



Seattle Office of City Auditor

MEMORANDUM

Date: December 15, 2022

To: City Councilmember Lisa Herbold, Chair, Public Safety and Human Services Committee

From: David G. Jones, City Auditor

RE: Gun Safe Storage Ordinance: Statistical Report

[Ordinance 125620](#) directs the Seattle City Auditor to work with Public Health – Seattle & King County (PHSKC) and the Chief of the Seattle Police Department (SPD) to produce five annual reports containing descriptive statistics on:

1. Firearm-related hospitalizations and deaths in Seattle for the overall population and among youth (i.e., persons less than 18 years in age), and
2. Guns reported to or recorded by SPD as stolen in Seattle.

Although it was not required by the ordinance, our office and PHSKC concluded that it would be helpful to provide baseline information on these two topics covering the year before the ordinance took effect. Therefore, we issued a [baseline report on October 2, 2019](#) that provided information from 2017. For that report, PHSKC obtained and analyzed data on firearm-related hospitalizations and deaths from the Washington State Department of Health (DOH), and SPD used its records to generate the data on guns reported or recorded as stolen.

On October 18, 2021, we issued the [first](#) of the five reports required by the ordinance. That report provided data from 2019 and updated 2017 baseline data. This second required report provides 2020 data on firearm hospitalizations and deaths for the overall and youth populations in Seattle and 2020 and 2021 data on guns reported or recorded as stolen. Please contact me if you have any questions about the information provided in this memo.

Key Takeaways

According to DOH data processed by PHSKC, the number of firearm deaths among Seattle residents increased from 36 in 2019 to 38 in 2020. The rate of firearm deaths, 4.7 per 100,000 Seattle residents, was the same in 2020 and 2019. Unlike in 2019, when there were no firearm deaths among Seattle youth under 18 years, there were two firearm deaths among youth in 2020. PHSKC cautions that these increases are not statistically significant based on confidence intervals. In other words, chance cannot be ruled out as an explanation for these differences.

In 2020, firearm suicides accounted for 55 percent of all firearm deaths among Seattle residents. This was less than in 2019, when 69 percent of all firearm deaths were from suicide.

Firearm related non-fatal hospitalizations among Seattle residents increased from 60 in 2019 to 64 in 2020. This equates to a rate of 8.1 firearm non-fatal hospitalizations per 100,000 Seattle residents in 2020 compared to 7.2 per 100,000 in 2019. These differences were not statistically significant, based on confidence intervals. In other words, chance cannot be ruled out as an explanation for these differences.

According to data provided by SPD, the number of guns reported or recorded as stolen decreased from 393 in 2020 to 381 in 2021.

Future Reports

Future reports will continue to report firearms-related hospitalization and death data that is one to two years old. This is due to a few factors: 1) the State of Washington’s data collection and processing systems includes obtaining out-of-state death certificates for Washington State residents who die out-of-state, 2) Washington, like all states, sends death data files to the federal Centers for Disease Control and Prevention’s National Center for Health Statistics, which applies a standardized data processing protocol to create “final” death files that are then returned to states. DOH then provides the final death data to PHSKC. This process takes 9-12 months after the end of the calendar year, following which PHSKC can begin internal data processing and analysis to produce the measures for this report, 3) Hospitalization data follow a somewhat similar process to obtain and include out-of-state hospitalizations for Washington State residents. DOH provides this data to PHSKC five to six months after the end of the calendar year, following which PHSKC performs internal processing and analysis to produce the required measures for this report. For this year’s report, PHSKC’s new data processing protocols added a few additional delays for the processing of the hospitalization data used for this report.

Therefore, PHSKC reported that the approximate 18 to 19-month lag in obtaining and analyzing DOH data could continue throughout the duration of the reporting period specified by the ordinance. The following table shows the effect of this lag on future reports’ approximate delivery dates.

Period Covered by Report	Estimated Period Report Will be Provided to City Council
2021	4 th Quarter 2023
2022	4 th Quarter 2024
2023	4 th Quarter 2025

Seattle 2020 Firearm-related Hospitalizations and Deaths

The table below provides the data requested in the ordinance covering 2020 on firearm hospitalizations and deaths for the overall and youth populations in Seattle.

	All Ages — Seattle, WA, 2020					Youth (< 18 years) — Seattle, WA, 2020				
	Number	Population*	Rate†	Lower CI	Upper CI	Number	Population*	Rate†	Lower CI	Upper CI
Firearm deaths										
Total	38	761,624	4.7	3.3	6.8	2^	105,553	1.9	0.2	6.8
Homicide	15	761,624	1.7	0.9	3.1	1^	105,553	1.0	0	5.3
Suicide	21	761,624	2.8	1.7	4.5	1^	105,553	1.0	0	5.3
Other (unintentional, undetermined, legal intervention)	2^	761,624	0.3	0.0	1.3	0	105,553	0	0	2.8
All injury deaths	445	761,624	56.7	51.4	62.6	11	105,553	10.4	5.2	18.7
Firearm non-fatal hospitalizations										
Total	64	718,087	8.1	6.2	10.6	8^	98,356	8.1	3.5	16.0
Assault	29	718,087	3.5	2.3	5.4	2^	98,356	2.0	0.3	7.4
Unintentional	32	718,087	4.2	2.9	6.2	6^	98,356	6.1	2.2	13.3
Other (self-inflicted, undetermined, legal intervention)	3^	718,087	0.4	0.1	1.5	0	98,356	0	0	10.2
All injury non-fatal hospitalizations	3,946	718,087	559.1	541.3	577.5	127	98,356	129.1	107.6	153.6

Notes:

In Seattle in 2020, approximately 55.3% (21/38) of firearm deaths were due to suicide.

