Domicile Unknown

Review of deaths among people experiencing homelessness in Multnomah County in 2021

February 2023

Multnomah County

street roots

This report is dedicated to those who have died,
their families and friends.

To all those working to end the epidemic of homelessness.

And to those who haven’t yet found a way off the street.

Introduction from Street Roots Executive Director Kaia Sand

Shortly after I began as executive director of Street Roots in late 2017, Haven Wheelock — Outside In's Drug Users Health Services Program Supervisor — warned me that fentanyl was coming. At that point, we were releasing the 2016 report, and there were no deaths attributable to fentanyl.

Here we are now, and fentanyl was found to have contributed to the deaths of 36 people. "Never have I seen the drug supply shift in such a short amount of time," Wheelock said, explaining that fentanyl is both more potent and lasts for a shorter amount of time than heroin.

This is a widespread and deadly suffering. People slip into hallucinations that mask their daily suffering. Without access to foundational needs like housing, some escape into their own burning hallucinations. Others take amphetamines to stay awake, ever more vigilant to grim survival, watchful against violence, against the rats that roam the night sidewalks. Some stay awake to piece together an income harder to come by in daylight, collecting bags of clanking cans to redeem at bottle exchanges.

It's a life that's based not only on survival, but surviving that survival: people reach for ways to endure.

In a way, I'm seeing versions of Hans Christian Andersen's telling of the Little Match Girl: faced with extreme suffering — poverty, the freezing cold — the Little Match Girl chose what turned out to be a deadly reprieve: hallucinations. She'd strike a match and see a fantasy: a fancy brass stove; a goose that, stuffed with apples and plums for a feast, came to life and hopped off the table; a tree lit with thousands of candles that became stars in the sky. But it wasn't until she saw her grandmother's face that she tipped over the edge.

She longed so strongly for her long-dead grandmother that she kept striking matches, her grandmother's face glowing in the fire, until she had struck all her matches. Her grandmother took her in her arms, and they began to fly until "there was neither cold, nor hunger, nor care," writes the Danish fablist. While she hallucinated her grand escape from suffering, her own body froze in the cold. No longer with any matches to sell, she also had nothing to keep her warm as she leaned against a wall. Andersen grimly describes how she was found dead in the morning.

Like the Little Match Girl, people are far more likely to die young on the streets, whether from the weather too harsh for human survival, the drive for hallucinations that overcomes a person's capacity to breathe, or the drive for wakefulness that defies the pumping heart.

Others die exposed to violence.

Eighteen people were murdered. Homicide rates have spiked throughout the country, and people who live their lives in public are exposed to the violence, both succumbing to it and witnessing it, a deep toll on mental health.

Margot Kushel, director of the University of California San Francisco's Benioff Homelessness and Housing Initiative, writes people on the streets often need

geriatric medicine by middle age. A woman near my age described her terminal diagnosis with a rosy tone. She had seen a lot in her many years of homelessness, she assured me. We leaned on humor to discuss the painful news, joking that she had lived eight of her nine lives while the obvious sorrow hummed beneath our chatter.

But really, these early deaths are cruelly unfair.

The Domicile Unknown report was launched and carried forward by former Chair Deborah Kafoury, and so, as she has completed her service, it's important to highlight her dedication to the truth. A decade ago, she stepped into the challenge issued by then-Street Roots executive director Israel Bayer, and her dedication never wavered.

After the Oregon legislature passed Senate Bill 850, funeral directors across the state were required to record housing status in vital statistics reports. The Oregon Health Authority recently released a dashboard counting at least 207 people who died while homeless statewide in the first half of 2022.

The report relies on the findings of medical examiners, who investigate deaths caused by suspicious or unknown circumstances such as homicides, suicides, accidents or injuries, unlawful use of controlled substances or the use of a chemical or toxic substance, contagious diseases that threaten public health, and deaths of people who are incarcerated in jail, prison or police custody.

Spurred by the state legislation, the Oregon Health Authority data casts a wider net: All vital records must record whether someone's address — or "domicile" — is unknown.

Multnomah County has additional researchers study death narratives to determine whether the people were, indeed, homeless when they died. The data is also analyzed to understand more about each cause of death. Kate Yeiser, former communications coordinator for Multnomah County, reached out to families to write about the lives of some of the people in the report. By including extra analysis and context, the report yields a fuller understanding of some of the causes and circumstances of deaths.

The need for these reports is the horrible outcome of inequitable access to housing and other healthcare necessities. Too many of the dead died too soon, and their own stories likely could be told by the likes of Hans Christian Andersen. I read these numbers, and I think of the Little Match Girl who, after she struck all her matches at once in a desperate act, died with a fist of burnt matches that did her no good at all.

Kaia Sand
Executive Director, Street Roots

Executive Summary

For a decade, the detailed analysis in Domicile Unknown has helped raise awareness about the deadly risks that people living unsheltered experience, from exposure to the elements and interpersonal violence, to the impact of untreated mental health and substance use disorders. Multnomah County undertakes this annual report as one way to examine the characteristics and causes of local homeless deaths; these deaths are by definition unnatural because they fall into the county medical examiner's jurisdiction for death investigations.

It is a months-long and detailed effort. Death investigators from the Multnomah County Medical Examiner's Office make multiple attempts to identify a place of residence for the person who died, through scene investigations and interviews with relatives and social contacts. After those cases are identified, two reviewers independently analyze death narrative reports, addresses and supplemental information such as toxicology reports. The data collected in the final report will complement data required by Senate Bill 850, which includes deaths outside the Medical Examiner's jurisdiction, such as homeless individuals who die in the hospital or under the care of a physician.

