Collective Action Models for Chronic Disease Prevention:
An Evaluation of *Live Well Allegheny*

by

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University of Pittsburgh, 2019

Abstract

Purpose: The research presented will evaluate the impact of the Allegheny County Health Department's (ACHD) *Live Well Allegheny (LWA)* initiative, a chronic disease prevention effort that engages participants through collective action. Results from a process evaluation will be interpreted and potential improvements to the campaign will be explored.

Background: Three health behaviors (tobacco use, physical inactivity, and poor nutrition) contribute to four chronic diseases, which together account for approximately 50% of premature deaths worldwide (Taylor, 2009). This is known as the 3-4-50 model, which greatly informs the structure of *LWA*. *LWA* engages participants in prevention strategies targeted at the three health behaviors to help them achieve their goals. The ultimate goal of the initiative is to for Allegheny County to become the healthiest county in the nation.

Methods: A mixed-methods process evaluation was employed to assess participant engagement, participant knowledge, and the perceived strengths and barriers to achieving the goals set forth by *LWA* as well as the perceived facilitators. Ten qualitative interviews were conducted with *LWA* staff members and participants. Additionally, a survey was utilized, and a content analysis was conducted on participant's commitments to the campaign and referral form requests. Finally, maps of demographic data were created to describe whether or not the campaign reaches areas of most need in the county.

Results: The data suggests a need for a more rigorous monitoring system to track participant's progress on campaign goals. Participants echoed in qualitative interviews that the campaign constantly reminded them to put health at the forefront of their work but were concerned the general public did not understand the campaign. Data from the content analyses suggests collaboration between participants could help improve overall campaign success. County maps indicated key areas where campaign efforts could be directed in the future.

Implications and Potential Use for Findings: As public health funding decreases, it is imperative that local public health entities, like the ACHD, to tackle chronic disease locally. Proposed improvements informed by this evaluation will help advance the initiative's goal of achieving the "healthiest county" status and reducing chronic disease burden, a significant priority for public health professionals.

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Preface

I would like to acknowledge the organizers of the Pittsburgh Summer Institute (PSI), particularly, Jamie Sokol and Dr. Julia Driessen, who facilitated my evaluation experience with the Allegheny County Health Department's Chronic Disease Prevention Program. Additionally, I am grateful for the mentorship and guidance of the entire Chronic Disease team who supported me through both the PSI program and continued work on this project. Thank you to Kristen Rodack and Kristin Selker for helping me navigate different resources for the GIS Mapping component of this project. In particular, a sincere thank you goes out to Marie Fontelo and Hannah Hardy, both of whom played integral roles in my continued learning and allowed me to extend my work on the *Live Well Allegheny* evaluation as a part of my thesis research. Thank you for your confidence in me and for allowing me the flexibility to continue this project in a way that was compatible with my academic schedule.

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1.0 Introduction

One of the greatest challenges for public health practitioners in the United States is to mitigate the significant financial impact chronic disease has on the healthcare system. In 2010, "the five most costly and preventable chronic conditions cost the U.S. nearly $347 billion", which accounted for roughly a third of total health spending that year (American Public Health Association, 2015). Unfortunately, in Allegheny County, Pennsylvania, the "rates of chronic diseases such as diabetes, heart attacks, cardiovascular conditions, and stroke ALL exceed national levels", posing significant implications for the physical and financial burdens of chronic disease county-wide (Allegheny County Health Department, 2018).

As federal funding for chronic disease prevention reaches a new level of competition and scarcity, it is imperative for local public health entities, like the Allegheny County Health Department (ACHD) to find creative, impactful ways to prevent chronic disease and improve health behaviors at the community level. Strategies must include collaborative work with other local government entities and expert community organizations. Historically, addressing health problems in a solitary fashion birthed "poorly coordinated efforts leading to unsustainable reforms and the perpetuation of poor outcomes in health" (Nkrumah et al., 2014, The Case for Collective Action, para. 1).

One way to ameliorate this trend is to instead pursue collaborative efforts through coalition building and collective action. Nkrumah et al. (2014) highlight that coalitions establish trust and consensus between those who share the same goals and visions, but more importantly, they "achieve more widespread reach within a community than any single organization could attain,

and can foster cooperation between grassroots organizations, community members, and diverse sectors of a large organization" (The Case for Collective Action, para. 4).

In order to maximize their impact, ACHD developed *Live Well Allegheny*, a collective action model for chronic disease prevention. The campaign seeks to leverage the many strengths of coalition building to facilitate connection between stakeholders in the county. Additionally, staff provide training and resources that help illustrate tangible ways participants can improve the health of their community and prevent chronic disease. This thesis will explore the findings of a process evaluation assessing the extent to which *Live Well Allegheny*'s campaign activities have been effectively implemented and whether or not the current campaign structure is sufficient for recruiting participants from communities facing significant health disparities and disproportional disease burden.

2.0 Background

During the Summer of 2017, I began a working relationship with the Allegheny County Health Department's (ACHD) Chronic Disease Program staff as a part of the Pittsburgh Summer Institute, a collaboration between ACHD and the University of Pittsburgh's Graduate School of Public Health. The Chronic Disease Program manages *Live Well Allegheny*, an initiative out of the health department that seeks to reduce chronic disease through collective action by addressing the implications of the 3-4-50 model. The model, introduced by the Oxford Health Alliance, illustrates how three health behaviors – *poor nutrition*, *physical inactivity*, and *tobacco use* – contribute to the four chronic diseases – *heart disease*, *stroke*, *diabetes*, and *lung disease* – that account for 50% of premature deaths worldwide, as identified by the World Health Organization (Taylor, 2009). The model has been utilized by a variety of public health entities, like Vermont's Department of Health, the County of San Diego, and now the Allegheny County Health Department through their *Live Well Allegheny* initiative.

In the Spring of 2014, Dr. Hacker, the Board of Health, and 30 community stakeholders convened and developed a strategic plan to address physical inactivity and obesity in the county. This plan became the basis of *Live Well Allegheny*. The stakeholders still support the initiative by providing health statistics from their own initiatives in the county. The group also "identifies and strategizes about how to address gaps and needs in the community that fit within the initiative" (Allegheny County Health Department, 2018, "*Live Well Allegheny* Stakeholders").

The initiative drew direct inspiration from other Live Well models from across the country, primarily, Live Well San Diego, which is now in its ninth year. Allegheny County stakeholders planning the initiative consulted those involved with the creation of Live Well San Diego for

insight on how to employ a community-based collective action initiative informed by the 3-40-50 model. The first component of Live Well San Diego, called *Building Better Health*, relied heavily on the 3-4-50 model and created action steps to help impact both community health by targeting individual health behavior (County of San Diego, Health and Human Services Agency, 2014). Live Well San Diego has expanded their program since its inception by including two more components, *Living Safely* and *Thriving*, both of which expand into social determinants that impact overall well-being by targeting the lived environment, public safety, and exceeding basic needs (County of San Diego, Health and Human Services Agency, 2014). *Live Well Allegheny* began by modeling a similar structure to the original component of *Building Better Health* (County of San Diego, Health and Human Services Agency, 2014).

2.1 *Live Well Allegheny* Structure

Dr. Karen Hacker, the director of the health department, and the 30 stakeholders provide general administrative and research-informed oversight on the initiative to ensure the mission of the initiative is being carried out. While this oversight helps give direction to the initiative, the bulk of the work revolving around *Live Well Allegheny* is carried out by the *Live Well Allegheny* staff, comprised of both permanent and contracted ACHD employees within the Chronic Disease Prevention Program. While the initiative involves a large portion of their full-time effort, the staff have additional Chronic Disease Prevention Program-related duties they have to attend to, often trying to optimize any overlap that may include *Live Well Allegheny* work if and when it occurs.

Partners and participants both have a unique role to play in the initiative. *Live Well Allegheny* Partners consist of community organizations or institutions who typically have a health-

related mission. Their role in the initiative is to provide resources to participants who are hoping to advance the health of their respective communities. The Graduate School of Public Health, fitUnited, and Girls on the Run are some examples of *Live Well Allegheny* Partners.

Participants, on the other hand, consist of entities that traditionally do not view themselves as playing an integral role in community health. The Allegheny County Health Department and *Live Well Allegheny* decided to engage Communities (synonymous with municipalities), Schools, Restaurants, and Workplaces as participants. Participants opt-in to the initiative and are required to declare a minimum number of health and wellness-related commitments to earn their designation as a Live Well Community, School, Restaurant, or Workplace. Live Well Communities must commit to at least three commitments, and the other participants must commit to at least four commitments. There is one additional layer of requirements for Schools and Restaurants. Schools must be willing to share district BMI data with the Allegheny County Health Department, and Restaurants must be smoke-free, not sell tobacco products, and commit to eliminating trans-fat oils.

The commitments, discussed in more detail in the results section, range from small organizational changes that facilitate positive health behaviors, like adding a bike rack outside of the participant's facility, to loftier goals that involve providing access to biometric screenings or creating a community walking path. Regardless of the breadth of the commitment, the commitments must be actionable and connected to the promotion of positive health and wellness behaviors. While the initiative primarily seeks to address the three main health behaviors described above, participants may explore any health and wellness-related initiative that fits with their organizational capacity. Finally, *Live Well Allegheny* was intentionally built to have a low threshold, which means that participants can, and often do, include commitments that illustrate

past accomplishments that have been sustained to date, even if its initiation preceded the participant's involvement with *Live Well Allegheny*. For example, an organization may already have a breastfeeding policy that had been rolled out before they joined *Live Well Allegheny*, an annual 5K run/walk that has been sustained for several years, or a physical trail that has been completed within the last few years. All of these examples are sufficient for declaring a commitment to *Live Well Allegheny*, because the main goal is to get participants looped in to the initiative's communications and structural mechanisms, which ideally would foster future partnerships and collaboration.

Participants can indicate their intent to work alongside of *Live Well Allegheny* in achieving the goals of the initiative through a variety of ways. Communities can carry out an executive action, resolution, or other formal action taken by the executive municipal official or governing body. Similarly, school boards must pass a resolution, or a superintendent can proceed with an executive action. Finally, restaurants and workplaces need only to write a formal letter to declare their intent to join the campaign. Along with their declarations of intent, participants also submit their commitments to the campaign, which will be discussed in greater detail in the methods and results sections. By allowing the participants to determine their own commitments, participants are able to demonstrate their expertise in assessing both the needs of their own community and their organizational capacity, ultimately committing to goals that are relevant and achievable. These contextual interventions will elevate the efficacy of each participant, consequently creating a more efficient and meaningful approach to improving community health and wellness.

The staff recruit and engage partners and participants for the program through strategic communications (email, mailings, or in-person at community events and individual meetings). Both partners and participants are oriented to their respective designations through a combination

of a welcome packet mailing, on-boarding email, and direct correspondence via a staff member to help acclimate them to the initiative. *Live Well Allegheny* staff also facilitate what they have lovingly named “matchmaking” between participants and relevant partners based on the give participant’s needs. Matchmaking is seen by the staff as the core of the initiative. Additionally, the staff provide further support and opportunities for collaboration through *Live Well Allegheny* Learning Collaboratives, where participants – and sometimes partners – gather to learn more about a topic area and gain insight from other participants on their experience with their initiatives. Learning Collaboratives occur on an irregular, but frequent, basis rotating participant sub-group audience and topic area.

Additionally, a Referral Form is available on the *Live Well Allegheny* website intended to help Participants formally submit a request for a variety of available resources based on their health topic of interest, like accessing educational materials of soliciting a guest speaker. The form allows the respondent to select the resources they need and the topic area(s) of interest (i.e. the three main health behaviors and an additional “other” option).

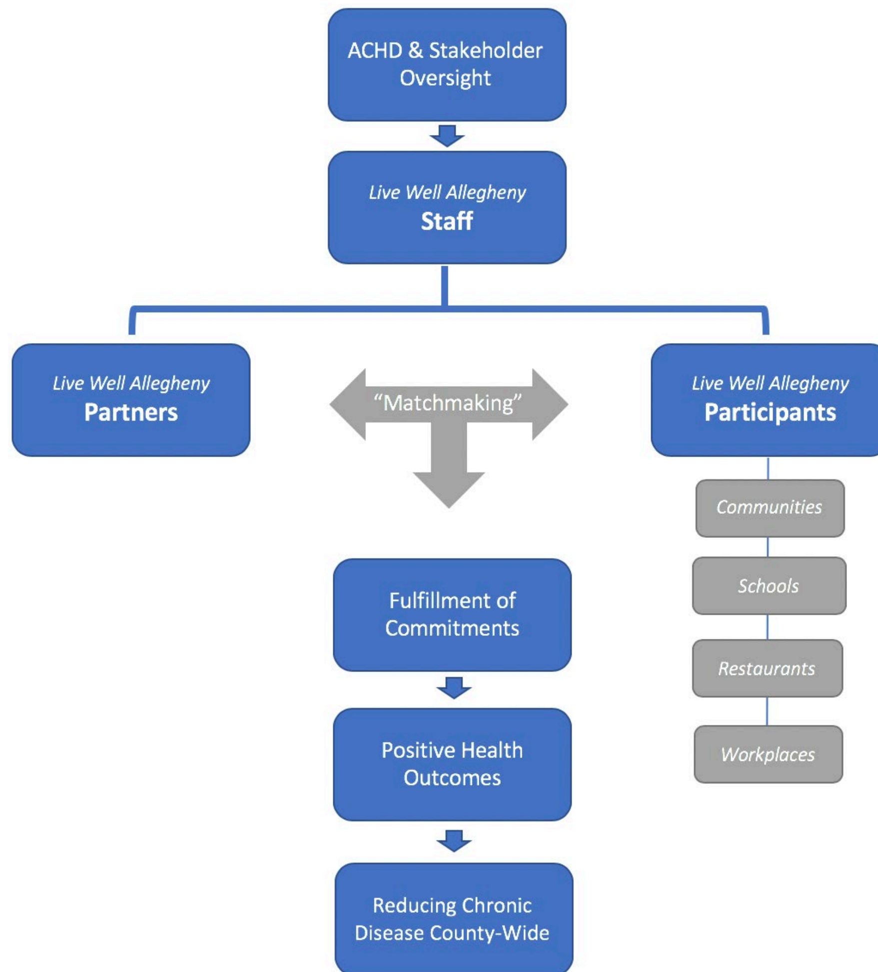

Figure 1 *Live Well Allegheny* Structure - Concept Map

Finally, in addition to matchmaking, supporting participants, and organizing Learning Collaboratives, the initiative has also leaned in to exploring and training participants on the concept of Health in All Policies as a way to bridge the link between participants and their impact on health through policy-making. Health in All Policies is a "collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas" championed by the American Public Health Association (Rudolph et al., 2013). For example, zoning laws can be amended that lower systemic burdens for communities that want to

turn vacant lots into community gardens or green spaces, simultaneously improving the lived environment, community image and property value, and resident's quality of life.

