



# **King County Bicycle Helmet & Safety Project 2022**

## **Final Report**

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## Project Summary

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This report starts with data and research summaries from various respected sources, followed by detailed narratives about the three funded activities. Finally, it summarizes the achievements of the Violence and Injury Prevention (VIP) Unit towards improving bicycle safety through November 30, 2022.

Key Dates:

**On January 1, 2022**, the King County Council awarded funding to Public Health - Seattle & King County (PHSKC) VIP Unit to support the following activities:

*Activity 1:* Distribute 1500 free bicycle helmets to King County residents, prioritizing low-income, BIPOC, and unhoused communities.

*Activity 2:* Conduct a bicycle helmet observational study to determine the extent of helmet use among representative cyclists in King County.

- ***Summary of Helmet Observational Study Findings:*** Bicycle helmet use rate was 80% in 2004, and 89% in 2022.

*Activity 3:* Provide community outreach and education to King County residents regarding the importance of wearing a bicycle helmet and other safety tips.

**On February 17, 2022**, the King County Board of Health (BOH) voted to repeal the mandatory bicycle helmet law, and the repeal went into effect immediately. The BOH also passed a resolution supporting the use of helmets.

**In May 2022**, Public Health-Seattle & King County VIP Unit hired a Term Limited Temporary Project Program Manager II to lead the above-mentioned efforts and activities.

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## Background Data

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Decades of research have repeatedly concluded that bicycle helmets are highly effective at preventing injuries and death. Therefore, advocating the proper use of bicycle helmets is a public health imperative that King County takes seriously.

- The King County Child Fatality Review (CFR) process found that, between 1998 and 2002, five children died while riding bicycles. In addition, the CFR expert committee determined that three of the four children not wearing helmets would have lived had they been wearing them.
- A 2016 study done by the Harborview Injury Prevention and Research Center and Public Health – Seattle & King County examined the effect of the King County bicycle helmet legislation on helmet use, helmet-preventable injuries, and bicycle-related fatalities for the period 2000 – 2010. While the results did not show an overall decrease in head injuries, they did reveal a statistically significant decrease in the severity of head injuries, as well as bicycle-related fatalities, suggesting that the helmet legislation was effective in reducing severe disability and death, contributing to injury prevention in Seattle and King County. Also notable is that there have been no bicycle-related (helmet-preventable) deaths in King County in children under 18 since 2005.
  - Kett P, Rivara F, Gomez A, Kirk AP, Yantsides C. The Effect of an All-Ages Bicycle Helmet Law on Bicycle-Related Trauma. *J Community Health*. 2016 Dec;41(6):1160-1166. doi: 10.1007/s10900-016-0197-3. PMID: 27119320.
- An international meta-analysis of 55 studies from 1989 – 2017 found that the use of bicycle helmets reduced head injury by 48%, severe head injury by 60%, traumatic brain injury by 53%, face injury by 23%, and the total number of killed or seriously injured cyclists by 34%.
  - Høye A. Bicycle helmets - To wear or not to wear? A meta-analyses of the effects of bicycle helmets on injuries. *Accid Anal Prev*. 2018 Aug;117:85-97. doi: 10.1016/j.aap.2018.03.026. Epub 2018 Apr 17. PMID: 29677686.
- In another systematic review and meta-analysis of bicycle injury and helmet use, with over 64,000 injured cyclists from 40 studies, researchers found that bicycle helmets reduced the chances of head injury by 51%, of severe head injury by 69%, of face injury by 33%, and of fatal head injury by 65%. Again, reductions were more significant for *severe* injuries than those of lesser severity.
  - Jake Olivier, Prudence Creighton, *Bicycle injuries and helmet use: a systematic review and meta-analysis*, *International Journal of Epidemiology*, Volume 46, Issue 1, February 2017, Pages 278–292, <https://doi.org/10.1093/ije/dyw153>
- A review of five well-conducted case-control studies by Harborview Injury Prevention Center found that helmets provide a 63% - 88% reduction in the risk of head, brain, and severe brain injury for all ages of bicyclists. Helmets provided equal levels of protection for crashes involving motor vehicles (69%) and impact from all other causes (68%). Injuries to the upper and mid facial areas were reduced by 65%. The reviewers concluded that helmets reduce bicycle-related head and facial injuries for bicyclists of all ages involved in all crashes, including motor vehicles.
  - Thompson DC, Rivara FP, Thompson R. *Helmets for preventing head and facial injuries in bicyclists*. *Cochrane Database Syst Rev*. 2000;1999(2):CD001855. doi: 10.1002/14651858.CD001855. PMID: 10796827; PMCID: PMC7025438.