The mandatory state report is expected to be an additional source of information in the 2022 Domicile Unknown report. Analysis has already begun on deaths under the Medical Examiner's jurisdiction for the first six months of 2022, and the Health Department's preliminary review finds that the trends detailed in 2021 are continuing, though a delay in finalizing cause and manner of death due to increased caseloads and the time required for toxicology results limits our ability to forecast trends for the 2022 report.

Yet the cause and manner of death only tells part of the story of why people die. And forces outside the person's control, including the social, economic and environmental factors that person experiences, must also be considered by the public, elected officials and social service providers as they identify resources and policies that can save lives. Going forward, Domicile Unknown will be further integrated into Public Health's efforts to understand and address the community's leading causes of death.

The Health Department's annual review of homeless deaths finds that during calendar year 2021, the first full year of the COVID-19 global pandemic in Multnomah County, at least 193 people died without a home of their own. The number of deaths within the Medical Examiner's jurisdiction in 2021 is the highest since Multnomah County began producing Domicile Unknown.

At the same time, the rough proportion of deaths occurring in homeless individuals has remained steady, averaging 10% of all deaths investigated by the Medical Examiner, over the most recent six years.

Since the Multnomah County Health Department and Medical Examiner began tracking deaths among people who were homeless in 2011, at least 962 deaths have been counted. In 2020, 126 people died. In 2019, 113 people died, preceded by 92 people in 2018, 79 in 2017, 80 in 2016, 88 in 2015, 56 in 2014, 32 in 2013, 56 in 2012 and 47 in 2011.

Deaths that meet criteria for medical examiner investigation are often premature by definition. That said, looking at homeless deaths in aggregate over the course of a year paints a picture of potentially preventable deaths on our streets.

Key Findings

- The average age of death among men experiencing homelessness was 48. For women, it was 46. That's three decades younger than the average life expectancy for someone living in the United States.
- Two of the individuals identified in Domicile Unknown in 2021 succumbed to COVID-19. A third death due to complications from chronic alcohol abuse also listed a positive test for COVID-19 at the time of death. No COVID-19 deaths were identified by the Medical Examiner in 2020, the year the pandemic arrived.
- Methamphetamine, an illicit stimulant drug that can overstress the brain and heart, remains a significant factor. Meth contributed to 93 deaths — nearly half of all deaths, and 82% of all deaths involving substances — the highest total number and highest percentage of total cases since Domicile Unknown was first published.
- Fentanyl, a potent opiate increasingly sold as cheap pills on the street, was a primary or contributing factor in 36 deaths (32%), a dramatic increase from four deaths the previous year, and one to two deaths a year since it was first recorded as a factor in 2017.
- Four people died of overheating during the devastating "heat dome" event that took place from June 25 to June 30, 2021,, and hyperthermia contributed to one additional death among people experiencing homelessness. However, more people experiencing homelessness died of cold in 2021 than heat. There were eight deaths in which hypothermia, or low body temperature, contributed — up from three deaths in 2020.
- In 2021, more people experiencing homelessness died of homicides than at any time since 2011, more than doubling from eight in 2020 to 18. That mirrors an 83% increase in overall homicides documented by the Portland Police Bureau, which reported 90 homicides.
- Eight people took their own lives in 2021, up from four deaths — representing 9% of all deaths.

Trevor **Fletcher**

Born Jan. 30, 2003. Died July 7, 2021. Age 18.

Trevor Fletcher was a daredevil, jumping from the highest diving boards and launching himself off homemade bike ramps. Trevor would wander into daycare covered with cuts and bruises. When he got a little older, he would creep downstairs when his mother was sleeping to snack on gummy fruit chews, or crawl out his second story window to take his scooter on a midnight ride.

One time, when he was about 6, he rigged a PowerWheels with two batteries to make it drive four times as fast, his mother, Jill Whittaker, recalled.

Trevor had legs for days, and he used them to play baseball and basketball in the small northern Wisconsin town where he was raised. He also loved to fish. He would set off with Whittaker in a kayak or a boat, sometimes over ice or sometimes just to the end of his grandparents' dock. They fished for bass, pike, bluegill, perch, and crappie.

Mother and son had regular adventures around town: They would take nighttime drives to the Dairy Queen where he might get a Blizzard full of Nerds. Or they would stop at Culver's for hot fudge sundaes. Then they'd drive around playing Pokemon Go.

Trevor was also the class clown, funny and mischievous, blurting out unfiltered thoughts and going for giggles by making fart noises. But he also acted out in more inappropriate ways, his mother said. Biting when he was a child turned into fighting as a teen.

"We tried so many different doctors and pills to try and calm him. He had therapy every Monday for years," Whittaker said. "Ever since he was a kid, he kept me on my toes. For a long time, I said I just wanted to fix him. I wanted him to just be normal, not stand out. But I learned to embrace 'different,' to embrace 'weird.'"

Often when he acted out, she said, the underlying cause was righteous. He punched a kid for bullying an autistic boy at school. Trevor was suspended, but Whittaker backed him up. “He always defended the underdog,” she said.

He went out of his way to play with his cousin who was disabled. And he had a soft spot for animals. He had a chinchilla and a turtle, a bearded dragon named Jacks, two cats, Toby and Freddy (named after horror characters), and two dogs, Gunner and Annie.

Trevor was a toddler when his parents divorced, and he grew up with his mother. When he was still young, she remarried to a man who, like her, had served in the military.

