

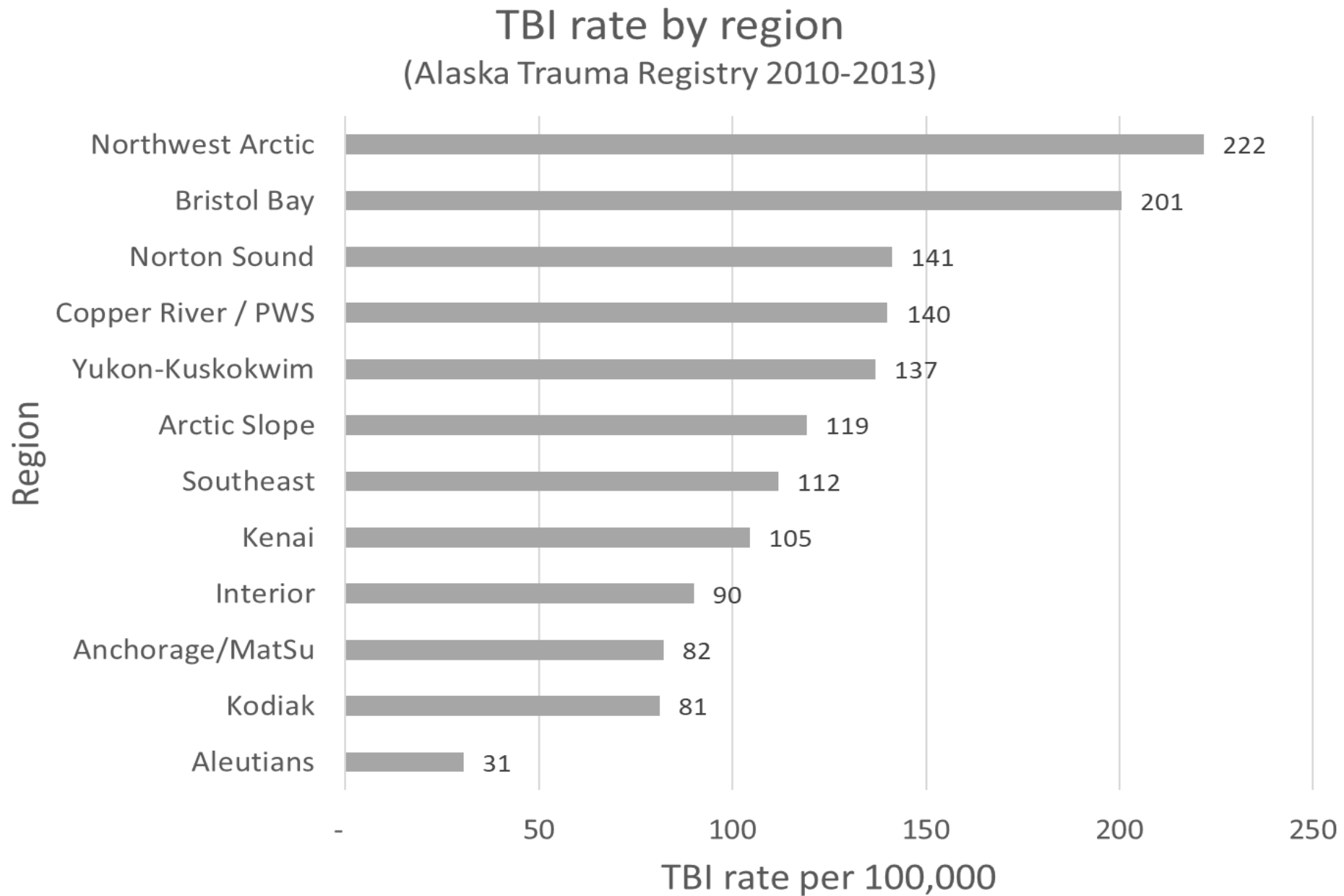
# TBI data from the Alaska Trauma Registry and the Alaska Health Facilities Data Reporting Program

