Deaths by Suicide in Saskatchewan: A Review of Statistics from 2018-2021

2023

Saskatchewan Coroners Service

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Dedication

This document is in memory of each person who is represented in this report.

Each life lost to suicide is a tragedy that impacts family, friends, and communities in profound ways.

The Saskatchewan Coroners Service respectfully acknowledges and dedicates this work to those who have died or been affected by suicide.

Forward

The following document is a report that will present, analyze, and discuss suicide mortality data from the Saskatchewan Coroners Service (SCS) from 2018 to 2021. The aim of this report is to further understand the circumstances and contributing factors towards deaths by suicide in Saskatchewan. At the end of this report, areas of action that have been identified by relevant partners will be presented. This report has been commissioned and approved by the Chief Coroner of Saskatchewan, Clive Weighill. Furthermore, this report has been conducted under the mandate of *The Coroner's Act (1999)*, stating that the SCS has a responsibility to bring awareness and provide recommendations to reduce preventable deaths in the province. As identified by the Chief Coroner, suicide is a relevant area of interest for the SCS to engage in preventative matters, which this report aims to fulfil. The variables of interests discussed in this report have been identified through research articles and reports as relevant measurements for suicide prevention efforts.

To protect the privacy of those represented in this report, measures outlined in the *Privacy Act, The Freedom of Information and Privacy Protection Act,* and the *Health Information Protection Act* have been implemented. All direct identifying information (e.g., names, medical record numbers) has been removed from all data tables in this document. Suppression of certain small number values has been implemented to avoid the risk of re-identification. Suppression of small values was determined through a re-identification risk assessment approach. This approach calculates the probability of correctly identifying a case based on the data presented. (1,2) Further details on the re-identification risk assessment approach will be discussed in the *Methods* section of this report.

Where to go for help

The following document discusses and presents information that may be sensitive or triggering, including suicide, self-harm, substance use, and violence (including abuse and assault). **If you or someone you know is in crisis, please refer to the Mental Health and Addictions Intake or contact any of the crisis helplines listed below**. **If life is in immediate danger, please call 911**. Visit the Saskatchewan Health Authority website to learn more about the warning signs of suicide.

- **HealthLine 811:** HealthLine 811 is a confidential, 24-hour physical and mental health and addictions advice, education, and support telephone line available to the people of Saskatchewan. It is staffed by experienced and specially trained Registered Nurses, Registered Psychiatric Nurses, and Registered Social Workers. HealthLine 811 is free. Services are offered in English, with translation available in over 100 languages. If you are having technical issues with accessing HealthLine 811 by dialling *811*, you can call *1-877-800-0002* to be connected with HealthLine 811.
- **Talk Suicide Canada:** Suicide crisis support available to all Canadians in English and French. Call *988* or text *988* (24/7). Visit the Talk Suicide Canada website for a list of distress centres and crisis organizations nearest you. The Canadian Association for Suicide Prevention also has a Support Services Directory that provides services for suicide crisis, suicide bereavement support, and mental health support.
- **Wellness Together Canada:** A 24/7 free and virtual mental health and addictions support service available to all people in Canada and Canadians abroad. For adults, text WELLNESS to 741741. For youth, text WELLNESS to 686868. For more information visit the Wellness Together Canada website.
- **Kid's Help Phone:** Confidential and anonymous care and support from trained responders for Canadians aged 5 to 29, available 24 hours a day. Call *1-800-668-6868* (toll-free) or text CONNECT to *686868*. Additional resources and access to support is available through the Kids Help Phone website.
- **Hope for Wellness Helpline:** Available to all Indigenous Peoples across Canada who need immediate crisis intervention, emotional support, or referrals to community-based services. Experienced and culturally sensitive help line counsellors can help if you want to talk or are distressed. Telephone (number: *1-855-242-3310*) and online counselling are available in English and French. On request, telephone counselling is also available in Cree, Ojibway and Inuktitut.
- **Métis Nation-Saskatchewan Mental Health and Addictions Program:** A culturally specific mental health and addictions support service for Métis youth, adults, and families in Saskatchewan, available in English and French. Call the toll-free line at *1-855-671-5638* (8 AM- 4 PM UTC-6, Monday to Friday) or call the 24-hour Crisis Line at *1-877-767-7572*. For more information, please visit the Métis Nation-Saskatchewan website.

- **Trans Lifeline Hotline:** a 24/7 hotline service that is available across Canada and the United States and offers peer support phone services by trans people for trans and questioning people. To get in touch with the Canadian hotline, call *(877) 330-6366* and for more information visit the Trans Lifeline website.
- **Saskatoon Crisis Intervention Service:** a 24/7 service that provides crisis intervention services to those living in Saskatoon. Call *(306) 933-6200* to connect with the Mobile Crisis Service, additional information is available on the website.
- **Regina Mobile Crisis Services:** crisis intervention services available to those in Regina. To contact the 24/7 Mobile Crisis Team call *(306) 757-0127* or to directly contact the Crisis Suicide Hotline at *(306) 525-5333.* More information is available on the website.
- **Prince Albert Mobile Crisis Unit:** a 24/7 crises intervention service available to those within the Prince Albert city limits, call *(306) 764-1011.* More information available on the website.
- **Farm Stress Line:** a 24/7 service that administers and provides crisis counselling to rural Saskatchewan, call *1-800-667-4442*. More information available on the website.
- **SaskAgMatters:** free mental health support services for Saskatchewan agriculture producers or their support person. Each individual is eligible for six free one-hour sessions with trained and registered mental health professionals that have a background in farm culture. For more information visit their website.

Information for the media

Research indicates that sensationalist reporting and certain media depictions regarding the nature of deaths by suicide (i.e., explicit description of methods), can lead to imitational suicidal behaviour in vulnerable people. Media professionals are asked to exercise caution when reporting on suicide by balancing the efforts to raise public awareness on suicide and risk of causing potential harm. Therefore, it is important for those reporting on this data to refer and adhere to the guidelines on safe reporting from the World Health Organization (WHO)/IASP, Canadian Psychiatric Association, and the Mindset Media Guide. Some additional resources include:

- The Centre for Addiction and Mental Health (CAMH) language guidelines
- Public Health Agency of Canada (PHAC) safe language and messages for suicide prevention
- Talk Suicide Canada media guidelines
- Samaritans' media guidelines for reporting suicide
- RANZCP suicide reporting in the media

Acknowledgements, contributors, and partners

Acknowledgements

The SCS would like to acknowledge that each figure included and discussed in this report was a person first and foremost. The numbers and statistics discussed throughout this report represent people from a variety of different backgrounds who are mourned by their loved ones and communities. The SCS is committed to raising awareness and prevention of suicide and self-harm. The SCS would also like to acknowledge the ongoing efforts by various organizations, groups, and communities to prevent suicide-related deaths.

The SCS wishes to acknowledge the land on which it is situated. The SCS operates on lands comprised of Treaties 2, 4, 5, 6, 8, and 10 and the home of the Métis. Additionally, the SCS is dedicated to fulfilling the Truth and Reconciliation Commission's (TRC) "Calls to Action", with Calls 18-24 and 53(iv) being of relevance with this suicide report as they specifically target health outcomes.

Language statement

Stigma reduction and promotion of sensitive and accurate language is fundamental to suicide prevention (3). Negative stigma hinders prevention efforts by creating barriers and discouraging individuals who are suicidal from seeking help (3,4). Using respectful and informative language encourages a safe and stigma free environment that allows for more open conversations around suicide and prevention (5).

This report is informed by PHAC's safe communication guidelines for suicide. For example, this report will use the language "attempt" and "died" rather than "commit(ing)" suicide, as the word "commit" indicates a criminal offence has occurred, which suicide is not (6). Associating suicide with a criminal or an immoral act further contributes to the negative stigma surrounding suicide and fails to acknowledge the psychological stress that occurs with suicidal thoughts (3,4).

Additionally, this report uses person-first language to support stigma reduction efforts and to reiterate that the statistics presented in this report represent people. Person-first language is defined as a communication approach that places emphasis on people and their experiences instead of defining people through their actions, conditions, or diagnoses. For example: using the phrase "people with depression" versus "depressed people" (5).

Contributors and partners

This report would have not been possible without the dedication and hard work of the investigating coroners. Their investigation skills and documentation provided the data utilized for this publication. The SCS thanks their coroners for their invaluable contribution. Additionally, multiple members of the SCS office helped in the preparation of this report and without their efforts, this report would not have been possible.

The SCS would like to thank the Public Health Agency of Canada (PHAC) and the Public Health Death Investigation (PHDI) and Substance-Related Harms (SRH) Public Health Officer Streams of the Canadian Public Health Services for their expertise and guidance. This report was completed with their support as part of a broader effort to improve the use of death investigation data for public health surveillance.

Additionally, the SCS would also like to thank the Ministry of Justice, the Ministry of Health, the Ministry of Social Services, and the Ministry of Advanced Education for their contributions to this report. The SCS continues to value the perspectives and inputs of their fellow provincial government colleagues.

Finally, the SCS would like to thank the variety of community partners who took part in the consultations to provide their inputs and insights. These include the following organizations: Association of Métis, Non and Status Indians Saskatchewan, Federation of Sovereign Indian Nations (FSIN), Meadow Lake Tribal Council, Men of the North, Peter Ballantyne Cree Nation Health Services, Roots of Hope Meadow Lake, SaskAgMatters, and the Saskatchewan Urban Municipalities Association (SUMA).

Background

Defining suicide

Suicide is defined as the intentional action to deliberately end one's own life. Some suicide-related behaviours include thinking about, considering, planning, or attempting suicide. A suicide attempt is when a person intentionally attempts to end their own life. Following a suicide attempt, suicide survivors are individuals who have lost someone through suicide or have survived the suicide attempt (6). For the remainder of this document, suicide survivors will refer to the individuals who lost someone through suicide.

The effects of suicide spread beyond one person; it is a tragedy that affects family, friends, peers, coworkers, teachers, and community members (7,8). This also includes mental health professionals, health and social service providers, first responders, and coroners who experience occupational exposure to trauma (6).

Individuals who die by suicide often want to stop a significant amount of mental, emotional, and/or physical pain. They may not necessarily want to end their lives and may see suicide as a way of ending their suffering or stopping a situation that is overwhelming to them (6,9). There is no "typical" suicide case; rather suicide is complex with multiple related factors (10,11).

The Canadian and Saskatchewan context

Canada

The World Health Organization (WHO) estimates that 703,000 people die by suicide every year worldwide (12). In Canada, roughly 4,500 people die by suicide every year, meaning that more than 10 people die by suicide everyday (13). Additionally, suicide is one of the top 10 causes of death in Canada (14) and a third of deaths by suicide occur amongst people ages 45-59 years old (15). Suicide is the second leading cause of death amongst children and young adults (aged 10-29 years old) and 12.3% of Canadians aged 15 years and older reported having suicidal thoughts, 4.5% have made suicide plans, and 3.4% have attempted suicide in their lifetime (15).

While suicide affects people from different ages and backgrounds, some populations have higher rates or risk of suicide. These include:

> ***Men/boys***: make up 75% of all deaths by suicide in Canada (14). It is important to note that intersections of sex with other sociodemographic factors may impact prevalence and should be considered.
>
> ***People who are serving federal and provincial sentences***: from 2009-2019, 14.4% of people who were federal offenders that died while in custody and 20.6% of people who were provincial offenders that died in custody, died by suicide. Rate calculations roughly estimate that 55 deaths by suicide per 100,000 occurred amongst people who were incarcerated federal offenders. For those who were provincial offenders, the rate

calculation is 36 deaths by suicide per 100,000. These figures are significantly higher than the national suicide rate of 11.5 deaths per 100,000 people (in 2009) (16).

Suicide survivors, both from suicide loss and suicide attempts: A history of suicide attempts has long been identified in research as a risk factor for future attempts (17-19). Additionally, research has also established that family history of suicide is a strong indicator for risk of suicide attempts (20-22). Newer research suggests that this extends to non-family peers as well (e.g., friends, coworkers, etc.) (22-24). In Canada, for every person lost to suicide, at least 7 to 10 survivors are significantly affected by the loss (13). Results from the 2012 Canadian Community Health Survey (CCHS)-Mental Health indicate that amongst people who had previously attempted suicide in their lifetime, 31% had a re-occurrence of suicidal ideation in the previous 12 months and 13% had another suicide attempt in the previous 12 months (25).

First Nations, Métis, and Inuit: results from the 2011 Canadian Census Health and Environment Cohort (CanCHEC) indicate that suicide rates amongst First Nations people is three times higher than the rate of non-Indigenous people. Additionally, the risk for suicide is two times higher amongst First Nations people living on reserve in comparison to those who live off reserve. Rates also varied by First Nations band, with approximately 60% of bands having a suicide rate of zero. Rates among Métis were roughly estimated to be two times higher than the rate of non-Indigenous people (note: these rates should be approached with caution, as per the authors). Rates among Inuit were nine times higher than the rate of non-Indigenous people. The highest rates were noted amongst youth and young adults (ages 15 to 24 years old) in First Nations males and Inuit males and females. It is important to note that many community and socioeconomic factors (e.g., community, Indigenous group, level of education, household income) can cause variation in suicide rates. Higher rates of suicide amongst Indigenous Peoples can be directly linked to the historical, political, and socio-economic conditions imposed through the legacy and ongoing effects of colonization (26).