Essentially, commitments act as policies for all participant sub-groups. Communities have a more intuitive role in policy-making through municipal-level resolutions, but Workplaces, Schools, and Restaurants, all have their own mechanisms of implementing policies whether it is through HR policies, district policies, or food preparation protocols. Regardless, the teachings of Health in All Policies create a tangible link between these aforementioned policies, social determinants, and community and individual health. This philosophy makes the spirit of the social ecological model more accessible to non-public health practitioners.

Together, with the help of the supportive *Live Well Allegheny* structure, participants embark on their commitments, produce positive health behavior change, and help collectively lower the rates of chronic disease county-wide in the long run.

2.2 Theoretical Basis

Live Well Allegheny seeks to reduce chronic disease and promote positive health behaviors by acting as an intermediary between levels of the Social Ecological Model. The Social Ecological Model centers the importance of the environment (both physical and social) and policy as it relates to individual-level health behavior (Glaz et al., 2008). Additionally, this theory acknowledges that interactions within and between levels play a role in influencing health behavior. This "explicit consideration of multiple levels of influence [guides] the development of more comprehensive interventions" (p. 465) that target leverage points for change at each level (Glanz et al., 2008). The model postulates that multi-level interventions are the most effective way to intervene and sustain

public health initiatives since behavior change is maximized when the behavior is supported across multiple levels (Glanz et al., 2008).

As it pertains to *Live Well Allegheny*, the campaign acts as a moderator that bridges the gaps between steps in the social ecological model. Helping participants navigate these levels provides an opportunity to learn about their connection to health. Additionally, when participants operationalize contextual health promotion and chronic disease prevention goals, they do so with an understanding of how the levels of the model interact and influence health behavior. Together, this approach sustains impactful, multi-level interventions through collective action.

Finally, "ecological models can enhance human dignity by moving beyond explanations that hold individuals responsible for, and even blame them for, harmful behaviors" (p. 482); this theoretical component is crucial to consider when intervening with communities that face significant health disparities because of institutional inequalities who have concurrently faced victim-blaming and stigma related to their health (Glanz et al., 2008). Having the backing of a health behavior theory grounded in dignity and respect for the individual will help enable practitioners to better serve under-resourced communities.

Health in All Policies relies heavily on the Social Ecological Model "HiAP responds to the recognition that population health and equity are influenced by a multitude of factors, most of which are outside of the usual scope of the health system" (Baum et al., 2014, para. 5). Still, Health in All Polices must also rely on other theories that explore the complex interactions that go in to policy making. These theories deal with political will, navigating multi-jurisdiction terrain, and the non-linear nature of policy-making that often lead to disproportionate outcomes (Baum et al., 2014). For the purposes of this evaluation, viewing Health in All Policies solely through a Social Ecological Model lens will suffice.

Unfortunately, the major drawback of this model is that it is behavior specific, ideally focusing on one health behavior. *Live Well Allegheny* targets three health behaviors, which may pose some difficulty in articulating how the model works when talking with non-public health professionals. Creating three separate short examples of how the levels of the Social Ecological Model interact for each of the health behaviors in question may help illustrate how the theory supports behavior change.

Although the staff do not explicitly point to this theoretical framework as a guiding model, Cabañero-Verzosa and Garcia's (2011) framework for the stages of effective coalition building as it relates to collective action will be used to help guide suggestions and identify strengths in the campaign. The authors focus on the six stages outlined in Table 1. When these stages are used to guide coalition building for the purpose of collective action, the given initiative is better prepared for informed strategical changes and growth, both of which are only possible through the support of its stakeholders (Cabañero-Verzosa & Garcia, 2011).

Table 1 Stages of Effective Coaliton Formation

Stage	Definition
Issue Identification & Specification	"The overall objective of the problem is articulated and broken down for detailed analysis" (p. 346) with the help of stakeholders
Relationship/Stakeholder Mapping	"Significant actors are identified, positions toward key and related issues are plotted" (p. 346)
Forming Core Membership	"The core of a coalition is convinced about and becomes self-aware of the benefits of change; core actors are organized, early leaders and champions are identified" (p. 346)
Demonstrating Credibility	The "coalition demonstrates it is knowledgeable about relevant issues, can act effectively, and is worthy of support from stakeholders" (p. 364)
Purposeful Expansion	"A critical stage when a small organization builds a broader social and resource base while retaining coherence and effectiveness" (p. 346)
Sustainable Transformation	"During which the coalition has grown and becomes polycentric, with initiatives on many fronts, drawing strength from many sources" (p. 346)

Adapted from Cabañero-Verzosa and Garcia (2011)

Additionally, the authors identify supplemental constructs that influence engagement and participation in coalitions. Organizers must leverage "particular types of shared purpose [that] play important roles in individuals' decisions to participate in social movements" (Cabañero-Verzosa & Garcia, 2011, p. 349). Understanding of a shared purpose and improved engagement occurs when the following constructs are optimized.

2.2.1 Identity

By aligning or connecting the coalition to the participant's pre-formed identity with pre-existing groups, the participants will be more likely to engage and participate in coalition activities (Cabañero-Verzosa & Garcia, 2011). *Live Well Allegheny* already does this by utilizing the four sub-groups to illustrate that Communities, Restaurants, Schools, and Workplaces play a critical role in the campaign.

2.2.2 Ideology

To further improve recruitment and participation, the coalition must illustrate how the participant organization's search for meaning and purpose through their own individual mission is compatible with the goals of the coalition (Cabañero-Verzosa & Garcia, 2011). Currently, there is some work that the campaign does to highlight this connection through Health in All Policies, but more work is needed to streamline this pitch to the sub-groups.

2.2.3 Instrumentality

Finally, the campaign must demonstrate how the coalition will help the participant achieve their goals and that the action they take through the campaign will in fact have an impact (Cabañero-Verzosa & Garcia, 2011). Currently, *Live Well Allegheny* has created intermittent annual reports to demonstrate this essential part of developing a shared purpose, but as discussed later, there are opportunities to improve the mechanisms for assessing and sharing impact.

Supported by strong, multi-level theories, *Live Well Allegheny* has a solid foundation to work from while carrying out its program activities. These frameworks will provide significant guidance to the suggestions that manifest from this evaluation, ultimately optimizing future changes or fortifications of current procedures.

3.0 Methods

Under the guidance of the Program Manager and the Public Health Administrator II, a mixed-methods process evaluation was developed, which included a participant survey, qualitative interviews with both *Live Well Allegheny* Staff and *Live Well Allegheny* Participants, and a qualitative analysis of participant commitments. The main evaluation questions were as follows:

- What similarities and differences were there amongst the commitments of each participant? What health behaviors are the commitments addressing?
- Have *Live Well Allegheny* participants reached and/or surpassed their resolution goals?
- What contributed to the success of *Live Well Allegheny* participants?
- What barriers have *Live Well Allegheny* participants and *Live Well Allegheny* staff faced across program activities?
- In what ways can ACHD aid the further success of *Live Well Allegheny* Participants?
- How do participants view the value and impact of the Learning Collaborative?
- How can the Learning Collaborative and *Live Well Allegheny* be sustained?
- Is *Live Well Allegheny* reaching communities that face disproportional disease burden? To what extent is the campaign accessible to under-resourced communities?

A particular emphasis was on having qualitative interviews with participants to explore the responses to these questions, but, given the limited capacity to interview a wide array of participants, a strategic decision was made to develop and disseminate a questionnaire that reflected the same thematic questions asked in qualitative interviews. This survey would help

inform the evaluation by providing descriptive data on many aspects of the initiative from the perspective of a larger participant respondent pool.

3.1 Referral Form Analysis

Utilizing data that was collected on the submission of Referral Forms, available on the *Live Well Allegheny* website, an analysis was conducted on the following aspects of the form: the submitter type (Participant, Partner, or other), the type of resource being requested, and the topic area(s) for which they would like the resource to pertain (Healthy Eating, Physical Activity, Smoking Prevention/Cessation, and Other).

The submitter type was determined based on the comparison of the submitter's organization to *Live Well Allegheny*'s catalogue of Participants and Partners. Both the type and topic area of the resource was determined by the incorporation of the corresponding outlined options on the form. Additional topic areas were categorized as "Other" and sub-categorized based on the submitted text of interested topic areas.

3.2 Commitment Analysis

As a part of making a declaration to join the *Live Well Allegheny* campaign, all campaign participant organizations are required to submit a document that outlines the commitments they have made or plan to make to improving the health of their given audience (residents, patrons, employees, and/or students). This document is sent to the director of the health department and

stored on the health department's shared drive. The *Live Well Allegheny* Staff glean important information from these documents and input them into a tracking document that captures all relevant participant information. Point person contact information, the organization's address, the date they joined the campaign, and the campaign commitments are all recorded in this spreadsheet. Originally, commitments were extracted from this sheet and transferred into a word processing document, keeping commitments grouped by individual participant commitments. Upon further review, it became clear that commitments had not been directly transcribed into the tracking sheet and were instead summarized and condensed.

Recognizing that summarized commitments had the potential to convolute the data analysis, all PDF documents containing the original commitments of each participant were transformed into word processing documents with the help of Adobe Pro so all original commitment language could be extracted, documented in the tracking sheet, and analyzed with qualitative data analysis software.

Through this data cleaning process, commitments were differentiated and analyzed in order to capture both the health behavior topic area and the number of distinct commitments for each participant. Still, the lack of uniformity across participant declaration documents posed challenges specifically for differentiating distinct commitments. For example, municipal-level resolutions often had different standards of formatting across Communities. Some Communities described their commitments in paragraph format while other listed bullets or separated commitments with semi-colons. Since documenting the number of commitments each participant originally submitted was a goal of the evaluation process, the evaluator used their discretion in identifying distinct commitments, especially when the commitments were described in paragraph format.

Once the original wording for all commitments from 115 participants were transformed into the appropriate format, the commitments were coded using a conventional content analysis, where codes are derived inductively, using Max QDA software (Hsieh & Shannon, 2005). Food, Tobacco, Physical Activity, and Well & Wise were used as overarching themes to commitments, but given the unique characteristics and breadth of commitments, additional child and grandchild codes were developed to help illustrate the variety of ways a participant could approach these health behavior topic areas.

After analyzing the quantity of commitments, all commitments were coded in MAX QDA, a qualitative data analysis software using the conventional content analysis described above and in Hsieh & Shannon (2005). Five main parent codes were used to reflect the core components of the campaign. "*Live Well Allegheny* Event", paraphrased as "LWA Event", captures a participant's desire to co-host a community event with *Live Well Allegheny*. Often, these events coincide with announcing their *Live Well Allegheny* recognition. "Well & Wise" includes commitments that outline efforts to improve health and wellbeing through coordinated learning experiences or incentives. "Tobacco Cessation", "Physical Activity", and "Healthy Eating" capture commitments related to the respective topic areas. Aside from LWA Event, all parent codes had additional child and grandchild goals to reflect clear groupings within each of the thematic codes. A full list of codes used for the commitment analysis can be found in Appendix A

Additionally, a list was created that outlined the number of commitments each participant submitted at the beginning of the campaign. At the start of this analysis, no participant had updated their commitments or submitted new commitments, likely because there had not been a mechanism to do so. This list was used to calculate the number of commitments for each sub-group, the

average number of commitments per participant in each sub group, and the total sum of all commitments across sub-groups.

3.3 Participant Survey

Overall, the survey sought to assess Participant's engagement with various *Live Well Allegheny* activities, including their progress on their submitted commitments, their interest in and previous attendance at Learning Collaborative events, their interactions with staff, and knowledge of accessing referral resources. Four questions asked about the status of their commitments (how many were proposed, how many were underway, how many have no programming at all, and identifying if new goals were added). Participants were also asked to identify whether or not they had another health or sustainability certification or recognition, which they would document in a follow-up question if applicable.

The rest of the survey utilized 14 questions on a five-point Likert scale, with options ranging from "Strongly Disagree" to "Strongly Agree". The questions assessed the following:

- The participant's understanding of *Live Well Allegheny* goals
- The perception of how *Live Well Allegheny* impacts the participant's ability to improve their community's health
- Whether or not the staff and *Live Well Allegheny* structure have aided in the accomplishment of their goals
- Whether or not participants know how and where to ask for assistance from the *Live Well Allegheny* Staff; and
- If participants have the financial means to carry out their commitments

The survey was sent out to 110 participants in the beginning of 2018. At the time, 115 participants were signed on to the campaign, but 5 were not included because they signed on after a pre-determined cut-off date for this evaluation suggested by program staff. Surveys were only sent to participants who had committed to the initiative by July of 2017**.** Drawing this line helped ensure that participants had opportunities to attend learning collaboratives, get acclimated to the goals of the initiative, and start working towards new commitments *before* responding to the survey or sitting for a qualitative interview.

At the first point of contact for the survey, packets were sent via mail to participant addresses that included the survey, the respective organization's commitments to the campaign, an introduction letter that included instructions on how to complete and return the survey, and a half page flyer about an upcoming Learning Collaborative. Respondents could complete the survey and either use the included return envelope or scan the completed document and send it to the Live Well Staff point-person via email. After several weeks, a follow-up email was sent to those who had not yet responded with an electronic version of the survey and respective commitments included as attachments to help boost the response rate. The electronic version of the survey could be completed directly on an electronic device and send back to the Live Well Staff point person.

Survey responses were then compiled and analyzed with the help of Qualtrics. For Likert scale questions, numbers one through five were assigned in ascending order to the scale levels, where 1= "Strongly Disagree" and 5= "Strongly Agree", so that summary statistics could be calculated.

3.4 Qualitative Interviews

When deciding who to recruit for qualitative interviews, the *Live Well Allegheny* Staff hoped to interview two of each type of participant sub-group (i.e. Communities, Schools, Restaurants, and Workplaces). Two lead staff identified lists of potential interviewees, differentiating between participants that have been active in the campaign and participants who had not been as engaged.

