



# Safe Gun Storage:

## A Survey of Preferences among Parents and Caregivers of Children

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DATE: OCTOBER 9, 2019 PRESENTED BY: CATLIN DENNIS, BA, CPH & KATHLEEN CARLSON, PhD

ABSTRACT AUTHORS: CATLIN DENNIS, BA, CPH, BEN HOFFMAN, MD, MEREDITH BOULOS, BS, ADRIENNE GALLARDO, MA, TESS GILBERT, MHS, SUSAN DeFRANCESCO, JD, MPH, KATHLEEN CARLSON, PhD

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# Agenda

- Review objectives of this project
- Why is this topic important?
- Review the study methodology
- Review study results
- Conclusions
- Next steps

# Why this study?

- Information gap
- Inform future Safety Center purchasing practices
- Better understand Portland-metro area gun ownership
- ...what happens when approaching people in the community about this controversial topic?





# Big picture –

## *Gun Violence as a Public Health Problem*

- Prevalent and preventable
- **Approximately 100,000 Americans are injured or killed by firearms annually<sup>1,2</sup>**

**–33,636 Americans were killed by firearms** (homicide, suicide, or unintentional shootings)<sup>1</sup>

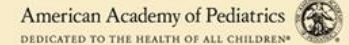
**–67,197 Americans were injured<sup>2</sup>**

<sup>1</sup> Xu, J., Murphy, S. L., Kochanek, K. D., & Bastian, B. A. (2016, February 16). *Deaths: Final data for 2013*. Retrieved from [https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64\\_02.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf)

<sup>2</sup> Fowler, K. A., Dahlberg, L. L., Haileyesus, T., & Annett, J. L. (2015). Firearm injuries in the United States. *Prev Med.*, 79, 5-14.

# Gun Violence & Children

- Gun-related deaths are **3<sup>rd</sup> leading cause of death** overall among US children aged 1-17 years<sup>3</sup>
- Boys, older children, and minorities are disproportionately affected<sup>3</sup>
- Teenagers (15-19 years) have the highest gun injury rates<sup>4</sup>
  - Incur gun-related injuries at almost three times the rate of the general population<sup>4</sup>
- Suicide is fourth leading cause of death for children ages 10-14 years and second leading cause of death for youth 15-19 years old<sup>4</sup>
  - **Suicide attempts with a gun have a 90% case fatality rate, the highest case fatality rate compared with other mechanisms of suicide**<sup>4</sup>



<sup>3</sup> Fowler, K. A., Dahlberg, L. L., Haileyesus, T., Gutierrez, C., & Bacon, S. (2017). Childhood firearm injuries in the United States. *Pediatrics*, 140(1), 1-11.

<sup>4</sup> Crossen, E. J., Lewis, B., & Hoffman, B. D. (2015). Preventing gun injuries in children. *Pediatrics in Review*, 36(2), 43-51.



# Why is this topic important?

- ~1/3 of homes in the U.S. with children have a gun<sup>5</sup>
- Presence of a gun in the home makes unintentional shootings and intentional shootings more likely<sup>6</sup>
- ~50% of homes with children and firearms have unlocked guns<sup>6</sup>
- Safe storage can make a difference in injury and fatality prevention<sup>7</sup>

If you own a firearm, the AAP recommends it be **stored unloaded, locked up** (lock box, cable lock, or firearm safe), with the ammunition stored separately.



Children as young as **3 years** may be strong enough to **pull the trigger** on a handgun.



<sup>5</sup> American Academy of Pediatrics. (2018). Children and Gun Safety. Retrieved from <https://www.aap.org/en-us/about-the-aap/aap-press-room/campaigns/gun-safety/Pages/default.aspx>





<sup>6</sup> Johnson, R. M., Coyne-Beasley, T., & Runyan, C. W. (2004). Firearm ownership and storage practices, U.S. households, 1992-2002. *Am J Prev Med*, 27(2), 173-182.

<sup>7</sup> Shenassa, E. D., Rogers, M. L., Spalding, K. L., & Roberts, M. B. (2004). Safer storage of firearms at home and risk of suicide: a study of protective factors in a nationally representative sample. *J Epidemiol Community Health*, 58, 841-848.

# Parental Preferences Regarding Safe Gun Storage

- **Study Purpose:** conduct assessment for the Portland-metro area regarding preferences for gun storage devices.

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### Consent & Survey Information

Please read the following to better understand the study and your rights as a participant.

Thank you!

The Tom Sargent Safety Center  
Doernbecher Children's Hospital

Page 1 of 1

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eIRB# 17762  
**TITLE:** Preferences Regarding Safe Gun Storage  
**PRINCIPAL INVESTIGATOR:** Benjamin Hoffman, MD  
**CO-INVESTIGATORS:** Kathleen Carlson, PhD

**PURPOSE:**  
You have been invited to be in this research study because you are an adult who is at least 18 years of age. The purpose of this study is to learn about individuals' preferences for safe gun storage devices.

**PROCEDURES:**  
If you agree to participate, you will be asked questions regarding your preferences for a variety of gun storage devices. You will also be asked to provide basic demographic information (e.g., race, sex) about yourself. Participation takes approximately 10 minutes.

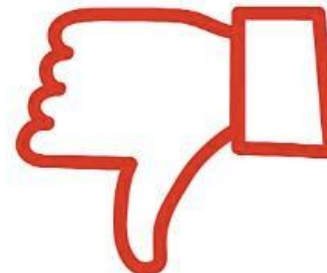
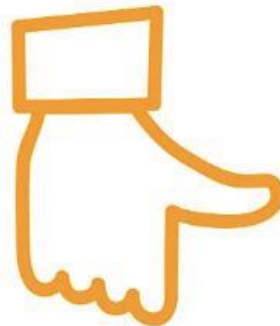
If you have any questions, concerns, or complaints regarding this study now or in the future, or you think you may have been injured or harmed by the study, contact Benjamin Hoffman, MD at (503) 494-3245.

# Parental Preferences Regarding Safe Gun Storage

## – Specific aims:

Among adults who have guns and children present in their homes (or will), our aims are to:

1. Describe current safe gun storage practices.
2. Examine preferences for type of safety devices respondents would feel most comfortable using.





# Study Design

- Cross-sectional
- Convenience sample of current/soon-to-be caregivers of children who report owning a firearm (or who will own a firearm in the near future)
- Anonymous 10-15 minute survey with \$5 café gift card for participating
- Pilot study goal:  $n = 100$



# Recruitment locations

- Doernbecher Children's Hospital Lobby
- OHSU Farmer's Market
- BabyFest Northwest Expo (Portland)
- Stroller Run (Oregon Zoo)
- Family Building Blocks (Salem)



# The 5 Safety Devices

- Respondents were presented with 5 devices in-person, and in the survey
- Devices selected for the following reasons:
  - Carried by the manufacturer who provides devices to the Safety Center
  - Small enough to store in bulk at the Safety Center
  - Are relatively inexpensive



# Our 5 Safety Devices

- Device A: Cable Lock



- Device B: “Life Jacket” Lock



- Device C: Lock Box with Keyed Access



- Device D: Quick Access Electronic Gun Safe



- Device E: Biometric Gun Safe

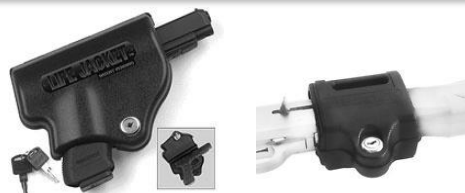


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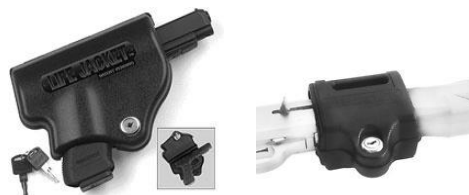


