

# Results of TBI incidence based on HFDR data

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**AMAZING STORIES**  
BEING WRITTEN EVERY DAY.



# Alaska Health Facilities Data Reporting Program (HFDR) (1 of 2)

- Collects inpatient and outpatient discharge data from Alaska health care facilities.
  - Private, municipal, state, or federal hospitals
  - Hospitals operated by Alaska Native organizations
  - Psychiatric hospitals
  - Residential psychiatric treatment centers
  - Ambulatory surgical facilities



# Alaska Health Facilities Data Reporting Program (HFDR) (2 of 2)

- Does NOT include Alaska's two military hospitals.
- Complicating factors:
  - Lack of unique IDs (esp., children)
  - Deduplication of records (need extrapolation to estimate the level of duplication for records without a unique ID)



# 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.



# Unspecified Injury of the Head

## ICD-10-CM 209.09

- Results include unspecified injuries of the head (unless otherwise specified)
- CDC and the Alaska Trauma Registry included unspecified injuries of the head in their definitions of TBI for ICD-9
- Allows for better comparisons between ICD-9 and ICD-10 years



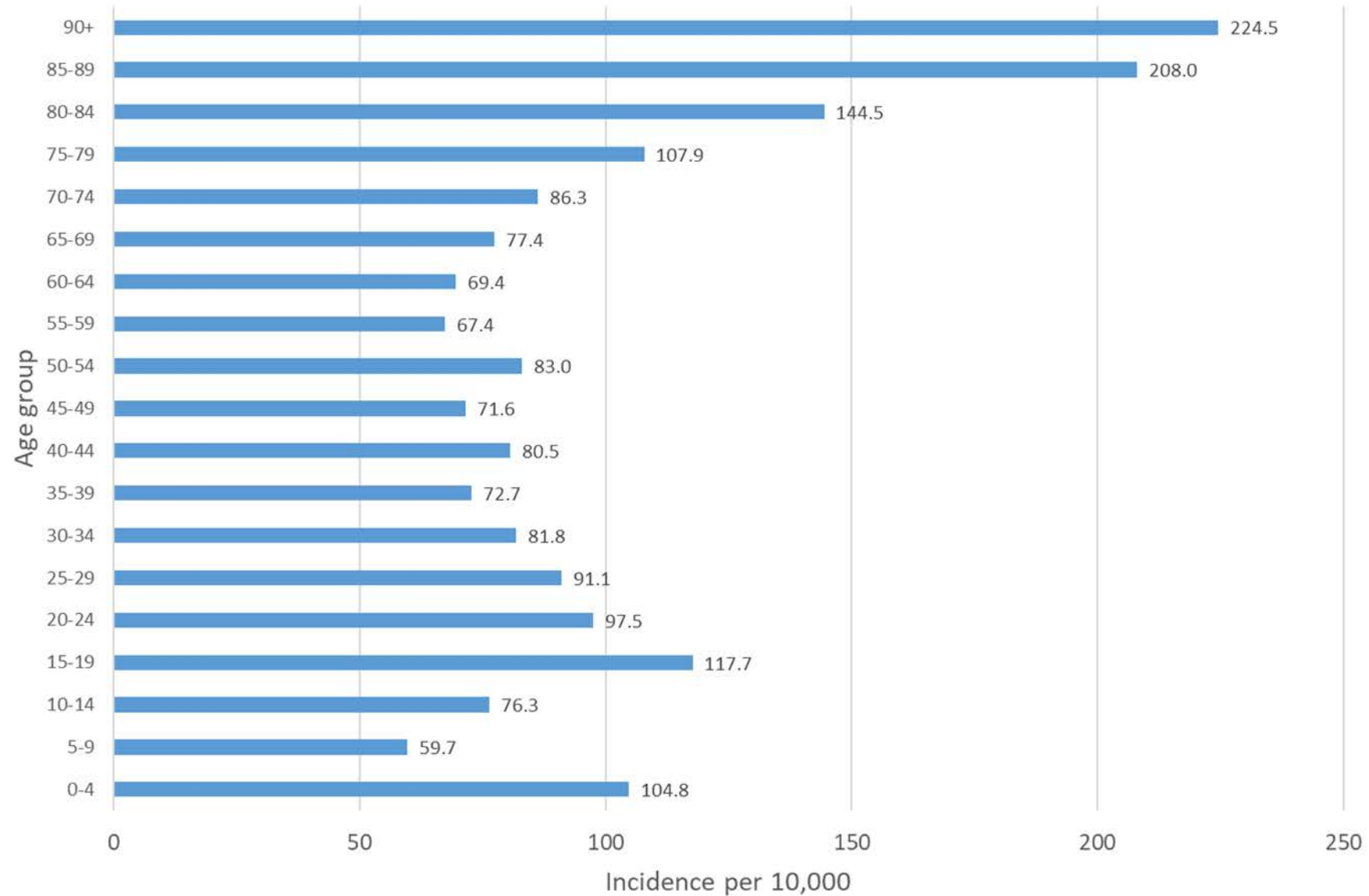