“Our home was very structured, disciplined. Everything was in order,” she said. “He didn’t come from a wishy washy home.”

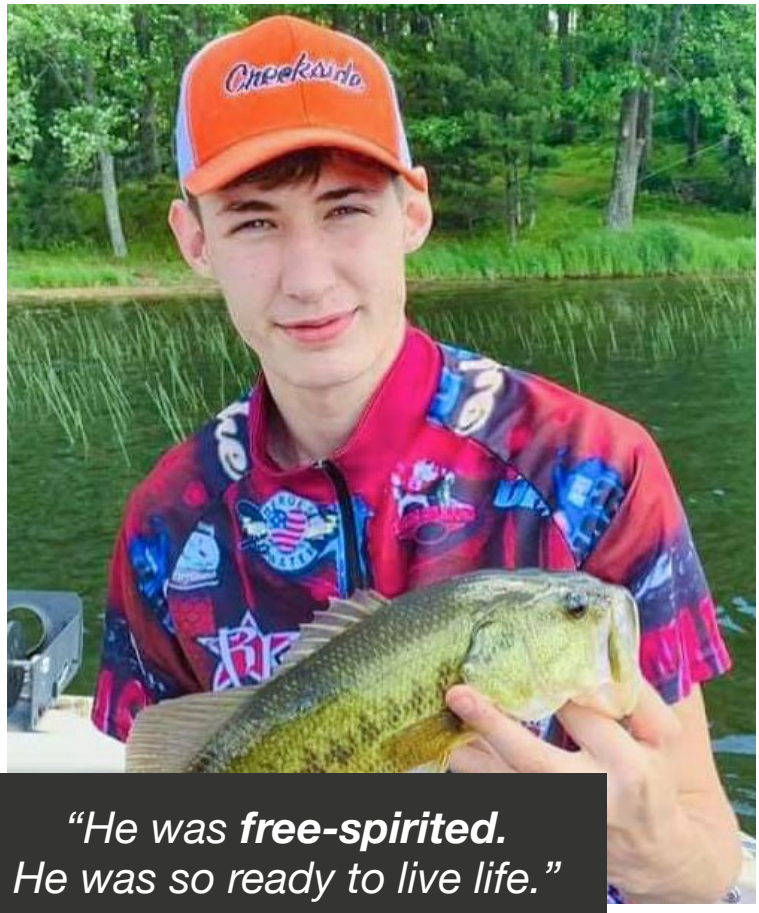
Nonetheless, Whittaker said she spent years struggling to keep her son out of trouble. Hoping for more help, she tracked down Trevor’s father in Spokane; he hadn’t seen Trevor since he was 2.

“His dad was also causing trouble when he was a kid, so I thought maybe he could put him on the right path,” Whittaker said.

But even living with his father, Trevor continued to get into fights. He was suspended and then expelled from school. Trevor would get odd jobs, said his father, Jeremy Fletcher, but mostly he wanted to party.

“I knew he was using, but I didn’t think he was doing anything hard. Maybe marijuana, shrooms. When you are in high school, you try stuff and then get over it,” Fletcher said. “I tried to tell him, ‘I had a rough life and did all these things.’ But back then, there wasn’t fentanyl.”

Shortly after Trevor moved in, Jeremy’s mother died, and father and son, along with Jeremy’s wife, Makayla Marolf, and their younger children, traveled to Illinois to bury her. With Trevor unable to attend school, the trip lasted nearly a year. But Trevor became increasingly combative, striking at his father until Fletcher would have to tackle



*“He was **free-spirited.** He was so ready to live life.”*

Trevor and hold him to the ground until the fight had gone out of him.

“There was a moment when we struggled a lot,” Marolf said. “But Trevor was a great person even when he was acting out. He was free-spirited. He was so ready to live life. And all he wanted to do was make you smile.”

By year’s end, Trevor returned to his mother. At 16, he still harbored hopes that one day he might join the Marines. His mother thought the structure might do him good. And with her help, he was accepted into the Challenge Academy, a military alternative school for at-risk teens. But Trevor got into a fight there, too, and was expelled.

Over the next two years, Trevor bounced between his parents’ homes and a girlfriend's family home in Portland.

He was almost 18 by then. The relationship didn’t pan out, but Trevor had picked up a modeling gig, he told his mom. He said the owner of the company would give him a place to stay.

Fletcher knew his son had tried cocaine and even methamphetamines. But no one knew for sure what kind of drugs Trevor was using, or how much.

“I knew he was mixing cough syrup with pop. I knew he was smoking pot. I heard once in a while about Adderall,” Whittaker said. But she could tell, from his frenetic phone calls, that he was using something. “One call he made, he was going a mile a minute. I thought maybe he’s doing coke. Something was speeding him up.”

She urged him to get on the state’s health plan and began calling treatment facilities in the Northwest. Most places either required a huge lump sum payment or that a patient be at imminent risk of harming themself.

“We called so many different places. Either they wanted $10,000 or he has to say he’s going to kill himself,” she said. “The healthcare system fails so many people. I told my husband, ‘I’ll take a loan out.’”

It was late June 2021, or maybe the first couple days of July, when they finally found a treatment center in Washington that would take Trevor on a sliding scale. But it would be a couple of weeks before a bed would open, Whittaker told Trevor when they spoke next. He agreed to go.

Then on July 7, 2021, Trevor Fletcher overdosed. He had taken a mixture of methamphetamines and fentanyl. Whittaker was at work when Trevor’s boss, Mo, called. He asked if her son had any allergies.