LGBTQ2S+: results from the 2018 Survey of Safety in Public and Private Spaces (SSPPS) indicate that people who identify as sexual minorities (lesbian, gay, bisexual) were more likely to seriously contemplate suicide in their lifetimes (40%) in comparison to their heterosexual counterparts (15%). Additionally, people who identified as transgender were also more likely to have seriously contemplated suicide in their lifetimes (45%) in comparison to their cisgender counterparts (16%) (27).

Survey results during the early phases of the COVID-19 pandemic (April-May 2020) showed that 38% of Canadians reported a decline in their mental health, 4% attempted to intentionally harm themselves, and 10% had suicidal ideation (28). Preliminary data from 2020 indicates that there was a decrease in national suicide rates during the first year of the pandemic and this co-occurred with increased rates of psychological distress, mental illness, and reports of suicidal ideations (29). However, these figures should be approached with caution as they may overestimate the decrease in suicide rates due to

the use of preliminary data. Moving forward into spring of 2021, the prevalence of recent suicidal ideation (4.2%) significantly increased in comparison to 2019 figures (2.7%). A previous study in fall 2020 did not observe a significant difference in suicidal ideation in comparison to 2019 prevalence. It is possible that these figures are an indication of the latent effects of COVID-19 on suicidality (30). Further research is needed to fully understand the impact of COVID-19 on suicide in Canada.

Saskatchewan

In Saskatchewan, suicide rates have steadily climbed over the decades and the province has some of the highest suicide rates in the country, often exceeding the national average. National suicide rates have averaged around 12 deaths per 100,000 Canadians from 2010-2020, while Saskatchewan suicide rates have averaged around 15 deaths per 100,000 Saskatchewanians. The other prairie provinces (Alberta and Manitoba) have suicide rates that average around 14 deaths per 100,000 (14).

Every year, roughly 200 people die by suicide in the province and in northern Saskatchewan, suicide is the leading cause of death for people ages 10 to 49 years old (31). The province has similar demographic trends to national data, with men/boys, youth/young people, and Indigenous populations having higher rates of suicide.

Additionally, in 2022 the Federation of Sovereign Indigenous Nations (FSIN) and the Saskatchewan Health Quality Council (SHQC) published the Self-harm and suicide in First Nations communities in Saskatchewan Report. Findings from the report state that from 2016-2020, First Nations males are three times more likely to die by suicide in comparison to their non-First Nations counterparts. For First Nations females, they are 6.4 times more likely to die by suicide in comparison to their non-First Nations counterparts. Additionally, the report noted that colonization, trauma, resilience, healing, and education were significant themes when discussing suicide amongst First Nations. Colonization was directly cited as a significant source of trauma, however the resiliency of the First Nations people and communities has contributed to healing and learning (32).

Throughout the province, there have been calls to action for suicide prevention due to high rates of suicide. In response to the advocacy of various mental health and community leaders, the provincial government has developed *Pillars for Life*: The Saskatchewan Suicide Prevention plan (31). There are five pillars included in the prevention plan:

- Specialized supports
- Training
- Awareness
- Means Restriction and Means Safety
- Research, Surveillance, and Evaluation

This report intends to contribute to the Awareness and Research, Surveillance, and Evaluation and support the Means Restriction and Means Safety pillar by publishing and analyzing the SCS data available.

Currently, the SCS publishes suicide data monthly on the service's website. This report is intended to have a more detailed look into the factors that contribute to suicide in this province. The differentiation between this report and those figures will be further discussed in the *About the data* section.

The Saskatchewan Coroners Service and death investigations

In Canada, the provinces and territories hold jurisdictional responsibility for the legislation and provision of death investigation services. There are two main systems that exist within Canada: one operated under a Chief Coroner and the other under a Chief Medical Examiner. Chief Coroner and Chief Medical Examiner offices investigate deaths that are unexplained, unexpected, or unnatural (e.g., domestic homicides, drug toxicity deaths, motor vehicle collisions, suicides). Approximately 15% to 20% of deaths in Canada are investigated by Chief Coroner and Chief Medical Examiner offices. In Saskatchewan a Chief Coroner system is in place where coroners carry out death investigations. A coroner is a death investigator who uses medicolegal investigation principles and techniques to coordinate all aspects of death investigations. In Saskatchewan they are appointed by the Chief Coroner and must act in accordance with *The Coroner's Act (1999)*.

The SCS is an independent agency responsible for carrying out death investigations, as defined by *The Coroner's Act (1999)*. The SCS has full-time coroners and fee-for-service community coroners who conduct these death investigations. Most community coroners are located and work outside of the cities of Regina and Saskatoon. They attend scenes, conduct the investigation, and submit a 'Report of Coroner' (ROC) to the Saskatoon or Regina office where it is reviewed and approved by a full-time coroner. Full-time coroners oversee and assist community coroners with their investigations and reports. The findings of investigations are meant to improve the health, safety, and quality of life for the citizens of Saskatchewan by informing preventative policies and programming, as outlined in *The Coroner's Act (1999)*.

Typically, coroners will attend the scene and conduct an assessment. If a coroner cannot attend a scene, they will base their assessment from information provided by the police in attendance. Using the findings from the scene assessments and the circumstances of death, coroners will classify deaths as either "coroner cases" or "non-coroner cases".

A non-coroner case is when a coroner determines that a person's death does not fall within the parameters of unexpected, unnatural, or unexplained. The coroner will liaise with family and request a physician or nurse practitioner (NP) to sign the medical certificate of death. A coroner may also sign the certificate of death if necessary.

A coroner case is when an unexpected, unnatural, or unexplained death has occurred. For example: an injury from a fall, or any death that occurs while a person is in custody or under the care of a government. In these cases, an investigation is conducted by the coroner. If the death is classified as a suspicious case and charges may be laid, police will lead the investigation with the assistance of a coroner. If the death is classified as a non-suspicious case, a coroner leads the investigation with the assistance of the police.

In all deaths reported to the SCS, the coroner will investigate the scene, body, circumstances, and medical history of the decedent. Deaths by suicide are considered coroner cases and the vast majority are considered non-suspicious deaths. Based on the information collected, the coroner will then determine if a post-mortem examination (PME) — more commonly known as an autopsy — is needed to determine the cause and manner of death and/or identify the person.

The coroner prepares a preliminary report of the circumstances which is uploaded to the Coroner Case Management System (CCMS), the electronic database for the SCS. The coroner will connect with a variety of people (e.g., family, friends, coworkers, police, primary care providers) to provide information. They will continue to investigate until satisfied that all information related to a person's death has been gathered. They then form opinions on the who, how, when, where, and by what means a person died. The Report of Coroner (ROC) is prepared, and peer reviewed by a full time coroner before it is finalized. If no further investigation is required, the file is concluded, and the coroner connects with the next of kin to provide information on the cause and manner of death.

The cause of death tells us why a person died – the injury or disease behind a death – whereas the manner of death is how a person died – the circumstances surrounding the death. When determining the manner of death, it must fall within one of five categories:

- Natural: death is due solely to natural disease and/or the aging process.
- Homicide: death results from an intentional or volitional act of one person against another.
- Suicide: death results from an intentional self-inflicted act intended to do self-harm, cause one's own death, or put oneself at imminent risk of injury or death.
- Accidental: death results from an injury, poisoning, or intoxication that was unintentional.
- Undetermined: cause of death is undetermined or insufficient information to distinguish between two or more manners of death.

If it is determined that a PME is required to determine cause and manner of death, the coroner will order one and issue a warrant to take possession of and transport the person's body to the pathology labs in Regina or Saskatoon. The coroner can order three different types of examinations: (1) complete PME (2) external PME (3) toxicology exam.

> A complete PME: external examination of a body including the clad and unclad body, documentation of general features and characteristics, documentation of any disease or injury, the incising and opening of the thoracic cavity, the abdominopelvic cavity, the cranial cavity and the neck, an inspection and dissection of the contents of the thoracic cavity, the abdominopelvic cavity, the cranial cavity and the neck; and the retrieval of specimens for histological, microscopic and toxicological examination (Section 4(1)(a) The Coroners Regulations).

An external PME: examination of the clad and unclad body, documentation of the general features and characteristics of the body, documentation of any evidence of disease or injury, and the retrieval of specimens for toxicology examination (Section 4(1)(b) The Coroners Regulations).

Toxicology exam: determines the amount and type of substances in the retrieval of specimens from the deceased's body. Complete and external PMEs always include the taking of specimens for toxicology.

When a complete or external PME is completed, the pathologist assesses the results with the toxicology report and provides an opinion on the cause of death. If only a toxicology exam was done, the forensic toxicologist will send a report with the therapeutic range of substance found in the toxicology screen and an opinion on if the substance(s) found contribute to the cause of death to the coroner and the SCS. Coroners will form an opinion on how the substance(s) found contribute to the cause of death.

In rare occurrences the Chief Coroner or the Minister may call for an inquest. For some instances, it is mandatory to call an inquest:

When a person's death occurs in a correctional institution or police detention centre, as defined in Part V, Section 20 of *The Coroners Act (1999).*

When the person who died is considered a youth in custody, as defined in *The Youth Criminal Justice Act (2003)*.

In other instances, the Chief Coroner or Minister may decide a discretionary inquest is required to uncover dangerous practices, provide public education, or facilitate prevention.

For further details on the roles and responsibilities of the SCS visit the official website.

About the data

Case definition

This report aims to describe and compare those who died by suicide from 2018 to 2021 in Saskatchewan. Note that this report does not include those:

- Who died under the classification of Medical Assistance in Dying (MAiD).
- Whose body has not been found.
- Saskatchewan residents who died outside of the province.

Only those with a closed coroner case — when the coroner investigation is complete— are included in this report. The SCS consistently manages open cases that continue to be investigated and the cause and manner of death may not yet be determined. Due to the specificity of this report to deaths by suicide, the decision to only include closed cases came from the SCS's desire to present accuracy in its reporting. Therefore, figures and data from monthly reports on the SCS website may differ to what is presented in this report.

Data source

The data used in this report was collected from the coroner case files of those who died by suicide from 2018 to 2021 in Saskatchewan. Some of the documents that were reviewed for this report include:

- Report of Coroner (ROC): a summative report put together by the investigating coroner that outlines the who, when, why and how someone died, including the cause, manner, and circumstances leading up to death.
- Toxicology reports: the final report that outlines the results of toxicology examinations, where the forensic toxicologist will send a report to the coroner and the SCS, with the therapeutic range of substance found in the toxicology screen and an opinion on if the substance(s) found contribute to the cause of death.
- Saskatchewan Drug Plan: the provincial health records that outline a person's prescription drug history to determine which medications had been prescribed.
- Medical records: from various clinical settings (e.g., hospitals, clinics, etc.) that outline a person's medical history and include notes from healthcare providers.
- Police reports: provide the initial assessment of the scene and when/how/where the person was found.
- Suicide notes: provide information on intent and a person's wellbeing and inner thoughts.
- Inquest coroner overview reports: in lieu of a ROC for certain circumstances (i.e., a death by suicide occurring while a person is in custody).
- Geography conversion table: provided by the Ministry of Health, a file that converts municipalities/communities into their respective previous provincial health

regions[1]. Further information on the specifics of analyses will be discussed in the *Data analysis* section.

- Postal Code Conversion File Plus (PCCF+): provided by Statistics Canada, a dataset that links Canada Post postal codes with standard geographic areas to provide census data. The PCCF+ is made up of a set of associated datasets (postal code population weight file, geographic attribute file, health region boundary files, etc.) and a SAS (previously "Statistical Analysis System") program. The program uses postal codes to assign standard geographic areas based on population-weighted random allocation that links postal codes to more than one geographic area (34). Further information on the specifics of analyses will be discussed in the *Data analysis* section.
- Canadian Index of Multiple Deprivation (CIMD): provided by Statistics Canada, an area-based index of social inequalities that utilizes 2016 Census data to measure the level of deprivation across four dimensions: residential instability, economic dependency, ethno-cultural composition, and situational vulnerability. The index uses factor analysis to group many correlated variables into the four dimensions. For each dimension, the CIMD dataset provides a factor score and a ranked quintile variable, which ranks factors scores from lowest to highest and then dividing them into 5 equally sized quintiles/groups. A quintile score of 1 is considered to be least deprived and a quintile score of 5 is considered to be most deprived (35). Further information on the specifics of analyses will be discussed in the *Data analysis* section.

Additionally, data from the 2021 and 2016 Canadian census and population estimates from Statistics Canada were used for rate and percentage calculations.