Staff were motivated to see if there were any differences between these participants within their subgroup. While this was a sound idea, it became clear when reaching out to participants that those identified as "active" were more likely to respond to our outreach efforts than "inactive" participants. Even as "active" participants were scheduled for interviews, the staff exhausted the list of potential "inactive" interviewees in each subgroup. Aside from the Communities and Workplace sub-group, the evaluator only had the capacity to interview one "active" participant per sub-group within the given timeframe. Unfortunately, one recording of a qualitative interview with a highly active workplace was compromised, preventing the data from being transcribed and coded. Due to data loss, this interview was not included in the results of this evaluation. While both of these factors severely limited an exploration into differences between active and inactive participants, the 5 transcribed qualitative interviews included in this evaluation still provided a wealth of insight into the implementation of the initiative's activities, as described in the results section.

Additionally, five staff interviews were conducted with key staff who played integral roles in the *Live Well Allegheny* Initiative. Strengths and barriers of the campaign as well as the reception of the initiative throughout the county were discussed from their perspective, which allowed for

interesting comparison between the staff's perception of the initiative's activities and reach and the participant's perception of the same topic areas.

Both staff and participant interviews were semi-structured with questions that addressed the main evaluation questions outlined above. A full list of staff and participant interview questions can be found in Appendix B. Staff and participant questions differed slightly to reflect the nuances in perspective on the initiative's activities, but the overarching themes of the interview questions remained the same. The interviews lasted anywhere from 20 minutes to an hour in order to respect the interviewees time while still allowing for opportunity to further explore experiences with the initiative through probing techniques.

A conventional content analysis, where codes are defined during analysis and are derived directly from the data, was used to summarize key findings that manifested in qualitative interviews using the qualitative analysis software Max QDA (Hsieh & Shannon, 2005). While achievements, strengths, barriers, and campaign reception were overarching themes that guided code development, some codes presented themselves across interviews that helped further describe the aforementioned themes and, in some cases, differentiated themselves from anticipated interview themes.

3.5 GIS Mapping

Epidemiological data from across the county was captured in two maps. The goal of this map was to help provide demographic data on all municipalities and illustrate whether or not *Live Well Allegheny* was reaching areas of need. Health equity was discussed at length in qualitative interviews, which led to the selection of poverty level, education level, and data representing racial

demographics to describe community risk. Additionally, these aforementioned characteristics often predict long-term health outcomes and health disparities (Williams et al., 2016). The following data sets were used to inform this analysis:

- Percent Black Population by Municipality (2010) (South Western Pennsylvania Community Profiles, 2019).
- Percent of Persons Below 200% of the Federal Poverty Level (2011-2015) (South Western Pennsylvania Community Profiles, 2019).
- Percent of Persons 25+ with Less than a High School Diploma (2011-2015) (South Western Pennsylvania Community Profiles, 2019).

For each data set, the distribution of the percentages was described by quintiles, and each data point was assigned a number ranging from one to five respectively. Next, the average of the three values were used to create a graduated color map in ArcGIS, classified by 5 Jenks natural breaks. This method was used to describe risk and is not intended to be a statistical analysis. Current *Live Well Allegheny* community participants were highlighted with transparent stippling.

A second map was created using census tract data that together described characteristics related to the three main health behaviors targeted by *Live Well Allegheny* (Health Eating, Tobacco Cessation, and Physical Activity). The following community characteristics were chosen because of their connection to the three main health behaviors:

- Percent of SNAP Households by Census Tract (2012-2015) (US Census Bureau, 2015).
- Prevalence of Smoking by Census Tract (2006-2010) (Western Pennsylvania Regional Data Center, 2016).
- Obesity Rates by Census Tract (2006-2010) (Western Pennsylvania Regional Data Center, 2016).

It is important to note that the data describing SNAP usage by household is not being used to suggest that SNAP beneficiaries have a higher intake of high-fat and high-cholesterol foods compared to non-SNAP beneficiaries. In fact, the opposite is true: SNAP adults have roughly the same fat and cholesterol intake as non-SNAP adults, and SNAP children consume less fat and cholesterol than their counterparts (Bartfeld et al., 2015). Instead, this measure is being used to highlight that SNAP beneficiaries have "worse nutrition on many dimensions", which may have an impact on overall health (p.151). An identical process was applied to this map on the census tract level. *Live Well Allegheny* Participants *were not* highlighted in this map to improve the map's readability.

4.0 Results

4.1 Referral Form Analysis

Below are tables that documents the categorization of those who submitted a referral form, the frequency of the types of resources requested, and frequency of topic areas identified in the referral forms as of July 2017.

Table 2 Referral Form Submission by Submitter Type

Submitter	Frequency
Partner	11
Non-Participant School	1
ACHD Staff	1
Participants	10
Community (7)	
Workplace (3)	
School (0)	
Restaurant (0)	
Total	**23**

Although the referral form was mainly intended for participants, it is publicly available on the website, which is why non-participant entities were documented as submitters. Of the 10 participants that submitted a referral form, seven were communities and three were workplaces.

Table 3 ranks the most frequent resources requested form the referral form and descending order. The referral form provided these options and prompted the submitter to check all that apply, which is why the sum of the frequency column would be greater than that of the total number of forms submitted.

Table 3 Frequency of Referral Form Resource Requests

Type of Resource	Frequency
"Receive educational materials"	9
"Connect with a Live Well partner organization"	7
"Host an event speaker"	5
"Receive monthly e-updates"	4
"Social media communications"	4
"Participation in a tabling event"	2
"Learn how to access publicly available data from ACHD"	1
"Partner Packet"	1

Again, Table 4 documents the frequency of selected topic area of interest. The options on the referral form that could be selected were *Healthy Eating*, *Physical Activity*, *Smoking Prevention/Cessation*, and *Other*. For those who selected *Other* and provided additional explanation, many identified funding for their programs as an area of interest. For example, a partner organization asked, "*I would like to not only look for ways to fund a community center in my area but also a wellness program for the school district.*"

Table 4 Referral Form Resource Request by Topic Area

Topic Area	Frequency
Healthy Eating	10
Physical Activity	10
Smoking Prevention/Cessation	6
Other	7
Funding Opportunities (3)	
Immunization (1)	
Community Gardening (1)	
Opioid Prevention (1)	
Environmental (1)	

4.2 Commitment Analysis

The table below summarizes the distribution of commitments across each participant subgroup for all 115 participant organizations that had signed on to the campaign at the time of this analysis.

Table 5 Commitment Breakdown by Participant Sub-Group

Participant Sub-Group	Participants	Total Commitments	Average # of Commitments per Participant	Median # of Commitments per Participant
Community	50	345	6.9	6
School	13	108	8.31	7
Workplace	16	231	14.44	13.5
Restaurant	36	380	10.56	11
Total	115	1064	9.25	9

It is important to note that Table 6 and Table 7 outline the distribution of coded segments, which are not necessarily individual commitments. Commitments could be coded more than once depending on whether or not the commitment covered more than one topic area. For example, "Offer incentives for employees who walk or bike to work" would be coded both as *Active Lifestyle* and *Well & Wise* since it addresses physical activity and uses a workplace policy to incentivize participation in the activity. Please refer to Appendix A for code definitions and examples of commitment codes.

Table 6 Frequency of Parent Codes by Participant Sub-Group

	Participant Sub-Group				
Parent Code	**Community**	**School**	**Workplace**	**Restaurant**	**Row Total**
***LWA* Event**	18 (*4.62%*)	3 (*2.44%*)	0 (*0%*)	5 (*1.2%*)	26 (*2.2%*)
Well & Wise	156 (*40%*)	43 (*34.96%*)	131 (*52%*)	70 (*16.9%*)	400 (*33.9%*)
Tobacco Cessation	44 (*11.28%*)	2 (*1.63%*)	15 (*5.9%*)	6 (*1.4%*)	67 (*5.7%*)
Active Lifestyle	89 (*22.82%*)	35 (*28.46%*)	67 (*26.6%*)	35 (*8.4%*)	226 (*19.1%*)
Healthy Food	83 (*21.28%*)	40 (*32.52%*)	39 (*15.5%*)	299 (*72%*)	461 (*39.1%*)
Total	**390 (*100%*)**	**123 (*100%*)**	**252 (*100%*)**	**415 (*100%*)**	**1180 (*100%*)**

A total of 299 out of 415 coded restaurant commitments segments fell under the parent code of *Healthy Food*. Table 7 captures the breakdown of child codes under *Healthy Food* for the coded segments from the restaurant participant sub-group only. Restaurants had creative ways to tackle healthy eating in their campaign goals. For example, some participants in this sub-group commitment to not serving soda, fried foods, or processed foods, which was captured by the child code *Proudly Not Serving.*

Table 7 Participant Restaurants Coded Committments - Healthy Foods Breakdown

Commitment Code	**N (%)**
Healthy Food (unspecified)	45 (15%)
Low Calorie	42 (14%)
Beverages	36 (12%)
Vegan/Vegetarian	36 (12%)
Oils	32 (10.7%)
Fruits and Vegetables	25 (8.4%)
Portions	24 (8%)
Whole Grains	18 (6%)
Nutritional Information	12 (4%)
Fresh/Local	12 (4%)
Proudly Not Serving	7 (2.3%)
Healthy Snacks	7 (2.3%)
Water	3 (1%)
Total	**299 (100%)**

4.3 Survey

A total of 26 out of the 110 participants responded to the mailed survey. 22 responded after the mailing and four responded after the follow-up via email. Although the email follow-up only produced four additional survey responses, the process of following-up via email allowed for the identification of outdated contact information. Alerting the other staff of email bounce-backs helped re-establish contact with participants that were potentially lost due to turn-over within their own organization.

Table 8 Survey Responses to Likert Scale Questions - Summary Statistics (n=26)

Survey Question	Mean	Mode
1. Our organization understands the overall goals of *Live Well Allegheny*.	4.68	5
2. Our community understands the goals of *Live Well Allegheny*.	3.92	5
3. Our programs appropriately address our community's health needs.	4.42	5
4. *Live Well Allegheny* has taught me about creative ways to improve the health of our community.	4.38	4
5. I have seen positive changes in my community since we joined *Live Well Allegheny*.	3.73	3
6. The Allegheny County Health Department staff working on *Live Well Allegheny*.	4.12	5
7. The *Live Well Allegheny* Collaborative has connected us with community partners.	3.80	3
8. I would like the *Live Well Allegheny* Learning Collaborative to continue.	4.57	5
9. Community members have been active in our *Live Well Allegheny* events and activities.	4.04	5
10. People of all ages come to our events (if applicable).	4.40	5
11. I know how to contact the *Live Well Allegheny* Staff.	4.56	5
12. I want more feedback from the *Live Well Allegheny* Staff.	3.63	4
13. I know how to access the *Live Well Allegheny* referral form to request resources	3.40	4
14. We have sufficient funds to accomplish our goals.	3.48	4
Average Response	**4.08**	**4.39**

The summary statistics in Table 8 reflect the means and modes of responses to questions on a five-point Likert scale ranging from 1 “Strongly Disagree” to 5 “Strongly Agree”. Higher averages reflect an overall positive response to the questions.

Participants were also asked about whether or not they had another health or sustainability recognition like being honored as a “Banner Community” or awarded a Leadership in Energy & Environmental Design (LEED) certification. Table 9 reflects the proportion of the 25 responding participants who have another recognition.

Table 9 Survey Responses to "Do you have another health or sustainability certification or recognition?"

Response	N (%)
Yes	15 (60%)
No	10 (40%)

4.4 Qualitative Interviews

Several key themes emerged across both staff and participant interviews. First, *LWA* staff themes from qualitative interviews will be explored followed by insightful themes from participant interviews. Finally, themes that emerged in both groups will be explored to illustrate similarities and differences in perspectives.

4.4.1 Staff

Live Well Allegheny Staff provided nuanced insight to the structure of the initiative, the purpose of *Live Well Allegheny*, and aired concerns about, as well as visions for, sustainability.

4.4.1.1 Sustainability: Funding Sources

Every staff interviewee aired concerns about the current structure of funding staff who worked on the program. In particular, the variability of grant-funded positions posed a variety of barriers.

> *"You know I think at this point we're just limited by…staffing capacity…We've been fortunate to date [with] funding resources, at some point that's probably going to dry up"* – Staff 2

Although this concern is not unique to public health entities competing for funding sources, short-term, grant-funded positions hold significant implications for the feasibility of achieving *Live Well Allegheny*'s goals, which involve long-term, county-wide change related to chronic disease.

> *"I had said that although it was a powerful initiative, most of the positions that were running it were contract based that had small timeframes. You have 1 to 2-year contracts…It's connected to the county executive's office; you want it to be this big thing to blow up. You want every community, 130 municipalities to be a part of it, but you have this small, small staff and half of them aren't staying for more than a year and a half, two years."* – Staff 3

> *"I think these 1-year grants are very difficult, and I think it was a good opportunity…to lay some ground work, but at the of the day, it's really hard to come in and jump right in and try to actually make change and make lasting change when that capacity is going to not be there."* – Staff 5

Especially considering how much *Live Well Allegheny* relies on connection and matchmaking, staff turnover related to the natural lifespan of grant funding could impact the activities of the initiative.

4.4.1.2 Barrier: Turnover & Communication within Participant Organizations

In addition to concerns about the continuity of staffing, *Live Well Allegheny* staff also face a barrier with turnover within participant organizations.

> *"When I think about municipal leaders and they constantly – most of them aren't full time, or they only have one or two staff members. And there's a lot of overturn anyways, so it's almost like explaining what the heck* Live Well Allegheny *is over and over again. That's a very common - I think [co-worker] would emphasize that too because she's only been working here for a year, but she's already seen turnover, and they're like,* Live Well Allegheny *fell on my plate, and I don't know what this is."* – Staff 5

Together, grant-related duties and addressing turnover within a Participant's organization puts strain on staff.

