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An Evaluation Of A Tobacco Control Network Along The US/ Mexico Border

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ABSTRACT

Tobacco use is the leading cause of preventable death in the United States (U.S.), killing more than 480,000 people per year. Public health networks and coalitions have shown to be able to promote health behavior change. More specifically, coalitions and networks emphasizing tobacco control issues have proven to be effective in recent years. The Paso del Norte Tobacco Control Network (Network) grew out of a coalition in El Paso, TX and currently includes representatives from west Texas, southern New Mexico, and northern Chihuahua, Mexico. The current project evaluated the Network's collaborations amongst organizations, internal organizational structure, and knowledge on tobacco control. Participants completed measures to assess collaboration perceptions (using the Strategic Alliance Formative Assessment Rubric [SAFAR]), internal organizational structure perceptions (using the Internal Coalition Effectiveness [ICE] Instrument), and knowledge (using the CDC's Best Practices for Comprehensive Tobacco Control and information from past Network meetings). The Network did not perceive their desired levels of collaboration as the same as their current levels of collaboration. Although, the Network did perceive their infrastructure positively. Finally, there was not an increase in knowledge on tobacco control topics. Since research evaluating networks is limited, this study provides insight on tools used to assess tobacco control networks as the literature is scarce.

Keywords: tobacco control network, evaluation, public health, social network

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INTRODUCTION

Tobacco use is the leading cause of preventable death in the United States (US), killing more than 480,000 people per year (United States Department of Health and Human Services [USDHHS], 2014). In addition to tobacco use, secondhand smoke exposure kills more than 41,000 people per year (USDHHS, 2014). In the US, 15.5% of adults reported being current smokers (Jamal, et al., 2018). In El Paso, Texas, 16.7% of adults reported being current smokers (Healthy Paso del Norte [Healthy PDN], 2016). Although we have seen steady decreases in smoking rates in the US through the 2010, there has not been a significant decrease in recent years (Borelli, 2010). Additionally, there has been an increase in alternative tobacco products (e.g. electronic cigarettes, hookah), especially among youth (Jamal et al., 2018). Tobacco control coalitions and organizations have been proven to be effective in reducing tobacco use and exposure (Gordon, Modayil, Pavlik, & Morris, 2015; Studlar, 2014; Cox, Barry, Glantz, & Barnes, 2014). Given that the rates of smoking have not decreased significantly in recent years coupled with an increase in alternative tobacco products, the current project evaluated the integration levels, effectiveness of the infrastructure, and knowledge of tobacco advocacy among a network dedicated to tobacco control in El Paso, TX.

HEALTH EFFECTS OF TOBACCO USE

Tobacco use, and exposure has deadly effects on every system and organ in the body. The systems most often damaged by tobacco use are the respiratory and cardiovascular systems (USDHHS, 2014; USDHHS, 2010). Cancer of the lung, liver, stomach and bladder have been causally linked to smoking. In addition, smoking has been causally linked to various diseases like stroke, coronary heart disease, diabetes, and asthma (USDHHS, 2014). The short-term

effects of cigarette smoking include heartburn, cough, increased heart rate, and blood pressure (USDHHS, 2014). Overall, tobacco use has detrimental effects on the entire body.

Although rates of smoking are lower than in previous years (Jamal et al., 2018), it is important to remember the effects of smoking extend beyond the rates listed above. Secondhand smoke is defined as the smoke emitted from burning tobacco product (e.g. cigarettes, cigars, or pipes) or the smoke that has been exhaled by the person using the tobacco product (USDHHS, 2014). In the literature, secondhand smoke is also referred to as environmental tobacco smoke and sidestream smoke. Since the first Surgeon General's Report on the health effects of smoking was released in 1964, 2.5 million nonsmokers have died from exposure to secondhand smoke (USDHHS, 2014).

There is extensive research on the health effects of secondhand smoke exposure. Secondhand smoke contains various chemicals and carcinogens that are equally to more harmful as using the tobacco products. Among children, it has been causally linked to respiratory illnesses, middle ear disease, and sudden infant death syndrome (USDHHS, 2014). For adults, secondhand smoke exposure has been causally linked to stroke, lung cancer, and coronary heart disease (USDHHS, 2014).

In addition to secondhand smoke, researchers have found there are negative health consequences related to third hand smoke exposure (Matt et al., 2011). Third hand smoke exposure refers to the chemicals and substances that are on the clothing, furniture, walls, and surfaces (Protano & Vitali, 2011). Exposure to third hand smoke may occur through absorption of the air and skin (Acuff, Fristoe, Hamblen, Smith, & Chen, 2016). Currently, there is a dearth of literature analyzing the effects of thirdhand smoke on humans. Many of the compounds and chemicals found in thirdhand smoke have found to be lung carcinogens for humans (Ferrante et

al., 2014). These chemicals and carcinogens are left untouched, leading them to linger in homes and cars of for up to a year (Burton, 2011). In conclusion, tobacco use affects the health of humans through the direct use, through secondhand exposure, and third hand smoke exposure. Those most affected by tobacco use are ethnic minorities, children, persons living under the poverty line, and persons living in rental housing (Homa et al., 2015). The next section of this document will discuss tobacco use among the Latinx population.

TOBACCO USE AMONG THE LATINX POPULATION

Latinxs are the largest minority in the U.S., comprising 17% of the U.S. population. Since the study is evaluating a network dedicated to tobacco control in a predominately Latinx community, it is important to distinguish specific smoking patterns among this population. Latinxs are more likely to be light, intermittent, and nondaily smokers compared to other minorities and the general population (Hassmiller et al., 2003; Webb, Hooper, Baker, & McNutt, 2013; Rodriguez-Esquivel, Cooper, Blow, & Resor, 2009; Wortley et al., 2003). For example, Latinxs are more likely to smoke less than 10 cigarettes per day, smoke on weekends, or smoke during special occasions (e.g. birthday parties). Moreover, there are studies that have shown differences in smoking behavior among Latinx country/region of origin subgroups in the U.S. (e.g. Mexicans, Puerto Ricans, Cubans, and Central/South Americans; Dominguez, et al., 2015). The smoking prevalence is 21.6% among Puerto Ricans, 18.2% among Cuban-Americans, 13% among Mexican-Americans, and 9.2% among Latinx from Central or South American; Dominguez, et al., 2015).

The overall prevalence of smoking is lower among Latinxs (10.1%) compared to Whites (16.6%) and African Americans, (16.7%), but Latinxs are affected by cancer, heart disease, and stroke (Jamal, et al., 2018). In the US, the leading causes of death among Latinxs are related to

smoking (Keppel, Pearcy, & Heron, 2010; Webb, Rodriguez-Esquivel, & Baker, 2010; Xu, Kochanek, Murphy, & Tejada-Vera, 2010). For example, cancer, heart disease, and stroke are the leading causes of death among Latinxs (Dominguez, et al., 2015). Although the rates and health effects of cigarettes use have been documented in general and in Latinx populations, there has been an increase in alternative tobacco products.

ALTERNATIVE TOBACCO PRODUCTS

Although the rates of adult smokers have decreased, the tobacco landscape is constantly changing. Alternative tobacco products, such as electronic cigarettes and hookah have become increasingly popular (Goniewicz, et al., 2016; USDHHS, 2016). Electronic cigarettes (e-cigarettes) are a battery-operated device that heats a liquid. The liquid contains various flavorings, harmful chemicals, and may or may not contain nicotine. While many e-cigarettes may have similar features or similarities with cigarettes, other items like USB's, mods (i.e. e-cigarettes you can modify on your own) and tank systems may look different from cigarettes. E-cigarettes have been referred to as e-cigs, e-hookah, vapes, vape pens, electronic nicotine delivery systems, and mods (National Institute on Drug Abuse [NIDA], 2018).

Rates of e-cigarette use are increasing. From 2010 to 2013, awareness and lifetime use among U.S. adults of e-cigarettes has increased two-fold with awareness rising from 40.9% to 79.7% and lifetime use from 3.3% to 8.5% (King, Patel, Nguyen, Dube, 2015). In 2014, e-cigarettes became the most commonly used tobacco product among middle and high school students with rates continuing to increase (Arrazola et al., 2015). Past-month e-cigarette use among U.S. 8^{th} graders is 9.5%, 10^{th} graders is 14% and 12^{th} graders is 16.2% (Johnston, et al., 2018). In addition, a meta-analysis found adolescents who use e-cigarettes are more likely to smoke cigarettes (Soneji, et al., 2017). Other studies show nicotine use, which is found in e-

cigarettes, long term effects on adolescents' developing brains, leading to decreased cognition and reduced mental health (Brook, Schuster, & Zhang, 2004; Brown, Lewinsohn, Seeley, & Wagner, 1996; Choi, Patten, Gillin, Kaplan, & Pierce, 1997; Deas & Brown, 2006; Goriounova & Mansvelder, 2012; Richards, Jarvis, Thompson, & Wadsworth, 2003). Since rates continue to increase, the U.S. Federal Drug Administration (FDA) announced e-cigarette use among the adolescent population was an epidemic in September 2018 (FDA, 2018).

While scientists and the FDA agree adolescents should not use any tobacco product, e-cigarette use among adults has been debated. Research on their safety and efficacy for smoking cessation is new. A systematic review showed e-cigarettes have similar toxicants and carcinogens as traditional cigarettes, but at drastically lower rates (Hajek, Etter, Benowitz, Eissenberg, & McRobbie, 2014). For example, studies show toxicant levels are 9 to 450 times lower in e-cigarettes when compared to traditional cigarettes (Hajek et al., 2014). It is difficult to assess e-cigarettes long-term health effects since electronic cigarettes were introduced into the U.S. market in the mid 2000's. Researchers predict the health consequences from e-cigarettes will be much lower than the health consequences from traditional cigarettes (Hajek et al., 2014).

As mentioned before, the research on the efficacy of e-cigarettes for smoking cessation has inconsistencies. Many adult e-cigarette users have anecdotally reported the use of e-cigarettes has helped them quit or reduce their cigarette use (Etter & Bullen, 2011; Foulds, Veldheer, & Berg, 2011; Goniewicz, Lingas, & Hajek, 2013; Muñoz, Badillo, Garcia, Luque, De La Cruz, & Gonzalez, 2014). Studies assessing the use of e-cigarettes for smoking cessation have found mixed results with some showing they are not effective (Grana, Popova, & Ling, 2014; Bullen, Howe, Laugesen, McRobbie, Parag, Williman, & Walker, 2013) while others show they are effective (Biener & Hargraves, 2014; Goniewicz, et al., 2014). Additionally, there

is evidence suggesting there are high rates of dual user among e-cigarette users and traditional cigarette users (King, Patel, Nguyen, Dube, 2015). Among current e-cigarette users, 9.4% reported being concurrent traditional cigarettes smokers (King et al., 2014). Meanwhile, 78.6% of traditional cigarette smokers reported were concurrently using e-cigarettes (King et al., 2014). Although there are inconsistencies on its effectiveness, the evidence on their safety has shown toxicant levels to be less than traditional cigarettes. E-cigarettes may be a viable alternative or tool for smoking cessation.

Another type of alternative to traditional cigarettes are hookahs. Hookahs are also known as: water pipe, shisha, sheesha, borry, bubbly, goza, narghile, shui yun dai, or hubble-dubble. The term hookah has been used to describe the use of instruments that allow tobacco smoke to pass through water before inhalation (Nachef *&* Hammond*,* 2008*)*. Due to increasingly popularity amongst adolescents and young adults in the U.S., hookah has become an area of concern.

Recently, 9.4% high school students in the United States reported using hookah (Arrzola et al., 2015) meanwhile 41.2% reported knowing about hookah (Wang, King, Corey, Arrazola, & Johnson, 2014). Among middle school students, 4% reported using hookah (Barnett et al., 2015). Among college students, 20% to 40% report past-year hookah use (Barnett et al., 2013). Additionally, Hispanics have reported higher rates of hookah use when compared to other ethnicities (Amrock, et al., 2014; Barnett, et al., 2017). These rates are alarming since nicotine is highly addictive and hookah smoke has detrimental effects on health (Waziry, Jaward, Ballout, Al Akel, & Aki, 2016). Reviews on hookah's health effects and the addictiveness of nicotine have found that hookah is not less addictive (Cobb, Ward, Maziak Shihadeh, & Eissenberg, 2010; Noonan & Kulbok, 2009) or less harmful than cigarettes (Eissenberg & Shihadeh, 2009;

Knishkowy & Amitai, 2005; Shihadeh, 2003). Although this has been found, hookah users perceive hookah as less harmful and less addictive (Barnett, Curbow, Soule, Tomar & Thombs, 2011). This finding could be due to the tobacco industry promotion of hookah as less harmful (Richardson, Ganz, Vallone, 2014).

It is becoming increasingly important for public health to focus their tobacco control efforts on alternative tobacco products because of their increase in use among the general population. Researchers in public health believe the increase in use could lead to a renormalization of tobacco product use, and undue the progress made in tobacco control (Helen & Eaton, 2018). One effective way to aid the efforts of tobacco control is through the use of community coalitions and community networks, which will be discussed now.

COALITIONS AND NETWORKS

Public health networks and coalitions have shown to be able to promote health behavior change (Butterfoss, Morrow, Webster, & Crews, 2003; Mueller, Luke, Herbers, & Montgomery, 2006). A study trained participants on the development and implementation of immunization coalitions measured coalition effectiveness after the training (Butterfoss et al., 2003). The study measured the effectiveness of the coalitions through the Coalition Effectiveness Inventory (CEI) and a survey with open-ended questions (Butterfoss, 2004). The CEI assesses coalition characteristics (lead agency, leaders, staff and members), coalition structure (by-laws, rules of operation, mission and goals), coalition process (decision making, problem solving, and evaluation), and the stages of coalition development (formation and implementation). The participants rated each characteristic as either absent, present but limited, or present. The majority of the coalitions reported they functioned at moderate to high levels on the CEI (95%; Butterfoss et al., 2003). Additionally, after the training 66% of coalitions completed the

formation activities (designated staff, designated meeting space, and coalition structures in place) while 40% completed implementation activities (needs assessment, strategic plan, coalition processes are in place, and strategies are implemented as planned; Butterfoss et al., 2003).