Data availability and preparation

This report provides an analysis of data collected on 846 people identified as having died by suicide in Saskatchewan from 2018 to 2021. The SCS uses an electronic database system (CCMS) to store all case files, including scanned copies of paper documents, which was easily accessible through the CCMS database.

Variables of interest were determined through review of research, internal and external consultation, and review of case records. For this report, certain variables were chosen to be included based on data availability in case files. From 2018 to 2021, there have been changes in coroner training and the CCMS database development. Therefore, data collection varied for certain elements of the death investigation process. Those with limited availability were excluded from this report and unknown data elements will be reported on for each variable.

[1] Saskatchewan currently does not have health regions and have since combined all regions under one health authority. However, as part of their 2021 Census release, Statistics Canada does provide population estimates on 7 health regions: Far North, North Central East, North Central West, Saskatoon, Regina, South East, and South West. For the purposes of this report, these health regions provided by Statistics Canada will be used to showcase distribution of deaths by suicide in regional areas of the province and used in comparison to their population size.

The variables of interest were categorized into three groups: case information, medical and mental health history, and sociodemographic and risk factors. Case information refers to variables that pertain to the circumstances of death. Medical and mental health history refers to variables surrounding the health history of the deceased. Sociodemographic and risk factors refer to variables related to the demographic information of the deceased and potential measures that may increase the risk for suicide. Table 1 outlines the categorization of the data elements included in this report.

Table 1. Categorization of variables

Categories of data	Data groups

Case information	- Date of death (yearly, monthly, daily)
	- Means/methods of suicide
	  - Carbon monoxide source
	  - Firearm type
	- Geographic/location information
	  - Location of death
	  - Place of injury
	  - Location of residence
	  - Health regions
	  - Postal code data
	- Person(s) who discovered the deceased
	- Suicide note presence
	- Toxicology results

Medical and mental health history	- Health history
	  - Medical history
	  - Mental health history
	  - Substance use history
	  - Maternal health history
	- Interactions with the healthcare system
	  - Medical/mental health professional
	  - History of accessing care

Sociodemographic and risk factors	- Sex
	- Age
	- Race
	- Indigenous identity
	- Suicide history
	  - Prior history of self-harm, suicide disclosure and/or attempts
	  - Recent disclosure of suicidal ideation or intent prior to death
	  - Known exposure to suicide
	- Interactions with the justice system
	- Occupation and industry
	- Recipient of social assistance and/or services
	- Living alone status

Categories of data	Data groups
	- Relationship status - Life stressors

Data analysis

This report aims to provide a descriptive analysis of variables related to deaths by suicide in Saskatchewan. Descriptive analysis, stratified by a variety of variables, was conducted to identify differences and patterns amongst people who died by suicide through case information, medical and mental health history, and sociodemographic and risk factors. Note: a few investigations were open at the time of analyses— therefore excluded from this report— and the availability of variables of interest varied across cases and year. Variables such as: toxicology results, medical history, mental health history, and prescription medications are not mutually exclusive, and the corresponding tables will not sum to 100%. These tables will note the base denominator for percentage calculations.

Analyses of postal code data of primary residence was conducted by linking the report's dataset to the Statistics Canada PCCF as well as the CIMD. The CIMD measures deprivation across four dimensions: (1) residential instability which describes how the neighbourhood's inhabitants change over time and includes indicators such as the proportion for the population living on their own, the average number of people living in a residence, and proportion of dwellings that are apartments. (2) economic dependency which describes the reliance on the workforce or dependence on other sources of income outside of employment and includes indicators like the dependency ratio (the population aged 0-14 and population aged 65+ divided by the population aged 15-64) and the proportion of the population that is older than 65 years old. (3) ethno-cultural composition which includes indicators such as the proportion of the population that is foreign born, identifies as visible minority, recent immigrants, and those experiencing linguistic isolation (no knowledge of the official languages). (4) situational vulnerability which describes the variation of housing and education while considering other socio-demographic characteristics, including indicators such as the proportion of the population that identifies as Indigenous, that is low income, aged 25-64 without a high school diploma, and the proportion of dwellings that need major repairs (35).

Measures across the four dimensions of the CIMD are used in this report to measure neighbourhood-level deprivation. The report's dataset was linked to the PCCF+ through six-character Canada Post postal codes, which were then linked to the CIMD. Quintile rankings are used to examine the relationship between deaths by suicide and community-level indicators of deprivation. Cases where postal codes were missing or unknown (a person was experiencing homelessness or there was no documented postal code in the case file) were excluded. Additionally, Statistics Canada health regions analysis was conducted after linking the report's dataset to the Ministry of Health's geographic conversion table using the municipality/community names of residence, then converted to the corresponding Statistics Canada health region.

This report will provide figures as death counts, percentages, and/or crude/age-adjusted mortality rates. Mortality rates (or death rates) are the number of deaths in a specific population at a specific time, expressed as the number of deaths that occur per a given population size. For this report, all mortality rates will be the number of deaths per 100,000 population and unless otherwise stated, rates are presented as crude rates. Rates allow for comparison between populations to see if certain populations are affected more than others. Crude rates are not adjusted for factors like age, which can impact death rates. Age-adjusted rates adjust for differences in age distribution of different populations by giving the comparable groups the same age distribution structure as a standard population (36). Crude and age-adjusted death rates were calculated using 2018, 2019, 2020, and 2021 provincial population estimates from Statistics Canada. Age-adjusted mortality rates used the Saskatchewan data from the 2021 Canadian Census population as a reference or a "standard population". Age-adjusted rates were calculated using the following age group categories: 10-19 years old, 20-29 years old, 30-39 years old, 40-49 years old, 50-59 years old, 60-69 years old, and 70 years old or greater. The software used to analyse the data include R Studio version 4.1.2, SAS Enterprise Guide version 9.4, and Microsoft Excel.

The SCS also conducted community consultations, which aimed to gain feedback on how the data was presented in the report and how the data may inform next steps in suicide prevention efforts in the province. Additionally, various provincial government ministries were also contacted to provide their input on the report. A total of ten out of twenty-eight organizations/ministries agreed to provide their feedback after being contacted by the SCS: Association of Métis, Non and Status Indians Saskatchewan; Federation of Sovereign Indian Nations (FSIN); Meadow Lake Tribal Council; Men of the North; Peter Ballantyne Cree Nation Health Services; Roots of Hope Meadow Lake; SaskAgMatters; Saskatchewan Urban Municipalities Association (SUMA); Ministry of Social Services; and Ministry of Advanced Education. The Ministry of Health were also consulted to act as editors for this report. Their comments and suggestions were collected and analyzed to determine common themes, which have been integrated into this document. Feedback on next steps for suicide prevention will be presented in the *Community consultation* section.

To protect the privacy of those represented in this report, suppression of small figures was determined by a re-identification risk assessment approach. This report uses the risk-based data disclosure protocol developed by the Winnipeg Regional Health Authority (WRHA). It calculates a "re-identification risk" – the probability of correctly identifying a case based on the presented data – using the *K* -anonymization statistics (1/K) (1,2). Some figures do not align with this approach but were carefully assessed to ensure no privacy breaches would occur and facilitate sharing of crucial knowledge. Any suppressed figures will be denoted with "sup". Additionally, the Audit, Information Management, and Safety Branch serving the Ministry of Justice were consulted for their guidance on privacy protection.

Results

Note: to find the corresponding data tables for each of the figures presented, please refer to the Appendix.

Date of death (yearly, monthly, daily)

Date of death refers to the date that death was pronounced or when the person was determined to be deceased. This data does not include any hospitalization periods (i.e., time spent in hospital after an attempt but prior to death being pronounced).

As seen in Table 2, 2018 had the highest number of deaths by suicide (240) and suicide rates (22.85 deaths per 100,000 population, adjusted). There was a decrease in both numbers and rates in 2019 (203) (18.19 deaths per 100,000 population, adjusted) and 2020 (196) (17.26 deaths per 100,000 population, adjusted), but an increase observed in 2021 (207) (18.14 deaths per 100,000 population, adjusted). In total for 2018-2021, the crude suicide rate is approximately 18 people per 100,000.

Table 2. Counts, crude, and age-adjusted mortality rates (per 100,000 population) of people who died by suicide by year, Saskatchewan, 2018-2021.

Year	Count	Crude rate	Age-adjusted rate
2018	240	20.58	22.85
2019	203	17.26	18.19
2020	196	16.64	17.26
2021	207	17.50	18.14
Total (2018-2021)	846	17.99	19.09

Saskatchewan's crude mortality rates are also higher than their most recent national counterparts as seen in Table 3.

Table 3. Comparison of Saskatchewan and Canada crude suicide mortality rates (per 100,000 population) by year, 2018-2021.

Year	Rate (Saskatchewan)	Rate (national)[2]
2018	20.58	12.3
2019	17.26	12.2
2020	16.64	10.9
2021	17.50	9.9

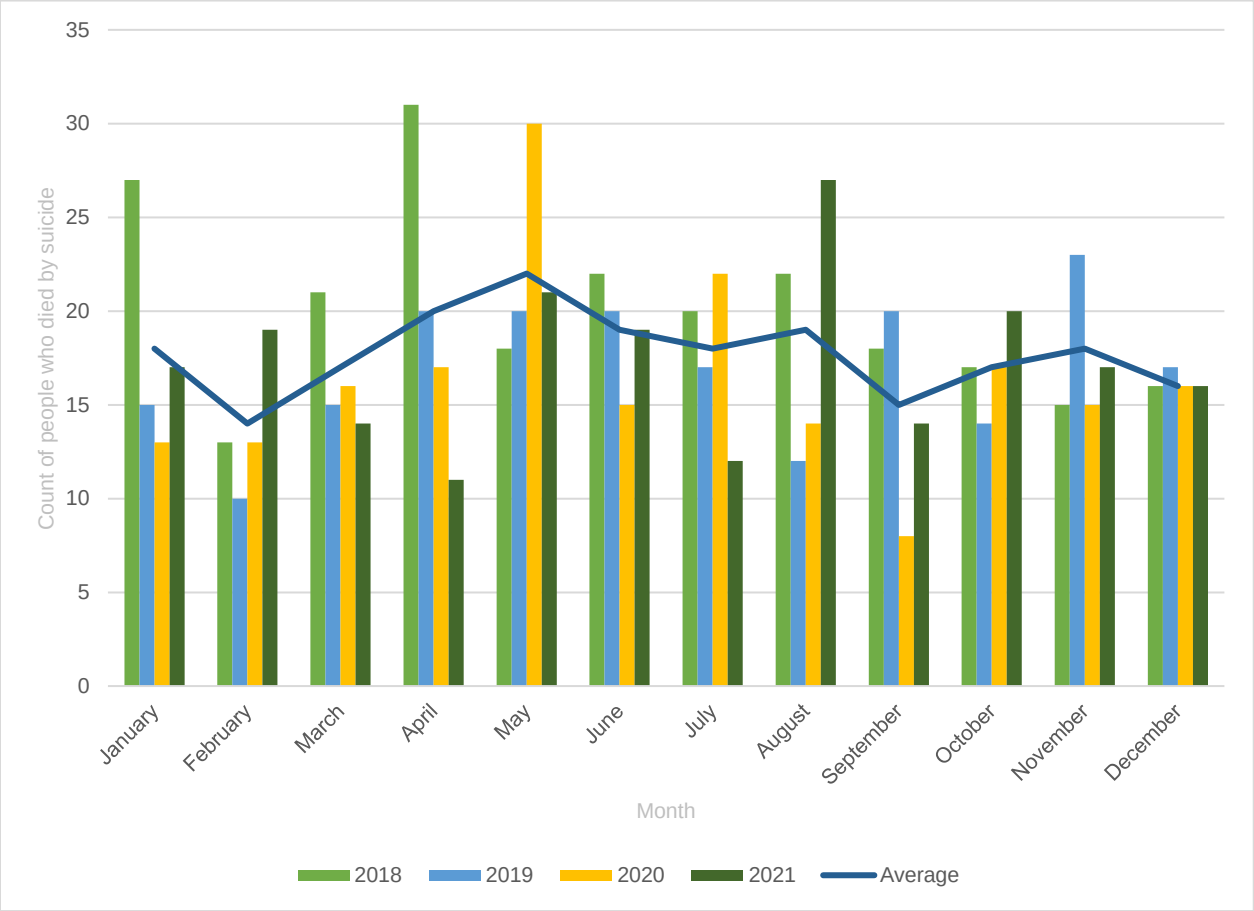
It is important to note the context of the COVID-19 pandemic specific to deaths by suicide in 2020 and 2021. Though a small decrease in suicide rates is observed in 2020 (17.26 deaths per 100,000 population, adjusted), it was only temporary as suicide rates increased in 2021 (18.14 deaths per 100,000 population, adjusted) to rates similar to

[2] National rates from Statistics Canada (37)

those observed pre-pandemic (2019: 18.19 deaths per 100,000 population, adjusted). These results are similar to those seen in other public health publications, where a “rebound effect” is observed, wherein the mental health impacts of the COVID-19 pandemic have been delayed (38,39). Further investigation is needed to fully understand the impact of COVID-19 on death by suicide rates in Saskatchewan.

