Assessment of Attitudes Towards Non-smoking Policies Within an Independent Landlord and Real Estate Investor Group in Northeast Indiana

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DNP Scholarly Project Final Approval Form

Initial Examination of the DNP Scholarly Project Proposal
Review Council Determination

Doctoral Candidate Name: Ashley George

DNP Scholarly Project Proposal Title: Assessment of Attitudes Towards Non-smoking Policies Within an Independent Landlord and Real Estate Investor Group in Northeast Indiana

DNP Scholarly Project Review Council Members: Drs. Clark, Winegarden, Lown, Osborne, Spath, and Yoder

Date of Oral Presentation and Review: 11-14-19

1. *Approved*. The proposal is approved with no required modifications. The candidate may begin implementation of the project.

2. *Approval following review and acceptance of required modifications*. The Scholarly Project Review Council requires the candidate to resubmit the proposal once the candidate has completed the required modifications. The project will be *approved* provided the modifications to the proposal meet to the expectations of the Review Council.

3. *Not Approved*. Significant gaps and or errors in the proposal are identified by the Scholarly Project Review Council that will prohibit the candidate from completing the course.

I. The DNP Project Proposal:

1. …is evidence-based.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

2. ...contains a problem statement with specific data from an organization or community.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

3. …relates to a change that impacts health, healthcare, or health outcomes.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

4. …has a systems or population/aggregate focus.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Please clarify how this project links to anesthesia.

5. …is approved or determined exempt by the project facility, USF, and other IRBs as appropriate.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Conditional USF approval. Conditions satisfactorily addressed in presentation.

6. …utilizes a Project Team.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

7. …demonstrates implementation in the appropriate area of practice.

__x_*Satisfactory* ___*Unsatisfactory*

Comments: Good explanation of learning objectives for the presentation. Page 25 – lease clarify "given at the same time."

8. …includes a process and outcomes evaluation plan.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

9. …incorporates a plan for dissemination.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Good explanation of potential sustainability.

II. The DNP Project Proposal Structure

1. Concepts flow in an organized manner.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

2. APA format followed.

_x__*Satisfactory* ___*Unsatisfactory*

Comments: Nicely done.

Additional comments and recommendation for approval to begin implementation:

Well done, Ashley.

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Abstract

PROBLEM STATEMENT: In the state of Indiana, where tobacco use is higher than the national average, those living in multi-unit housing (MUH) are in a situation of vulnerability to the effects of tobacco use in such climates. *PURPOSE:* The purpose of the scholarly project was to determine whether providing education on the benefits of smoke-free housing in presentation format impacted willingness to implement smoke-free policies in multi-unit housing when presented to a group of Fort Wayne landlords and real estate investors. *METHODS:* The baseline knowledge regarding concepts surrounding tobacco use, and the beliefs about benefits of smoke-free policy implementation were assessed before and after an educational presentation and supplementary materials were delivered. A convenience sample was chosen, and pre-posttest utilized. *RESULTS:* There was a significant increase in willingness to implement smoke-free policies among those who either owned or managed MUH. *CONCLUSION:* Live educational presentation is an effective means by which to influence willingness of those in landlord or manager positions in Northeast Indiana to implement smoke-free policies in MUH. The project had potential to impact local, federal, and healthcare policies in regards to tobacco use. At baseline, the monetary benefits of smoke-free policies among all members were generally understood. In the future, in order to further educate and influence those in landlord, manager, or policy-making roles, legal topics should be more specifically addressed if they are to be used as evidence; legal issues were not largely found to be an influencing factor to a landlord or property manager having smoke-free policies in MUH. Implications of the project are far-reaching, with lessons that can be expanded to impact those in hospital administration and anesthesia leadership settings.

Executive Summary

The concept of tobacco use being detrimental to health is not a novel one; however, rates of tobacco use remain higher than the national average in the state of Indiana, with electronic forms of tobacco growing in popularity (Indiana State Department of Health[ISDH], 2019). Tobacco continues to be a multi-billion-dollar industry, and rates of use among adults and youth are alarmingly high. Despite the passage of smoke-free legislation, there exists a potentially vulnerable population in which one quarter of the United States population resides: multi-unit housing (MUH) residents (King, Babb, Tynan, & Gerzoff, 2013). Those in positions of authority on smoke-free policies can improve tenant and population health by enacting smoke-free policies.

This scholarly project was an evidence-based practice (EBP) project intended to influence change in attitudes, knowledge, and practice of members in an independent landlord and real estate investor group in Northeast Indiana. In partnership with a community entity, Tobacco Free Allen County Coalition, the project manager designed and implemented an educational presentation concerning smoke-free policies and aspects of interest to landlords and investors. Attitudes about smoke-free policies, including initial willingness to implement smoke-free policies, were measured before and after implementation using pretest-posttest design.

It was found that, in those who owned or managed MUH, willingness to implement smoke-free policies did increase after this project was implemented. Willingness also increased in those who did not currently have a smoke-free policy in place. The smoking status of the individual group member did not affect his or her answers to the pre and posttest questions; it was found that 75 percent of those proclaiming to be smokers (n=4) already had smoke-free policies in place and were willing to implement smoke-free policies at baseline. The project had

potential to impact local, federal, and healthcare policies in regards to tobacco use. The monetary benefits of smoke-free policies among all members were generally understood at baseline assessment. The only questions posed to the participants claiming to be landlords or property managers which did not yield significant results were those pertaining to smoke-free policies increasing revenue and smoking having legal repercussions. The fact that six out of eight of the questions yielded significant findings displayed the value of this DNP project; knowledge was successfully transitioned to the FWREIA members in order to influence their responses and perceptions.

The findings of the scholarly project indicated that a live educational presentation introducing landlords and investors to tobacco-related data, supplementary manuals, and electronic resources on smoke-free housing is adequate for successfully influencing beliefs and motivation to implement such policies. Future research should determine if similar resources lead to actual policy implementation (Brett, Leavens, & Wiener, 2018). The topic of thirdhand smoke should be considered as an effective adjunct in educating on smoke-free policies; across all landlord/property manager statuses analyzed, there was significant increase in knowledge about THS from pretest to posttest scores ($p<.01$). As for further implications, in order to foster education and influence those in landlord, manager, or policy-making roles, legal topics should be more specifically addressed if they are to be used as evidence; legal issues were not significant in influencing a landlord or property manager to have smoke-free policies in MUH.

Chapter 1: Introduction

The notion that tobacco products are detrimental to health is well-established. Yet, rates of tobacco use remain higher than the national average in the state of Indiana, with electronic forms of tobacco growing in popularity (Indiana State Department of Health[ISDH], 2019). Tobacco continues to be a multi-billion-dollar industry, and rates of use among adults and youth are alarmingly high. Despite the passage of smoke-free legislation, there exists a potentially vulnerable population in which one quarter of the United States population resides: multi-unit housing residents (King, Babb, Tynan, & Gerzoff, 2013). Those in charge of policies in such residences can improve tenant and population health by enacting smoke-free policies.

Problem

In a state where tobacco use is excessively high, those living in multi-unit housing (MUH) are in a situation of vulnerability to the effects of tobacco use in such climates. The PICO question for the scholarly project is: In a group of Fort Wayne landlords and real estate investors (P), does providing education on the benefits of smoke-free housing in presentation format (I) impact willingness to implement smoke-free policies in multi-unit housing (O)?

Background of the Problem

The topic is relevant, because 21.8 percent of adults in IN smoke; the national average is 16 percent (United States Department of Health and Human Services [USDHHS], 2019). While there are smoke-free air laws and mandates for multi-unit housing under the Public Housing Authority to be smoke-free, there is no law protecting residents of private market rate MUH from the effects of secondhand smoke (Cripe 2019). There were 42,060 renter-occupied apartments in Allen county as of January 2019 (City-data.com, 2019; STATS Indiana, 2019). Out of those,

only 6,267 were designated smoke-free multi-unit houses (Cripe, 2019). Clearly, there is room for improvement.

In relation to anesthesia, smoking increases both the risk of pulmonary complications and the total anesthetic requirement of the patient (Ozturk, Aydogan, Karaaslan, Dogon, & Topuz, 2019). It also increases sympathetic nervous system tone and the risk of infection (Rieker, 2018, p. 627). Approximately 51.4 million surgeries are completed in the United States each year, with anesthesia being required for appropriate surgical conditions (National Quality Forum, 2017). One in five adults in Indiana smoke, and 2019 was a year in which vaping-associated lung injury (VALI) became widely recognized as risk factor for patients undergoing anesthesia (Cripe, 2019; Lowrance, 2019; USDHHS, 2019). Therefore, it is inevitable that many surgical patients undergoing anesthesia in Indiana use tobacco products.

The literature overwhelmingly supports that prohibiting smoking indoors is the only way to eliminate secondhand smoke exposure. About one-fourth of Americans reside in MUH (Cripe, 2019; American Lung Association[ALA], 2017). Up to sixty-five percent of the air in MUH is shared, and Americans spend up to ninety percent of their time indoors (Cripe, 2019; Tsai et al., 2018; United States Environmental Protection Agency[EPA], 2018). Along with secondhand smoke (SHS) exposure, is a lesser known effect called thirdhand smoke (THS). Thirdhand smoke is noxious tobacco smoke residue left on surfaces such as walls, carpets, furniture, windows, curtains, and heat ducts (Hang et al., 2013; Cripe, 2019). It is a significant concern in any space where smoking is allowed inside, as it permeates the air from these surfaces.

Among the multi-unit housing residents are several vulnerable populations, including children and elderly. Both children and elderly, disproportionately, make up a majority of those living in multiunit housing nationwide (King, Peck, & Babb, 2013; King, Babb, Tynan, &

Gerzoff, 2013). Elderly are actually the fastest growing population in the rental market, due to the desire to down-size (Moore, 2018). Children and elderly are considered vulnerable populations because of comorbid conditions that often exist, which are exacerbated by exposure to secondhand and thirdhand smoke (Centers for Disease Control[CDC], 2019). The best practice for those in control of policies in MUH is to enact smoke-free policies (American Lung Association, n.d.; Brett, Leavens, & Wiener, 2016). This allows optimization of living spaces and contributes to healthier living environments.

Needs Assessment and Gap

There is a gap at both the state and local level in regard to smoking and smoke-free policies for multi-unit housing residents. As previously noted, the Indiana state average for adults who smoke is historically higher than the national average. There are laws in effect protecting those in public places and public housing from the effects of secondhand smoke, but no laws exist to protect those in private market rate housing (Indiana State Department of Health[ISDH], 2018; Cripe, 2019). Also, as previously stated, there is opportunity to increase the number of smoke-free units in Allen County. This would improve the health of the community at large, and address the social determinants of health (World Health Organization[WHO], 2019).

According to the administrator of the Fort Wayne Real Estate Investors Association (FWREIA), which is the target group for the project implementation, not all association members currently have smoke-free policies in their multi-unit homes (D. Wiard, personal communication, June 15, 2019). There are a considerable number of FWREIA members who own multi-unit properties, both in Allen County and in various locations around the United States (D. Wiard, personal communication, June 15, 2019). Considering this, there is potentially a large impact to be made in increasing the number of smoke-free policies and smoke-free units

posttest scores of the eight Likert scale questions for in MUH. To protect those living in MUH in Allen County from the effects of secondhand and thirdhand smoke, more smoke-free policies are needed.

DNP Project Overview

This scholarly DNP project aimed to determine if education on smoke-free policies introduced to a group of landlords and real estate investors in Northeast Indiana would increase the willingness of said group members to implement smoke-free policies in multi-unit housing. The baseline knowledge regarding concepts surrounding tobacco use, and the beliefs about benefits of smoke-free policy implementation were assessed before and after educational materials were presented. The project included only those who were landlords or property managers.

Stakeholders

The project team consisted of the project manager, Ashley George; the project advisor, Dr. Wendy Clark; and the practice mentor, Nancy Cripe. The stakeholders in the project were the members of the FWREIA who were landlords or property managers. The Tobacco Free Allen Country Coalition (TFACC), and their affiliates in the state, were also stakeholders in the project. The project manager planned to present findings at a TFACC quarterly meeting in the summer of 2020.

Budget and Resources

After a budget analysis, the project was estimated to cost the project manager $170 for ink cartridges, paper for pre-posttests, and the cost of hiring a statistician (See Appendix A for budget itemization). The statistical software, IBM SPSS version 24, owned by the project manager was already accounted for. This software, IBM SPSS version 24, was used to analyze

the project data. All other costs associated with the project were in kind; pamphlets on smoke-free housing benefits and landlord resources were donated by TFACC. The pamphlets addressed smoke-free topics of interest to landlords including: benefits, monetary costs associated with allowing smoking inside properties, and contact information for further assistance with the process of implementing a smoke-free policy.