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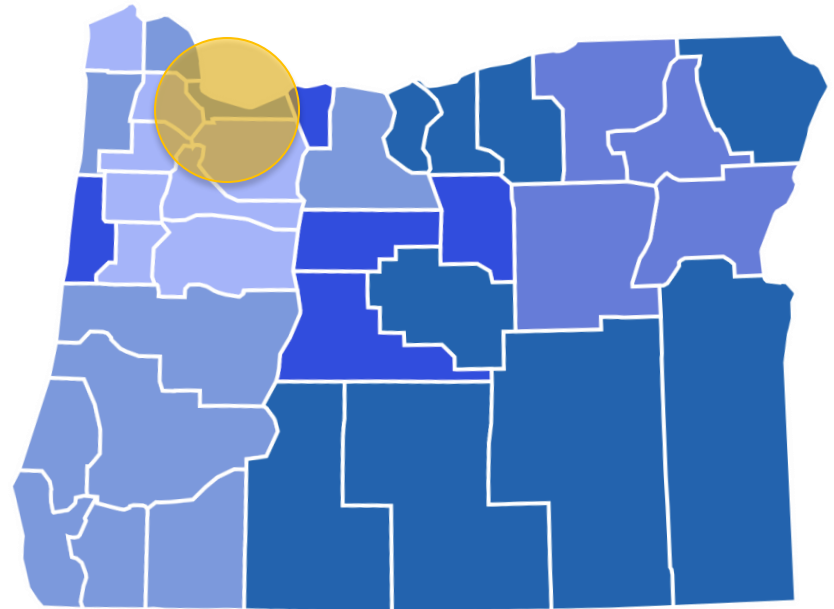


# Results

# Results:

## Participant Demographics\*

- **Respondents** (n = 147) as of 9/5/18
- **Language spoken at home:** 89% English
- **Child insurance:** 54% private, 18% Medicaid
- **Armed Forces or Law Enforcement:** 25%

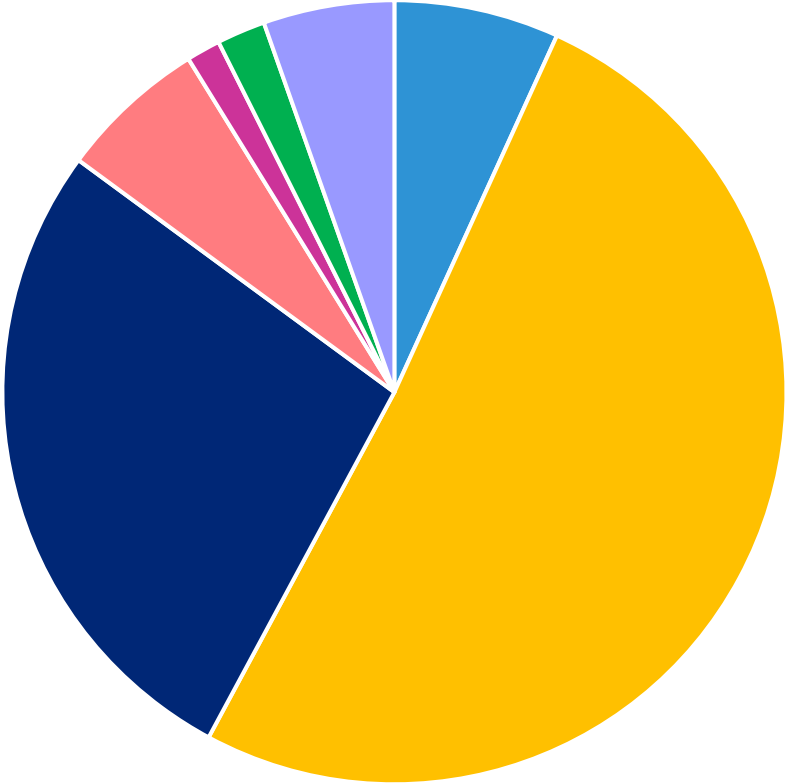


# Results:

## Participant Demographics\*

Respondent Age

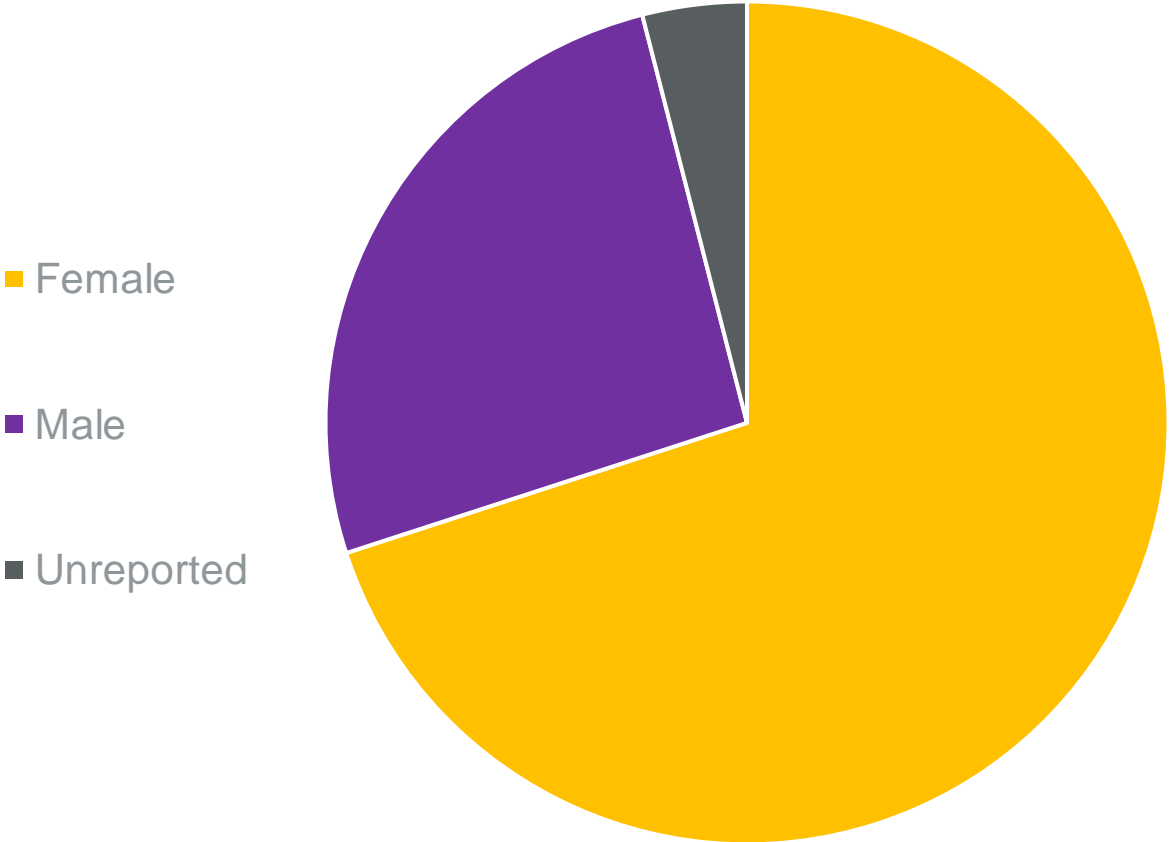
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- Unreported