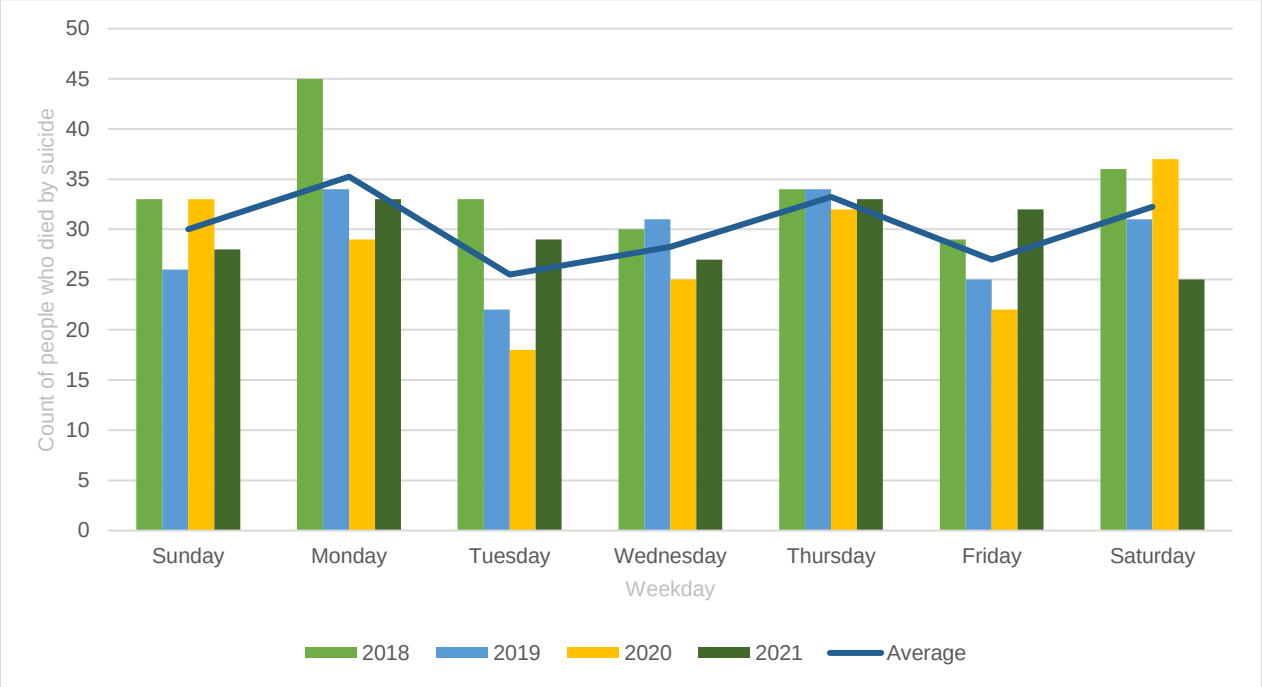
From 2018-2021, deaths by suicide peaked in the spring with May having the highest average number of deaths across all months and all years. For 2018, April had the highest number of deaths by suicide by suicide, November in 2019, May in 2020, and August in 2021. Additionally, 2020 had the largest range in deaths by suicide per month with the maximum of 30 deaths in May and a minimum of 8 in September (Figure 1).

Figure 1. Counts and total average number of people who died by suicide by month and year, Saskatchewan, 2018-2021.



From 2018-2021, most deaths by suicide occurred on Mondays, followed by Thursdays then Saturdays. Tuesdays had the lowest number of deaths by suicide (Figure 2).

Figure 2. Counts and total average number of people who died by suicide by weekday and year, Saskatchewan, 2018-2021.



Means/methods of suicide

For this report, means/methods will refer to the cause of death for each person's suicide. All means/methods have been grouped into the following categories:

- Firearms: when the cause of death is a result of a firearm being used.
- Gas: when the cause of death is *directly* a result of inhalation of a gaseous substance (i.e., carbon monoxide).
- Hanging: when the cause of death is a result of self-inflicted hanging, strangulation, or suffocation.
- Toxicity: when the cause of death is a result of poisoning or overdose from *nongaseous* substances, including those from the unregulated drug supply and illegal or legal pharmaceutical markets.
- Trauma: when the cause of death is a result of a person having either penetrating (i.e., stab wound) and/or non-penetrating trauma (e.g., fall from a height, hit by a motor vehicle).
- Other: this includes means/methods that do not fit the definition of the categories listed above (e.g., drowning, fire related deaths).

As seen in Table 4, hanging (57%) is the mean/method that accounts for most people who died by suicide and has the highest crude mortality rate (10.29 deaths per 100,000 population). Firearm related deaths (19%) (3.47 deaths per 100,000 population) and

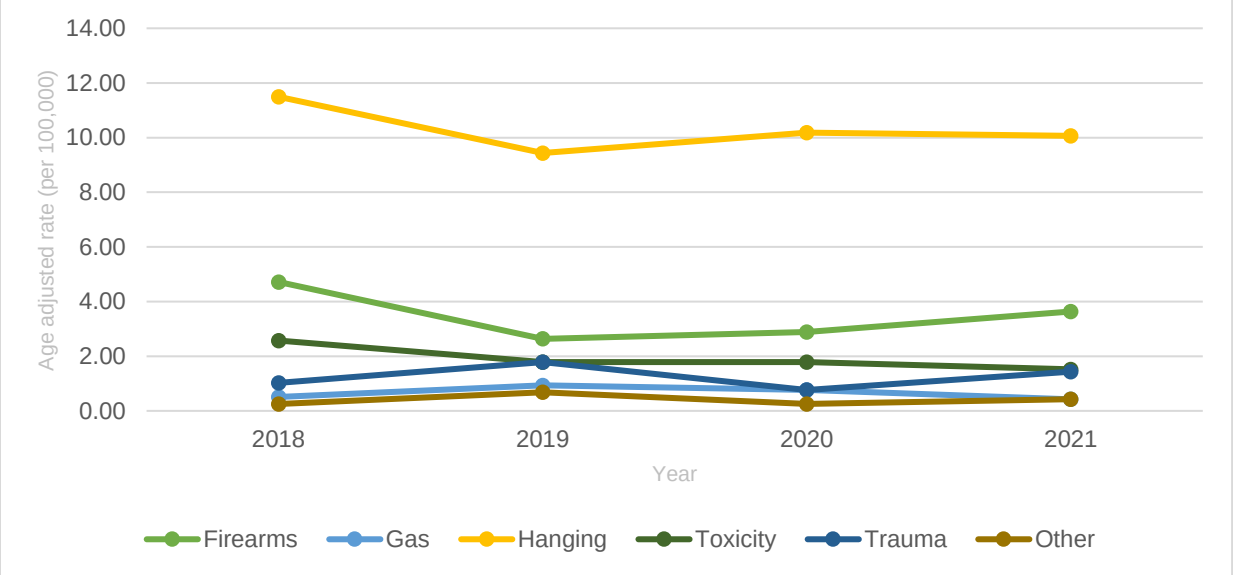
substance toxicity related deaths (11% of all deaths by suicide and 1.91 deaths per 100,000 people) followed.

Table 4. Counts, percentage, and crude mortality rates (per 100,000 population) of people who died by suicide by means/methods, Saskatchewan, 2018-2021.

Means/Methods	Counts	Percentage	Crude Rate
Firearms	163	19%	3.47
Gas	31	4%	0.66
Hanging	484	57%	10.29
Toxicity	90	11%	1.91
Trauma	59	7%	1.25
Other	19	2%	0.40
Total	846	100%	17.99

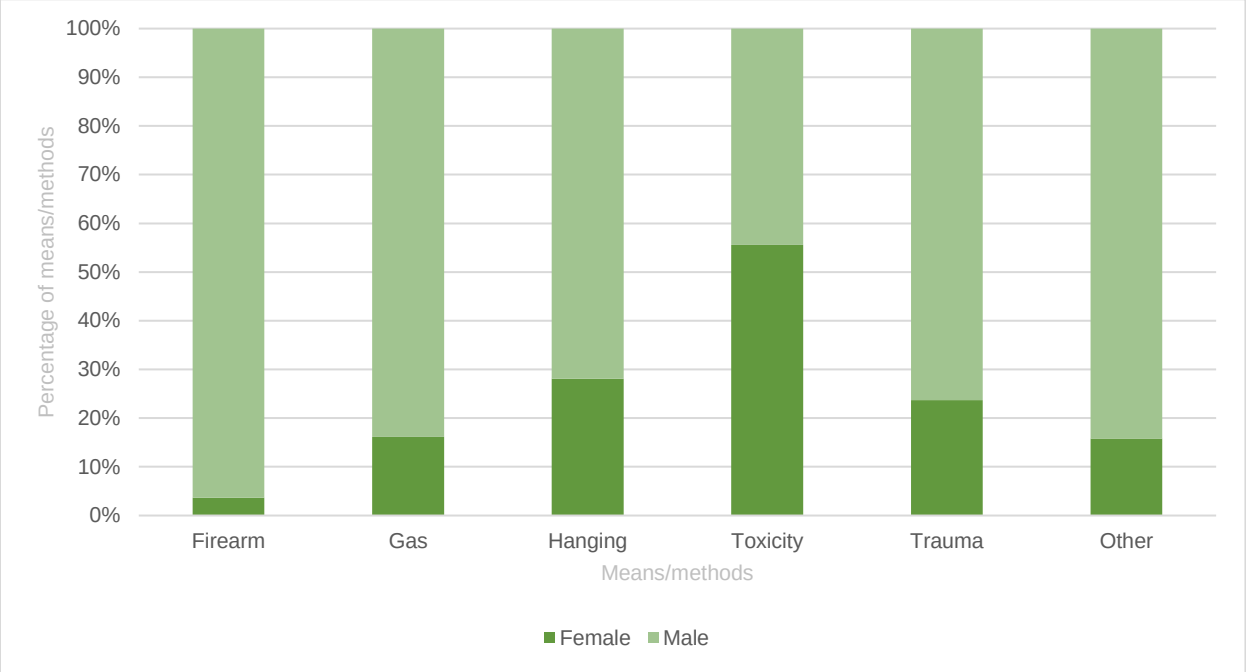
Hanging consistently remained the most common mean/method across all four years with the highest age-adjusted rates. Rates for hanging, firearms, and toxicity related deaths had peaks in 2018 then falls in 2019. However, hanging and firearms had increases over 2020-2021 while toxicity rates decreased. For trauma, gas, and other means/methods, rates would peak in 2019 and trauma has the largest variation in rates while gas and other means/methods has been consistent across all years (Figure 3).

Figure 3. Age adjusted suicide mortality rates (per 100,000 population) by year and means/methods, Saskatchewan, 2018-2021.



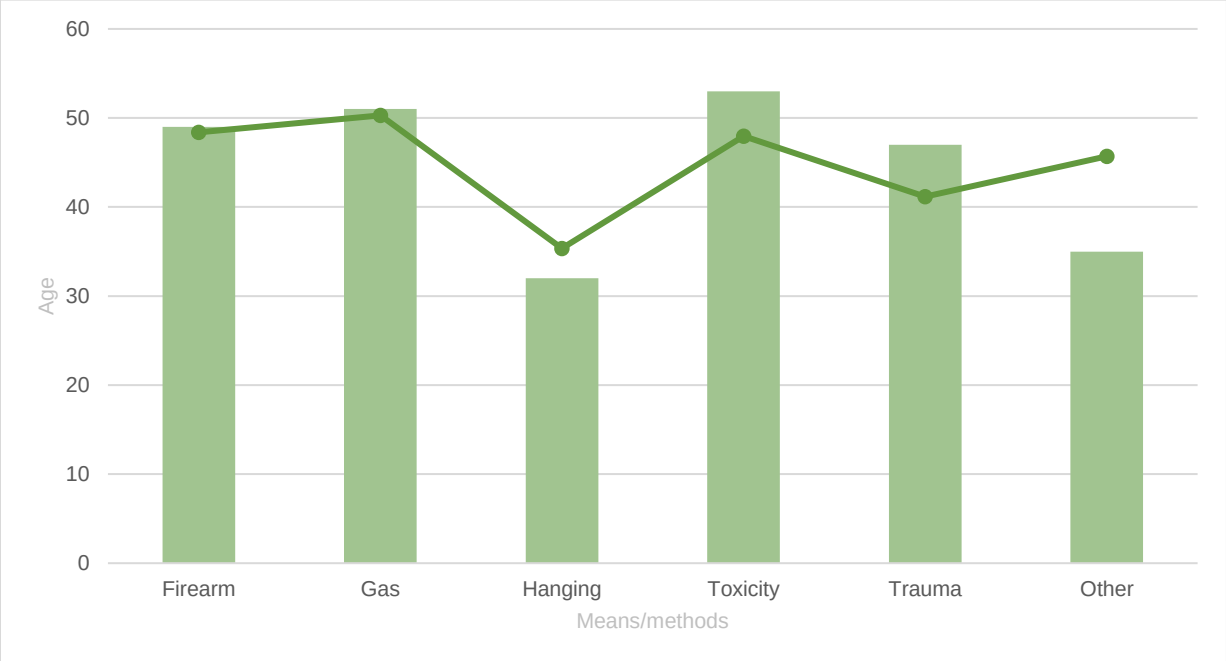
Males make up a majority of deaths by suicide for most means/methods. In particular, males accounted for 96% of all firearms related deaths and had the largest difference between females and males (two females:five males). However, females accounted for 56% of all toxicity related deaths and is the only mean/method that females make up more deaths than males (five females:four males) (Figure 4).