Process and Outcomes

The general timeline for the scholarly project spanned from the time of IRB approval in October 2019 through July of 2020, and the setting for the project was the meeting space in Northeast Fort Wayne where the Fort Wayne Real Estate Investors Association (FWREIA) meets. The association convenes once a month for approximately two hours in Northeast Fort Wayne, at Mike Thomas Associates Realtors on Coldwater Road. The FWREIA is a networking group, and its goals are to increase member knowledge about ethical real estate investing and to improve the community in general (D. Wiard, personal communication, June 11, 2019). The average monthly attendance is 75 members (D. Wiard, personal communication, June 11, 2019). Inclusion criteria was all members of the group who were landlords or property managers who attended the presentation meeting. If a property was co-owned, both owners participated. Excluded were those who were not landlords or property managers.

Expected Outcomes

Implementation of the project occurred on February 5, 2020. The intervention was to administer a baseline frequency data survey and pretest to the group members in attendance at a monthly FWREIA meeting. The members were asked to fill out a survey in which they provided demographic information such as name, age, gender, email address, and home zip code. The members were notified that the information was being used for purposes of the study only; they

were not obligated to provide the demographic information. The demographics helped the project manager disseminate findings back to the members later. The participants were then asked if they had the authority to create rules and policies for their properties, and whether or not they currently had any types of smoke-free policies in effect. There was also a question about whether the participant was a current or former smoker, or if electronic cigarettes were used by the participant. Lastly, the participant was asked if he or she would like to receive outcome data from the project.

Following the completion of the initial demographic questions, the participants were asked to continue to complete the pretest that included questions regarding attitudes towards smoke-free policies and various smoking-related topics. The educational intervention was then delivered via an approximately twenty-minute-long PowerPoint presentation created by the project manager. The education was on secondhand and thirdhand smoke effects, how to implement smoke-free policies in multi-unit housing, as well as the benefits for a landlord to have such policies. Pamphlets provided by Tobacco Free Allen County Coalition (TFACC) were also given out to interested members. It is established in the literature that landlords and managers have more positive attitudes towards smoke-free policies after receiving smoke-free education (Brett, Leavens, & Wiener, 2018).

A posttest was given at the end of the meeting to re-evaluate attitudes, via Likert scale, towards smoke-free policies and various smoking-related topics. The entire presentation including time spent completing the survey and pre and post tests required approximately sixty minutes of time from participants.

Risk Analysis

There was no risk associated with this project as members attended the meeting at which the project was implemented of their own volition. Participation in the project was voluntary. The only risks were the inherent risks associated with attending any voluntary meeting. Participants received no compensation and there was no intent to use deception. Participants were informed that results of the study may be published.

Chapter 2: Synthesis of Supporting Evidence/Literature and Project Framework

Relevant Theories and Concepts

Frameworks serve as guides for planning and translating new knowledge into practice (White, 2016, p.57). The stages of change theory, developed by Prochaska and DiClementi in 1998, outlines the process of changing behaviors and served as a guide for this scholarly project (White, 2016, p. 63). It is also known as the transtheoretical model, or TTM, due to its applicability across a wide range of theoretical orientations (Gutierrez & Czerny, 2018). This model was developed by Prochaska and DiClemente in the 1970s and evolved from studies comparing the experiences of smokers who quit on their own with those requiring further treatment. They sought to understand why some people were capable of self-changing behaviors (Boston University School of Public Health, 2018). The model can be applied to any setting is which behavior change is the goal.

The TTM posits that individuals move through five stages of change: precontemplation, contemplation, preparation, action, and maintenance (Boston University School of Public Health, 2018; Glanz, Burke, & Rimer, 2018). Precontemplation is when an individual is unaware of the need for change. Contemplation addresses the stage at which they become aware of the issue. Preparation occurs as the individual is ready to change and is defined within a two-week period of the decision to change. Action involves becoming engaged in changing activities. The final

stage, maintenance, may take up to six months and changing behavior must be reinforced in order to sustain (White, 2016, p. 63). Individuals may exit and re-enter at any of the stages (White, 2016, p. 63). For this scholarly project, it can be beneficial to understand that not everyone will begin at the same stage when; therefore, changes such as this scholarly project suggests, will be viewed differently from person to person.

In addition to personal change, organizational change was of importance for this project. It is estimated that forty to eighty percent of change efforts fail (Nelson-Brantley & Ford, 2016). Organizational readiness is an essential precursor to leading change that is often overlooked by organizational leaders (Nelson-Brantley & Ford, 2016; Persaud, 2003). Therefore, it will be essential to gain understanding of the FWREIA members' baseline ideals and readiness to change in order for more smoke-free policies to be implemented. It can also be useful to anticipate that members of the group will start at any of the five stages of the TTM; having a good understanding of where the majority of the participants are in the phases of change will significantly help guide the course of the project (White, 2016, p. 63). Members of the group will begin the project at various stages of change as described by the TTM.

A survey was used to gauge the population's initial readiness to change, or implement smoke-free policies in housing. Baseline knowledge about topics such as secondhand smoke, thirdhand smoke, and how property values change with smoking status of a property was also assessed via survey. The initial survey collected frequency data on demographics of the population, types of housing owned by the stakeholders, and their level of influence over policy creation in those homes. By understanding the TTM, interactions can be facilitated with the population of interest. The goal was to be better able to influence policy decisions by reporting data to stakeholders in the community.

In addition to the TTM, Rogers' Diffusion of Innovation Theory supports adoption of a new idea and the fact that people will fall into one of five categories: innovators, early adopters, early majority, late majority, and laggards (Boston University School of Public Health, 2018). Innovators are those who are willing to take risks and easily try a new idea without much persuasion. Early Adopters enjoy leadership roles and represent opinion leaders. They do not need information to convince them to change (Boston University School of Public Health, 2018). Early majority are not the leaders on the new idea, but they adopt the idea before the average person. Success stories and evidence of the idea's effectiveness appeal to this group. Late majority are skeptical of change and will only adopt an innovation after it has been tried by the majority (Boston University School of Public Health, 2018). Lastly, laggards are bound by tradition and are very conservative. They can be appealed to by statistics, fear appeals, and pressure from other group members (Persaud, 2003; Boston University School of Public Health, 2018). It was important to understand both theories for optimal planning of how to make the biggest impact on the FWREIA members.

Understanding this inherent variability to adopt a new idea guided methods for the project; the initial survey to the FWREIA included a question about willingness to implement a smoke-free policy. The Diffusion of Innovation Theory also influenced the methods used to encourage adoption of the innovation. There are five main factors which influence adoption: relative advantage, compatibility, complexity, trialability, and observability (Boston University School of Public Health, 2018). Relative advantage is the degree to which an innovation seems better than the idea or program it replaces. Compatibility is how consistent the innovation is with values and needs of the adopters. Complexity involves how difficult the innovation is to understand or use (Boston University School of Public Health, 2018). Trialability is the extent to

which the innovation can be tested or experimented with before commitment is made. Observability is the degree to which the innovation leads to tangible results (Boston University School of Public Health, 2018). Understanding these various stages helped direct the project manager in planning for the most effective interventions.

These models impacted the proposed DNP project, because the project involved targeting a change in practice. Although not directed at smoking cessation or policy changes, the project focused on altering perceptions and willingness to implement new policies with stakeholders in the community. In the same way that it is hypothesized that smokers progress linearly through the stages and may relapse to earlier stages in a cyclical fashion, relapses and resistance from the target population can be anticipated (Caponnetto, DiPiazza, Aiello, & Polosa, 2017; Glanz, Burke, & Rimer, 2018). Understanding the processes that result in behavior change assisted the project manager in promoting awareness about smoking in MUH.

Major Topics of Literature Review

An exhaustive literature review was performed using PubMed, EBSCO (PsycArticles and PsycINFO, ProQuest, google, and google scholar. Search terms were: Smoke-free policies AND multi-unit housing, secondhand smoke AND multiunit housing, thirdhand smoke AND multiunit housing, landlords AND perceptions of smoke-free policies, fires AND multi-unit housing, fires AND cigarettes, influence AND smoke-free policies, concept analysis AND influence. A plethora of information was found pertaining to tobacco use, policy surrounding tobacco use, tobacco history, MUH, and influencing change behavior. The literature establishes that second-hand smoke is a serious issue in multi-unit housing, as up to sixty-five percent of the air in MUH is shared and Americans spend up to ninety percent of their time indoors (Cripe, 2019; Tsai et

al., 2018; United States Environmental Protection Agency[EPA], 2018). Furthermore, the contribution to healthcare costs is astounding.

In addition to searching databases, other tactics were used to uncover relevant information. The SAGE journal customer service line was contacted via telephone to find supplementary material online for a journal on impacting multiunit housing mangers' beliefs about adopting smoke-free policies (Brett, Leavens, & Wiener, 2018). Brief in-person and telephone interviews were conducted with five multi-unit housing managers to discuss their perceptions on smoke-free policies. An interview was also conducted with an attorney, and fervent libertarian advocate for smokers' rights, at the University of Saint Francis Keith Busse School of Business. This was done in order to investigate multiple points of view on the topic of smoking and smoke-free policies.

Current Statistics for Indiana on Tobacco Use

In Indiana, 21.8 percent of adults smoke, compared to the national percentage of sixteen (United States Department of Health and Human Services [USDHHS], 2019). Current tobacco use among Indiana youth is over thirty-two percent (American Lung Association, 2019). Indiana also has a higher percentage of smoking in the home with children under eighteen, and a lower percentage of smoking bans in the home (Singh, Siahpush, & Kogan, 2010). According to a report from the American Lung Association (2019), Indiana received low scores on its efforts to reduce and prevent tobacco use. Things that can be done to potentially improve this area are to raise the tobacco tax from one dollar to two dollars per pack, and to allocate more funds for prevention and education resources (American Lung Association, 2019). There is, it seems, a need for improvement in the state's actions on tobacco use.

Current Statistics for Fort Wayne on MUH

Fort Wayne, Indiana is the second largest city in the state, with a population of 258,522 as of 2014 (City of Fort Wayne, 2019). The following counties are considered Northeast Indiana: Adams County, Allen County, DeKalb County, Huntington County, Noble County, Steuben County, Wabash County, Wells County, and Whitley County (STATS Indiana, 2019). Allen county is situated in Fort Wayne, in Northeast Indiana, and is the third largest county in the state (STATS Indiana, 2019). In Allen county, as of March 1, 2019, there were only 6267 total smoke-free multi-unit houses (Cripe, 2019). Multi-unit housing includes structures such as apartments, town houses, row houses, condominiums and other tenement properties (National Fire Data Center, 2017). To put this into perspective, there were a total of 42,060 renter-occupied apartments in Allen County as of January 2019 (City-data.com, 2019; STATS Indiana, 2019). Considering this data, there is potentially a large impact to be made by increasing the number of smoke-free policies and smoke-free units in Allen County.

Real Estate Market in Allen County.

The Allen County Building Department, on Dec. 4, 2018, announced that more than one billion dollars in new building permits were issued in 2018 (Rodriguez, 2019). The market was considered to be a sellers' market, where sellers have the upper hand because there are more buyers than available homes (Rodriguez, 2019). The opportunity was to appeal to the monetary benefits of smoke-free housing for those in the real-estate market; some of those building permits could be for MUH, so this scholarly project targeted those potentially in charge of smoke-free policies.

Legal Issues

The literature showed that smoke-free policies do not infringe on constitutional rights, nor prevent smokers from living in any type of housing (Cripe, 2019; Public Health Law Center, 2019; Tobacco Prevention and Cessation Commission[TPCC], 2018). Smoke-free policies regulate behaviors, not the person; those who want to use tobacco products can still do so in other locations (TPCC, 2018). Furthermore, there is evidence that smokers and non-smokers alike prefer smoke-free living, and a significant portion of tenants would be willing to pay more in order to have smoke-free housing (Gentzke, Hyland, Kiviniemi, & Travers, 2017; Hewett, Sandell, Anderson, & Niebhur, 2007; National Center for Healthy Housing, 2009; TPCC, 2018; United States Department of Housing and Urban Development[HUD], 2014). There was also compelling evidence that MUH residents with voluntary smoke-free rules in their own homes are not adequately protected from SHS, so smoke-free policies from the decision makers are needed (Gentzke, Hyland, Kiviniemi, & Travers, 2017).

Legal issues pertaining to smoke-free policies were explored in the literature. While non-smoking policies do not infringe on any constitutional rights, those with disabilities made worse by SHS could take legal action against landlords under the Fair Housing Act or Americans with Disabilities Act (Smoke-free Housing Indiana, 2019). Another resource states that not only can residents file a lawsuit over SHS exposure, but also staff and maintenance workers (United States Department of Housing and Urban Development[HUD], 2014). Therefore, smoke-free policies can help to avoid lawsuits.