“No,” she said. “What is going on?”

“They're working on him now,” he told her before the call dropped. For three hours, she frantically tried Mo’s number, but he didn’t answer. She called area hospitals and fire departments. She finally got through to the Portland Police Bureau, and her son’s name popped up in their system.

“The police gave me a case number and said someone could call in a couple hours,” she said. “I thought maybe he had overdosed, had gotten Narcan and gone to the hospital.”

But even when the call came, even when she answered and the voice on the other end of the line said they worked for the Medical Examiner’s Office, it still didn’t click.

“She told me he passed,” Whittaker said. “I don’t remember much after that.”

That night, she sat with her husband on their living room couch. She was numb. People brought food she didn’t want to eat. And from somewhere — was it outside? — a song filtered in. It was a song by the Christian artist Jelly Roll, the same song her husband had sent to Trevor some weeks earlier, after a come-to-Jesus conversation.

“Somebody save me. Me from myself. I spent so long living in hell,” the gritty male voice sang. “They say my lifestyle is bad for my health. It’s the only thing that seems to help.”

Methods

Data Source

The Oregon State Medical Examiner maintains a database of all deaths investigated under its jurisdiction. In December 2010, the data field "domicile unknown" was added to the database for Multnomah County so that deaths of individuals who may have been homeless at the time of their death could be easily extracted. Death investigators make multiple attempts to identify a place of residence for decedents through scene investigation and interviews with relatives and social contacts. Multnomah County medicolegal death investigators are encouraged to classify decedents as "homeless" using this field if they can not identify a stable residence at the time they complete their report; such cases are then later reviewed as described below for final classification.

According to ORS 146.090[1] the Medical Examiner investigates and certifies the cause and manner of all human deaths that are:

a. Apparently homicidal, suicidal or occurring under suspicious or unknown circumstances;
b. Resulting from the unlawful use of controlled substances or the use or abuse of chemicals or toxic agents;
c. Occurring while incarcerated in any jail, in a correctional facility or in police custody;
d. Apparently accidental or following an injury;
e. By disease, injury or toxic agent during or arising from employment;
f. While not under the care of a physician during the period immediately previous to death;
g. Related to disease which might constitute a threat to the public health; or
h. In which a human body apparently has been disposed of in an offensive manner.

Note: The passing of Senate Bill 850 established mandatory reporting of housing status on reports of death starting Jan. 1, 2022.[2] This includes deaths of homeless individuals that do not fall under the jurisdiction of the Medical Examiner (e.g., hospital deaths). This information will be an additional source of data beginning with next year's Domicile Unknown report.

1 https://www.oregonlegislature.gov/bills_laws/ors/ors146.html
2 https://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/REGISTERVITALRECORDS/Pages/Senate-Bill-850.aspx

Data Analysis

We extracted case information for all investigated deaths under Multnomah County jurisdiction during 2021 from the Medical Examiner database. Three hundred and fourteen deaths were selected for review based on whether they 1) were flagged as homeless in the decedent information section or 2) had an indication of homelessness in the address field ["transient," "homeless," etc.] or had no address information. Two reviewers independently assessed death narrative reports, supplemental information and address information for each case to determine which investigations supported the classification of homeless using the federal Housing and Urban Development or Health and Human Services definitions.[3] Discrepancies in classification were resolved by concurrent assessment or by using a third reviewer. Ultimately, 193 (61%) of the 314 individuals initially flagged as potentially domicile unknown were classified as experiencing homelessness in Multnomah County at the time of their deaths. Additionally, two deaths in individuals who appeared to be experiencing homelessness were not identified at the time of this report and are not included in the total. Therefore, this analysis is limited to the 193 individuals experiencing homelessness in Multnomah County at the time of death.

To describe the race and ethnicity of decedents, we matched Medical Examiner records to vital records death certificate data. Typically, funeral directors gather information on race and ethnicity from next of kin or close informant interviews, and this data is typically more robust than the available Medical Examiner data. Although misclassification of race and ethnicity on death certificates occurs, especially for persons of American Indian or Alaska Native ancestry, it is low for White and Black populations and has decreased over time for the Hispanic and Asian/Pacific Islander populations.[4] We categorized decedents using a rarest race algorithm. If a person only has a primary race or ethnicity listed, then that race is what is represented for them. If a person has three or more races listed then they are classified as "multiracial." If a person has two races listed then they are assigned to the rarest group based on region-specific population data (i.e., American Community Survey (ACS) Public Use Microdata Sample (PUMS)) for Multnomah County.

The rarest groups in Multnomah County per ACS PUMS data are (from rarest to least rare):

1. Native Hawaiian, Pacific Islander
2. American Indian, Alaska Native
3. Black, African American
4. Asian
5. Hispanic
6. White
7. Unknown

Because the rarest group may be different across geography and time, race data obtained from this method may not be comparable. (For example: In the State of Oregon, "Black, African American" is the second-rarest group, while it is the third-rarest group in Multnomah County.) Similarly, this approach may result in overestimates of death among the rarest groups.[5]

3 https://www.nhchc.org/faq/official-definition-homelessness/
4 https://www.cdc.gov/nchs/data/series/sr_02/sr02_172.pdf
5 https://sharedsystems.dhsoha.state.or.us/DHSForms/Served/le7721a.pdf

To protect the privacy of decedents, demographic data are not reported if cell counts are below three. Low counts for manner of death are included because this information is publicly available from the Oregon Health Authority.