# Results:

## Participant Demographics\*

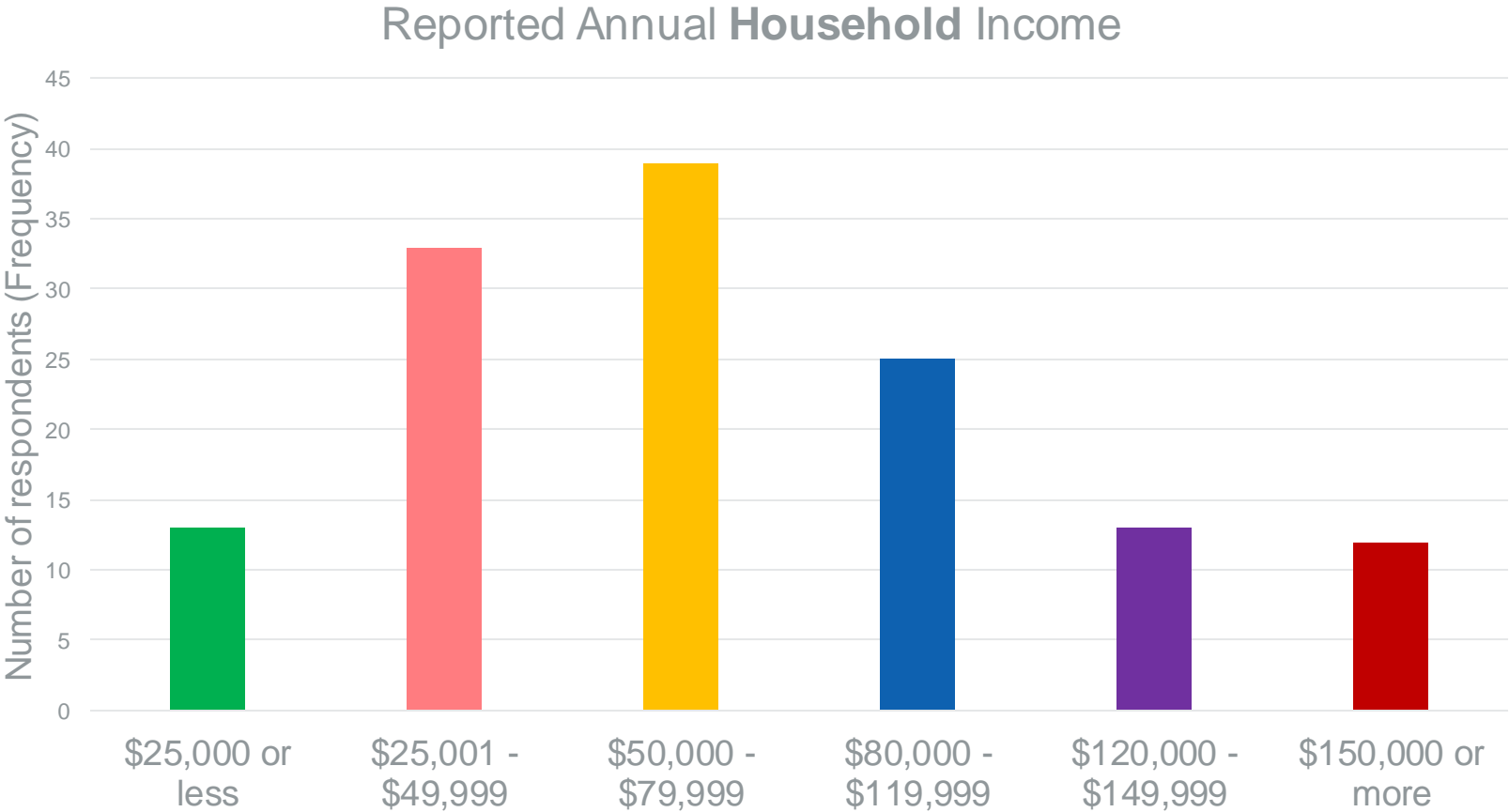
Respondent Gender





# Results:

## Participant Demographics\*

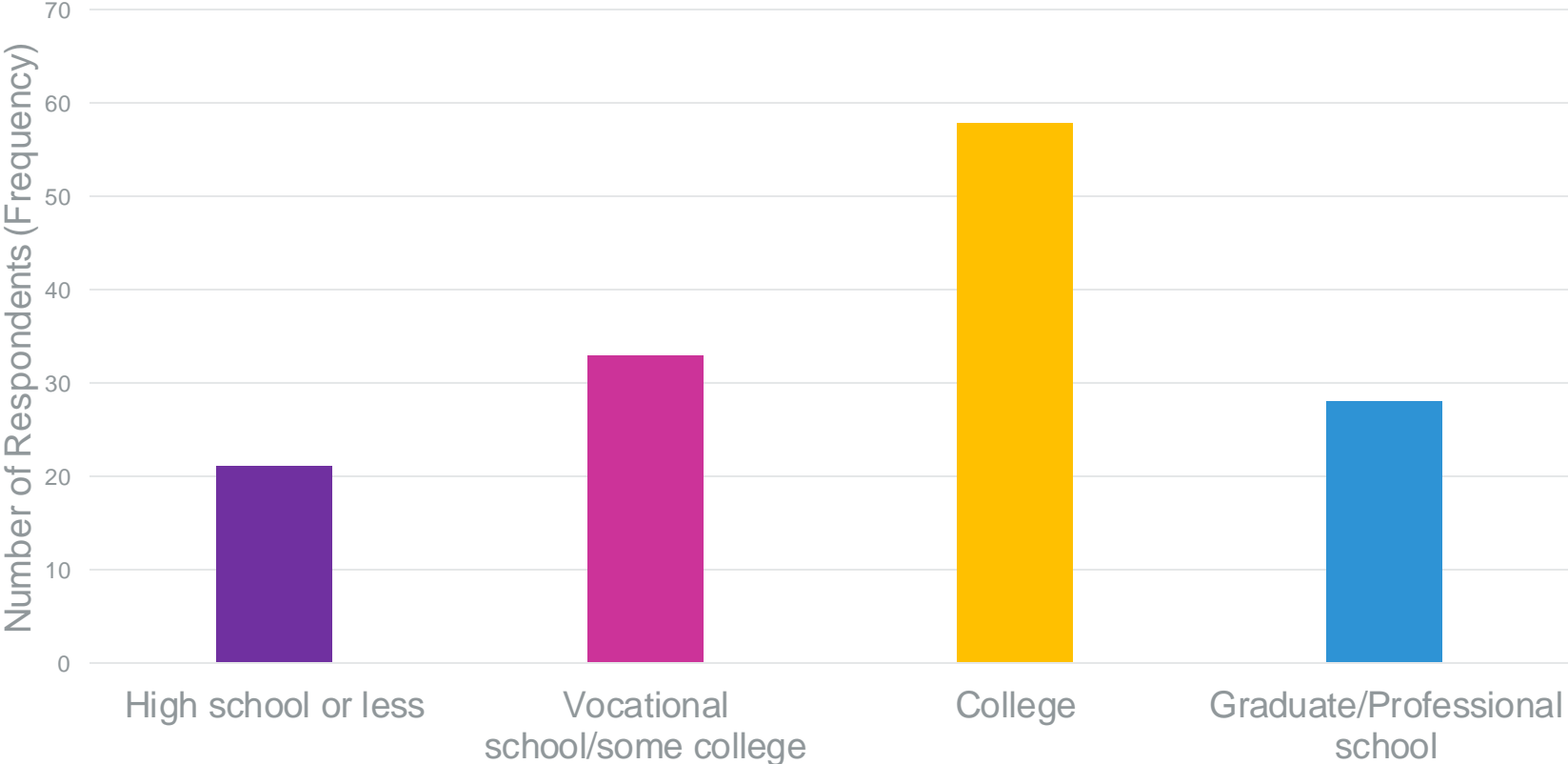


\*Data as of 9/5/18, survey data collection is ongoing

# Results:

## Participant Demographics\*

Highest Grade of School Completed



# Device Preferences

\*“if money wasn’t an issue”

- 54% of respondents reported that the gun safe/lockbox with biometric access was their first choice
  - **Of the 54% who selected biometric as their first choice, 90% reported the gun lockbox with electronic keypad access as their 2<sup>nd</sup> choice**
- 20% of respondents reported that the gun lockbox with electronic keypad access was their first choice



