



November 2020: Influenza in Colorado, 2019- revised

What you should know:

- 3,783 Coloradans hospitalized (\$339 million) and 22,922 visited ED for influenza (\$110 million) in 2019
- Older adults are at highest risk for hospitalization, children and teens are at highest risk for ED visits
- Highest rates of hospitalization and ED visits in Northeast and Southeast Colorado
- Race/ethnicity data is incomplete

What you should do:

- Everyone older than 6 months should get a flu shot to protect themselves and their family

All data in this report are from Colorado Hospital Association.

Age: The largest number and highest rate of hospitalizations for influenza occurred among adults ≥ 65 years of age. Hospitalizations and Emergency Department (ED) visits for influenza amounted to over \$129 million in charges for people ≥ 65 years and more than \$156 million for adults 20-64 years. The highest rate and largest number of ED visits for influenza were among the youngest age group, those 0-19 years of age.

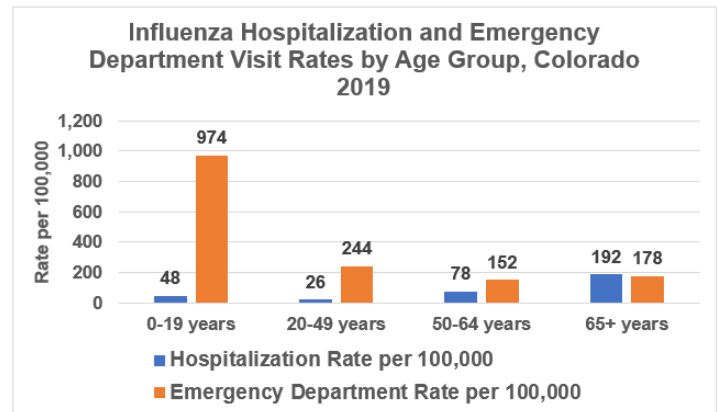
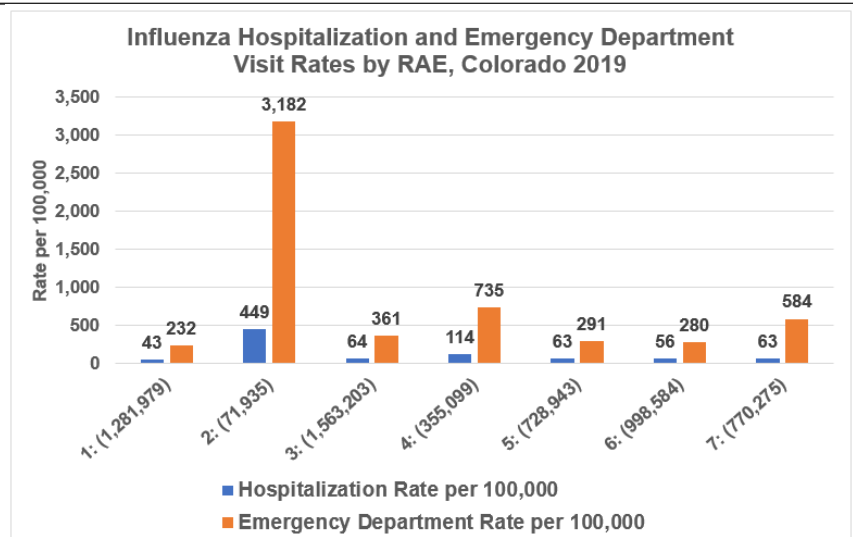


Table 1: Influenza hospitalization or emergency department cases, rates, and charges for Colorado residents by age group, 2019.

| Age group, (N) | Hospitalized Cases | Hospital Charges | ED Cases | ED Charges | Total Charges | Deaths | Deaths/100K population |
|-------------------------|--------------------|------------------|----------|---------------|---------------|--------|------------------------|
| 0-19 years (1,422,634) | 688 | \$53,704,092 | 13,862 | \$41,761,583 | \$95,465,675 | 1 | 0.1 |
| 20-49 years (2,439,030) | 641 | \$56,857,280 | 5,941 | \$35,851,634 | \$92,708,914 | 12 | 0.5 |
| 50-64 years (1,066,338) | 836 | \$99,286,995 | 1,623 | \$14,335,030 | \$113,622,025 | 24 | 2.3 |
| 65+ years (842,016) | 1,618 | \$129,356,755 | 1,496 | \$17,559,946 | \$146,916,701 | 47 | 5.6 |
| Total (5,770,018) | 3,783 | \$339,205,122 | 22,922 | \$109,508,193 | \$448,713,315 | 84 | 1.5 |

Region: Rates for influenza-related hospitalizations and ED visits varied across Regional Accountable Entities (RAEs, the accountable care organizations for Colorado Medicaid). The highest rates for influenza hospitalizations and ED visits were in RAE 2 in northeast Colorado. Notably, the population of RAE 2 is the lowest among the seven RAEs. Having a large influenza outbreak or significant spread of influenza in local nursing homes could quickly lead to enough cases to drive a remarkably higher population-based rate of influenza ED-visits and hospitalizations.