> *"Well [Community] is an example again. Their borough manager was a super champion for* Live Well. *He was wonderful and then he moved to a different community and we haven't had connection for [Community] except we just got a contact this week for [Community] and now she's all about it and willing to meet. But now I have to go meet with her and talk to her about* Live Well *because she's new and doesn't know what it is…I already spent my time doing that with someone else, and there is a lot of turnover in a lot of borough positions…if that is the nature of that game it can't be a burden- It feels like more of a burden on us because I have limited time to get all these things because we wrote this grant and I would get this [other] stuff done. But if this was just a part of a county*

*position and I'm here for the long haul then I don't mind meeting with new people and describing [*Live Well Allegheny*]."* – Staff 4

4.4.1.3 Measurement

While staff desire to assess whether or not the initiative is having an impact, there are clear challenges with measuring and monitoring the success and activity levels of participants.

Interviewer: *"How active have participants been in pursuing campaign goals?"*

Staff: *"So I don't think we really do a good job of measuring that…so when we have a Live Well Community, they have to sign on to three things. Often times, we encourage them to sign on to three things that they're already doing…hoping to then create a relationship where then they're going to want to do more things because they're more involved."*

Live Well Allegheny does offer a low threshold for participants to help aid in relationship building, but a monitoring progress may be mutually beneficial for both staff and participants.

"I think from the participant perspective the monitoring would definitely be what generates buy-in and kind of excites them from kind of a participant perspective. And us too, as much as our criteria is evidence based, no one in a community in the Mon Valley is going to care that they're doing an evidence-based practice, they want to know that they have access to a farmers' market where they previously didn't have access to it before." – Staff 3

During discussions about creating a monitoring system for the initiative, several staff aired concerns about whether or not they had the capacity to implement a monitoring system. Other staff were more optimistic about having one-on-one conversations with Participants on a frequent basis.

"When I say this monitoring process, I don't think it has to be like please enter our Qualtrics survey. It could be hey let's sit down, tell me everything that you've done, I've looked at your calendar, I want to ask you a few more questions. So it could be a structured

interview versus very intense 60 question quantitative survey. So I think there's flexibility in that, and I personally would like to see it on a quarterly basis." Staff 3

Regardless of approach, staff should brainstorm creative, measurable ways to monitor Participant's progress, and come to a consensus on which approach better suits the goals of the initiative.

4.4.1.4 Siloes

The concept of siloes came up in two distinct ways, one concerning the health department and the other focused on participant organization, but both focused on barriers related to communication and collaboration. First, staff recognized that breaking down siloes within the health department could help improve the *Live Well Allegheny*'s impact by committing to a multi-disciplinary approach.

> *"We're very silo-ed- I mean I feel like you'll probably hear that a million times. Like the Health Department is very silo-ed,* Live Well Allegheny *is silo-ed, everyone is silo-ed. That is the nature of it unfortunately, but it needs not to be. And I think the only way it isn't is you have to intentionally make it that way."* – Staff 4
>
> *"I think just as a health department, really taking ourselves out of our silos as well will be a positive change and a sustainable change for* Live Well Allegheny *because right now it's just coming really out of...chronic disease when it probably needs to be coming out of all health department bureaus, and just thinking through more about how we need to be partnering with DHS. So inter-county but also honestly internal [within the health department]."* – Staff 5

The other concern, as it pertains to siloes, is the fear that *Live Well Allegheny* communications and messaging are only reaching a small group of people within participant organizations.

> *"School districts have a lot of administration and sometimes Live Well does not get passed that kind of upper level system and kind of trickle down to teachers, but when it does trickle down to teachers, they are very engaged they are able to make connections with their life as employees to Live Well and the also to their students and also celebrate the programing that they're doing. So I think the buy-in comes with knowing that they're participating, which is always a struggle because how do you communicate this message to a large audience already in terms of participants, but within each level of participation in each organization there's like should we include 4 people, should we include 5 people, or 20?"*
> – Staff 3

Addressing these concerns could help boost public awareness of the campaign and incorporate additional resources at the county-level, ultimately improving the impact of *Live Well Allegheny*.

4.4.1.5 Tension Around the Purpose and Scope of *Live Well Allegheny*

The primary mechanisms that the initiative uses to advance its vision is through relationship building and matchmaking, putting the onus on partners to carry out direct programming with participants. Oftentimes, because of grant-related duties, the staff does end up providing direct education.

> *"So it kind of depends on which way we'll be going in terms of do we stay a supportive organization that has trained experts that fulfills this programming needs or are we just a*

supportive organization that connects to programming. Because right now we're kind of in the middle of both." – Staff 3

Making a strategic decision about what the initiative will look like moving forward will impact eligibility for funding resources. Straddling these two worlds of direct programming and matchmaking may cause some inefficiencies, but it may also allow for a larger staff and greater community engagement by maintaining flexibility to access a larger pool of funding opportunities.

Additionally, *Live Well Allegheny* has utilized Health in All Policies to show Participants how they can have a direct impact on their community's health by addressing social determinants through health policies. While upstream factors ultimately influence health behaviors, the Health in All Policies philosophy often expands outside of the three health behaviors of focus.

"So I think that will be our more supportive role as we move forward, whether it's this conversation about built environment, housing, transportation, but looking at these social determinants of health and really digging in where we can especially because so much of Health in All Policies is out of our scope of work [since] we're not the governing body, with policies it has to come from outside. So, trying to appeal to other entities to try to get them to think about that preemptively is definitely a challenge but is definitely a huge roll for a health department and that's something we bring to the table beyond the data side by just putting health at the forefront" – Staff 5

Blurring these lines has been a concern but permitting work outside of this constraint allows Participants to discuss the unique needs of their community, ultimately could lead to more timely prevention efforts.

"I mean I've even heard stuff like don't stray away from these three topics…but I think it's a great, especially when we're talking about health equity and underserved populations.

Well, this is their opportunity to talk to us and hear about what they need and not just- and [the Mon Valley Learning Collaborative] meeting, the conversation of opioids came up. That comes up, and housing comes up, and lead comes up, and people's fears. When is a better chance to talk to someone than when you have someone they see from the health department? They often are just contacting and connected to health department things when things are really bad like, 'Oh we think we have lead' versus 'Well, what can you tell us about lead so we don't get there?' And that's kind of [what] Live Well wants to be, 'Let's talk about running so you don't have a heart attack in five years.' We're trying to prevent that. And it has become this open-door policy where people can come in and talk to you about other things that are going on." – Staff 4

The possibility of benchmarking other Live Well initiatives and expanding the scope of *Live Well Allegheny* has also been discussed to adapt to the needs of Participants.

"Live Well Colorado and they're state wide and they're a non-profit so it's structured differently but you know they're figuring out ways to incorporate violence very overtly… what are the other strategic initiatives that other collective action models have adopted since we did this? We should think about that." – Staff 2

Regardless, there are still valid concerns of compromising the core of the initiative, which is the 3-4-50 model.

"I'm also a little worried about possibly diluting the message. And I think that's easy to do. Right now, the message I think has been very clear, it's been communicated very well. I think we have three areas that we've been working on. That doesn't mean that other things aren't critically important, but I am a little concerned about how that might float overtime because it's not like we've ultimately gotten the traction that I want to get on

these chronic disease behaviors. So, I don't know, I'm really sort of thinking through how that might look. Clearly the mental health picture, the planning picture, then you get into what about violence, what about air quality, water quality, keep naming things on and on and on because when you think about a healthy community, right, there's a lot of different factors that play into that. Green space, healthy homes, all those kinds of things. So, I think we're going to have to figure out how we incorporate those points going forward without, like I said, diluting some of these major issues which I still think there's a ton of work to do on." – Staff 1

4.4.1.6 Equity

When discussing engagement with the campaign, which is also demonstrated in the activity levels of survey respondents, staff noted that the most active Participants are those who already understand their connection to community health.

"Those are often the people who are so engaged, and their awareness is kind of already there and that's why they're seeking this change and that's why they're so engaged." – Staff 5

Alternatively, some components of the campaign may feel inaccessible to under-resourced Participants, which emphasizes the need to meet Participants where they are and demonstrate that any level of engagement is considered a success, regardless of the depth or breadth of a Participant's achievement.

"If you have a hip and modern restaurant doing cool stuff anyway and then you're like, 'Look we want to honor you!' That feels very different than people with not a lot of resources, not a lot of time and not a lot of information and knowledge about how things

are working or have a limited understanding for things but using that to the benefit of everybody." – Staff 4

When reviewing a map of *Live Well Allegheny* participants in the Chronic Disease Program office, staff pointed out that engagement in previously underserved areas, especially the Mon Valley, was only successful because a grant allowed for the engagement of that geographic area to be the staff member's sole focus.

"This is only orange [points to Mon Valley area on map] because of this grant. Before I started this wasn't like this." – Staff 4

This staff person, who was eventually hired on as a permanent staff member, aired concerns about what would happen when the grant ended if there was not a plan in place to continue specialized work in underserved areas.

"Then we're just another group that has come in and left, right?" – Staff 4

Similar to the discussion around the scope of *Live Well Allegheny*, staff working in underserved communities expressed concerns about the geographic reach of the initiative if it confines itself to the three main health behaviors without a health equity lens.

"The language is often, 'Allegheny County is suffering in this' and 'the Mon valley is suffering in this' and 'how can we help these people?' So, it's either going to be a fun cool activity…like, 'Oh let's paint this green' and, 'We're going to walk here.' It's either that or it's, 'Hey we have these really awful pockets and we have to really commit to it.' I almost feel like you have to make a decision on where this is going and taking it back a step. It shouldn't have been county wide if you're not going to [work on health disparities] … it kind of sucks to be in that gray swampy area" – Staff 4

While intentional planning must occur to ensure that *Live Well Allegheny* maintains fidelity to its framework, special consideration must also be taken to the implications of wavering or reducing their level of engagement in underserved areas, as this fluctuation from a historical lens may be unsettling from the community's perspective.

> *"[Participants talk about] how it has been a nice connection to come in to the health department and the county, kind of getting the ear of the health department. I feel like a lot of the communities that I've worked with have been very disconnected and have felt kind of abandoned. They're far [from Downtown] and underserved and the health department used to have offices in a lot of those places and they left"* – Staff 4

4.4.2 Participants

Participants also provided perspective on how the campaign could be improved with a specific emphasis on on-boarding new organizations, keeping participants engaged, and marketing *Live Well Allegheny*. Additionally, participants vocalized how the campaign aligns with their own missions and how the context of their community drastically impacts their efforts to improve the health of their constituents and community members.

4.4.2.1 Insight on Process

Crucial input was provided by participants based on their experience with the initiative. Most notably, a fundamental suggestion was made revolving around municipal cycles that could help boost participation among communities.

> *"And you really should do something just so you get the municipal cycle…but also most municipalities get their budgets ready, they usually start no later than September. So*

having your information come out, even if you did it every July to June would be very helpful. If you waited till the beginning of the year here's what happens: most municipalities already have their plans and budgets set in motion and it's hard to change or add anything. Then it goes back, and it has to wait until August or September of the following year." – Participant

Participants were hungry for more in-person engagement from the campaign, which may or may not fit within the duties of *Live Well Allegheny* Staff.

"I hate the idea of setting up a vendor booth and having literature out there that people grab and throw away and don't look at and they come, and they stop by and they say, 'Oh that's really cool', and then they go on and two vendor booths down, it's something else to do with health and it's all the same thing and it doesn't resonate with anybody. I would say, take that time that you go to these vendor fairs and instead, we're going to go to these places, but we want to make something. We want the room to smell like something that we're making. You guys did, you showed up at our vendor fair and you showed up and you had a nice table and it was great - how many people have any idea if you went and said Live Well would say oh yeah, I saw you at the- they don't. There's no connection to it. I'm telling you it's a waste of time, I just want to say if that person had come and instead of spending two hours there had come to our first-grade classroom and we got the four classes together and we did something, that's way better than setting up [vendors]." – Participant

While more engagement may help improve public awareness of the campaign, participant-specific education events may not be realistic based on the staff's capacity. Still, this very valid need could be filled through collaboration with a *Live Well Allegheny* Partner, who may have a greater capacity to provide a demonstration like the one described above.

Finally, participants are eager to learn about more creative ways to communicate their recognition and the goals of *Live Well Allegheny* to their audience.

> *"I would love to have some ideas from you guys if there's some way to market us as part of the* Live Well Allegheny *and how to get that point across that it's healthy food that we have here. I have done a very bad job of marketing that. Our menu itself has very limited space. I don't really have room there. And when it comes to the servers spieling to the customers at the table, there's only so much you can promote at the table"* – Participant

Creating a strategy that enables participants to better market their involvement with the campaign could both increase public awareness and participation.

4.4.2.2 Differing Needs

Considering the context of each participant's geographic location and demographics, as illustrated further in the map analysis, is imperative when supporting the creation of achievable, relevant goals for participants. This is especially true when some participants may have more funding at their disposal than others.

> *"we did purchase Fitbits years ago and we got Garmins for everybody this year"*
> – Community

It is imperative to convey to participants that being successful in the *Live Well Allegheny* campaign can look a variety of ways. *Live Well Allegheny* staff must meet participants where they are to ensure that they are working towards achievable goals. Caution should be taken when discussing participant achievements at learning collaboratives to ensure that a variety of achievement levels are showcased and that all are seen as meaningful contributions to behavior change. Otherwise, *Live Well Allegheny* may not feel like an accessible initiative to communities

with fewer resources who are arguably the most important stakeholders to be engaging in this campaign.

> *"But it is I would say that we've seen definitely seen changes in our restaurants. You see more of a how do I say it. You see more fruit involved with salads, you see the lime thing, cilantro, you see more of freshness in all the restaurant meals and I think that's reflective of the community.* ***Reflective of the type of people that try to live here try to visit here.*** *Yeah they're still going to want a gourmet burger with French fries but maybe they don't have the bread or maybe have a salad or something that's really healthful or healthy. So I think the restaurants are making [and] the school has now made strides with their food program."* – Community

The above quote demonstrates the importance of demographic data. The community above is one of the wealthiest municipalities in the county. Although it may not have been intended to be coded language, there are a lot of implications that come with what it means to be the *"the type of people that try to live"* in a wealthy community. Conversations about changing health behaviors differ depending on the social and economic context of a given area, as illustrated below.

> *"There still are sugary choices available for kids, but we're trying to limit them, especially at the younger levels. So yeah, I've had some parents who called and were really upset with me and it's…I mean we have to deal with different levels of education within our district with parents and family members as well…. And like I said, Fox Chapel and North Hills – absolutely, I could talk to parents because we're talking six figure incomes with terminal degrees in a third of your households and bachelor's degrees in 80% of your households. We can have that discussion. Having it out here, where we're zoned as rural,*

with a 35% free and reduced [lunches], some of those discussions are harder to have." – School

4.4.2.3 Aligning Missions

Similar to the results of the survey, all of the participants that were interviewed highlighted that *Live Well Allegheny* mirrored their own personal drive or the goals of their organization.