May 29, 2019

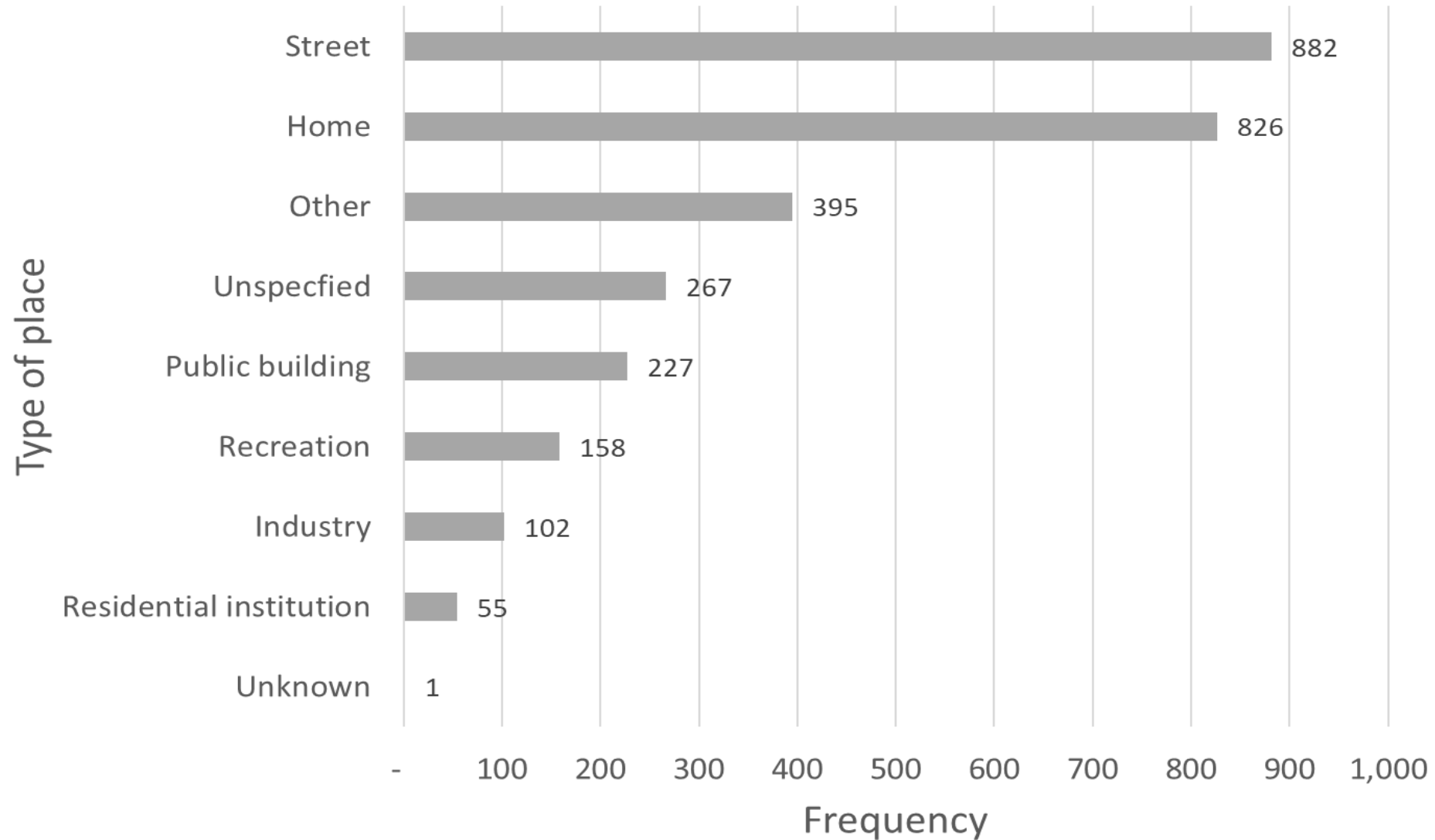
UAA Center for Human Development

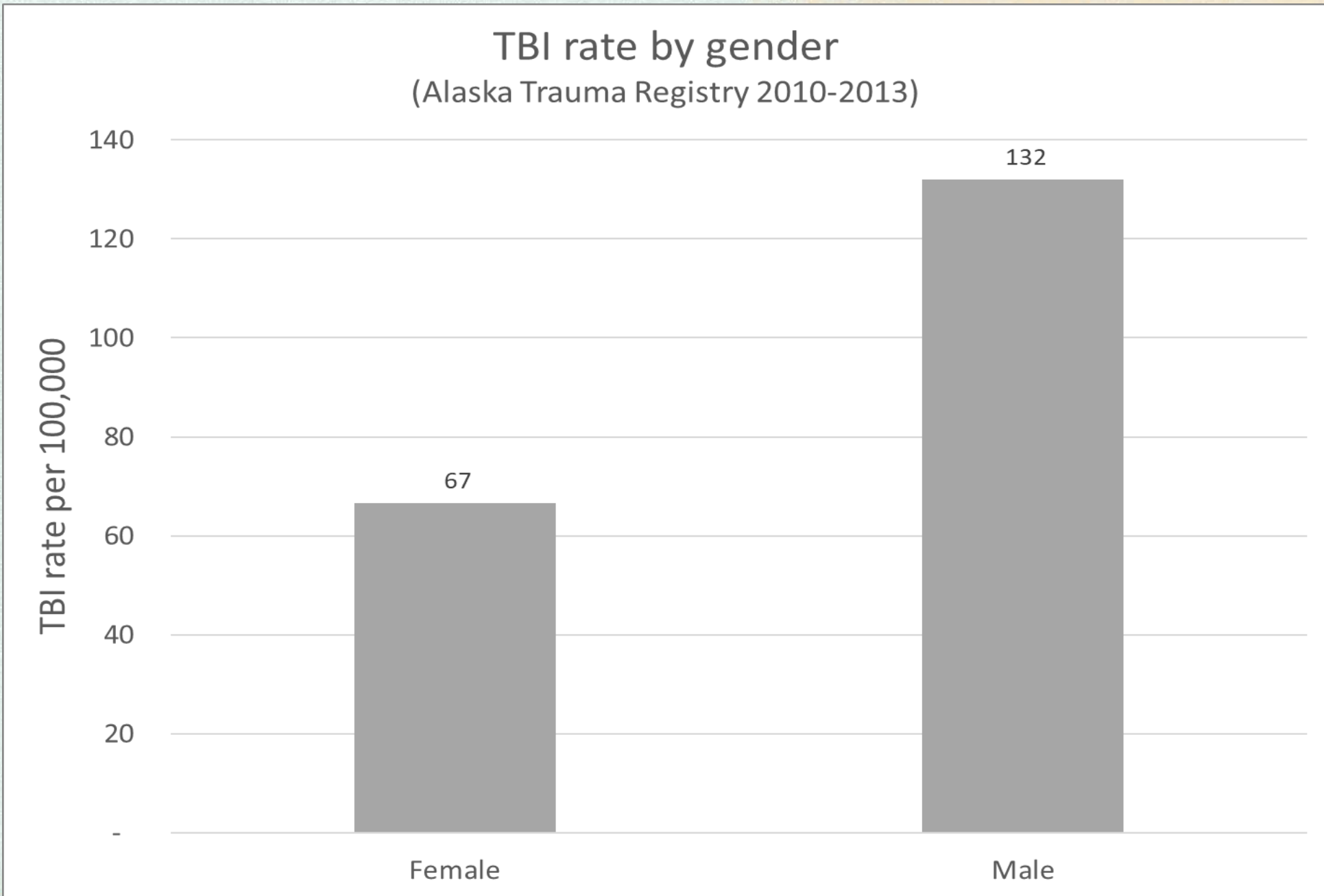
# Alaska Trauma Registry

- Trauma data collected from all 24 acute care hospitals (22 civilian and 2 Department of Defense)
- Data included if contact within 30 days of injury and one of the following:
  - Admitted
  - Held for observation
  - Transferred to another acute care facility
  - Declared dead in ER
  - Left against medical advice (i.e., would have been admitted)