History of Tobacco Regulation

The history of tobacco regulation was important to glean from the evidence, and it is consistent throughout the sources. The Master Settlement Agreement of 1998 began the federal

regulations on major tobacco companies and required them to reimburse the states (Public Health Law Center, 2018). From there, it has been up to the states to use those annually-allocated funds as they see fit for tobacco prevention and control. Indiana passed the Smoke Free Air Law in 2012, banning smoking in nearly all public places & workplaces, including restaurants (ISDH, 2019). On November 30, 2016, the U.S. Department of Housing and Urban Development (HUD) announced a final rule to restrict smoking in public housing; those units included in HUD housing had until August of 2018 to produce smoke-free policies (Indiana State Department of Health[ISDH], 2018). There are no laws, however, pertaining to private market rate housing and those not covered under the HUD ruling; herein lies the gap for residents of those facilities.

Secondhand Smoke

Approximately 80 million residents in the United States live in multiunit housing facilities such as apartment complexes and condominiums (CDC, 2018). Among those residents with smoke-free home rules, an estimated 27.6–28.9 million are exposed to secondhand smoke infiltration from neighboring units or shared areas in the building (CDC, 2018). Secondhand smoke is that which comes from combustible end of a tobacco product (Cripe, 2019; TPCC, 2016). Non-smokers regularly exposed to SHS have similar health risks as smokers (Cripe, 2019). Secondhand smoke contains hundreds of toxic chemicals, approximately 70 of which can cause cancer (Smoke-free Housing Indiana, 2019; U.S. Department of Housing and Urban Development, 2014). Secondhand smoke can migrate from other units and common areas and travel through doorways, cracks in walls, electrical lines, plumbing, and ventilation systems (American Lung Association, 2017). Secondhand smoke cannot be eliminated with any ventilation or air cleaning systems; therefore, it is imperative that those in control of policies create smoke-free policies, as it is the only known way to prevent unwarranted effects of tobacco

exposure (American Lung Association, 2017; Brett, Leavens, & Wiener, 2016; Smoke-free Housing Indiana, 2019).

Thirdhand Smoke

Thirdhand smoke (THS) is a less well-known side effect of tobacco smoke. It consists of toxic tobacco smoke residue left on surfaces such as walls, carpets, furniture, windows, curtains, and heat ducts (Cripe, 2019; Hang et al., 2013). Thirdhand smoke can become even more toxic as it combines with gases in the air due to the production of ultrafine particles when gas phase chemicals mix with normal gases; volatile compounds including the human carcinogen formaldehyde can be formed (CDC, 2018; Cripe, 2019; Matt et al., 2011; Schick, 2013). There is increasing concern about the link between THS, cancer, and DNA damage (Cleveland Clinic, 2017; Matt et al., 2011). Thirdhand smoke accumulates in smokers' homes and persists when smokers move out, even after homes remain vacant for months and are cleaned and prepared for new residents (Matt et al., 2011; Hang et al., 2013; Schick, 2013). Non-smoking participants' finger nicotine and urine cotinine is higher in former smoker homes compared to former non-smoker homes (Matt et al., 2011; Schick, 2013). This is due to the fact that THS exposure results from involuntary inhalation, ingestion, or dermal uptake of THS pollutants in the air, on surfaces, and in dust (Matt et al., 2011; Schick, 2013). Thirdhand smoke is a side effect of indoor tobacco use with extensive repercussions.

Vulnerable Populations

For children, the majority of exposure to tobacco products occurs in the home (Singh, Siahpush, & Kogan, 2010). Children are a vulnerable population for many reasons; most obvious is the fact that a child does not make the baseline decision to reside in a place with tobacco smoke exposure. They are also susceptible to respiratory illnesses due to immature airways and

lungs (American Lung Association, n. d.). Infants and young children are likely most at risk for exposure to THS in dust and surfaces, and its health consequences, because of age-specific behaviors such as crawling, sucking, ingesting non-food items, and hand-to-mouth contact (Matt et al., 2011). There is also evidence that infants of mothers who smoke, but do not smoke inside the home or near their children, are still exposed to nicotine through THS (Matt et al., 2011). Secondhand smoke exposure, specifically, is noted in numerous studies to be related to sudden infant death syndrome (SIDS), exacerbations of respiratory illnesses, and frequent ear infections (Singh, Siahpush, & Kogan, 2010; American Lung Association, 2017). Smoke-free policies could help protect this innocent population.

No risk-free level of exposure to SHS exists (CDC, 2019; Cripe, 2019; Homa et al., 2015). Adults who spend the most time indoors are often those vulnerable to the effects of tobacco smoke: elderly, and those with respiratory and cardiovascular disease (EPA, 2018). Adults with respiratory compromise can be affected negatively by SHS; exposure to it increases the frequency of episodes and the severity of symptoms in asthmatic people (American Nonsmokers' Rights Foundation[ANRF], 2019; Centers for Disease Control[CDC], 2019). SHS can contribute to coronary heart disease, stroke, and lung cancer in adult nonsmokers (Homa et al., 2015). The overall idea is that, while the one doing the act of smoking is most likely to have lung cancer, those inadvertently exposed to SHS are at increased risk for cardiovascular disease (Matt et al., 2011). SHS exposure in relation to vulnerable adults is not benign.

An interesting fact obtained from the literature is that, not only are elderly people often plagued disproportionately with comorbid cardiovascular and respiratory conditions, but they also are the fastest growing population in the rental market (American Nonsmokers' Rights Foundation[ANRF], 2019; CDC, 2019; Moore, 2018). The majority of elderly, once they make

the decision to rent a property, rarely go back to owning a home (Moore, 2018). The bulk of people living in MUH rent their units; therefore, the elderly population is tied to MUH.

Elderly people are considered those over the age of 65 according to most developed countries around the world (WHO, 2019). Congruent with the average life expectancy ever increasing, chronic cardiovascular and respiratory conditions are also rampant in the elderly (CDC, 2019). Therefore, those living in MUH where smoke-free policies are not in place and enforced, are susceptible to exacerbation of their diseases.

Evidence of Successful Policy Implementation

Evidence of the success of smoke-free policy implementation in MUH is also well described in the literature. Pizacani et al. (2011) describe the importance in highlighting the business case for non-smoking policies and using data to drive successful policy change. There is evidence from multiple case studies across several different states from the United States Department of Housing and Urban Development (2014); these studies address common topics of interest such as stable occupancy rates and major decreases in costs associated with going smoke-free. Many statewide surveys from across the country show that 78 percent of tenants, including those who smoke, would prefer to live in a smoke-free development; this is yet another incentive and rationale for providing smoke-free housing (Smoke-free housing Indiana, 2019). The American Lung Association (2017) outlines multiple success stories about the smoke-free policy process and the satisfaction gained by affected residents.

A gap noted in the literature is that there is a lack of research pertaining to smoke-free policies and implementation of them in Fort Wayne, Indiana, and Indiana in general. According to the World Health Organization (2019), gaps can be identified during the process of knowledge synthesis and guideline development when knowledge is analyzed. During the literature review,

articles were found pertaining to multi-unit residences and smoke-free policies in many other states besides Indiana (Snyder, Vick, & King, 2015; Stein et al., 2016; Pizacani et al., 2011).

Another gap comes from the suggestion that property managers are competitive with one another, aiming for their standard of practice to be of high caliber and attractive to renters; therefore, to the extent that smoke-free policies in rental housing become more prevalent, more and more landlords will follow suit (Pizacani et al., 2011). Per Cripe (2019), after HUD housing went mandatorily smoke-free (SF) in 2018, the Tobacco Free Allen County Coalition saw more section eight housing also become SF, which was not mandated. This suggests the potential of those in similar positions to influence change on others. No literature was found studying this domino effect; this is a gap which would be interesting to explore.

A gap in practice is that there is no law which enforces smoke-free policies in multi-unit housing, besides those under the United States Department of Housing and Urban Development (HUD) law of 2016. Ultimately, more smoke-free housing policies are needed to protect multi-unit housing dwellers from secondhand smoke, both in the county and the country as a whole. The topic can be investigated on a small scale with this scholarly project

Subtopics of Literature Review

As for further literature geared towards landlords and stakeholders, it showed that there are many benefits to smoke-free policies in terms of cost savings and longevity of materials. Having smoke-free policies increases market advantage and leads to reduced costs for property owners and landlords (Public Health Law Center, 2011). Landlords may spend up to six times more money in maintaining units where smoking was allowed, as opposed to smoke-free units (TPCC, 2018; Smoke-free Housing Indiana, 2019; HUD, 2014). Apartment turnover can also be two to seven times greater when smoking is allowed (Smoke-free Housing Indiana, 2019). The

National Multi-Unit Housing Council instructs that property insurance premiums may be discounted as much as ten percent for smoke-free properties due to the reduced risk of accidental fire (Smoke-free Housing Indiana, 2019). Tools are available for those in management and landlord positions to create smoke-free policies and to see the cost savings (Tobacco Education Clearinghouse of California[TECC], 2019; Smoke-free Housing Indiana, 2019). There are also step-by-step instructions including a "resident readiness survey," tips on how to implement the policy and troubleshoot issues, and a timeline for implementation of smoke-free policies (Smoke-free Housing Indiana, 2019; HUD, 2014). Many resources exist for managers and landlords to utilize and see the cost that smoking incurs on them for repairs and maintenance in their units.

Fires occur in MUH and are correlated with smoking; cigarettes are a leading cause of fires in residential buildings (Smoke-free Housing Indiana, 2019; American Lung Association, n.d.). A cigarette, when dropped, can smolder for thirty to forty-five minutes, leading to disastrous effects (Smoke-free Housing Indiana, 2019). From 2013 to 2015, an estimated 109,700 multifamily residential fires were reported to fire departments within the United States yearly (National Fire Data Center, 2017). These fires caused an estimated 405 deaths; 3,975 injuries; and $1.4 billion in property loss (National Fire Data Center, 2017). Multi-unit residential building fires accounted for twenty-nine percent of all residential building fires (National Fire Data Center, 2017). Having smoke-free policies in MUH is one step to combat this terrible occurrence.

In conclusion, the literature overwhelmingly supports the implementation of smoke-free policies in MUH. There is plentiful evidence about the benefits for landlords, property managers,

tenants, and the general population. Smoke-free policies have the potential to increase quality of life for residents and property values for landlords and managers.

Chapter 3: Project Design

Methodology

This scholarly project was an evidence-based practice (EBP) project intended to influence change in attitudes, knowledge, and practice of the FWREIA members. Evidence based practice design was appropriate, because the project incorporates the best evidence to guide influencing change in a target group. As stated previously, the aim of this project was to determine if willingness of FWREIA members to implement smoke-free policies increases after education, in live presentation format, on smoke-free policies and the effects of smoking in multi-unit housing is provided. Members' willingness to do so, and knowledge about smoke in multi-unit housing, was measured using a pretest and posttest. A baseline survey gathered demographic data from the group before the pretest. The purpose of collecting demographic information was for contacting participants with outcome data, and for the project manager to analyze trends. The surveys were created by the project manager, adapted from supplementary materials from SAGE journals. Permission to adapt the supplemental materials was granted in the website located at the following address: https://journals.sagepub.com/doi/suppl/10.1177/0890117116670291.

Project Schedule and Work Breakdown

The intervention plan was to administer survey packets to the group during a monthly meeting on February 5, 2020 (See Appendix B for timeline). The packets included a pretest and posttest. The entire undertaking, pre and posttest, took five minutes or less for participants to complete. The members were asked to fill out a pretest in which they provided demographic

information including: name (optional), age, gender, email address, and home zip code. The members indicated whether or not they were a property manager or landlord. If they were neither, then they were excluded from data analysis. Next, they were asked if they owned any multi-unit properties. The term "multi-unit" was defined in the survey. The members were then asked if they had the authority to create rules and policies for their properties, and whether they already had smoke-free policies in effect. There was a question on the pretest about whether the participant was a current or former smoker, or if electronic cigarettes were used by the participant. Lastly, the participant was asked if he or she would like to receive outcome data from the project.

Following the demographic information on the pretest, a set of questions was presented. There were eight questions in which the member rated their answers using a Likert scale. A posttest, composed of the same eight questions, was completed at the end of the meeting following the educational session by the same members to evaluate any changes in attitudes towards smoke-free policies and various smoking-related topics. Both pretest and posttests were administered at the same time on different, brightly-colored, sheets of paper; the papers had a unique alpha-numerical identifier located in the upper right-hand corner of both sheets. This was for ease of keeping track of the papers distributed and collected, as well as giving each participant a unique identification number for data input. An assistant helped the project manager with distributing the surveys, and with collecting them in a container upon completion. The assistant was not a participant in the project.

