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### A Policy Project: Implementing Safe Firearm Storage Legislation in Kentucky

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**A Policy Project: Implementing Safe Firearm Storage Legislation in Kentucky**  
by

Maggie Marie Wisser

Paper submitted in partial fulfillment of  
the requirements for the degree of

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### **Abstract**

Ensuring the safe storage of firearms in the home is a research-supported method of reducing the incidence of firearm injury and death, specifically unintentional injury and self-harm in the pediatric population. The American Academy of Pediatrics recommends keeping all firearms stored locked, unloaded, and separate from ammunition. While evidence shows that implementing laws regulating the storage of firearms can be effective to reduce morbidity and mortality, the state of Kentucky currently has no such regulations. For this DNP project, John Kingdon's Multiple Streams Framework was used as a guideline for policy analysis with the intention of identifying opportunities to advocate for legislative action on this issue (2003). A 4-part intervention including participation in the legislative process and grassroots advocacy efforts was completed, as well as partnering with a legislator to introduce new legislation. House Bill 292 "An act Relating to Gun Safety for Children" was introduced in the 2022 Kentucky legislative session. Although this bill did not pass into legislation, advocacy efforts were effective in spreading awareness of the issue to make conditions more favorable for future legislation in Kentucky.

*Keywords:* safe storage laws, child access law, health policy, firearms, gun safety

## **Policy Change to Impliment Safe Storage Laws in Kentucky**

### **Problem**

Unintentional firearm injuries and death is something that can affect children who gain access- whether intentionally or not- to a firearm. Safe storage of firearms can reduce incidence of this type of accident, but currently the State of Kentucky has no law or regulations on how firearms should be stored.

### **Background**

For children in the U.S, injuries from firearms are the second highest cause of death (Monuteaux et al., 2019). In 2016, it was estimated that there were 7,745 children seen in the emergency room for injuries due to firearms (RAND Corporation, 2020). A large portion of these is due to suicide or accidental injury and death. In 2015, forty percent of the 1,468 children that died at the hands of a firearm, died by suicide or by inflicting unintentional harm on themselves or another child (Azrael et al., 2018). Even more different from typical gun violence, in these situations the gun being used habitually comes from the child's own home (Azrael et al., 2018). Taking into consideration this information- combined with the fact that a large majority of families in the United States are gun owners- children living in the United States have considerably higher odds of dying from an unintentional firearm injury compared to children living in equally developed countries (Hemenway & Solnick, 2015). In fact, a study by Bacon et al. (2017) estimated that when comparing high-income countries of the world- 91% of deaths due to firearms in children ages 0-14 happen here in the U.S.

### ***Definition of Terms***

- Unintentional firearm injury: “fatal or nonfatal firearm injuries that happen while cleaning out or playing with a firearm or other incidents of an accidental firing without evidence of intentional harm” (Centers for Disease Control, 2021).
- Weak Child Access Law: a law that aims to reduce legal minors’ access to firearms. There is criminal liability for adults that “intentionally, knowingly, or recklessly” allow the use of a firearm by a minor (Hamilton et al., 2018).
- Strong Child Access Law: Laws that require gun owners to safely store their firearms and impose criminal liability if a firearm that was not stored correctly is accessed by a minor (Hamilton et al., 2018).

### **Significance and Rationale for Solving the Problem**

In 2015, 55% of households in Kentucky had firearms in the home, and 6 in 10 children were living in homes with guns (Foundations for a Healthy Kentucky, 2016). In Kentucky from 2011-2015, unintentional firearm discharge made up 57% of firearm deaths for ages 1-4 and 33% for ages 5-9 (Kentucky Department of Public Health, 2017). According to the 2020 Kentucky Child Fatality report, firearm discharge was responsible for 6% of accidental injury deaths in children- more than incidents of choking, poisoning, and hyperthermia. The introduction of legislation requiring gun owners in Kentucky to safely store their firearms would reduce the total number of child accidental injuries and death from firearm discharge. Creating a safe atmosphere that is compatible with healthy growth and development of children should be at the forefront of public health agenda and reflected through Kentucky legislation.



### **Current Data for Solving the Problem**

The American Academy of Pediatrics recommends all guns be stored locked, unloaded, and separately from ammunition (Crossen et al., 2015). Monuteaux et al. (2019) discovered that if even twenty percent of homes that unsafely stored their firearms stored their guns according to recommendation, an estimated 235-323 child gunshot injuries could be prevented over one year's time. Currently, 20 states have legislation that requires safe storage for firearm owners. In 2018, Tseng et al. found a correlation between accidental injuries and state gun law leniency. The accidental injuries percentage was highest in states with lenient laws, while the percentage was lower in states that had stricter gun laws. The same was true for suicide attempts where the proportion in a state with less strict laws was 4.4%, while the proportion in a state with stricter gun laws was 1.3% (Tseng et al., 2018). Child Access Prevention Laws (CAP laws) are laws put in place to reduce the access of firearms to minors. Hamilton et al. (2018) wrote that States with stronger CAP laws reported 30% less firearm injuries, and states with weaker CAP laws with 79% increased firearm injuries. In addition, strong CAP law states were found to have much fewer hospitalizations due to unintentional firearm injuries (Hamilton et al., 2018).

While the state of Kentucky has a child access prevention law in place, it is classified as weak by Hamilton et al (2018). This legislation was passed in 1994 and prevents adults from “intentionally, knowingly, or recklessly” providing handgun access to individuals under 18 years old- with the exception of when it is legal for someone that is under 18 to have a handgun (Gifford's Law Center, 2020). While this is constructive, there is no legislation addressing safe storage of firearms to prevent unintentional access of a firearm to a child.

### **Literature Review**

A review of the literature was completed to evaluate the effectiveness of policy change in decreasing incidence of pediatric accidental firearm injuries. In total, 7 articles were reviewed, all of which discussed some type of policy change intervention regarding firearms and pediatric injury. A majority of the studies utilized Brady Gun Scores, a scorecard that ranges from 1-100 created by the Brady Campaign to measure the strength of a given state's firearm legislation (Goyal et al. 2019). This made it possible for the articles to compare the number of pediatric firearm incidents to the strength of legislation in each state. Goyal et al. (2019), Madhavan et al. (2019), Patel et al. (2019), and Tashiro et al. (2016) all found an association between more lenient state gun legislation and an increased amount of child firearm injury and deaths. A study by Goyal et al. (2019) found that with every 10-point increase in a state's brady score, child mortality rates were decreased by 4%. While stricter gun legislation was linked to fewer pediatric firearm casualties, there was not an association between gun legislation and child homicides- only pediatric suicides and accidental gun events (Madhavan et al. 2019).

