
MCAH Title V Child Injury Data Report

September 15, 2022



Welcome!

Please check your video box
in Zoom to confirm your
identification includes your
name and affiliation. Pronouns
are always welcome.

Also, please introduce
yourself into the chat.



Our Plan for this Session:

Background and Context

Overview of the Data Report, Data Sources, Limitations, Considerations

Questions and Discussion

Closing and Evaluation



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Oregon's MCAH Title V Program

- **MCH Title V Block Grant** provides federal funds to Oregon to improve the health of Oregon's women, infants, children, adolescents, and children and youth with special health care needs.
- Oregon's Title V funds support the work of: local public health authorities; Tribes; state maternal, child and adolescent health staff; and the Oregon Center for Children and Youth with Special Health Needs (OCCYSHN).
- Oregon's Title V program priorities:
 - Are revised every 5 years based on the findings of the state's MCAH Needs Assessment.
 - Include national priorities (at least 5) chosen from a set of priorities provided by the MCHB, and state-specific priorities reflecting other Oregon MCAH needs.

Oregon's MCAH Title V Program

- Title V program priorities for 2021-2025:
 - Foundations of MCAH – includes social determinants of health, toxic stress, trauma, ACEs and resilience, culturally and linguistically responsive services
 - Well woman care
 - Breastfeeding
 - Child injury prevention
 - Bullying prevention

Backstory for Statewide Data Report – Oregon Safe Kids

- MCH provides summary childhood injury data to inform intervention priorities and strategies for local coalitions and the state coordinator.
- In 2016, prompted by an organizational transfer of analytic responsibility and the recent ICD code conversion, we embarked on a lengthy collaborative process to re-examine how data were analyzed and shared with Safe Kids.
 - Compared ICD-9 and ICD-10 codes
 - Conducted key informant and small group interviews
 - Created customized program in SPSS
 - Established new trends
 - Created new statewide and local coalition reports using Sparklines with mini-visuals
 - Engaged Safe Kids board members for additional feedback and refinements