- A 2021 Israeli study of 57 e-bike and e-scooter riders concluded that helmet use decreased the probability of hard tissue and dentoalveolar injuries. Head injuries were more likely in riders not protected by a helmet (37.3% vs. 18.2%). Patients who used helmets also had a lower rate of fractured bones (18.2%) and dentoalveolar injuries (23.7%) than patients who did not (68.8% and 37.3%, respectively).
  - Hamzani Y, Bar Hai D, Cohen N, Drescher MJ, Chaushu G, Yahya BH. *The impact of helmet use on oral and maxillofacial injuries associated with electric-powered bikes or powered scooters: a retrospective cross-sectional study*. Head Face Med. 2021 Sep 1;17(1):36. doi: 10.1186/s13005-021-00288-w. PMID: 34470621; PMCID: PMC8408953.
- Shauna L. Carlson from the Harborview Trauma Registry shared data regarding traumatically-injured bicyclists in King County entering Harborview Medical Center during the years 2018 – 2021:
  - Harborview saw an average of 147 bicyclists with traumatic injuries per year.
  - As expected, a large portion (70%) of traumatic injuries occurred in the warmer months of April through September.
  - Over the four years, Harborview saw 590 bicyclists for traumatic injuries. Of those, 191 (32%) did not wear a helmet.
  - Notably, 28% of helmeted cyclists sustained head injuries compared to 34% of unhelmeted cyclists. This data is consistent with research showing that helmets decrease head injury risk.
  - Most riders entering Harborview for traumatic injuries were involved in traffic incidents (62%) vs. non-traffic incidents (37%). *Traffic incidents* refer to incidents that occur on public highways or streets, including in dedicated, protected bike lanes. *Non-traffic incidents* refer to those occurring in any place other than a public highway or street, such as trails, sidewalks, parking lots, or driveways.
  - More traumatic injuries were caused by non-collisions (49%) vs. collisions (41%). *Non-collisions* occur when bicyclists are injured without striking or struck by something else, e.g., slide on gravel, get caught in railroad tracks, mechanical bike failure, etc. *Collisions* occur when bicyclists strike or are struck by something, such as a vehicle, person, object, or another cyclist.
  - By age group
    - Children under 18 accounted for 11% of riders entering Harborview with traumatic injuries
    - 18-24-year-olds accounted for 6%
    - 25 – 44-year-olds accounted for 34%
    - 45 – 64-year-olds accounted for 37%
    - 65 years and older accounted for 11%
    -
- The King County Medical Examiner’s Office data shows that, between January 1, 2018, and August 15, 2022, there were an average of six bicyclist deaths yearly. Over 80% of bicyclist deaths were due to collisions with motor vehicles. Overall, 97% of those who died were male, and 70% were non-Hispanic white. Riders aged 46 – 64 suffered more deaths than any other age group. Half of all deaths occurred in Seattle, followed by 30% in South King County and 20% in North and East King County. Helmeted riders accounted for 40% of deaths; un-helmeted riders accounted for 43%; for the rest, it was unspecified. The following table presents the details of this analysis:

## King County, WA Bicyclist Deaths: January 1, 2018 – August 15, 2022

| Bicyclist Deaths                              |                     |                |
|---|---------------------|----------------|
| 5-Year Total (1/1/18 – 8/15/22)               | 30                  |                |
| Annual Average                                | 6                   |                |
| Range   | 3 (2020), 10 (2018) |                |
| Sex of Decedent                               | Number (n=30)       | Percent (n=30) |
| Male  | 29                  | 96.7%          |
| Female  | 1                   | 3.3%           |
| Age of Decedent (years)                       |                     |                |
| 0-4   | 0                   | 0.0%           |
| 5-14  | 0                   | 0.0%           |
| 15-24   | 1                   | 3.3%           |
| 25-44   | 5                   | 16.7%          |
| 45-64   | 16                  | 53.3%          |
| ≥ 65  | 8                   | 26.7%          |
| Race/Ethnicity of Decedent <sup>†</sup>       |                     |                |
| American Indian/Native American/Alaska Native | 1                   | 3.3%           |
| Asian/Asian-American                          | 3                   | 10.0%          |
| Black/African American/African/West Indian    | 0                   | 0.0%           |
| Native Hawaiian and Other Pacific Islander    | 0                   | 0.0%           |
| White, non-Hispanic                           | 21                  | 70.0%          |
| White, Hispanic                               | 3                   | 10.0%          |
| Two or More Races                             | 1                   | 3.3%           |
| Another Race                                  | 1                   | 3.3%           |
| Geographic Location of Occurrence             |                     |                |
| Seattle                                       | 15                  | 50.0%          |
| South King County                             | 9                   | 30.0%          |
| North and East King County                    | 6                   | 20.0%          |
| Month of Occurrence                           |                     |                |
| January – March                               | 7                   | 23.3%          |
| April – June                                  | 5                   | 16.7%          |
| July – September                              | 15                  | 50.0%          |
| October – December                            | 3                   | 10.0%          |
| Day of Occurrence                             |                     |                |
| Weekdays (M, T, W, Th, F)                     | 20                  | 66.7%          |
| Weekends (Sat, Sun)                           | 10                  | 33.3%          |
| Time of Occurrence                            |                     |                |
| 12am-6am                                      | 3                   | 10.0%          |
| 6:01am-12pm                                   | 7                   | 23.3%          |
| 12:01pm-6pm                                   | 13                  | 43.3%          |
| 6:01pm-11:59pm                                | 4                   | 13.3%          |
| Unknown                                       | 3                   | 10.0%          |
| Cause of Injury                               |                     |                |
| Struck by Motor Vehicle                       | 25                  | 83.3%          |
| Fall from Bike                                | 5                   | 16.7%          |
| Decedent Helmet Use                           |                     |                |
| Helmeted                                      | 12                  | 40.0%          |
| No Helmet                                     | 13                  | 43.3%          |
| Unknown                                       | 5                   | 16.7%          |

<sup>†</sup> Note: Race is separate from Hispanic origin, also known as ethnicity. Individuals of Hispanic origin (e.g., Mexican, Mexican American, Chicano, Puerto Rican, Cuban, or other Hispanic/Latinx/Spanish origins) may be of any race. For this data set, all individuals of Hispanic origin had their race recorded as "white." \* This data is courtesy of Public Health – Seattle & King County (PHSKC) King County Medical Examiner's Office. PHSKC Violence & Injury Prevention staff completed this summary. This summary only includes (1) Cases where the bike incident occurred in King County between January 1, 2018, and August 15, 2022, and the resulting fatality occurred within this same period and (2) Cases that the Medical Examiner ruled "accidental or "undetermined."

- Washington State Department of Transportation (WSDOT) data provides facts about bicycling-related crashes in King County between January 1, 2018, and September 2022. Please note that this data limits the definition of bicycle crashes to only those sustained by collisions with motor vehicles, not any other causes. The data also does not include helmet use.
  - Between 2018-2021, on average, there were five fatal bicycle crashes and 47 serious injuries each year
  - Between 2018-2021, on average, 1% of bicycle crashes were fatal, and 9.5% of crashes resulted in serious injuries
  - So far, preliminary data indicates 2022 could have the lowest annual crash count compared to the previous four years. **However, over 27% of crashes so far in 2022 have resulted in severe injuries, representing an almost 3-fold increase from earlier years.**
- When using the CDC Social Vulnerability Index (SVI) to analyze WSDOT bicycle and pedestrian collisions with motor vehicles, it is clear that the highest number occurs in census tracts with the highest social vulnerability. Social vulnerability factors include:
  - Socioeconomic status (below poverty, unemployed, income, no high school diploma)
  - Household composition & disability (aged 65 or older, aged 17 or younger, older than age 5 with a disability, single-parent households)
  - Racial/ethnic minority status and language (speaks English “less than well”)
  - Housing type & transportation (multi-unit structures, mobile homes, crowding, no vehicle, group quarters)

This data highlights that the most socially disadvantaged communities in King County experience disproportionately more bicycle and pedestrian injuries and deaths than other communities. Consequently, this is an important reminder that equity and social justice must remain at the forefront of our work in injury prevention.