The remaining four studies- Hamilton et al. (2018), Zeoli et al. (2019), and Azad et al. (2020)- looked specifically at Child Access Laws (CAP laws). CAP laws are legislation specifically implemented to reduce availability of guns to minors. There are two categories of these laws: reckless CAP laws that make it illegal to offer a firearm to a minor and negligent CAP laws that make it illegal to not store your firearm safely- negligent CAP laws being the less lenient of the two (Azad et al. 2020). Hamilton et al. (2018), Zeoli et al. (2019), and Azad et al. (2020)- the studies that discussed CAP legislation- found the implementation of these laws to reduce pediatric firearm incidents. Hamilton et al. (2018) found that states with strong CAP laws had an estimated 44% fewer unintentional pediatric firearm injuries, and Azad et al. (2016)

discovered that the strictest negligent CAP law was associated with up to a 59% unintentional pediatric firearm fatality reduction.

As demonstrated in table 1, the majority of the literature on this topic was cross-sectional in design, which is a level III evidence as ranked on the John Hopkins Scale. Because the nature of the topic revolves around law and policy change affecting health outcomes- understandably, there are not many RCT design studies. Each article was scored utilizing a critical appraisal tool. While the design of the studies created limitations, the scope of the studies was very large- typically accounting for the entire United States. Another strength of the literature in this area of interest is its currency: all of the articles in this review were published within the last 5 years.

The main aim to reduce pediatric accidental firearm injuries revolves around limiting children's access to firearms. The literature indicates a strong association between decreased instances of firearm injuries in children and the strength of firearm legislation. This means that public policy could be an effective way to decrease child mortality and morbidity from firearms. Hamilton et al. (2018), (Zeoli et al. 2019), and (Azad et al. 2020) specifically point to strong Child Access Laws as being a tool to drastically reduce these types of injuries and deaths. Since the state of Kentucky CAP law is categorized as weak, this leaves room for change and an opportunity to decrease injuries/deaths of children in the state. A legislation change regarding Kentucky's CAP law serves as a legitimate researched-backed intervention to address this problem.

Table 1

*John Hopkins Hierarchy of Evidence*

Level of Evidence		Goyal et al. 2019	Hamilton et al. 2018	Madhavan et al. 2019	Patel et al. 2019	Zeoli et al. 2019	Tashiro et al. 2016	Azad et al. 2020
I	Experimental study, RCT, systematic review consisting of RCT							
II	Quasi-experimental study, systematic review with RCT and quasi-experimental			X		X		
III	Non-experimental study: qualitative studies	X	X		X		X	X
IV	Opinion of respected authorities: practice guidelines, consensus panels							
V	Experiential and non-research evidence: literature reviews, quality improvement, case reports, expert opinion							

### Purpose and Specific Aims

The purpose of this project was to advocate for policy change in Kentucky to require firearm owners to abide by recommendations for the safe storage of a firearm. The goal for this policy project was as follows: to initiate a grassroots advocacy campaign to increase awareness of the problem and to advocate for state legislation. The overall long-term goal of this DNP project was to decrease firearm injuries and deaths that result from negligently stored firearms.

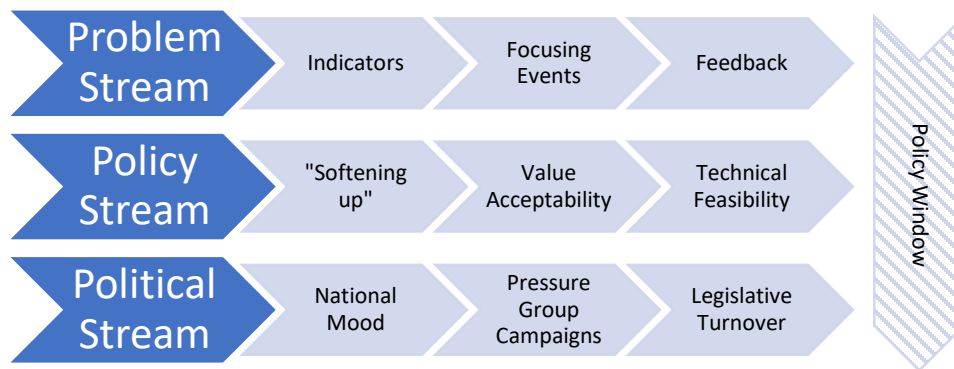
### Conceptual Model

The conceptual model that guided this project is the Multiple Streams Framework formed by John W. Kingdon and explained in his work “Agendas, Alternatives, and Public Policies” (2003). Throughout his publication, Kingdon provides an in-depth description of the legislative process and provides a guide for policy analysis and action for advancement of a specific policy.

Kingdon's model consists of three separate "streams" that join together to create the policy window. These are: the problem stream, the policy stream, and the political stream. The streams approach was applied to current legislation in Kentucky surrounding firearm storage and anticipate barriers and factors that will influence potential policy change.

Figure 1

*Multiple Streams Framework*



**Problem Stream**

At any given time and any given place, there are numerous problems that warrant legislative attention. The legislative calendar consists of 60 legislative days on even numbered years and 30 legislative days on odd numbered years (Kentucky General Assembly). Because the amount of allotted time for session meetings is not infinite, neither can be the number of issues addressed. The Problem Stream analyzes the characteristics of a problem that motivates lawmakers to seek change and to address it on the policy making agenda. The specific characteristics analyzed are indicators, focusing events, and feedback.

***Indicators***

An indicator is a fact or statistic that points to a present issue. These indicators typically come from government and nongovernment agencies routine monitoring of events such as: death rates, unemployment rates, and consumer prices (Kingdon, 2003). Indicators assist in assessing the extent of a problem or follow any trends. Indicators to consider when speaking about firearm storage are prevalence of firearms in Kentucky homes, current reported firearm owners that store their firearms safely, and incidence of firearm related injury and death- specifically Kentucky children.

According to the Kentucky Health Issues Poll, 55% of Kentucky adults reported a firearm in the home. In 2016, 6 out of 10 Kentucky homes with children contained a firearm, which is increased from 2011. 24% of these households reported having a loaded firearm in the home and 12% reported a loaded and unlocked firearm in the home (KHIP, 2016). In terms of incidence, Kentucky has a higher childhood mortality rate than the national average- the leading cause of death being unintentional injury. In 2016, 56% of childhood suicide deaths in Kentucky were committed with a firearm (Child Department of Public Health, 2018). From 2011-2015 in Kentucky, 57% of firearm casualties aged 1-4 were unintentional and 33% for ages 5-9 (Kentucky Department of Public Health, 2017). Conversely, self-harm was responsible for 65% of firearm deaths in the 10–14-year age group and 58% in the 15–17-year age group (Kentucky Department of Public Health, 2017). These indicators combine together to demonstrate a childhood firearm injury and death issue in Kentucky and an opportunity to decrease prevalence by decreasing access. Introducing evidence-based measures to reduce morbidity and mortality to political figures has been a successful method of public health advocacy in the past (Hunter, 2016).