Finally, the survey also included open-ended questions. Coalitions listed accomplishments that were attributable to the training. Coalitions stated they held their first meeting, improved communication with their partners, developed long-term plans, increased immunizations, among other accomplishments. Overall, public health coalitions have been able to increase behavior change strategies (Butterfoss, et al., 2003).

More specifically, coalitions and networks emphasizing tobacco control issues have also proven to be effective in recent years (Gordon, Modayil, Pavlik, & Morris, 2015; Studlar, 2014; Cox, Barry, Glantz, & Barnes, 2014). For example, a study assessing the effectiveness of behavioral health care networks implementation of tobacco control policies found networks were crucial (Gordon, et al., 2015). The study conducted interviews with 17 key informants from behavioral health care networks in California. Some of the common themes from the interviews included effective strategies (e.g., consistent commitment to smoke-free policies, collaborating with existing smoke-free partnerships) and facility or system changes (e.g., increased number of tobacco-free facilities, increasing and promoting cessation classes). Additionally, behavioral health care networks reported moving from the contemplation stage to the action and maintenance stages of change in implementing systematic tobacco control strategies (Gordon, et al., 2015).

Another study interviewed thirty-five key stakeholders from a tobacco-control coalition (Weishaar, Collin, & Amos, 2016). From the interviews, four themes emerged as being related to the success of the coalition: the composition of the coalition; similar priorities and unity;

collaboration; and leadership and coordination. For example, the composition of the alliance should have varying types of members (e.g., researchers, health professionals, community members, business owners) to be able to provide input from various sectors. The stakeholders perceived the inclusion of varying types of members increased the coalition's credibility among policymakers. Stakeholders reported including members who had similar tobacco control priorities and similar advocacy efforts was beneficial because messaging about their efforts were strong and clear. Collaboration among members was cited as being highly beneficial because members were able to use each other's resources and knowledge. Finally, interviewees reported leadership helped in in distributing information, fostering collaboration, and providing a strategic plan to move the coalition forward. This study was able to identify the perceived factors that lead to a successful coalition which passed smoke-free policies throughout the European Union (Weishaar, et al., 2016).

The studies summarized demonstrate how coalitions and networks have helped promote health behavior change and policy changes such as increasing taxes on tobacco products, limiting secondhand smoke exposure, and increasing cessation efforts nationwide (CDC, 2014; Gordon et al., 2015; Studlar, 2014; Weishaar et al., 2016). Increasing the taxes on tobacco products has been shown to reduce the overall consumption of tobacco products, increase the rates of cessation among current users, and prevent the initiation of tobacco product use by youth (Chaloupka, Straif, & Leon, 2011; Hoffman & Tan, 2015). Studies have reported a 10% increase in tobacco taxes has led to a decrease of 3.4% in smoking prevalence (Hopkins, et al., 2001). This amounts to a total of a 15% decrease in total smokers in the United States (Hopkins, et al., 2001). Further, policies that prohibit tobacco product use in public places have been found to reduce secondhand smoke exposure and the health effects related to tobacco use and exposure

(Hoffman & Tan, 2015). For example, these policies have been shown to decrease self-reported exposure to secondhand smoke by a median of 72% (Hopkins, et al., 2001). In addition, these policies have been found to increase cessation efforts among current users by 7.9 to 9.6% (Hoffman & Tan, 2015). These studies have demonstrated the effectiveness of these policies, but it is difficult to understand all the factors that have led to these policy changes.

The majority of studies demonstrating the relationship between coalitions and policy changes have been measured through qualitative measures (i.e., interviews, open-ended questions). Few studies used a mixed-method approach (Butterfoss, et al., 2003; Gordon et al., 2015). Additionally, when a mixed-method approach is used, studies measured one aspect of the coalition (i.e., coalition characteristics) and not the accomplishments (i.e., policy changes, financial resources acquired) of the coalition (Butterfoss, et al., 2003). Solely relying on qualitative measures for information on coalition effectiveness could lead to biases in data recorded because of demand characteristics. These factors make it difficult to measure coalitions effectiveness appropriately.

COMPARING NETWORKS AND COALITIONS

As mentioned above, networks and coalitions have demonstrated to have important role in comprehensive tobacco control programs (Butterfoss, et al., 2003; Gordon et al., 2015; Studlar, 2014). Networks are defined as organizations or agencies that come together with a shared interest while maintaining their autonomy (Younis, 2017). Organizations or agencies in networks have varying types of relationships. For example, organizations within the network may have a strong relationship with other organizations, while having weak relationships with other organizations. The network meets and works together on a wide range of activities (i.e., advocacy, prevention, cessation, general public health). Since these activities are wide ranging,

the network does not require all of the organizations and agencies to participate. The variation in activities may not align with the organization's goals and purpose. Although, this variation in topics and activities allows networks to be inclusive of a variety of organizations and expose these organizations to a broad list of topics in public health (Younis, 2017).

Contrarily, coalitions are defined as organizations that come together with varying expertise and skills to address a specific issue and may disband once the achieve their goal (CDC, 2016). Coalitions are built to have a clear organizational structure with the capacity to address a specific issue (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). All members within a coalition are expected to attend and have shared responsibility in addressing the specific issue. The relationships between its members is stronger and specified. Organizations and agencies that do not have the capacity or their goals do not align with the specific issue are usually not a part of the coalition. Now, the similarities and differences between coalitions and networks will be discussed.

Since coalitions address a specific issue, and have the responsibility in addressing a specific issue, the membership is smaller and limited when compared to networks (Younis, 2017). Networks are able to focus on a broad range of tobacco control issues and allows them to respond quicker to issues (Streck, 2002). For example, the network would be able to provide assistance and guidance if a local hospital would like to pass a tobacco-free policy. Coalitions may be able to provide assistance and guidance, but this policy issue has to be within the scope of the issue they are focusing on (Streck, 2002). Finally, coalitions may disband after they have achieved their goals, while networks continue long-term since they focus on broad issues in tobacco control (Streck, 2002). Studies also state networks and coalitions should work together for a comprehensive tobacco control strategy (CDC, 2014; Shiffman, et al., 2016).

COLLABORATION WITHIN NETWORKS

Tobacco use is a complex public health problem and not one single organization can address it (Kolbe-Alexander, Conradie, & Lambert, 2013; Noble, Paul, Turon, Oldmeadow, 2015). Networks with strong collaborations among organizations who share information and resources have been suggested to be effective in addressing tobacco control issues (Kolbe-Alexander et al., 2013; Noble et al., 2015). With increasingly limited resources, collaboration allows for networks to leverage resources and collectively address tobacco control issues (An, Loehmer, Khan, Scott, Rindfleisch, & Mcaffrey, 2017). Currently, research on collaboration is limited and is attributed to a dearth of validated measures, the inability to define collaboration and the outcomes, and the complexity of collaborations (El Ansari, Phillips, & Hammick, 2001; Appleton-Dyer, Clinton, Carswell, 2012; Brown et al., 2012; Provan & Milward, 2001; Sandoval et al., 2011). Currently, some of the measures used to measure collaboration are network analyses (Martinez-Lopez, Perez, Sanchez-Vizcaino, 2009), the Collaboration Assessment Tool (CAT; Marek et al., 2015), and the Strategic Alliance Formative Assessment Rubric (SAFAR; Gajda, 2004).

Network analysis is able to show the level of collaborations (i.e., strong or weak), the organization's leadership, and which organizations are collaborating, and which organizations are not (An et al., 2017). Network analysis includes the use of questionnaires and asks organizations about the frequency of communication, the level of integration, and frequency of financial exchange among agencies (An et al., 2017). These questions are answered by members of the organizations, and those organizations with higher frequency of communication, level of integration and frequency of exchange among agencies have stronger collaboration. Then, network maps are constructed to that include the various levels of collaborations among a

network. Although, network analysis does not measure the impact these partnerships have on the organizations and individuals these organizations service. Thus, network analysis only shows the collaboration happening between a network but does not show the impact these collaborations have on the community (Ans et al., 2017).

One study, recognizing the difficulty of assessing collaborations among networks, constructed the Collaboration Assessment Tool (CAT; Marek et al., 2015). The CAT was constructed with empirical underpinnings to be as comprehensive as possible. It includes seven factors identified by researchers as being important for effective collaboration: context, members, process and organization, communication, function, resources and leadership. The seven constructs will be discussed in more detail.

Context focuses on the history between the organizations in the network, the context in which they work, and the community in which they work in. The organizations in the network need to have a positive history amongst each other to have positive collaborations. In addition, the social and political climate in the community the network is serving needs to be welcoming. Finally, the community must view the network with respect and as knowledgeable in the issues the network (Maret et al., 2015). The membership factor focuses on the characteristics, skills, attitudes, and beliefs of the individual network members that diminish or contribute to the network's success. The process and organization factor focuses on the implementation and process of achieving their goal. For example, the progress and organization factor focuses on the systems in place to measure their progress towards their goals. Additionally, the factor assesses the processes that monitors the community's need. The communication factor focuses on the formal and informal communication that happens between the organizations in the network and the communication that happens between the network and the community. The function factor

focuses on the determination and articulation of the network's goals and objectives. The resources factor focuses on the resources needed to achieve the goals of the network. Resources may be monetary or the skills of the network. Finally, the leadership focuses on the characteristics of the network's leaders (Marek et al., 2015).

In addition to the seven constructs, the CAT includes a self-reported questionnaire on perceived network success and perceived confidence on reaching the network's goals (Marek et al. 2015). The questionnaire on perceived network success and perceived confidence on reaching the network's goals are used as outcome measures to see the relationships between the seven collaboration factors and success. In addition, this tool can be used as both an informal or formal questionnaire. The researchers state allowing network members to actively participate in this evaluation could allow for both qualitative and quantitative data collection (Marek et al., 2015). The informal use of the CAT could allow for the network members to engage in the evaluation process and provide input on next steps. Although, the researchers did not provide information on how to conduct the CAT informally with network members.

Finally, researchers have stated collaboration is a process and to truly understand a network's success and collaborations, you must evaluate it over time (Butterfoss, Goodman, Wandersman, 1993). Thus, the CAT can provide longitudinal information on the strength of collaborations among network members (Marek et al., 2015). Additionally, the CAT provides the relationship between collaboration (i.e., the seven constructs) and outcomes (i.e., perceived success and perceived confidence on reaching the network's goals). This allows researchers to capture the impact these partnerships or collaborations have on the network's success. Although, since the CAT has only been used in network's that work on prevention efforts, there might be

varying results with network's working in other context's. In addition, since the measure relies on self-report data, researchers should search for innovative ways to measure outcomes.

Another measure of collaboration is the Strategic Alliance Formative Assessment Rubric (SAFAR). The SAFAR was created to evaluate the collaboration and levels of integration within a network (Gajda, 2004). It is based on collaboration five guiding principles and attempts to define the various types of collaboration (Gajda, 2004). It is based on five guiding principles: (1) collaboration is imperative, (2) collaboration is known by many names, (3) collaboration is a journey and not a destination, (4) with collaboration the person is as important as the procedural, and (5) collaboration develops in stages (Gajda, 2004). The five guiding principles are discussed further below.

The first principle recognizes issues in our society are becoming increasing complex and various organizations need to collaborate to confront these issues (Gajda, 2004). The second principle states there are many definitions of collaboration and researchers should understand collaborations variations and complexities. The third principle recognizes collaborations among entities follows a continuum, which takes time. Researchers have postulated there are different stages on the collaboration continuum. Essentially the lower level stages are defined by independent organizations sharing information and resources. The higher level stages are defined by organizations giving up their autonomy for a common goal. The fourth principle recognizes the importance of the relationships between the people involved in the collaboration. These relationships are crucial for the growth of the collaboration. Finally, the fifth principle specifies there are various developmental stages collaborations undergo. For example, in the beginning the entities form a collaboration or alliance. Then, the alliance establishes their purpose and goals. Next, the alliance works on their various goals. In the final step, an alliance

evaluates their efficacy on achieving their goals and re-assesses to determine if their might be modifications (Gajda, 2004). These five principles are the theoretical underpinnings of the SAFAR.

Considering the five principles, the SAFAR includes five levels of collaboration, 1) Networking, 2) Cooperating, 3) Partnering, 4) Merging, and 5) Unifying (Gajda, 2004). The SAFAR outlines with a brief description of each level of collaboration, specifying the purpose, strategies and tasks, leadership and decision-making, and interpersonal communication. For example, networking's purpose is to create a web of communication, identify and create a base of support, and to explore interests. Cooperating's purpose is to leverage resources while working toward tobacco control but maintaining separate identities. Partnering's purpose is to share resources while remaining autonomous but working closely for mutual goals. Merging's purpose is to merge resources to create a new organization. Unifying's purpose is to create a not-for-profit organization by members (Gajda, 2004). In addition, the SAFAR describes the continuum of collaboration in the strategies tasks, and leadership and decision-making columns. The developmental stages of collaborations are described in the meetings and the communication column.

Although the SAFAR has been used to measure collaboration among networks, it has been used on networks that focus on prevention efforts in schools to help the safe schools/healthy initiatives, which help with school violence prevention, intervention, and response (Gajda, 2004). The use of the SAFAR in networks with other goals has not been done. In addition, the use of the SAFAR is done in four steps. The first step is convening the leadership for a focus group interview. During this focus group, leadership are able to identify the participating organizations and their role in the network. The second step assesses baseline

and projected levels of integration amongst the individual organizations. The third step involves reporting the baseline and projected levels of integration to the organizations involved. The final step is to assess growth in collaboration periodically among the organizations. Additionally, the organizations are asked "What it would look like if they reached their ideal level of integration?" and "What actions they need to take to bring about or maintain their ideal level of integration?" (Gajda, 2004, p. 75). These steps are time consuming and may not be suitable for networks who do not have as many resources as other organizations. Finally, similarly to other measures of collaboration, the SAFAR does not measure the impact these collaborations have on the network's outcomes.