# Device Preferences

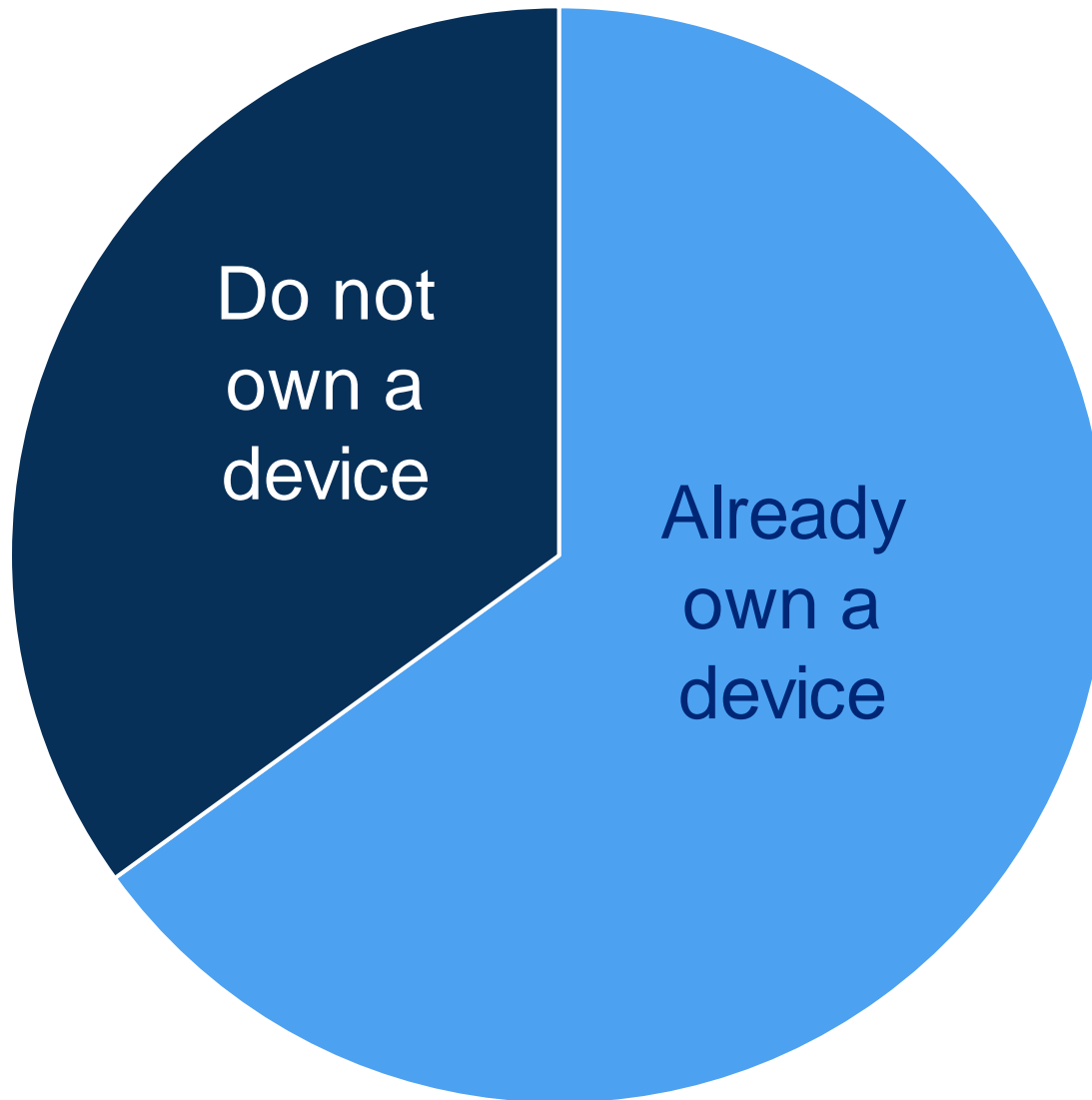
\*“if money wasn’t an issue”

- 7% of respondents reported that the cable lock was their first choice
  - Overall, the cable lock was viewed as the least favorable choice (59%)



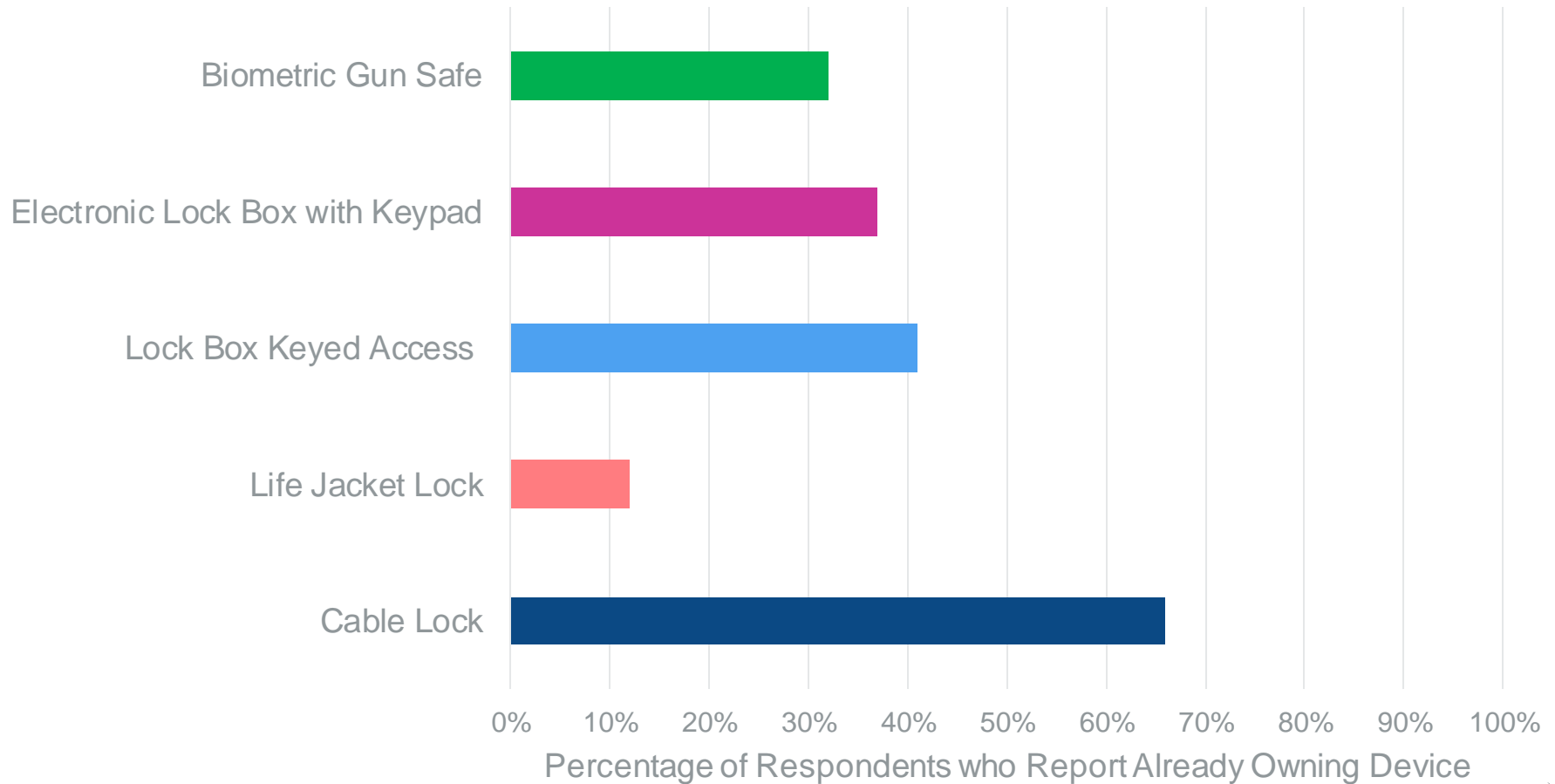
# Results: Current Gun Ownership

# Current Device Ownership





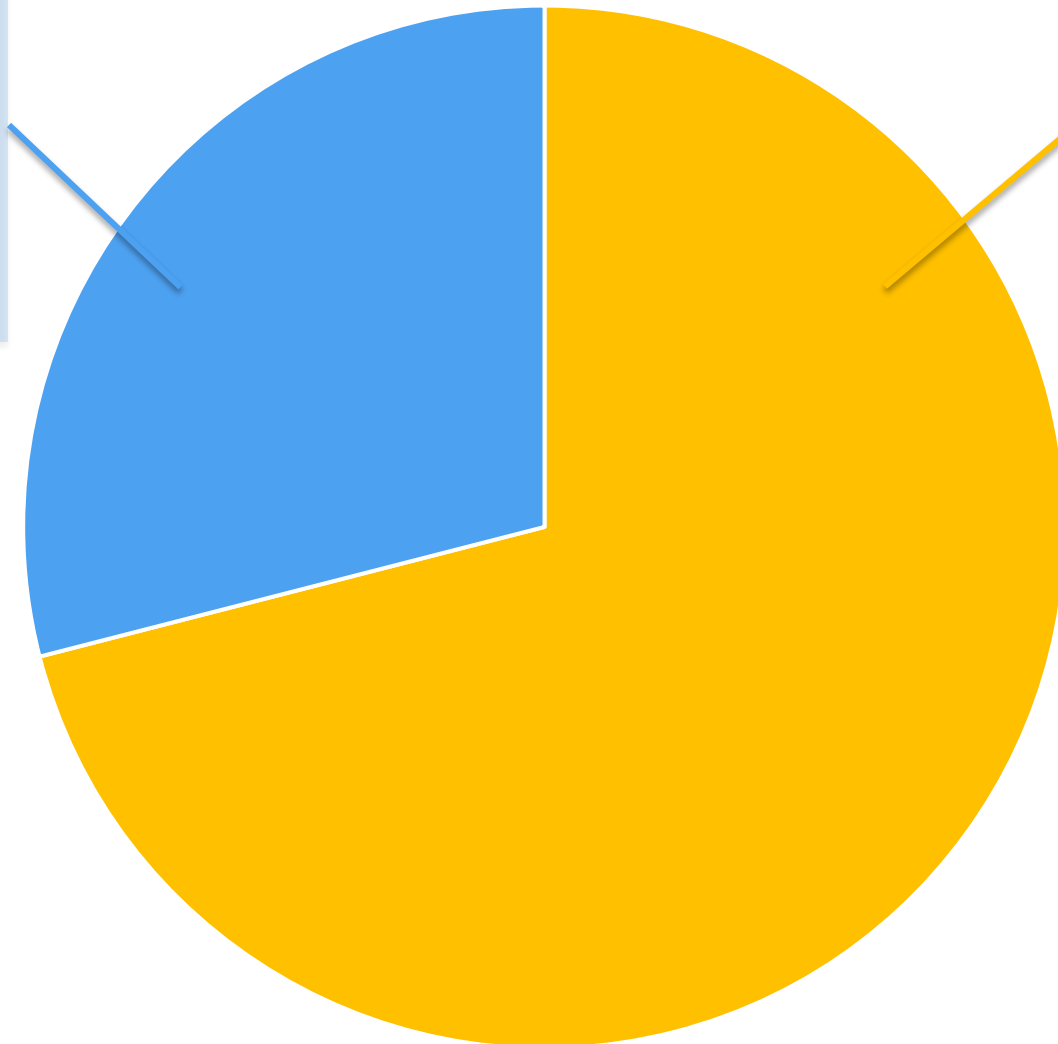
# Existing Safety Devices in Respondents' Homes