Non-fatal hospitalizations exclude instances of deaths that occur while hospitalized and reflect instances of hospitalizations and not distinct injured individuals or injuries. Numbers may differ from those reported elsewhere as we used a new methodology implemented with 2019 data reporting as our new standard approach.

*Total population numbers are different for deaths and hospitalizations. "Seattle" is defined by Health Reporting Areas for death data and ZIP codes for non-fatal hospitalization data. 2020 population estimate reported.

Small numbers (< 10) reported with approval from Washington State Department of Health.

CI = 95% Confidence Interval. The CI is the range of values that include the true rate 95% of the time.

†Rate is per 100,000 Seattle residents and age-adjusted to 2000 U.S. population. Rates for youth (< 18) are not age-adjusted.

^Unstable rate; interpret with caution, sample size is small, so estimate is imprecise.

Data Sources:

Deaths: Washington State Department of Health, Center for Health Statistics, Death Certificate Data, 1990-2021, Community Health Assessment Tool (CHAT), October 2022. CHAT Query for deaths performed on 11/09/2022.

Non-fatal hospitalizations: Washington State Department of Health, Center for Health Statistics, WA Hospital Discharge Data, Comprehensive Hospitalization Abstraction Reporting System (CHARS), August 2021.

Population estimates: Washington State Office of Financial Management, Forecasting Division, single year intercensal estimates 2001-2020.

Prepared by: Public Health — Seattle & King County, Assessment, Policy Development & Evaluation, 11/21/2022.

PHSKC summarized its findings from the 2020 data as follows^{1,2}:

1. In 2020, firearm suicides accounted for 55 percent of all firearm deaths among Seattle residents. This was less than in 2019, when 69 percent of all firearm deaths were from suicide.
2. In 2020, the firearm suicide death rate was 1.6 times higher than the firearm homicide death rate among Seattle residents. In comparison, the 2019 firearm suicide death rate was three times higher than the firearm homicide death rate.
3. Unlike in 2019, when there were no firearm deaths among Seattle youth under 18 years, there were two firearm deaths among youth in 2020. These two deaths accounted for 18 percent of all injury deaths among Seattle youth in 2020.
4. Assaults accounted for 45 percent (compared to 38 percent in 2019) of non-fatal firearm hospitalizations among Seattle residents in 2020.
5. Unintentional firearm injuries accounted for 50 percent of non-fatal firearm hospitalizations among Seattle residents in 2020, whereas in 2019 they accounted for 38 percent.
6. Among Seattle youth under 18 years, there were a total of 8 non-fatal firearm hospitalizations (six percent of all injury non-fatal hospitalizations) in 2020 compared to one non-fatal firearm hospitalization in 2019.
7. While chance cannot be ruled out as an explanation, the rates and counts of total, homicide, and suicide firearm deaths among Seattle residents were higher in 2020 compared to 2019.
8. Rates and counts of total, assault, and unintentional firearm non-fatal hospitalizations among Seattle residents were higher in 2020 compared to 2019. However, chance cannot be ruled out as an explanation for the difference.

While PHSKC presents small numbers for completeness, with approval from DOH, it is important to keep in mind that estimates based on small numbers are unstable. This means that an increase of two or three events can cause the rate to appear high. DOH considers rates based on fewer than 17 events to be unstable. Because rates based on small numbers can fluctuate from year-to-year, it is important to interpret these rates with caution. One interpretation is to look at whether the confidence intervals for the rates overlap. If they do, then the rates are not statistically different meaning chance cannot be ruled out as an explanation for the observed difference.

¹ The statistical technique of age adjustment used for the 2019 data was slightly different from that used for the 2020 data. This has a small impact on the ability to directly compare estimates between years.

² Due to small numbers, chance cannot be ruled out as an explanation for the observed difference between years.

Seattle Police Department Data on Stolen Guns

According to data provided by the Seattle Police Department (SPD), the number of guns reported or recorded as stolen decreased from 393 in 2020 to 381 in 2021. SPD noted that as of May 6, 2019, SPD's Records Management System was updated, and stolen firearms reports changed. However, an SPD official stated that SPD does not believe these changes affected the overall count of stolen guns. Major changes included:

- The Report Created Date on the Property Report, with which the qualifying stolen gun item record is associated, was used as the qualifying date instead of Submitted Date as seen in previous reports.
- The National Crime Information Center (NCIC) firearm codes are no longer used. The NCIC Gun Type field was used to distinguish qualifying Stolen Firearm records (guns), from Stolen Firearm records that document stolen ammunition, stolen BB guns, etc.