Other studies have used a qualitative design. For example, Scarinci et al. asked key stakeholders about collaboration between organizations and agencies in health disparities research (Scarinci, et al., 2017). Key stakeholders stated active engagement, participation and commitment were necessary for effective partnerships (Scarinci, et al., 2017). Findings from another study using focus groups and in-depth interviews of stakeholders suggests flexibility and capacity to foster collaboration among the leadership is crucial for the success of collaboration among organizations (den Hartog et al., 2014). Meanwhile, findings from another study that conducted a qualitative document analysis found strong leadership, funding, and support from the community were all related to successful collaborations (Downey et al., 2008). However, collaborations are difficult to measure comprehensively and these evaluations do not measure the impact of these collaborations on the organizations or the individuals these organizations service.

Overall, collaborations' perceived benefits include reducing the replication of efforts, increasing innovative solutions for complex issues, sustainability, and bringing resources together from various organizations and groups (Marek et al., 2015; CDC, 2011). Although,

evaluators and researchers have yet to find an effective way to measure its success and which practices lead to its success (Marek et al., 2015; Provan & Milward, 2001; Corbin, Jones, & Barry, 2016). As mentioned before, collaborations are difficult to measure because of their complexity (El Ansari, et al., 2001; Appleton-Dyer, et al., 2012; Brown et al., 2012; Provan & Milward, 2001; Sandoval et al., 2011). Organizations participating in collaborations within a network may have varying goals, purposes for joining the network, and implementation methods for their programs (Brown et al., 2012). Finally, research has not measured collaborations comprehensively. Research has not measured the key factors that lead to strong collaborations, the impact collaborations have on the organizations, and the impact collaborations have on the individuals these organizations service (Corbin et al., 2016). While it is important to assess how well coalitions collaborate with other entities, understanding the composition and organizational structure of a coalition is also important to gauge its potential effectiveness.

INTERNAL ORGANIZATIONAL STRUCTURE

Other components of effective networks are the effectiveness of their internal organizational structure (SAMHSA, 2015). Strong internal organizational structure can be related to higher satisfaction, collaboration, and communication among members (SAMHSA, 2015). Leadership style of the internal organizational structure has been found to relate to the network member's perceptions of the network's effectiveness (McGuire & Silvia, 2009). Additionally, behaviors from leaders such as mobilization and synthesizing were also related to perceived effectiveness of the network (Arya & Lin, 2007). Mobilization behaviors focus on strengthening the relationships of external organizations who are not yet members. Meanwhile, synthesizing behaviors focus on strengthening the relationship of current network members (McGuire & Silvia, 2009). Thus, network leadership should promote a positive environment

where the member's feel satisfied with their relationships, have clear roles and responsibilities, and clear benefits from their membership (Doz & Hamel, 1998). Network leadership is also expected to give technical assistance for any issues the network may have (Weiner & Alexander, 1999). Thus, effective network leadership is necessary for strong internal organizational structure. A popular measure of an organization's internal structure is the Internal Coalition Effectiveness Instrument (insert reference), which will be discussed below.

Research on the effectiveness of networks has become more prevalent but there has not been research on members' and leaders' perspectives on the internal organizational structure. The Internal Coalition Effectiveness (ICE) is a measure of the effectiveness of the network infrastructure (Cramer, Atwood, & Stoner, 2006). The internal coalition outcome hierarchy model (ICOH) contains seven theoretical constructs that make effective coalitions, which are Social Vision, Efficient Practices, Knowledge and Training, Relationships, Participation, Activities, and Resources (Cramer et al. 2006a).

Figure 1.1 outlines the IHOC with the higher-level constructs at the top, and the lower-level constructs at the bottom. The lower level constructs (i.e., Resources, Activities, and Participation) focus on member and leader's perception of the resources needed to complete their activities. Process evaluations are conducted during these three constructs. Process evaluation monitors whether or not the activities were implemented as intended and the number of participants who attended the activities. The middle level constructs (i.e., Relationships, Knowledge and Training, and Efficient Practices) focus on the benefits of coalition membership such as; experiencing rewarding relationships, acquiring new knowledge, and collaboration. Outcome evaluations are conducted during these constructs. Outcome evaluation monitors the program effects in the target population. For example, did knowledge increase among your

participants? The highest construct is Social Vision and is only attained when the lower level constructs are attained. When Social Vision is attained, members and leaders can unite and accomplish their health promotion goals (Cramer et al. 2006a). During the final construct impact evaluations are conducted. Impact evaluations monitor if the program met its ultimate goal. For example, has the rates of cigarette use decreased?

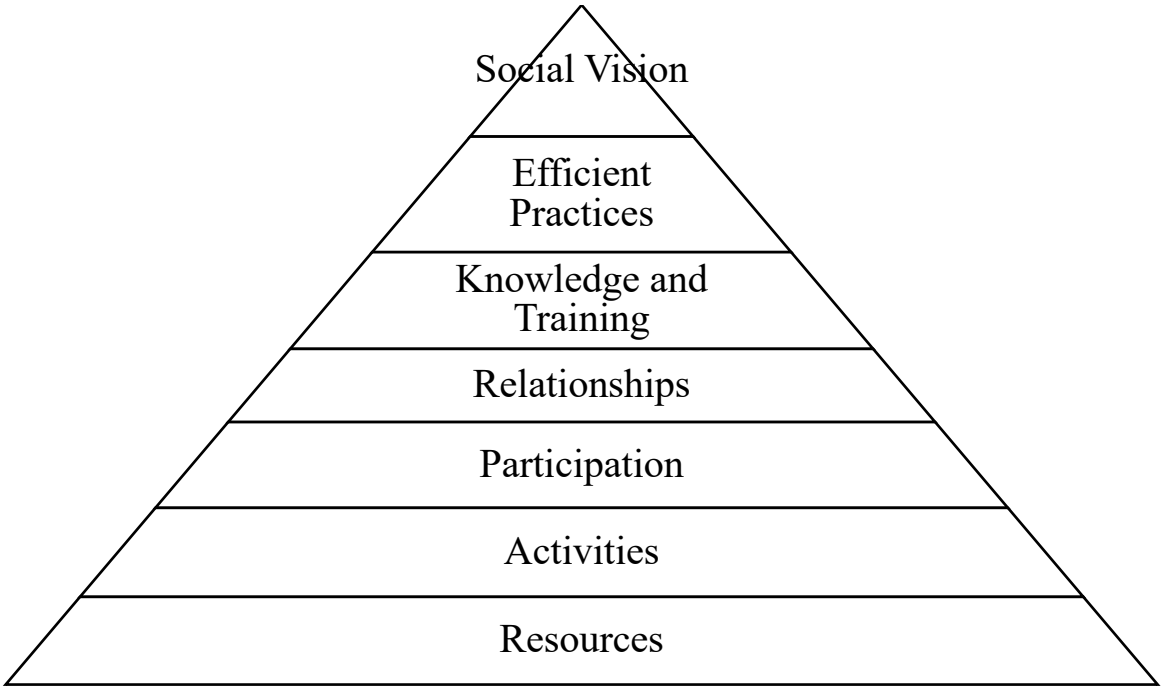

Figure 1.1 The ICE's seven theoretical constructs are heirarichal with the lower level contructs at the bottom and the higher level contructs at the top.

The resources construct focuses on network members identifying and sharing resources to complete the goals. The activities construct includes the various activities, programs, and interventions the network is a part of. The participation construct focuses on members' willingness to participate in the network. The relationship construct focuses on the members' satisfaction with the relationships within the network and their satisfaction with the organizational infrastructure in facilitating these relationships. The knowledge and training constructs focus on members' satisfaction of training and educational activities that the

organizational infrastructure facilitates. The efficient practices construct focuses on how the knowledge and training is being translated into the community. Finally, the social vision construct focuses on the ultimate impact of the network infrastructure (Cramer et al., 2006a).

Overall, the ICE instrument is used by organizations to evaluate the complex infrastructure of a network. The ICE instrument should be given to the leadership and members of the network. This will allow the network to document the perceptions of the leadership and members on the seven constructs. Incongruencies between the leadership and members allows for the network to refocus on their goals. Additionally, the network will document their strengths and weaknesses on the seven constructs. Similarly to other instruments used to evaluate networks, this instrument has not been used among coalitions with various goals and purposes. This may limit the generalizability of the ICE instrument. Future studies are needed to assess the reliability and validity of the ICE instrument among networks with varying goals and purposes. In addition to measuring the collaboration and infrastructure of a network, it is important to measure the training and knowledge of the network.

TRAINING AND KNOWLEDGE

As mentioned previously, effective networks have strong collaboration and organizational infrastructure. Another component of effective networks is the training provided to the network members and the knowledge gained through this training. Networks need to be highly trained and knowledgeable to address tobacco issues (Butterfoss, et al., 2003; Mueller, Luke, Herbers, & Montgomery, 2006). Knowledge and training on appropriate interventions, policy, advocacy, education, among other efforts is important in advancing the tobacco control efforts of a network (Butterfoss et al., 2003; Mueller, et al., 2006). Further, members of networks that are highly trained and knowledgeable can share these resources with others.

Tobacco control networks are suggested to work within the framework of the CDC's best practices guidelines, which have been shown to help Networks be successful (Cramer et al. 2007). The CDC's best practices guidelines include state and community interventions, mass-reach health communication interventions, cessation interventions, surveillance and evaluation, and infrastructure administration and management (CDC, 2014). This guide provides tobacco control programs evidence-based information to help address tobacco use issues. For example, under cessation interventions, the guide recommends expanding health insurance coverage to include FDA approved cessation treatments, increasing the capacity of state quit lines, and assisting healthcare facilities to make system changes. System changes can include the implementation of a tobacco-free campus, tobacco cessation session visits, assessing tobacco use as part of vital signs, among other changes. Under the evaluation component, the guide provides a knowledge questionnaire. The questionnaire includes questions on basic tobacco control practices. The CDC's best practices guidelines help guide the networks on the different activities it engages in throughout the years.

THE PASO DEL NORTE TOBACCO CONTROL NETWORK

Since tobacco control networks and coalitions have made significant progress toward reducing tobacco related illnesses, the Paso del Norte Health Foundation has funded A Smoke Free Paso del Norte since 2000 (Butterfoss, et al., 2003; Cox, et al., 2014; Gordon, et al., 2015; Mueller, et al., 2006; Studlar, 2014). With this grant, A Smoke Free Paso del Norte Coalition was created. In 2007, the A Smoke Free Paso del Norte Coalition was converted into the Paso del Norte Tobacco Control Network. The Paso del Norte Tobacco Control Network (called "The Network" in the document) was created to inform, educate, and build capacity in the community

on issues pertaining to tobacco control, eradicating health disparities, engaging citizens in the political process, and improving regional health.

Since 2007, the name, leadership, membership, goals and evaluation of the Network has changed and continues to change. For example, since 2007 six program officers have been assigned to this grant. Program officers are representatives from the funding agency that work with grantees and community partners to focus on particular issues in tobacco control. The organizing agency, agency receiving the A Smoke Free Paso del Norte grant, has also shifted between various organizations. From 2007 to 2015 the organizing agency was the Psychology Department at the University of Texas at El Paso (UTEP). From 2016 to 2017, the organizing agency was the School of Pharmacy at UTEP. Finally, from 2018 to the present, the organizing agency is the YMCA of El Paso.

In addition, evaluation of the Network has changed since 2007. From 2007 to 2016 the same instruments and tools have been used. The instruments that were used were the Strategic Alliance Formative Assessment Rubric (SAFAR), Internal Coalition Effectiveness (ICE) Instrument, and the CDC's Best Practices Guidelines Questions. In 2017 and 2018, the program officer (Jana Renner) and the organizing agency (UTEP's School of Pharmacy) decided to include questions about previous meetings. They decided to do so because knowledge among members on the CDC's Best Practice Guidelines was low. On average, the membership answered 20% of the questions correct. Additionally, members of the Network reported low levels of tobacco control activity engagement. The program officer and organizing agency felt since members were attending meetings, and the meeting are based on various tobacco control topics, this change could help increasing members' knowledge scores. Table 1.1 provides more details on the history of the Network.

For the purposes of this project, we have only assessed and provided information from 2017 to 2018. From 2017 to 2018, the Network included representatives from West Texas, Southern New Mexico, and Cd. Juarez, Chihuahua, Mexico. Representatives from local organizations attended the Network's meetings. For example, representatives from the University of Texas at El Paso (UTEP), American Cancer Society, Texas Tech, City of El Paso Health Department, YMCA, University of Texas at Houston School of Public Health, Texas Department of Health and Human Services, the Paso del Norte Health Foundation, among others. Most of these organizations or agencies attending Network meetings are not-for-profit. Although, the network did not collect information on the specific organizations who attended the Network's meetings (e.g. UTEP or American Cancer Society) month to month, the Network did collect information on the amount of people who attended the Network's meetings month to month. Figure 1.2 includes information on the amount of people who attended the Network's meetings. Data on the amount of people who attended the network for November and December was not collected due to changes in the Organizing Agency.