"I mean with the quality of food honestly it's a lifestyle that we grew up with, so we want that kind of food. We don't want that heavy fatty food, overly salted…But that's what we want to do anyway and…very true Italian food is that. So I can't say so much that's there's been any kind of impact as much as we seem to fit in with the philosophy, which I guess is the point." – Live Well Allegheny Restaurant

Additionally, some of those we interviewed are change-makers in their organization who push for accountability and strive toward including health in all policies – a task which becomes easier when you have tools and motivation to frame messaging like the statement below:

"We're really looking at ***how do we put nutrition programs into the educational model*** *because it's easier to lose money if you look at it as – I mean schools lose tons of money right? Every time they pay a teacher, every time they buy a book, because those are investment dollars. And some people will say, well they're at a loss, and some people will say losses are investments into what are we trying to teach these kids and where are we trying to go. That's going to be our direction."* – School

Others were more explicit about the divide between the early-adopters of the *Live Well Allegheny* Initiative and the target audience who may need further engagement:

"Okay. 47 out of 130. ***We were one of the original banner communities. We get it.*** *People just don't [want to join]" –Live Well Allegheny* Community

The above statement poses an interesting proposition – how can *Live Well Allegheny* draw clearer lines so more people "get it" and sign on to the campaign? Most of that work could come from the Health in All Policies component which seeks to illustrate the connection between social determinants, community organization and institutions, and health outcomes.

Finally, there are also organizations who may be better equipped to make and achieve goals related to the *Live Well Allegheny* campaign because they already are embedded in healthcare and health education.

> *"We do have a breastfeeding policy which we've incorporated…and we also have what's called peer counselors on staff that offer breast feeding coaching to our clients, and so those employees are also willing to help our employees and they're experts in the field too, so if we had an employee that was having trouble breastfeeding, they would have an internal resource to go to…. We have our nutrition experts on our staff because we have registered dieticians and nutritionists…so we've got a lot of experts on staff."* – Workplace

With this information, the challenge now is to leverage these experts and highly motivated participants to potentially aid recruitment and engagement efforts.

4.4.3 Cross-cutting Themes

Several themes emerged in both staff and participant interviews that dug in to the core aspects of the campaign. Across both groups, the profound impact of in-person communication and support was consistently echoed. Most interviewees added that the structure of the campaign ensures that they are constantly reminded about health. Still, there were clear concerns about the implications of a county-wide campaign as it relates to name recognition and reception, pervasive health problems that exist outside of the three main health behaviors, and health equity.

4.4.3.1 Live Well as a Reminder

Time and again, participants and staff expressed their appreciation for *Live Well Allegheny*'s constant reminder to look at everyday operations through a health lens.

> *"I think it just really continues to remind me in the craziness of what I do to remind our staff. So the reminders are good for me because while it's a priority, we all know what happens during the day and so it's just a good reminder. So I appreciate the reminders."* – Workplace
>
> *"I think without the campaign we wouldn't have anything because they're kind of the driving force to pretty much remind us what we're supposed to be doing… not to be a nag, but to kind of keep reminding them, hey what are you guys doing out there. Have you thought about us in a while? We're Live Well Allegheny, what are you doing out there? Have you had an event? Did you think about having an event?"* – Community
>
> *"So I think [before* Live Well Allegheny*], a lot of that was just not really thought about and now we make a conscientious effort to bring in a variety of options"* – Restaurant

Staff interviews revealed that carrying this reminder of putting health on the forefront is a core component of successful interactions with Participants, who may have previously seen the health department as a punitive entity that investigates health code violations.

> *"I think it's so beneficial to [co-worker's] work that she goes to council meetings, she goes to Mon Valley providers. Because then they're constantly reminded to think about health. We don't want a slap on the wrist after and how can we just be a positive force."* - Staff

4.4.3.2 Importance of Personal Interaction and Connection

The primary mechanism by which *Live Well Allegheny* acts as a reminder is through personal interaction with Participants and providing warm handoffs to relevant Partners via

matchmaking. Additionally, the initiative provides participants with a connection to health experts, at the Health Department and through Partners, and a connection to why they as a Community, School, Workplace, or Restaurant have such profound impact on community and individual health.

"I feel like we have worked very hard at, and I think we've had some success in making, Live Well Allegheny *fairly tangible. I think in the beginning it was a very broad vision of making Allegheny county the healthiest county, and I think that we've really focused on making that tangible, and what does that really mean at a variety of different levels."* – Staff 2

Connecting those different levels to their part in this mission impacts *Live Well Allegheny*'s success, but establishing those connections and generating buy-in comes from building rapport.

> *"Having those working relationships and that rapport is crucial to overcome barriers because I think they do approach us when they're looking to do something"* – Staff 5

When the foundation for that relationship is built, Participants then turn to *Live Well Allegheny* for help, and the staff are equipped to deliver as a connector instead of competing as a direct provider.

> *"Our greatest strength is honestly our matchmaking… when someone approaches us with like 'I want to expand access to fresh fruits and vegetables' we can give them 3 different people who are actually going to make that change. And I think that is our greatest strength because it's not worth recreating programs when they exist, and they want to branch out beyond the city of Pittsburgh."* – Staff 5

Staff have received frequent feedback from participants about the impact of the connections they made through *Live Well Allegheny*.

> *"I will say every once in a while, I'll be at a meeting and someone will know that I'm related to Live Well and tell me thanks to our connections they're able to do something….*

we were at one of their meetings and one of the men from Green Tree came up and told us how he's been able to implement a fresh access market through live well. So, it's that kind of making connections." – Staff 3

Still, making those connections, and building that rapport takes time and intentional investment. Like anything in chronic disease prevention, staff recognized that there was no quick fix to becoming an integrated, trusted member of the community.

"And especially when you think geographically the fact that we have a staff person who is in the geographic area both living there and going to all of the community meetings, it says a lot about community buy-in from the health department especially from a health equity standpoint since they are previously underserved, disadvantaged communities. That came up at [The National Association of County Health Officials Annual Conference] actually, because there was a woman from Texas who said that she had not been fully integrated into the community despite the health department wanting to be a part of the community and influence health outcomes until three years that she had been going to meetings and introducing herself saying that they're there to support their mission. [It's] really community based participatory research in its truest form, but it took three years. But now she's on the school board because she's so integrated in that community. It's a long process, and we definitely need the funding resources to support that in a grant funded kind of way, soft money, or really make it part of our program in a hard money kind of sustainability." – Staff 3

Following this model has yielded results for the staff, and these sustained relationships ensures that community stakeholders have a trusted, accessible connection to a health expert when challenges present themselves.

"It's only going to be two years so then I'm finally I'm in this community where I am recognizable and it's, 'Oh hey, [interviewee's name]!' That's what you want if you're working in the Mon Valley, and then the idea is that down the road [when] you're having really serious conversations it's not just some medical doctor coming in and saying there's asthma, it's just more of a support system." – Staff 4

Participants reiterated in interviews that personal, often one-on-one interactions better enables them to remain active in the campaign.

"Thank you for coming here and making it easy for me." – Restaurant

"I do think it's important that you do come out and visit us because a phone call is one thing, an email is another thing…I'll flag it, [and] I'll follow up or not follow up. Or [if you] actually spend 15 minutes and talk face-to-face then it gives a little bit more impact or push to say, yeah we need to try this 5k thing again or whatever it is." – Community

4.4.3.3 Challenging Health Topics

Throughout conversations with both staff and participants, the influence of health topics that often exist outside of the three target health behaviors were discussed. Staff grappled with what it would mean for the campaign if the line of the 3-4-50 model was blurred. Some examples illustrated that participants whose communities struggle with the opioid epidemic still very much want to engage in chronic disease prevention:

"We've had conversations with [Mon Valley Community] for example. They're very plagued by the opioid epidemic, but they see this as a way to bring some attention and other activities into that specific municipality. So at first we might of thought oh there's no way they'll be interested in Live Well, [but] they actually jumped on board with Live Well very early, and we thought it would wane." – Staff 2

Other staff members thought addressing these issues was in line with the matchmaking goals of the initiative:

"So I think the panel is such a valuable thing because they are hearing from communities that struggle with the same poverty, opioids, crime, like the same kind of barriers and they've been able to do something positive. And I think that's very translatable and I think that's the way we tried to fill that need." Staff 4

Similarly, participants acknowledged the pervasiveness of challenging health problems and the need to collaborate with other communities who are dealing with the same issues since current initiatives have not been successful.

"I mean it's amazing, and I don't mean it to sound satirical, but it's amazing that anything involved with opiates makes the front page. That so and so was saved three times and then spending all this money but giving back to education to stay away from it or to do healthier things, that's why it'd be interesting to see what the other 47 communities do."

– Community

Finally, staff expressed the importance of the inextricable link between challenging health problems and chronic disease.

"Really making the case for why health, especially chronic disease when there's no immediate outcome will really help especially with the opioids and some of these other challenges because they're so intertwined. The other thing I was thinking about was mental health and chronic disease and how they really go hand." – Staff 5

Recognizing this link could help actualize the core concepts of Health in All Policies, but more education is needed first to ensure participants understand the power of social determinants of health and their relation to health outcomes.

4.4.3.4 Reception of *Live Well Allegheny* and the Clout of Health Department

The juxtaposition of staff and participant perceptions on the reception of the *Live Well Allegheny* initiative throughout the county demonstrated a bit of a disconnect between the two groups. On the one hand, staff have heard feedback, specifically from those affiliated with *Live Well Allegheny* Partners (the entities who help support Participants), that public knowledge about the campaign is growing.

> *"'I'm seeing it everywhere' is what I'm hear from everybody now. Even some of our partners at Pitt, like [professor at GSPH], is like it's just everywhere right now, which is good because it's an easy to understand message so it's good to see it everywhere and it's definitely getting out."* – Staff 3

Alternatively, several participants expressed concerns that the greater public is not familiar with the initiative.

> *"I'm wondering if part of the problem is that the public doesn't know what the significance is, like do they even know what* Live Well Allegheny *is and what it means…we felt like that there's just sort of a lack of understanding in the general public with what that actually is."* – Restaurant

Some staff have observed this disconnect and have contributed the lack of public awareness to *Live Well Allegheny* getting lost in the noise of many other initiatives that try to engage the same target audience. To help bridge that gap, staff have realized that leaning in to the initiative's connection to the health department helps boost the legitimacy of the campaign.

> *"The way that we've approached my space and my area has been, 'Hey I'm [interviewee's name] from the health department and we have this great thing that we're doing…" versus some borough manager happens to see an email, and someone told them about it and they*

went on the Live Well site and there's a big disconnect in that way but I felt like…it having the health department weight strengthened my plea...I feel like these places all get random phone calls from non-profits that are all doing this great thing and the weight of saying we are with the county health department – that means something to municipalities to school districts…You don't know what Live Well *is, maybe you don't know what Health in All Policies is but you know that the health department is important somehow, and then that will be the avenue in which we go in"* – Staff 4

Participants have also recognized the power of establishing a clear connection to the health department, which will ultimately aid in recruitment, especially among other municipal leaders.

"But it was always like you had a remote location…it wasn't like you could just go down town. So they had all these remote things and I think that was-that may be something to I think that maybe if you participated more in community events might be a good way to go because I think very few people really understand that Live Well Allegheny *has a real strong support of Allegheny Health Department…when you get a lot of elected officials saying there's this* Live Well*, there's this banner community, there's this sustainability. You know, 'What's next?' sort of thing. Because they all get nervous about that… They don't know who, they don't know why they've got to meet a standard. Is this going to make them spend money in the future?"* – Participant

This idea paired very closely with an important facet of the health department's history: *"it always had a remote location."* As alluded to earlier in 4.4.1.6, remote office locations spread across the county used to be the primary mechanism of interacting with communities outside of the city. Now that those offices have been closed, *Live Well Allegheny* – whether it was intentional or not –is revitalizing county-wide community engagement by being present in these communities.

When municipalities see the health department re-invest in their communities, it could also conversely improve the municipality's awareness of and investment in *Live Well Allegheny*.

4.5 GIS Mapping

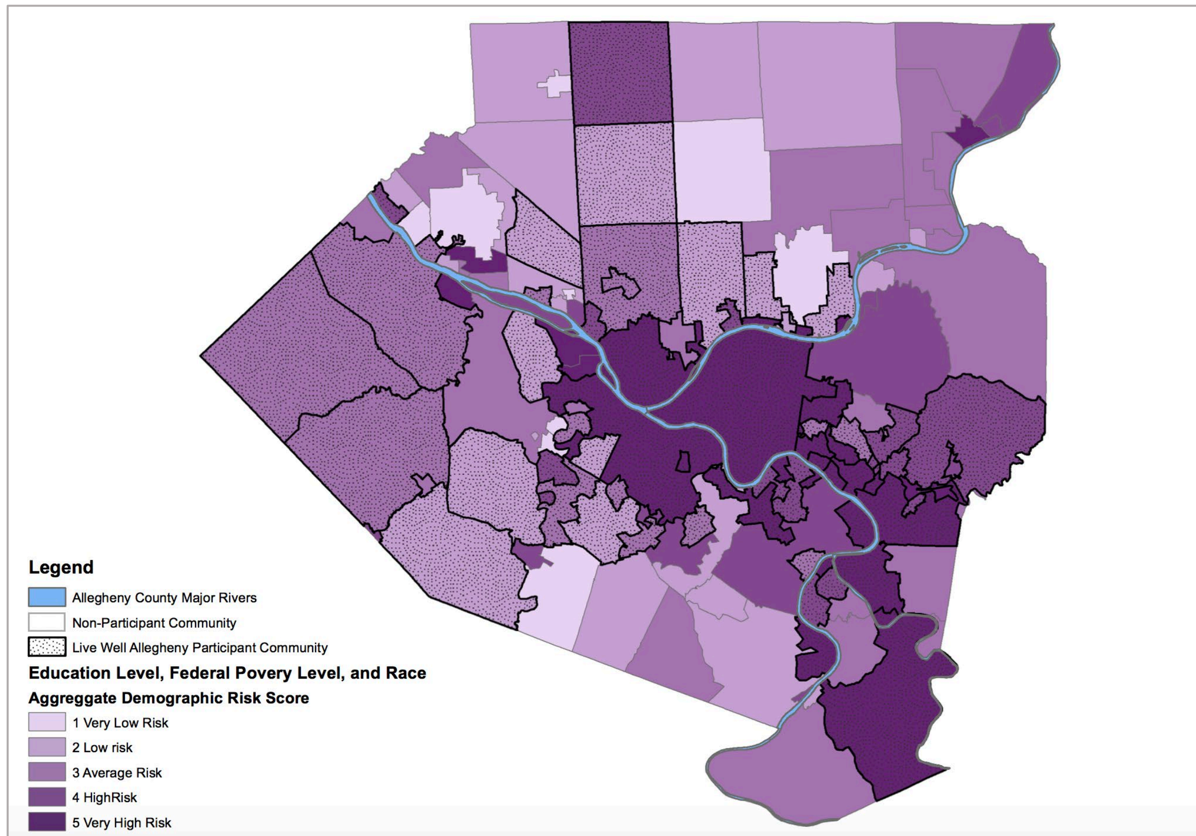

Figure 2 Demographic Health Risk Indicators by Municipality and Live Well Allegheny Participation

Figure 2 illustrates health risk at the municipal level based on the aggregate score described in the methods section. The data that informed these scores pertained to education level, poverty, and race. The darker the graduated color, the higher the aggregate score, which indicated a higher risk for negative community health outcomes.