### *Focusing Events*

According to Kingdon, the mere existence of a problem- even with impactful indicators- is not typically enough to urge policy evaluation. Most public problems need to garner attention from the general public and those involved in government in order to influence change. Problems are pushed into the center stage of the public policy arena either by a crisis or disaster, powerful symbol, or through a policy maker's own personal experience (Kingdon, 2003). While violent gun crimes and mass shootings are well documented in the media- accidental shootings and suicide is not spoke about on public platforms nearly as often. This results in an unevenly distributed conversation about guns and gun reform- typically centered on how to reduce homicides and assaults, and less about gun safety. While the aforementioned is extremely important, the methods to go about reducing gun violence are different than what may be successful to reduce accidental injuries/child suicide. Increased coverage about events where children accessing firearms results in injury and those with personal experiences involving these types of events speaking about their experiences could result in increased public awareness and, in turn, an urgency to implement policy to combat this issue.

Healthcare workers can utilize their platforms and share their experiences or focusing events with lawmakers to influence change. Personal experience is what humanizes the data being presented. A healthcare professional speaking about a 5-year-old child that came into the Emergency Room with an accidental self-inflicted gunshot wound to the head after accessing a parent's firearm being stored on top of the refrigerator is much more influential than speaking of statistics alone. A local children's hospital celebrates "ASK Day" to bring awareness to safe storage and firearm safety. June 21<sup>st</sup> is nationally designated as ASK day, which stands for "Asking Saves Kids" (WHAS, 2022). This day is used as a reminder for parents to discuss gun

safety with their children and those their children will be spending time with. This hospital recently celebrated this day in remembrance of a 12-year-old child in the area that had just lost their life due to accidental firearm discharge. An emotional plea to legislators, using professional experience as a pediatric nurse and connections with other healthcare professionals to urge them to share their own professional experiences could shift opinion towards the favoring of firearm storage regulations.

### ***Feedback***

Feedback is the mechanism used to relay information on current programs and policies to government officials. This happens in one of two ways: formally or informally. Formal feedback comes in the form of “systematic monitoring” and “evaluation studies” that are meant to evaluate the implementation of legislative policies (Kingdon, 2003, pg.101). Feedback can also be brought to lawmaker’s attention through informal ways, such as citizen complaints. Feedback allows lawmakers to evaluate whether policies they enact during the legislative session have their intended effect. Policies oftentimes have consequences, both positive and negative, that are not previously anticipated during the law-making process. Kingdon gives the example of a law that reduced highway speed limits to 55 miles per hour. This policy was created in order to conserve fuel but had the unintended positive consequence of increasing highway safety (Kingdon, 2003).

Theoretically thinking, there could be some possible unintentional consequences of enacting a safe storage law in Kentucky. Negatively, there is the chance of the policy not being enforced by the Kentucky law enforcement system. Additionally, it may take time for the general public to become aware and abide by a new safe storage policy- prolonging the time it takes for the law to have its intended effect. Potential unintended positive consequences of new safe



storage regulations could be increased revenue from firearm storage devices and a decrease in the number of stolen firearms. Being aware of possible feedback before a policy is created generates well-rounded legislation, in hopes of combatting prospective negative feedback before a policy reaches the implementation phase. Mentioning the unintended result of possibly increasing storage device sales could act as an incentive to support safe storage efforts for lawmakers concerned with the economic impact of certain policies.

### **Policy Stream**

The Policy Stream of John Kingdon's framework compares the process of creating and amending a new policy to what biologists' term "primeval soup" (Kingdon, 2003, pg. 116). This comparison is an attempt to explain the long process of law making where concepts are bounced around and policies are reformed and born out of past failed legislation. The survival of a proposal is termed "natural selection" and is influenced by the "softening up" to the proposed policy as well as its value acceptability and technical feasibility (Kingdon, 2003, pg. 117).

### ***Softening Up***

The phrase "softening up" refers to the idea of softening the resistance of opposing parties to a certain idea. Typically, the first time an idea is introduced, unless it is not at all controversial, there is a knee-jerk immediate opposition to change. John Kingdon (2003) introduces the idea of "softening up" as a way to combat this reaction. Firearm regulation is one of those topics that can be met with an immediate refusal to participate in the conversation. Kingdon reports two important groups to "soften up": the general public and specialized public, those with a higher stake in the the topic (Kingdon, 2003). "Softening up" is done by introducing an idea before trying to pursue a policy regarding that idea, through education and conversation.

In terms of firearm legislation and specifically storage regulations, the Kentucky political atmosphere has been softened up on several occasions. Senate bill 180 introduced the idea of safe storage requirements, but only in homes with adoptive or foster children (SB 180, 2019). This bill did not advance past Veterans, Military Affairs, & Public Protection Committee hearing, but was a way of establishing the concept of safe storage legislation. House Bill 70 is a bill that was presented to the Kentucky House in 2019 an act proposing to make unlawful storage a Class B misdemeanor (HB 70, 2019). Kentucky House Bill 80 was presented to committee in the 2021 spring legislative session and again proposed unlawful storage of a firearm as a Class B misdemeanor (HB 80, 2021). Although none of these bills advanced past committee hearing, they helped gain information and gauge reactions. Legislators often use the introduction of bills that they know probably will not pass to “test the water” (Kingdon, 2003).

### ***Value Acceptability***

Value acceptability is a term used to describe an idea being aligned with the values of those deciding on the said idea. This is difficult with legislation because often times those deciding on a bill are on opposite ends of a spectrum when it comes to what they value. It is important when proposing legislation, that one seeks to relate to both sides of the political spectrum and reiterate that a public health policy has the sole goal of “preventing premature death” and “improving health status” (Hunter, 2016).

Up to this point, proposals relating to firearm storage have not done well in either the House or the Senate. Senate Bill 180, as well as House bills 70 and 80 involved firearm storage regulations and did not advance past committee hearings. During a conversation with Representative George Brown, he solidified the idea that firearm legislation is not something that is valued or deemed important for a majority of legislators currently working in Kentucky.

Previous strategies to implement firearm safety legislation have been unsuccessful, which speaks to the importance of analysis and evaluation of barriers to value acceptability to better formulate a more efficient approach.

In terms of safe storage laws, the issue would best be approached from a public health viewpoint instead of a partisan political agenda. This will hopefully avoid long, polarizing debates about the political or moral correctness of guns and help focus the attention on the need for increased safety- as if discussing government mandated safety measures similar to seatbelts and removing lead from paint. Vocalizing healthcare worker support on the issue could reinforce the important public health implications. Garnering support from the Kentucky Association of Nurse Practitioners and Nurse Midwives by having a safe storage bill placed on their “friendly bill” list is a way to illustrate the public health implications of this policy.

