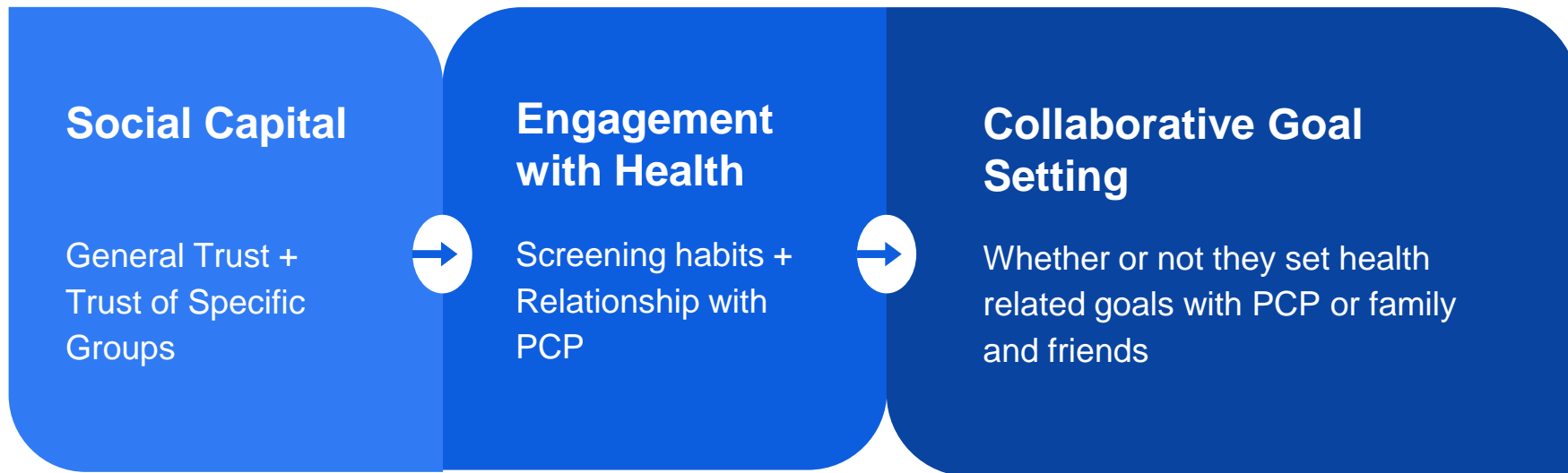
Methods



Diverse centrality measures

Predictors and Outcomes of Interest

Amanda's Interests



Predictors and Outcomes of Interest

Gabby's Interests

Relational Characteristic

S
Number of social ties with whom individual discusses health



Social Norms

Friends' and family's health behaviors related to smoking, diet, and exercise



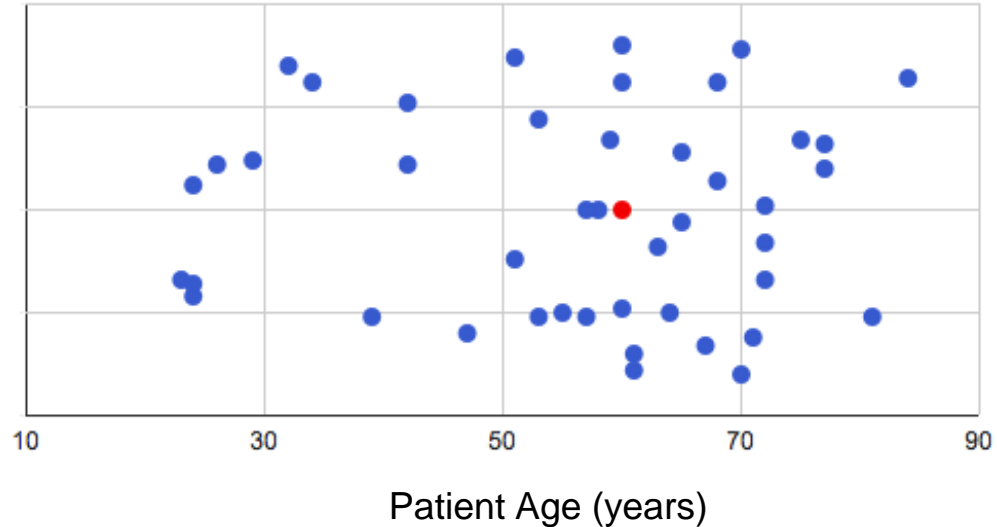
Adaptation of Behavior

Whether or not the individual reflects the healthy behaviors of his/her family and friends