Figure 4. Percentage of people who died by suicide by means/methods and sex, Saskatchewan, 2018-2021.



Additionally, most of the means/methods had median and average ages in the 40-55 years old range. Hanging (32 years old) and other means/methods (35 years old) had lower median ages (Figure 5).

Figure 5. Median and average age of people who died by suicide by means/methods, Saskatchewan, 2018-2021.



Carbon Monoxide Source

Of the people who died by gas related means/methods, 23 people died from carbon monoxide inhalation. Most people who died from carbon monoxide inhalation had a motor vehicle as the identified carbon monoxide source. The remaining people had other household items (e.g., gas stoves, heaters, barbeques, etc.) identified as the carbon monoxide source.

Firearms type

Of those who died by firearms, rifles were the most common type of firearms (60%), followed by shotguns (23%), then handguns (12%) (Table 5). Firearms are identified by law enforcement.

Table 5. Percentage distribution of known firearm types among people who died by suicide, Saskatchewan, 2018-2021 (N=163)[3].

Firearm Type	Percentage
Handgun	12%
Rifle	60%
Shotgun	23%
Unknown	5%

Sex

Note: information regarding whether a person's gender may have differed from their sex assigned at birth is not systematically collected and evidence was present in a small number of cases. For this report, analyses are based on the biological sex at birth of people who died by suicide.

Males (75%) make up the majority of those who died by suicide in the province and have a significantly higher crude suicide mortality rate (26.68 deaths per 100,000 population) in comparison to females (9.17 deaths per 100,000 population) (Table 6). For every female who died by suicide there are approximately 3 males who died by suicide.

Table 6. Counts, percentage, and crude mortality rates (per 100,000 population) of people who died by suicide by sex, Saskatchewan, 2018-2021.

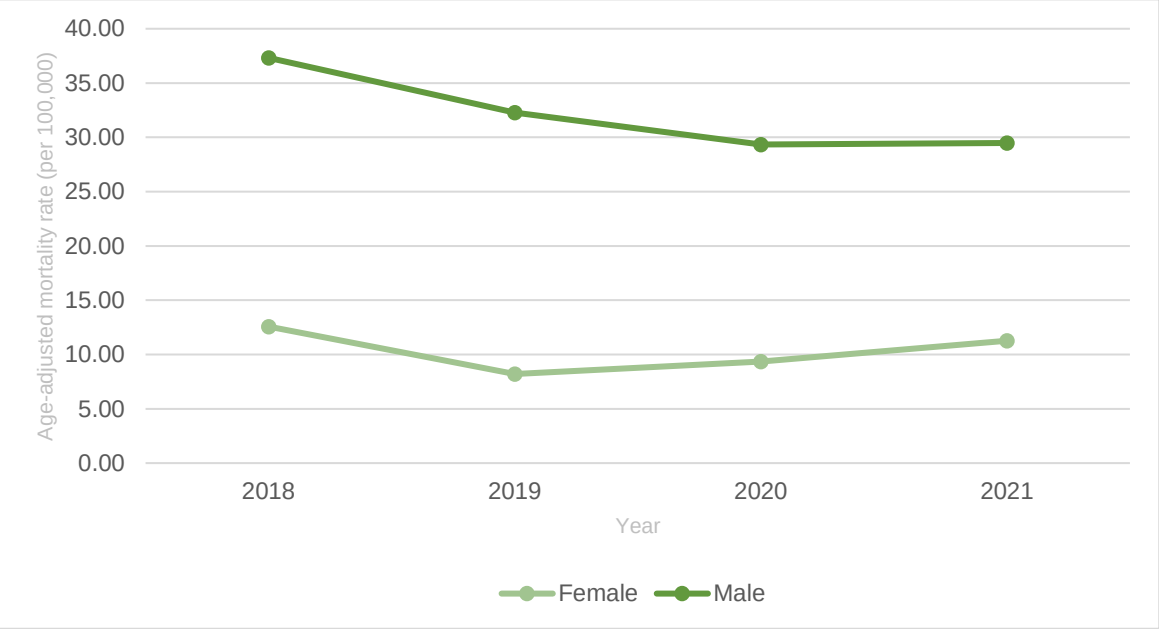
Sex	Count	Percentage	Rate
Female	214	25%	9.17
Male	632	75%	26.68
Total	846	100%	17.99

As seen in Figure 6, the age-adjusted suicide mortality rates amongst males have steadily decreased from the peak in 2018 (37.32 deaths per 100,000 population) with a plateau in 2020-2021 (29.34 deaths per 100,000 population to 29.49 deaths per 100,000

[3] Denominator for percentage calculations is the number of people who died by firearms means/methods.

population). Age-adjusted female suicide mortality rates observed a drop from 2018 (12.57 deaths per 100,000 population) to 2019 (8.20 deaths per 100,000 population); however, rates have increased in 2020-2021 (9.36 deaths per 100,000 population to 11.26 deaths per 100,000 population).

Figure 6. Age-adjusted suicide mortality rates (per 100,000 population) by year of death and sex, Saskatchewan.



Age

Note: There were no confirmed deaths by suicide that occurred amongst children ages 0-9 and are therefore not included in this report.

The ages of those dying by suicide in the province are generally younger. The average age of people who died by suicide is 40.61 years old, for females it is 34.36 years old and for males it is 42.73 years old. In comparison, the average life expectancy for the population of Saskatchewan in 2019 was 80.52 years old, for females it was 83.02 years old and for males it was 78.25 years old. Life expectancy is defined as the average number of years that remain for a person to live at a certain age during the reference period (42). For the purposes of this report, the life expectancy figures at age 0 for Saskatchewan in 2019 serve as a reference group. 2019 was selected as the reference period due to the influence of COVID-19 on 2020 life expectancy figures. Additionally, the calculated median ages of those who died by suicide are lower than the average ages, which also indicates that the distribution of deaths by suicide skews younger (Table 7).

Table 7. Comparison of average and median ages of those who died by suicide and average life expectancy for by sex, Saskatchewan.

Population group	Median age for deaths by suicide (2018-2021)	Average age for deaths by suicide (2018-2021)	Average life expectancy (2019) [4]
Female	29	34.36	83.02
Male	40	42.73	78.25
Total	36	40.61	80.52

Most of those who died by suicide were under the age of 40 years old, accounting for 54% of all suicides. In particular, the suicide mortality rate for the age group 20-29 years old was the highest (32.71 deaths per 100,000 population), followed by 30-39 years old age group (22.65 deaths per 100,000 population). Mortality rates steadily decline after the 20-29 years old age group, but they do increase again at 50-59 years old (22.29 deaths per 100,000 population). It is important to note that children and youth (ages 10-19 years old) have a mortality rate of 17.81 deaths per 100,000 population, exceeding their older adult counterparts in the 60-69 and 70+ years old age groups (Table 8).

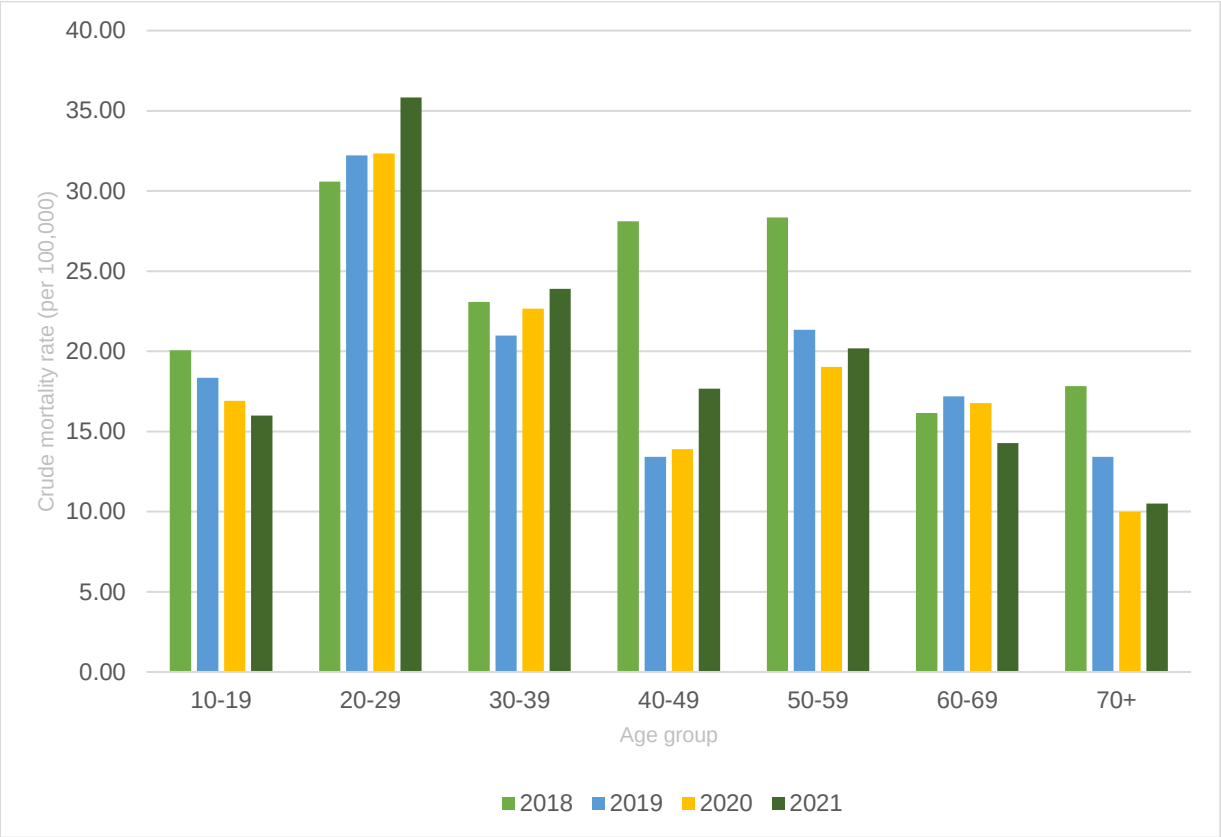
Table 8. Counts and crude mortality rates (per 100,000 population) of people who died by suicide by age group, Saskatchewan, 2018-2021.

Age Group	Count	Rate
10-19	105	17.81
20-29	201	32.71
30-39	155	22.65
40-49	104	18.20
50-59	128	22.29
60-69	87	16.08
70+	66	12.85
Total	846	17.99

As we observe the distribution of deaths by suicide over the years in Figure 7, for most age groups 2018 had the highest mortality rate. Some observations of note: for age groups 40-49 and 50-59 years old, suicide mortality rates dramatically fell from 2018 to 2019. For age groups 20-29 years old and 30-39 years old, suicide mortality rates are higher in 2021 in comparison to 2018 rates.