An additional method to reduce political controversy on this topic is to have bipartisan partnership. Reaching out to both Republican and Democratic lawmakers could help in making a more balanced conversation. Also, introducing evidence-based research to government representatives that show public opinion- regardless of party affiliation- overwhelmingly supports regulations regarding storage of firearms may be beneficial. Research by Barry et al. (2019) analyzed data collected by John Hopkins Center for Gun Policy and Research on public opinion on different firearm legislation. Over twenty-four firearm policies showed “majority support” from respondents- even considering gun ownership, state residence, and political party affiliation. An understanding of the positive public opinion could potentially avoid making politicians feel the need to maintain a cohesive stance on controversial issues to avoid alienating members of their political party. A study by Dixon et al. support of gun storage laws by gun owners was higher than what the study members anticipated (2020).

### ***Technical Feasibility***

Technical feasibility refers to how detailed and realistic a bill proposal is before it is introduced to the legislative body. Kingdon explains that even well supported bills have failed due to lack of detail on implementation (2003). Time constraints and other pressing matters prevent policy makers from spending extended amount of time discussing any deficiencies in a bill proposal. It is imperative that bill authors and sponsors thoroughly discuss details of policy implementation prior to introducing it to the general assembly. Research on the recent failed bills regarding firearm storage and what specific reasons were stated for disagreement can provide insight on what amendments to make to a future bill to enhance its chances of success. Additionally, other states have recently passed legislation requiring safe storage of firearms that could be used as a reference point for proposal creation. Prior to proposal, the specifics of crime classification and penalties for unsafely stored firearms should be clearly stated in the bill proposal, as well as any special circumstances.

Negligent firearm storage becoming illegal would result in creating a new crime in the State of Kentucky. Financial impacts of this would be related to costs within the judicial system and of incarceration. HB 70 estimated a state projected impact of none and a local impact of minimal to moderate (<\$1 million) (Corrections Impact Statement, HB 70, 2019).

### **Political Stream**

The Political Stream accounts for governmental factors that affect legislative success. The political climate and characteristics of those in decision making positions carries a lot of weight when it comes to proposed legislation passing or failing. National mood, pressure group campaigns, and legislative turnover are all components that must be considered in the political stream (John Kingdon, 2003).

### *National Mood*

National mood represents a general consensus around the country on certain topics. Kingdon states that those working in government can typically read the mood and sense when a shift happens (2003). Public opinion has a hand in guiding what agendas are considered pressing matters and what is pushed to the background. Political leaders, social movements, and changes in the economy all have potential to influence national mood. The current climate of the country could be considered divisive. People, now more than ever, are very divided when it comes to political beliefs. Gun regulation is considered one of the more divisive topics in today's political climate. Generally, legislation that mentions firearms is deemed partisan and runs the risk of being voted on strictly based on party lines. Although, building compassion fatigue occurring from the Nation's chronic gun violence issue may be starting to shift the mood about gun legislation. The national mood is ever changing and hard to influence by a single person or organization. The current divide and tense political atmosphere may be a barrier to overcome to achieve success in implementing firearm storage legislation in Kentucky.

During the recent 2020 election, gun policy was a notable discussion for debate and campaigns. While firearm regulation remains a divisive topic in the political arena, data shows that everyday American's do not find the topic quite as polarizing. A study published by Barry et al. (2019) found that United States overall public opinion about firearm prevention regulations increased from 2015 to 2019. There was a 5% increase in support for safe storage legislation, from 69% to 74% of the public that responded in support (Barrey et al., 2019). There was a higher percentage of registered democrats that supported firearm regulation policies. While political party affiliation did play a role in the percentage of supporters, the majority of respondents registered Independent and Republican alike were in favor of 17 of the 18 gun

policies mentioned in the study- a policy on assault weapon bans being the exception (Barrey et al, 2019). The national mood seems to lie on the side of supporting action to strengthen gun legislation in the United States. While the general public does is not directly responsible for the direction policymakers take on a given issue, Kingdon explains that elected officials must feel that they will at the very least “tolerate it” to avoid backlash in coming election polls (Kingdon, 2003). While the majority of the general public is in support of stricter gun legislation, it is not apparent that it is with a level of passion that would convince lawmakers opposing regulations yield out of fear of voting repercussions.

### ***Pressure Group Campaigns***

Organized groups that are present in the political arena are a mentionable variable in the schematics of policy creation. Organizations that come together in support or opposition of a specific cause have the ability to put their money, time, and efforts towards advocating for or against legislation they have strong beliefs about. There are several organizations in Kentucky that have a strong stance when it comes to firearms and safety. Louisville non-profit “Little Hands Little Feet” advocates for gun safety education and legislation. Luther Brown started the organization after his grandson died as a result of a misfired firearm. A group called “Moms Demand Action” is a national organization with a Kentucky chapter that’s mission is centered around ending gun violence and is very active in the legislative arena.

When advocating a new health policy, it can be helpful to remember the different healthcare associations that carry influence in the political realm. Kentucky Nurses Association (KNA) and the Kentucky Association of Nurse Practitioners and Nurse Midwives (KANPNM) are two prospective groups that could be influential in the campaign to regulate safe gun storage in Kentucky. The KANPNM has a strong presence in the Kentucky legislative domain. The

vision of the association is to “be recognized as full partners and leaders in the development of health policy, provision of quality health care, and advocacy for the people of the commonwealth” (KANPNM, 2021, para. 2). The organization publishes position statements on various public health issues on their website. They also have a legislative board that decides on bills each legislative session that coincide with their agenda for promoting public health and prevention.

It is impossible to have a conversation about firearm legislation without mentioning the National Rifle Association (NRA). The NRA is the largest gun rights advocacy organization in the United States with, according to the organization itself, nearly 5 million members (Nadler & Bauer, 2019). The NRA has gained popularity of the past few decades through their black and white interpretation of the U.S constitution’s 2<sup>nd</sup> amendment. It has been theorized that the NRA has had such success in gaining members through their ability to market owning guns as a social identity (Nadler, 2019). The organization is very active in the political arena and has aligned itself closely with republican party leaders. Richards (2017) claims that gun rights interest groups such as the NRA have been successful in the past at influencing congressional behavior through rewarding or punishing members of congress based on their position on firearm legislation. Historically, gun control groups have not been as effective at this as gun rights organizations (Richards, 2017). Gun safety legislation has been almost non-existent in recent years because of the NRA’s strict stance against any type of gun reform legislation and their tremendous influence over political leaders.

### ***Government***

Administrative change may be the most influential variable in pushing through legislative change. When new personnel are brought into the policy arena, oftentimes it brings in different

opinions and a different set of values. Newly elected officials may have contrasting views and vote unlike the predecessors before them. As discussed previously, firearm storage bills have been introduced to Kentucky legislators in the past. In 2019, these proposals did not have success. Kentucky's previous governor, Matt Bevin, opposed legislation regarding firearms. The new seat holder and winner of the 2020 election, Andy Beshear, has made statements in support of "red flag laws" and other gun safety legislation. Conversely, the republican party post-election continues to hold the majority in both the House (75% R) and Senate (79% R). This presents problems for the advancement of a proposal regarding mandated safe storage, as the Republican Party carries a conservative agenda and views firearm legislation as an overreach of government power. Although, new legislators voted into their positions during the most recent election present new opportunity to have conversations about this topic.