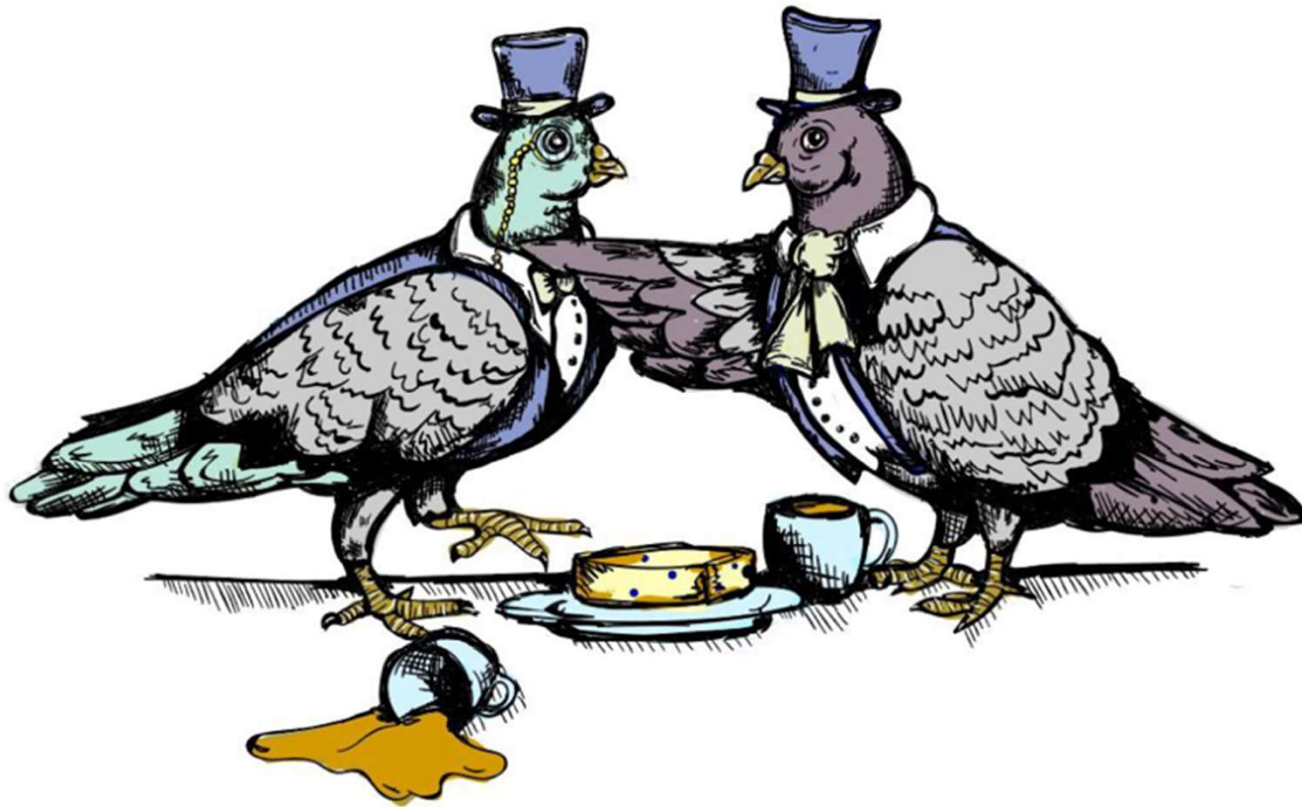
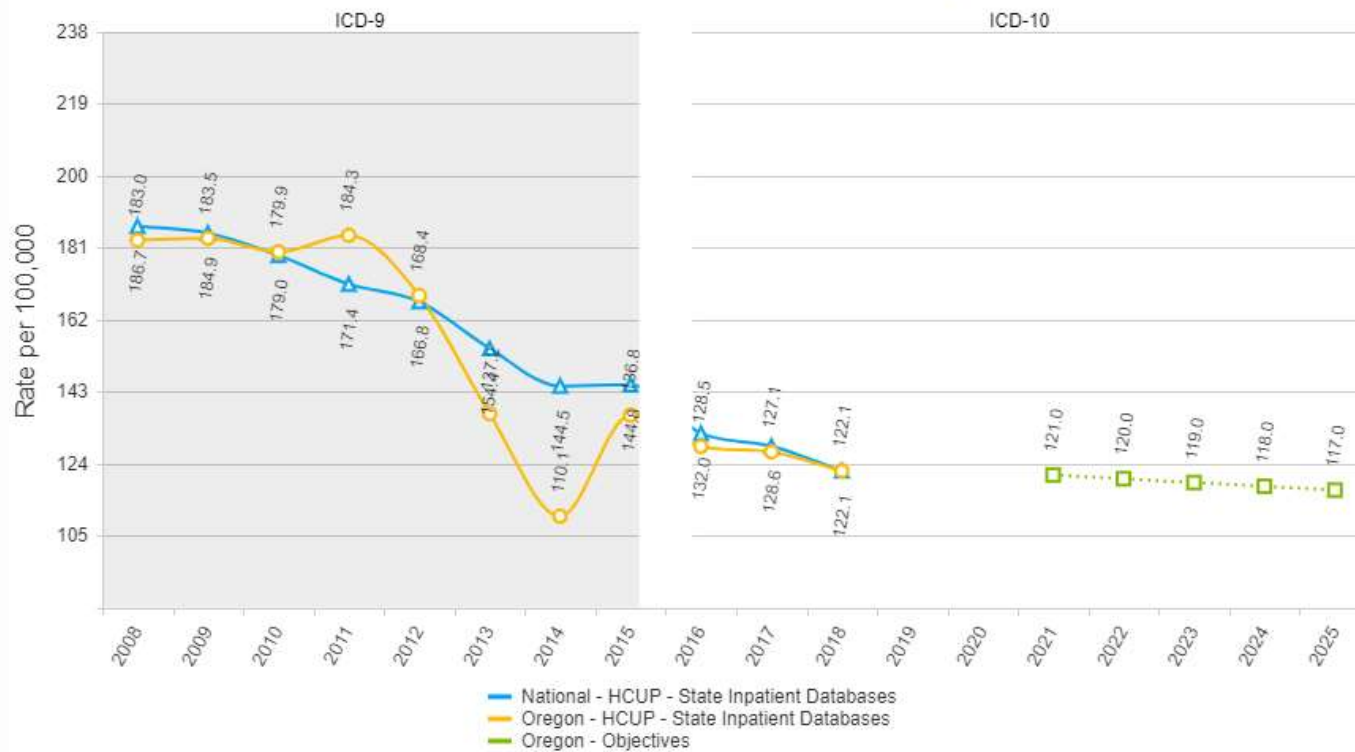