The Network held meetings once a month on the second Monday of every month, for a total of 12 meetings throughout 2017. Usually, the meetings are an hour long and during lunch time. This allows for more community members and organizations to attend. In addition, since some members come from Cuidad Juarez, Chihuahua, Mexico, the organizing agency provided interpretation services during all meetings throughout the year. Figure 1.2 provides the number of people in attendance for the Network's monthly meetings from January to October. The Network did not report the number of people in attendance for November and December. This

Table 1.1 History of the Paso Del Norte Tobacco Control Network													
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Name	EP Tobacco Control Network — A Smoke-Free Paso del Norte Coalition converted to a network	EP Tobacco Control Network	EP/ CJ Tobacco Control Network (integrated El Paso and Ciudad Juarez tobacco control networks)	EP / CJ Tobacco Control Network			EP/ CJ Tobacco Control Network changed to Paso del Norte Tobacco Control Network by popular vote	Paso del Norte Tobacco Control Network					
Evaluation	SAFAR, ICE Instrument, CDC Best Practices Knowledge Questions										SAFAR, ICE Instrument, CDC Best Practices Knowledge Questions and Questions on Previous Meetings		None
Organizing Agency	UTEP – Psychology Department became the Organizing Agency	UTEP – Psychology Department								UTEP - School of Pharmacy became the Organizing Agency	UTEP - School of Pharmacy	YMCA of El Paso Became the Organizing Agency	YMCA of El Paso
Program Officer	Dr. Michael Kelly		Enrique Mata	Jon Law	Jana Renner							Enrique Mata	Bianca De Leon

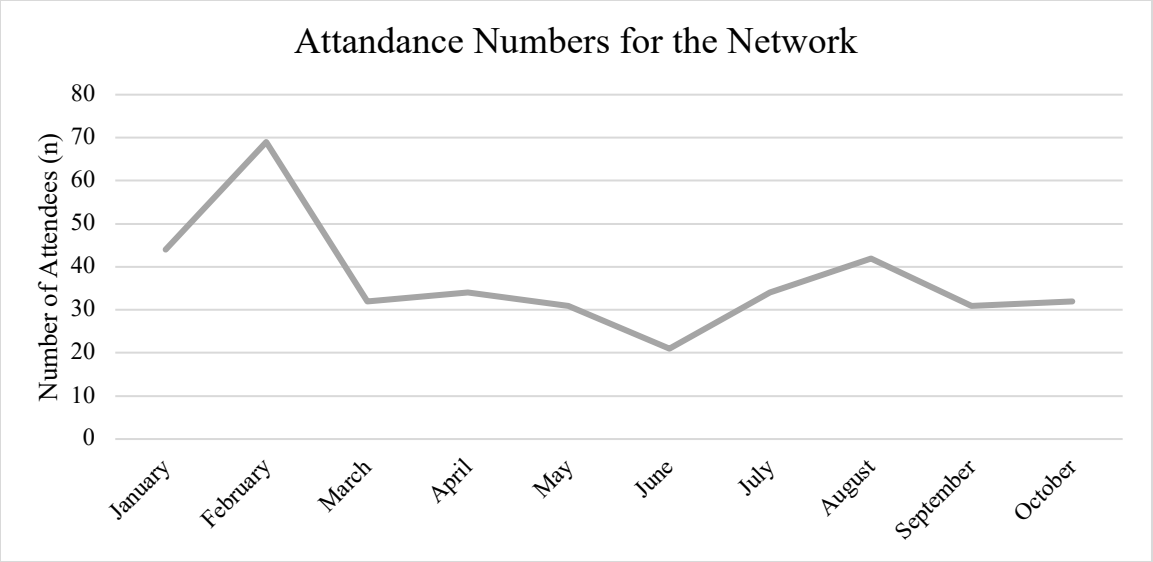

Figure 1.2 Attendance numbers for the Network in 2017 from January to October.

could have been due to the Network's leadership transitioning from the School of Pharmacy to the YMCA.

As previously mentioned, networks and the Network engages in various tobacco control activities that include networking, advocacy, training, and policy work. The Network leadership ensured the activities the Network engaged in were related to increasing collaboration, leadership, and knowledge and training since these factors have been related to perceived network success (Butterfoss et al., 2003; CDC, 2011; Marek et al., 2015; Meuller et al., 2006; SAMHSA, 2015). For example, the Network held a tobacco cessation training for mental healthcare providers. The training included basic information on counseling methods, medication treatment (e.g. Nicotine Replacement Therapy and non-Nicotine Replacement Therapy), and tobacco use among priority populations (i.e., populations with high rates of tobacco use). Network members are also given the tools (e.g. phone numbers, and scripts) to call local and state government officials on tobacco control policies. Additionally, there are trainings on other topics in tobacco control (e.g., prevention effects, e-cigarettes, and cessation for veterans). Networking opportunities are also incorporated, and members can connect with other

organizations and agencies. Since the Network has been around since 2007, Table 1.2 includes a brief description of the topics covered during the meetings in 2017.

Table 1.2 List of the Network's Activities in 2017

Month	Activity
January	Letter to the Secretary of Housing and Urban Development
February	Treating tobacco dependence in behavioral health settings
March	Evaluation
April	Social determinants of health and letter to UT system on tobacco-free campuses
May	Networking opportunity
June	Tobacco FDA regulations
July	Proximity of alcohol and tobacco to schools
August	E-cigarettes effect on cardiovascular health
September	Tobacco vendors and accountability
October	Youth tobacco prevention messaging
November	Tobacco cessation for veterans
December	Appreciation Luncheon

Outside of the Network's meetings, Network members have supported and assisted in passing smoke-free and tobacco-free policies. In the past, the Network supported and helped pass the clean air ordinance in the city of El Paso. The clean air ordinance prohibits you from smoking cigarettes in public indoor areas (e.g., restaurants and bars). In 2017, the Network helped the municipalities of Anthony and San Elizario pass their clean air ordinances. Network members have done this by assisting in data collection, signature collections of endorsements, providing resources, and disseminating information about the health effects of secondhand smoke to these communities. For example, the City of El Paso Department of Public Health provided the municipality of Anthony with tobacco-free signage, and smoking cessation classes for those interested in quitting after the ordinance went into effect. These policy changes have shown to prevent and reduce tobacco use (CDC, 2014).

The Network's goals were to inform, educate, and build capacity in the community on issues pertaining to tobacco control, eradicating health disparities, engaging citizens in the political process, and improving regional health. Overall, the Network engaged in activates that are related to network success (i.e., increasing collaboration, infrastructure, and knowledge and training) to achieve its goals. An evaluation of the Network is needed to understand if the activities the Network has engaged in have increased collaboration, infrastructure, and knowledge and training.

AIMS AND HYPOTHESES

The Network aims to enhance leadership, collaboration, and knowledge on tobacco control issues among its members. Although, networks have been found to be difficult to evaluate, research on collaboration, strong internal structure and knowledge has been done (Butterfoss et al., 2003; CDC, 2011; Marek et al., 2015; Meuller, et al., 2006; SAMHSA, 2015). The Network, throughout 2017, has engaged in activities and topics that enhance leadership, collaboration and knowledge on tobacco control issues (Table 1.2). The funding agency (Paso del Norte Health Foundation) along with the Network's leadership would like to evaluate the Network to assess if the activities the Network engaged in have increased collaboration, infrastructure, and knowledge from 2017 to 2018. Additionally, the Network leadership would like to assess collaboration, infrastructure, and knowledge in 2018. This evaluation of the Network in 2017 and 2018 will allow for its members, leadership, and the funding agency to understand the changes and current level of collaboration, infrastructure effectiveness, and knowledge of tobacco control issues. Additionally, the Network will be able to assess its strengths and weaknesses on collaboration, infrastructure, and knowledge of tobacco control issues. In the past, these evaluations have been used by the Network to inform network meeting

topics and activities. For example, based on the results from the collaboration measure the organizing agency (School of Pharmacy at the University of Texas) and the program officer (Jana Renner, Paso del Norte Health Foundation) decided to include more networking opportunities throughout the year.

As seen in Table 1.2, the Network engaged in networking opportunities, tobacco control activities and policy activities throughout 2017. With that in mind, our first hypothesis is that the members who participated in the evaluation in 2018 will experience higher associations among their perceived and desired levels of collaboration, as measured by the SAFAR, than the Network members that participated in the evaluation in 2017. Additionally, the members who completed the evaluation in 2018 will have a moderate to high associations between their perceived and desired levels of collaboration. Our second hypothesis is that members who participated in the evaluation in 2018 will have higher levels of agreement with the infrastructure and leadership, as measured by the ICE instrument, than the members who participated in the evaluation in 2017. Finally, our last hypothesis is the members who participated in the 2018 evaluation will have higher rates of knowledge than members who participated in the evaluation in 2017. This study does not have a control group or a pre-test. The study is considered a pre-post design with non-identical samples.

METHOD

PARTICIPANTS

Participants were members of the Paso del Norte Tobacco Network. Participants (*n=27*) completed a the evaluation in March 2017 (will be considered Wave 1 for the remainder of the document) at the Housing Authority of the City of El Paso and 34 members completed the same survey in March 2018 (will be considered Wave 2 for the remainder of the document) at Centro San Vicente. Of the individuals who completed the measures at Wave 1 and Wave 2, only 6 members completed both assessments. These six individuals have been removed from wave 2's assessment for the purposes of comparing these two groups of individuals. Information on the gender and organizational affiliation of the participants was not recorded. Organizations such as the Texas Department of Health and Human Services, City of El Paso Department of Public Health, American Cancer Society, UTEP's School of Pharmacy, and the Paso Del Norte Health Foundation, among other organizations are devoted to tobacco control and attend the Network meetings regularly. During Wave 2, translators were present to help members who did not speak or read Spanish to complete the survey. The participants who required a translator were also removed from the analyses. Participants were asked background information (Appendix A). For example, participants were asked to report the number of meetings they attended in the previous year, if they planned to attend the following meeting, the percent of their work time that is spent on tobacco control, what type of organization they work for (e.g. educational, medical, governmental, etc.), the size of their organization, and their network member status (e.g. newcomer, regular, veteran, and guest). Table 2.1 summarizes the background information collected from the participants.

Table 2.1 Descriptive Network Member Characteristics

	Wave 1 (N=*27*)	Wave 2 (N=*31*)
Work type		
Educational	7	10
Medical	5	8
Government	9	8
Not-for-profit	11	18
For-profit	1	3
Other	0	0
Workplace size		
Small (1-9)	6	3
Medium (10-30)	4	5
Large (31+)	16	22
N/A	0	1
Status		
Newcomer	6	16
Regular	14	10
Veteran	3	4
Guest	1	1
N/A	1	0
Plan to attend next meeting?		
Yes	25	30
No	1	1
Number of meetings attended in past year	6.08	4.39
Time on tobacco control (%)	31.19	32.68

Continuous Descriptive Characteristics	*M*	*SD*	*t*	Cohen's *d*
Number of meetings attended in past year				
Wave 1	6.08	3.6	*t* (50) = 1.61, p > .05	*d*=.45
Wave 2	4.39	3.9		
Time on tobacco control (%)				
Wave 1	31.19	36.2	*t* (52) = -.165, p > .05	*d*=.045
Wave 2	32.68	28.9		

MEASURES

Prior to data collection, permission was obtained from the Institutional Review Board at the University of Texas at El Paso (UTEP). All of the Network members were eligible to participate, and completed the informed consent form.

STRATEGIC ALLIANCE FORMATIVE ASSESSMENT RUBRIC (SAFAR)

The first measure included in the survey is the Strategic Alliance Formative Assessment Rubric (SAFAR; Gajda, 2004). The reasons for selecting this measure were not collected. This measure enables an assessment of where Network members feel the network is at present in terms of five collaboration levels. This perception of present status of the network is then examined in relation to each member's desired level of collaboration of the group. As previously discussed, these five levels of integration are 1) Networking, 2) Cooperating, 3) Partnering, 4) Merging, and 5) Unifying. These five levels of collaboration are on a continuum with Networking being the lowest form of collaboration and Unifying being the highest.

The assessment asks members to report their perceived levels and desired levels of collaboration among the Network. Ideally, member's perceptions of the present level of integration of the network will match the desired level of integration of the network at wave 2 to a greater degree than present network status matches desired status at wave 2. Such a significant change would offer support for tailored activities that enable a more effective network development. It is important to assess perceived and desired levels of collaboration because this information highlights a network's strengths and weaknesses in terms of collaboration. The assessment was created to engage organizations within a network to talk about their perceived and desired levels of collaboration. This communication about desired and perceived levels of collaboration has been found to help a network make decisions on their goals, strategies, and structures (Gajda, 2004).

Participants were instructed, "The table below describes five possible levels of collaboration among Smoke Free partners. Please read the description for each of the five Levels of Collaboration. Answer the following questions using the number designating the level of

collaboration you think best describes the Paso del Norte Tobacco Control Network. There are no right or wrong answers." Then, the participants were asked to select, between the five levels, that describes the current level of collaboration among the Network. Finally, the participants were asked to select, between the five levels, that best describes the level of collaboration they desired for the Network.

THE INTERNAL COALITION EFFECTIVENESS (ICE) INSTRUMENT

Network members completed an adapted version of the ICE scale (Cramer et al., 2006b). The reasons for selecting these subscales were not collected. The Network leadership with the help of the funding agency (Paso del Norte Health Foundation), chose these four constructs. Since the scale subscales were chosen in 2007, some of the original leadership was not available to comment and some of the leadership could not remember why these subscales were chosen. The adapted version only included social vision, efficient practices, knowledge and training, and relationships. The full scale includes social vision, efficient practices, knowledge and training, relationships, participation, and activities. Each construct was assessed using Likert-type scale items (1 = *strongly agree* to 5 =*strongly disagree*).

Participants are instructed, "For the following items, please indicate your agreement or disagreement with the statement by circling the one term that most closely matches your current feeling about the coalition/network." For example, for social vision participants are asked about their agreeableness to the following sentence, "By working together members have agreed with the coalition's mission and purpose." For efficient practices participants are asked about their agreeableness to the following sentence, "By working together members have made the coalition's financial resources go substantially further." For knowledge and training participants are asked about their agreeableness to the following sentence, "By working together members

have enriched each other's abilities and skills in the issues." For relationships participants are asked about their agreeableness to the following sentence, "By working together members have established positive relationships and strong links with community members that the coalition wants to engage and mobilize." From previous studies, the internal consistency for the four subscales ranged from α=.59 to α=.95 (Cooper, Cabriales, Taylor, Hernandez, Law, & Kelly, 2015; Cramer et al., 2006b). In Wave 1, the survey did not include answer choices for two questions in the efficient practices subscale. Since data was missing not at random for questions 12 and 14 from the efficient practices subscale, they were removed from the analyses (see Appendix C). Researchers have stated modern methods (i.e., multiple imputation) can effectively handle missing data not at random (Finch, 2016; Shafer & Graham, 2002). For comparisons between the data and the multiple imputed data, multiple imputation will be used.

KNOWLEDGE

The funding agency (Paso del Norte Health Foundation) and the Network leaders developed a measure of tobacco control relevant knowledge. It includes questions from CDC's Best Practices and questions on material from previous Network meetings (CDC, 2014). This is different from evaluations before 2017. As mentioned before, the organizing agency and the program officer decided to change the knowledge questions. They decided to since knowledge among the network members has been low. Additionally, members previously reported not spending most of their time on tobacco control activities. For example, questions from the CDC's Best Practices Guidelines include appropriate cessation methods and appropriate promotion of smoke-free laws. These questions may not be relevant for an educational organization who is attending the Network meetings for prevention purposes. In addition to the CDC's Best Practices Guidelines the organizing agency and the program officer included

questions on previous Network meetings. For example, participants are asked to select the appropriate answer choices to the statement, "The main change(s) to El Paso's clean air ordinance in 2014 include." Participants are then given the following answer choices (a) ban smoking on all City owned or leased properties (to include parks) (b) Establish a 20-foot no-smoking zone at all public entrances (c) Establish air handling requirements for hookah lounges and smoke shops (d) Include e-cigarettes and "vaping as part of the smoking definition (e) All of the above. Answer choices were coded whether participants answered the question correctly.