To create the map (Figure 1), the ZIP code where a death occurred was used, unless the location was a hospital, in which case the location leading to the death was used, when known. Decedents found on or in bodies of water, or with unknown incident locations, were excluded, for a total of 180 deaths reflected on the map. The map was created using Tableau 2021.4.4.

To assess the trend in absolute numbers of deaths over time, Joinpoint regression was utilized.[6] Joinpoint takes count or rate data and determines where lines are best connected together. For count data, a poisson regression is run with the year as the independent variable. Joinpoint determines the annual percent change and if this value is statistically significant from zero at the p=0.05 level. We used Joinpoint 4.8.0.1 for this regression analysis.

Because of the limitations of using Medical Examiner data for this report (e.g., calculating denominators is not possible because deaths could include non-Multnomah County residents and incomplete ascertainment since not every death of a homeless individual comes to the attention of the Medical Examiner), we compiled only the frequencies of each variable and did not attempt to analyze differences in this group of homeless decedents to any other group, or to estimate specific rates. Frequencies and means were tabulated using SAS 9.4 (SAS Institute, Cary, NC).

6 https://surveillance.cancer.gov/joinpoint/

Crystal **Sellers**

Born Dec. 31, 1983. Died Oct. 21, 2021. Age 37.

Crystal Sellers barely topped 5 feet and weighed just 100 pounds. But she was tough. She was a fighter.

“She was strong for us. It was an all-girl house, and she protected us,” Crystal’s sister Melinda Peevy said. Peevy was six years older than Crystal, but her little sister always had her back. Peevy recalled when she was in high school and three other teens said they were going to beat her up.

“Back then I didn’t know how to fight, so my sister called all three of those girls,” Peevy said. “She said, ‘If you have a problem, come see me. I will mess you all up.’ They left me alone after that. My little sister protected me. She was like a giant bear, but packed small.”

Crystal played rough and climbed trees. Her softball teammates at Abernethy Elementary School called her “Slick.” At home she listened to rap — especially Tupac Shakur — and talked about fashion. And Peevy recalled how bright her little sister was. How close they were.

But their mother, Rhonda Yarbour, struggled to make ends meet.

“It was hard, financially,” Yarbour said. “The rent kept going up.”

When Yarbour lost her housing, the girls landed in foster care. Yarbour kept Crystal with her when she could, trusting Melinda, as the oldest, to care for her middle daughter.

Crystal married in her early 20s and gave birth to the first of her three sons. He was the only child she would have the chance to raise before addiction stripped her of everything.

Her son was first taken away as an infant, after police responded to allegations of animal abuse at a backyard cottage where Crystal and her husband were living. She won custody rights back about a year later, although the family

continued to bounce between friends' couches, her sister's house, her mother's apartment, and the street.

Almost 10 years ago, when Crystal's son was 6, he got ahold of his parents' methadone. He overdosed and stopped breathing. First responders resuscitated the boy, and he was taken by ambulance to a hospital. Crystal and her husband were arrested.

After that, Crystal's son lived with Peevy.

"She promised me she was going to get her son back and do better," Peevy said. "But she got too deep. An opioid problem led to heroin. I don't know what happened after that."

In the ensuing years, Crystal would commit petty thefts and other crimes to support her addiction, even using Peevy's name to avoid citations. Peevy never resented Crystal's actions, even when it meant she had to untangle unearned criminal charges. And she hopes other people can understand why.

"I don't want people to judge my sister for the choices she made. The way she lived didn't define her. She was sick," she said.

Peevy said she knows how hard it is to beat addiction. She used meth for 12 years, and she lost her children, too. She only won custody back after two months in residential treatment and two years in outpatient treatment.

Peevy thought her sister would win, too. Then on Oct. 21, 2021, Crystal's boyfriend called her mother.

"He said he lost her. He was driving around. He didn't know what to do," Yarbour said.