# Primary Reason for Gun Ownership

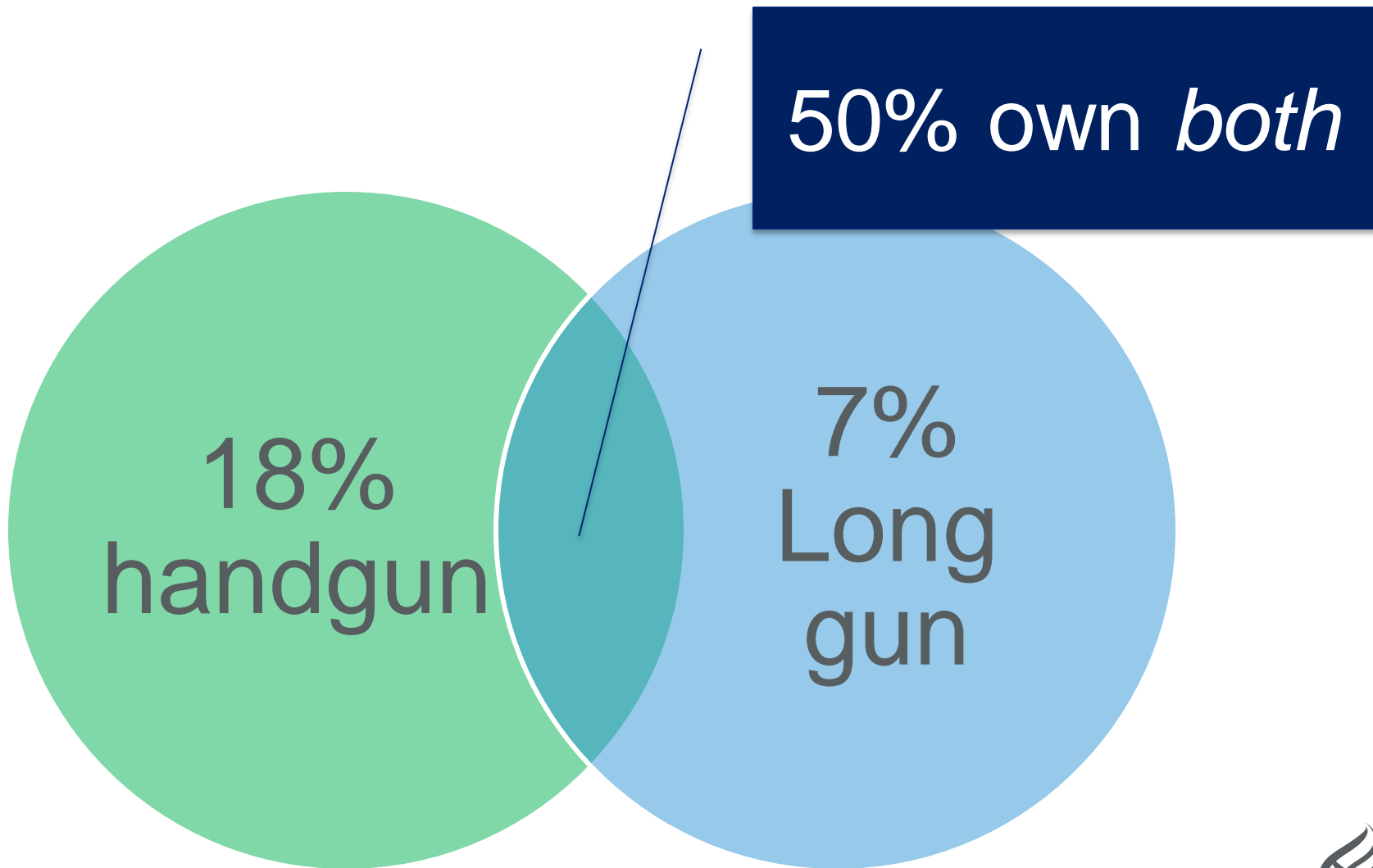
## “NOT Personal Protection”

- “Recreation”
- “Target shooting”
- “Family heirloom”
- “Gift”
- “For work”
- “Hunting”

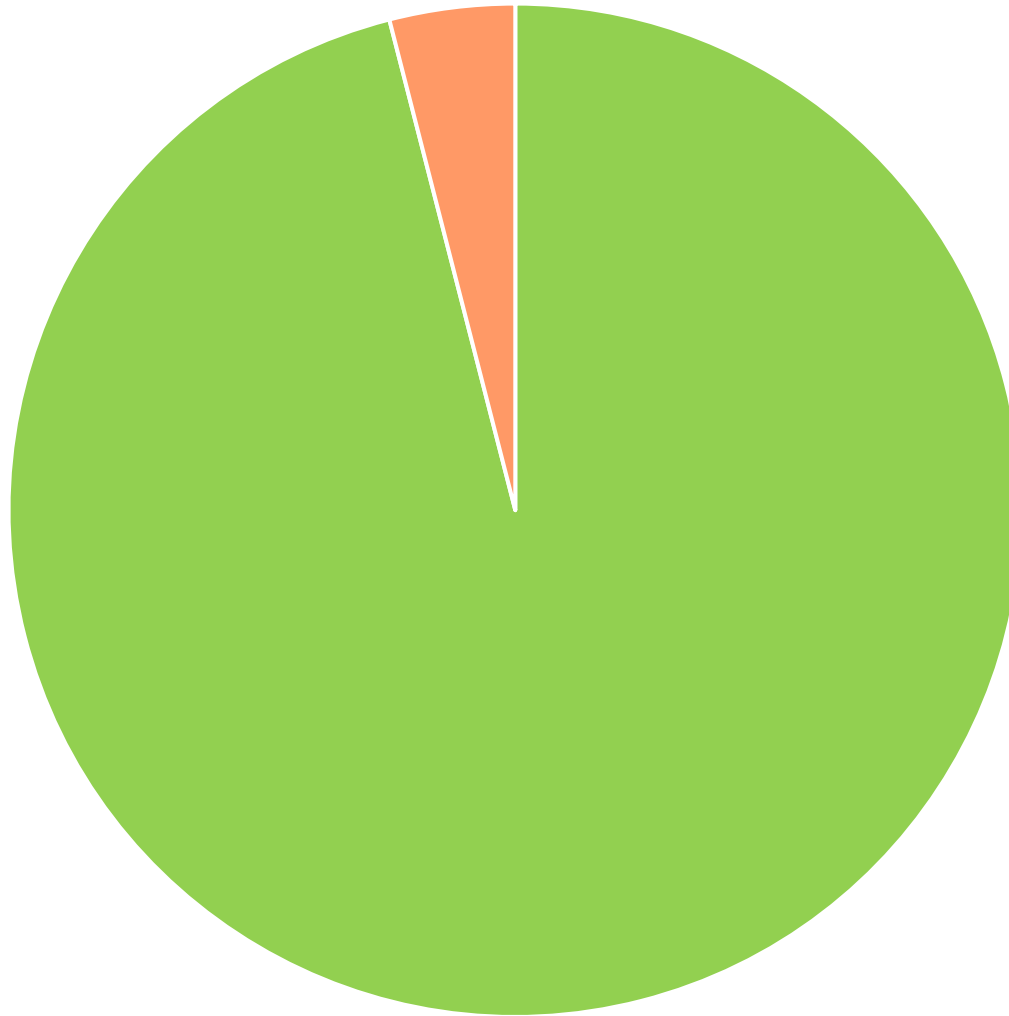


## “Personal Protection”

- “Defense”
- “Personal safety”
- “Protecting my family”
- “Protection”
- “Self-defense”