# TBI incidence by age group 2017

Age group	# of unique people	Population	Incidence per 10,000
0-4	550.1	52,499	104.8
5-9	323.4	54,192	59.7
10-14	397.5	52,109	76.3
15-19	562.2	47,774	117.7
20-24	475.4	48,761	97.5
25-29	522.4	57,365	91.1
30-34	470.5	57,498	81.8
35-39	370.4	50,941	72.7
40-44	343.4	42,646	80.5
45-49	315.9	44,107	71.6
50-54	395.8	47,702	83.0
55-59	351.6	52,186	67.4
60-64	328.3	47,268	69.4
65-69	266.2	34,390	77.4
70-74	188.7	21,877	86.3
75-79	135.8	12,580	107.9
80-84	109.1	7,551	144.5
85-89	86.0	4,134	208.0
90+	50.9	2,267	224.5

Overall incidence  
(age-adjusted):

84.6 per 10,000

## TBI incidence by age group 2017





# TBI incidence by age group 2018

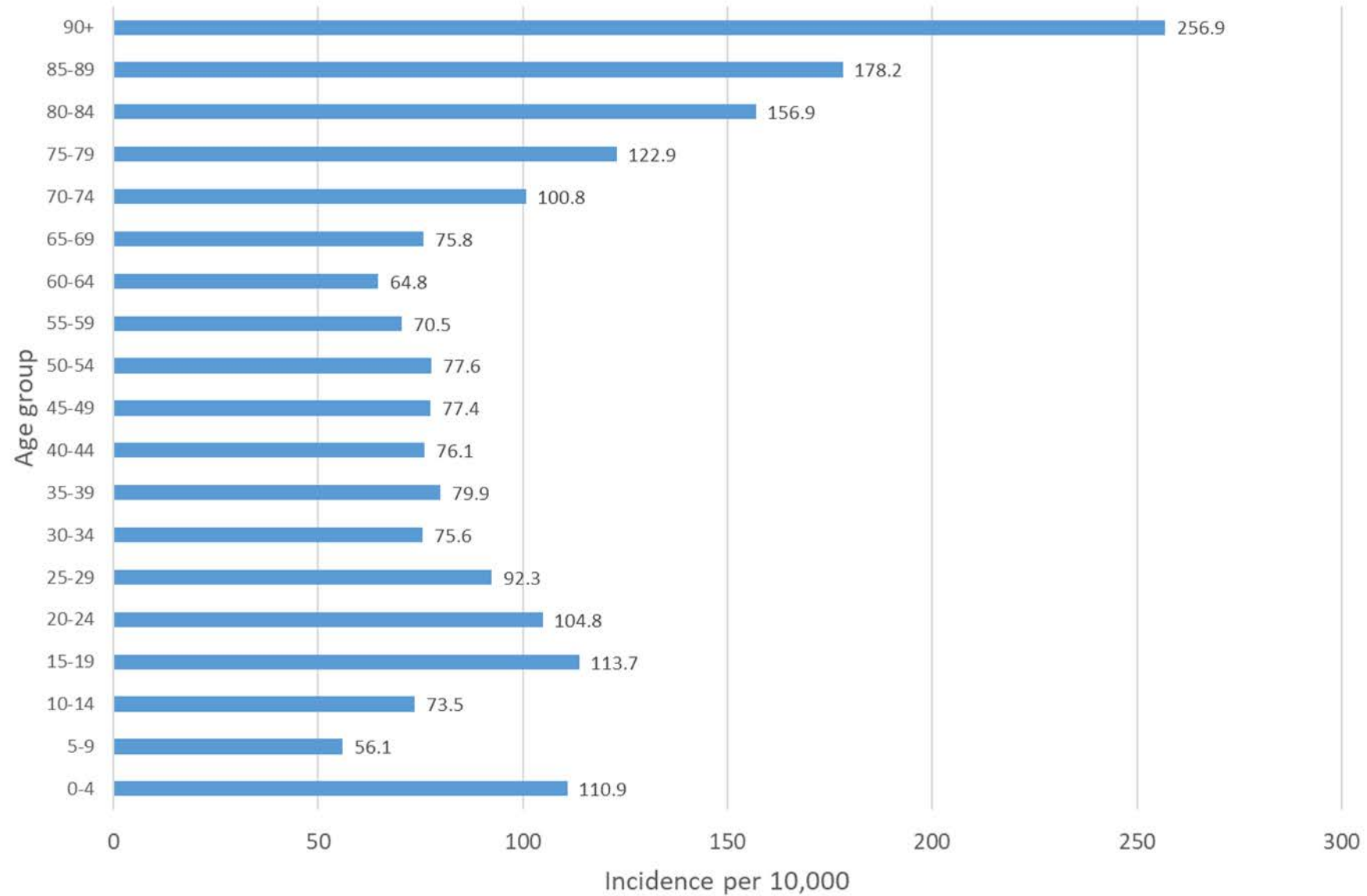
Age group	# of unique people	Population	Incidence per 10,000
0-4	567.3	51,153	110.9
5-9	300.6	53,604	56.1
10-14	387.0	52,619	73.5
15-19	541.0	47,566	113.7
20-24	496.9	47,413	104.8
25-29	520.3	56,363	92.3
30-34	429.7	56,857	75.6
35-39	420.7	52,659	79.9
40-44	326.9	42,978	76.1
45-49	336.7	43,476	77.4
50-54	350.8	45,202	77.6
55-59	362.3	51,366	70.5
60-64	308.7	47,679	64.8
65-69	273.5	36,095	75.8
70-74	233.8	23,205	100.8
75-79	165.8	13,490	122.9
80-84	124.5	7,936	156.9
85-89	75.8	4,252	178.2
90+	59.8	2,326	256.9