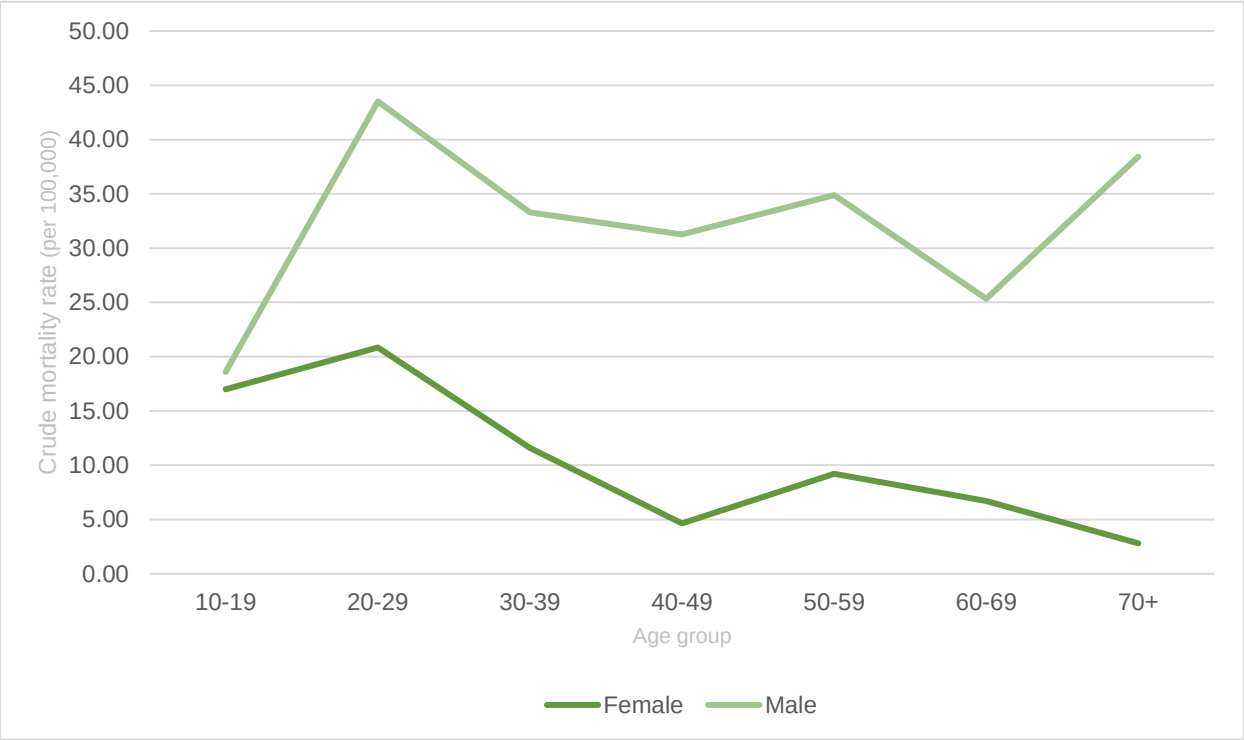
[4] Life expectancy figures from Statistics Canada (40)

Figure 7. Crude mortality rates (per 100,000 population) of people who died by suicide by age group and year, Saskatchewan.



Suicide rates amongst females were highest for the 10-19 and 20-29 years old age groups. A steady decline in rates is observed until the 50–59 years old age group where rates increase again then decrease into older adulthood. Special attention must be made towards the children and youth age group (10-19 years old), who have the second highest mortality rate amongst the female population. For males, suicide rates peak at the 20-29 years old age group and have a less pronounced decrease in comparison to their female counterparts. However, an increase in rates is seen amongst older adult males (70+ years old) who have the second highest mortality rate amongst the male population (Figure 8).

Figure 8. Crude mortality rates (per 100,000 population) of people who died by suicide by age group and sex, 2018-2021, Saskatchewan.



Race

Race based data is primarily collected by coroners through identification from next of kin (e.g., spouse, family members, etc.) or other loved ones (i.e., friends) who can identify the race of a person. Additional methods of identification include referencing documents where race may be included (i.e., hospital records). If the coroner cannot find documentation of race and is unable to identify the person's race, they are documented as unknown. For this report, the race based data from the coroner case files were categorized into groups that were developed based on the Canadian Institute for Health Information's (CIHI) Standards for Race-Based and Indigenous Identity Data Collection and Health Reporting in Canada.

The race-based groups developed during the data collection phase included:

- Asian (includes those of East Asian, South Asian, and Southeast Asian descent)
- Black
- Indigenous (includes those of First Nations, Métis, and Inuit descent)
- Latino
- Mixed-race
- White
- Unknown

The mixed-race category is not included in the CIHI standards, though this was a category present in the coroners' data. For the purposes of this report, the SCS has decided to include it to not risk misidentifying a person. Note: The mixed-race category does not include those who are Métis, as they would be classified as Indigenous. Some of the figures have been suppressed to protect the privacy of those included in this report (see *About the Data* for more details).

The figures for the Asian, Black, Latino, and Mixed-race groups have been aggregated into 1 group "visible minorities", congruent with the Statistics Canada 2021 Census definition of people who are not Caucasian in race or non-white in colour and excludes Indigenous Peoples. This is to allow for reporting on these individuals while protecting their privacy in adherence to the small number reporting protocols (see *About the Data*). These figures should be approached with the knowledge that it covers a diverse group of people and with caution due to small sample sizes.

The White and Indigenous Peoples groups made up the majority of those who died by suicide, with a combined total of 92% of all deaths by suicide in the province. The Indigenous Peoples group had the highest suicide rates (39.39 deaths per 100,000 population), followed by the White race group (15.28 deaths per 100,000), then the visible minorities group (3.45 deaths per 100,000). For 48 people (6%), their race was not identified in their coroner case files (Table 9).

Table 9. Counts and crude mortality rates (per 100,000 population) of people who died by suicide by race group, Saskatchewan, 2018-2021.

Race	Count	Rate
Indigenous	296	39.39
Visible minorities	22	3.45
White	480	15.28
Unknown	48	N/A
Total	846	17.99

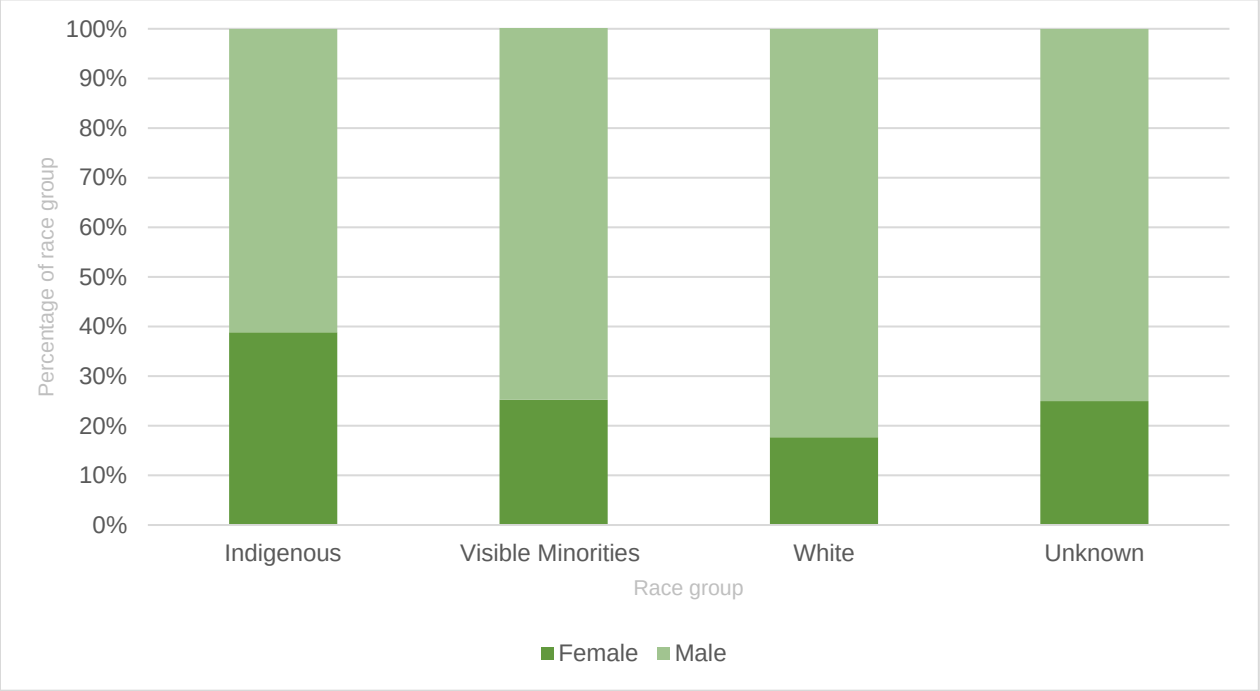
When comparing the percentage of deaths by suicide per race group to the proportion of the Saskatchewan population, Indigenous Peoples are overrepresented in deaths by suicide making up 35% of all deaths by suicide despite making up only 17% of the provincial population. In comparison, the visible minorities group make up 14% of the province's population and 2.6% of all deaths by suicide and 69% of the province's population is White and they make up 57% of deaths by suicide (Table 10).

Table 10. Percentage distribution of people who died by suicide and proportion of provincial population by race group, Saskatchewan, 2018-2021.

Race	% of Deaths by suicide	% of SK Population[5]
Indigenous	35.0%	17%
Visible minorities	2.6%	14%
White	56.7%	69%
Unknown	5.7%	N/A

Consistent with the overall trends, males make up the majority of deaths by suicide across all race groups. However, the percentage distribution across sex is less pronounced amongst Indigenous Peoples in comparison to their non-Indigenous counterparts (Figure 9).

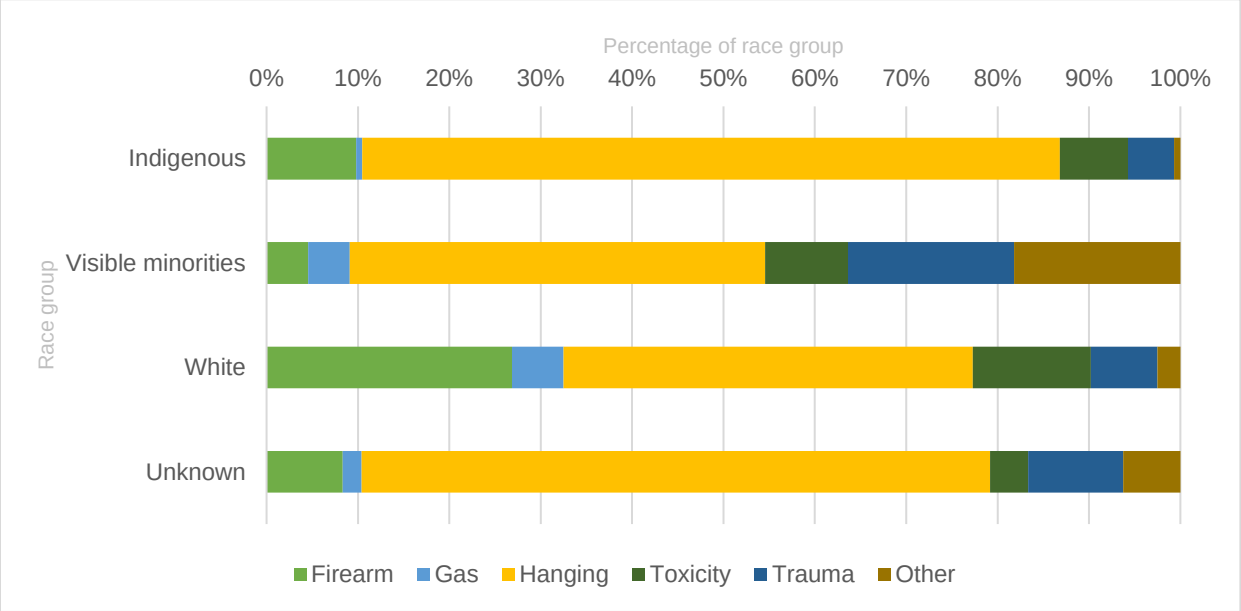
Figure 9. Percentage distribution of people who died by suicide by race group and sex, Saskatchewan, 2018-2021.



Hanging is the most common mean/method across all race groups and the Indigenous Peoples group had the highest percentage of deaths by suicide by hanging (76%). Additionally, 27% of deaths by suicide amongst the White race group died by firearm means/methods, the largest percentage of firearms deaths in all race groups (Figure 10).

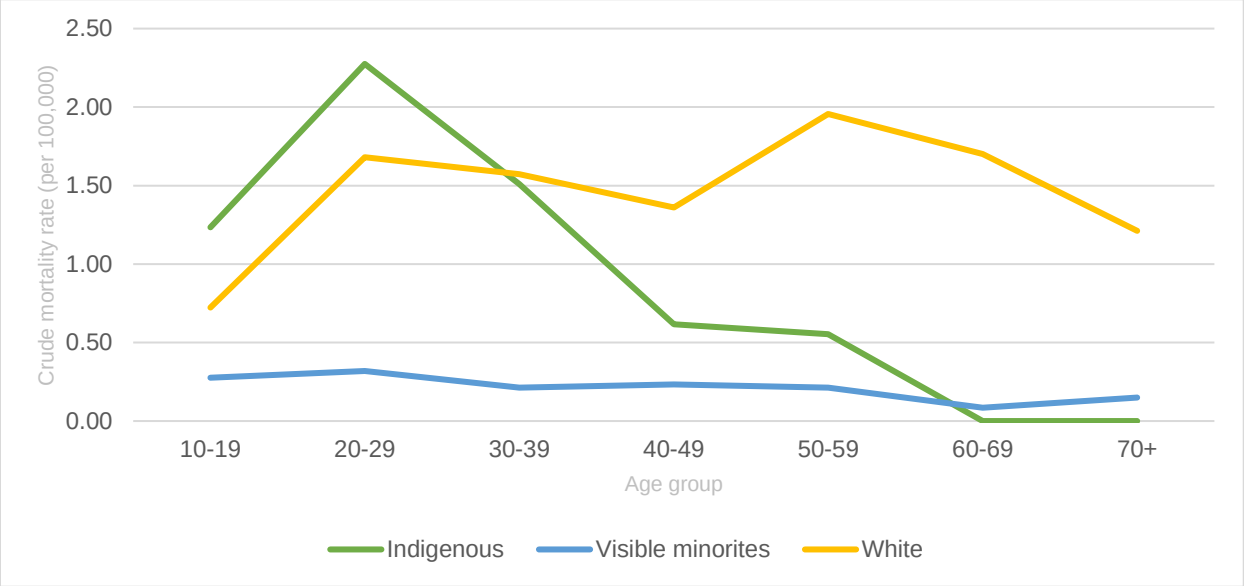
[5] Population calculations were completed with figures from the 2021 Census (41)

Figure 10. Percentage distribution of people who died by suicide by race group and means/methods, Saskatchewan, 2018-2021.