APPROACH TO ANALYSES

Descriptive statistics have been generated (see Table 2.1). Differences among the two independent groups who completed the measures at Wave 1 and Wave 2 will be assessed on the background information collected. Our first hypothesis is that the members who participated in the evaluation in 2018 will experience higher associations among their perceived and desired levels of collaboration, as measured by the SAFAR, than the Network members that participated in the evaluation in 2017. This will be assessed by comparing the magnitude of their respective lambda correlations. Additionally, it is hypothesized the members who completed the evaluation in 2018 will have moderate to high correlations between their perceived and desired levels of collaboration. Goodman Kruskal's lambda correlations have been used to compute the association between nominal variables.

Our second hypothesis is that members who participated in the evaluation in 2018 will have higher levels of agreement with the infrastructure and leadership, as measured by the ICE instrument, than the members who participated in the evaluation in 2017. The subscales of the ICE instrument will be assessed simultaneously using a multivariate analysis of variance to detect any changes between the two groups. Since the ICE subscales are conceptually related,

Wilks' lambda will be used to test for differences between the two groups of participants who completed the measure at wave 1 and 2. Finally, our last hypothesis is the members who participated in the 2018 evaluation will have higher rates of knowledge than members who participated in the evaluation in 2017. An independent measures *t*-test will be conducted to test for mean differences between knowledge for the two independent groups who completed the measures at wave 1 and 2.

RESULTS

As reported in Table 2.1 Network members reported being from the educational, government, and not-for-profit sectors, among others. Additionally, Network members reported being a part of various workplace sizes (e.g., small, medium, large). More specifically, more than half of Network members in both Waves reported being a part of large workplaces with 31 or more full-time members. Fluctuations in Network membership was high, with only 6 individuals completing the survey in Wave 1 and 2. This fluctuation could also explain the differences between the Waves in Network member's status. In Wave 1, 51% of participants reported they were regular members. Meanwhile, only 33% of participants reported they were regular members in Wave 2. Although there was a decrease in regular members between the waves, the majority of the Network members reported planning to attend the next meeting in Wave 1 (96%) and Wave 2 (97%). There were no significant differences between members in Wave 1 and Wave 2 on the number of meetings attended. Additionally, no significant differences were found between waves on member's time spent on tobacco control activities.

For our first hypothesis, Goodman Kruskal's lambda was used to assess Network member's association between their perceived and desired collaboration levels for both data Waves on the SAFAR. For both data waves, the lambda values were low and not significant ($\lambda_{\text{wave 1}} = .240$; $\lambda_{\text{wave 2}} = .121$, $p > .05$). Our hypothesis predicted a statistically higher association at Wave 2 (2018) compared to Wave 1 (2017). Our data indicated there were not statistically significant associations in both waves, and there was a higher association in Wave 1 than in Wave 2. Figure 2.1 displays the reported crosstabulation of perceived and desired collaboration levels among the Network member's in Wave 1. For higher values of lambda, there would be higher numbers on the diagonal and lower numbers on the off diagonals. For Wave 1, Network

members did not select Merging or Unifying as their perceived level of collaboration, but did select Merging and Unifying as a desired level of collaboration. Additionally, 48% of Network members in Wave 1 selected the same category for their perceived and desired level of collaboration. Overall, more Network members reported Networking (48%) as their perceived level collaboration than the other categories and more Network members report Partnering (33%) as their desired collaboration level.

		Desired Collaboration Level					
Perceived Collaboration Level		Networking	Cooperating	Partnering	Merging	Unifying	Total
	Networking	4	1	3	1	1	10
	Cooperating	1	3	1	0	0	5
	Partnering	0	0	3	1	2	6
	Total	5	4	7	2	3	21

Figure 2.1 Reported Crosstabulation of Perceived Collaboration and Desired Collaboration Level in Wave 1

Figure 2.2 displays the reported crosstabulation of perceived collaboration and desired collaboration in Wave 2. Differently to Wave 1, Network members (13%) in Wave 2 reported Merging and Unifying as their perceived level of collaboration. In Wave 2, 30% of Network members reported the same category for their perceived and desired level of collaboration. Similar to Wave 1, in Wave 2 more Network members report Networking (46%) as their perceived level collaboration than the other categories and more Network members report Partnering (43%) as their desired collaboration level.

		Desired Collaboration Level					
Perceived Collaboration Level		Networking	Cooperating	Partnering	Merging	Unifying	Total
	Networking	2	4	7	0	1	14
	Cooperating	0	3	3	0	0	6
	Partnering	1	0	3	1	1	6
	Merging	0	0	0	0	1	1
	Unifying	0	2	0	0	1	3
	Total	3	9	13	1	4	30

Figure 3.2 Reported Crosstabulation of Perceived Collaboration and Desired Collaboration Level in Wave 2

Note. The statistic above is dependent on the number of observations.

The second hypothesis predicted members who participated in the evaluation in 2018 will have higher levels of agreement with the infrastructure and leadership than members who completed the evaluation in 2017, as measured by the ICE. The mean values for ICE subscales for both waves were all greater than the midpoint (3; range 1-5) as seen on Table 3.1. This suggests Network members are highly satisfied with the Network's social vision ($M_{\text{wave 1}} = 4.30$; $M_{\text{wave 2}} = 4.26$), efficient practices ($M_{\text{wave 1}} = 4.03$; $M_{\text{wave 2}} = 3.84$), knowledge and training provided by the Network ($M_{\text{wave 1}} = 4.25$; $M_{\text{wave 2}} = 4.18$), and the relationships between Network members ($M_{\text{wave 1}} = 4.28$; $M_{\text{wave 2}} = 4.22$). Additionally, reliability analyses were conducted and all subscales had alphas that were .793 or higher. These reliability estimates are similar to previous literature (Cooper, et al., 2015; Cramer et al., 2006b) and excludes the two questions from the efficient practices subscale. Table 3.1 provides the reliability of the ICE scale. Contrary to our hypothesis, there were no significant differences between Wave 1 and Wave 2 on the ICE subscale means, multivariate analysis of variance (MANOVA): $\lambda = .883$, Multivariate F (4,50)

=1.650, p >.176. Table 3.2 provides the results for the MANOVA. In addition, multiple imputation was conducted on the ICE instrument. All subscales were included with five iterations of imputations completed. Based on the five imputation models, there were no significant differences between Wave 1 and Wave 2 on the ICE subscale means.

Table 3.1 Internal Coalition Effectiveness Scale

	Coefficient alpha	*M*	*SD*
Social Vision			
Wave 1	.898	4.30	2.69
Wave 2	.836	4.26	2.15
Efficient Practices			
Wave 1	.793	4.03	3.17
Wave 2	.849	3.84	3.49
Knowledge and Training			
Wave 1	.838	4.25	2.97
Wave 2	.900	4.18	2.9
Relationships			
Wave 1	.853	4.28	2.08
Wave 2	.900	4.22	2.91

Finally, a t-test was conducted to assess the differences in knowledge among Network members. It was hypothesized from 2017 to 2018 the Network would increase their knowledge on tobacco control topics and topics from Network meetings. Again, contrary to our hypothesis there was not a significant difference between Wave 1 ($M_{\text{wave 1}}$ = 4.85, SD = 1.85, N = 27) and Wave 2 ($M_{\text{wave 2}}$ = 5.42, SD = 1.71, N = 31) on the knowledge questionnaire (t (56) =-1.213, p = .230). Although, there was an increase in the mean in Wave 2 from Wave 1, it was not statistically significant.

Table 3.2 Multivariate Analyses of Variance

Effect	Sum of Squares	df	*F*	*p*	Partial Eta Squared
Social Vision	.216	1	.038	.847	.001
Efficient Practices	11.003	1	.966	.330	.018
Knowledge and Training	3.641	1	.406	.527	.008
Relationships	2.199	1	.327	.570	.006

DISCUSSION

The organizing agency (The University of Texas at El Paso) and funding agency (Paso del Norte Health Foundation) requested an evaluation of the Paso del Norte tobacco control network on collaborations amongst organizations, internal organizational structure, and knowledge on tobacco control issues and previous network meetings. During 2017, the organizing agency and the funding agency engaged in policy, training, collaborative, and prevention activities. These activities were incorporated into the Network's monthly meetings to increase collaborations amongst members (i.e., organizations), satisfaction of the Network's internal organizational structure among its members, knowledge of tobacco control activities. The current study evaluated change overtime among the Network. It was predicted that from 2017 to 2018 there would be an increase in collaboration, satisfaction of the Network's internal organizational structure among its' members, and knowledge of tobacco control activities. Although, inconsistent with hypothesis, there were no observed changes between Wave 1 (2017) and Wave 2 (2018).

For our first hypothesis, collaboration among the Network was measured by the SAFAR (Gajda, 2004). The SAFAR assesses the current and desired level of collaboration among network members (Gajda, 2004). Although there was not agreement between member's current and desired levels of collaboration between Wave 1 and Wave 2, there were similarities between both data waves' current level and desired level of collaboration. For example, close to half of the members in both waves reported networking as their perceived level of collaboration. Again, networking was defined as having a loose structure where members have infrequent communication and are still assessing a common interest. Additionally, close to half of the members in both waves reported partnering as their desired level of collaboration. Partnering is

defined as members sharing resources but working separately on mutual goals with formal communication.

The discrepancy between current level and desired level of collaboration may be a lack of communication from the leadership. According to the Gajda, the SAFAR should be implemented by assessing the current and desired level of collaboration among the Network leadership with network members (2004). This baseline measurement is then discussed among the leadership and network members to identify the key factors needed to achieve their desired level of collaboration (Gajda, 2004). Then, periodically the leadership will assess current and desired levels of collaboration among network members to assess growth on collaboration (Gajda, 2004). This use of the SAFAR allows the leadership to communicate with network members on their current and desired levels of collaboration. Communication allows for the leadership and the network members to share their lessons learned, successes, and failures in terms of collaboration among the network (Gajda, 2004). The communication between the leadership and the Network members helps create a concrete plan for the future of the Network in regard to collaboration (Gajda, 2004). The Network is then able to discuss which networking opportunities would be beneficial and increase the level of collaboration.

For the second hypothesis, we did not find higher agreement with the infrastructure and leadership, as measured by the ICE, among members who completed the evaluation in 2018 when compared to the members who completed the evaluation in 2017. Similar to previous findings, there might not be significant differences between Wave 1 and Wave 2 since the means for the subscales were higher than the midpoint (3; range = 1-5; see Table 3.1; Cooper et al., 2015) due to ceiling effects. Thus, the Network members in both waves reported satisfaction on the Network's efficient practices, knowledge and training, relationships, and social vision. As

mentioned before, the ICE's subscales are theoretical constructs on a hierarchy, with lower level constructs needed to be achieve the higher levels. The efficient practices, knowledge and training, and relationships constructs are middle level constructs and are related to the internal structure of the network. Meanwhile, the highest level of the hierarchy, social vision, is reached when the network has shared goals and vision (Cramer et al., 2007). The current study assessed the middle and higher levels on the hierarchy and not the lower levels (e.g., participation, activities, and resources). For future assessments, the inclusion of these lower levels may provide further insight in Network member's perceptions of the Network. For example, the Network members may provide information on the adequacy of the activities and resources the Network leadership provide. Additionally, members may be able to provide perceptions on the participation and attendance (e.g., diverse, consistent) of the Network.

Similarly to the SAFAR, researchers suggest both the leadership and the members could benefit from completing the evaluation (Cramer et al., 2006; Cramer, Lazure, Morris, Valerio, & Morris, 2013; Provan & Milward, 2001). This allows for a broader view of the perceptions of the leadership and membership on the internal organizational structure. With the results, the leadership and membership are able to collaborate and discuss the results of the ICE instrument, making adjustments when needed (Cramer et al., 2013). Future studies should include qualitative data that includes the collaborations, discussions, and adjustments that are done. The data could be used to address the complexity of the Network in regard to the seven constructs of the ICE.

Finally, our last hypothesis predicted there would be higher knowledge on tobacco control issues and past Network meetings in Wave 2 (2018) than in Wave 1(2017). The current study did find a higher mean on the knowledge questionnaire in Wave 2 (M = 5.42; range 1-10)

but it was not significantly different from Wave 1 (M = 4.82; range 1-10). Based on previous network evaluations, the funding agency and the organizing agency decided to include questions on previous network meetings. They believed since Network members reported spending minimal time on tobacco control activities but still engaged in the Network, questions on previous network meetings should be included in the knowledge questionnaire. Currently, Network members in both data waves reported spending 30% of their time on tobacco control activities (see Table 1.2). This could account for the Network member's in both waves only selecting 50% of the knowledge questions correctly. In addition, the Network members come from diverse backgrounds and may focus on specific aspects of tobacco control. For example, a Network member from a local school district may have knowledge on prevention efforts, but no knowledge of cessation techniques. Meanwhile, a Network member that works in smoking cessation may have knowledge of cessation techniques, but no knowledge of smoke-free policy making. The current knowledge questionnaire was intended to be broad and may not account for Network member's specified knowledge in tobacco control.