- King County ArcGIS / WSDOT Bike and Pedestrian Collisions by CDC SVI Dashboard

- WSDOT also calculates the societal costs of bicycle crashes that lead to death, injury, or property damage. As the table shows, over the five years 2017 – 2021, the total societal cost for bicycle crashes within King County was **over \$1 billion**.

| Societal Cost of Crashes within King County (Pedacyclists) |              |                          |                        |                 |                      |                 |
|--|--------------|--------------------------|------------------------|-----------------|----------------------|-----------------|
| Year   | Fatal Injury | Suspected Serious Injury | Suspected Minor Injury | Possible Injury | Property Damage Only | Total           |
| 2017   | \$17,117,000 | \$157,476,400            | \$62,198,800           | \$29,598,400    | \$310,800            | \$266,701,400   |
| 2018   | \$20,540,400 | \$208,827,400            | \$66,472,000           | \$36,571,100    | \$488,400            | \$332,899,300   |
| 2019   | \$20,540,400 | \$171,170,000            | \$63,860,600           | \$34,294,300    | \$444,000            | \$290,309,300   |
| 2020   | \$13,693,600 | \$140,359,400            | \$40,595,400           | \$16,079,900    | \$118,400            | \$210,846,700   |
| 2021   | \$13,693,600 | \$140,359,400            | \$51,753,200           | \$14,230,000    | \$384,800            | \$220,421,000   |
| Total  | \$85,585,000 | \$818,192,600            | \$284,880,000          | \$130,773,700   | \$1,746,400          | \$1,321,177,700 |

WSDOT calculated the societal cost of crashes using methods described in Crash Cost for Highway Safety Analysis (FHWA- SA-17-071), Chapter 6, Federal Highway Administration, Office of Safety 2018. Economic cost components include medical care, emergency services, market productivity, household productivity, legal costs, insurance administrative costs, workplace costs, property damage and congestion.

- Comprehensive Hospital Abstract Reporting System (CHARS) data for years 2016 – 2020 (5 years) provided by the Washington State Department of Health (DOH) highlights bicyclist hospitalizations due to traffic-related incidents:
  - King County experienced an average of 85 bicyclist hospitalizations per year due to traffic-related incidents.
  - King County accounted for 39% of Washington State’s bicyclist hospitalizations, yet the population of King County is 29% of WA State as a whole.
    - [https://www.ofm.wa.gov/sites/default/files/public/dataresearch/pop/april1/ofm\\_april1\\_poptrends.pdf](https://www.ofm.wa.gov/sites/default/files/public/dataresearch/pop/april1/ofm_april1_poptrends.pdf), page 10
  - Patterns are similar between King County and WA State:
    - Males accounted for over 80% of bicyclist hospitalizations.
    - Bicyclists 45 – 64 years old had the highest rate of hospitalizations of all age groups.



## **Activity 1: Public Health - Seattle & King County Distribution of Free Bike Helmets**

***Distribute a minimum of 1500 free bicycle helmets to King County residents.***

When Public Health-Seattle & King County was awarded funding, the King County Board of Health requested VIP prioritize low-income, BIPOC, and unhoused residents.

VIP distributed 1875 bicycle helmets to King County residents, surpassing the original goal of 1500. The table below summarizes helmet purchases and their distribution.

VIP supplemented new and ongoing bicycle helmet programs within the county. VIP participated in small and large community events over the summer months, and many events included life vest giveaways to prevent drowning in conjunction with helmet giveaways. At all events, staff and volunteers provided personalized helmet fittings for all ages.