The educational intervention was to provide the group with an approximately twenty-minute-long PowerPoint presentation on secondhand and thirdhand smoke effects, how to implement smoke-free policies in multi-unit housing, as well as the benefits for a landlord to

have such policies. Pamphlets provided by Tobacco Free Allen County Coalition were also given out to interested members. The assistant had an outline in order to help the project manager stay on topic of the intended items to address with the presentation.

The data collected was quantitative data obtained from pre and posttest in the form of eight Likert scale questions. There were also some qualitative data collection in the pretest: name, age, gender, email address, home zip code and state, whether the participant is a landlord or property manager, whether the participant owns multi-unit properties, who has the authority to create rules and policies for their properties, whether the participant has a smoke-free policy in effect, and whether or not the participant is a current or former smoker. The posttest presented a final qualitative question as to what the participant sees as the biggest motivator to consider becoming one hundred percent smoke-free in their units.

A paired samples t-test was run using SPSS version 24 to examine changes in beliefs regarding implementation of smoke-free policies in those who owned or managed MUH before and after receiving the education. Basic descriptive analyses were carried out on demographics in order for the project manager to derive more information about the sample population. Paired samples t tests were performed for statistical analyses to determine the significance between the means of two related groups, the pre and posttest answers from the Likert scale questions (Kellar & Kelvin, 2013, p. 464). All statistical analyses were performed using IBM SPSS version 24.

When ready to disseminate findings back to the participants who were interested, the project manager retrieved the copies and sent them the findings from that contact information. Pre-posttest paper surveys were destroyed via cross-cut paper shredder once information was uploaded into the project manager's password-protected laptop. The project manager was the only individual with access to the data. The data was stored only until the end of the project; this

did not exceed one year from the time of project implementation. Disclosure of feedback that was shared with participants was addressed; the initial survey asked the participant if he or she would like to be notified of outcome data from the project.

IRB Approval and Training Certificates

Submission to the University of Saint Francis Institutional Review Board (IRB) was completed in September 2019. Approval was obtained on October 9, 2019 (See Appendix C for approval letter). CITI training was performed by the project manager in July 2019 (See Appendix D for CITI certificates).

Ethical Considerations

The members were notified that the information they provided was being used for purposes of the study only, and they could opt out at any time. Any members in attendance on the day of implementation could participate in the project; however, it was strictly voluntary. Participants received no compensation, and there was no intent to use deception. Participants were notified that results of the study may be published.

To protect the confidentiality of the participant's responses, aggregate data was used to analyze the results of the intervention. The data was entered and stored into IBM SPSS version 24 and stored on the project manager's password-protected computer. Baseline data including members' names, email address, age, zip code, and state was collected. No personal health information was obtained. The identifying information, names and email, were not entered electronically on either the project manager's or statistician's computers. The sole purpose of this demographic information was to allow the project manager to disseminate results to interested members. Disclosure of demographic information was voluntary; it was kept in the form of the paper surveys in a locked location for one year after implementation. Therefore, no identifying or

personal information was kept on the project manager's computer; no personal or identifying information was emailed.

Implementation Methods

The project manager and assistant distributed a pre and posttest to all interested FWREIA meeting attendees. Other than the demographic questions included on the pre-test, the content of the pre and posttest was identical. The pre and post tests were distinguishable by each being printed on a distinct colored paper. The papers had a unique alpha-numerical identifier located in the upper right-hand corner to allow tracking of the papers distributed and collected, as well as giving each participant a unique identification number for data input. (see Appendix E and F for pre-posttests). The participants were asked to fill out the pretest, detach it from the posttest, and deposit the completed pretest into a container provided inside the meeting space. The assistant and FWREIA director assisted the project manager with collection of the pre-tests. Attendance was also taken using a sign-in sheet upon arrival.

During the meeting, the project manager presented an approximately twenty-minute-long live presentation on secondhand and thirdhand smoke effects, how to implement smoke-free policies in multi-unit housing, as well as the benefits for a landlord to have such policies. The assistant had an outline to help ensure the project manager addressed intended items during the presentation. Printed materials on smoke-free housing and resources for landlords from TFACC were made available. Following the presentation, the members were asked to fill out the post-test which were collected in the same fashion as the pretest. The project manager was available after the meeting to address any final questions or comments. Overall, the implementation did go as planned.

Teaching Plan

The teaching plan for this scholarly project included a live presentation and distribution of printed materials. The project manager created an educational PowerPoint, and printed materials from TFACC were provided (key points of PowerPoint presentation are included in Appendix G). Learning objectives were as follows: upon conclusion of this activity, participants will identify three effects of smoking in relation to multi-unit housing and identify three reasons to have smoke-free policies. Participants left with the ability to identify reasons to implement smoke-free policies and recognize resources for assistance with doing so.

Measures, Tools and Instruments

The project manager created a pre and posttest as the only formal measuring component of this project. The pre and posttest were adapted, with permission, from supplementary journal materials from SAGE journals. The pretest derived demographic information as well as analyzed participant's agreement with eight statements related to smoking, smoke-free policies, and implications for landlords. After the live presentation was given, those same eight statements were answered by participants on the posttest. As the only formal measuring component of this scholarly project, the pre and posttests assisted with determining if a relationship existed between those two sets of data.

Evaluation Plan

The results of the project were analyzed using a data analysis plan. The sources of data collection were the pre and posttests administered to the FWREIA members. The project manager checked the data; all completed components of the pre and posttest were included in data analysis initially. As data was analyzed, incomplete responses may be filtered out by the project manager. The project manager was responsible for storing the data.

Participants revealed their agreement with eight statements via Likert scale on pretest and posttest survey: this was collected at two data points; immediately prior to intervention and immediately after intervention. Whether the participant was interested in receiving outcome information from this project was obtained at one data point via pretest before the intervention. Lastly, what the participant saw as the biggest motivator to consider becoming 100% smoke-free in their units is data which was collected at one data point, immediately after the intervention.

The plan for analyzing the results of the project was to perform a paired samples t-test on the descriptive data using IBM SPSS Version 24. The project manager entered the data into IBM SPSS Version 24 and also cleaned the data. As the data was revealed, an independent samples Mann Whitney U test was performed.

Dissemination Plan

The project manager presented a comprehensive written proposal for approval by the DNP faculty. A formal presentation of the project results, outcome analysis, leadership and management of the project, discussion, and conclusions was presented to all interested USF faculty and invited NAP-DNP cohorts. This occurred in July of 2020. A written executive summary of project results was disseminated via email to interested members of the FWREIA, and the executive summary was finalized and extracted for sharing with faculty. Lastly, dissemination of the project methods and results was presented at a quarterly meeting of the TFACC. There was a possibility that partners of the TFACC in the state would be interested in having the project results presented at their respective meetings, and the project manager considered publishing in a scholarly public health journal.

Implementation Process Analysis

Implementation of the Scholarly Project occurred on February 5, 2020 during a FWREIA monthly meeting. The meeting was held from 1830-2000 at Mike Thomas Associates Realtors on Coldwater Road in Fort Wayne. Although there was inclement weather that evening, with around three inches of snow accumulating between 1830 and 2000, there were still 83 members in attendance at the meeting. The FWREIA administrator gave the project manager an outline of events for the evening. He began the meeting in the usual fashion. Around 1900 he introduced the project manager and her project. The project manager, along with two assistants, passed the stapled pre-posttests around to each member, and they were given around five minutes of time to complete them. The project manager and assistants then collected the pretests after members passed them down the rows where they were seated. The project manager then gave her presentation over fifteen minutes and introduced the members to the supplementary pamphlets available to them on a table for display. The FWREIA administrator allowed for several minutes after the presentation for questions and for the members to fill out the post-test. Similar to the pre-test, the project manager and her assistants had the members pass the post-test down their rows to submit to the project manager. Overall, the implementation did go as planned, if not better.

Chapter 4: Results and Outcomes Analysis

Data Collection Techniques

Data was collected in-person in the paper form of pre and posttest surveys administered to the FWREIA members in attendance on February 5, 2020. The description of the pre-posttests was described under “Evaluation Plan” above, and the project manager derived data from a convenience sample. In addition to the pre-posttests, the total number of members in attendance

was obtained via an attendance sheet passed around and signed by each member. Lastly, five different sets of pamphlets and handbooks on smoke-free housing and smoking topics were displayed on a table for members to take at their own discretion. The materials were displayed on a table at the beginning of the meeting, before the presentation, but members were formally made aware of the materials during the presentation; it was observed that several members saw the materials and readily took them before the project manager gave the presentation. The initial number of each material was counted by the project manager beforehand in order to ascertain which materials were of more interest to members.

Measures/Indicators

The pre and posttest surveys, created by the manager and adapted with permission from SAGE journals, were the only formal measures for this scholarly project. The project manager collected 72 pretests and 73 posttests in total. The total number of participants in attendance was 83; this number was determined using an attendance sheet designed by the FWREIA administrators and was not a formal measure or indicator of this project. The project manager then coded the surveys using a self-designed data dictionary, and then she manually entered the data into SPSS version 24 (See Appendix H).

Data Analysis Inferences

Reflecting on the goals of the project, the main objective was to assess whether willingness to implement smoke-free policies in MUH would increase in the FWREIA after implementation of this scholarly project. Using SPSS version 24, cases were selected to include only those participants who owned or managed MUH (n=23). When a paired samples Pearson correlation was executed, there was indeed a significant increase in willingness to implement smoke-free policies from pretest to posttest ($p<.05$). At baseline, 79 percent of those participants

who were property managers or landlords professed to have a current smoke-free policy. The overall objective of the project was achieved; those who owned or managed MUH showed increased willingness to implement SF policies after an educational presentation was given, and after being made aware of resources available to them.

Table 1. Change in agreement with statements regarding smoke-free policies and smoking topics after receiving educational presentation and supplementary materials (n=23).

	Pretest	Posttest
Item	Mean (SD)	Mean (SD)
Willingness to implement a smoke-free policy [b]	4.7826 (.518)	4.8696 (.457)
Smoke-free policies improve the health of tenants [b]	4.6957 (.558)	4.8261 (.387)
Smoke-free policies increase revenue	4.3913 (.940)	4.4783 (1.08)
Smoke-free policies are easy to implement [b]	3.5217 (1.44)	4.1818 (1.05)
I know how to implement a smoke-free policy [b]	3.6957 (1.49)	4.1739 (1.11)
Secondhand smoke is harmful in multi-unit housing [b]	4.7826 (.421)	4.8182 (.394)
Knowledge of THS [a]	1.9130 (2.10)	4.6087 (1.07)
Allowing smoking can have legal repercussions for me	2.8261 (1.55)	3.4783 (1.87)

[a] $p < .05$

[b] $p < .01$

According to Table 1, the only questions posed to the participants claiming to be landlords or property managers which did not yield significant results, were those pertaining to smoke-free policies increasing revenue and smoking having legal repercussions. The six out of eight significant findings display the value of this DNP project; knowledge was successfully transitioned to the FWREIA members in order to influence their responses and perceptions.

With assistance from the project advisor, the project manager ran a number of additional statistics using SPSS version 24. Descriptive statistics were performed on the age, gender, smoking status, electronic cigarette use, multi-unit housing, landlord or property manager status, motivator to considering the adoption of smoke-free housing, current smoke-free policy status, and number of units owned or managed by participants. The mean age of participants was found to be 38.6 years and the average number of units owned was fifteen. Thirty one percent of participants owned MUH, and a total of forty-three claimed to be either landlords or property managers. Out of sixty-nine participants who answered the question, four claimed to be current smokers, fourteen were former smokers, and the rest were never smokers. Only two members claimed to use electronic cigarettes. The highest motivating reason participants stated for being willing to have a 100 percent smoke-free policy was for monetary reasons, which was obtained via the final open-ended question on the posttest. The definition of monetary reasons was subjective and included cost savings on maintenance and turnover of units.

A paired samples t-test was calculated to compare the mean pretest scores to the mean every participant regardless of property manager or landlord status. A significant increase was found from pretest to posttest score on five out of the eight questions. Also, a significant increase was found in the mean pretest to posttest score of agreement with the following statements: smoke-free policies improve the health of tenants ($t(71)= -2.302$, $p<.05$), smoke-free policies are

easy to implement ($t(68)= -5.012$, $p<.05$), knowledge of how to implement smoke-free policies ($t(68)= -6.971$, $p<.05$), and knowledge of thirdhand smoke (THS) ($t(71)= -10.642$, $p<.05$). Lastly, there was a significant increase in the mean pretest to posttest score on agreement with the statement that allowing smoking in units can cause legal repercussions for the participant ($t(70)= -3.080$, $p<.05$). The fact that five out of the eight questions had statistically significant results shows that the educational content of the presentation was adequate for educating not only property manager and landlords, but all of those who participated.