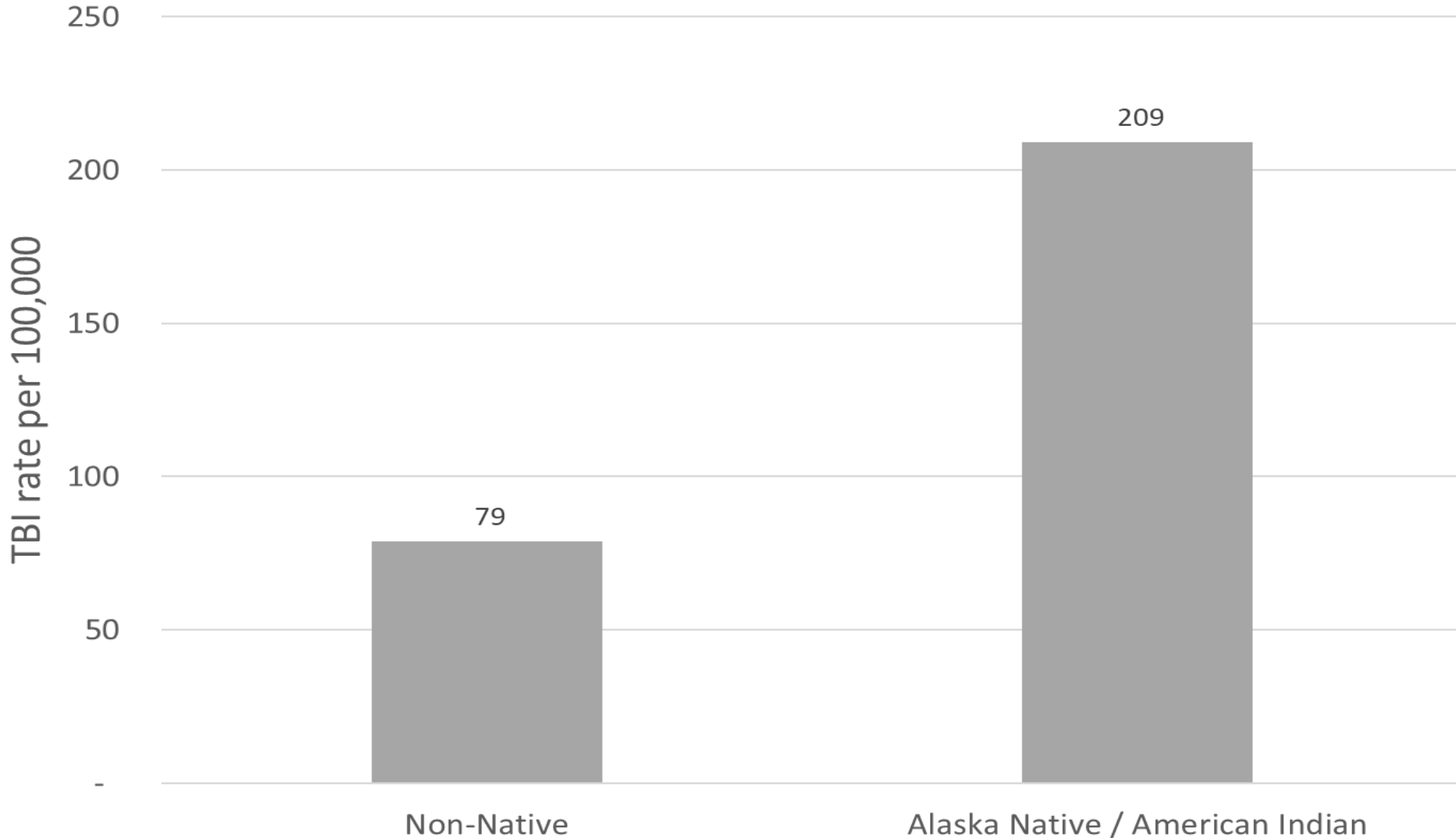


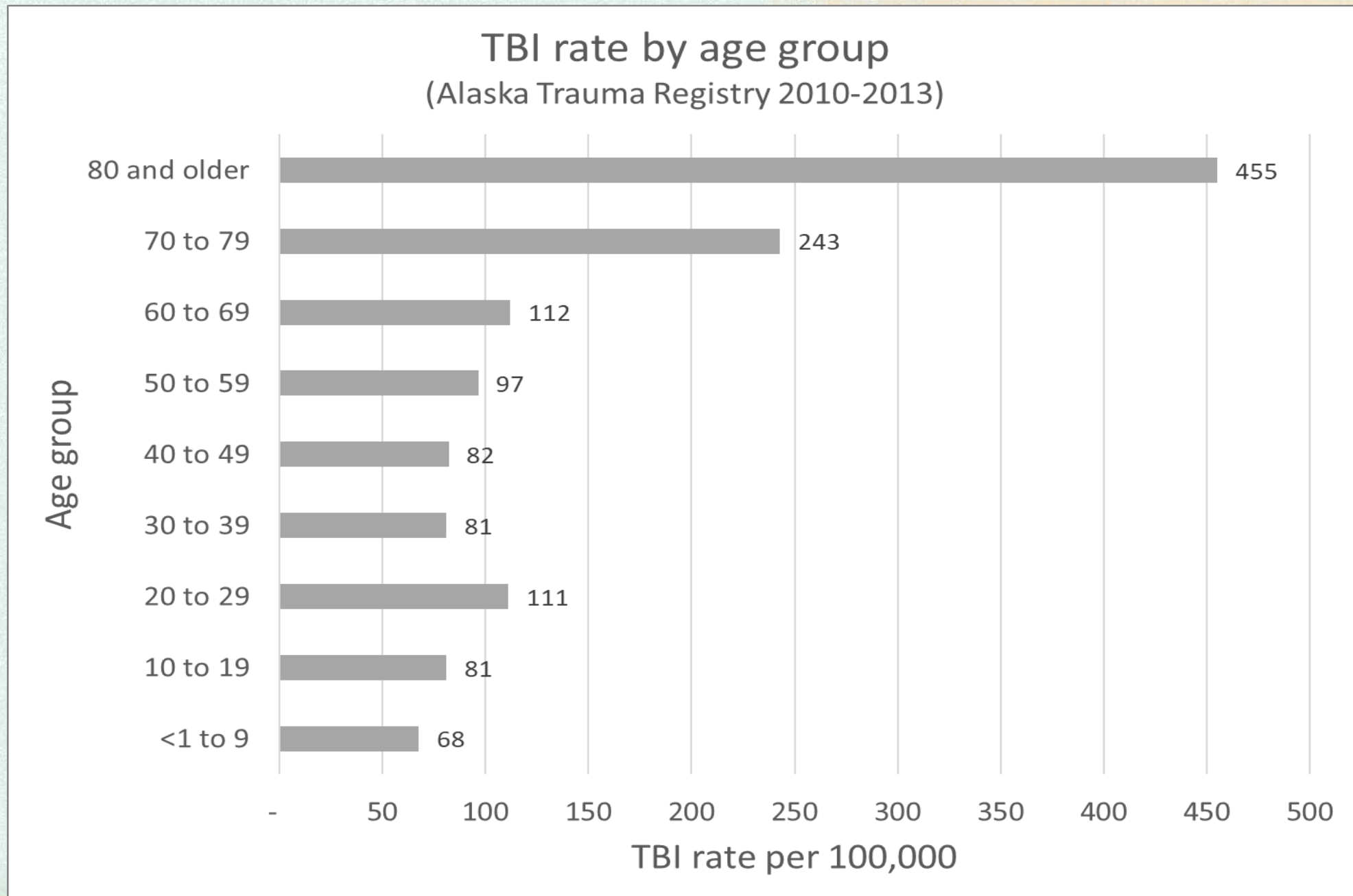
### TBI frequency by type of place (Alaska Trauma Registry 2010-2013)