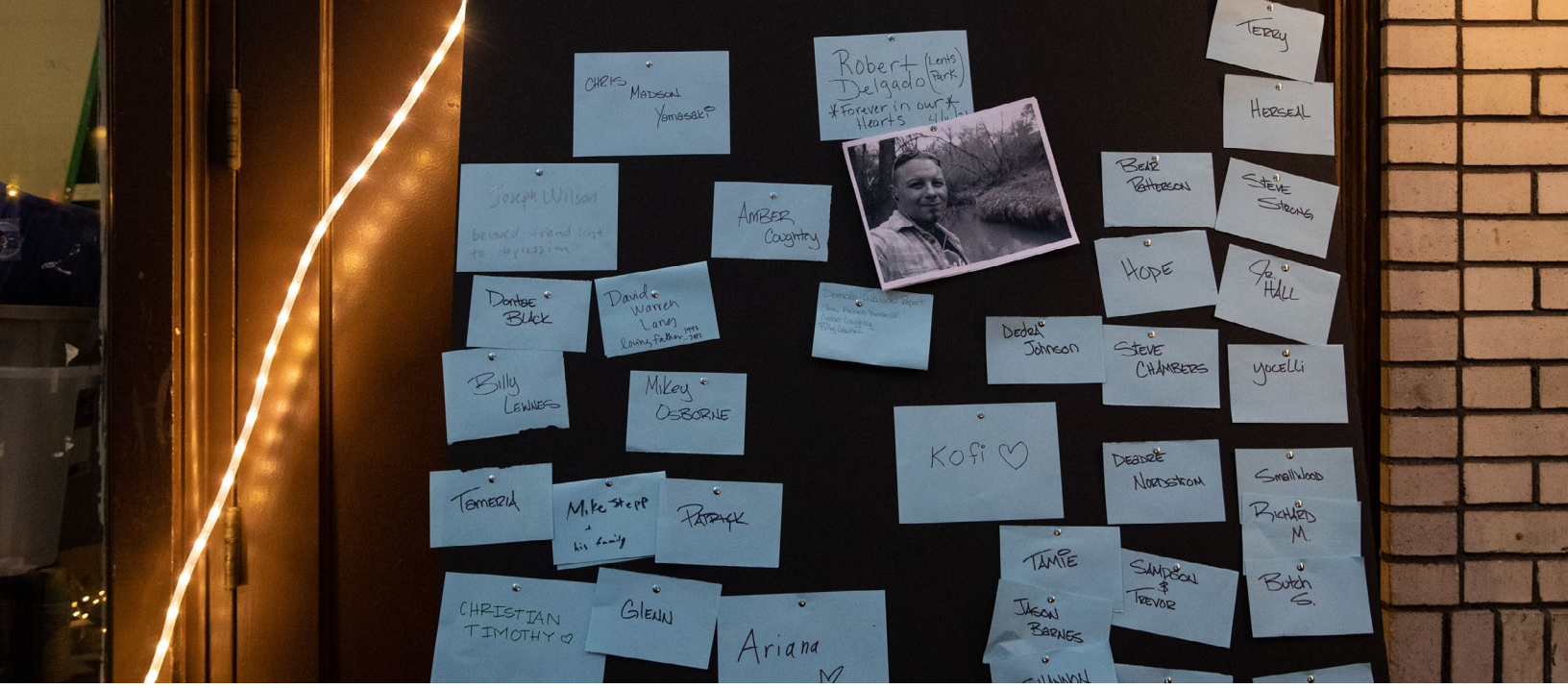
She told him to call the police, but he said it was too late. She told him to take her to the hospital; Adventist was nearby.

Yarbour and her daughters sped over, hoping he was wrong, hoping someone had used Narcan to reverse the overdose. But when they reached her, it was clear that she had been dead for hours. It was a mixture of methamphetamine and fentanyl that killed her.

Her sister still struggles to understand why – why she got sober but her sister could not.

"I was the oldest. I was a leader, so I needed to lead by example. But it's too late for that. We grew up poor, got into our own addictions young and carried that into adulthood," she said. "I decided to break the cycle, and I thought she could, too. She was the strongest.

"But she couldn't beat this."



Results

Age, Sex, Race

Seventy-six percent of individuals who died were male with an average age at death of 48 years. The 46 females who died had an average age of 46 years. The majority of decedents were classified as White (146, 76%), followed by Black/African American (19, 10%) and American Indian/Alaska Native (9, 5%).

Table 1

Demographics of Homeless Medical Examiner Cases, Multnomah County, 2021

Sex	Number (%)(N=193)	Mean Age (range)
Male	147 (76%)	48 (18-83)
Female	46 (24%)	46 (18-71)
TOTAL		**47 (18-83)**

Race/Ethnicity	Number (%)(N=193)
White	146 (76%)
Black/African American	19 (10%)
American Indian/Alaska Native	9 (5%)
Hispanic	3 (2%)
Asian	3 (2%)
Other or unknown	13 (7%)

Season

Because people experiencing homelessness are often exposed to environments without shelter, we looked at the frequency of deaths during cooler (October through March) and warmer periods (April through September) of the year. In 2021, about half of all deaths (98, 51%) occurred between April and September, while 95 (49%) occurred during the colder months of October through March. There were eight deaths where hypothermia was listed as a cause or a significant other finding related to death; these deaths accounted for 8% of the total deaths between October and March (Table 2).

Table 2

Season of Death among Homeless Medical Examiner Cases, Multnomah County, 2021

Season	Number (%)
April - September	98 (51%)
Hyperthermia	5 (5%)
October - March	95 (49%)
Hypothermia	8 (8%)
TOTAL	**193 (100%)**

An extreme heat event arrived in Multnomah County on June 25, 2021. Between June 25 and June 30, 2021, the County recorded temperatures during three consecutive days of 108, 112 and 116°F, shattering previous records. Four individuals had an underlying cause of death of hyperthermia (heat), while an additional person died of acute methamphetamine intoxication but had a significant other finding of hyperthermia. All five of these deaths occurred between June 27 and June 29, and accounted for 5% of the total deaths between October and March (Table 2).

Cause and Manner of Death

The Medical Examiner database includes information on the cause and manner of death. The manner of death is classified as natural, accident, suicide, homicide or undetermined. Natural deaths are usually medical conditions, while the most common causes of accidental deaths are intoxication and trauma.

Among the 125 accidental deaths, 96 (77%) were related to drug or alcohol consumption, while the majority of the remaining individuals died from trauma (data not shown). For the 41 natural deaths, at least 18 (44%) were due to complications from drug/alcohol abuse. Other causes were diverse and included hypertensive cardiovascular disease, congestive heart failure, hemorrhage and unspecified disease.

Twenty-six deaths in total were classified as suicide or homicide; 13 of 18 (72%) homicides were due to firearms, while one suicide was due to firearms (data not shown). One death had an undetermined manner. Persons dying by homicide were significantly younger than those dying by other manners of death (data not shown).