Image by Oney Snyder, found online: <https://dribbble.com/shots/9940533-Two-Birds-One-Scone/attachments/11432449?mode=media>

Title V National Priority Measure: Child Injury

NPM 7.1: Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9
Indicators and Annual Objectives – Oregon



Oregon's Additional Measures for Tracking

- 7.1.1 Injury death rate among children 0-9 years of age
- 7.1.2 Transportation injury death rate among children 0-9 years of age
- 7.1.3 Drowning death rate among children 0-9 years of age
- 7.1.4 Poisoning injury rate among children 0-9 years of age

Data to Drive Action in 4 Key Areas of Focus:

POLICY

WORKFORCE

PARTNERSHIPS AND COMMUNICATION

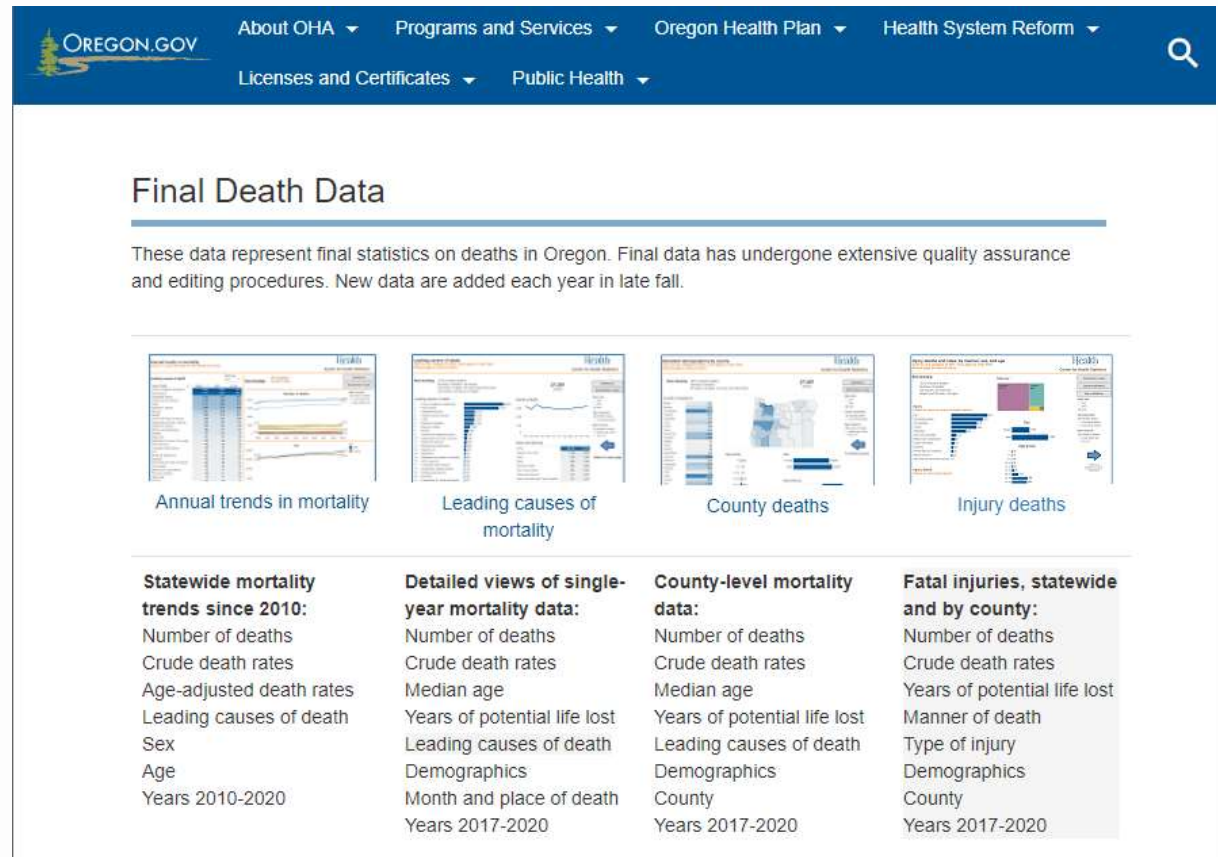
QUALITY DATA

Child Injury Summary Report

- Injury data specific to children may not be readily available
- Three sets of data – varying severity
- Understand the type and severity of injury affecting the population we serve
- Help prioritize identification of injury prevention strategies