Crosstabs were calculated to determine relationships between several pretest variables and answers on both the pretest and posttest; these results showed that smoking status of the participants did not impact their answers on any of the pre and posttest questions. Frequencies were performed using SPSS version 24, and it was found that 75 percent of those proclaiming to be smokers already had smoke-free policies in place and were willing to implement smoke-free policies at baseline. An independent-samples Mann-Whitney U Test was also performed via SPSS version 24, because the dependent variable of posttest knowledge was not normally distributed. This suggested that the distribution of pretest and posttest knowledge on how to implement a smoke-free policy was not the same across the category of whether the participant was a property manager or landlord. When only MUH owners and managers were selected and their answers on pre and posttest compared, those who proclaimed to be MUH owners or managers had stronger beliefs that SHS is harmful in MUH ($p<.01$) than did the entire group ($p=.175$). However, both groups had significant change in knowledge of THS was ($p<.01$).

Gaps

A gap identified was that of a few members (n=3) answering “zero” on the Likert scale post-test questions. This may have simply been a matter of a participant rushing and not paying

attention to the answer; it also may be a matter of the participant not having the experience or authority to answer such questions. Another gap was that some of the participants who claimed to be a property manager or landlord answered all of the Likert scale questions on the pretest, but not on the posttest (n=4). This could be due to carelessness. Another matter was that the project manager set out the supplementary materials ahead of time, but did not announce their existence to group until the start of her presentation. There is a chance that the few members who gathered a handful of materials before the presentation may have had biased answers on the pretest due to preconceived notions derived from the materials. In the future, it would be best to keep the materials out of sight until after the presentation is given.

Unanticipated Consequences

One unanticipated factor was that of the informational pamphlets not being utilized by members. The informational pamphlets consisted of several single-page printouts from TFACC covering the following: health aspects of SHS exposure, legal issues and statistics related to smoking in MUH, and contact information for TFACC with hyperlinks to a Smoke-free MUH calculator and Smoke-free Housing Indiana. A ten-page smoke-free manual was also available, produced by TFACC. The smoke-free manual was the most readily-taken material, with eleven copies available at the meeting's start, and only one remaining at the end.

Contributing factors to the leftover materials had to do with two things: the large social media presence of the FWREIA, and the fact that two of the most important resources the project manager had to offer the group were free online resources. The administrator made a comment to the group that he could provide hyperlinks on social media to make it easier for the members to access the Smoke-free MUH Calculator and Smoke-free Housing Indiana; therefore, fewer members saw a need to take hard copies of the supplementary materials. However, the project

manager did notice several group members taking photos of her PowerPoint slides with their cell phones during the presentation; this was another unanticipated, but highly reassuring, finding. Lastly, the FWREIA administrator, Drew Wiard, announced to the group that he found the MUH calculator useful, as he had trialed it for his own investments. Mr. Wiard's personal use of the resource was an example of how the project translated knowledge and resources into real-life usage.

Expenditures

As originally planned in the budget, the majority of the costs for the project were in kind. TFACC was graciously responsible for the costs of all the materials and pamphlets provided to the group. The project manager did end up spending more of her own personal money than budgeted for, as the copies of the different colored paper were obtained from an office supply store rather than her own personal printer out of convenience. Also, the project manager had to renew SPSS version 24 for an additional six months on her personal computer. But, the cost of a statistician originally budgeted for was not needed. Overall, the project manager spent twenty five dollars above the budget.

Chapter 5: Leadership and Management of the DNP Project

Project management involved the planning, organization, monitoring, and control of all aspects of a project, with motivation of all included to achieve project goals (Radujkovic and Sjekavica, 2017). It is important to consider the organizational culture, change strategy, leadership style, interprofessional collaboration, and conflict management of all aspects of the project in order to ensure a successful project.

Organizational Culture

The organization, or group, where the DNP project was implemented is the FWREIA. The group is run by one administrator, Drew Wiard, and a co-administrator, Adam Beckstedt. These two are not employees of the organization, but participate in this work outside of their normal primary careers. In addition to a physical on-site group meeting of roughly eighty members each month, there is also a large social media presence of about six hundred. FWREIA members attend on a voluntary basis and pay no dues. The administrators run the group on a few core values; they aim to provide a platform, free of charge, for those interested in real estate investing and land lording to come and learn about real estate in ethically-sound ways (D. Wiard, personal communication, June 2, 2019). They aim to be a group for increasing knowledge and networking relationships, not a group for solicitation. Overall, they provide a large, open, inviting, and vibrant group culture.

Change Strategy

Influencing behavior, rather than mandating change in policies, was central to this scholarly project. Influence is defined as the capacity to have an effect on the character, development, or behavior of someone or something, or the effect itself (Dame, 2014). One resource emphasized the idea that social change starts small; explaining the need or forcing the issue is not the answer (Walker & Soule, 2017). To gain a lasting commitment, the group must feel a deep responsibility to change; they must internalize and believe the message (Persaud, 2003; Dame, 2014; Walker & Soule, 2017). This was achieved by the project manager with a powerful presentation to a small subset of people, iterating concrete facts about the detriment of smoking to both property values and health. Individuals must also be ready and motivated to change (Glanz, Burke, & Rimer, 2018). Emphasis was placed on building coalitions and good

relationships in organizations, rather than harsh mandates, as evidenced in several articles (Jenkins et al., 2016; Weldring, 2016; Walker & Soule, 2017). Influencing change was addressed in this scholarly project by focusing on topics which are of value to the FWREIA members.

The literature shows that willingness to implement smoke-free policies increased after education on the topic and building partnerships (Pizacani et al., 2011; Brett, Leavens, & Wiener, 2018; Kegler et al., 2019). For landlords afraid about losing revenue, the literature showed that compared to smoking-allowed properties, smoke-free properties did not experience a loss of market share in terms of occupancy rate (Stein et al., 2013; HUD, 2014; Stein et al., 2016). For public and private stakeholders, it was important to emphasize both the business case and public health rationale for smoke-free housing (Pizacani et al., 2011; Weldring, 2016). Analyzing how this project links with the organization's wider objectives is very beneficial to success; the public health aspect may give the organization a sense of duty and fulfill one of its goals of encouraging ethical practices for its members.

Leadership Style

In relation to the DNP project, both the leadership style of the project manager and the FWREIA administrator must be addressed. The project leader influences the overall project success, especially where project implementation is concerned (Moran & Burson, 2017, p. 330). Successful project management involves the coordination of project activities, stakeholder needs, and organizational needs (Moran & Burson, 2017, p. 330). The project leader accomplished a successful implementation by being attentive to not only her needs, but also the needs of the group. She closely analyzed the environment of implementation, followed their activities, maintained constant communication with the leadership, and was truly invested in influencing the group in a positive way.

In regards to this DNP project, both the project manager and FWREIA administrator possess qualities of an effective leader. An effective leader holds several important characteristics, including: being knowledgeable, flexible, emotionally intelligent, and effectively communicative (Moran & Burson, 2017, p.331). The project manager was very proactive and maintained consistent and open communication with all the members of her team. Other qualities possessed by the project manager included being willing to accept constructive criticism, being flexible, and emotionally intelligent. The FWREIA administrator possessed the following qualities of an effective leader as well: organized, knowledgeable, flexible, and open to feedback and constructive criticism. These qualities of both the project manager and FWREIA administrator allowed for a cohesive working relationship in the planning and implementation of the scholarly project.

Interprofessional Collaboration

Interprofessional collaboration is essential to an effective DNP endeavor. In this project, the team consisted of the project manager, Ashley George; the project advisor, Dr. Wendy Clark; and the practice mentor, Nancy Cripe. Throughout the planning and implementation process, all members maintained open and consistent communication. The project advisor and project manager met at least three times during each semester for updates, planning, and constructive criticism. Each meeting was predicated by a set of at least three meeting goals set by the project manager. The project advisor offered substantial guidance, support, and dialogue; the project's trajectory was greatly enhanced by the relationship between the project manager and project advisor.

The project manager and practice mentor also maintained communication via monthly emails and phone calls. Ms. Cripe worked very hard to offer guidance and support for the

project. For example, two weeks before the implementation date, Nancy and the project manager met at Nancy's office to go over the presentation. As a person who was fairly unfamiliar with the project at its current phase, as opposed to the project manager's classmates and advisor who had heard about the project many times by that point, Ms. Cripe was able to offer invaluable feedback. She suggested the rewording of two questions on the pre and posttest. Being familiar with navigating relationships with those in landlord positions on the topic of smoking, Ms. Cripe had a unique perspective on how to appropriately word the questions so they could be best understood and make a maximum impact. This was very helpful to the project manager, and the questions were indeed reworded.

Collaboration between the project manager and the administrator of the FWREIA was also very important to the project's success. Open communication was maintained between the two. The FWREIA administrator was very open and receptive to the project manager's ideas, and offered timely and helpful feedback along the project planning and implementation process. For example, when it came down to how the pre and posttests would be administered, the project manager originally thought that she would hand them out to each member upon entry to the meeting. However, the FWREIA administrator felt that if he allowed for a pause in the meeting to introduce the project and then help pass out the surveys, then the project manager would get a better response rate. This ended up sounding like a wonderful idea to the project manager, and is what occurred. That is an example of very crucial interprofessional collaboration.

Conflict Management

At times in a project, conflict and misunderstandings can occur. There were no real interpersonal conflicts or misunderstandings involved in the project. Mostly, this is a result of good planning on the part of the project manager and the DNP faculty at the university who,

through the use of multiple assignments and revisions on the scholarly project topics, helped the project manager to anticipate issues and troubleshoot them beforehand. The project manager also attended every monthly meeting of the FWREIA before the implementation, allowing her to gain rapport with the group and be educated about their wants and needs as a whole.

Chapter 6: Discussion

Impact of Project

As stated in Chapter Four, the project goal and PICO question were answered positively; education presented to those in the FWREIA did increase willingness to implement smoke-free policies in MUH. The project did also increase willingness overall of those group members without a previous smoke-free policy in place to be subsequently more willing to have one. All members claiming to be a property manager or landlord had increased willingness to implement smoke-free policies in general after the educational materials were presented.

Vital to the Scholarly Project were the eight DNP Essentials. Each of the Essentials was met by the completion of the project. According to Essential I, the DNP graduate is able to utilize scientific information to describe actions and advanced strategies to enhance health care delivery and evaluate outcomes (American Association of Colleges of Nursing[AACN], 2006). This scholarly project thoroughly addressed scientific underpinnings relating tobacco use and health implications; this was evident in the presentation to the FWREIA, foundational information derived from the literature, and the information gleaned from TFACC, the community partner. Essential II requires that the DNP graduate focuses on the needs of not only direct patient care, but also the needs of the broader community (AACN, 2006). The project manager accomplished this, as the implementation took place in the a community setting of Fort Wayne with a greater intent to improve health of those in MUH specifically. Essential III was

met substantially, as the project manager performed an extensive literature review, examining existing literature to determine the best evidence for implementation into practice (AACN, 2006). Essential IV was addressed; by completion, the project manager had successfully managed aggregate level data, which was analyzed and evaluated using the technology system SPSS version 24.

Essential V was achieved directly through this Scholarly Project; the project manager educated the FWREIA about tobacco policy, and the project itself served to advocate for ethical practices in landlord and property managers' practices. The project manager prepared a collaborative team for the project, which grew her communication and interprofessional skills; this addressed Essential VI. This project had a strong basis in population health, and the project manager completed the project with an ability to evaluate strategies related to community dimensions of health (AACN, 2006). Thus, Essential VII was also met. Lastly, Essential VIII requires the DNP graduate to use conceptual and analytical skills in evaluating the links among practice, organizational, population, fiscal, and policy issues (AACN, 2006). This scholarly project addressed tobacco use and smoke-free policies in regards to the community, and it described implications pertaining to the following populations: patients, landlords/property managers, policy-makers, administrators, and anesthetists.

Decisions and Recommendations

Based on the results of this scholarly project, recommendations are that education on smoke-free policies and resources available to those in landlord or property manager positions in an independent real estate investor group is an effective means to increase willingness of members to have smoke-free policies. The project manager recommends to emphasize the business aspects and monetary reasons for enacting smoke-free policies, as that was the main

reasons participants reported for being willing to have 100 percent smoke-free policies in their units. Also, the topic of THS should be considered as an effective adjunct in educating on smoke-free policies; across all landlord/property manager statuses analyzed, there was significant increase in knowledge about THS from pretest to posttest scores ($p<.01$). Recommendations are also to utilize mostly electronic forms of education, including PowerPoint and links to resources via social media. The hardcopy supplementary materials supplied to the participants were grossly underutilized.