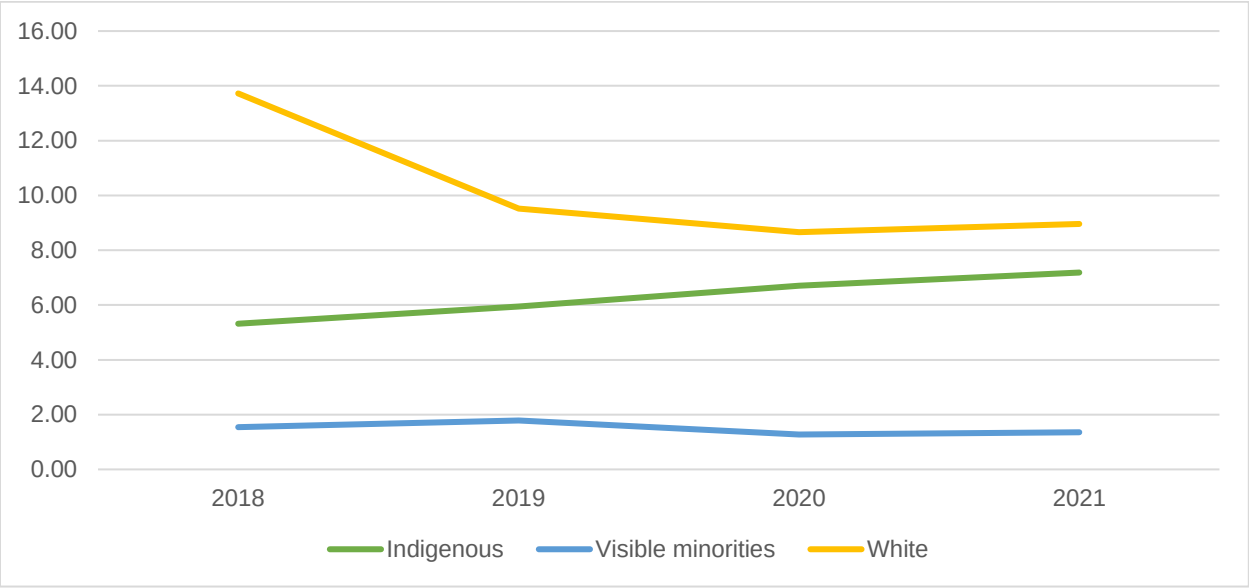
Indigenous youth and young adults (20-29 years old) have the highest suicide mortality rates across all age and race groups (2.28 deaths per 100,000 population). Indigenous children and youth (10-19 years old) have the highest rate of their age group as well (1.23 deaths per 100,000 population). Deaths by suicide in the Indigenous Peoples group decreased dramatically past the age of 30 years old, with a slight plateau during middle age (40-60 years old), and older adults (70+ years old) have the lowest suicide mortality rate across all age and race groups (0.04 deaths per 100,000 population). Amongst the visible minorities group, suicide mortality groups are fairly stable with the age group 20-29 years old having the highest rate (0.32 deaths per 100,000 population). For the White race group, deaths by suicide skew older with higher rates occurring in the 50-59 years old and 60-69 years old groups. White older adults (70+ years old) have the highest suicide mortality rate of their age group (1.21 deaths per 100,000 population) (Figure 11).

Figure 11. Crude mortality rates (per 100,000) of people who died by suicide by age group and race group, Saskatchewan, 2018-2021.



Lastly, the crude suicide rates for the Indigenous Peoples group have steadily climbed over the years with 2021 having the highest rate (7.19 deaths per 100,000 population). For the visible minorities group crude suicide rates have remained consistent across all years. For the White race group, there was a decrease in suicide rates from 2018 (13.72 deaths per 100,000 population) to 2019 (9.52 deaths per 100,000 population) and it has remained even through 2020-2021 (Figure 12).

Figure 12. Crude mortality rates (per 100,000 population) of people who died by suicide by race group and year, Saskatchewan.



Indigenous identity

Note: of the people who were included in this report, there were none who were identified to be Inuit. Therefore, this report does not have any data to report specific to the Inuit population of Saskatchewan.

In Canada, “status” of a First Nations person refers to whether they are registered under the *Indian Act*, making them a “Status Indian”. This is determined through lineage of those who were registered or entitled to be registered. Note: people can still self-identify as First Nations without being registered under the *Indian Act* as a Status Indian and having identity tied to the federally regulated status reserve system is a colonial construct (42). The SCS collects status data through Status numbers, which are assigned to each individual registered under the *Indian Act.* Note: the Métis people do not have legal “Status” under federal legislation as First Nations People do (43).

Of the people who were identified as Indigenous, 94% were identified as First Nations and 6% were identified as Métis. Of those who were identified as First Nations, 77% were registered under the *Indian Act* with a Status number present in their coroner case file and 23% did not have a Status number on file and were presumed to be non-status (Table 11).

Table 11. Counts and percentage of Indigenous Peoples who died by suicide by Indigenous identity, Saskatchewan, 2018-2021.

Indigenous Identity	Count	Percentage
First Nations	277	94%
Status	*213*	*77%*
Non-Status	*63*	*23%*
Métis	19	6%
Total	296	100%

Note: For race identification, coroners will first ask next of kin (e.g., spouse, family members, etc.) or other loved ones (i.e., friends) who can identify the race of a person. Additional methods of identification include referencing documents where race may be included (i.e., hospital records).

Additionally, 45% of all Indigenous Peoples who died by suicide had the place of injury occur on a reserve. Place of injury can also be commonly referred to as “location of suicide attempt” (Table 12).

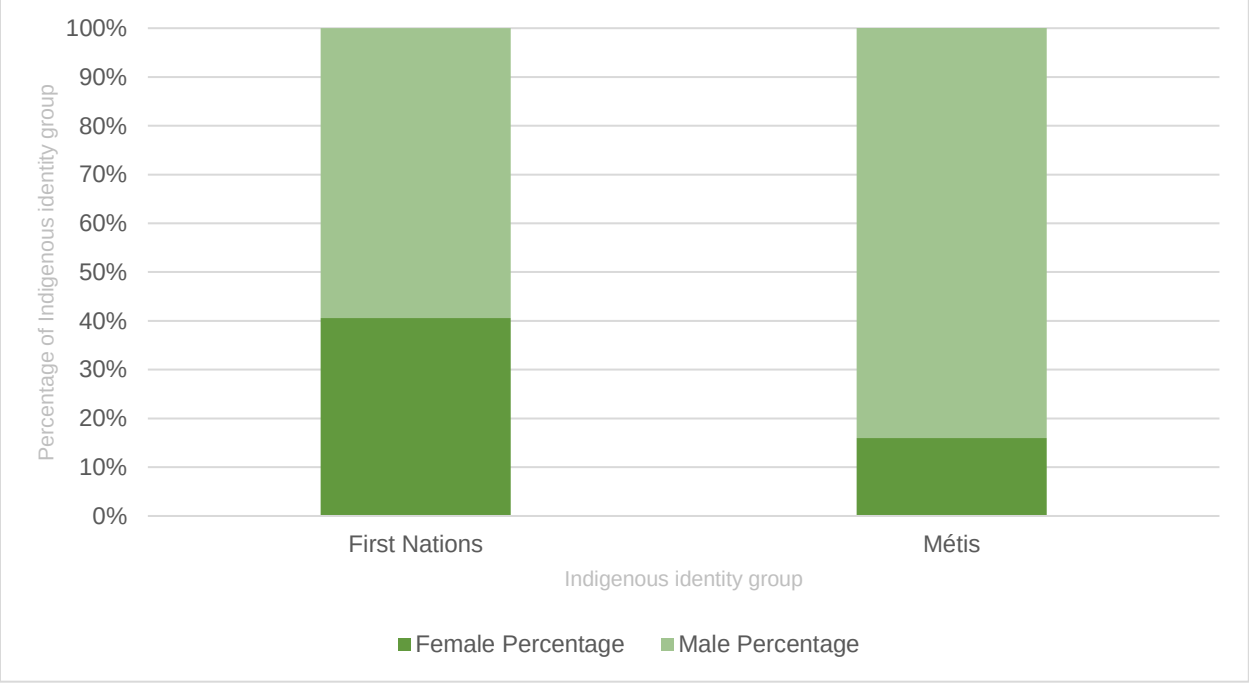
Table 12. Counts and percentage of Indigenous Peoples who died by suicide on a reserve, Saskatchewan, 2018-2021.

Place of injury on a reserve	Count	Percentage
Yes	134	45%
No	162	55%
Total	296	100%

The majority of Métis who died by suicide were male (84%). The female:male ratio for the Métis is 1:5, meaning that for every female Métis person who died by suicide,

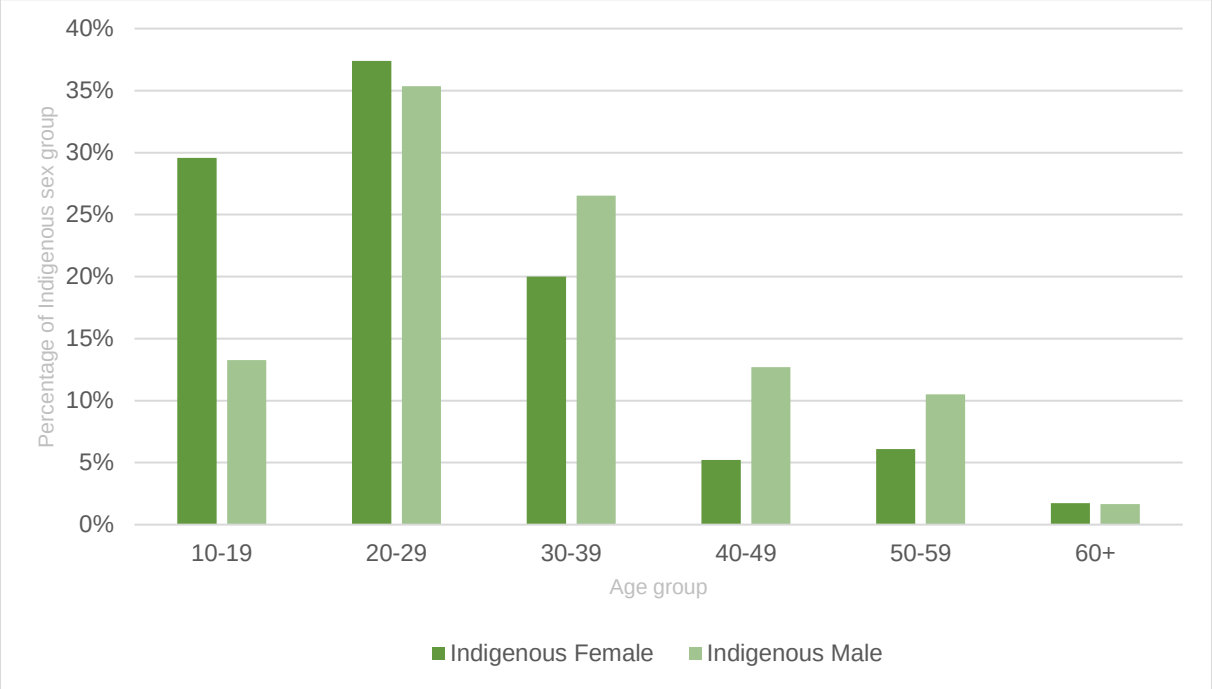
approximately 5 Métis males died by suicide. Note: due to the small sample sizes of Métis people who died by suicide, these figures should be approached with caution. First Nations males also made up most of the deaths by suicide (59%), but the distribution across sex is less pronounced with the female:male ratio at 1:2. For every female First Nations person who died by suicide, approximately 2 First Nations males died by suicide (Figure 13).

Figure 13. Percentage distribution of Indigenous Peoples who died by suicide by sex and Indigenous identity, Saskatchewan, 2018-2021.



Similar to overall trends, the distribution of deaths by suicide amongst Indigenous females skews younger with 67% of all deaths occurring in those under 30 years old. For Indigenous males, deaths by suicide are also skewing younger with 62% of all deaths occurring in the 20-29- and 30-39-years old age groups. Unlike overall trends, an increase in the older adult age range is not seen amongst Indigenous males (Figure 14).