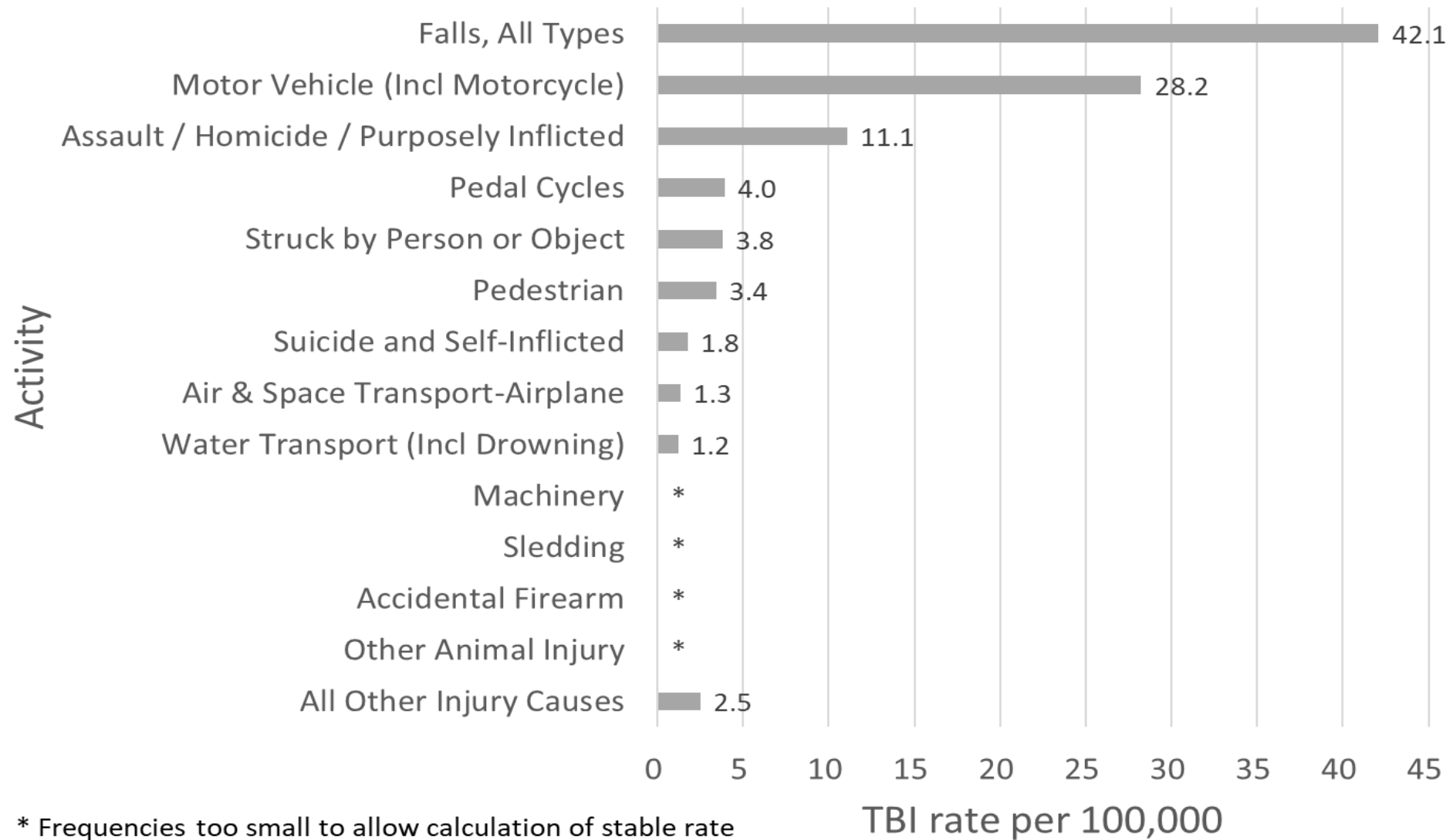


### TBI rate for Native compared to Non-Native (Alaska Trauma Registry 2010-2013)





## TBI rate by activity (Alaska Trauma Registry 2010-2013)





# Alaska Native / American Indian TBI frequency by activity for each age group

(Alaska Trauma Registry 2010-2013)

Activity	Age_Group									Total
	<1 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	>=80	
Falls - Other	44	20	29	37	27	61	26	19	30	293
Assault / Homicide / Purp. Inflict	12	<5	46	34	30	30	<5	<5	<5	163
ATV	7	34	32	15	5	10	<5	<5	<5	106
Motor Vehicle Traffic	<5	11	41	6	7	5	<5	<5	<5	78
Snow Machine	<5	7	27	12	7	6	<5	<5	<5	65
Pedestrian	9	<5	12	5	12	7	<5	<5	<5	52
Pedal Cycles	5	8	7	5	<5	7	<5	<5	<5	35
Struck by Person or Object	6	11	5	<5	<5	<5	<5	<5	<5	32
All Other	<5	20	21	10	11	6	<5	<5	<5	78
<b>Total</b>	<b>90</b>	<b>118</b>	<b>220</b>	<b>128</b>	<b>102</b>	<b>135</b>	<b>46</b>	<b>30</b>	<b>33</b>	<b>902</b>

# Alaska Native / American Indian TBI rate per 100,000 by activity for each age group

(Alaska Trauma Registry 2010-2013)

Activity	Age_Group								
	<1 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	>=80
Falls - Other	10	5	6	10	7	14	10	19	64
Assault / Homicide / Purp. Inflict	3	*	10	9	8	7	*	*	*
ATV	2	8	7	4	1	2	*	*	*
Motor Vehicle Traffic	*	3	9	2	2	1	*	*	*
Snow Machine	*	2	6	3	2	1	*	*	*
Pedestrian	2	*	3	1	3	2	*	*	*
Pedal Cycles	1	2	2	1	*	2	*	*	*
Struck by Person or Object	1	3	1	*	*	*	*	*	*
All Other	*	5	5	3	3	1	*	*	*