Limitations of the Project

The results of the Scholarly Project are considered with a few limitations in mind. This study did not assess actual implementation of smoke-free policies; therefore, it is unknown whether the changes in willingness to implement smoke-free policies in MUH translated into implementation. Second, whether participants read the materials thoroughly was not assessed. The lack of significant change in belief from some pretest to posttest questions may be attributed to inattention to the educational materials, PowerPoint, and pre/posttests. Also, the current project only examined landlords and managers within Northeast Allen County, limiting the generalizability of the findings.

Application to Other Settings

The project can be applied to any other independent landlord and real estate investor group. Several studies were found in the literature related to appealing to those in landlord or property manager positions in order to change perceptions on smoking policies in MUH. The findings of the project can also be applied to any setting in which individuals are in charge of policy decisions and have a vested interest in the organization's financial success, such as a hospital or anesthesia group leadership. Landlords and real estate investors gain wealth and

revenue from their investments; they are personally responsible for decisions related to how those investments are managed. Similarly, hospital administrators and anesthesia group leaders are responsible for decisions which affect the wellbeing of their facilities; these decisions can involve making fiscally-responsible judgements.

Commonly, administrators and others in leadership roles own stock in the hospitals or companies for which they work (Becker's Healthcare, 2020). Meeting benchmarks for reimbursement then becomes not only a duty for the hospital, but also for the personal finances of the administrator or leader. Related to tobacco use, the direct costs of cigarette smoking to the health care system are substantial. In 1993, smoking cost the Medicare program 14.2 billion dollars, approximately ten percent of Medicare's total budget. In the general population, direct medical costs for the detection, treatment and rehabilitation of persons with smoking attributable diseases constitute six to eight percent of the total annual expenditures for health care, with an upper limit as high as fourteen percent (Centers for Medicare & Medicaid Services[CMS], 2005). As of 2020, Medicaid spends about forty billion dollars on health care for smoking-related diseases annually (CDC, 2020). Therefore, any setting that involves an opportunity to optimize revenue stream, in either a hospital leadership setting or real estate investor group, can also be utilized for the purpose of educating those in charge of crucial decisions about their respective group's wellbeing . The project design is replicable, with a large potential for future success in real-estate investor or hospital leadership settings.

Strategies for Maintaining and Sustaining

For future work, it can be implied that similar education included in this scholarly project will be beneficial to maintain and sustain the attitudes of landlords and real estate investors. Including resources which provided smoke-free manuals for landlords, community resources,

and the MUH calculator proved important for showing a significant change in attitudes according to the pre and posttest scores. The project manager was available for all members who wished for help in navigating any of the resources provided during the presentation, as the project manager's contact information was provided to all members at the completion of the project implementation. Also, business cards from the contacts at TFACC were provided at the implementation meeting, and this information has also been uploaded to the FWREIA social media page.

Lessons Learned

The project manager learned that it may be wise to assess a group earlier on in a project development, in the environmental scanning phase. For example, the project manager did not know ahead of time that the majority of the FWREIA members already had favorable attitudes towards smoke-free policies. Also, the majority of those with the authority to implement such policies already had such in place. If an assessment had been done earlier on, it could have helped to guide and direct the project manager to target the members who did not already have smoke-free policies in place, and to focus on those members with the authority to do so. Mostly, it would have helped to streamline the statistical analysis process.

Discovering that digital, rather than paper, forms of educational materials may prove more useful for members was an important finding. The majority of the educational materials and handbooks donated from TFACC were left untouched. Also, if an electronic version of pre-posttest had been utilized instead of hardcopies, the project manager could have attained a larger sample size. The social media presence of the FWREIA is much larger than the convenience sample targeted at the monthly meeting.

Chapter 7: Conclusion

Potential Project Impact on Health Outcomes Beyond Implementation Site

Implications of the project are far-reaching; all types of housing, not just multi-unit, can be positively impacted by smoke-free policies. SHS is the main concern in MUH, but thirdhand smoke is problematic in any setting where smoking occurs (Brett, Leavens, & Wiener, 2018; Cripe, 2019). The results of the literature review showed with almost absolute certainty that prohibiting smoking indoors is the only way to completely eliminate secondhand smoke exposure (Brett, Leavens, & Wiener, 2016; American Lung Association, n.d.). This project showed that those in landlord or property manager positions, including those in charge of MUH, have increased willingness to implement smoke-free policies after education on the risks of smoking in MUH is given, and after resources to help them with those processes are introduced. Therefore, other landlord and investor groups similar to the FWREIA in other parts of Indiana, or in other states with high rates of tobacco use, could benefit from a similar type of project implementation.

Health Policy Implications of Project

Compelling evidence exists for the fact that smoke-free policies can be successfully implemented in multi-unit housing (American Lung Association, 2017; Smoke-free Housing Indiana, 2019). The body of literature on influencing multi-unit housing managers' views on smoking policies shows, with a fair degree of certainty, that those in charge of the policy decisions have a more positive view of smoke-free policies after education on the resources available to them as landlords and managers (Brett, Leavens, & Wiener, 2016). Building partnerships with the stakeholders is also positively correlated with success of policy change

(Brett, Leavens, & Wiener, 2016). This scholarly project influenced decisions related to policy at the local level, with the potential for widespread state-level influence.

In regards to healthcare, some aspects of the project can also be translated to the perioperative area. If a group of landlords and managers can be influenced on the topic of smoking in relation to health and their investments, then a group of anesthesia providers or hospital administrators can also. First and secondhand smoke are both known instigators of upper and lower airway problems, especially in children, which can largely impact perioperative complications (Rieker, 2018, p. 627). There is discussion among hospitals as to their role in screening patients preoperatively for smoking (Niedermeier, 2016). The trajectory of this scholarly project can help formulate perioperative policy in relation to the care of patients exposed to tobacco smoke. After all, a group of landlords and investors in not unlike a group of hospital administrators or the leaders of an anesthesia group in regards to some vested interests mentioned in chapter six.

Proposed Future Direction for Practice

The findings of these scholarly project indicate that a live educational presentation introducing landlords and investors to supplementary manuals and resources on smoke-free housing are adequate for successfully influencing beliefs and motivation to implement such policies. Future research should determine if such resources lead to actual policy implementation; longitudinal studies are needed (Brett, Leavens, & Wiener, 2018). When appealing to landlords, property managers, and investors, the monetary savings and value increase is what should be emphasized.

This findings of this project also suggested that the educational presentation alone is not enough to change landlords', investors', and property managers' perceptions of legal

repercussions for allowing smoking in their units. When the pre and posttest scores were analyzed across all property manager/landlord statuses, there was no significant increase in attitudes regarding legal repercussion before or after the presentation. Therefore, alternative methods should be employed if the goal is to emphasize legal repercussions of smoking. Alternatively, participants across all landlord statuses had a strong understanding of revenue incentives for a smoke-free environment; therefore, as much effort may not need to be put into emphasizing that topic as a means for influencing change.

Future Implications

The project was based on generation of internal evidence with an aim to influence, rather than mandate or change a law. Determining whether a presentation providing education on the benefits of smoke-free housing to a group of real estate investors and landlords in Northeast Fort Wayne would increase willingness of the members to adopt smoke-free policies in multi-unit housing was the main goal of the project. Baseline frequency data was obtained from the target group via a survey. One-group within-subject pretest–posttest design was utilized to examine landlord perceptions of smoke-free policies. In the future, this same type of project can be conducted to yield similar results. The concept of monetary savings and revenue generation in relation to smoke-free policies was innate among members of an independent landlord and investor group, but the topic of legal repercussions in regards to smoke-free policies was not intuitive. In the future, in order to further educate and influence those in landlord, manager, or policy-making roles, legal topics should be more specifically addressed. It was clear from the findings that the topic of THS is an area which should also be emphasized in future studies; across all landlord/property manager statuses analyzed, there was significant increase in knowledge about THS from pretest to posttest scores.

Also, as mentioned above, there is opportunity for the project findings to be useful in regards to healthcare settings where tobacco use is an issue, such as the perioperative arena with anesthesia professionals and hospital administrators. Tobacco use is detrimental to a safe and smooth anesthetic, yet not all hospitals screen patients and parents on smoking and SHS (Niedermeier, 2016). This project can lend insight to the development of policies for preoperative assessment, smoking cessation, or planning anesthesia plans of care for those patients exposed to tobacco products.

Lastly, while this project was on a local scale, it had potential to impact larger community and state entities. Findings of this project could be used to influence future practice of state tobacco coalitions and national organizations like the American Lung Association. The project gathered insight from a small sample in Northeast Indiana which can be used for further research on how to best influence those in landlord or property manager positions.

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Appendix A
Project Budget

Project Expenses		
Salaries and Wages	**Description**	**Year 1**
DNP Project Manager	Ashley George	0
Total Salary Costs		0
Startup Costs	**Description**	**Year 1**
		0
Total Start Up Costs		0
Supplies and Materials	**Description**	**Year 1**
Handouts on smoke-free MUH	donated from TFACC- In kind	0
survey/pretest-posttest	ink and paper (approx 150 sheets)	$20
PowerPoint presentation	created by Ashley George	0
statistical software	SPSS version 24- already owned by project manager	0
utilities/wi fi at meeting space	In kind from FWREIA	$20
statistician	75$ per hour, working 2 hr max	$150
Capital Costs (costs >2,000)	**Description**	**Year 1**
Total Capital Costs		0
Total Expenses		$20
Project Revenue	**Description**	**Year 1**
		0
Total Project Revenue		0
Project Benefit/Loss		
Total Revenue		0
Less Expenses		$170

Appendix B
Project Timeline

Tasks	Jul 19	Aug 19	Sept 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20
Review of Lit complete	X	X												
Gap Analysis	X	X												
Organizational assessment	X													
CITI training	X													
Project agreement forms signed		X												
Create survey/pretest/posttest		X												
Ongoing meetings with DNP w/advisor		X	X	X	X	X	X	X	X	X	X	X	X	X
Meeting with practice mentor		X		X		X		X		X		X		X
Attend FWREIA meetings	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Create informed consent form for IRB		X												
IRB approval			X	X										
Design presentation for FWREIA			X	X	X									
Minimize reference list for presentation		X	X											
Implement								X						
Analyze results								X	X	X				
Enter data into SPSS								X						
Draft chapter 1,2,3				X	X	X								
Draft chapter 5									X					
Draft Chapter 4, 6, 7										X	X			
Present at TFACC meeting														X
Defend project at USF												X		
Submit project to Journal- *Tobacco Control*													X	

Appendix C
IRB Approval

University of Saint Francis
Institutional Review Board
Human Subjects Review
Committee/ACUC/IBC Institutional
Review Board Approval Form

Protocol Number: 1569242-HSFC

Review by (underline one): HSRC ACUC IBC

Date Reviewed: 10/09/2019
Principal Investigator: Ashley George
Faculty Advisor: Dr. Wendy Clark
Protocol Title: Assessment of attitudes towards non-smoking policies within an independent landlord and real estate investor group in Northeast Indiana.
Study Site(s): The Fort Wayne Real Estate Investors Association

Items submitted for review:

☒CITI Certificate
☒Initial protocol
☐ Abstract
☒Informed Consent Form (if applicable)
☒Approval letter from outside institution - The Fort Wayne Real Estate Investors Association
☒Other – explain: data collection instruments

Type of Review:

☒Full Review
☐ Expedited Review
☐ Exempt Review

Approval:

☐ Approval granted on
☐ Approval granted on for a period of one year.
☒Conditional approval* granted on 10/09/2019
☐ Not approved*
☐ Other

*Comments:

Before beginning data collection, please address the following concerns of IRB members:

1. Reduce number of potentially identifying demographic questions. Several demographic questions appear to be extraneous to study purpose and data analysis and the combination of data increases risk of participant identification. Additionally, consent should note that demographic data is being collected.

2. Clarify whether attendance for presentation and participation is voluntary for REIA members. Once the concerns are addressed, you may begin data collection; resubmission to IRB is not required.

The committee performing this review is duly constituted and operates in accordance and compliance with local and federal regulations and guidelines.