Preliminary Findings

Descriptive Statistics

- 64% Black, 33% White, 3% Other
- 65% Female
- 42% have Income of less than 25K,
28% between 25k-50k,
and 33 % > 50k
- 12% less than HS degree, 19% HS degree, 69% some college or greater
- 43% private, 50% public, 5%



Preliminary Findings

Descriptive Statistics

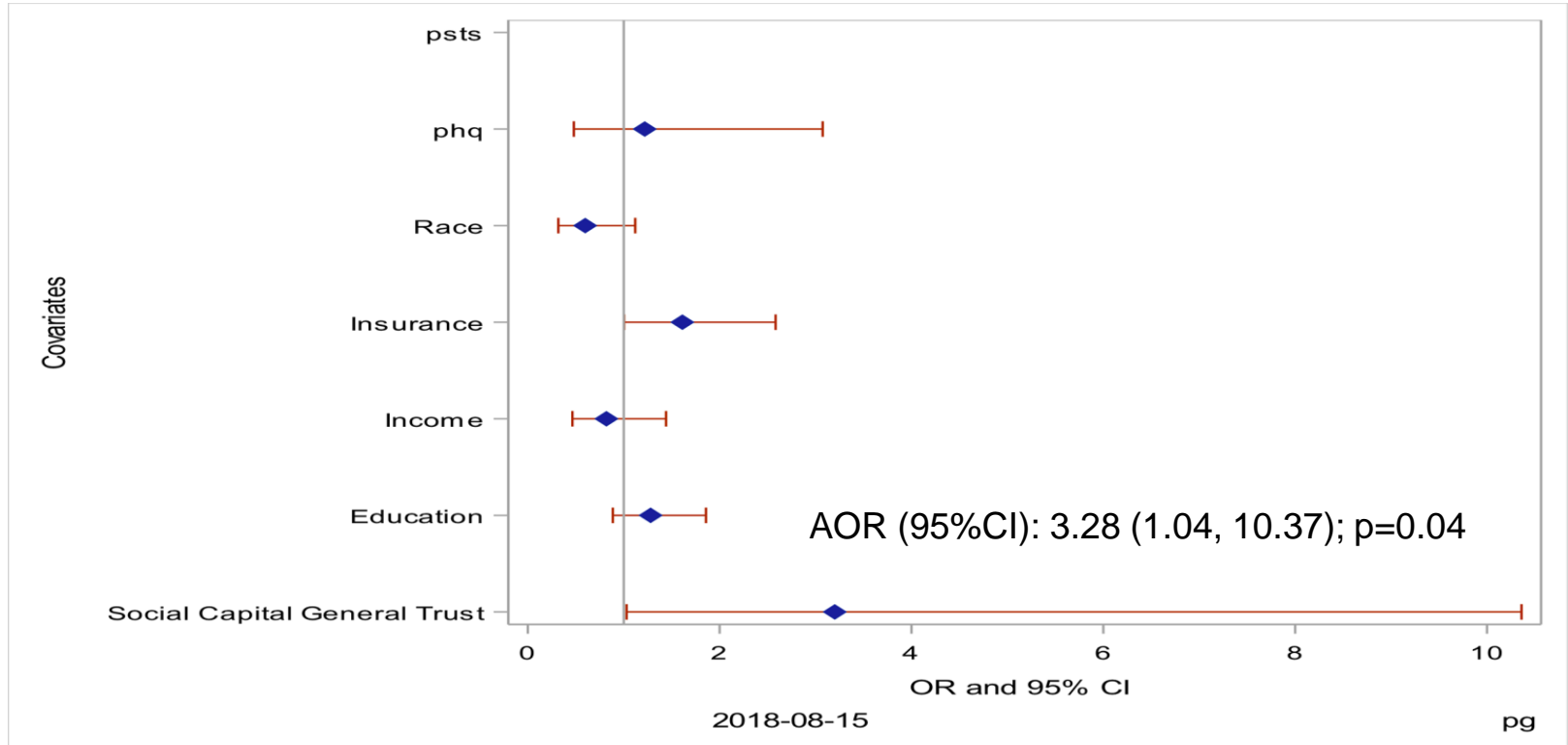
- Recruitment rates:
 - Egos: 36.8%
 - Alters: 39.0 %
- Currently 115 participants
 - 45 Egos, 42 Primary Alters, 24 Secondary Alters
- 60% of participants attend the primary care practice
- 68% of participants named social ties that attend the same practice

Preliminary Findings

- Majority of participants feel that you can't be too careful in dealing with people

Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?				
	Frequency	Percent	Cumulative Frequency	Cumulative Percent
People can be trusted	35	31.53	43	38.74
You can't be too careful in dealing with people	68	61.26	111	100

Preliminary Findings



Preliminary Findings

Descriptive Statistics

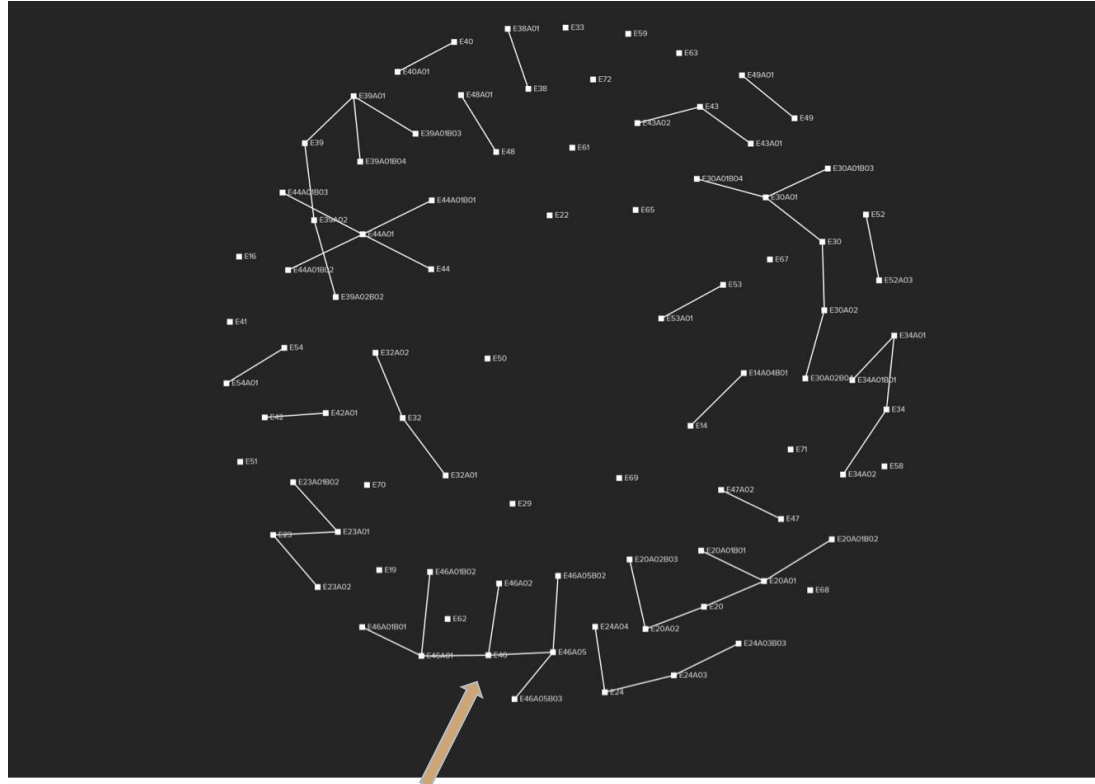
Communication Type	Number	Percent
In Person interactions	311	93.39
Talking on the phone	293	87.99
Texting	208	62.46
Commenting on social media	65	19.52
Instant Messaging	48	14.41
Video interactions	45	13.51

- 68% of primary alters and 32% of secondary alters attend the same primary care practice as the ego
- The majority (62%) of egos reported they discuss health with 2-3 of their social ties

- Preliminary data has shown that the relationship between one's social norms and their behavior is *not* statistically significant...

...YET!

Preliminary Findings



Limitations

- Causality is undetermined
- Generalizability
- Complex characteristics of a social network
- Missing or biased data

Lessons Learned

- Survey design is an iterative process
- How to efficiently and effectively conduct interviews with sometimes difficult participants
- Learned about the members of the community that were behind the study

Moving Forward

Aim 1: To determine the relational characteristics of social networks among primary care patients

Aim 2: To examine associations between social network relational characteristics defined in Aim 1 and individual-level cancer prevention knowledge, attitudes, and behaviors