# Interest in Owning a Device

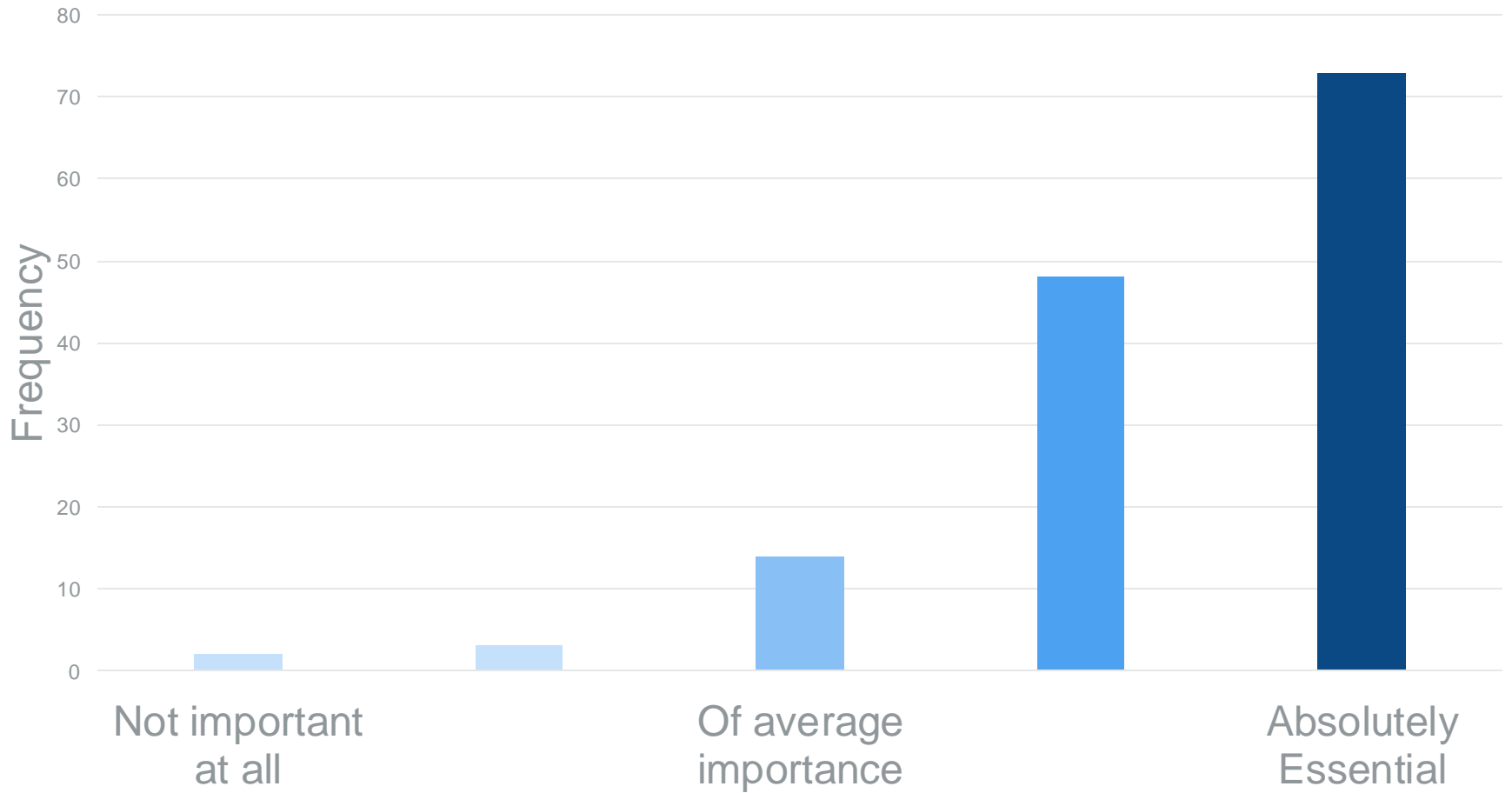


■ Interest in owning device

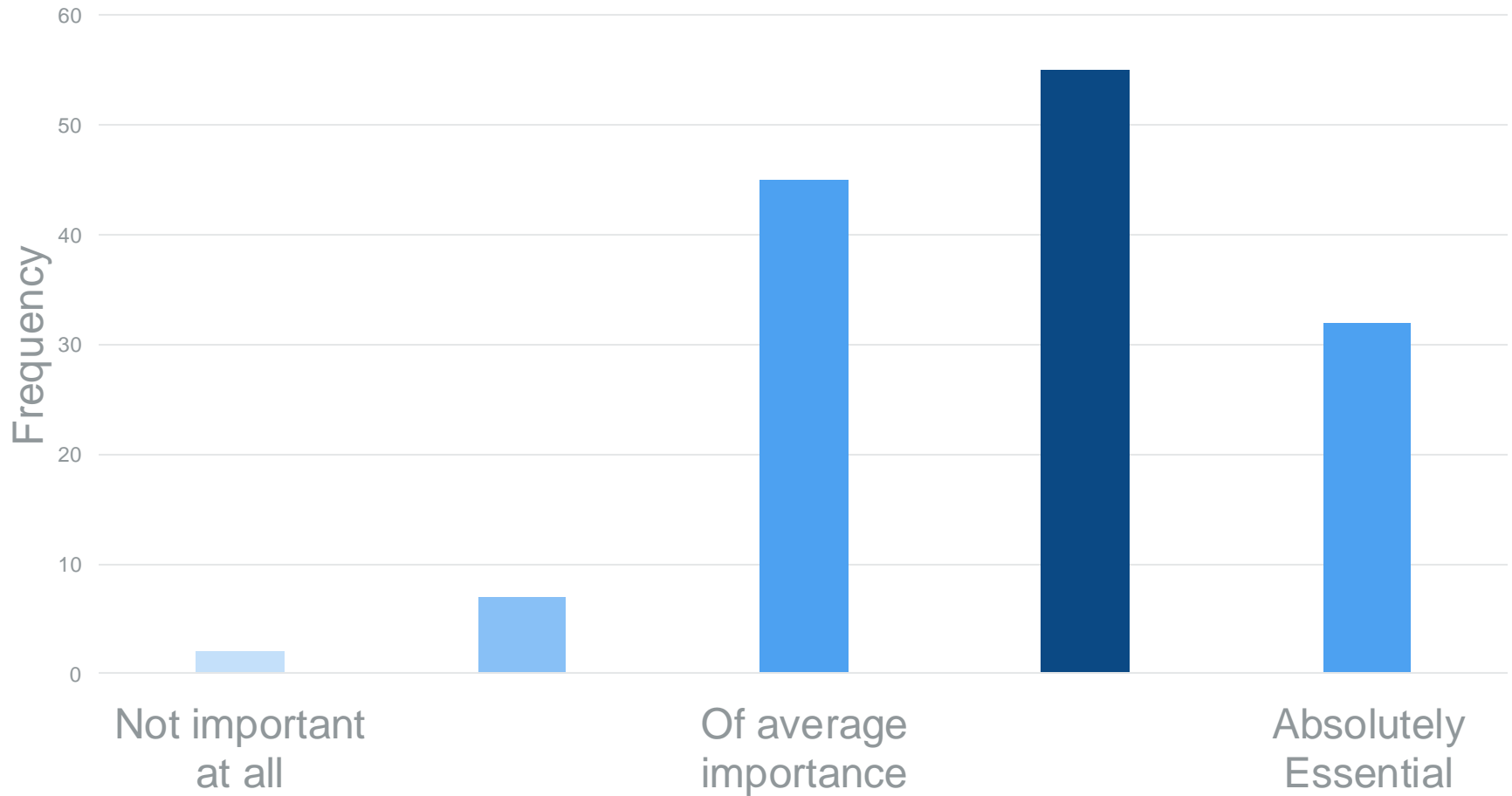
■ Not interested

# Results: Device Features of Importance

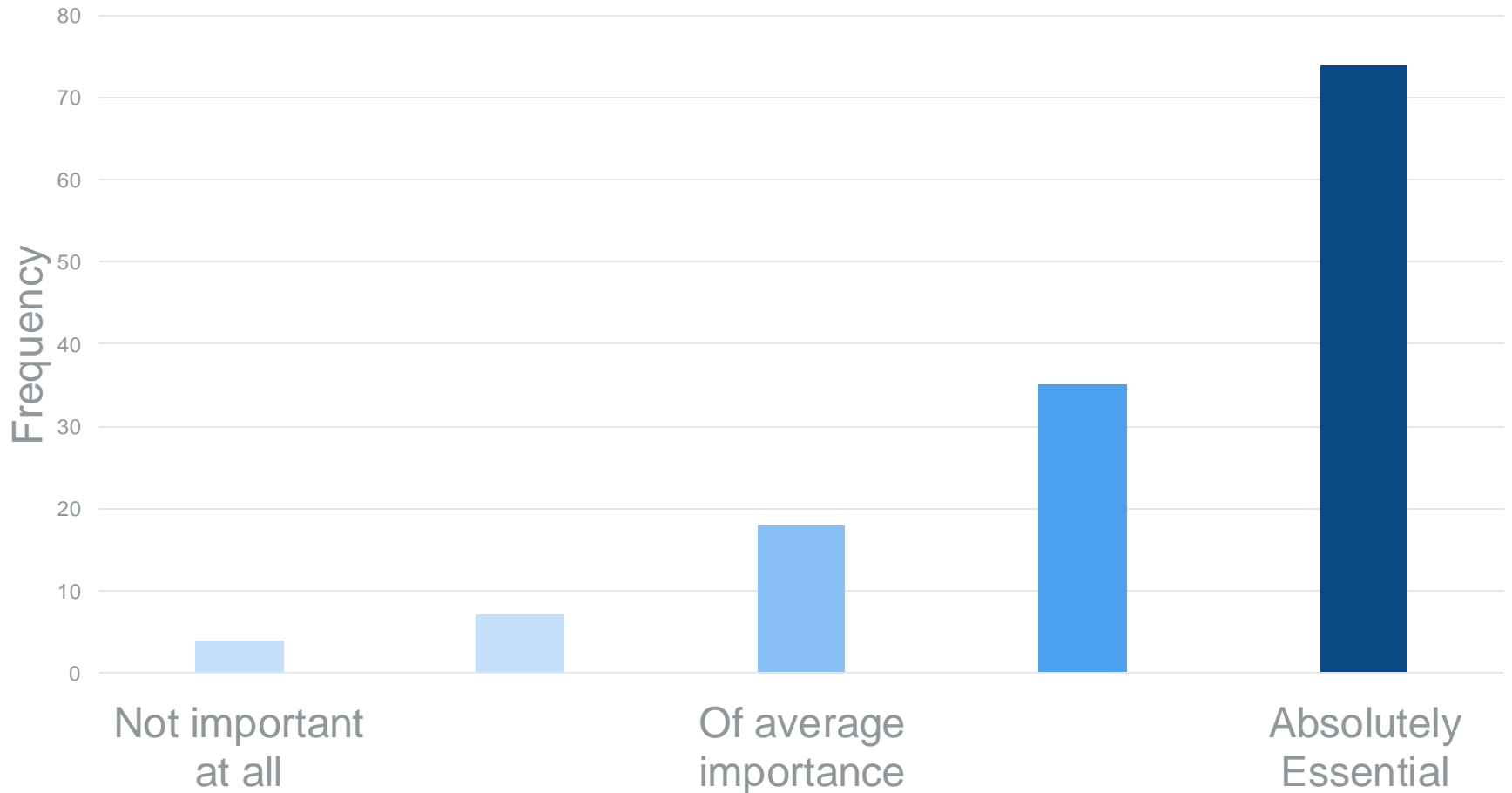
# Quick Lock/Unlock



# Affordability

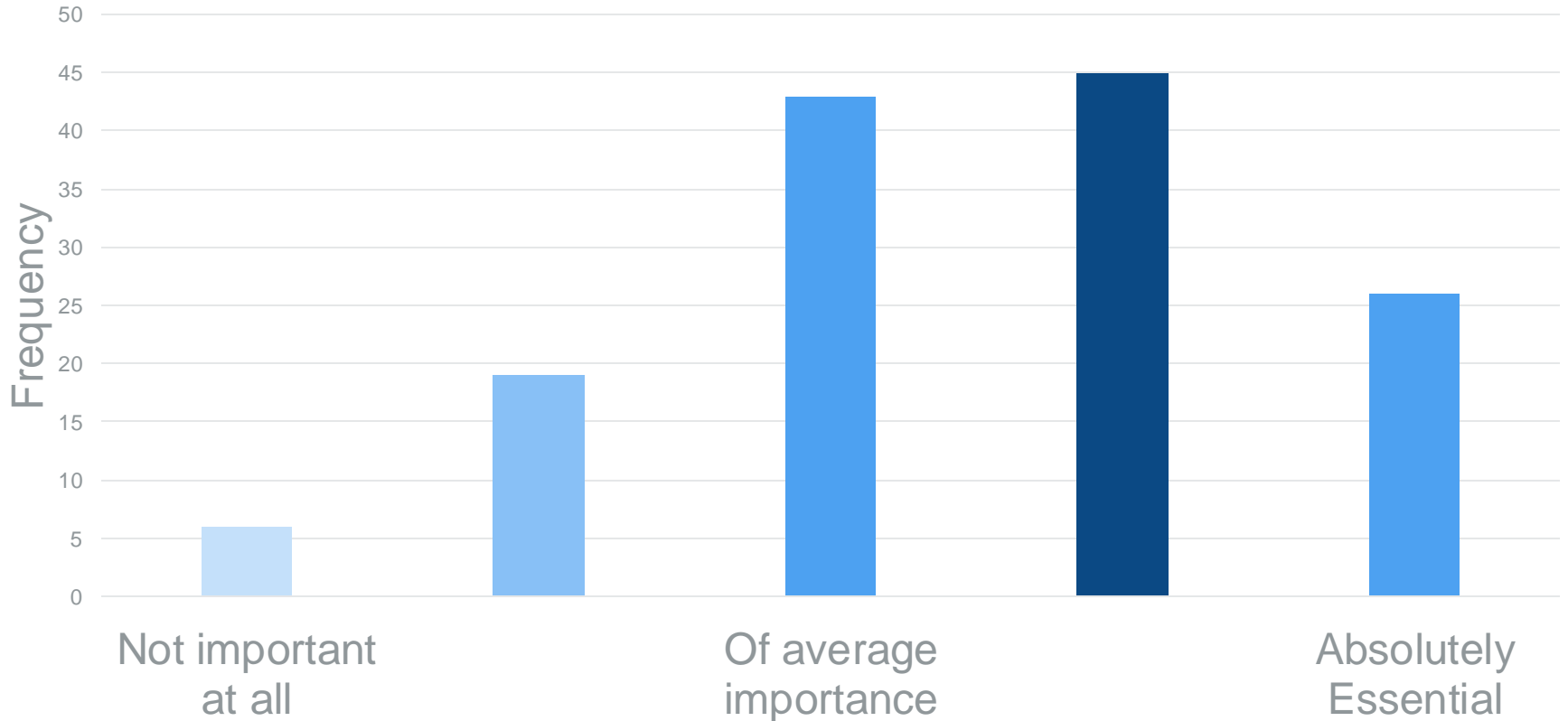


# Lock While Loaded





# Used for Handguns & Long Guns



# Conclusions

- Gun-owners receptive to safe gun storage devices
- Personal protection most common primary reason for gun ownership
- Quick access essential
- Ability to lock while loaded important
- Affordability of device important
- Biometric lock box 1<sup>st</sup> choice, electronic keypad access lockbox 2<sup>nd</sup> choice

# Limitations

- Focused exclusively safety devices for handguns
- Sample may not be representative of the state
- Survey respondents may not be the decision-makers when it comes to gun storage in their homes
- Preference assessment, not an efficacy trial



# Next steps

- Continue to collect data (goal n = 1,000)
- Conduct statistical analyses on group differences and economic analyses on price points
- Manuscript
- Create a manual for other pediatric hospitals – repeat this process elsewhere