Stephanie Oetting	*Stephanie Oetting*	10/14/2019
Printed Name (Chair or designee)	Signature	Date

Appendix D
CITI Training Certificates Module 1-5

CITI 5

This is to certify that:

Ashley George

Has completed the following CITI Program course:

GCP – Social and Behavioral Research Best Practices for Clinical Research GCP – Social and Behavioral Research Best Practices for Clinical Research 1 - Basic Course

Under requirements set by:

University of Saint Francis

(Curriculum Group) (Course Learner Group) (Stage)

Completion Date Expiration Date Record ID

24-Jul-2019 23-Jul-2022 32542999

Verify at www.citiprogram.org/verify/?w93fe7421-5404-4b2e-a0be-a3a91faed487-32542999

CITI 4

This is to certify that:

Ashley George

Has completed the following CITI Program course:

SocialandBehavioralResponsibleConductofResearch (CurriculumGroup)
SocialandBehavioralResponsibleConductofResearch (CourseLearnerGroup) **1 - RCR** (Stage)

Under requirements set by:

University of Saint Francis

Completion Date Expiration Date Record ID

31-Jul-2019 30-Jul-2022 32542998

Verify at www.citiprogram.org/verify/?w64293eae-90ce-40d0-a544-d8aa02b48f30-32542998

CITI 3

CITI PROGRAM

This is to certify that:

Ashley George

Has completed the following CITI Program course:

Information Privacy Security (IPS) Researchers
1 - Basic Course

Under requirements set by:

University of Saint Francis

(Curriculum Group) (Course Learner Group) (Stage)

Completion Date Expiration Date Record ID

31-Jul-2019 N/A 32542997

CITI
Collaborative Institutional Training Initiative

CITI PROGRAM

This is to certify that:

Ashley George

Has completed the following CITI Program course:

PublicHealthResearch (CurriculumGroup) **PublicHealthResearch** (CourseLearnerGroup) **1 - Basic** (Stage)

Under requirements set by:

University of Saint Francis

Completion Date Expiration Date Record ID

24-Jul-2019 23-Jul-2022 32543000

CITI

Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w65f4849b-1c2a-422f-a795-012155d8758c-32543000

CITI PROGRAM

This is to certify that:

Ashley George

Has completed the following CITI Program course:

Social&BehavioralResearch-Basic/Refresher (CurriculumGroup) **Social & Behavioral Research** (Course Learner Group) **1 - Basic Course** (Stage)

Under requirements set by:

University of Saint Francis

Completion Date Expiration Date Record ID

01-Aug-2019 31-Jul-2022 32542996

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w6ac7834e-0bf6-4ee0-882f-fbac4091884a-32542996

Appendix E

Pretest

Demographic info. *Used only for purposes of this study.*

1. Name _____

Age____ Gender_____ email_____

Home zip code and State _____

2. Are you a landlord or property manager? Yes____ No _____

If yes, approximately how many units do you own or manage? _____

If no, proceed to question 6.

3. Do you own any multi-unit properties? *Multi-unit is defined as a building or structure designed to house several different families. Examples: apartments, townhomes, duplexes, quadplexes.* Yes _____ No _____. Where are they located (city and state)? _____

4. Do you have the authority to create rules and policies for your properties? Yes_____ No_____ **If not, who has that authority?** _____

5. Do you currently have a smoke-free policy in effect? Yes _____ No _____

6. Are you a current smoker? Yes____ No_____ Previous smoker_____ Never smoker _____

7. Do you use electronic cigarettes/vape? Yes_____ No_____

*Please answer, on a scale of **0-5,** how much you agree with the following statements: 0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree. Check the box beside your answer.*

I am willing to have a smoke-free policy in my units	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Smoke-free policies improve the health of tenants	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Smoke-free policies increase revenue	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Smoke-free policies are easy to implement	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
I know how to implement a smoke-free policy	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Secondhand smoke is harmful in multi-unit housing	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
I know what thirdhand smoke is	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Allowing smoking in my units can cause legal repercussions for me	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Are you interested in receiving outcome information from this project? Yes_____ No ____

For questions, please contact:
Ashley George, georgeal@cougars.sf.edu
University of Saint Francis

Appendix F

Post-test Survey

*Please answer, on a scale of **0-5,** how much you agree with the following statements: 0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree. Check the box beside your answer.*

I am willing to have a smoke-free policy in my units	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Smoke-free policies improve the health of tenants	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Smoke-free policies increase revenue	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Smoke-free policies are easy to implement	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
I know how to implement a smoke-free policy	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Secondhand smoke is harmful in multi-unit housing	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
I know what thirdhand smoke is	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐
Allowing smoking in my units can cause legal repercussions for me	0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

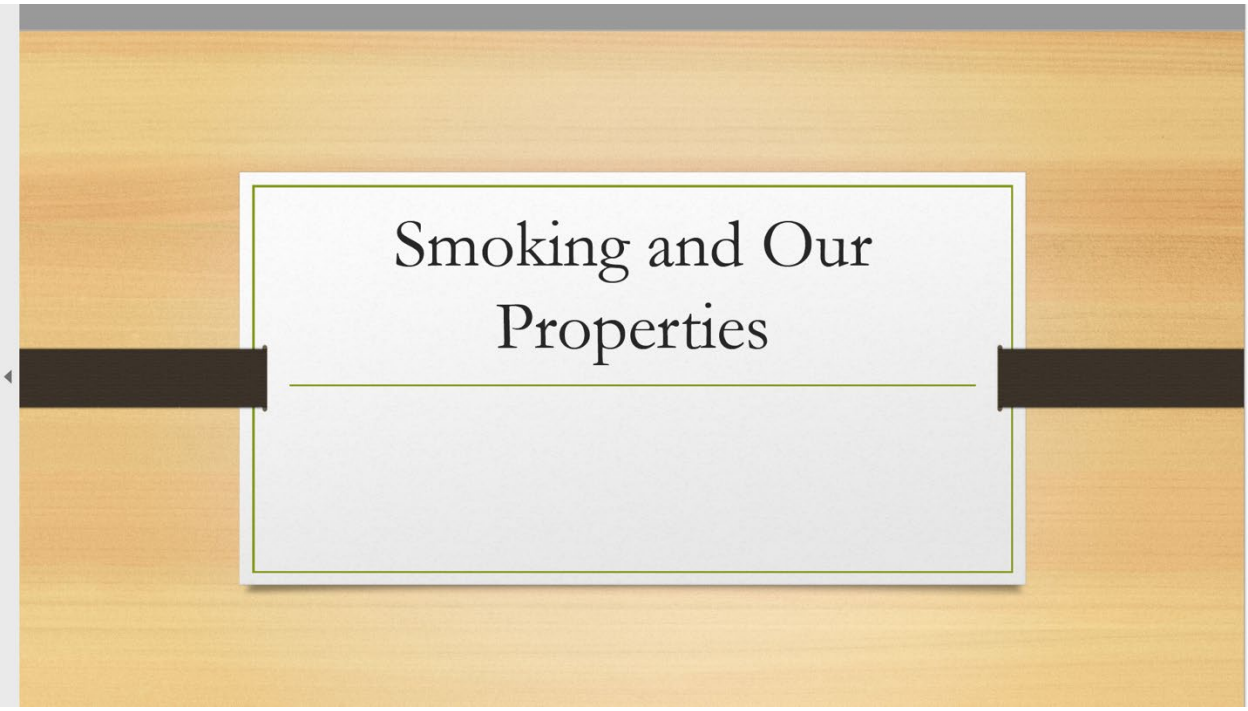
What do you see as the biggest advantage to a property becoming 100% smoke-free?

_____

_____

_____

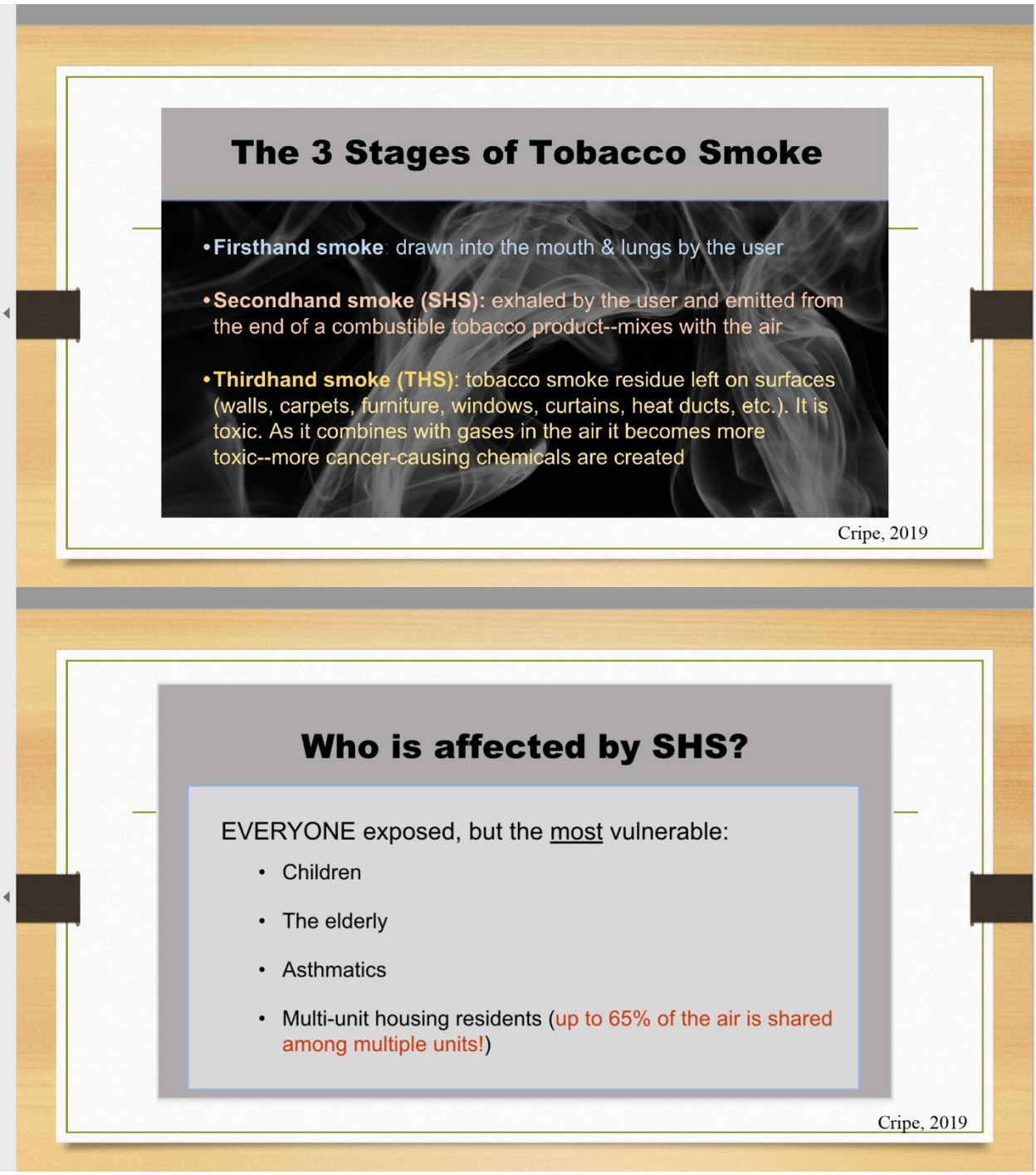
Appendix G
PowerPoint Draft



Objectives

- Learn about the effects of smoking in relation to multi-unit housing
- Discuss reasons to have smoke-free policies
- Become familiar with resources for implementing them

https://images.app.goo.gl/sL2J64kYJkPkRipr8


The 3 Stages of Tobacco Smoke
•Firsthand smoke: drawn into the mouth & lungs by the user
•Secondhand smoke (SHS): exhaled by the user and emitted from the end of a combustible tobacco product--mixes with the air
•Thirdhand smoke (THS): tobacco smoke residue left on surfaces (walls, carpets, furniture, windows, curtains, heat ducts, etc.). It is toxic. As it combines with gases in the air it becomes more toxic--more cancer-causing chemicals are created
Cripe, 2019
Who is affected by SHS?
EVERYONE exposed, but the most vulnerable:
• Children
• The elderly
• Asthmatics
• Multi-unit housing residents (up to 65% of the air is shared among multiple units!)
Cripe, 2019


SECONDHAND SMOKE INFILTRATES
THROUGH
DOORS, WINDOWS, HVAC VENTS & DUCTS, HALLWAYS & STAIRWELLS
CDC.gov
What about vaping?
What is in that "vapor"?
IT'S NOT JUST "HARMLESS WATER VAPOR"
E-cigarette aerosol contains at least 10 chemicals on California's Prop 65 list of chemicals known to cause cancer, birth defects or other reproductive harm.
TOLUENE
ACETALDEHYDE
CADMIUM
BENZENENE
FORMALDEHYDE
ISOPRENE
LEAD
NICKEL
NICOTINE
N-NITROSONORNICOTINE
Cripe, 2019

Thirdhand Smoke

- Thirdhand smoke may be invisible, but it can fill the air & all contents of the home with the stench of stale smoke
- It can also leave a yellow-brown residue on walls and furniture

