

TESTIMONY OF

Molly Howell, Director of Disease Control and Forensic Pathology

Chairmen Klein and Ruby, I am Molly Howell, Director of Disease Control and Forensic Pathology with the North Dakota Department of Health and Human Services (Department). I appear before you in support of Senate Bill No. 2408.

My testimony will provide information regarding deaths associated with mitragynine and related compounds in North Dakota, as well as data on health care visits related to mitragynine and 7-hydroxymitragynine (7-OH).

SB 2408 would schedule specified mitragynine synthetic derivatives, including 7-hydroxymitragynine (7-OH) above specified thresholds, as Schedule I controlled substances and establish penalties for their use and possession. The Department supports this legislation, as it will protect the health of North Dakotans and prevent potentially avoidable deaths.

North Dakota Mitragynine and Associated Compound Deaths

Since 2019, the Department's Violent Death Reporting Program has reviewed all violent deaths and overdoses. Between 2019 and June 2026, the Department received death certificate reports of 24 deaths in which mitragynine, 7-OH, and/or mitragynine pseudoindoxyl (Pseudo) were identified as either the primary cause of death or a contributing factor.

In 23 of these cases, these substances were identified as the primary cause of death. In other words, the medical examiner or coroner determined that the substance or condition directly caused the death. In one case, mitragynine was identified as a contributing factor, meaning it played a role in the death but was not determined to be the primary cause.

To put this distinction simply, the primary cause of death is the condition or substance that directly resulted in the death, while a contributing factor played a role in the circumstances leading to the death or worsened the condition that caused the death.

For example, a person may have longstanding chronic obstructive pulmonary disease but also suffer a stroke; the stroke causes a decline in health which ultimately leads to death. In this case, the stroke could be identified as the primary cause of death, because it was the condition that directly resulted in the person's death. Chronic obstructive pulmonary disease could be identified as a contributing factor, because it likely worsened the clinical outcome, but was not itself the immediate cause of death.

Five of the 24 deaths occurred in the first half of 2026. By comparison, four such deaths occurred in all of 2025. This means that, through June 2026, the number of reported deaths has already exceeded the total reported for the entire previous year.

See Table 1 below showing the number of mitragynine and associated compound-related deaths per year in North Dakota.

Table 1. Year of Death	Count
2021	2
2022	7
2023	3
2024	3
2025	4
2026*	5
Total	24

*Data through June of 2026

These deaths mostly occurred in males (75%), in the 20–39-year-old age group (75%) and in western North Dakota (92%).

See Table 2 below showing mitragynine and associated compounds identified on toxicology among the 24 deaths.

Table 2. Substance found	Count
Confirmed Mitragynine	19
Confirmed Mitragynine and 7-OH	1
Presumed 7-OH^	1
Confirmed Mitragynine and 7-OH and Pseudo	2
Confirmed 7-OH and Pseudo	1
Grand Total	24

^This is presumed 7-OH due to substance found at scene; however, no samples could be tested.

Most overdose deaths reported in North Dakota involve multiple substances identified as either a primary cause of death or a contributing factor. Of the 23 deaths where mitragynine or its associated compounds were a primary cause, only four (17.4%) involved mitragynine or an associated compound without any other drugs present. Two were confirmed mitragynine, one was mitragynine, 7-OH and Pseudo, and one was 7-OH.

The presence of other substances does not mean that mitragynine was unrelated to the death. Toxicology identifies which substances were present, but it does not, by itself, determine which substance caused or contributed to the death. The medical examiner or coroner

considers the toxicology results, concentrations, known effects of the substances, interactions, autopsy findings, circumstances of death, and medical history to make that determination.

Therefore, when mitragynine or an associated compound is identified as a primary cause of death or a contributing factor, that determination reflects more than simply detecting the substance. It reflects the medical examiner's or coroner's determination that the substance played a role in the death.

In addition to these 24 deaths, there were 26 other non-natural deaths where mitragynine or associated compounds were identified on toxicology but not listed as a primary cause or contributing factor.

The deaths in North Dakota demonstrate that kratom and its active compounds, including mitragynine and 7-OH, are associated with serious and, in some cases, fatal outcomes. These deaths underscore the need for SB 2408 to reduce the potential harm associated with these products.

Syndromic Surveillance of Kratom and 7-OH–Related Health Care Visits

Syndromic surveillance is a public health system that collects and analyzes information from patient visits to emergency departments and some walk-in clinics. Health care visit information is de-identified and grouped into "syndromes," or categories of visits that share similar signs, symptoms, diagnoses, or other characteristics.

The following data were extracted from our syndromic surveillance system by searching for references to kratom and 7-OH within the chief complaint, discharge diagnosis, chief complaint history, triage notes, and clinical impressions. It is important to note that these data do not represent confirmed cases of kratom or 7-OH exposure, use, or poisoning. Rather, they represent visits identified through syndromic surveillance based on a combination of ICD codes and free-text information documented during health care encounters.

These data likely underestimate the actual number of kratom- and 7-OH-related encounters due, in part, to the lack of standardized coding for kratom. Additionally, many products labeled as kratom, contain other compounds, including 7-OH, so many people may report kratom use, but are actually exposed to other compounds.

As of August 25, 2026, there have been 118 kratom- and/or 7-OH–related visits this year identified through syndromic surveillance in North Dakota emergency departments and walk-in clinics. For comparison, 68 visits were identified during all of 2025. Fifty of the visits for 2026 occurred between July 30th and August 25th.