VIP purchased helmets from local helmet distributors – Pro Rider in Kent and Helmets R Us in Tacoma -- at a considerable discount, spending a little under \$10,000 at each. Thanks to these discounts, the dollars went farther than anticipated and translated into more helmets in the community.

| Month        | Organization  | Other Info  | #   |
|--------------|---|---|-----|
| <b>APRIL</b> | Brain Injury Alliance                                     | For their annual Walk Run Roll event on April 30th  | 100 |
| <b>MAY</b>   | FMS Global Strategies                                     | DOH Care-A-Van COVID-19 mobile vaccination clinic event in Tukwila                                  | 8   |
|              | PHSKC Vaccination Pop-Up at Stonebrook Apartments, Renton |   | 8   |
|              | Bicycles for Youth, Ravensdale                            | This non-profit provides free refurbished bikes and new helmets to low-income/ unhoused individuals | 30  |
|              | Fairwood United Methodist Church, Renton                  | Afghan Refugee Center - free items, including bicycles, for newly arrived refugees                  | 40  |
|              | City of Maple Valley Police Department                    | Helmets to supplement existing community program  | 18  |
|              | Mercer Island Police Department                           | Helmets to supplement existing community program  | 30  |
|              | Kenmore Police Department                                 | Helmets to supplement existing community program  | 30  |
|              | Puget Sound Regional Fire Authority                       | Helmets to supplement existing community program  | 30  |
| <b>JUNE</b>  | King County Fire District #20 - Skyway                    | Chief asked specifically for half of order to be multipurpose-type helmets for teens                | 200 |
|              | Neighborhood House/Firwood Circle                         | Firwood Circle is a King County Housing Authority public housing property                           | 62  |
|              | Valley Regional Fire Authority                            | For staff to supplement their giveaway programs in Auburn, Algona, Pacific                          | 30  |
|              | Rainier Beach Health & Wellness Event                     | Huge event with Rainier Beach Community   | 75  |
|              | YMCA K-Readiness Summer Program                           | Helmets for children "graduating" from program and moving on to kindergarten in Highline SD         | 46  |

|           |  |  |             |
|-----------|--|--|-------------|
|           | Living Well Kent - Youth Program                                 |  | 30          |
|           | Muckleshoot/King County Police                                   | Helmets fit and distributed by own staff as part of annual health & wellness fair  | 30          |
|           | Greenbridge Boys & Girls Club                                    | Greenbridge is a King County Housing Authority (KCHA) property in White Center   | 130         |
| JULY      | KCHA Summer Event at Valli Kee Apts. in Kent                     |  | 30          |
|           | HIPRC's ACE Program graduation                                   | Safe Kids provided helmets for children; we provided helmets for adults  | 24          |
|           | KCHA Summer Safety Events-Bellevue & Kenmore                     | Leftover helmets went to Bellevue Boys & Girls Club  | 135         |
|           | KCHA - Seola Gardens   | For Resident Services Coordinator to fit kids at property  | 30          |
| AUGUST    | KCHA Summer Events at Cascade Homes & Birch Creek Apts. In Kent  |  | 20          |
|           | PHSKC Mobile Medical Van - at Catholic Community Services, Kent  |  | 15          |
|           | Kent Police Department   | To supplement community programs   | 100         |
|           | Othello Park International Festival                              | Provided helmets for Seattle Greenways and Seattle DOT staff to fit and give to attendees  | 100         |
|           | SeaTac Back to School Fair 8/18/22                               | PHSKC staff partnered with Seattle Children's Hospital to give away both helmets and life vests  | 100         |
|           | Mother Africa bike helmet and life vest giveaway event - 8/11/22 | Fitters included PHSKC staff, community volunteers, 2 Kent Police officers, and 2 Living Well Kent staff. Also paid for org staff to support | 200         |
| SEPTEMBER | HNN Communities – Park 16 Apts Back to School Fair, Federal Way  | Fitters included PHSKC staff & Federal Way PD staff  | 200         |
|           | PHSKC Mobile Medical Van – at Kent Lutheran Church               |  | 24          |
|           |  | <b>TOTAL # helmets going into KC communities:</b>  | <b>1875</b> |

VIP staff developed thoughtful relationships with providers that serve King County's unhoused residents. For example, the PHSKC's Health for the Homeless/Mobile Medical Van team invited us to two of their South King County sites, where we fit around 40 individuals with helmets. The most successful site was one where multiple services congregated -- the free dental van, free vaccines (flu and COVID-19), free Narcan kits, and a free community supper at the adjacent church. Partnering with other service providers at one location may be a good model for any future bicycle helmet distribution projects intended to serve the unhoused population.