Overall, public health networks and networks emphasizing in tobacco control issues have been proven to be effective in promoting behavior change (Butterfoss et al., 2003; Cox et al., 2014; Gordon et al., 2015; Muellar et al., 2006; Studlar, 2014). Based on research, high levels of collaboration, strong internal organizational structure, and high knowledge among networks are factors related to network effectiveness (Butterfoss et al., 2003; CDC 2011; Marek et al., 2015; McGuire, et al., 2009; Meuller, et al., 2006; SAMHSA, 2015; Weishaar, et al., 2016). Although, research evaluating networks is limited because of the complexity of networks. For example, network evaluations may have varying goals, focuses, purposes, and structures (Appleton-Dyer, et al., 20112; Brown et al., 2012; El Ansari et al., 2001; Provan et al., 2001; Sandoval et al.,

2011). Given that, there are few validated measures to assess collaboration, internal organizational structure and knowledge among various networks (Appleton-Dyer, et al., 20112; Brown et al., 2012; Cramer et al., 2013; El Ansari et al., 2001; Provan et al., 2001; Sandoval et al., 2011). This study includes an evaluation of a tobacco control network on measures that were created empirically and theoretically (Cramer et al., 2006; Gajda, 2004). In addition, this study could provide insight on tools used to assess knowledge among tobacco control networks as the literature is scarce.

LIMITATIONS

The current study had several limitations. For example, the study did not include a control group. This did not allow for the study to effectively assess the impact of the network activities on the key constructs (i.e., collaboration, internal organizational structure, and knowledge). In addition, the evaluation was not conducted by an external evaluator, and the responses on the survey may include demand characteristics. Although, the researchers did ensure no identifiable information was given by the Network members on the survey. Given that, the study did not have ample attendance overlap, with only six Network members present at both data waves. This study only included Network members and did not include the Network leadership. Including the network leadership could have reduced bias, by including a broader assessment of the Network. Another limitation was sample size, particularly for inferential tests that are sample size dependent. Finally, generalizability of this evaluation may be limited. As mentioned before, networks are difficult to evaluate because they have different structures, focus, and goals. Thus, this evaluation may not be adequate for other networks focused on other public health issues.

STRENGTHS

Although there were several limitations in this study, there were also strengths. The Network evaluation provided the leadership (funding agency and the organizing agency) and the membership data to help recognize their weaknesses and strengths. This evaluation will add to the limited literature and provide other public health network's the tools needed to assess collaboration, internal organizational structure, and knowledge effectively. Additionally, this study provides data on collaboration, internal organizational structure, and knowledge over time (2017 to 2018). Researchers suggest measuring networks over time provides more information on their inevitable fluctuations (Butterfoss, et al., 1993).

FUTURE DIRECTIONS

Future directions include the use of social network analysis. Social network analysis is a methodology that focuses on the relationships and the leadership of a network (An et al., 2017; Hoppe & Reinelt, 2010; Mabry, Marcus, Clark, Leischow, & Mendez, 2010; Wolfe, 1997). In addition, social network analysis has been conducted on various networks with varying goals, focuses, purposes, and structures (An et al., 2017; Badi, Wang, & Pryke, 2017; Hoppe et al., 2010; Luke, Harris, Shelton, Allen, Carothers, Mueller, 2010).

Social network analysis is able to identify the leaders among network members (An et al., 2017). Although, it is not able to assess the network member's perceptions of the leadership. The SAFAR provides information on the current level of collaboration and their desired level of collaboration among network members as a whole. Meanwhile, social network analysis can provide the level of collaboration between network members. Additionally, members are able to assess various types of collaborations (e.g., mentorship, publications, projects, email communication). Other studies evaluated collaborations among its members by communication

between organizations. The lowest level of collaboration being no communication between organizations and the highest level of collaboration being working together as a formal team across multiple projects to achieve common goals (Luke, et al., 2010). These types of collaborations should be aligned with the goals and objectives of the network, with researchers creating questionnaires for the types of collaborations that are important to them (Luke et al., 2010). For example, one network may measure collaborations by mentorships, published papers, in progress manuscripts, grant applications, tools, research projects and presentations (Petrescu-Prahova, et al., 2015), while others measure it by the frequency of communication, level of integration, and the frequency of financial exchange (An et al., 2017). Overall, social network analysis can provide information on collaborations and the internal organizational structure of the Network.

In addition to including social network analysis, future network evaluations should utilize a mixed method approach to capture the complexity of networks. Social network analysis and the ICE instrument may enable the network to understand the structure, leadership, and collaborations in a network (An et al., 2017; Weishaar et al., 2015). Meanwhile, qualitative data may provide more in-depth information about specific relationships, activities the network engages in, and collaborations (Weishaar, et al., 2015). In a study that incorporated qualitative methodology, the researchers included historical documentation such as reports, surveys used, briefings, and other documents. The documents were used to find information on the organizations involved in network activities, the types of activities engaged in by network members. Additionally, the researchers conducted interviews with network members, and were able to corroborate the data from the historical documents (Weishaar et al., 2015). The use of

varying types of data can decrease demand characteristics, by being able verify information across quantitative and qualitative data.

Since this project was intended to evaluate the Network, it is important to address program evaluation methods and models as it relates to this project. Program evaluation is divided between two types of evaluations, formative and summative evaluations. Formative evaluations focus on the design of the program and the process needed to accomplish the goal of the program (Smith, 2010). Meanwhile, summative evaluations focus more on the goals and outcomes of the program (Smith, 2010). For example, during the formative evaluation it is important to report and monitor the number of Network meetings, the topic of each meeting, the number of Network members attending, the Network members (the organization) who attended, their level of collaboration, and their satisfaction with the Network infrastructure. During a summative evaluation, it is important to report and monitor the knowledge gained by Network members, the number of times the Network engaged with policymakers, the number of policies passed, and the rate of smoking in the region.

For the current study, the first step in reaching the goal of reducing tobacco use and tobacco related injury and death is to create a network. Within this network, the Network is tasked with increasing collaboration among its members, increasing knowledge on tobacco control topics, increase the number of members, and increase the perceptions of the Network members of the infrastructure. These steps will increase contact with local, state, and national policy makers and increase partnerships between network members. Increased contact with policy makers and partnerships among members will allow for the Network to engage in policy change on the local, state, and national level. Finally, these steps will lead to reduced tobacco use rates.

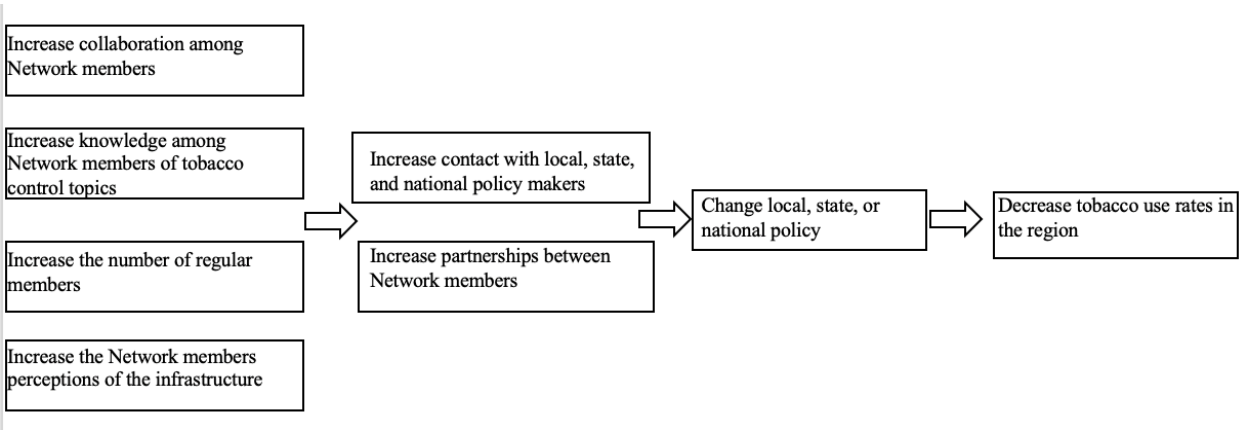

Figure 4.1 Typology of the Tobacco Control Network

Unfortunately, the current study only assessed the number of Network members, the network meeting topics, collaboration, knowledge, and the perceptions of Network members of the infrastructure. Future studies should include more information on the outcomes of the Network. For example, record keeping of the network's policy making activities outside of the Network meetings is important. For example, records should be kept of the policies that have been passed and communications between the network and policy makers. Additionally, information on specific organizations that attend the network meetings should be recorded. This will allow the Network to assess the types of organizations that attend the Network regularly. It will also allow the Network to view the organization as the unit of analysis, instead of the individual member. This is particularly helpful when you have large organizations that may have multiple members attend at various times.

Finally, activities that include more partnership among members should be included. For example, the network meetings should include more opportunities to collaborate among members. This could be done by taking ten minutes of each Network meeting to talk amongst the Network members. In addition, the use of a variety of presentation styles that are not didactic could produce collaborative efforts among Network members. Additionally, the

Network leadership should provide a brief knowledge questionnaire before and after each presentation. This will allow the Network to assess knowledge at various time points, and monitor change. This will assist the Network presenters and leadership to focus on a specific goal for each Network meeting. A newsletter may also increase collaboration among members by allowing members to provide information on their activities and communicate those activities with the Network membership. If Network members are interested in collaborating with others, they are able to reach out to the corresponding organization.

The evaluation of a network should include the membership and the leadership. Many tools used to evaluate networks already include leadership. For example, the SAFAR, the ICE instrument, and social network analysis (An et al., 2017; Cramer et al., 2006; Gajda, 2004). Although the SAFAR and the ICE instrument were used in this study, the leadership were not assessed. Assessing the leadership's level of collaboration, perceptions on the internal organizational structure, and knowledge of tobacco control issues and past meetings may provide a broader evaluation of the Network.

REFERENCES

Acuff, L., Fristoe, K., Hamblen, J., Smith, M., & Chen, J. (2016). Third-hand smoke: old smoke, new concerns. *Journal of Community Health*, *41*(3), 680-687.

Amrock, S. M., Zakhar, J., Zhou, S., & Weitzman, M. (2014). Perception of e-cigarette harm and its correlation with use among US adolescents. *Nicotine & Tobacco Research*, *17*(3), 330-336.

An, R., Loehmer, E., Khan, N., Scott, M. K., Rindfleisch, K., & McCaffrey, J. (2017). Community partnerships in healthy eating and lifestyle promotion: A network analysis. *Preventive Medicine Reports*, *6*, 294-301.

Appleton-Dyer, S., Clinton, J., Carswell, P., & McNeill, R. (2012). Understanding evaluation influence within public sector partnerships: a conceptual model. *American Journal of Evaluation*, *33*(4), 532-546.

Arrazola, R. A., Singh, T., Corey, C. G., Husten, C. G., Neff, L. J., Apelberg, B. J., ... & McAfee, T. (2015). Tobacco use among middle and high school students-United States, 2011-2014. *MMWR. Morbidity and Mortality Weekly Report*, *64*(14), 381-385.

Arya, B., & Lin, Z. (2007). Understanding collaboration outcomes from an extended resource-based view perspective: The roles of organizational characteristics, partner attributes, and network structures. *Journal of Management*, *33*(5), 697-723.

Badi, S., Wang, L., & Pryke, S. (2017). Relationship marketing in Guanxi networks: A social network analysis study of Chinese construction small and medium-sized enterprises. *Industrial Marketing Management*, *60*, 204-218.

Barnett, T. E., Curbow, B. A., Soule Jr, E. K., Tomar, S. L., & Thombs, D. L. (2011). Carbon monoxide levels among patrons of hookah cafes. *American Journal of Preventive Medicine*, *40*(3), 324-328.

Barnett, T. E., Forrest, J. R., Porter, L., & Curbow, B. A. (2013). A multiyear assessment of hookah use prevalence among Florida high school students. *Nicotine & Tobacco Research*, *16*(3), 373-377.

Barnett, T. E., Soule, E. K., Forrest, J. R., Porter, L., & Tomar, S. L. (2015). Adolescent electronic cigarette use: associations with conventional cigarette and hookah smoking. *American Journal of Preventive Medicine*, *49*(2), 199-206.

Barnett, T. E., Tomar, S. L., Lorenzo, F. E., Forrest, J. R., Porter, L., & Gurka, M. J. (2017). Hookah Use Among Florida High School Students, 2011–2014. *American Journal of Preventive Medicine*, *52*(2), 220-223.

Biener, L., & Hargraves, J. L. (2014). A longitudinal study of electronic cigarette use among a population-based sample of adult smokers: association with smoking cessation and motivation to quit. *Nicotine & Tobacco Research*, *17*(2), 127-133.

Borrelli, B. (2010). Smoking cessation: next steps for special populations research and innovative treatments. *Journal of Consulting and Clinical Psychology*, *78*(1), 1.

Brook, J. S., Schuster, E., & Zhang, C. (2004). Cigarette smoking and depressive symptoms: a longitudinal study of adolescents and young adults. *Psychological Reports*, *95*(1), 159-166.

Brown, L. D., Feinberg, M. E., & Greenberg, M. T. (2012). Measuring coalition functioning: Refining constructs through factor analysis. *Health Education & Behavior*, 39, 486–497. doi:10.1177/1090/981114/9655

Brown, R. A., Lewinsohn, P. M., Seeley, J. R., & Wagner, E. F. (1996). Cigarette smoking, major depression, and other psychiatric disorders among adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, *35*(12), 1602-1610.

Bullen, C., Howe, C., Laugesen, M., McRobbie, H., Parag, V., Williman, J., & Walker, N. (2013). Electronic cigarettes for smoking cessation: a randomised controlled trial. *The Lancet*, *382*(9905), 1629-1637.

Burton, A. (2011). Does the smoke ever really clear? Thirdhand smoke exposure raises new concerns. *Environmental Health Perspectives*, *119*(2), A70.

Butterfoss, F. D. (2004). The coalition technical assistance and training framework: helping community coalitions help themselves. *Health Promotion Practice*, *5*(2), 118-126.

Butterfoss, F. D., Goodman, R. M., & Wandersman, A. (1993). Community coalitions for prevention and health promotion. *Health Education Research*, *8*(3), 315-330.

Butterfoss, F. D., Morrow, A. L., Webster, J. D., & Crews, R. C. (2003). The coalition training institute: Training for the Long Haul. *Journal of Public Health Management and Practice*, *9*(6), 522-529.

Centers for Disease Control and Prevention (CDC). (2014). Best practices for comprehensive tobacco control programs – 2014. Atlanta, GA: US Department of Health and Human Services. Retrieved from http://www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm

Centers for Disease Control and Prevention (CDC). (2016). Atlanta, GA: US Department of Health and Human Services. Retrieved from ftp://ftp.cdc.gov/pub/fda/fda/user_guide.pdf

Chaloupka, F. J., Straif, K., & Leon, M. E. (2011). Effectiveness of tax and price policies in tobacco control. *Tobacco Control*, *20*(3), 235-238.