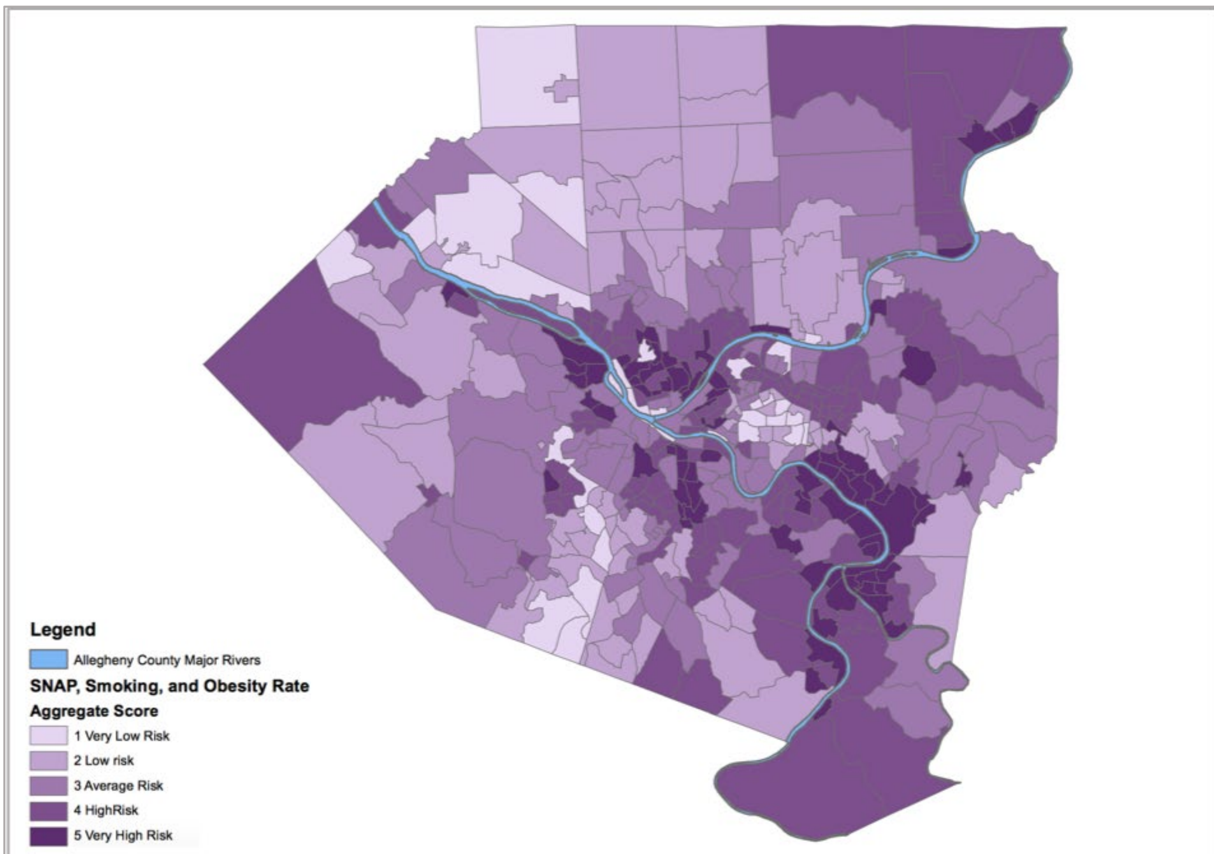

Figure 3 Health Behavior Aggregate Score by Census Tract

Similarly, Figure 3 illustrates health behavior indicators at the census tract level based on the aggregate score described in the methods section. Percentage of SNAP Households and the estimated smoking and obesity rates for each census tract were used to create this descriptive score. The darker the graduated color, the higher the aggregate score, which indicated a higher prevalence of the above measures.

5.0 Discussion of Findings

5.1 Referral Form Analysis

Referral forms are submitted via email and the contents of the form are extracted and documented in an excel spreadsheet. When talking with staff about this process, some did not know that they were tracking submissions. This lack of knowledge and protocol poses a significant barrier to tracking who submits a referral form and whether or not the submitter was contacted. In general, the data captured in the tables seemed to be a severe under-documentation of the connections the staff are making as a part of campaign activities.

5.2 Commitment Analysis

An interested result that manifested in the commitment analysis was that workplaces and restaurants had the highest average number of commitments per participant. A few factors may explain this phenomenon. Typically, workplaces had more flexibility and opportunities to provide workplace-related health accommodations including access to clean drinking water, breastfeeding facilities, and organization-wide health benefits that often came in the form of health education sessions supported by an insurance provider. The latter opportunities were usually available to all employees regardless of employment status. Alternatively, the other participant sub-groups may not have the infrastructure or capacity to provide the same accommodations. Additionally, restaurants, as described in more detail below, excelled at finding creative ways to address healthy

eating, as they were natural experts in culinary-related interventions. Finally, communities and schools face additional levels of bureaucracy which may impede on the collective agreement on current health initiatives and creation of new goals. Both of these circumstances shared across each of the respective sub-group levels could help explain the difference in average commitments.

Alternatively, the lower averages of commitments per participant in the School and Community sub-groups may suggest that schools and communities still experience a disconnect with how their organizations can, and overwhelmingly do, have an impact on health. If so, this may be an opportunity to lean in to the Health in All Policies initiative to help bridge the connection between these institutions and their impact on community health.

Previously, there had been an assumption among some staff that the initiative was adequately addressing tobacco cessation and smoking-related concerns. The summary above indicated that commitments related to tobacco cessation only accounts for 5.7% of all commitments. Communities, who have the highest percentage of tobacco cessation-related commitments, may have more flexibility and power as municipal governments to create policies about tobacco cessation in ways that other participant sub-groups cannot. Still, the implications of this observation should be taken with caution as the initiative, in partnership with Tobacco Free Allegheny, has been a part of many tobacco cessation efforts and distributed relevant tobacco cessation communication to its wide audience of participants. Regardless, there may still be an opportunity to brainstorm creative ways communities, schools, restaurants, and workplaces can support tobacco cessation efforts.

As alluded to above, most parent codes had several accompanying child codes that helped illustrate the range of ways participants have addressed the campaign's main topic areas. In

particular, restaurants had a wide array of commitments related to providing healthy foods in creative ways.

A unique theme emerged in the commitment analysis that described a very important aspect of healthy eating – what restaurants are *not* serving. Labeled “Proudly Not Serving”, a few restaurants described their commitment to removing sugary drinks, deep fried foods, and processed foods from their menu. Many restaurants struggle justifying removing something like soda and other sugary drinks from their menus. Highlighting the success of restaurants who had “Proudly Not Serving” commitments could both help ameliorate concerns about practicality and help raise the bar of what it means to be a restaurant committed to improving the health of their communities.

Aside from commitments that could help improve the achievements of other participants within the sub-group, the breadth of these Healthy Food-related commitments could help inspire other participant sub-groups who may be struggling with ways to incorporate health food goals into their commitments. This is especially true for Workplaces, where only 15.5% of their commitments related to healthy food, yet many employees could consume a majority of their daily caloric intake during the work day.

5.3 Survey

While the survey results trended towards positive responses, there were a few questions that elicited notable negative reactions. 28% of respondents indicated that they either “Strongly Disagreed” or “Somewhat Disagreed” with the statement, “I know how to access the *Live Well Allegheny* referral form to request resources.” Given that *Live Well Allegheny* seeks to connect participants with the resources they may need to accomplish their commitments, this may suggest

that some participants do not know how to ask for help. Still, the most frequent response to question number twelve, which asked is respondents knew how to contact the *Live Well Allegheny* staff was "Strongly Agree". The responses to both of these questions should be taken in to consideration when deciding further action.

Similarly, for Question 14, 24% of respondents said they either "Strongly Disagreed" or "Somewhat Disagreed" with the statement, "We have sufficient funds to accomplish our goals." As discussed throughout the rest of this paper, each participant will have unique needs, related to both health indicators and financial resources, which emphasizes the continued need for contextual support, collaboration, and creativity when it comes to finding practical approaches that fit a given participant's goals.

Based on those who responded to the survey, participants had initially declared roughly 9 commitments on average, which reflects the average number of commitments for all participants. The proportion of commitments currently underway divided by the original number of proposed commitments provided insight on how active the survey respondents had been since they started the campaign. On average, survey respondents had taken action on approximately 84% of their initial commitments, and nearly a quarter of respondents had reported adding to their commitments since joining *Live Well Allegheny*.

Respondents were also asked whether or not they had another health or sustainability certification or recognition. As show above, roughly 63% of survey respondents had an additional recognition (ex. Sustainable Pittsburgh Restaurant, Banner Community, Bronze Level Walk Friendly Community). In addition to a reporting bias that skews towards more active participants, the responses to this question also indicates that close to two thirds of survey respondents are high achievers who may be used to navigating structures put in place by convening organizations and

accrediting bodies who have goals similar to that of *Live Well Allegheny*. This shared characteristic among many of the respondents should be taken into consideration when evaluating the trend of positive responses to survey questions.

5.4 Qualitative Interviews

Individual interviews with staff and participants helped confirm and illustrate core components of initiative, like matchmaking, connection (between institutions, organizations, policies and impact on health), acting as a reminder), and *Live Well Allegheny* as a reminder for participants to think about health on all fronts. Additionally, comparing the perspectives of staff and participants helped illustrate how leveraging the clout of the Health Department could help improve recruitment efforts and strengthen name recognition, since several participants indicated a lack of knowledge of what *Live Well Allegheny* is in their communities. Similarly, participants shared that it was easy for them to understand why their participation in the campaign was important because it aligned with their general mission. Some expressed that there may be a barrier in recruiting additional participants because it may be harder for these organizations to understand their connection to improving community health. Together the qualitative data emphasized a need for intentional strategic planning and a reassessment of current messaging to aid meaningful growth of the campaign, both in its goals and its participant base, and improve initiative clarity.

Aside from the outcomes of the qualitative data, the process of recruiting participants for qualitative interviews shed light on reach and engagement. Even though we initially tried to target “Active” and “Inactive” participants for the qualitative interview, many participants across both of those categories were hard to reach and still did not respond to recruitment efforts even after

multiple follow-up emails. While contact was mostly made via email during the recruitment process, qualitative data confirmed that phone discussions may have been a more impactful way to increase participation in the qualitative interviews. After conducting the in-person interview, nearly all participants expressed a sense of re-invigoration and renewed commitment to the campaign, and many thanked me for making the process personal and easy by visiting their site. These anecdotes from the qualitative interview process further supports the profound impact of in-person meetings with participants.

5.5 GIS Mapping

A recurring theme across both maps was that there is high risk in the upper North East corner of the county and some of the townships or boroughs around Neville Island. Unfortunately, in both of these geographic areas, there is not a *Live Well Allegheny* presence as of April 2018. Specific municipalities of interest are Stowe Township, McKees Rocks, Coraopolis, Neville Township, Aleppo, Tarentum, Brackenridge, and Harrison. Additionally, most of the indicators of interest with the highest scores are concentrated in the Eastern part of the county and along the Rivers. This information supports previous knowledge that informed strategic *Live Well Allegheny* initiatives in the Mon Valley. In the future, this data should be used to inform a recruitment strategy and help current participants brainstorm commitments related to their respective obesity, smoking, and SNAP Household rates.

5.6 Limitations

It is also important to identify the limitations of this analysis. First, in both the survey and the qualitative interviews for the participants, there was significant self-selection bias. Participants self-selected whether or not they would participate in the survey, which had the potential to solicit widely negative or, in this case, positive responses from participants. Those who were already checking emails regularly from the campaign and remained engaged in campaign efforts were more likely to respond to our outreach efforts. Given how participants were recruited for the evaluation, those engaged or interested in the program were more likely to participate, and thus the potential for reporting bias is high.

For the qualitative data analysis of the interviews, commitments, and referral forms, there was only one person coding the data. This limited staff capacity prevented quality assurance checks from being performed on the coding of commitments, interviews, and referral form data, as is traditionally the gold standard of qualitative research. The analysis of the qualitative data is therefore limited since there was not an additional reader to help confirm the decisions to separate distinct commitments and assure fidelity to coding schemes.

Finally, since this evaluation did not have a quasi-experimental design, the results of this research cannot be extrapolated to other counties seeking to use this explicit intervention design. Instead, the results are to be used to guide the *Live Well Allegheny* staff in making appropriate changes or enhancements to campaign activities. Potentially, these findings could be used for groups looking to replicate a collective action model for chronic disease prevention like *Live Well Allegheny.*

6.0 Suggestions

Below are suggested next steps for the *Live Well Allegheny* initiative, which are informed by the evaluation results and organized through the lens of Cabañero-Verzosa and Garcia's (2011) key constructs for coalition building through a collective action framework. By identifying grounding suggestions in this theoretical framework, the *Live Well Allegheny* staff will be better able to identify key areas of improvement in order to optimize their work.