\* Frequencies too small to allow calculation of stable rate

# Diagnostic codes used to define TBI in hospitals

**Table C. Proposed ICD–10–CM surveillance definition for traumatic brain injury**

ICD–10–CM code	Description
S02.0, S02.1–	Fracture of skull
S02.8, S02.91	Fracture of other specified skull and facial bones; Unspecified fracture of skull
S04.02, S04.03–, S04.04–	Injury of optic chiasm; injury of optic tract and pathways; injury of visual cortex
S06–	Intracranial injury
S07.1	Crushing injury of skull
T74.4	Shaken infant syndrome

Additional research needed before CDC decides whether to add:  
S09.90 Unspecified injury of head

NOTES: “–” indicates any fourth, fifth, or sixth character. Seventh character of “A” or “B” for S02.0, S02.1–, S02.8, and S02.91. Seventh character of “A” for S04.02, S04.03–, S04.04–, S06–, S07.1, and T74.4. ICD–10–CM is International Classification of Diseases, Tenth Revision, Clinical Modification.

**Reference:** Hedegaard et al. (2016) Proposed Framework for Presenting Injury Data Using the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD–10–CM) Diagnosis Codes

# Alaska Health Facilities Data Reporting Program (HFDR)

- Collects inpatient and outpatient discharge data from Alaska health care facilities. The 2016-2017 report included:
  - 25 non-military hospitals
  - 20 ambulatory surgery centers
  - 1 independent diagnostic testing facility
- Deduplication of records is an issue