Choi, W. S., Patten, C. A., Gillin, J. C., Kaplan, R. M., & Pierce, J. P. (1997). Cigarette smoking predicts development of depressive symptoms among US adolescents. *Annals of Behavioral Medicine*, *19*(1), 42-50.

Cobb, C., Ward, K. D., Maziak, W., Shihadeh, A. L., & Eissenberg, T. (2010). Waterpipe tobacco smoking: an emerging health crisis in the United States. *American Journal of Health Behavior*, *34*(3), 275-285.

Cooper, T. V., Cabriales, J. A., Taylor, T., Hernandez, N., Law, J., & Kelly, M. (2015). Internal Structure Analysis of a Tobacco Control Network on the US–México Border. *Health Promotion Practice*, *16*(5), 707-714.

Cox, E., Barry, R., Glantz, S. A., & Barnes, R. L. (2014). Tobacco control in California, 2007-2014: a resurgent tobacco industry while inflation erodes the California tobacco control

program. *UC San Francisco: Center for Tobacco Control Research and Education.* Retrieved from: https://escholarship.org/uc/item/4jj1v7tv

Cox, E., Barry, R., Glantz, S. A., & Barnes, R. L. (2014). Tobacco control in California, 2007-2014: a resurgent tobacco industry while inflation erodes the California tobacco control program. *UC San Francisco: Center for Tobacco Control Research and Education.* Retrieved from: https://escholarship.org/uc/item/4jj1v7tv

Cramer, M. E., Atwood, J. R., & Stoner, J. A. (2006a). A conceptual model for understanding effective coalitions involved in health promotion programing. *Public Health Nursing*, *23*(1), 67-73.

Cramer, M. E., Atwood, J. R., & Stoner, J. A. (2006b). Measuring community coalition effectiveness using the ICE© instrument. *Public Health Nursing*, *23*(1), 74-87.

Deas, D., & Brown, E. S. (2006). Adolescent substance abuse and psychiatric comorbidities. *Journal of Clinical Psychiatry*, *67*, 18.

Dominguez, K., Penman-Aguilar, A., Chang, M. H., Moonesinghe, R., Castellanos, T., Rodriguez-Lainz, A., & Schieber, R. (2015). Vital signs: leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States—2009–2013. *MMWR. Morbidity and Mortality Weekly Report*, *64*(17), 469.

Doz, Y. L., & Hamel, G. (1998). *Alliance advantage: The art of creating value through partnering*. Harvard Business Press.

Eissenberg, T., & Shihadeh, A. (2009). Waterpipe tobacco and cigarette smoking: direct comparison of toxicant exposure. *American Journal of Preventive Medicine*, *37*(6), 518-523.

El Ansari, W., Phillips, C. J., & Hammick, M. (2001). Collaboration and partnerships: developing the evidence base. *Health & Social Care in the Community*, *9*(4), 215-227.

El-Nachef, W. N., & Hammond, S. K. (2008). Exhaled carbon monoxide with waterpipe use in US students. *JAMA*, *299*(1), 36-38.

Ferrante, G., Antona, R., Malizia, V., Montalbano, L., Corsello, G., & La Grutta, S. (2014). Smoke exposure as a risk factor for asthma in childhood: a review of current evidence. In *Allergy and Asthma Proceedings* (Vol. 35, No. 6, pp. 454-461).

Finch, W. H. (2016). Missing data and multiple imputation in the context of multivariate analysis of variance. *The Journal of Experimental Education*, *84*(2), 356-372.

Foulds, J., Veldheer, S., & Berg, A. (2011). Electronic cigarettes (e-cigs): views of aficionados and clinical/public health perspectives. *International Journal of Clinical Practice*, *65*(10), 1037-1042.

Gajda, R. (2004). Utilizing collaboration theory to evaluate strategic alliances. *American Journal of Evaluation*, *25*(1), 65-77.

Goniewicz, M. L., Gawron, M., Smith, D. M., Peng, M., Jacob, P., & Benowitz, N. L. (2017). Exposure to nicotine and selected toxicants in cigarette smokers who switched to

electronic cigarettes: a longitudinal within-subjects observational study. *Nicotine & Tobacco Research*, *19*(2), 160-167.

Goniewicz, M. L., Knysak, J., Gawron, M., Kosmider, L., Sobczak, A., Kurek, J., ... & Jacob, P. (2014). Levels of selected carcinogens and toxicants in vapour from electronic cigarettes. *Tobacco Control*, *23*(2), 133-139.

Goniewicz, M. L., Leigh, N. J., Gawron, M., Nadolska, J., Balwicki, L., McGuire, C., & Sobczak, A. (2016). Dual use of electronic and tobacco cigarettes among adolescents: a cross-sectional study in Poland. *International Journal of Public Health*, *61*(2), 189-197.

Goniewicz, M. L., Lingas, E. O., & Hajek, P. (2013). Patterns of electronic cigarette use and user beliefs about their safety and benefits: an internet survey. *Drug and Alcohol Review*, *32*(2), 133-140.

Gordon, L., Modayil, M. V., Pavlik, J., & Morris, C. D. (2015). Collaboration with behavioral health care facilities to implement systemwide tobacco control policies—California, 2012. *Preventing Chronic Disease*, 12.

Gordon, L., Modayil, M. V., Pavlik, J., & Morris, C. D. (2015). Collaboration with behavioral health care facilities to implement systemwide tobacco control policies—California, 2012. *Preventing Chronic Disease*, 12.

Goriounova, N. A., & Mansvelder, H. D. (2012). Short-and long-term consequences of nicotine exposure during adolescence for prefrontal cortex neuronal network function. *Cold Spring Harbor Perspectives in Medicine*, a012120.

Grana, R. A., Popova, L., & Ling, P. M. (2014). A longitudinal analysis of electronic cigarette use and smoking cessation. *JAMA internal medicine*, *174*(5), 812-813.

Hajek, P., Etter, J. F., Benowitz, N., Eissenberg, T., & McRobbie, H. (2014). Electronic cigarettes: review of use, content, safety, effects on smokers and potential for harm and benefit. *Addiction*, *109*(11), 1801-1810.

Hassmiller, K. M., Warner, K. E., Mendez, D., Levy, D. T., & Romano, E. (2003). Nondaily smokers: who are they? *American Journal of Public Health*, *93*(8), 1321-1327.

Healthy Paso del Norte. (2016). *Adults who smoke.* Retrieved from http://www.healthypasodelnorte.org

Helen, G. S., & Eaton, D. L. (2018). Public Health Consequences of e-Cigarette Use. *JAMA Internal Medicine* 178(7):984-986.

Hoffman, S. J., & Tan, C. (2015). Overview of systematic reviews on the health-related effects of government tobacco control policies. *BMC Public Health*, *15*(1), 744.

Homa, D. M., Neff, L. J., King, B. A., Caraballo, R. S., Bunnell, R. E., Babb, S. D., ... & Wang, L. (2015). Vital signs: disparities in nonsmokers' exposure to secondhand smoke--United States, 1999-2012. *MMWR. Morbidity and Mortality Weekly Report*, 64(4), 103-108.

Hopkins, D. P., Briss, P. A., Ricard, C. J., Husten, C. G., Carande-Kulis, V. G., Fielding, J. E., ... & Woollery, T. A. (2001). Reviews of evidence regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *American Journal of Preventive Medicine*, *20*(2), 16-66.

Jamal, A., Phillips, E., Gentzke, A. S., Homa, D. M., Babb, S. D., King, B. A., & Neff, L. J. (2018). Current Cigarette Smoking Among Adults—United States, 2016. *Morbidity and Mortality Weekly Report*, *67*(2), 53.

Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2018). Monitoring the Future national survey results on drug use, 1975-2017: Overview, key findings on adolescent drug use.

Kania, J., & Kramer, M. (2011). Collective Impact. *Stanford Social Innovation Review*, *9*(1), 36–41. Retrieved from http://0-search.ebscohost.com.lib.utep.edu/login.aspx?direct=true&db=bth&AN=55818295&site=ehost-live&scope=site

Keppel, K. G., Pearcy, J. N., & Heron, M. P. (2010). Is there progress toward eliminating racial/ethnic disparities in the leading causes of death? *Public Health Reports*, *125*(5), 689-697.

King, B. A., Patel, R., Nguyen, K. H., & Dube, S. R. (2015). Trends in awareness and use of electronic cigarettes among US adults, 2010–2013. *Nicotine & Tobacco Research*, *17*(2), 219-227.

Knishkowy, B., & Amitai, Y. (2005). Water-pipe (narghile) smoking: an emerging health risk behavior. *Pediatrics*, *116*(1), e113-e119.

Kolbe-Alexander, T. L., Conradie, J., & Lambert, E. V. (2013). Clustering of risk factors for non-communicable disease and healthcare expenditure in employees with private health insurance presenting for health risk appraisal: a cross-sectional study. *BMC Public Health*, *13*(1), 1213.

Mabry, P. L., Marcus, S. E., Clark, P. I., Leischow, S. J., & Méndez, D. (2010). Systems science: a revolution in public health policy research. *American Journal of Public Health*, *100*(7), 1161–1163. doi:10.2105/AJPH.2010.198176

Marek, L. I., Brock, D. J. P., & Savla, J. (2015). Evaluating collaboration for effectiveness: Conceptualization and measurement. *American Journal of Evaluation*, *36*(1), 67-85.

Martínez-López, B., Perez, A. M., & Sánchez-Vizcaíno, J. M. (2009). Social network analysis. Review of general concepts and use in preventive veterinary medicine. *Transboundary and Emerging Diseases*, *56*(4), 109-120.

Matt, G. E., Quintana, P. J., Destaillats, H., Gundel, L. A., Sleiman, M., Singer, B. C., ... & Talbot, P. (2011). Thirdhand tobacco smoke: emerging evidence and arguments for a multidisciplinary research agenda. *Environmental Health Perspectives*, *119*(9), 1218-1226.

McGuire, M., & Silvia, C. (2009). Does leadership in networks matter? Examining the effect of leadership behaviors on managers' perceptions of network effectiveness. *Public Performance & Management Review*, *33*(1), 34-62.

Mueller, N. B., Luke, D. A., Herbers, S. H., & Montgomery, T. P. (2006). The best practices: use of the guidelines by ten state tobacco control programs. *American Journal of Preventive Medicine*, *31*(4), 300-306.

Muñoz, A., Badillo, A. G., Garcia, M., Luque, G., De La Cruz, J. L., & Gonzalez, B. (2014). Electronic cigarettes: A survey of users. *European Respiratory Journal*, 44(Suppl 58), 3439.

National Institutes on Drug Abuse (NIDA). (June, 2018). *Electronic Cigarettes (E-Cigarettes).* Retrieved from https://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes

Noble, N., Paul, C., Turon, H., & Oldmeadow, C. (2015). Which modifiable health risk behaviours are related? A systematic review of the clustering of Smoking, Nutrition, Alcohol and Physical activity ('SNAP') health risk factors. *Preventive Medicine*, *81*, 16-41.

Noonan, D., & Kulbok, P. A. (2009). New tobacco trends: waterpipe (hookah) smoking and implications for healthcare providers. *Journal of the American Academy of Nurse Practitioners*, *21*(5), 258-260.

Protano, C., & Vitali, M. (2011). The new danger of thirdhand smoke: why passive smoking does not stop at secondhand smoke. *Environmental Health Perspectives*, *119*(10), A422-A422.

Provan, K. G., & Milward, H. B. (2001). Do networks really work? A framework for evaluating public-sector organizational networks. *Public Administration Review*, 61, 414–423.

Richards, M., Jarvis, M. J., Thompson, N., & Wadsworth, M. E. (2003). Cigarette smoking and cognitive decline in midlife: evidence from a prospective birth cohort study. *American Journal of Public Health*, *93*(6), 994-998.

Richardson, A., Ganz, O., & Vallone, D. (2014). The cigar ambassador: how Snoop Dogg uses Instagram to promote tobacco use. *Tobacco Control*, *23*(1), 79-80.

Rodríguez-Esquivel, D., Cooper, T. V., Blow, J., & Resor, M. R. (2009). Characteristics associated with smoking in a Hispanic sample. *Addictive Behaviors*, *34*(6-7), 593-598.

Sandoval, J. A., Lucero, J., Oetzel, J., Avila, M., Belone, L., Mau, M., ... & Wallerstein, N. (2011). Process and outcome constructs for evaluating community-based participatory research projects: a matrix of existing measures. *Health Education Research*, *27*(4), 680-690.

Shiffman, J., Peter Schmitz, H., Berlan, D., Smith, S. L., Quissell, K., Gneiting, U., & Pelletier, D. (2016). The emergence and effectiveness of global health networks: findings and future research. *Health Policy and Planning*, *31*(suppl_1), i110-i123.

Shihadeh, A. (2003). Investigation of mainstream smoke aerosol of the argileh water pipe. *Food and Chemical Toxicology*, *41*(1), 143-152.

Smith, M. J. (2010). *Handbook of program evaluation for social work and health professionals*. Oxford University Press.

Soneji, S., Barrington-Trimis, J. L., Wills, T. A., Leventhal, A. M., Unger, J. B., Gibson, L. A., ... & Spindle, T. R. (2017). Association between initial use of e-cigarettes and subsequent cigarette smoking among adolescents and young adults: a systematic review and meta-analysis. *JAMA pediatrics*, *171*(8), 788-797.

Streck, C. (2002). Global public policy networks as coalitions for change. *Global environmental governance: options and opportunities*, 121-140.

Studlar, D. T. (2014). Cancer prevention through stealth: science, policy advocacy, and multilevel governance in the establishment of a "National Tobacco Control Regime" in the United States. *Journal of Health Politics, Policy and Law*, 39(3), 503-535.