6.1 Issue Identification and Specification

It is crucial for the *Live Well Allegheny* staff to engage in strategic planning and revisioning to help provide some clarity on the goals and scope of the initiative. As referenced in the qualitative data, staff have struggled with balancing fidelity to the three main health behaviors and responding to the various other health needs of the participants. This is especially true for under-resourced areas and communities of color who experience institutional inequality and grave health disparities that lead to a variety of comorbidities that often include but supersede the scope of chronic disease and the three main health behaviors.

Live Well Allegheny is not the only chronic disease prevention collective action model that has gone through growing pains. In fact, a vast majority of the other Live Well campaigns have expanded outside of the 3-4-50 model to incorporate other pillars of the social determinants of health and core areas of focus. Given that Live Well San Diego is the closest in structure to *Live*

Well Allegheny, as it is run by a county health department and started explicitly with the 3-4-50 model, it may be helpful to use Live Well San Diego's strategic changes as a benchmark.

Live Well San Diego started in 2010 with its primary focus area being *Building Better Health*, which was based on the 3-4-50 model (County of San Diego, Health and Human Services Agency, 2014). *Living Safely*, which focuses on public safety and emergency preparedness, was adopted in its second year, and *Thriving*, which looks at a wider range of quality of life measures, was released in its fourth year (County of San Diego, Health and Human Services Agency, 2014). Grant it, San Diego has a larger population and therefore a larger tax-base to support county health department program funding, which allows for larger staff and greater flexibility in program funding. Still, these changes reflect an acknowledgement of the wide-array of factors that influence a community's ability to live well. The expansion was done strategically with the input of their Board of Supervisors and put measurement at the forefront. Figure 9 illustrates the core components of Live Well San Diego and the strategies in place that help them achieve their vision.

Figure 4 Live Well San Diego Pyramid

(County of San Diego, Health and Human Services Agency, 2014 p.23)

The three core components incorporate four actionable strategies that target five areas of influence. In order to make those areas of influence measurable, Live Well San Diego provided ten indicators that would help measure whether or not their activities were having an impact. Going through a similar strategic planning process and creating accessible logic model visuals like the one above, could help *Live Well Allegheny* identify new core components of the campaign and

improve their messaging. As described in more detail later in this section, it is also imperative for the staff to intentionally include ways to measure success and impact during this strategic planning phase. Having a monitoring system in place and planning through the lens of preparing for future evaluations will help the staff better understand the reach and impact of the campaign.

During this strategic planning process, it is imperative that the staff take a community-based participatory approach by including current participants, partners, residents, and members from non-participant communities in revisioning conversations. The insight of these stakeholders will not only influence the strategic changes but utilizing their expertise could help improve buy-in and participation across the county. They should be asked what sorts of health problems their communities want to address and what activities they would like to see come out of the *Live Well Allegheny* Campaign. Already through qualitative interviews, participants have said that they would love to have more in-person learning collaboratives and community building activities with other participants along with accessible reporting of participant accomplishments, highlights, and overall campaign successes. More research is needed to identify what these key stakeholders would like to see in future iterations of the campaign.

During this strategic planning process, the staff must also ask themselves to what extend can LWA expand upon the three health behaviors that guide program activities? Creating a clear vision, mission, and values statement along with the solidification of core components of the campaign could lead to an actionable policy agenda. An example of a policy goal for Live Well San Diego shows that this agenda could be made up of goals as simple as "pursuing policy changes for a healthy environment by creating environments that support health so that the healthy choice is the easy choice" (County of San Diego, Health and Human Services Agency, 2014, p. 20).

This agenda could be easily understood by all participant stakeholders and, potentially, a wider audience across the county. The policy agenda and values statement, which could focus on the connection between upstream factors and health outcomes, would be a tangible example used to help participants learn about Health in All Policies and ground their own work in the core components of the *Live Well Allegheny* Campaign. Creating these intentional strategic plans and revisioning documents will help decrease confusion and improve the effectiveness of the campaign's operations.

6.2 Relationship/Stakeholder Mapping

Creating an intentional, actionable strategy to identify and engage new participants with an emphasis on health equity would help achieve the goal of recruiting all 130 municipalities. *Live Well Allegheny* Staff must utilize municipal-level demographic data to target geographic areas that experience a higher burden of negative outcomes. Illustrative maps, like the ones from this evaluation can help the staff identify these key areas.

Chronic disease, health and wellness look different to each of the *Live Well Allegheny* participants. As supported by the Social Ecologic Model, there are a variety of factors that impact a person's individual health, and many of them are intertwined with the levels at which *Live Well Allegheny* seeks to intervene. Having a clear understanding of those factors, via demographic and disease burden data, will help inform a contextualized conversation with new recruits. Building this narrative of the health of their specific community and tangible ways they can aid in chronic disease prevention not only touches on Health in All Policy teachings, but it also creates a connection to Cabañero-Verzosa and Garcia's (2011) constructs of *Identity*, *Ideology*, and

Instrumentation, which are core factors that influence participation in a coalition. By making the initial pitch with these constructs in mind, this conversation may reduce barriers to joining the coalition and increase participation.

Informants from the qualitative interviews aired a concern that the campaign is not as accessible to under-resourced communities who may not have as much information or knowledge about chronic disease prevention. In order to reduce this barrier for these potential recruits, who are arguably in the most need of community-level interventions, it may be helpful to utilize a health equity framework like R4P in order to ensure the campaign is taking the appropriate steps to include under-resourced, historically marginalized communities. R4P uses the guidance of five components – *Remove*, *Repair*, *Remediate*, *Restructure*, and *Provide* – to ameliorate historical inequities by acknowledging and removing power imbalances, building new pathways to reduce exposure, and providing relevant services to historically marginalized communities (Hogan et al., 2018). By using this framework to help repair historical inequities, recruit new participants and break down institutional barriers that contribute to health disparities, the staff can ensure that they are expanding the campaign through an equitable lens.

6.3 Forming Core Membership

Highly active participants, like the ones who participated in this evaluation, are the core coalition members as described by Cabañero-Verzosa and Garcia (2011). Leveraging the experience and energy of these dedicated participants by making them champions of the *Live Well Allegheny* campaign could help boost participations levels across the board. The campaign should play to their strengths of personal connection and matchmaking to recruit new participants and re-

engage inactive participants with the help of core members. The qualitative data overwhelmingly points to in-person conversations as the best way to engage participants. Even exchanging an email for a phone call may improve staff's ability to reach out and schedule meetings with participants who have been less active in or responsive to *Live Well Allegheny* events and communications. Bringing a core participant who has similar goals to these meetings may help create a sense of community and accountability that could ultimately increase participation. Creating this sense of community identity is supported by Cabañero-Verzosa and Garcia's (2011) construct of *Identity*, a key component that influences participation in a coalition. Additionally, this could help recruit new participants in the upper right corner of the county, where the map overlay indicated a clear need for prevention services and a lack of *Live Well Allegheny* presence as of April 2018.

Additionally, at Learning Collaboratives, core participants can continue to share the creative ways they have approached their commitments and ensured their success. Investing in the continuation of the learning collaborative – either in person or expanding to webinars and short video series – would help connect participants to the concept of *Instrumentality*, which allows them to see how their actions can and often do make a significant impact to the health and wellbeing of their community (Cabañero-Verzosa & Garcia, 2011).

6.4 Demonstrating Credibility

As demonstrated in the qualitative interview responses, the *Live Well Allegheny* campaign must lean in to the clout of the health department to help distinguish from other campaigns, increase credibility, and build trust with participants. The staff must create a clearer connection to the health department on their website and in all other *Live Well Allegheny* materials. By leveraging

the clout of the health department, participants could feel more confident in the campaign's ability to connect them with the relevant resources since ACHD is the county's public health expert. This could also improve the visibility of the health department's level of community engagement. Internally, it is clear that the health department does a significant amount of community engagement work but drawing this clear connection could help bolster external perceptions of the health department.

Continuing to use the Learning Collaboratives and other communication methods as a platform for sharing the teachings of Health in All Policies and the theoretical backings of the campaign could help participants see their connection to the issue of chronic disease prevention and help them see that the work on their commitments has impact. Providing a lay-person overview of the Social Ecological Model and illustrating how upstream factors impact downstream health outcomes could continue to enhance the credibility of the campaign. Amplifying this message of connection in all forms (connection to health, connection to each other, connection to the health department) is a powerful tool for inspiring collective change. The messaging must draw a clear, direct, and concise connection to health in all *Live Well Allegheny* materials. Even a message as simple as "We all have an impact on our community's health, and together we can *Live Well*" branded clearly on all *Live Well Allegheny* materials can impact the way participants perceive the campaign as something that pertains to them and has the potential to make meaningful impact.

Finally, by creating an annual or semi-annual report that relies heavily on demonstrating the current work and creative commitments of participants, the campaign can show their entire audience – participants and funders alike – what works, what is possible, and, most importantly, that what is being asked of participants is achievable. By utilizing all of the above suggestions, the

campaign will both demonstrate credibility and bolster the participants' sense of *Instrumentality* (Cabañero-Verzosa & Garcia, 2011).

6.5 Purposeful Expansion

For Cabañero-Verzosa and Garcia (2011), *Purposeful Expansion* is centered on strategically ensuring the proper resources for planned growth. As it pertains to *Live Well Allegheny*, the staff must ensure funding opportunities do not compromise the mission of the campaign. There must be room in grant-funded initiatives to continue the commitment to meeting with participants and acting as a connector. Aside from grant-funded initiatives, the expansion of permanent employee positions within the health department would bolster the campaign's ability to focus on connection and building personal relationships.

Since the start of this evaluation process, some grant-funded project coordinators transitioned into permanent positions, which will help greatly in sustaining the campaign. Advocating for additional permanent staff positions may be beneficial, especially if *Live Well Allegheny* becomes an interdepartmental effort within the Health Department. Having a paid, permanent positions in the departments that *Live Well Allegheny* may want to collaborate with, will help ensure a clear pathway for partnership as opposed to ad-hoc meetings. Finally, supported by the qualitative data in this evaluation, lobbying for support from other health department programs and county-wide, government entities like DHS could help enhance the campaign's ability to be an effective connector and be seen as a source of multidisciplinary expertise as it relates to health.

6.6 Sustainable Transformation

Live Well Allegheny is already somewhat of a polycentric campaign, as described in Cabañero-Verzosa and Garcia (2011), since it is approaching chronic disease prevention by addressing three health behaviors. Regardless of whether or not the campaign expands the core components of the campaign in a similar manner to Live Well San Diego, the campaign must ensure the proper structural mechanisms are in place to support sustainable transformation. Most importantly, more intention action is needed to build mechanisms for measurement in every program activity. Doing so will help highlight areas of improvement and celebrate successes. Additionally, creating these mechanisms with the intent to monitor campaign progress will help the staff take small steps in the transformation process, balancing how they will expand on core components in a realistic, data-informed manner.

First, staff should consider creating initial requirements about the ratio of new goals to completed accomplishments. Challenging participants to reach for a higher goal, or goals, each year could help inch towards progress and improving the county's health so that Allegheny County could become the Healthiest County in the United States. If they are only committing to things they're already done, they are not raising the bar, and are instead only celebrating the status quo. Currently, there is no mechanism to measure the status of commitments.

Creating a standard for submitting commitments creates a perfect opportunity to build a functional monitoring system that also captures commitment status. Ideally, an interactive system could be built into the *Live Well Allegheny* Participant profile portion of the website. When first signing on to the campaign and throughout their tenure with the initiative, they could go to this page and submit their commitments in a format similar to this mock-up table:

Table 10 Example of Commitment Tracking System

Commitment	Status (New Goal, Ongoing, Completed)	Topic Area(s)	Comments
Hold an annual 5k run/walk for community members	On-Going	Physical Activity	The 2019 event will be our 5th annual 5K.

Allowing participants to differentiate their own commitments better allows staff to identify the number of commitments at any given time. Status and Topic Area(s) could both be completed with the help of a drop-down menu, which could ensure uniformity of progress measures and help with coding. Coding options for topic areas could be as simple as allowing participants to choose one of the four main codes (Physical Activity, Healthy Eating, Tobacco Cessation, and Well and Wise), and there could be additional columns with options for child codes to narrow in on the core goal of the commitment. Additionally, an online interface connected to a Google form, or something of the like, could ease both staff and participant's ability to search commitments by topic area, keywords, and status.

For participants looking for inspiration or guidance, interested parties can search all participants' commitments and immediately identify which participant submitted the commitment. If there is buy-in from the participants, users may be able to interact with each other through this interface for the purpose of seeking insight on how to operationalize and achieve similar commitment goals. The interface does not have to be overly complex to realize this vision and does not require an online messaging system to be created. If the database is searchable and categorized by user, the participant searching commitments could request the *Live Well Allegheny* staff to connect them. This function could help further achieve the staff's vision of being "matchmakers" while protecting participant's privacy. Alternatively, if the system is able to link

to a user's profile, the participant may be able to connect via email if that information is listed. All of the above functions should only be accessible to current participants and staff. Caution should be taken if allowing participants to contact each other without *Live Well Allegheny* staff are not used as an intermediary or connector.

For staff, this system could help document changes in the status of a commitment, easily quantify the distribution of commitments by topic area, and be used as a conversation piece for meetings with participants. Depending on the sophistication of this system, staff may also be able to determine when action was last taken on a commitment based on the timestamp of submissions. All of the aforementioned mechanisms allow for practical measurement of a variety of aspects related to the campaign.

Similarly, better tracking of referral submissions, perhaps through an online form, could improve the overall efficacy of this particular system, which currently has many flaws. Additionally, more detailed information is needed on the extent of follow-up and result of the referral. Currently, the sheet only illustrates whether or not the submitter has been contacted, but it does not say who the submitter was connected with or what was achieved through the help of the referral process. In general, all connections, whether or not it is via email, phone, referral form process, or in person, should be logged and analyze to identify contact information for follow-up, the number of connections being made through the initiative, and the result of the connections. Additionally, better tracking of referral requests may help staff create proactive resource tools for hot topic areas or inform sustainable pathways for core component expansion based on the interest and need for resources related to a given topic area.

All these measurement tools will help for evaluation purposes, determining work plans, job descriptions, and the development of new positions or initiatives within the campaign. Failing

to intentionally build in these mechanisms for the purpose of evaluation and monitoring could lead to disorganized expansion and invalid assessment of campaign progress and impact. Evaluation of a community health program like this one is an iterative process, and it is essential to have the proper supports in place to ensure successful evaluation initiatives that occur in the future.