The individuals that currently make up the Kentucky General Assembly are representatives in the House, Senate, and the elected governor. There are 38 Kentucky legislators that make up the Senate and 100 Kentucky Legislators that make up the House. Andy Beshear is the current Governor of Kentucky and was elected in 2019. There is also legislative support staff, legislators that make up different committees, and the Speaker of the House/President of the Senate.

Specific legislators have been identified according to their legislative profile that seem most likely to be willing to support safe storage legislation. George Brown is a Kentucky House legislator. He is a registered Democrat and has served since 2017. He previously sponsored HB 80 last legislative session, which proposed firearm storage regulation. Other supporters of this failed bill include Kelly Flood, Reginald Meeks, and Attica Scott. Representative Joni L. Jenkins is a registered democrat in the House, representing Jefferson County and district 44. She is a



Minority Floor Leader, a member of Louisville community Child Protection Council, and previously sponsored House Bill 70: a failed act to prohibit unlawful storage of a firearm.

Another prospective partner is Mary Lou Marzian: a house Democrat who is a Registered Nurse; also sponsored House Bill 70; and is a member of the Health, Welfare, and Family Services Committee. (Kentucky General Assembly). A Senate legislator to consider is Karen Berg, a democratic senator and Louisville Physician that is a member of the Child Welfare Oversight and Advisory Committee. Additionally, Republican Senate member and Majority Caucus Chair Julie Raque Adams who often supports bills that improve child health should also be considered (Kentucky General Assembly).

### **Policy Window**

The goal of any policy analysis is to determine the ideal policy window, where all conditions are optimal to advance a certain agenda. The policy window is where the three streams of Kingdon's framework come together to determine if there is a window of opportunity for passing of new legislation. At the time of the project, there seemed to be a small window of opportunity for a safe storage initiative to be passed in Kentucky. For the problem stream, there were indicators pointing towards a health crisis of firearm injuries and deaths. This particular issue involves children who cannot advocate for themselves, which can serve as a strong motivator. There was a specific focusing event, the death of a prominent community member's grandson due to accidental firearm discharge, that inspired the introduction of a new bill. Also, there was added emphasis on health policy at the time because of the pandemic. The previously listed points- combined with positive public support and the increased length of the legislative session- work in favor of a possible window for advancement of new legislation.

Partnering with a representative passionate about firearm safety was necessary to achieve an open policy window. Representative George Brown agreed to sponsor a bill for the 2022 legislative session that proposed requiring firearm owners in Kentucky to store their weapons according to regulation (personal communication, Oct. 10, 2021). Emphasis was placed on advocating to pressure group campaigns, as well as emphasizing that the issue is a healthcare problem at its root. Grassroots advocacy with healthcare professionals is integral to the success of potential legislation, namely involvement of organizations like the KANPNM. Although constituents decided this past session was not be the most opportune time to advance safe storage policy, Kingdon recommends continuing to prepare and be ready for the next time a policy window opens (2003, p. 165). While the interventions of this project in grassroots advocacy attempted to advance policy in the 2022 legislative session, it will lay the groundwork for legislation in the future.

## **Methods**

### **Design and Setting**

This project is a policy project by design. The evidence based intervention of safe storage regulations was researched during the literature review and then a policy analysis was completed to evaluate where best to target interventions for Kentucky's current political atmosphere. The setting for this project includes the Kentucky Legislative System and Pressure Group Campaigns in Kentucky. Specifically, the KANPNM organization was the main population targeted for this project's interventions. As previously discussed, this organization is a professional healthcare organization consisting of Kentucky nurse practitioner and nurse practitioner students that also has a strong presence in Kentucky legislative conversations.

**Intervention**

After completing the policy analysis, it was determined that an intervention focusing on grassroots advocacy through the involvement of pressure group campaigns would be the most effective means to create a more favorable atmosphere in Kentucky for policy change. A 4-part intervention including participation in the legislative process and grassroots advocacy efforts was completed.

First, a partnership was formed with House democrat George Brown and House Bill 292, a safe firearm storage bill, was introduced in the spring 2022 legislative session. Next, pressure group campaigns were involved through advocating to the KANPNM. This was done by attending a board meeting on 11/6/21 to request support of the House Bill and speak on its relevance to health status of Kentuckians. A lengthy discussion was had at the board meeting regarding the ability of the organization to publicly support HB 292. A position statement was drafted about safe storage of firearms on behalf of the organization to be published on their website. An additional KANPNM board meeting was attended on June 11<sup>th</sup>, and the position statement was voted on by the board to be introduced for a vote by members of the association at the conference in April 2023. Lastly, a poster presentation was given at the KANPNM conference in April to educate fellow healthcare professionals on the problem of negligent storage and the importance of legislative advocacy on the topic.

Figure 2

*Position Statement for KANPNM***Safe Firearm Storage Practices in Homes with Children****WHEREAS:**

The American Academy of Pediatrics defines "safe storage" of firearms in homes with children as being stored locked, unloaded, and separate from ammunition.

**WHEREAS:**

For children in the U.S, injuries from firearms are the second highest cause of death. Unsafely stored firearms in homes with children have the potential to result in child suicide or unintentional firearm discharge.

- In Kentucky from 2011-2015, unintentional firearm discharge made up 57% of firearm deaths for ages 1-4 and 33% for ages 5-9
- According to the 2020 Kentucky Child Fatality report, firearm discharge was responsible for 6% of accidental injury deaths in children- more than choking, poisoning, and hyperthermia.

**WHEREAS:**

There are Kentucky children living in homes with guns where safe storage counseling could make a large impact.

- In 2015, 55% of households in Kentucky had firearms in the home.
- 15% of Kentuckians that reported a firearm in the home, reported keeping it loaded and unlocked.
- 6 in 10 Kentucky children in 2015 were living in homes with firearms.
- A study by Monteaux et al. (2019) discovered that if even 20% of homes that unsafely stored their firearms instead stored them according to recommendation, an estimated 235-323 child gunshot injuries could be prevented nationwide over one year's time.

**THEREFORE:**

APRNs have the responsibility to educate patients on preventative measures to improve health and wellness. Adequate storage of firearms is an important safety measure, especially in homes with children. APRN providers should encourage firearms to be stored locked, unloaded, and separate from ammunition in accordance with the American Academy of Pediatrics safe storage guideline. Safe firearm storage creates a safe atmosphere that is compatible with healthy growth and development of children and should be recognized as an important public health issue.

**Discussion****Summary**

Outcomes for this project were measured qualitatively, through success in legislation and feedback from fellow APRNs regarding poster presentation and position statement for the organization. This policy project was not successful in implementing safe firearm storage

regulations in the state of Kentucky. Although the project did result in introducing a bill in the 2022 session: H.B 292. While the legislation was not successful, the project did achieve involvement of a pressure group campaign and increased awareness of the issue.