Overall incidence  
(age-adjusted):

85.3 per 10,000

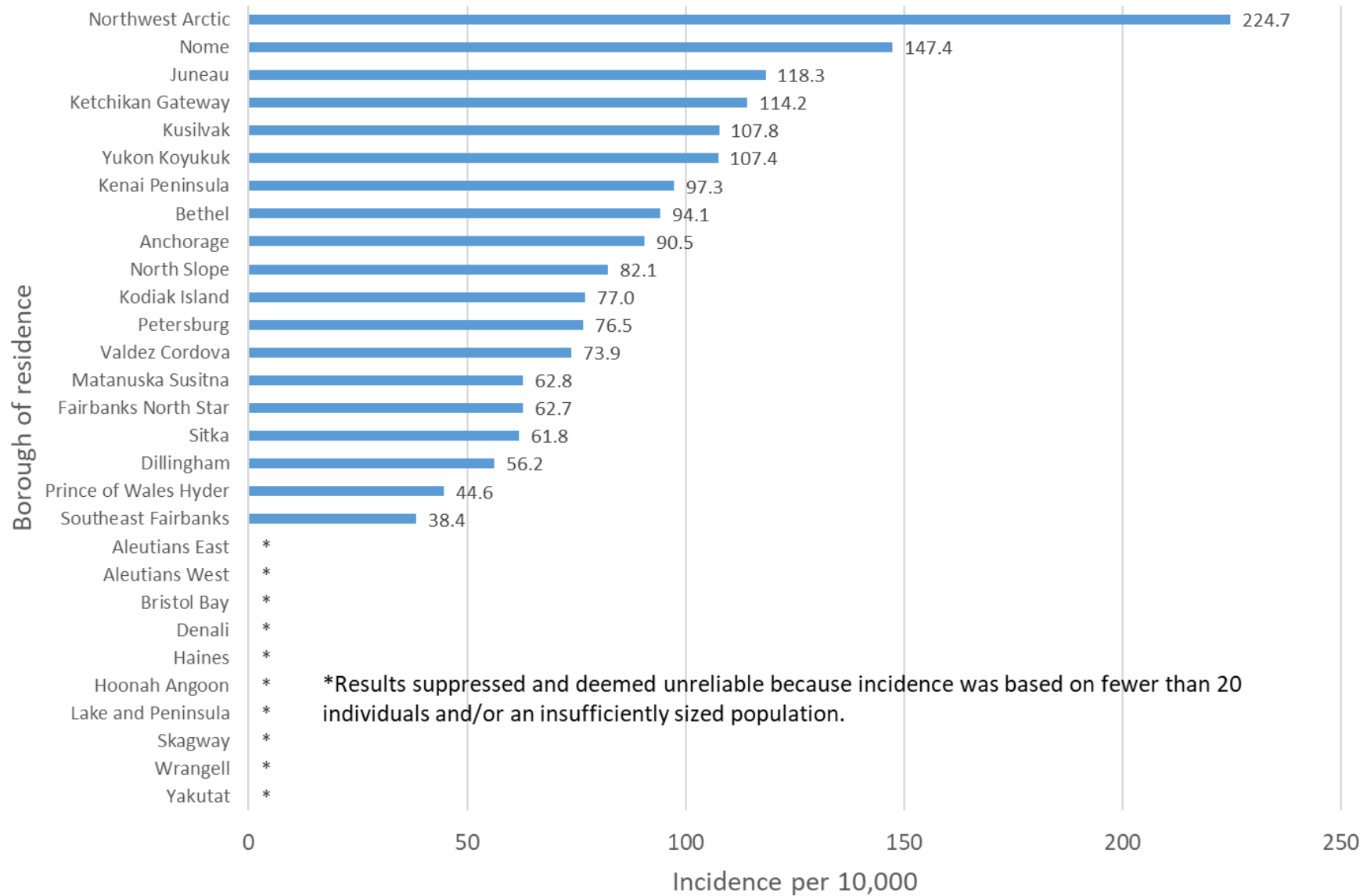


## TBI incidence by age group 2018



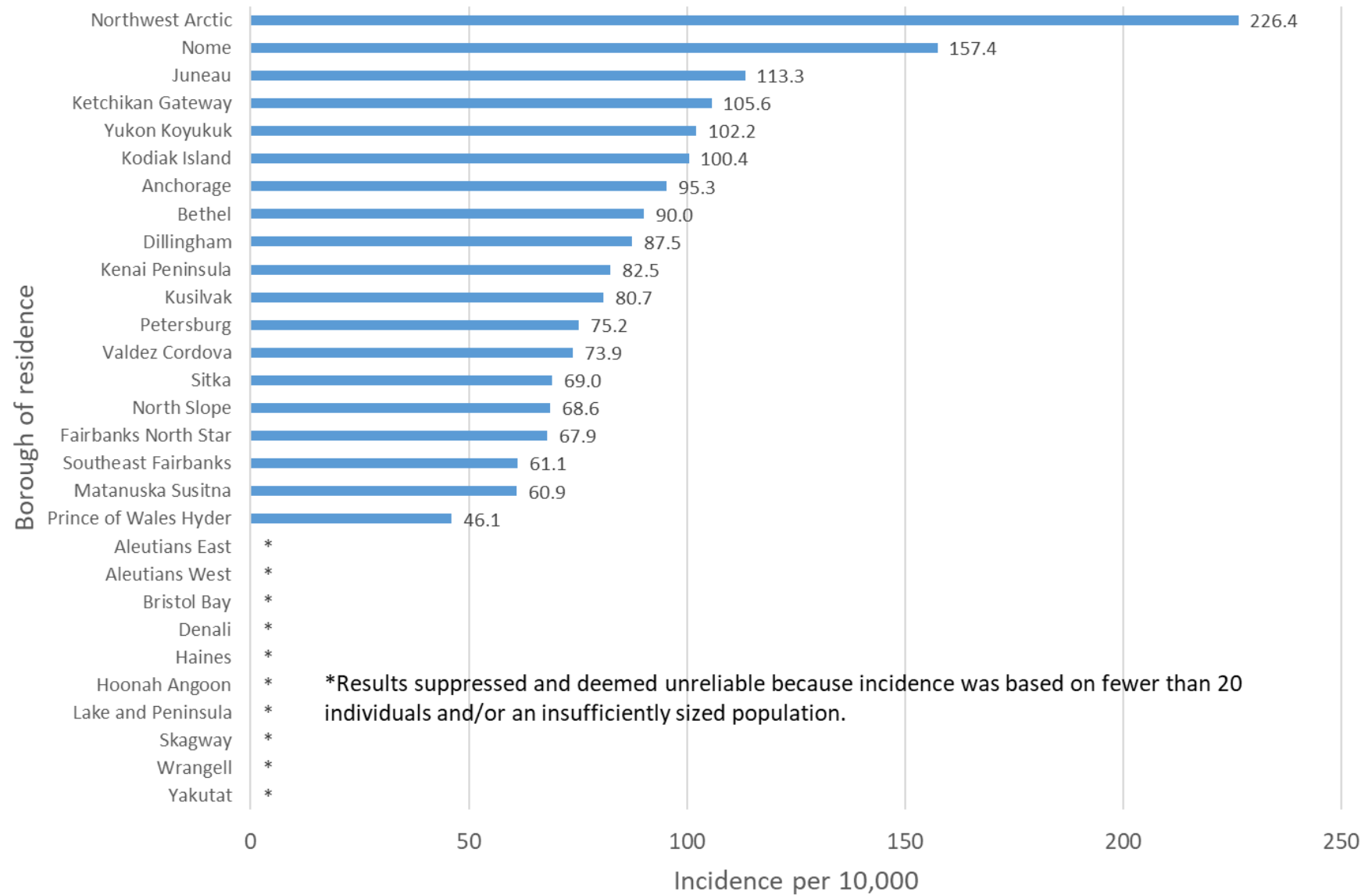


### TBI incidence by borough of