In summary, between April and September 2022 (6 months), VIP gave 1875 helmets to low-income, BIPOC, unhoused King County, and other residents through community partner organizations and participation in community events.

The team developed positive relationships with several new internal and community partners as a side benefit of this work.



Logan and Aidan are two lucky recipients of free helmets. Both youths live in King County Housing Authority (KCHA) properties in South King County. Diane, Neighborhood House Youth Program staffer, fits Logan at Firwood Circle in Auburn (left). Aidan poses at Valli Kee Homes in Kent (right).

## **Activity 2: Bicycle Helmet Observation Study**

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### ***Conduct a bicycle helmet observational study to determine the extent of helmet use among representative cyclists in King County***

In 2004, the VIP Unit spearheaded a bicycle helmet observation study to determine overall bicycle helmet use in King County. At that time, observations of 1473 cyclists recorded an 80% overall helmet use rate.

In 2022, the VIP Unit contracted with Almeida's Training and Consulting to lead the observation study. The VIP team used a thorough and equitable process to find the best consultant, a process vetted by a PHSKC contract specialist and liaison to the King County CPRES and FBOD offices. VIP staff wrote an RFP, to which three consultants responded, and independently evaluated the proposals with a rubric modeled after a template provided by the Washington Traffic Safety Commission (WTSC). Almeida's was the most experienced and most qualified.

Almeida's provided the training and oversight for their observers and collected data on iPads. In addition, an observer and a recorder worked together at each site to maintain accuracy.

The study methodology was very similar to the older study, using most of the same variables and many of the same observation sites. This includes estimating age and gender. The same regions were used, and riders were observed for 45 minutes at each site in 2022, and for 20 minutes in 2004 during day light conditions.

As noted in the summary table below, observers recorded 2095 bicycle and scooter riders at over 50 sites throughout King County with an overall helmet use rate of 85%.

Helmet use rates among teens and children were 72% and 91%, respectively. However, the 2004 study showed teens' helmet use at 60% and helmet use among children at 83%.

Southeast King County residents had the lowest helmet use (68%), which was also the case in 2004 (71%).

Strikingly, but not surprisingly, the data shows that ride-share and ride-share scooters have much lower helmet use rates than riders of personal bikes and scooters. The 2004 study did not include bike- and scooter-share riders as those programs did not exist then.

Attempts were made to observe riders in low-income BIPOC neighborhoods and sites where unhoused residents may live, congregate, or access services. However, to observe as many riders as possible in the short good-weather window because of the time required for an equitable contracting observer vetting process, teams observed at mostly well-known, popular bicycle paths, parks, trails, and commuter paths throughout KC.