COVID-19

Two deaths identified as part of this report resulted from complications of COVID-19; a third death due to complications from chronic alcohol abuse listed a positive test for COVID-19 at the time of death as a significant other finding. Death investigators routinely test for COVID-19 if the person had any symptoms of illness in the days before their death. A small number of confirmed deaths due to COVID-19 aligns with the local experience of disease transmission, with essentially no outbreaks among people living outside and relatively few shelter outbreaks. However, COVID-19 deaths may have been undercounted for the following reasons:

- An individual was hospitalized for 24 hours or longer prior to a natural death. These deaths are not investigated by the Medical Examiner.
- The young average age of people who died while experiencing homelessness suggests that this is a young population. Risk of death from COVID-19 increases with age.

Table 3

Manner of Death among Homeless Medical Examiner Cases, Multnomah County, 2021

Manner of Death	Number (%)
Accident	125 (65%)
Natural	41 (21%)
Homicide	18 (9%)
Suicide	8 (4%)
Undetermined	1 (1%)
TOTAL	**193 (100%)**

Substances

In nearly 60% of the 193 deaths in 2021, drug or alcohol toxicity either caused, or contributed to, death. Some deaths were associated with more than one substance. Amphetamine/methamphetamine was noted in 93 (82%) of the 113 deaths associated with drug or alcohol toxicity, or nearly half of all deaths. Opioids were noted in 57 (50% of individuals for whom drug or alcohol toxicity caused or contributed to death). There were 47 (42%) deaths where both an opioid and amphetamine/methamphetamine caused or contributed to death, and 36 (32%) deaths with fentanyl caused or contributed to death.

Table 4

Deaths Involving Substances as Primary or Contributing Causes of Death among Homeless Medical Examiner Cases, Multnomah County, 2021

Substance	Number (%)
No substance	80 (41%)
Any substance*	113 (59%)
Any amphetamine/meth	93 (82%)
Any opioid (heroin, prescription, illicit, or unspecified)	57 (50%)
Any opioid plus any amphetamine/meth	47 (42%)
Any fentanyl or illicit opioid	36 (32%)
Any heroin	32 (28%)
Any prescription opioid	9 (8%)
TOTAL	**193 (100%)**

**Note: Deaths involving more than one substance fall under more than one category; total will be greater than 113.*

Location

More than half of all deaths (107, 55%) in 2021 occurred in outdoor public spaces (e.g., parks, sidewalks, homeless encampments), followed by hospitals (43, 22%), hotels/motels/shelters (12, 6%), cars and campers (11, 6%), and homes/apartments (10, 5%) (Table 5).

Table 5

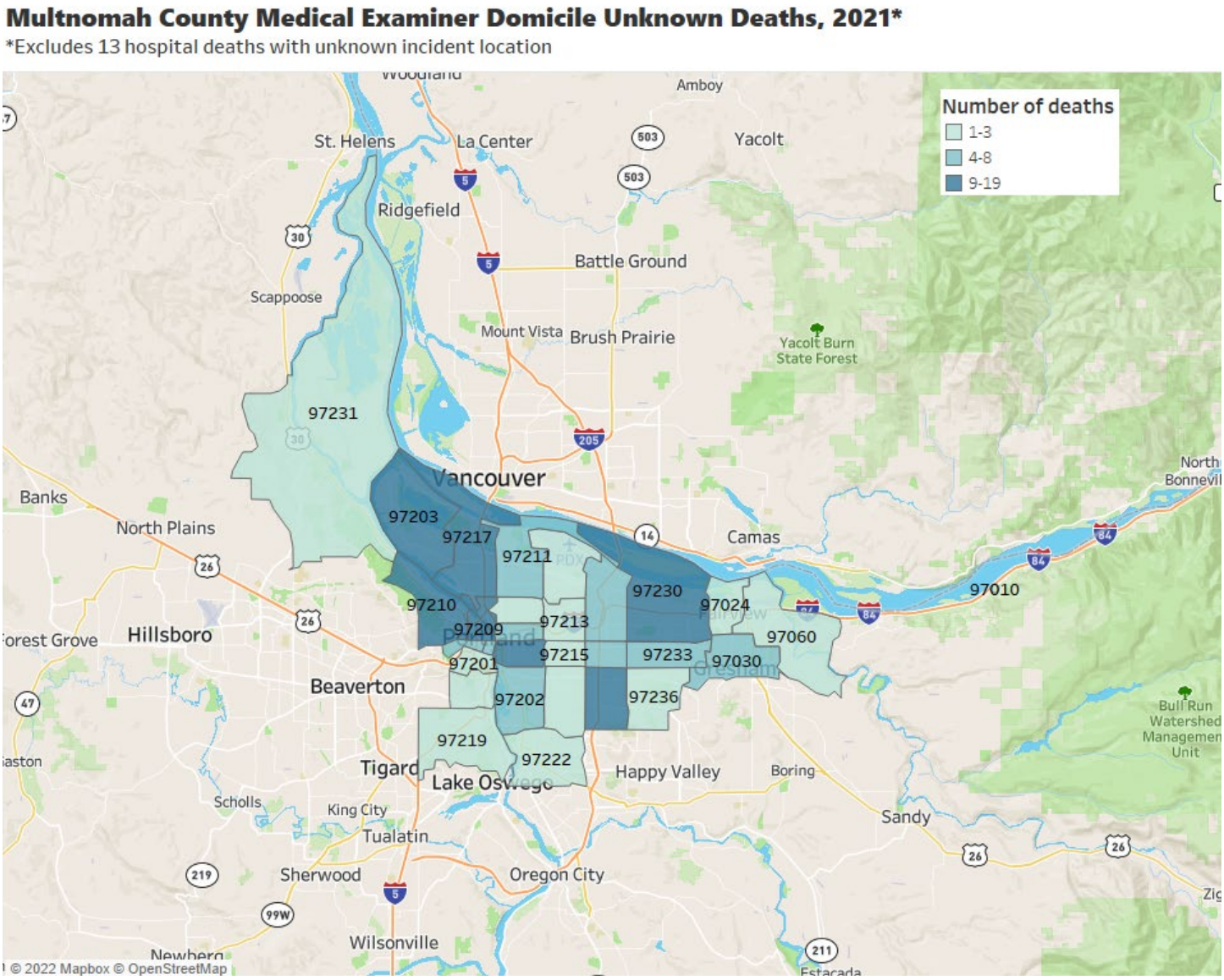
Location of Death among Homeless Medical Examiner Cases, Multnomah County, 2021