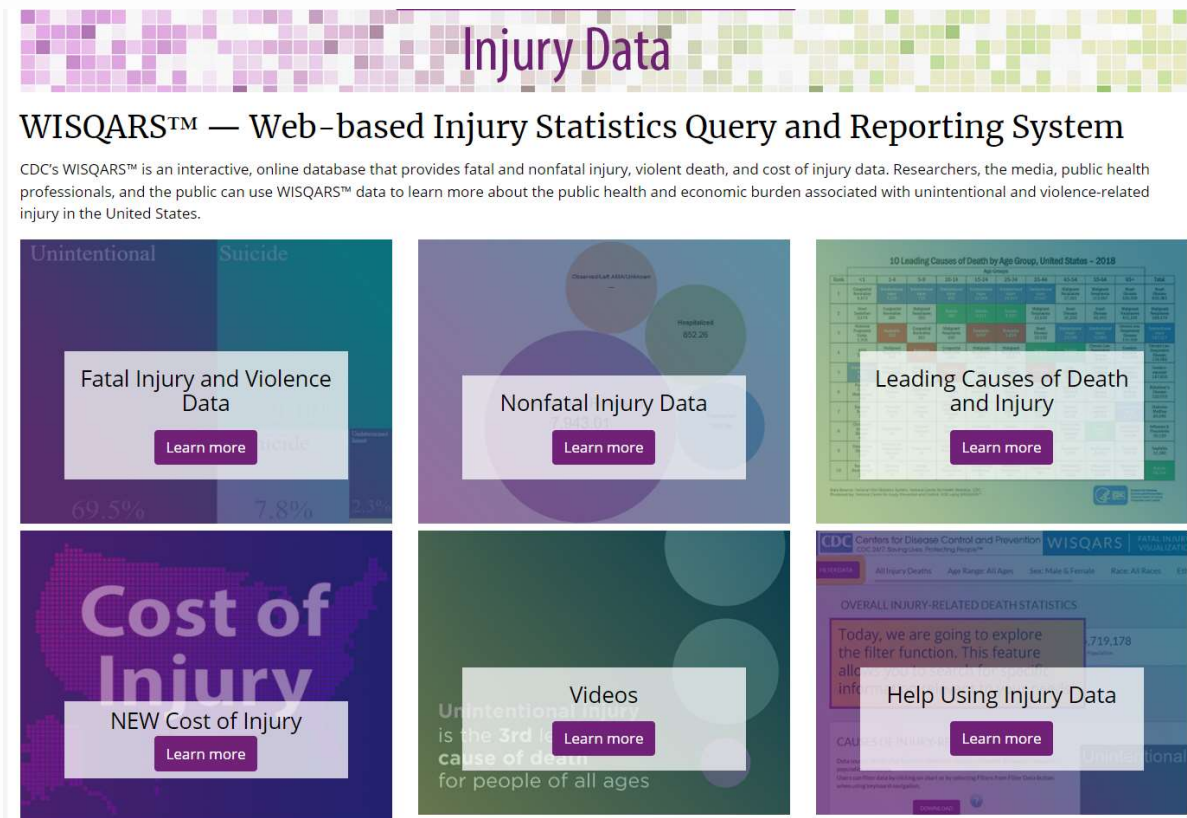
Existing Data Resources – Center for Health Statistics

- Local data
- Dashboard featuring
 - Mortality trend
 - Leading causes of death
 - County deaths
 - Injury deaths
- <https://bit.ly/ORdeathdata>



Existing resources – Centers for Disease Control and Prevention (CDC)

- National data
- Web-based Injury Statistics Query and Reporting System (WISQARS)
 - Fatal Injury and Violence data
 - Nonfatal Injury data
 - Leading Causes of Death
 - Cost of Injury data
- <https://www.cdc.gov/injury/wisqars/index.html>



Other Specific Injury Data

- Specific injury data may be available from various agencies focused on the injury topic; some examples include but not limited to:
 - Oregon Poison Center
 - Oregon Department of Transportation
 - Oregon State Marine Board

Report Layout

- Injury data among children and youth 0-19 years old
- Separate data for each data sources (severity)
- Aggregated by 3-year total for State report and 5-year total for county or jurisdictional report
- Shows injury categories
 - Trend data
 - Age group
 - Board injury category ranking