### **Outcomes of Intervention**

The outcomes of this policy project are measured through success of interventions and the overall success of the proposed legislation. Ultimately, House Bill 292 “AN ACT relating to gun safety for children” did not pass to become legislation. The bill was introduced in the House to the Committee on Committees on 01/13/22 and did not advance to committee hearing (H.B 292, 2022). While the proposed legislation was not successful, the other three interventions completed were successful in bringing about awareness and advocacy for the issue of safe firearm storage in Kentucky. A KANPNM board meeting was attended on 11/6/21 where a short talk was given explaining the issue of lack of firearm storage regulations in Kentucky and how it pertains to the state’s public health status to request the organizations support of HB 292. It was ultimately decided that all available lobbying efforts were being exhausted to support a nurse practitioner practice bill and a bill about birth centers in Kentucky. It was also discussed that there were concerns over offending current supporters of the NP practice bill by supporting HB 292. While they supported the idea of safe firearm storage, they recommended focusing efforts on a position statement for the association at this time. A position statement was drafted and presented to the board at a meeting on 6/11/22 where the board voted in agreeance with the statement, which will now be presented and voted on at the Assocaition’s yearly conference in April 2023. In addition, positive verbal feedback from conference attendees indicated that awareness of Kentucky nurse practitioners about the issue of safe firearm storage was increased through poster presentation at the KANPNM nursing conference.

## **Analysis**

There were several barriers to the successful implementation of this policy project. First and foremost, this project was formulated and implemented during a time where Covid-19 pandemic regulations limited some possibilities of in person interventions. Next, Representative Brown, while passionate about the proposed legislation, was sponsoring additional bills for the session. Because of this, his attention was pulled in several directions, which made communication difficult at times. Limited communication during certain periods made it more difficult to be as involved in the legislative process for this project. Additionally, the KANPNM already strongly advocating for two existing bills in the 2022 legislative session limited their ability to put full advocacy efforts towards proposed safe firearm storage legislation. The political atmosphere, or “Government” in Kentucky also acted as a large barrier to the success of this project. A democratic bill sponsor with an overwhelming republican majority served as a barrier to legislative advancement. As discussed with Representative Brown, a majority Republican house and congress has traditionally made it difficult to pass firearm related legislation (personal communication, 10/21).

The main facilitator for this project was the interest and willingness of Representative George Brown to sponsor a safe firearm storage bill for the 2022 session. He had a personal history of a family friend who had a child who had been injured by accidental firearm discharge that motivated his willingness to participate in the project (personal communication, 10/21). However, there was no national or local focusing event.

## **Interpretation**

Through the policy analysis and implementation of this policy project, all three streams (problem, policy, and political) of John Kingdon’s model (2003) were targeted in attempts to

open up a policy window in Kentucky. Indicators from the problem stream were utilized in the form of data on incidence of Kentucky pediatric accidental firearm injuries to express to KANPNM board members and practicing Kentucky clinicians about this issue. This data was presented in the form of a speech to board members and a poster presentation at the KANPNM conference. The policy stream was approached by the “softening up” subcategory. Although H.B. 292 was not passed, the failed legislation was a way of introducing the idea of safe firearm storage regulations. Introducing a bill enabled feedback to be received from legislators on the topic to see where the issue stands on members of the House and Senate’s agendas. This created the base of a bill to be amended and refined for future sessions to improve the overall “technical feasibility” of legislation in the future.

Lastly, the pressure group campaigns category in the political stream was utilized in this project’s intervention. Involvement of the KANPNM was attempted in several ways. Publication of a position statement about firearm storage provides a cohesive stance on the topic that represents the organization and its members. This can be used as a reference when speaking to legislators in the future. Educating members of the organization through poster presentation could benefit future future legislative attempts by having additional healthcare providers acting as advocates for the issue. The intervention to to involve the organization’s lobbyist to lobby on behalf of H.B. 292 was not successful. The organization was already focused on lobbying APRN prescribing rights and for birth centers in Kentucky. Getting future safe firearm storage legislation on the organization’s list of bills to lobby for will be instrumental in passing regulations for Kentucky.

Future advocacy efforts could focus on highlighting focusing events that have happened after the completion of this project. For example, a Florida case where a two year old child

obtained access to an unstored firearm that resulted in the accidental fatal shooting of the child's father made na. In this case, the florida government chose to charge the mother of the child with manslaughter because of the negligent storage of the firearm. This is a clear example of a gun owner being held responsible for events that result from not storing their firearm safely. Another important stream for future grassroots advocacy is the political stream- namely Kentucky Government. Lobbying for officials running for office in Kentucky that support safe firearm legislation is instrumental to passing future regulations.

### **Limitations**

The biggest limitation of this project was lack of quantitative data. Success of the project was measured by completely qualitative results. Prospective policy projects advocating for advancement of firearm storage regulations in Kentucky should consider surveys to measure legislator and/or Kentucky healthcare provider opinion on the topic. Quantitative data could potentially provide additional insight on what interventions would be most helpful in advancing legislation. Additionally, nurse practitioners were the main healthcare providers targeted in this project. Future attempts at implementing legislation should consider the inclusion of other members of the healthcare team and the organizations that represent them.

### **Conclusions**

#### **Implications for Advanced Nursing Practice**

Advanced Practice nurses have the responsibility of acting as a patient advocate. A part of advocating for patients is advocating for policies that support health promotion, prevention, and overall wellbeing of the communities they serve. Being involved in health policy on a state level is a testament to the influence NPs can have on health policies that have direct effects on health outcomes. DNP projects that center on policy change can serve as a way to empower



future nurse practitioners and current nurse practitioners alike to use their platforms to enact positive change. This project lays the groundwork for additional advocacy opportunities for Kentucky nurse practitioners to encourage future safe firearm storage legislation in the state of Kentucky.

### **Implications for Health Policy**

Policy formation acts as an opportunity for public health advocates to achieve “lasting systemic change” (Hunter, 2016). For further advancements to be made in the public health realm, healthcare workers must maintain a productive working relationship with legislators in order to impact health policies necessary to maintaining a healthy community.

A study by Peek-Asa et al. (2017) estimated that the total yearly cost of unintentional firearm injury hospital stays in the U.S was \$117,595,000, and the yearly total for hospital stays attributed to self-harm with a firearm was estimated to be \$64,305,000. While safer storage practices will not eliminate these occurrences entirely, implementation of a policy regarding storage of firearms has the opportunity to greatly reduce healthcare costs on a national and state level.

Society relies on elected officials to create policies that serve to protect and benefit the constituents they serve. Regulations set in place that require the safe storage of firearms will increase the safety of citizens residing in the state of Kentucky. Specifically, this policy change is intended to further protect Kentucky children from injury and death at the hands of a firearm. Children are the future of any society and investing time and energy into their protection and well-being is an investment into a community’s future. Reducing incidence of injury and death due to guns reduces heartache, trauma, and pain that these incidents cause members of the community.