## Helmet Usage Observations in King County, Washington – 2004 and 2022

|   | 2022       |                |         | 2004       |                |         |
|---|------------|----------------|---------|------------|----------------|---------|
| AGE   | # Observed | # Helmets Used | % Usage | # Observed | # Helmets Used | % Usage |
| Adult (18+)   | 1850       | 1589           | 87%     | 1148       | 964            | 84%     |
| Teen (15-18)  | 101        | 72             | 72%     | 196        | 118            | 60%     |
| Child (5-14)  | 102        | 93             | 91%     | 128        | 106            | 83%     |
| Infant-Toddler (<5)                                 | 42         | 38             | 91%     | --         | --             | --      |
| GENDER  |            |                |         |            |                |         |
| Male  | 1489       | 1255           | 84%     | 1096       | 866            | 79%     |
| Female  | 589        | 523            | 89%     | 364        | 309            | 85%     |
| Unknown   | 17         | 15             | 88%     | 13         | 13             | 100%    |
| VEHICLE TYPE  |            |                |         |            |                |         |
| Personal Bicycle                                    | 1911       | 1735           | 91%     | --         | --             | --      |
| Ride Share Bicycle                                  | 68         | 30             | 45%     | --         | --             | --      |
| Personal Scooter                                    | 42         | 21             | 50%     | --         | --             | --      |
| Ride Share Scooter                                  | 74         | 7              | 9%      | --         | --             | --      |
| Personal Sit-down Scooter                           | 8          | 3              | 38%     | --         | --             | --      |
| Ride Share Sit-down Scooter                         | 14         | 2              | 14%     | --         | --             | --      |
| KING COUNTY REGIONS                                 |            |                |         |            |                |         |
| Downtown/Central/West Seattle - South of Ship Canal | 632        | 532            | 84%     | 281        | 216            | 77%     |
| Seattle - North of Ship Canal                       | 298        | 253            | 85%     | 655        | 531            | 81%     |
| Northeast King County                               | 945        | 844            | 89%     | 355        | 312            | 88%     |
| Southwest King County                               | 50         | 43             | 86%     | --         | --             | --      |
| Southeast King County                               | 170        | 116            | 68%     | 182        | 129            | 71%     |
| OVERALL OBSERVED USAGE                              | 2095       | 1788           | 85%     | 1473       | 1178           | 80%     |

## Activity 3: Community Outreach, Education, and Advocacy

*To provide community outreach and education to King County residents regarding the importance of wearing a bicycle helmet and other safe cycling tips*

For the past 20 years, the VIP team has listed resources within King County to help residents find free and low-cost bicycle helmets. In June 2022, we updated the [Free and Low-Cost Bicycle Helmet Resources on King County](#) site.

The VIP Unit used some of the funds to supplement the Target Zero Walker/Roller Highway 99 safety grant translations of two educational handouts into 13 languages other than English: Amharic, Chinese (Simplified), Chinese (Traditional), Ilocano, Korean, Punjabi, Russian, Samoan, Somali, Spanish, Tagalog, Ukrainian, Vietnamese. Now finalized, we offer electronic and printed copies in all languages to community residents and community partners. [Public Health Bicycle Safety Site=Translated Materials.](#)

One of the educational handouts is a two-sided “Bike Safety Rack Card,” as seen below in English.





The other educational handout is the “Helmet Fit Test,” developed by Safe Kids Worldwide. Safe Kids Worldwide gave its permission to translate their document. We have shared the translations with Safe Kids Worldwide, assuring this information can now spread across the globe.



## Does your helmet fit properly?

### Take the Helmet Fit Test

---

1



**Eyes:** Put the helmet on your head. Look up. You should see the bottom rim of the helmet.

2



**Ears:** Make sure the straps form a 'V' under your ears when buckled. The straps should be a little tight but comfortable.

3



**Mouth:** Open your mouth as wide as you can. Does the helmet hug your head? If not, tighten the straps.

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## Now you're ready to roll!

In addition to educational handouts, VIP also used social media to share information. Facebook post from August 31, 2022:





And from October 12, 2022:



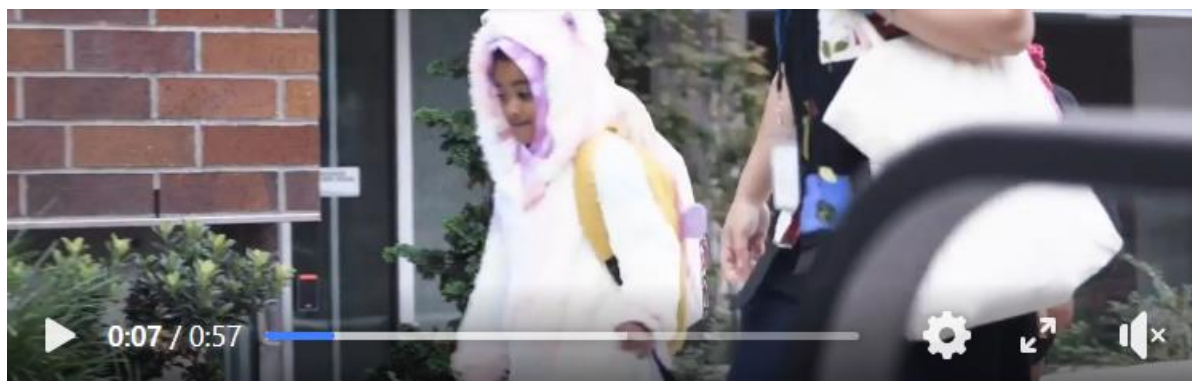
**Public Health - Seattle & King County** ✓