Substance Abuse and Mental Health Services Administration (SAMHSA). (August 5, 2015). Components of an effective coalition. Retrieved from https://www.samhsa.gov/capt/tools-learning-resources/components-effective-coalition

US Department of Health and Human Services (USDHHS). (2010). How tobacco smoke causes disease: the biology and behavioral basis for smoking attributable disease: a report of the Surgeon General. *Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.*

US Department of Health and Human Services (USDHHS). (2014). The health consequences of smoking—50 years of progress: a report of the Surgeon General. *Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health*, *17*.

Wang, B., King, B. A., Corey, C. G., Arrazola, R. A., & Johnson, S. E. (2014). Awareness and use of non-conventional tobacco products among US students, 2012. *American Journal of Preventive Medicine*, *47*(2), S36-S52.

Waziry, R., Jawad, M., Ballout, R. A., Al Akel, M., & Akl, E. A. (2016). The effects of waterpipe tobacco smoking on health outcomes: an updated systematic review and meta-analysis. *International Journal of Epidemiology*, *46*(1), 32-43.

Webb Hooper, M., Baker, E. A., & McNutt, M. D. (2013). Racial/ethnic differences among smokers: Revisited and expanded to help seekers. *Nicotine & Tobacco Research*, *16*(5), 621-625.

Webb, M. S., Rodríguez-Esquivel, D., & Baker, E. A. (2010). Smoking Cessation Interventions among Hispanics in the United States: A Systematic Review and Mini Meta-Analysis. *American Journal of Health Promotion*, *25*(2), 109–118. https://doi.org/10.4278/ajhp.090123-LIT-25

Weiner, B. J., & Alexander, J. A. (1998). The challenges of governing public-private community health partnerships. *Health Care Management Review*, *23*(2), 39-55.

Weishaar, H., Amos, A., & Collin, J. (2015). Capturing complexity: mixing methods in the analysis of a European tobacco control policy network. *International Journal of Social Research Methodology*, *18*(2), 175-192.

Weishaar, H., Collin, J., & Amos, A. (2015). Tobacco control and health advocacy in the European Union: understanding effective coalition-building. *Nicotine & Tobacco Research*, *18*(2), 122-129.

Wolfe, A. W. (1997). Social network analysis: Methods and applications. *American Ethnologist*, *24*(1), 219-220.

Wortley, P. M., Husten, C. G., Trosclair, A., Chrismon, J., & Pederson, L. L. (2003). Nondaily smokers: a descriptive analysis. *Nicotine & Tobacco Research*, *5*(5), 755-759.

Xu, J., Kochanek, K. D., Murphy, S. L., & Tejada-Vera, B. (2010). Deaths: final data for 2007.

Younis, M. (December 2017). Evaluating coalitions and networks: Frameworks, needs, and opportunities. Retrieved from http://www.evaluationinnovation.org/sites/default/files/Evaluating%20Coalitions%20and%20Networks.pdf

APPENDIX A

Background Information

Approximately how many Paso del Norte Tobacco Control Network meetings did you attended during 2017? _____

Do you plan to attend the next regular meeting?
_____Yes _____No

Approximately what percent of your work time is spent on tobacco control ____%.

For the following items, place a checkmark to all that apply.

1.	*Which of the following best describes the type of agency in which you work:*
	Educational (schools, school district, university)
	Medical (Clinics, Hospital, Laboratories)
	Governmental
	Social Service (not-for-profit)
	Social Service (for-profit)
	Other

2.	*What is the size of the agency in the previous question (number of full-time staff, including self)?*
	Small (1-9)
	Medium (10-30)
	Large (31+)
	Does not apply

3.	*What is your status as a tobacco coalition/network member.*
	Newcomer, I have attended very few meetings
	Regular, I have been attending meetings fairly consistently
	Veteran, I have basically attended all meetings and consider myself integral to the group
	Guest, I do not consider myself a member
	Does not apply

APPENDIX B

Strategic Alliance Formative Assessment Rubric (SAFAR)

The table below describes five possible levels of collaboration among Smoke Free partners.

Please read the description for each of the five Levels of Collaboration. Answer the following questions using the number designating the level of collaboration you think best describes the Paso del Norte Tobacco Control Network. There are no right or wrong answers.

1. Which of the five levels (#1-5) best describes our current level of collaboration?

_____

2. Which of the five levels (#1-5) best describes the level of collaboration you desire for the Paso del Norte Tobacco Network?

_____

Levels of Collaboration	Purpose	Strategies and Tasks	Leadership and Decision-Making	Meetings and Communication
Networking 1	Encourage communication; identify and create a base of support; explore interests	Loose structure with flexible roles; few if any defined tasks	Non-hierarchical and flexible; minimal group decision making	Communication among all members is infrequent – once a month meetings.
Cooperating 2	Leverage resources; work toward tobacco control, but maintain separate identities	Member links are advisory; minimal structure; some tasks identified.	Non-hierarchical; decisions tend to be low stake; several people help make decisions	Clear communication, but informal. A website, newsletter, etc. in addition to a meeting.
Partnering 3	Share resources; remain autonomous, but work closely for mutual goals	Core membership with specific tasks	Identified leadership; clear decision making mechanisms are in place.	Formal communication channels.
Merging 4	Merge resources to create a new	Formal structure (Chair, Co-	Strong, visible leadership with formal	Frequent formal communication; committee

	organization; due paid by members	Chair, etc.); specific and complex tasks; committees formed	decision making.	meetings, memos, etc.
Unifying 5	A not-for-profit organization formed by members	Highly formal; by-laws	Employees; organizational chart	Daily formal communication, sub-committee meetings.

APPENDIX C

The Internal Coalition Effectiveness (ICE) Instrument

For the following items, please indicate your agreement or disagreement with the statement by circling the one term that most closely matches your current feeling about the coalition/network.

Social Vision

1. By working together members have a shared Social Vison.

Strongly Agree Agree Unsure Disagree Strongly Disagree

2. By working together members have agreed with the coalition's mission and purpose.

Strongly Agree Agree Unsure Disagree Strongly Disagree

3. Coalition leaders have facilitated a shared Social Vision among coalition members.

Strongly Agree Agree Unsure Disagree Strongly Disagree

4. Coalition leaders have facilitated the process of developing agreement among coalition members about the mission and purpose.

Strongly Agree Agree Unsure Disagree Strongly Disagree

5. Coalition leaders have sustained the coalitions' objectives.

Strongly Agree Agree Unsure Disagree Strongly Disagree

Efficient Practices

6. By working together members created significantly more change than each could achieve individually.

Strongly Agree Agree Unsure Disagree Strongly Disagree

7. By working together members have made the coalition's financial resources go substantially further.

Strongly Agree Agree Unsure Disagree Strongly Disagree

8. By working together members have coordinated coalition activities to avoid duplication of services and efforts.

Strongly Agree Agree Unsure Disagree Strongly Disagree

9. By working together members have strengthened each other's advocacy efforts.

Strongly Agree Agree Unsure Disagree Strongly Disagree

10. Coalition leaders have facilitated involvement of a broad base of members in the work of the coalition.

Strongly Agree Agree Unsure Disagree Strongly Disagree

11. Coalition leaders have facilitated keeping action in the forefront by focusing members on activity implementation and goal achievement.

Strongly Agree Agree Unsure Disagree Strongly Disagree

12. Coalition leaders have facilitated repositioning of coalition assets, competencies and resources to address changing needs and priorities.

Strongly Agree Agree Unsure Disagree Strongly Disagree

13. Coalition leaders have facilitated development of other leaders within the coalition.

Strongly Agree Agree Unsure Disagree Strongly Disagree

14. How would you rate the overall sustainability of your program?

Excellent Above Average Average Below Average Poor

Knowledge and Training

15. By working together members have expanded each other's knowledge and potential for addressing the issues.

Strongly Agree Agree Unsure Disagree Strongly Disagree

16. By working together members have enriched each other's abilities and skills in the issues.

Strongly Agree Agree Unsure Disagree Strongly Disagree

17. By working together members have kept each other informed about the most recent knowledge regarding issues.

Strongly Agree Agree Unsure Disagree Strongly Disagree

18. Coalition leaders have facilitated the provision of resources that keep coalition members current on issue-related legislation.

Strongly Agree Agree Unsure Disagree Strongly Disagree

19. Coalition leaders have facilitated the provision of resources to keep coalition members informed about best practices on the issues.

Strongly Agree Agree Unsure Disagree Strongly Disagree

20. Coalition leaders have facilitated the provision of resources to develop leadership skills among coalition members.

Strongly Agree Agree Unsure Disagree Strongly Disagree

Relationships

21. By working together members have established positive relationships and strong links with community members that the coalition wants to engage and mobilize.

Strongly Agree Agree Unsure Disagree Strongly Disagree

22. Coalition leaders have facilitated establishment of positive relationships and strong links with community members that the coalition wants to engage and mobilize.

Strongly Agree Agree Unsure Disagree Strongly Disagree

23. Coalition leaders have facilitated positive community relationships with other local key players and stakeholders involved in the issues.

Strongly Agree Agree Unsure Disagree Strongly Disagree

24. Coalition leaders have facilitated building respectful relationships between the coalition and the community.

Strongly Agree Agree Unsure Disagree Strongly Disagree

25. Coalition leaders have facilitated promoting development of collaborative relationships with the other community coalitions.

Strongly Agree Agree Unsure Disagree Strongly Disagree

APPENDIX D

Knowledge Survey Instructions

We would like to measure the change in knowledge our tobacco control network members gain by attending monthly network meetings. Please provide us with 5-10 brief questions you would like members to know after your presentation. We would like to evaluate if any changes between pretest knowledge (before the presentation) and posttest knowledge (after the presentation). Please use multiple choice responses when drafting questions

Sample Item:

1. CDC has developed "Best Practices" with a mission of comprehensive tobacco control programs. Which one of the following is ***NOT*** a goal for a comprehensive tobacco control program?
    a. Preventing initiation among youth and young adults
    b. Promoting quitting among adults and youth
    c. Eliminating exposure to secondhand smoke
    d. Increasing tobacco excise tax
    e. Identifying and eliminating tobacco-related disparities among population groups
    f. I do not know

1. To increase tobacco use cessation, which of the following are recommended:
    a. Reducing cost of treatment for underserved populations
    b. Conducting mass media education campaigns combined with other community interventions
    c. Providing telephone-based cessation counseling
    d. A and B
    e. B and C
    f. I do not know

2. In general, smoke free laws _____.
    a. require punitive action
    b. are self-enforcing
    c. are ineffective
    d. all the above
    e. I do not know

3. Which of the following is ***NOT*** an activity typically suggested for promotion of clean indoor air ordinances?
    a. Picketing
    b. Petition gathering
    c. Community outreach intervention
    d. Meetings with city council members
    e. Print and television advertising
    f. I do not know

4. What is advocacy?
    a. A concerned citizen/citizen group recommending and/or supporting and educating elected officials on the benefits of a particular policy
    b. A citizen/citizen group influencing or attempting to influence elected officials to pass a particular policy
    c. A concerned citizen/citizen group sending elected officials a gift before a vote on particular policy
    d. All of the above
    e. I do not know.

5. In order to have culturally competent programs, which of the following is required?

a. Ensuring that local grantees measure and evaluate social norm change outcomes resulting from their interventions

b. Employing individuals of different ethnic minorities

c. Providing health communications to address disparate populations in appropriate languages that support community-level interventions

d. Establishing a local strategic plan of action that is consistent with the state's strategic plan

e. None of the above

f. I do not know

6. Which of the following are the five major steps for a brief cessation intervention in a primary care setting?

    a. Request, recommend, rate, reinforce and regulate

    b. Address, advocate, appraise, aid, and adapt

    c. Relevance, risks, rewards, roadblocks, and repetition

    d. Ask, advise, assess, assist, and arrange

    e. None of the above

    f. I do not know

7. The main change(s) to El Paso's clean air ordinance in 2014 include(s):

    a. Ban smoking on all City owned or leased properties (to include parks).

    b. Establish a 20-foot no-smoking zone at all public entrances.

    c. Establish air handling requirements for hookah lounges and smoke shops.

    d. Include e-cigarettes and "vaping" as part of the smoking definition.

    e. All of the above.

8. Which of the following is true of secondhand smoke?

    a. Sidestream smoke contains lower amounts of toxic substances than mainstream smoke

    b. Environmental tobacco smoke is associated with breast cancer in younger, mainly premenopausal women

    c. Locally, restaurants were adversely affected by the passage of clean indoor air policies

    d. There is strong evidence that ventilation can provide adequate protection from secondhand smoke

    e. None of the above

    f. I do not know

9. On May 5 of 2016, the FDA finalized a rule that includes regulation of_____.

   a. Electronic Nicotine Delivery Systems (ENDS)

   b. cigarette/ cigarette tobacco

   c. smokeless tobacco

   d. All tobacco products including those above

   e. I do not know

10. Which of the following are <u>best practices</u> recommended by *The Tobacco Control Network (TCN) 2016 Policy Recommendations*? (circle all that apply)

   a. Enact 100 percent clean air laws in all enclosed workplaces and public places

   b. Adopt smoke-free multi-unit housing policies

   c. Adopt and enforce 100 percent tobacco-free K-12 school policies

   d. Adopt tobacco-free college and trade school campus policies

   e. Adopt tobacco-free healthcare and behavioral health treatment campus policies to prohibit the use of all tobacco products

   f. Adopt smoke-free car policies that include electronic smoking devices in order to protect children under the age of 18 from exposure to secondhand smoke

   g. Adopt tobacco-free outdoor policies that include electronic smoking devices in order to deformalize tobacco use (particularly in youth-sensitive areas) and protect the public from secondhand smoke exposure, fire hazards, and environmental harms resulting from toxic tobacco waste.

VITA

Dessaray Gorbett received a Bachelor of Science in Psychology from The University of Texas at El Paso in 2013. Her training in tobacco control began in her sophomore year of undergrad and sought to investigate the effects of a brief motivational interview on smoking cessation. Most recently Dessaray has been involved in a broad range of tobacco control topics. In the past eight years, she has worked on various projects related to tobacco control. She has also developed and conducted surveys, environmental scans, and various data analyses to assess local public health trends related to tobacco use in a border region. In the future, Dessaray would like to investigate electronic cigarettes and their impact on the health of minorities. Dessaray has presented research at state, national and international conferences which include the Society for Research on Nicotine and Tobacco and the National Conference on Tobacco or Health.

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