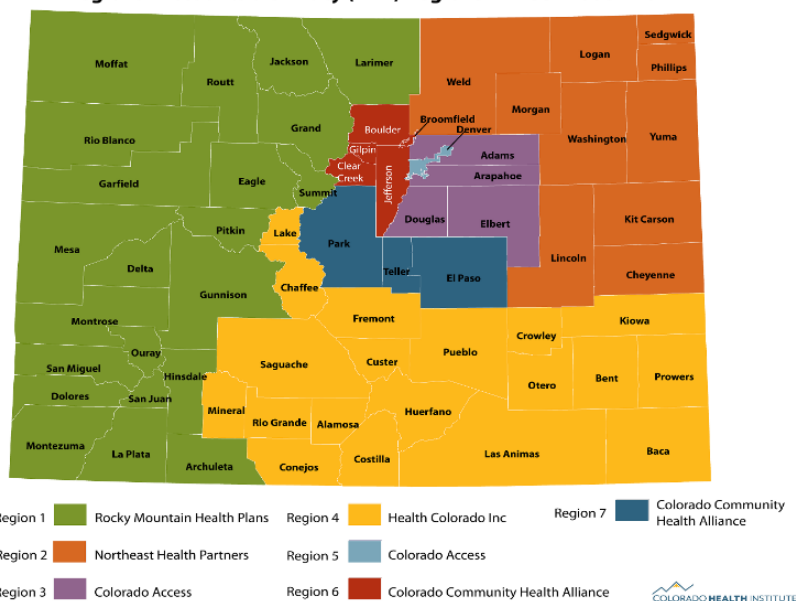
The Vaccine-Preventable Diseases Report

Table 2: Influenza hospitalization or emergency department cases, rates, and charges for Colorado residents by RAE, 2019.

| RAE (N) | Hospitalized Cases | Hospital Charges | ED Cases | ED Charges | Total Charges |
|--------------------------|--------------------|----------------------|---------------|----------------------|----------------------|
| 1: (1,281,979) | 550 | \$27,805,179 | 2,975 | \$9,008,629 | \$36,813,808 |
| 2: (71,935) | 323 | \$15,395,504 | 2,289 | \$6,887,665 | \$22,283,169 |
| 3: (1,563,203) | 1,005 | \$132,555,465 | 5,642 | \$35,925,764 | \$168,481,229 |
| 4: (355,099) | 406 | \$24,284,671 | 2,611 | \$9,697,774 | \$33,982,445 |
| 5: (728,943) | 456 | \$61,413,892 | 2,118 | \$13,095,533 | \$74,509,425 |
| 6: (998,584) | 556 | \$43,301,210 | 2,792 | \$16,573,339 | \$59,874,549 |
| 7: (770,275) | 487 | \$34,449,201 | 4,495 | \$18,319,489 | \$52,768,690 |
| Total (5,770,018) | 3,783 | \$339,205,122 | 22,922 | \$109,508,193 | \$448,713,315 |

Race/Ethnicity: Fourteen percent of influenza hospitalizations and 23% of ED visits were among patients with 'Other/Unknown' race/ethnicity. This large number of patients categorized as 'Other/Unknown' makes it difficult to draw conclusions from these data. Based on available race/ethnicity data, influenza hospitalization and ED visit rates were highest among Black, Native American, and White Coloradans. For the Colorado Hispanic population, the influenza hospitalization rate was four times lower and influenza ED visit rate three times lower than overall Colorado rates. Given the large proportion of patients with 'Other/Unknown' race/ethnicity, it is hard to determine whether differences in hospitalization and ED visit rates are true differences or reflect incomplete data and potential misclassification.

Regional Accountable Entity (RAE) Regions in ACC Phase Two



Colorado RAE map: coloradohealthinstitute.org/research/ways-raes

Table 3: Influenza hospitalization or emergency department cases, rates, and charges for Colorado residents by race/ethnicity, 2019.

| Race/ethnicity (N) | Hospitalized Cases | Rate per 100,000 | Hospital Charges | ED Cases | Rate per 100,000 | ED Charges | Total Charges |
|--------------------------|--------------------|------------------|----------------------|---------------|------------------|----------------------|----------------------|
| Asian (224,535) | 89 | 40 | \$5,937,824 | 697 | 310 | \$3,454,528 | \$9,392,352 |
| Black (274,174) | 208 | 76 | \$37,882,380 | 1,480 | 540 | \$8,255,151 | \$46,137,531 |
| Hispanic (1,251,332) | 179 | 14 | \$18,126,352 | 1,588 | 127 | \$9,958,497 | \$28,084,849 |
| Native American (50,445) | 36 | 71 | \$2,538,405 | 189 | 375 | \$1,069,152 | \$3,607,557 |
| Other/Unknown | 531 | - | \$53,899,078 | 5,160 | - | \$21,068,608 | \$74,967,686 |
| White (3,963,706) | 2,740 | 69 | \$220,821,083 | 13,808 | 348 | \$65,702,257 | \$286,523,340 |
| Total (5,764,192) | 3,783 | 66 | \$339,205,122 | 22,922 | 398 | \$109,508,193 | \$448,713,315 |

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