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**Appendix A**

House Bill 292

UNOFFICIAL COPY

22 RS BR 1219

1 AN ACT relating to gun safety for children.

2 WHEREAS, guns which are not stored safely or securely pose a clear safety risk to  
3 children in the form of unintentional gun deaths, youth suicides, and school shootings;  
4 and

5 WHEREAS, studies show that between 70 percent and 90 percent of guns used in  
6 youth suicides, unintentional shootings among children, and school shootings perpetrated  
7 by shooters under the age of 18 are acquired from the home or the homes of relatives or  
8 friends; and

9 WHEREAS, it is imperative to impose liability on adults for failing to take simple  
10 yet important measures to prevent unsupervised access to guns by young hands;

11 NOW, THEREFORE,

12 *Be it enacted by the General Assembly of the Commonwealth of Kentucky:*

13 ➔SECTION 1. A NEW SECTION OF KRS CHAPTER 527 IS CREATED TO  
14 READ AS FOLLOWS:

15 *(1) A person is guilty of unlawful storage of a firearm when:*

16 *(a) He or she recklessly stores or leaves a firearm in a manner which allows a*  
17 *minor to have unsupervised access to a firearm that is not secured by:*

18 *1. A securely locked container;*

19 *2. A device or mechanism, other than the firearm safety, designed to*  
20 *render the firearm temporarily inoperable; or*

21 *3. Carrying the firearm on his or her body; and*

22 *(b) A minor, without permission of the minor's parent or guardian, accesses*  
23 *the firearm.*

24 *(2) Unlawful storage of a firearm is a Class B misdemeanor, unless the minor,*  
25 *without legal justification, uses the firearm in a manner which results in physical*  
26 *injury, serious physical injury, or death to the minor or another person, in which*  
27 *case it is a Class A misdemeanor.*

xxxx

Jacketed



*Literature Matrix from poster presentation*

Citation	Evaluation Method:John Hopkins	Study Design	Summary of Findings
<b>Goyal et al. (2019)</b>	III	Cross sectional design, 2011-2015 web-based injury statistics query and reporting system and Census data	<ul style="list-style-type: none"> <li>- Each 10-point increase in gun law score decreased the firearm mortality rate by 4%</li> <li>- States with mentioned laws for 5 years had an average mortality rate of 3.8 children per 100,000 compared to states without these laws (5.88 per 100,000)</li> </ul>
<b>Hamilton et al. (2018)</b>	III	Cross sectional-observational 6,843 patients under 18 admitted to the hospital from 2006-2009 for firearm related injury	<ul style="list-style-type: none"> <li>- Compared to states with no CAP laws, strong CAP law states had 30% less firearm injuries</li> <li>- Unintentional pediatric firearm injuries were</li> </ul>

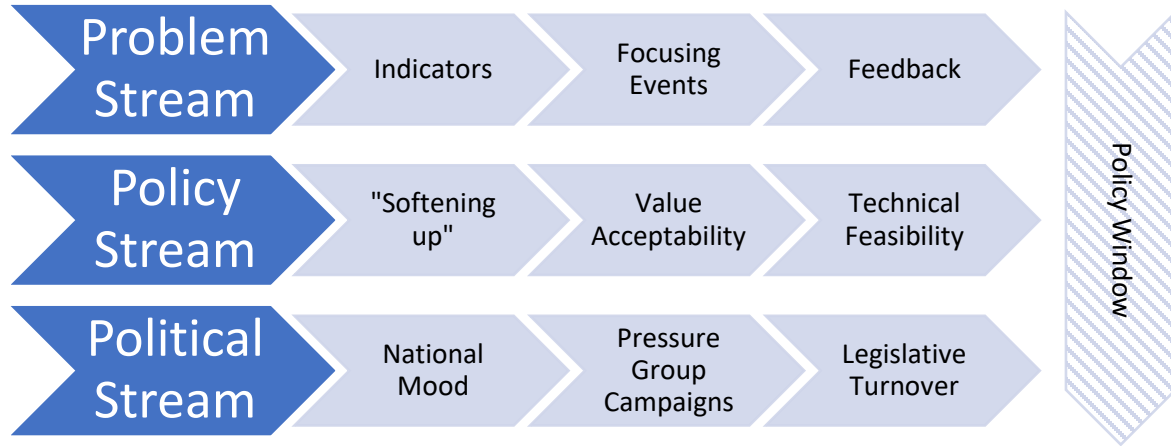
			<p>44% less in states with strong CAP laws</p>
<p><b>Madhaven et al. (2019)</b></p>	<p>II</p>	<p>Quasi-experimental, 2,715 pediatric firearm casualties in the US between 2014-2015 analyzed with CAP laws and state Brady laws</p>	<p>- Strength of gun legislation was associated with decreased number of pediatric firearm casualties (<math>\rho = -0.66</math>; <math>p &lt; 0.001</math>)</p>
<p><b>Patel et al. (2019)</b></p>	<p>III</p>	<p>Cross sectional design observational study-utilizing data from Patients aged 21 and under who visited an ER in the US for a gun related</p>	<p>- There were less pediatric firearm-related emergency visits in regions with stricter gun laws compared to regions with less stringent gun legislation</p>

		injury from 2009-2013	<ul style="list-style-type: none"><li>- The Southern region of the United States had the highest amount of pediatric gun related ER visits and the lowest gun law score</li></ul>
<b>Zeoli et al. (2019)</b>	II	Systematic review- 20 Articles published (1985-2018) about policies affecting pediatric firearm outcomes were analyzed	<ul style="list-style-type: none"><li>- A consistent finding through studies that focused on CAP laws was that they decreased pediatric accidental firearm injuries</li><li>- The multiple cofounders on gun law and policy change makes it hard to identify a secular cause for a given result</li></ul>

<p><b>Tashiro et al. (2016)</b></p>	<p>III</p>	<p>Observational Study- data was taken from the Kids' impatient database from the years (1997-2012)</p>	<ul style="list-style-type: none"> <li>- States with firearm legislation deemed "lenient" had higher incidence of accidental and self-inflicted pediatric firearm injury</li> </ul>
<p><b>Azad et al. (2020)</b></p>	<p>III</p>	<p>Cross sectional observational study- child fatality rates from 1991-2016 in the US were analyzed based on strength of CAP law passed (negligent or recklessness)</p>	<ul style="list-style-type: none"> <li>- Negligent category CAP laws were found to have a 13% reduction in unintentional firearm fatalities</li> <li>- The strictest negligence CAP law was associated with up to a 59% unintentional firearm fatality reduction</li> </ul>

