KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

Emergency Department Encounters and Inpatient Hospitalizations with Nicotine- and Vaping-Related Diagnoses among Kentucky Residents, 2018–2025

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Executive Summary

- Encounters coded for nicotine dependence involving other tobacco products (ICD-10-CM code F17.29), including outpatient emergency department records and inpatient hospitalizations admitted through the ED, increased **450.7%**, from **17,414** in 2018 (a rate of **396.3 per 100,000 residents**) to **95,903** in 2025 (a rate of **2,193.4 per 100,000 residents**).
  - The F17.29 category (nicotine dependence involving products other than cigarettes or chewing tobacco) includes electronic nicotine delivery systems such as e-cigarettes.

- Acute nicotine toxicity encounters increased **100.0%**, from **26** in 2024 to **52** in 2025. The 2025 age-adjusted rate was **1.2 per 100,000 residents**.

- Vaping-related disorder (U07.0), which includes e-cigarette or vaping product use-associated lung injury (EVALI), decreased from **204** encounters in 2024 to **172** in 2025 (**15.7% decrease**). In 2025, **51.7%** of vaping-related disorder encounters resulted in inpatient hospitalization.

- Among encounters coded for nicotine dependence involving other tobacco products in 2025, residents aged **25 and older** accounted for **72,230** encounters (**75.3%**) and **non-Hispanic White** residents accounted for **82,311** encounters (**85.8%**).

- Among Kentucky residents younger than 18 years:
  - Acute nicotine toxicity encounters increased from **16** in 2024 to **28** in 2025 (**75% increase**).
  - Vaping-related disorder encounters decreased from **28** in 2024 to **20** in 2025 (**28.6% decrease**).

Table 1. Statewide Counts and Age-Adjusted Rates of Nonfatal Nicotine- and Vaping-Related Emergency Department Encounters among Kentucky Residents, 2018–2025

Indicator	Year	Count	Age-adjusted rate per 100,000
Acute nicotine toxicity	2018	83	1.9
	2019	40	0.9
	2020	21	0.5
	2021	41	1.0
	2022	19	0.5^
	2023	21	0.5
	2024	26	0.6
	2025	52	1.2
Nicotine dependence, other tobacco products[†]	2018	17,414	396.3
	2019	23,248	532.2
	2020	24,020	551.0
	2021	30,791	710.2
	2022	47,328	1,095.7
	2023	67,939	1,571.4
	2024	88,100	2,027.7
	2025	95,903	2,193.4
Vaping-related disorder	2020§	76	1.8
	2021	126	3.0
	2022	118	2.8
	2023	120	2.8
	2024	204	4.7
	2025	172	3.9

^Rates based on counts less than 20 are unstable and should be interpreted with caution.

[†] Nicotine dependence involving other tobacco products (F17.29) includes products other than cigarettes or chewing tobacco, including electronic nicotine delivery systems such as e-cigarettes.

§ ICD-10-CM code U07.0 for vaping-related disorder became effective April 1, 2020; the 2020 values represent April through December only.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and inpatient admissions originating in the emergency department from the Kentucky Inpatient Services Database, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted October 2026. Data are provisional and subject to change.

Table 2. Nonfatal Nicotine- and Vaping-Related Encounters Beginning in the Emergency Department among Kentucky Residents, 2018–2025

Indicator	Year	ED encounters only	Admitted to inpatient care from the ED	Percent inpatient (%)
Acute nicotine toxicity	2018	*	*	*
	2019	*	*	*
	2020	*	*	*
	2021	*	*	*
	2022	19	0	0.0
	2023	21	0	0.0
	2024	*	*	*
	2025	*	*	*
Nicotine dependence, other tobacco products[†]	2018	15,423	1,991	11.4
	2019	21,004	2,244	9.7
	2020	21,699	2,321	9.7
	2021	27,587	3,204	10.4
	2022	42,155	5,173	10.9
	2023	61,169	6,770	10.0
	2024	80,044	8,056	9.1
	2025	84,883	11,020	11.5
Vaping-related disorder	2020§	24	52	68.4
	2021	52	74	58.7
	2022	59	59	50.0
	2023	75	45	37.5
	2024	121	83	40.7
	2025	83	89	51.7

This table separates nonfatal nicotine- and vaping-related encounters that began in the emergency department into two groups: ED encounters that did not result in hospital admission and inpatient hospitalizations that began in the ED. Percent inpatient is the percentage of all included encounters that resulted in inpatient hospitalization.

**Counts greater than zero but less than or equal to 10 are suppressed in accordance with Kentucky state data management policy. Additional counts may be censored when necessary to protect suppressed values and prevent back-calculation across related tables.*

[†] Nicotine dependence involving other tobacco products (F17.29) includes products other than cigarettes or chewing tobacco, including electronic nicotine delivery systems such as e-cigarettes.