7.0 Conclusion

Collective action models applied to influence health behavior change through multi-level interventions are an inspiring and impactful way to engage a community in chronic disease prevention. As resources become scarcer, the importance of programs like *Live Well Allegheny* grows exponentially because *Live Well Allegheny* optimizes the work of a variety of campaign partners by connecting them with campaign participants in need of programming. By acting as a matchmaker, the campaign helps prevent program overlap by utilizing current resources as opposed to duplicating efforts. Additionally, the campaign helps organizations and communities center health on all fronts by utilizing the Social Ecological Model to provide tangible opportunities to impact community health at a variety of levels. Giving traditionally non-health-oriented organizations a lens to analyze how current structures influence health behavior will help create a county-wide culture informed by Health in All Policies. Positive responses to the survey and qualitative interviews have revealed that participants are actively thinking about health in all facets of their respective organizations, demonstrating that the campaign is headed in the direction of success as it pertains to a change in culture.

Although the campaign began by focusing on the 3-4-50 model, it is imperative that the staff continue to plan strategically for sustainable, equitable transformation. Many of the upstream factors that lead to chronic disease are also connected to a variety of other negative health outcomes like substance abuse, poor mental health, and incidences of violence. This is especially true for factors like racism, poverty, sexism, employment, minimum wage laws, transportation, housing, and the environment. The campaign must acknowledge this inextricable link between upstream factors, chronic disease outcomes, and other health outcomes, and create a strategic plan

addressing how the parameters of the initiative's goals will evolve to better address individual community's needs. The main tension that needs to be addressed is whether or not *Live Well Allegheny* will continue to adhere to the 3-4-50 model or will add additional core components in a similar way to their processor, Live Well San Diego. This tension was apparent across qualitative interviews when the purpose of the campaign and healthy equity were discussed. These findings support the need to create a strategic plan to prepare for the future. Creating a strategic expansion plan will help create structure within the campaign and provide guidance to its scope of work. Using a community-based participatory research approach to strategic planning will help ensure equitable, relevant growth reflective of participants' insight on their community's needs. Centering health equity is essential in a county that has such disparate health outcomes as demonstrated in the maps.

Hopefully the results of this evaluation encourage the campaign to strengthen its mechanisms of measurement and monitoring as well as celebrate their ability to act as an impactful matchmaker. As *Live Well Allegheny* fortifies the structures that guide campaign activities, it may also behoove the Allegheny County Health Department as a whole to collaborate across departments, along with other county-level governmental institutions, like the Department of Human Services, to ensure that relevant connections can be made flawlessly for participants. Even though the campaign is based in the Chronic Disease Program, factors that influence health behavior cut across all ACHD departments and government institutions. Intentional, transparent collaboration across these aforementioned stakeholders will undoubtedly enhance the impact of the campaign.

Perfecting recruitment messaging that appeal to participants' *Identity*, *Ideology*, and *Instrumentality* as it pertains to creating healthy communities will aid engagement and retention

while conveying the campaign's mission with clarity (Cabañero-Verzosa & Garcia, 2011). These three constructs capture the spirit of building a shared purposed, which is the core goal of the *Live Well Allegheny* Campaign. Using these constructs as a guide will help improve the campaign's reach and resonance with community stakeholders and the general public, which had been a concern that emerged in *Reception of Live Well Allegheny* from qualitative interviews.

Finally, intentional steps made to ensure continual monitoring and evaluation of campaign progress is needed to make data-informed changes to initiative implementation. Once the proper structures for measurement are in place and initiative implementation is satisfactory, the staff may begin planning an outcome evaluation to measure the initiative's effect on health outcomes. Continual evaluation of both process and outcome measures is imperative to ensure the campaign is making its intended impact. *Live Well Allegheny* should remain steadfast in their goal of becoming the Healthiest County in the Nation while performing routine checks to ensure they are uplifting all participants as they build a culture of health across the county.

Appendix A Commitment Codebook

Code parent	Code Child	Code Grandchild	Description	Example(s)
Live Well Allegheny			Any commitment that specifically addresses collaborating with the Live Well Allegheny Campaign and any Live Well Allegheny campaign specific suggestions (i.e. a children's menu that adheres to the Live Well Allegheny criteria)	*"Plan, promote, and implement a Live Well Allegheny event in cooperation with the campaign that encourages active living"*
Well and Wise			Commitments that otherwise do not fit into the below child codes but still include information about efforts to improve health and wellbeing through coordinated learning efforts	
	Wellness Campaign		A commitment that indicates an effort to strategically broadcast and elevate health and wellness initiatives through newsletters, events, or other campaigns	*"Hosting an evening community program to bring awareness to the prescription opioid epidemic"; "Promote participation in a voluntary wellness campaign for the community's employees"*
	Volunteerism		Participants outline ways in which they commit to promote volunteerism among audience	*"Offers an incentive for employees who volunteer on their own time"; "Encourage involvement with community volunteer activities"*

	Social Media	Commitments that highlight how participants utilize social media to broadcast health and wellness information	*"Utilize web sites and social media to provide information on physical activity, nutrition, stress management, tobacco cessation, and other health and wellness related initiatives;"*
	Data/Information Sharing	Commitments that outline how participants are sharing their initiatives and relevant outcomes with other stakeholders	*"Share information on wellness campaign events"; "school nurses will be sharing the BMI data annually with Allegheny County;"*
	Sustainable/Green	Commitments that outline how participants engage in sustainable or green practices either through recycling, water and energy conservation, special recognitions, or other methods	*"Recycling and compost in high school."; "LEED certified buildings throughout our campus, as well as the award-winning Center for Sustainable Landscapes, one of the greenest buildings in the world and the only to achieve WELL Building Platinum Certification - natural lighting, clean air quality, nourishment and sustainability."*
	Health Education Class	A commitment that explains unique curricula or wellness class offerings available to their audience that aim to improve health and wellness	*"Wellness program for students including dating violence, grief awareness and general teen wellness."; "Enhancing health education to include nutrition and physical activity information"*
	Flu Shots	A commitment that specifically indicates access to flu shots during flu season	*"Offer on-site flu shots"*
	Benefits or Incentives	Commitments that describe innovative ways of engaging their audience in health-related activities either through benefits packages or incentive programs	*"Use of a reduction in insurance premiums to encourage participation in health improvement activities"; "Incentive program biometric screening options that include onsite screenings and availability in primary care physician and laboratory sites to make this aspect of the wellness program universally available to all employees regardless of work site."*

	Leadership		Commitments that highlight how participants have taken the initiative to foster an environment that prioritizes health and have made intentional efforts to lead their audience towards better health practices	*"Have regular check-ins with all of our staff to ensure that everyone is healthy both physically and mentally."; "Organization leaders actively demonstrate support for staff wellness and participate in wellness activities and programs."; "Create employee wellness committee"*
		Other Programs	A commitment that either a) references another certification or recognition by a health-related or sustainability group; or b) describes collaboration with another group on a project	*"Earned Sustainable Pittsburgh Restaurant designation." or "Work with Breath Pittsburgh and Grow Pittsburgh through after school program CASTLE"*
	Screenings		A commitment to providing or promoting healthcare screening services to the participant's community (employees, community, students, patrons)	*"Onsite health fair and screenings for staff and community members in collaboration with local health providers. "*
	Breast Feeding		A commitment that outlines accommodations that are made for breastfeeding mothers	*"Provide private area for use by breast feeding employees to pump and store their milk. " or "Breastfeeding policy allows employees to pump at work in designated, private areas. "*
Tobacco Cessation			A commitment that establishes smoke-free spaces or smoking cessation resources to the participant's community	*"We are a tobacco, smoke-free work environment." or "Offer free smoking cessation through our benefit plan. "*

Garden		Commitments that indicate the creation of a community garden that participant's audience members can either participate in cultivating or benefit from its yielded products	*"intends to start a school garden – grant for Tower Garden growing units district-wide, which use aeroponic technology, and are currently growing: tomatoes, strawberries, basil, cilantro, numerous varietals of lettuce and green beans"; "In conjunction with the garden, a summer enrichment class called, "Little Sprouts" - children learn about growing and cultivating the garden as well as how to prepare the food that they grow."*
Active Lifestyle		Commitments that highlight initiatives to improve physical activity among audience members	*"Encourage workplace exercise and breaks from sitting"; "increase activity by initiating a walking club"; "Developing a map of a safe walking route for employees"*
	Built environment	A commitment to creating spaces or structures that lend itself to healthy living	*"Provide bike racks."; "Ensure well-lit, safe stairwells."; "Use standing desks that can be adjusted to any height."; "encourages the use of stairs through visible prompts"*
Healthy Food		Commitments that otherwise do not fit into the below child codes but still include information about healthy foods or food practices	*"Office provides an equipped kitchen for staff to bring in healthy lunch options and often staff will share items from their garden."*
	Farmers Market	Commitments that indicate participation in or partnership with local farmers' markets	*"Promote and support farmers' markets"; "Supports a weekly Farmers Market at St. James Church, April through October"*
	Nutritional Info	A commitment that describes how a participant has made nutritional information readily available to its audience members	*"Creating a new menu that offers healthy options and provides nutritional information."; "Provide calorie counts and other nutritional information (including sodium) on menus or otherwise readily available to customers."*

	Low Cal	Commitments that highlight low calorie or low-fat alternatives to popular menu items	*"Provide low calorie and low fat/fat free salad dressings."; "Condiments, desserts, drinks, dressings all have low calorie/fat options."*
	Portions	Commitments that indicate an effort to improve portion control or smaller portion options for audience members	*"Offer half portions on select menu items.”; "Engages in portion control of menu options"; "We offer to-go containers for guests who do not want to eat a whole portion and wish to take the rest home for a meal later."*
	Fresh/Local	A commitment that indicates participants are sourcing their food from local sellers and change their menus to align with seasonal rotation of produce and other food products	*"Utilizes fresh produce from local, organic farmers to supplement the harvest from the rooftop garden"; "Incorporate seasonal ingredients, intelligent sourcing, and local food products (Penn’s Corner Farm Alliance)"*
	Proudly Not Serving	Commitments that highlight what participants have refused to offer. Generally, this are high fat, high sugar, processed foods that have been removed from the menu	*"No deep-fried foods served."; "No processed foods which are universally packed with sodium and added sugar"; "Prohibit the sale of soda or junk food"*
	Beverages	Any commitment that indicates healthy or fresh beverage options	*"Healthy beverage option: 100% juice, unsweetened ice tea, alt. drink to soda."; "Offer unflavored milk that is free of rBST and other hormones"; "Promote healthier beverage options by providing smaller sized sugar sweetened beverage (including soda) options (8 ounce) without refills, highlighting unsweetened options (via lower prices) or by providing healthier options to soda like soda water flavored with fruit juice or alternate recipe"*

	Oils	A commitment that highlights an effort to move away from oils that contain trans fats and instead utilize plant-based oils	*"Prepare sautéed options in olive/canola oil."; "Use extra virgin olive oil, no trans fats"*
	Vegan/Vegetarian	Any commitment that indicates vegetarian or vegan alternatives for patrons or audience members	*"vegan frankfurter, vegan sausage, and vegan whole grain bun option for all frankfurters and sausages"; "Offer vegetarian option on our soup, salad and fruit bar and a vegetarian hamburger alternative."*
	Whole Grains	Commitments that outline efforts to substitute whole grains for refined grains	*"Offer brown rice other whole grains as an alternate to white rice and whole grain bread as an alternate to white bread"*
	Fruits and Vegetables	Any commitment that describes how participants are increasing access to fruits and vegetables	*"Provide healthy side dishes including fruits and vegetables."; "salad as brunch entree side alternative to french fries"*
	Snacks	A commitment to offering healthy snacking alternatives	*"Offer healthier snack choices."*
	Water	Commitments that indicate an effort to improve and encourage water intake	*"Water refill stations are currently available within our High School,"; "Provide a water dispenser for hot and cold water that gets switched out for a new container every time it is emptied."; "Water coolers provided on each floor."*

Appendix B Qualitative Interview Guide

Participant Interview Questions

1. (*First reads or allows participant to review commitments*) How many of your [#] Live Well Commitments have you completed?
2. How have you expanded the scope of your Live Well Commitments?
    a. If not, what permitted them from doing so? (*Probe: expertise, resources, audience, etc.*)
3. How have you communicated health information to your audience?
4. How active has your [*audience type: community, students/teachers, customers, employees*] been in your Live Well initiatives?
5. What have been your most successful LWA initiatives?
6. What barriers have you faced when pursuing Live Well Allegheny initiatives?
7. In what ways do your Live Well commitments improve the health of your [*Select*: *community, students/teachers, customers, employees]?*
8. What changes have you seen in your [*Select: community, restaurant, school, workplace*] since you joined the LWA campaign?
9. What trainings would help the success of your Live Well Initiatives?
10. Describe the perfect "Expert" that could help you with you LWA commitments.
11. How can LWA Staff help you overcome certain barriers? (*Refer back to barriers*)
12. How often would you like the LWA Staff to check in on the status of your progress in order to help meet your needs?
13. What funding resources would ensure the future success of this program?
14. In what ways can collaborating with other Live Well Participants help you achieve your goals?
15. How would the continuation of the learning collaborative help you with your future endeavors? (*Establish if they've gone to a learning collaborative via abbreviated questionnaire*)
    a. If not, what prevented you from going? (*Probe: Schedule, lack of interest, small team*)
16. How has the LWA partnership impacted the strength and effectiveness of your program/organization?
17. Any other comments?

Staff Interview Questions

1. What has been the most notable change since the campaign started?
2. What feedback have you received from participants regarding the health of their community since the campaign has started?
3. In what ways has the campaign grown or stagnated over the past few years? Has there been any regression?

4. What is the greatest barrier for the campaign? The greatest strength?
5. What has worked in the past when helping participants overcome barriers?
6. How active have the participants been in pursuing campaign goals?
7. Describe how and when the staff and participants communicate.
8. What do you see as the greatest need for participants? How can the Live Well staff help fill that need?
9. How do you think LWA's supportive role will evolve in the years to come?
10. What funding resources would ensure the future success of this program?
11. How often do you think LWA should be checking in with participants in the coming years?
12. How do you envision making the LWA campaign sustainable?

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