# Huge thanks to Doernbecher's Tom Sargent Safety Center!

- When you're in Portland, please visit the Safety Center! You/your child do not need to be an OHSU/Doernbecher patient.
- Services:
  - Nonprofit store with low-cost safety supplies and resources
    - Bike helmets
    - Cabinet locks
    - Window locks
    - Sleep sacks
    - **Gun safety devices**
    - Etc.
  - Car seat checks
  - Safety tips for parents and children



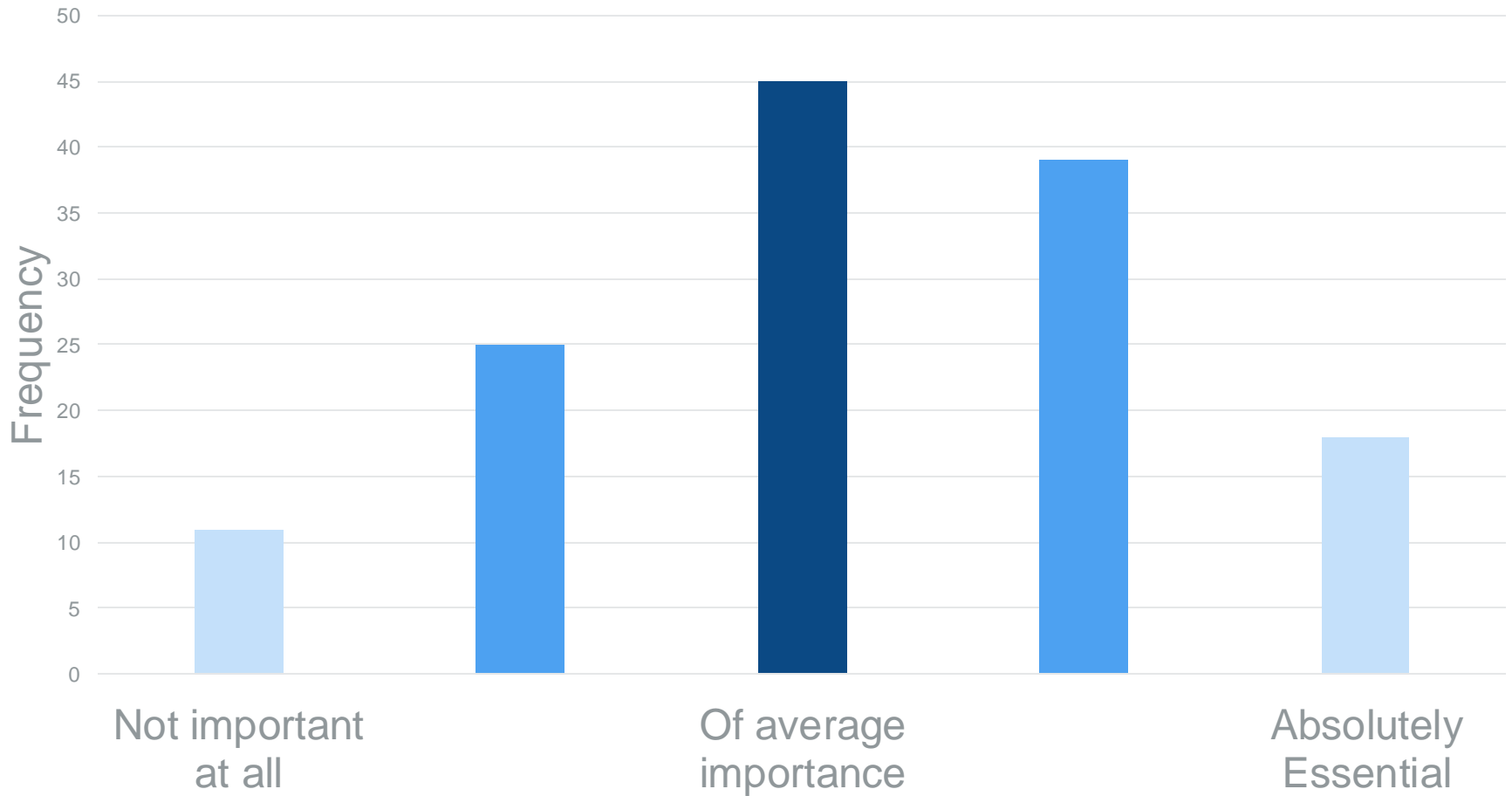
Doernbecher Children's  
Hospital Lobby  
503-418-5666  
[safety@ohsu.edu](mailto:safety@ohsu.edu)



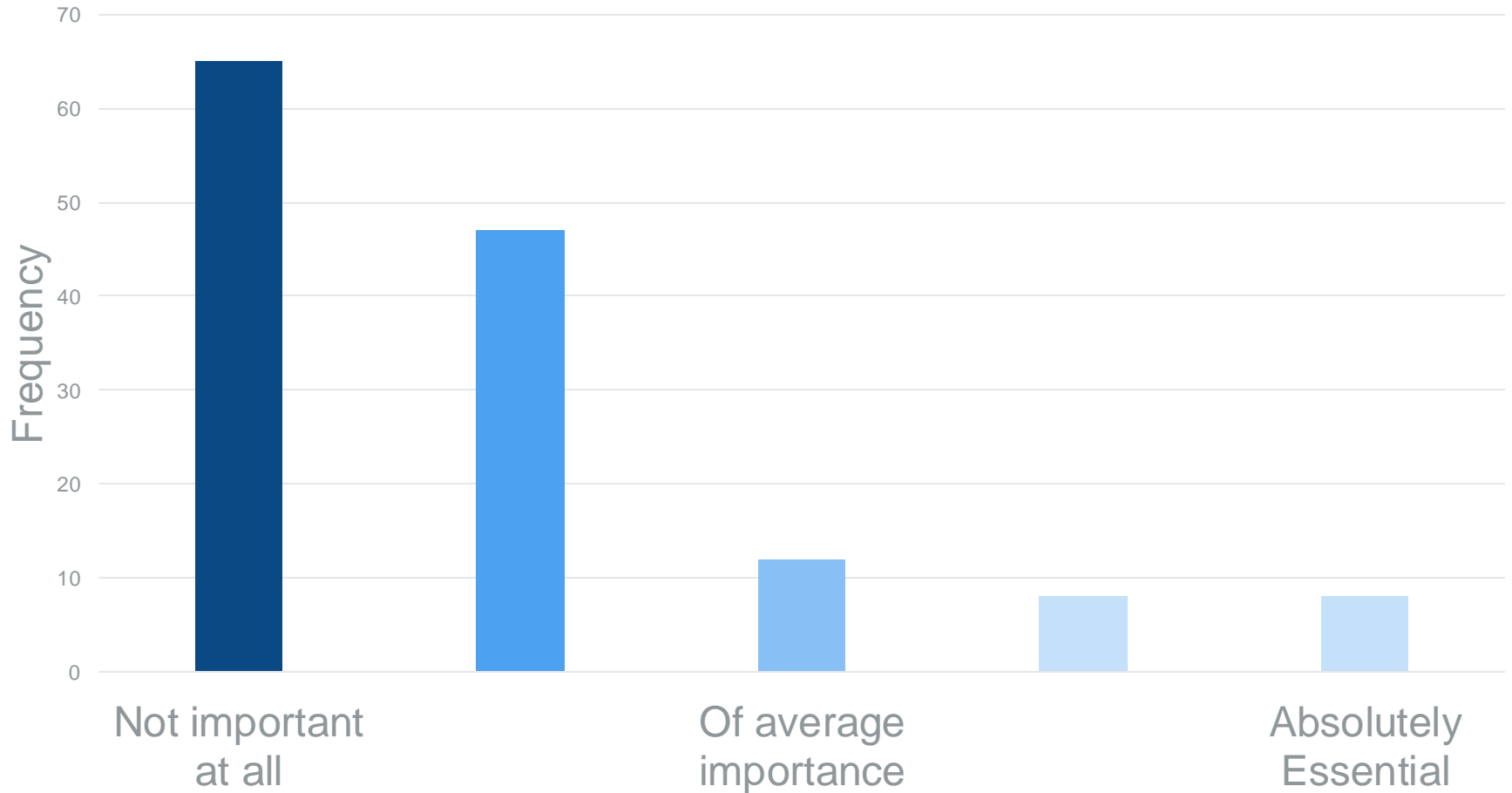


Questions?

# Easy to Move



# Color & Appearance





# Recommended by Police or Gun Advocacy Orgs