Our Customized Report – summarizes injuries among children and youth age 0-19

Oregon Statewide

Row #	Oregon Statewide Data, Age 0-19	Emergency Department Data				Hospital Discharge Data				Death data			
		2020-2021 2-year total	by Year*	by Age Group**	Rank	2019-2021 3-year total	by Year*	by Age Group**	Rank	2019-2021 3-year total	by Year*	by Age Group**	Rank
1	Total unintentional	103195				3175				269			
2	Cut/pierce (glass, sharp objects, nonpowered hand tool, powered lawn mower, other powered hand tools and household machinery, foreign body or object entering through skin)	8263			5	62			8	0			9
3	Drowning (bathtub, swimming pool, natural water)	55			13	21			12	24			5
4	Fall	33131			1	1001			3	2			6
5	Fall-slipping, tripping and stumbling	8736				138				0			
6	Fall-involving wheelchair, bed, chair, furniture	5640				174				0			
7	Fall-involving playground equipment (slide, swing, gym, other)	2069				94				0			
8	Fall-on and from stairs and steps, ladder, scaffolding	2022				52				0			
9	Fall-from, out of or through building or structure	291				68				1			
10	Fall-from, out of or through window	163				49				0			
11	Fall-one level to another	3594				158				0			
12	Fall-other on same level	5808				103				0			
13	Smoke, fire, and flames (controlled, uncontrolled, flammable material, clothing)	365			9	48			9	2			6
14	Hot object or substance (contact with liquids, steam, household appliances, heating appliances, hot machinery)	1530			8	76			7	0			9
15	Firearm	239			10	119			6	94			2
16	Firearm- unintentional	166				56				2			
17	Firearm- suicide	10				12				53			
18	Firearm- assault	55				49				37			
19	Machinery	205			11	17			13	0			9
20	All transport	18001			3	1258			2	145			1
21	Motor vehicle in traffic	7068				609				100			
22	Driver	1992				151				27			
23	Passenger	3521				196				38			

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Our Customized Report – 3 separate data sources

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Data Sources Representing Different Severity

Data	Definition	Outcome
Emergency Department Visits Data	Outpatient (ER visits)	Require medical attention but not hospitalization
Hospital Discharge Data	Inpatient (hospitalizations)	Require medical attention and admitted to the hospital
Death Data	Death	Death

Note: A child can be represented in more than one dataset for the same injury event.

Emergency Department Visits Data

Data Owner / Data Source	Health Analytics - OHA
Case Identification Method	ICD-10-CM
Years Available	2020 onwards
Limitations	Outpatient data, event count not person count; Geography is limited to resident county, not necessarily that of the place of injury occurrence; Race and ethnicity variables does not allow for selection of multiple races; Injury identification is based on diagnosis code for billing purposes, there may also be variations between providers

Hospital Discharge Data

Data Owner / Data Source	Health Analytics - OHA
Case Identification Method	ICD-10-CM, ICD-9-CM
Years Available	2008 onwards
Limitations	<p>Inpatient data, event count not person count; Change from ICD- 9-CM to ICD-10-CM in Oct 1, 2015. Trend data before and after this date are not comparable; Geography is limited to resident county, not necessarily that of the place of injury occurrence; Race and ethnicity variables does not allow for selection of multiple races; Injury identification is based on diagnosis code for billing purposes, there may also be variations between providers</p>

Death Data

Data Owner / Data Source	Oregon Center for Health Statistics (Vital Records)
Case Identification Method	ICD-10
Years Available	2006 onwards
Limitations	In 2006, Oregon adopted significant changes in variables to conform to national standard; Cause of death information may be subject to variations between Medical certifiers; Most likely subject to small number issues

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Our Customized Report – Aggregated data

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Why are we aggregating data?

- Rare events
- Sparsely populated geography
- Special population (e.g. specific race data on drowning)
- Refined categories (e.g. 1-4 years old male injuries from window falls)



Why Small Numbers Matter and How We Handle It



- Risk of identifying individuals and families
- Protect individual confidentiality
- 10/50 rule
- Data suppression
- Aggregation
 - Multiple years
 - Larger geography

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Report Shows Trends, Age Groups, and Ranking

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47	Poisoning^	8663			4	4330			1	49			3
48	Poisoning-drugs, medicaments, and biological substances^	6887				4233				46			
52	Poisoning-nonmedicinal sources (alcohol, solvents, halogen derivatives of aliphatic and aromatic hydrocarbons, corrosive substances, soaps and detergents, metals, other inorganic substances, carbon monoxide, other gases, fumes, and vapors, pesticides, noxious substances eaten as seafood, other noxious substances eaten as food, contact with venomous animals and plants, aflatoxin and other mycotoxin food contaminants, other and unspecified substances)^	1833				159				3			

Note:

Data from sub-categories may not add up to injury category total, only selected sub-categories are shown.