residence 2017



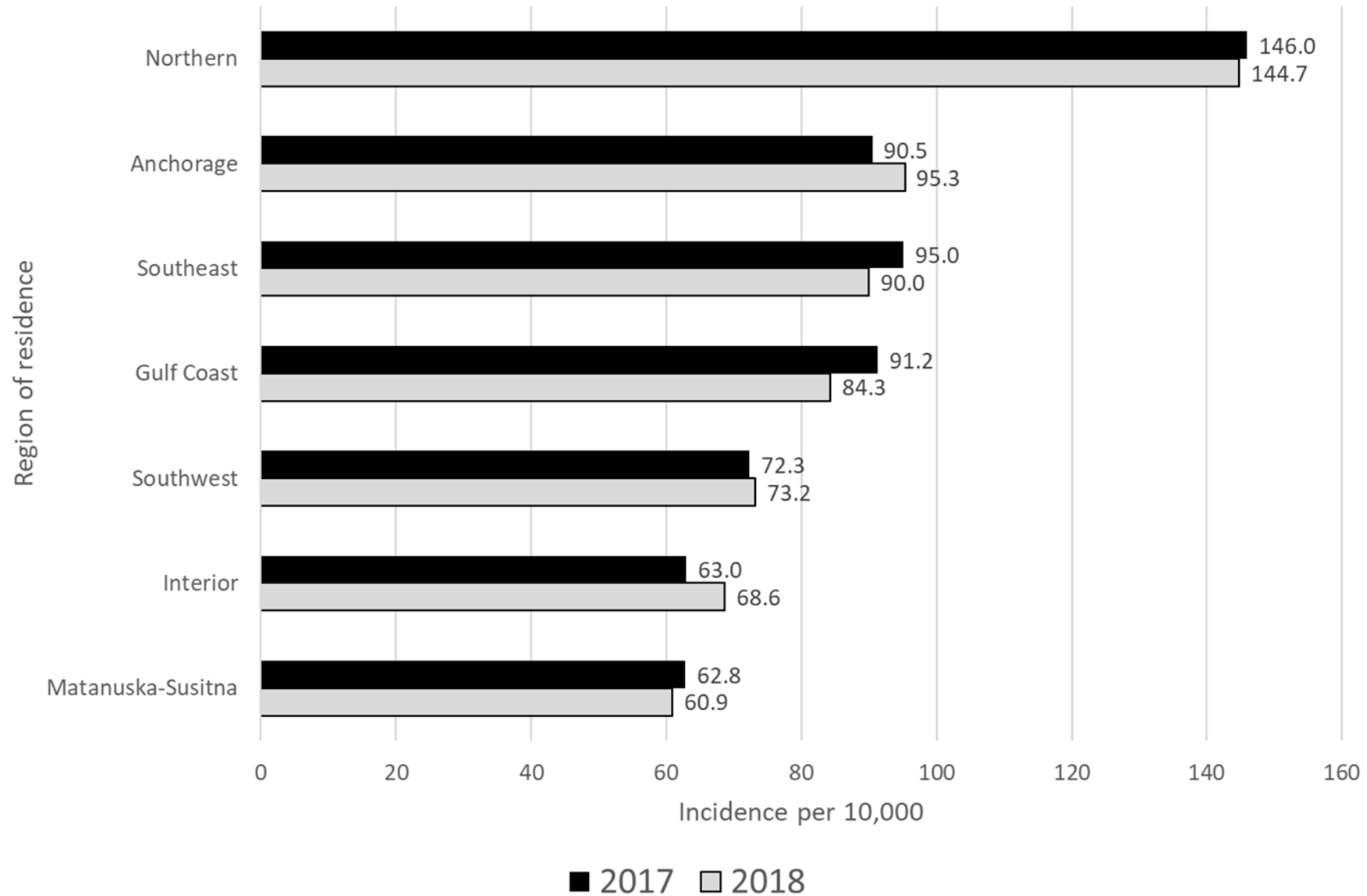


### TBI incidence by borough of residence 2018



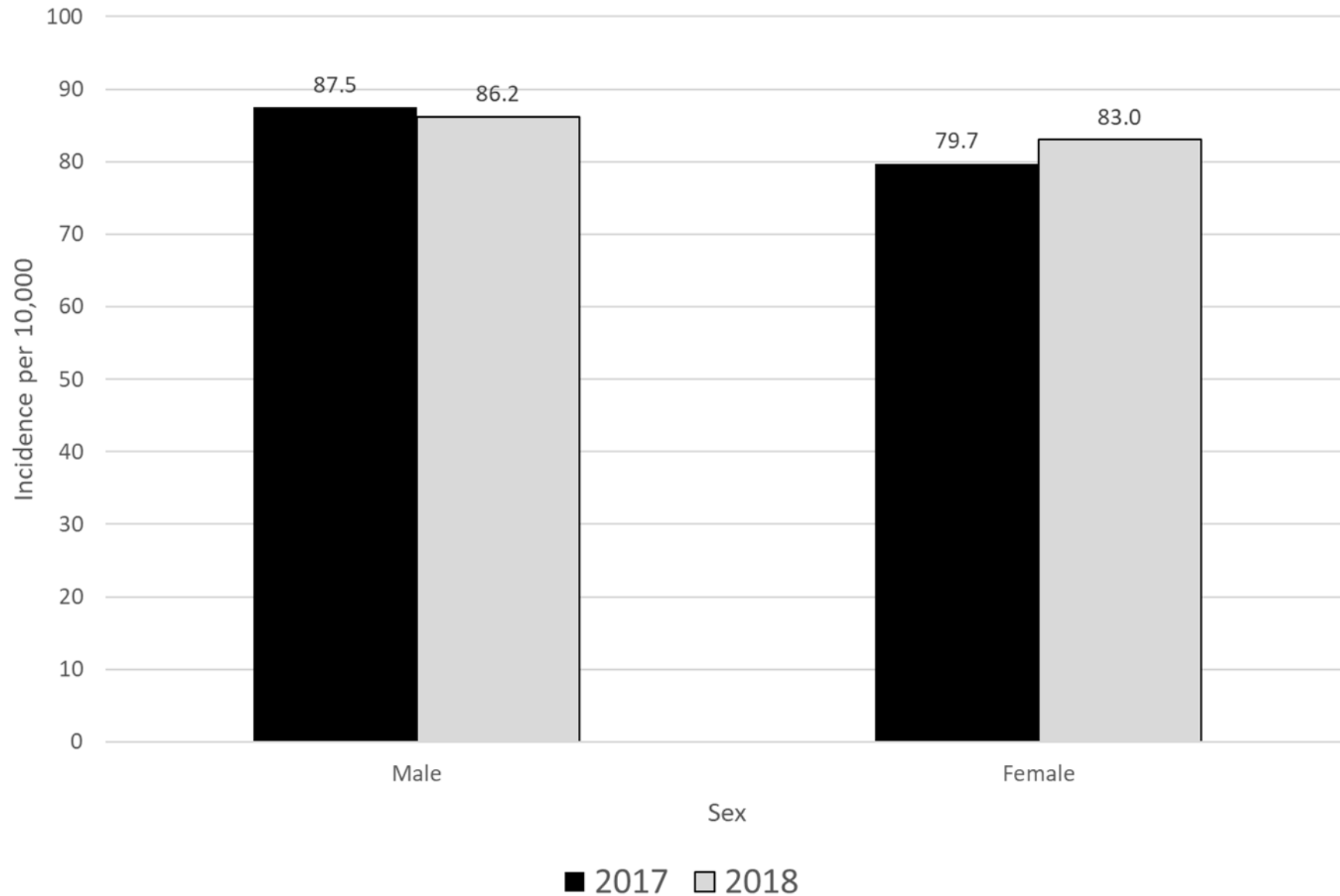


### TBI incidence by region of residence 2017-2018