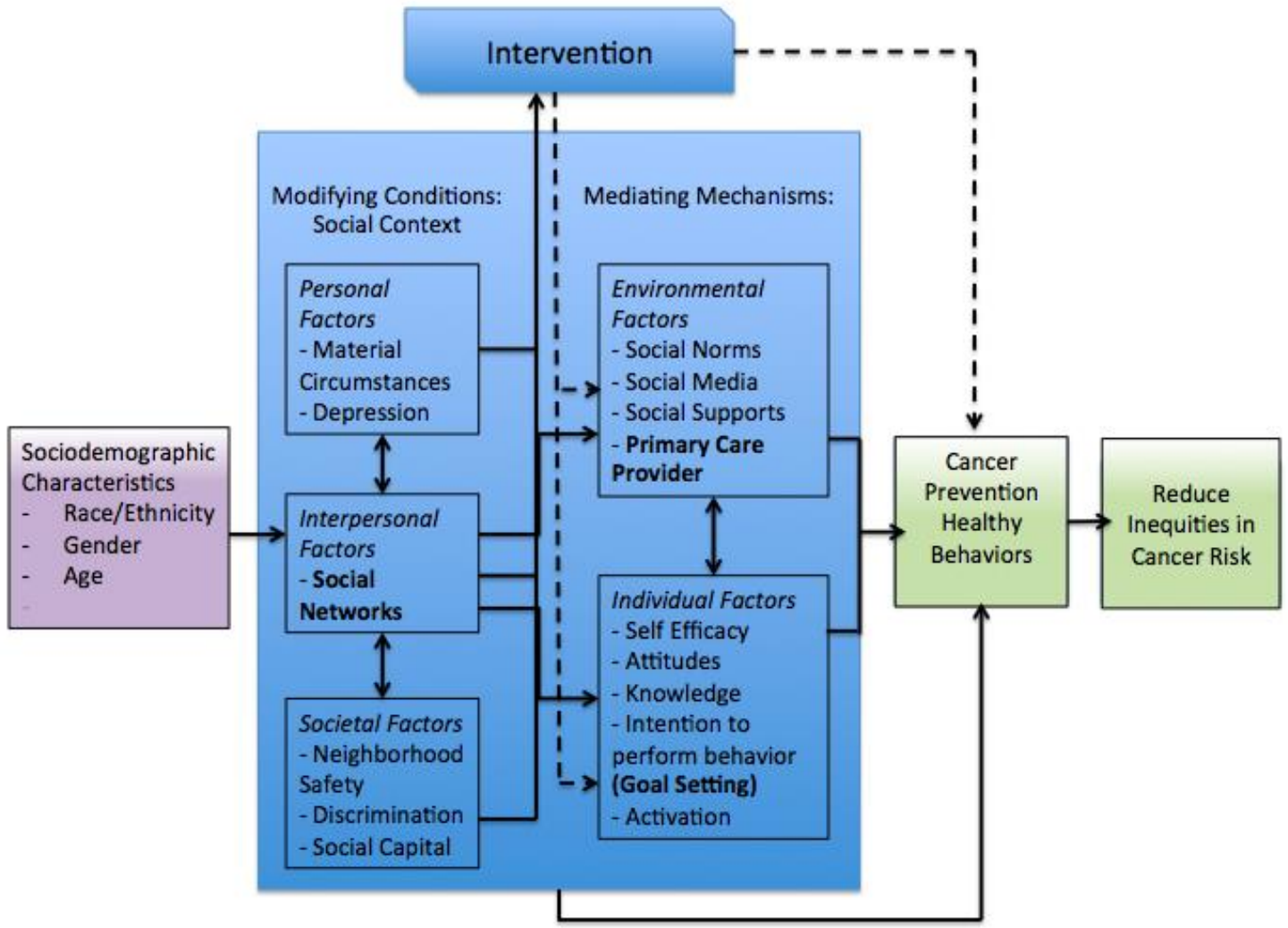
Aim 3: Conduct a pilot randomized controlled trial of an intervention that leverages social networks

Acknowledge

Thank you to
our wonderful team



QUESTIONS?



Methods

Ego Eligibility Criteria

- Must attend the practice for their primary care
- Must identify as non-hispanic white or non-hispanic black
- Must be comfortable sharing names and phone numbers of friends and family
- Must be 18+

Alter Eligibility Criteria

- Must be comfortable sharing names and phone numbers of friends and family
- Must be 18+

Snowball Recruitment

Active Recruitment	Passive Recruitment
We reach out to each Ego	We reach out to each Ego
We reach out to subsequent alters whos phone numbers we are given	Egos reach out to potential Alters and give them our phone number
Each Ego and Alter is Compensated \$65	Each Ego and Alter is Compensated \$65 but Egos will be given extra compensation for getting alters to take part in the study

Models Run

Binary- Logistic

Continuous- Linear Regressions

Covariates we adjusted for: Education level, household income, insurance status, race/ethnicity, depression, and perceived stress