For emergency department data and hospital discharge data, there can be duplicative person counts due to multiple visits or hospitalizations over time of different injuries.

* Red markers indicate yearly count.

** Age groups are defined as: less than 1, 1-4, 5-9, 10-14, and 15-19. Red bars indicate category with highest count.

^ Individuals experiencing poisoning from both drugs, medicaments, biological substances and nonmedicinal sources are counted in both categories; thus these categories can add up more than the poisoning totals.

Data sources: Emergency department and hospital discharge data from Health Analytics and death data from Oregon Center for Health Statistics

Trends

Affected by many factors

- Be mindful of data source and limitations,
- Number of data points,
- Number of incidents and fluctuation of trends,
- Scale/cell height,
- Changes in behaviors due to education and prevention strategies,
- Changes in behaviors due to current events (e.g. pandemic, climate change)

Let's revisit our report!

Trends, Age Group, and Ranking Examples

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Injury Category Ranking in Oregon

Top Injury Categories for Children 0-19 Emergency Department Visits, Hospitalizations and Deaths

	Emergency Department Data	Hospital Discharge Data	Death Data
Oregon statewide 2019-2021	1) Fall 2) Struck by or against 3) Transport	1) Poisoning 2) Transport 3) Fall	1) Transport 2) Firearm 3) Poisoning

Leading Injury by Age Group – Emergency Department Visits Data

Rank	0	1-4	5-9	10-14	15-19
1	Fall 2074	Fall 12201	Fall 8110	Fall 5853	All transport 8315
2	Struck by or against 434	Struck by or against 4373	Struck by or against 4079	All transport 5214	Struck by or against 5353
3	Poisoning 267	Poisoning 1944	All transport 3019	Struck by or against 4198	Fall 4893
4	All transport 211	Natural/ environmental 1318	Cut/pierce 1669	Cut/pierce 2106	Poisoning 3999
5	Natural/ environmental 127	Cut/Pierce 1280	Natural/ environmental 1426	Overexertion 1954	Cut/pierce 3114

Leading Injury by Age Group – Hospital Discharge Data

Rank	0	1-4	5-9	10-14	15-19
1	Poisoning 211	Poisoning 614	Poisoning 362	Poisoning 1031	Poisoning 2112
2	Fall 149	Fall 267	Fall 245	All transport 304	All transport 715
3	Struck by or against 11	All transport 65	All transport 170	Fall 150	Fall 190
4	Hot object or substance 9	Natural/ environmental 46	Natural/ environmental 39	Struck by or against 38	Firearm 98
5	Natural/ environmental 8	Hot object or substance 43	Struck by or against 29	Natural/ environmental 28	Struck by or against 95

Leading Injury by Age Group – Death Data

Rank	0	1-4	5-9	10-14	15-19
1	Suffocation 35	All transport 13	All transport 17	All transport 14	All transport 97
2	All transport 4	Drowning 7	Suffocation 4	Firearm 11	Firearm 82
3	Poisoning 1	Suffocation 2	Drowning 3	Drowning 4	Poisoning 44
4	Cut/pierce; Drowning; Fall; Smoke, fire, and flames; Hot object or substance; Firearm; Machinery; Natural/ environmental; Overexertion; Struck by or against 0	Fall; Firearm; Poisoning 1	Cut/pierce; Fall; Smoke, fire, and flames; Hot object or substance; Firearm; Machinery; Natural/ environmental; Overexertion; Poisoning; Struck by or against 0	Poisoning 3	Drowning 8
5	--	--	--	Smoke, fire, and flames 2	Fall; Suffocation 1

Title V State Priorities

- Transportation
- Poisoning
- Drowning



Grantees are free to choose other injury priorities



Chat Reflection

What would you like to know about child injuries and injury related deaths in Oregon?



Closing



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- ❑ Participate in the brief evaluation poll
- ❑ Counties and Tribes that selected child injury prevention for 2022-2023 will receive a report tailored to your communities
- ❑ An email will be sent to all participants with the state report. It will also be posted to the Oregon MCH Title V webpages
- ❑ Do you have requests for other Child Injury or Title V related webinar topics? Let us know!

Thank you!

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