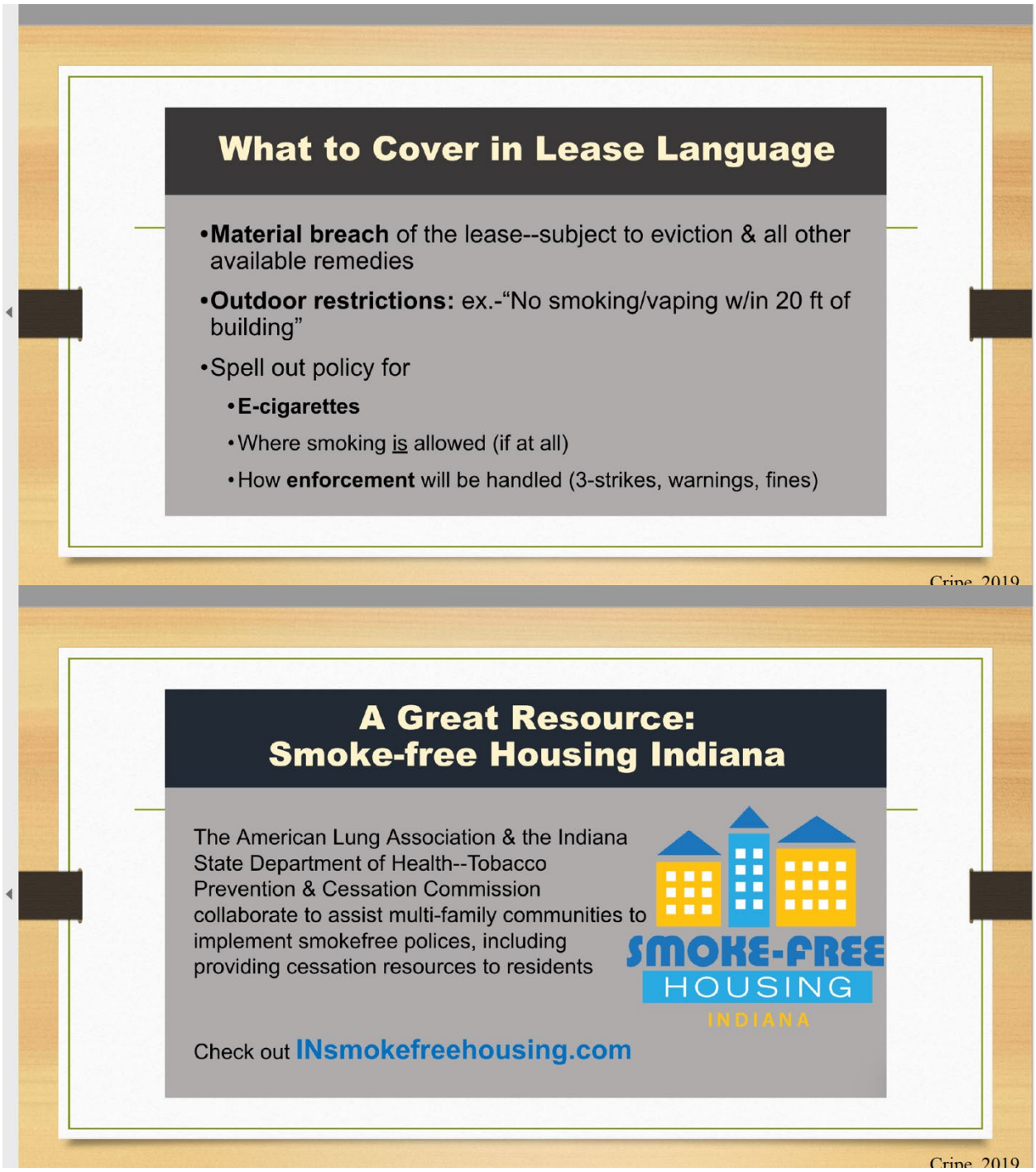
- Thirdhand smoke lingers long after the cigarette is gone, even months or years after the smokers move out. Even if you can't smell it, even after cleaning or repainting, it can still be present.

Cripe, 2019

Fires

Cripe, 2019


Are smoke-free policies legal?
Yes, absolutely!
Smoke-free policies do not infringe on the legal rights of an individual. Smoking and vaping are not legally protected rights. Smoking status is not a protected category or recognized as a disability.
There is no federal, state, or local laws that prohibits property owner from adopting a 100% smoke-free policy.
There is no requirement to accommodate smokers/vapers, including providing designated smoking/vaping areas
Cripe, 2019
Are smoke-free policies legal?
Yes, absolutely!
Smoke-free policies do not infringe on the legal rights of anyone.
• Smoking & vaping are not legally protected rights.
• Smoking status is not a protected category or recognized as a disability.
Cripe, 2019


What to Cover in Lease Language
•Material breach of the lease--subject to eviction & all other available remedies
•Outdoor restrictions: ex.-"No smoking/vaping w/in 20 ft of building"
•Spell out policy for
•E-cigarettes
•Where smoking is allowed (if at all)
•How enforcement will be handled (3-strikes, warnings, fines)
Cripe, 2019
A Great Resource:
Smoke-free Housing Indiana
The American Lung Association & the Indiana State Department of Health--Tobacco Prevention & Cessation Commission collaborate to assist multi-family communities to implement smokefree polices, including providing cessation resources to residents
SMOKE-FREE
HOUSING
INDIANA
Check out INsmokefreehousing.com
Cripe, 2019

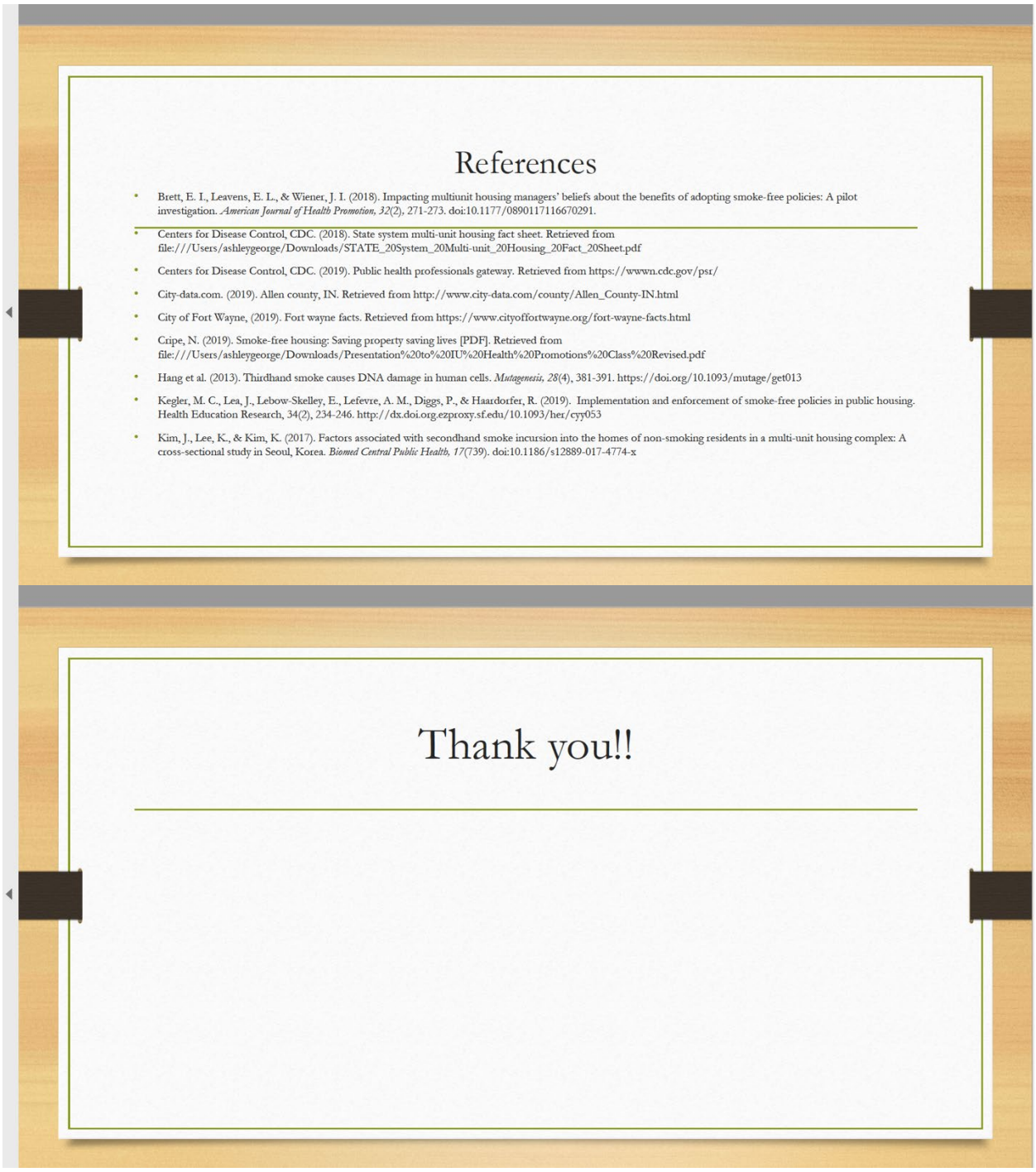
Another Resource:

This new easy-to-use tool will help you calculate the cost of turning over a smoking unit vs. a non-smoking unit.

https://www.tecc.org/smoke-free-multi-unit-housing-calculator/

Questions or Comments?

- Ashley George
- georgeal@cougars.sf.edu



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Thank you!!

Appendix H

Data Dictionary

Variable name	Variable Description	Data source	Measurement type	Possible values	Coding instructions
Age	Age of member-For demographic purposes	Pretest	Continuous, ratio	Any positive numerical value	Numerical value
Gender	Gender of member-For demographic purposes	Pretest	Qualitative, Nominal; or dichotomous	M/F	M=0 F=1
Zip_Code	Home zip code; for demographic purposes	Pretest	Nominal; string variable	Any 5 digits	Numerical values
State	Home state; demographic purposes	Pretest	ordinal	Any of 3 states more likely to gather info, and other; 1,2,3,4	IN= 1, OH=2, MI=3, other=4
PM_or_Landlord	Inclusion criteria; is participant a landlord or property manager?	Pretest	Categorical (dichotomous)	Y/N	Y=1 N=0
Units	If PM or landlord, how many units do they own or manage	Pretest	Ordinal	1,2,3,4,5	1= 1 unit, 2= 2-10 units, 3= 10-20 units, 4= 20-30 units, 5= >30 units
MUH	whether the participant owns multi-unit housing properties	Pretest	Categorical (dichotomous)	Y/N	Y=1 N=0
Location	Location of MUH	Pretest	ordinal	Allen county, IN, outside of IN	1- Allen County, 2- IN outside Allen county, 3- outside of IN
Authority	Does participant have authority/ability to create policies and rules?	Pretest	Categorical (dichotomous)	Y/N	Y=1 N=0
Authority_2	If not, Who makes the rules and policies	Pretest	ordinal	1,2,3	1= management company, 2= other individual, 3= Government agency

SF_currently	Does member currently have a SF policy?	Pretest	Categorical (dichotomous)	Y/N	Y=1 N=0
Smoker	Does the participant smoke or did they ever smoke	Pretest	Nominal	0,1,2	Y=1, N=0, F=2 Yes, no, former
electronic	Does participant use e-cig	pretest	categorical	Y/N	Y=1, N=0
Pre_SF_policy	Agreement with willingness to have SF policy	Pretest and Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Pre_SF_health	Agreement with SF policies improving health of tenants	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Pre_SF_revenue	Agreement with SF policies increasing revenue	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Pre_SF_easy	Agreement with SF policies are easy to implement	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Pre_SF_knowledge	Agreement with currently knowing enough to implement a smoke-free policy.	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Pre_SHS_harm	Agreement with SHS is harmful in MUH	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Pre_THS	Agreement with being familiar with THS	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral

					4=Agree 5= Strongly agree
Pre_Legal	Agreement with smoking in units can have legal repercussions	Pretest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_SF_policy	Posttest-Agreement with willingness to have SF policy	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_SF_health	Posttest-Agreement with SF policies improving health of tenants	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_SF_revenue	Posttest-Agreement with SF policies increasing revenue	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_SF_easy	Posttest-Agreement with SF policies are easy to implement	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_SF_knowledge	Posttest-Agreement with currently knowing enough to implement a smoke-free policy.	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_SHS_harm	Posttest-Agreement with SHS is harmful in MUH	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Post_THS	Posttest-Agreement with being familiar with THS	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral

					4=Agree 5= Strongly agree
Post_Legal	Posttest- Agreement with smoking in units can have legal repercussions	Posttest	Ordinal	0,1,2,3,4,5	0= not at all, 1=Strongly disagree 2=Disagree 3=Neutral 4=Agree 5= Strongly agree
Motivator	What does the participant see as the biggest motivator to consider becoming 100% smoke-free in their units?	Posttest	Qualitative, nominal; string variable	1,2,3,4	1= health reasons, 2=monetary reasons, 3=attracting better tenants/more desirable, 4= less hassle
Interest	Is participant interested in receiving outcome information from this project?	Pretest	Categorical (dichotomous)	Y/N	Y=1 N=0