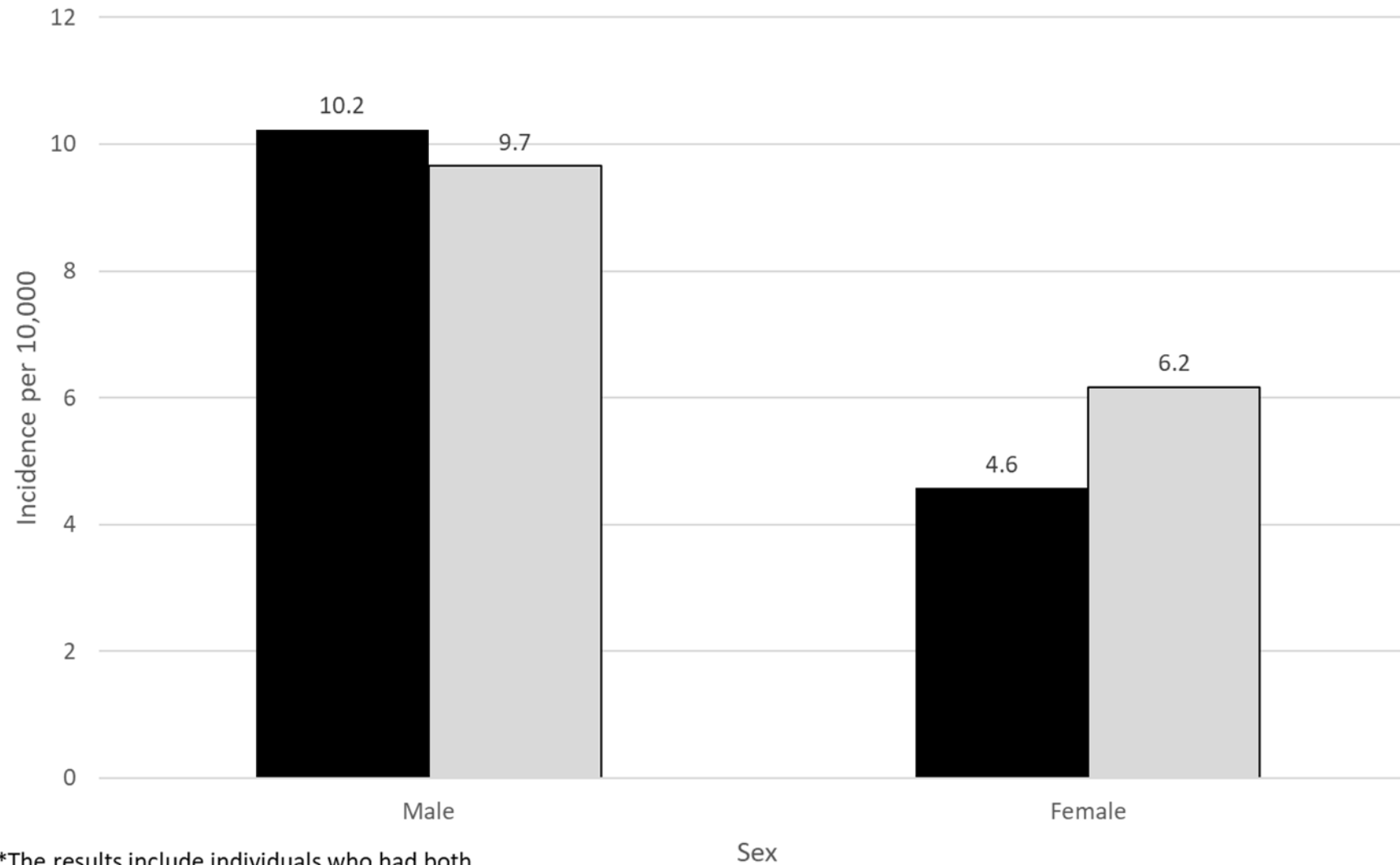


### TBI incidence by sex 2017-2018





## TBI incidence by sex 2017-2018: Inpatient\*

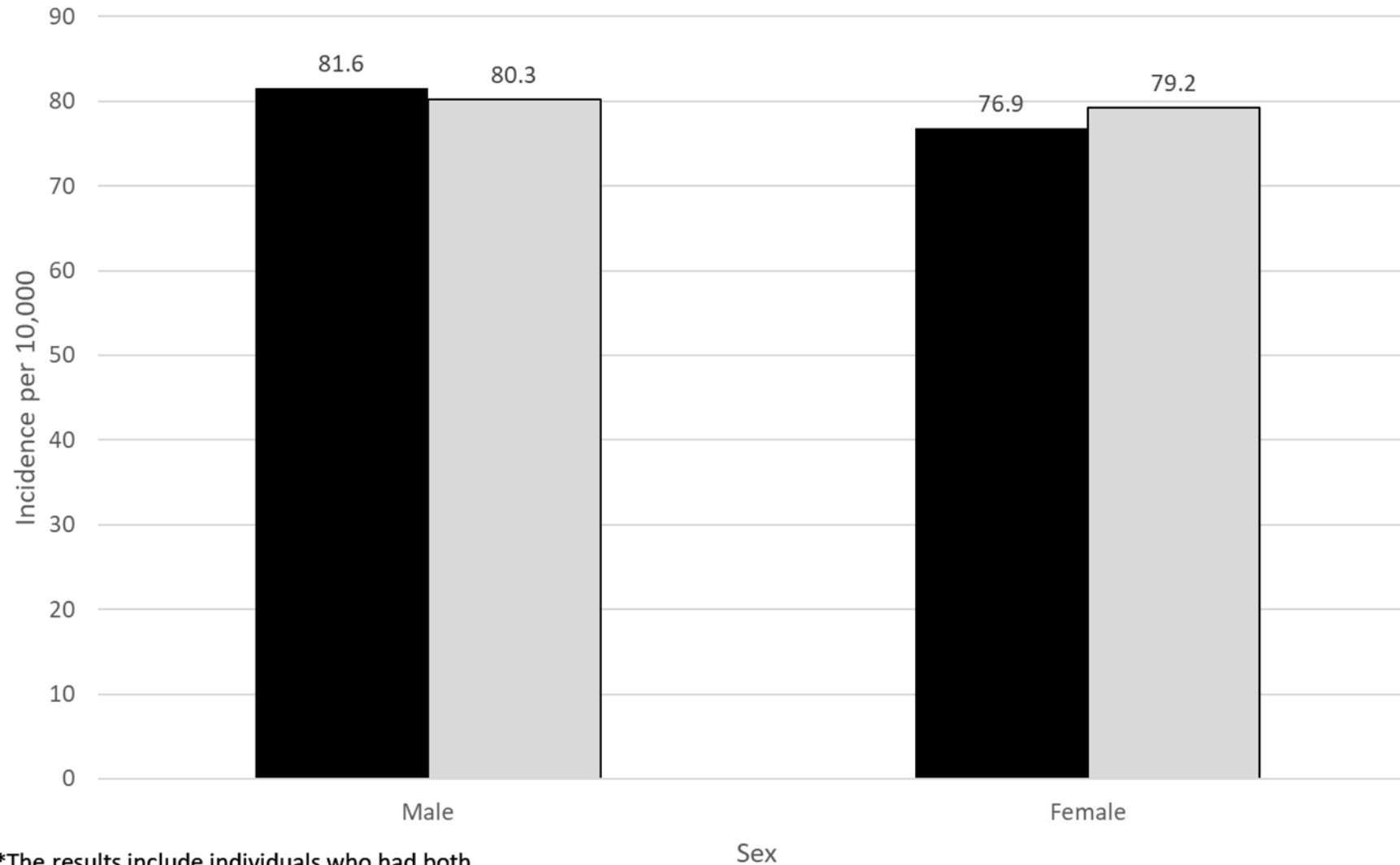


\*The results include individuals who had both inpatient and outpatient discharges within the same year (i.e., inpatient + outpatient > overall incidence).

■ 2017 □ 2018



## TBI incidence by sex 2017-2018: Outpatient\*



\*The results include individuals who had both inpatient and outpatient discharges within the same year (i.e., inpatient + outpatient > overall incidence).

■ 2017 □ 2018

# Analyses to do

- Causes overall
- Causes by borough
- Causes by age range
- Discharge status (many simply discharged to home or self-care)
- Incidence by race/ethnicity
- Involvement of substances (e.g., alcohol, drugs)



# Contact info

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