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Today, the City of Seattle and King County communities are walking, biking, & rolling as part of Walk & Roll to School Day 2022, a celebration highlighting the importance of safe, active travel. Let's stay safe by always wearing a helmet!

You don't have a helmet? Not a problem! - If you bike to school, work, or just do it for fun, please check our website and download a list of free to low-cost bike helmet providers:

[Bike helmets and bicycle safety - King County](#)



**Seattle Public Schools** ✓

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It's Walk to School Day! The Walking School Bus at Bailey Gatzert Elementary School is a big hit with students, families, and staff.

Not only does it get students from home to school safely and on time, it's also a great way to build community. @SEAGreenways

@seattledepartmentoftransportation <https://buff.ly/3RS7NOr>

[#SPSConnect](#)

In the realm of study and advocacy, a VIP team member participates in Washington State's Active Transportation Safety Council (ATSC). [WA Active Transportation Safety Council](#) is a legislatively approved and funded state body working towards eliminating deaths and injuries to bicyclists, pedestrians, and other vulnerable road users (VRUs) such as wheelchair users, scooter riders, and other unprotected small vehicle riders.

In addition, ATSC advocates for and creates safer conditions for vulnerable road users statewide and in local communities. Among other efforts, ATSC leads a fatality review process that examines factors leading to and potentially preventing future VRU deaths. It also develops recommendations for the Legislature, Governor, injury prevention, traffic safety advocates and community to consider. Other council members include Disability Rights WA, Tribes, the Association of Cities, bicycle and pedestrian advocacy groups, traffic safety leadership and staff, WDOT, SDOT, and others.

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## Summary and Conclusions

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Data indicates that bicycling deaths and injuries continue to be a significant economic burden in King County, in addition to sources of personal and societal suffering.

This 2022 Bicycle Helmet Observation Study showed that helmet use among King County bike and scooter riders is about 85%.

Bicycle helmet use rate among bicycle riders was 89% (1776/1979) in 2022 up from 80% in 2004.

Data from Harborview's Trauma Center shows that bicyclists traumatically injured in King County and seen at Harborview (in 2018 – 2021) were helmeted 64% of the time.

Between 2018 and 2021, Harborview Medical Center treated 590 bicyclists for traumatic injuries. Of those, 191 did not wear helmets. Thirty-four per cent (34%) of the un-helmeted cyclists had head injuries.

All King County bicycle-related data analyzed by the VIP team indicates that white, non-Hispanic males aged 45 – 64 are most at risk for traumatic injuries, hospitalizations, and deaths.

Children are still a worrisome group. Harborview Trauma Registry data shows that bicycle riders aged 0 – 17 account for over 11% of bicycle-related traumatic injuries seen at Harborview. Since data was unavailable for emergency department visits from other King County hospitals, this proportion may be even higher. Additionally, in the four months of 2022 for which we have Harborview Trauma Registry data, there is almost a two-fold increase in the proportion of youth (0 – 17 years old) entering Harborview with bicycle-related traumatic injuries (21.7%) compared to an average of 11.4% over the past four years.

## Closing Remarks

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We wish to thank PHSKC leaders for supporting the efforts outlined in this report.

We acknowledge the pain and suffering of those affected by bicycle crashes and the loved ones left behind after the death of a bicyclist. King County and Public Health-Seattle & King County continue to advocate for and work towards safer bicycling conditions.

Finally, we thank the King County Council for funding these 2022 activities and their continued financial support of bicycle safety work through 2024.

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