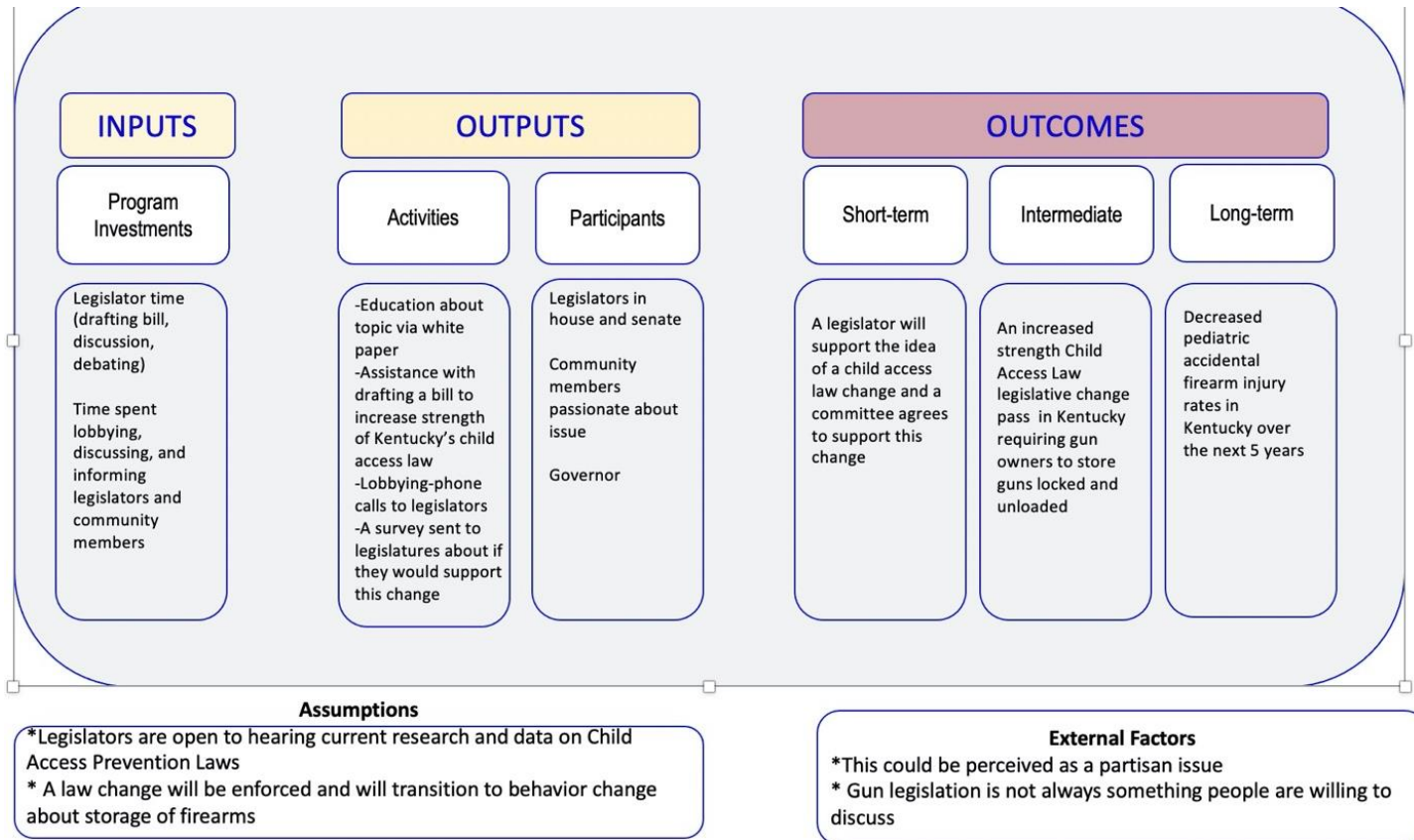
### Appendix C

*Conceptual Model*



Appendix D

Logic Model



## Appendix E

### *Speech to KANPNM Board*

Hello, my name is Maggie Wisner and I am a DNP student at the University of Louisville. I also work as a pediatric nurse, and I have come into contact with several children as patients who have suffered accidental injuries or eventually death as a result of a firearms accident. Every child I have cared for in one of these scenarios had gained access to a gun that was not stored safely. These experiences have led me to pursue a policy change regarding firearm storage in homes with minors. Kentucky currently has a law that prohibits providing a minor with a firearm, but no policy regarding storage.

The 2020 Kentucky Child Fatality report states that firearm discharge accounts for 6% of accidental child deaths in Kentucky- more than choking, hyperthermia, and poisoning. Through a literature review, an association has been found between the implementation of strong child access prevention laws regarding safe storage and the number of accidental injuries. Currently 20 states have laws in place addressing safe firearm storage. Representative George Brown plans on filing a bill for the upcoming spring session requiring firearm owners in homes with children to keep their firearms stored locked, unloaded, or separate from ammunition, as recommended by the American Academy of Pediatrics. This bill takes a preventative approach to improving the safety of Kentucky children. As healthcare workers, we have a responsibility to promote safety and prevention to improve overall health outcomes of our communities, which is why I am asking the KANPNM to consider supporting this bill and placing it on the friendly bill list. I am also requesting to draft a policy statement for the association to put forward regarding a stance safe gun storage. Thank you for your time today.

## Appendix F

*Position Statement written for KANPNM*

### Safe Firearm Storage Practices in Homes with Children

**WHEREAS:**

The American Academy of Pediatrics defines "safe storage" of firearms in homes with children as being stored locked, unloaded, and separate from ammunition.

**WHEREAS:**

For children in the U.S, injuries from firearms are the second highest cause of death. Unsafely stored firearms in homes with children have the potential to result in child suicide or unintentional firearm discharge.

- In Kentucky from 2011-2015, unintentional firearm discharge made up 57% of firearm deaths for ages 1-4 and 33% for ages 5-9
- According to the 2020 Kentucky Child Fatality report, firearm discharge was responsible for 6% of accidental injury deaths in children- more than choking, poisoning, and hyperthermia.

**WHEREAS:**

There are Kentucky children living in homes with guns where safe storage counseling could make a large impact.

- In 2015, 55% of households in Kentucky had firearms in the home.
- 15% of Kentuckians that reported a firearm in the home, reported keeping it loaded and unlocked.
- 6 in 10 Kentucky children in 2015 were living in homes with firearms.
- A study by Monteaux et al. (2019) discovered that if even 20% of homes that unsafely stored their firearms instead stored them according to recommendation, an estimated 235-323 child gunshot injuries could be prevented nationwide over one year's time.

**THEREFORE:**

APRNs have the responsibility to educate patients on preventative measures to improve health and wellness. Adequate storage of firearms is an important safety measure, especially in homes with children. APRN providers should encourage firearms to be stored locked, unloaded, and separate from ammunition in accordance with the American Academy of Pediatrics safe storage guideline. Safe firearm storage creates a safe atmosphere that is compatible with healthy growth and development of children and should be recognized as an important public health issue.