Since 2021, the majority of kratom- and/or 7-OH–related visits have occurred among men, who accounted for 66% of identified visits. The largest proportion of visits occurred among individuals ages 30–39, accounting for 37.6% of identified visits. Since 2021, 13 identified visits have involved individuals age 19 or younger. Geographically, the majority of identified

kratom- and/or 7-OH-related visits have occurred in western North Dakota, which accounted for 68% of visits.

See Table 3 below showing the number of kratom and/or 7-OH visits to ER and walk-in clinics in North Dakota per year.

Table 3	2021	2022	2023	2024	2025	2026*	TOTAL
Total	15	17	12	31	68	118	261

*2026 data are through August 25, 2026

For 2021-2026, the majority of visits were related to side effects (33.7%) or withdrawal/detox (28%). There were 25 overdoses identified in available syndromic surveillance data.

See Table 4 below showing the number of kratom and/or 7-OH overdose-related visits to ER and walk-in clinics in North Dakota per year.

Table 4	2021	2022	2023	2024	2025	2026*	TOTAL
Total	2	1	1	1	5	15	25

*2026 data are through August 25, 2026

These surveillance findings demonstrate a substantial increase in the number of health care visits containing kratom- and/or 7-OH-related indicators, particularly when comparing 2026 activity to previous years.

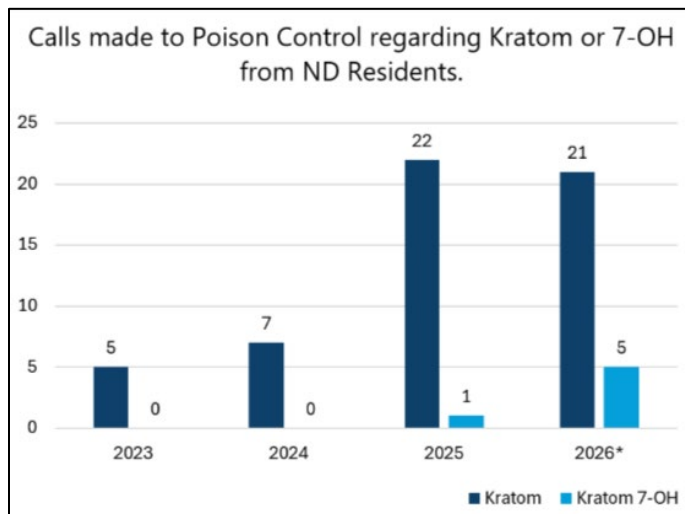
While syndromic surveillance cannot establish confirmed cases or causation, it provides an important early indicator of emerging patterns. The increase in identified health care visits adds to the broader evidence of potential harm associated with these products and supports continued public health attention and action, including scheduling mitragynine synthetic derivatives as a schedule I controlled substance.

Mitragynine and 7-OH Poison Control Data

Data from the Hennepin Healthcare Poison Center for North Dakota also shows an increase in reported exposures involving mitragynine and/or 7-OH. Poison center data provides important information about reported exposures, clinical effects, and healthcare utilization. However, because poison center data are based on voluntarily reported cases, they should not be interpreted as representing the total number of exposures occurring in the population. Again, because many products labeled as kratom contain other compounds, including 7-OH, many people may report only kratom use, but are actually exposed to other compounds.

In the first eight months of 2026, the number of kratom/7-OH calls surpassed the total annual calls for 2025. Since 2023, 12 calls were associated with those ages 19 and younger. See Figure 1 below showing the number of calls per year from North Dakota made to Poison Control regarding kratom and/or 7-OH.

Figure 1



North Dakota is not alone in experiencing an increase in reported kratom exposures. A recent article published in the Morbidity and Mortality Weekly Report reported that National Poison Data System data showed an approximately 1,200% increase in kratom-related exposure reports in the past ten years, including a marked increase in 2025.

Conclusion

Taken together, the trends in fatalities, emergency department and walk-in clinic visits, and Poison Control reports provide multiple indicators of increasing concern related to mitragynine, 7-OH, and kratom products.

From a public health perspective, the Department is concerned about the recent widespread availability of these products, including their availability in settings such as convenience stores and smoke shops, and the potential for continued exposure and harm should they be made available again.

Compounding these concerns, there is currently no age restriction on purchasing kratom products in North Dakota. This lack of age restrictions allows minors unrestricted access to potent substances that carry demonstrated risks of toxicity, healthcare visits, and fatal outcomes.

Kratom products do not have the type of comprehensive FDA premarket approval and quality-control framework that applies to approved drugs. FDA has stated that it has not approved any kratom-containing drug products and has warned about serious adverse events associated with kratom and 7-OH products.

The lack of comprehensive regulation creates additional public health concerns. Consumers may have limited information about the amount and concentration of mitragynine, 7-OH, or other compounds in a product, and products marketed under similar names may vary substantially in their contents and potency. The presence of multiple compounds, varying concentrations, and the potential for products to contain substances not accurately reflected on the label can make it difficult for consumers to assess risk.

Taken together, these data provide multiple, independent indicators of increasing concern: deaths in which these substances were identified as a cause or contributing factor, increasing healthcare encounters, overdose-related encounters, and increasing Poison Control reports. While none of these data sources alone establishes causation or captures the full burden of exposure, together they demonstrate a concerning pattern of harm.

For these reasons, the Department supports SB 2408 and its approach of scheduling specified mitragynine synthetic derivatives, including 7-OH above the thresholds established in the bill, as Schedule I controlled substances.

Thank you to the Department's Health Statistics and Performance Section for their work in compiling this critical data, and to the Office of the Medical Examiner for their important contributions.

This concludes my testimony. I would be happy to try to answer any questions the committee may have. Thank you.