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Table 3. Count of Nonfatal Nicotine- and Vaping-Related Emergency Department Encounters among Kentucky Residents by Age Group, Sex, and Race, 2018–2025

Indicator		Age Group		
	Year	<18	18–24	25+
Acute nicotine toxicity	2018	*	*	58
	2019	*	*	23
	2020	*	0	*
	2021	*	*	24
	2022	13	*	*
	2023	*	*	*
	2024	16	*	*
	2025	28	*	*
		Sex		
	Year	Female	Male	
	2018	13	70	
	2019	*	*	
	2020	*	*	
	2021	*	*	
	2022	*	*	
	2023	*	*	
	2024	*	*	
	2025	21	31	
		Race			
	Year	Non-Hispanic Black	Non-Hispanic White	Hispanic	Other
	2018	*	31	48	*
	2019	*	27	11	*
	2020	*	15	*	0
	2021	0	19	*	*
	2022	*	17	*	0
	2023	*	*	*	*
	2024	*	20	*	*
	2025	*	33	*	0

Indicator		Age Group		
	Year	<18	18–24	25+
Nicotine dependence, other tobacco products[†]	2018	288	2,761	14,365
	2019	710	4,576	17,962
	2020	727	5,340	17,953
	2021	981	7,749	22,061
	2022	1,623	12,146	33,559
	2023	2,366	17,109	48,464
	2024	2,706	20,967	64,427
	2025	2,559	21,114	72,230
		Sex		
	Year	Female	Male	
	2018	5,978	11,436	
	2019	8,374	14,872	
	2020	9,017	15,003	
	2021	13,181	17,609	
	2022	23,467	23,860	
	2023	35,833	32,087	
	2024	48,556	39,528	
	2025	53,462	42,426	
		Race			
	Year	Non-Hispanic Black	Non-Hispanic White	Hispanic	Other
	2018	2,971	14,104	178	161
	2019	4,983	17,827	217	221
	2020	4,538	19,063	213	206
	2021	4,460	25,650	358	323
	2022	6,048	39,990	748	542
	2023	7,836	58,004	1,314	785
	2024	10,327	75,057	1,732	984
	2025	10,570	82,311	1,954	1,068

Table 3 (Cont'd). Count of Nonfatal Nicotine- and Vaping-Related Emergency Department Encounters among Kentucky Residents by Age Group, Sex, and Race, 2018–2025

Indicator		Age Group		
	Year	<18	18–24	25+
Vaping-related disorder	2020§	11	25	40
	2021	17	50	59
	2022	24	25	69
	2023	26	39	55
	2024	28	44	132
	2025	20	41	111
		Sex		
	Year	Female	Male	
	2020§	36	40	
	2021	62	64	
	2022	58	60	
	2023	65	55	
	2024	105	99	
	2025	95	77	
		Race		
	Year	Non-Hispanic Black	Non-Hispanic White	Hispanic	Other
	2020§	*	72	0	*
	2021	*	118	*	0
	2022	*	107	*	*
	2023	*	114	*	*
	2024	15	179	*	*
	2025	23	143	*	*

**Counts greater than zero but less than or equal to 10 are suppressed in accordance with Kentucky state data management policy. Additional counts may be censored when necessary to protect suppressed values and prevent back-calculation across related tables.*

† Nicotine dependence involving other tobacco products (F17.29) includes products other than cigarettes or chewing tobacco, including electronic nicotine delivery systems such as e-cigarettes.

§ ICD-10-CM code U07.0 for vaping-related disorder became effective April 1, 2020; the 2020 values represent April through December only.

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Definitions

Hospital encounters with a diagnosis of acute nicotine toxicity were defined by the presence of ICD-10-CM code T65.29 with a sixth character of 1–4 and a seventh character of A or missing using an any-mention approach. Nicotine dependence involving other tobacco products was defined by the presence of ICD-10-CM code F17.29 using an any-mention approach and involves products other than cigarettes or chewing tobacco, including electronic nicotine delivery systems such as e-cigarettes.

The vaping-related disorder indicator includes e-cigarette or vaping product use-associated lung injury (EVALI). ICD-10-CM code U07.0 for vaping-related disorder became effective April 1, 2020. The 2020 estimate therefore represents April through December only.

A nicotine- or vaping-related diagnosis indicates that the condition was documented during the encounter and does not necessarily mean that the condition caused the visit.

The specific nicotine- and vaping-related indicators were identified using the following ICD-10-CM code definitions, as applicable.

Indicator	ICD-10-CM Code
Acute nicotine toxicity	T65.29 with a 6th character of 1–4 and 7th character of A or missing
Nicotine dependence, other tobacco products	F17.29
Vaping-related disorder	U07.0

Data Sources

Emergency department encounters: Kentucky Outpatient Services Database, Office of Data Analytics, Cabinet for Health and Family Services.

Inpatient hospitalization claims files: Kentucky Inpatient Services Database, Office of Data Analytics, Cabinet for Health and Family Services.

Population data: U.S. Census Bureau (2026). Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2020, to July 1, 2025.

Disclaimers

Data are provisional and subject to change. For nonfatal data, counts greater than zero but less than or equal to 10 are suppressed in accordance with Kentucky state data management policy. Additional counts may be censored when necessary to protect suppressed values and prevent back-calculation across related tables.

Emergency department encounter counts include outpatient emergency department records and inpatient hospitalizations admitted through the emergency department. Counts represent encounters of care and may be greater than the number of individual patients treated.

The impact of the COVID-19 pandemic that started in 2020 should be considered when interpreting data and trend analyses.

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