Location	Number (%)
Outdoor public	107 (55%)
Hospital	43 (22%)
Hotel/motel/shelter	12 (6)
Car, RV, camper*	11 (6%)
Home/apartment	10 (5%)
Outdoor private	9 (5%)
River	1 (<1%)
TOTAL	**193 (100%)**

**Found dead in/around vehicle versus struck by vehicle.*

Figure 1 shows the distribution of deaths in persons experiencing homelessness in 2021. For individuals who died in hospitals, the location is where the event leading to death occurred, if known. Deaths in, or around, rivers are excluded from the map. Deaths have a larger concentration in the downtown Portland core, North/Northeast Portland, and near the other east-west and north-south arterials of Interstates 84 and 205. However, deaths occurred in all quadrants of the county. Thirteen deaths with unknown incident address are excluded from this map (7% of total).

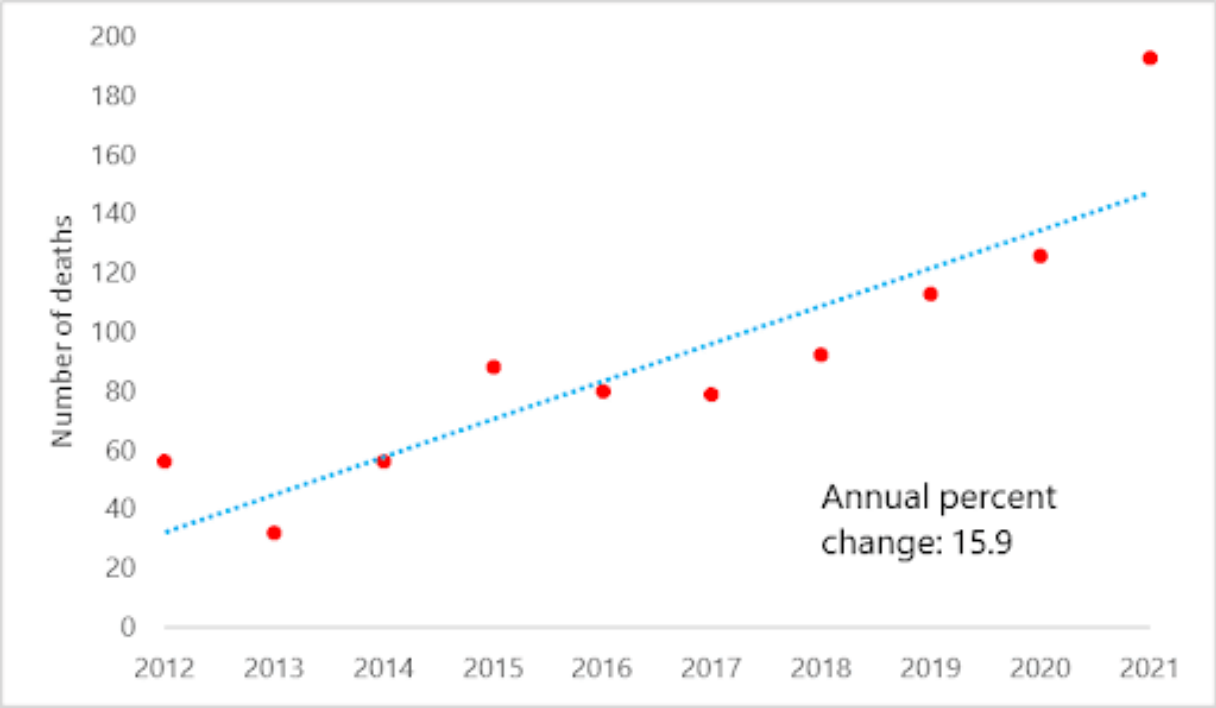
Figure 1. Multnomah County ME Domicile Unknown Cases by ZIP Code, 2021



Trends over Time

By absolute numbers, deaths have ranged from 32 in 2013 to 2021's value of 193 (Figure 2). This results in a significant annual percent change of 15.9% per year. Since 2016, the proportion of deaths occurring among homeless individuals has remained mostly steady (averaging 10% over the 2016-2021 time period). However, 2021 has the highest proportion measured at 12.5% (data not shown). Note that between 2020 and 2021, the total number of Medical Examiner cases in Multnomah County also increased, from 1,287 to 1,550 (or 20%) (data not shown).

Figure 2. Multnomah County ME Domicile Unknown Cases over time, 2012 - 2021



Acknowledgments

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Published in cooperation with

Multnomah County Health Department and
Street Roots

Sponsored by

Deborah Kafoury
Multnomah County Chair

Stories

Reported and written by **Kate Yeiser**

Photos

Motoya Nakamura/Multnomah County

The families of Trevor Fletcher and
Crystal Sellers

Design

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