Figure 14. Percentage of Indigenous Peoples who died by suicide by age group and sex, Saskatchewan, 2018-2021.



Geographic/location information

The SCS collects data on 3 distinct geographic/location categories: location of death, place of injury, and location of residence. Location of death refers to where a person was pronounced or found dead. Place of injury refers to the location where a person has attempted suicide. Location of residence is defined as where a person primarily resides.

Locations were grouped into the following categories:

- Correctional: correctional facilities including all levels of government (federal, provincial, municipal).
- Home: the person's primary place of residence.
- Medical facility: includes hospitals, medical clinics, long-term care facilities, and assisted living facilities.
- Private property: location is owned by another person and is not used for living purposes (e.g., private business, farmland, etc.).
- Public area: location is public property that is not owned by an individual (e.g., park, lake, roadways, bridge, etc.)
- Residence: location is the primary residence of someone else who is not the person who died from suicide.
- Other: locations that do not fit the categories stated above.

Additional geographic information specific to the province are the health regions. Further information of these areas will be discussed in their respective subsections.

Lastly, this section will present the analysis using primary residence postal code data, linked to the PCCF+ and the CIMD.

Location of death

Most people were either found or pronounced dead in their homes (61%), followed by medical facilities (13%), then public areas (12%). Of the 111 people who died or were pronounced dead in medical facilities, 99 (89%) were transported to medical facilities for medical assistance (Table 13). Additionally, 61% of all medical facilities deaths occurred in Saskatoon and Regina.

Table 13. Counts and percentage of people who died by suicide by location of death, Saskatchewan, 2018-2021.

Location of death	Counts	Percentage
Correctional	4	0.5%
Home	514	61%
Medical facility	111	13%
Private property	57	7%
Public area	101	12%
Residence	52	6%
Other	sup	sup
Total	846	100%

Note: all suppressed figures will be denoted with "sup". Additionally, the Ministry of Justice publicly reports every death in custody that is not the result of natural causes. Therefore, those who have died in a correctional facility is public information and have therefore not been suppressed in this document.

Place of injury

Similar to place of death, a person's home was the most common place of injury (70%) which was then followed by public areas (13%), then private properties (7%) (Table 14).

Table 14. Counts and percentage of people who died by suicide by place of injury, Saskatchewan, Saskatchewan, 2018-2021.

Place of injury	Counts	Percentage
Correctional	4	0.5%
Home	593	70%
Medical facility	12	1%
Private property	60	7%
Public area	113	13%
Residence	56	7%
Other	sup	sup
Total	846	100%

Note: all suppressed figures will be denoted with "sup". Additionally, the Ministry of Justice publicly reports every death in custody that is not the result of natural causes. Therefore, those who have died in a correctional facility is public information and have therefore not been suppressed in this document.

Location of residence

A total of 25 people (3%) either had an unknown location of primary residence or they were primarily residing out of the province. Additionally, 28 people (3%) were considered

transient at the time of their death meaning they had no fixed address and could be considered homeless.

When looking at residence municipality/community size, 32% of people lived in large urban areas with populations of 100,000+ people, which constitutes of Regina and Saskatoon. It is expected that Regina and Saskatoon would make up a sizeable portion of deaths by suicide due to the population density of these cities. However, the largest percentage of people lived in small rural communities with less than 1000 people (34%) that lack the same population density of Regina and Saskatoon (Table 15).

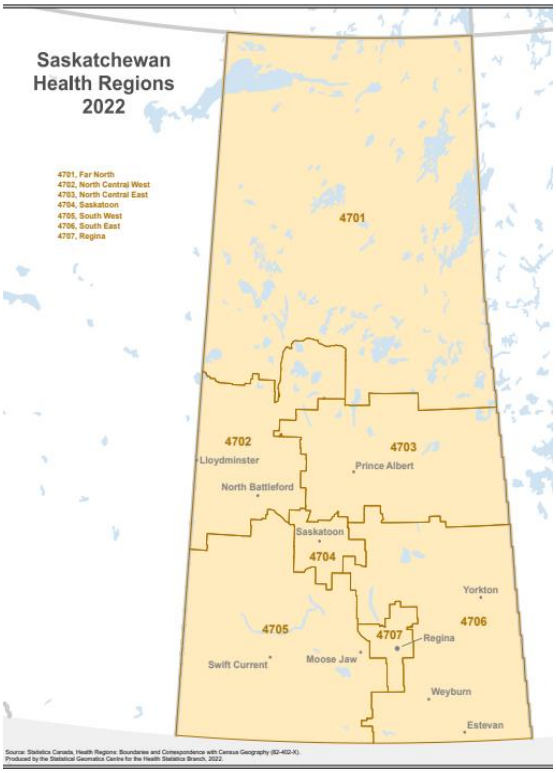
Table 15. Counts and percentage of people who died by suicide by population size of municipality/community of primary residence, Saskatchewan, 2018-2021.

Municipality/community size	Count	Percentage
< 1000	265	32%
1000-100,000	245	30%
100, 000+	283	34%
Transient	28	3%
Unknown	25	3%
Total	846	100%

Health regions

Saskatchewan currently does not have health regions and has since combined all regions under one health authority. However, as part of their 2021 Census release, Statistics Canada did provide population estimates on 7 health regions: Far North, North Central East, North Central West, Saskatoon, Regina, South East, and South West (see Figure 15) (41). For the purposes of this report, these health regions provided by Statistics Canada will be used to showcase distribution of deaths by suicide in regional areas of the province and used in comparison to their population size. Health regions data will be based on location of residence.

Figure 15. Map of health regions[6].



Most people were residing in the Saskatoon region (22%), followed by Regina (17%), South East (16%), North Central West (14%), and North Central East (13%). However, when looking at suicide mortality rates based on location of residence, Saskatoon (14.74 deaths per 100,000) and Regina (14.40 deaths per 100,000) had the lowest rates. Additionally, in comparison, the calculated provincial average rate (17.99 deaths per 100,000), the Far North (46.58 deaths per 100,000), North Central East (22.73 deaths per 100,000), North Central West (32.48 deaths per 100,000), and South East (19.47 deaths per 100,000) regions had higher suicide rates (Table 16). Note: rates are calculated with population sizes, therefore these findings indicate that in some regions of the province the number of deaths by suicide is high, relative to the region's population.

Table 16. Counts, percentage, and crude mortality rates (per 100,000 population) of people who died by suicide by health region, Saskatchewan, 2018-2021[7].

Zone	Count	Percentage	Rate
Far North	61	7%	46.58
North Central East	113	13%	22.73
North Central West	116	14%	32.48
Saskatoon	190	22%	14.74
Regina	147	17%	14.40

[6] Courtesy of Statistics Canada (41)
[7] Rate calculations completed using population estimates from the 2021 Census (43)

Zone	Count	Percentage	Rate
South East	139	16%	19.47
South West	80	9%	15.37
Total	846	100%	17.99

Furthermore, when comparing the percentage of deaths by suicide to each region's percentage of the provincial population (as per the 2021 Census), the northern regions (Far North, North Central East, and North Central West) have a higher percentage of deaths by suicide in relation to their population (Table 17).

Table 17. Percentage distribution of people who died by suicide and proportion of population by provincial health region, Saskatchewan, 2018-2021.

Zone	Percentage (deaths by suicide)	Percentage (population, 2021 census)[8]
Far North	7%	3%
North Central East	13%	11%
North Central West	14%	8%
Saskatoon	22%	28%
Regina	17%	23%
South East	16%	16%
South West	9%	11%

Postal code data

Coroners collect postal code data on a person's location of residence. Using the PCCF, residential post codes were assigned to standard census geographic areas. By assigning census geographic areas, derivation indicators at the dissemination area (DA) level could then be linked to the CMID. The CIMD measures deprivation across 4 domains (15 indicators total): residential instability, economic dependency, ethno-cultural composition, and situational vulnerability (35). These domains are further elaborated below:

- Residential instability: describes how the neighbourhood's inhabitants change over time and includes indicators such as the proportion for the population living on their own and the average number of people living in a residence and proportion of dwellings that are apartments.
- Economic dependency: describes the reliance on the workforce or dependence on other sources of income outside of employment and includes indicators like the dependency ratio (the population aged 0-14 and population aged 65+ divided by the population aged 15-64) and the proportion of the population that is older than 65 years old.

[8] National percentage figures from the 2021 Census (43)

- Ethno-cultural composition: includes indicators such as the proportion of the population that is foreign born, identifies as visible minority, recent immigrants, and those experiencing linguistic isolation (no knowledge of the official languages).
- Situational vulnerability: describes the variation of housing and education while considering other socio-demographic characteristics, including indicators such as the proportion of the population that identifies as Indigenous, that is low income, aged 25-64 without a high school diploma, and the proportion of dwellings that need major repairs.

Each DA is ranked based on a factor score of deprivation across the 4 domains and grouped into quintiles ranging from the least deprived (quintile 1) to the most deprived (quintile 5). For this report, the CIMD domains were specific to the prairie region of Canada, which includes the provinces of Alberta, Saskatchewan, and Manitoba. Additionally, the current CIMD are connected to the 2016 Census results (35).

For the postal code analysis, 106 people were excluded due to no records of a postal code of primary residence (unreported or transient at time of death) or they primarily resided out of the province. When using the PCCF, a total of 655 (77%) postal codes were converted into census geographic areas, the rest (85 postal codes) were unmatched.

Results from the postal code analysis reveals that most people resided in neighbourhoods that are ranked the most deprived in quintile 4 (24%) and 5 (21%). Another sizable portion lived in the least deprived neighbourhoods ranked in quintile 1 (22%). For economic dependency, most were residing in communities that were moderately dependent in quintile 3 (28%) or the most economically dependent in quintile 5 (22%). Regarding ethno-cultural diversity, most people were residing in neighbourhoods with the lowest proportion of ethno-cultural diversity in quintile 1 (33%). Additionally, a large portion of people were residing in neighbourhoods with high situational vulnerability in the quintile 5 (38%) (Table 18).

Table 18. Counts and percentage of deaths by suicide by quintile for the dimensions of the Canadian Index of Multiple Deprivation, Saskatchewan, 2018-2021.

Dimension	Quintile Ranking	Count	Percentage
Residential instability	1 - lowest	144	22%
	2	98	15%
	3	113	17%
	4	160	24%
	5 - highest	140	21%
Economic dependency	1 - lowest	111	17%
	2	118	18%
	3	184	28%
	4	96	15%

Dimension	Quintile Ranking	Count	Percentage
	5 - highest	146	22%
Ethno-cultural composition	1 - lowest	216	33%
	2	175	27%
	3	113	17%
	4	81	12%
	5 - highest	70	11%
Situational vulnerability	1 - lowest	72	11%
	2	95	15%
	3	104	16%
	4	132	20%
	5 - highest	252	38%

Person(s) who discovered the deceased

Person(s) who discovered the deceased is defined as the person who discovered or found the body of the person who died by suicide. The Person(s) who discovered the deceased results are grouped into the following categories:

- Employment: including individuals who knew the person who died by suicide in a professional capacity. Examples: coworkers, managers, supervisors, etc.
- Family: those who had familial connections to the person who died by suicide but excludes intimate partners. Examples: children, parents, siblings, cousins, grandparents, etc.
- First Responders: those who attended the scene when the person was discovered to be deceased. Examples: emergency medical services (EMS), fire departments, local and on-reserve police, Royal Canadian Mountain Police (RCMP), Park Rangers, etc.
- Friend: those who self identified as friends of the person who died by suicide.
- Member of the general public: those who did not know or have any prior relationship with the person who died by suicide.
- Neighbour: those who lived in a separate home but in close proximity from the person who died by suicide. This includes those who lived in the same building complex.
- Non-family co-resident: those who lived in the same home as the person who died by suicide but did not have any familial or intimate relationships. Examples: roommate, housemate, etc.
- Partner/ex-partner: those who were intimate partners with the person who died by suicide. This includes previous partnerships (“exes”) and spousal and non-spousal relationships (e.g., common-law partners, fiancé, dating, etc.)
- Staff: those who were staff members at the location where the person who died by suicide was discovered. These settings can include but are not limited to correctional facilities, hospitals, medical clinics, homeless shelters, and group

homes. Examples: nurses, security, social workers, doctors, environmental services, etc.

- Other: those who do not fit within the definitions of those stated above.

A higher percentage of those who died by suicide were discovered by their families (38%), followed by first responders (17%), neighbours (13%), partners (12%), and friends (11%). A majority of those who discovered the deceased had a previous relationship or knew the discovered person in some capacity (78%) (Table 19).

Note: first responders will attend a scene if they have been notified of a person that is at risk for suicide, is missing, or is suspected to have died by suicide. They are usually notified by someone who knows the deceased and is concerned about their wellbeing due to unusual behaviour (e.g., not seeing that person for a few days or the warning signs of suicide).

Table 19. Counts and percentage of those(s) who discovered the deceased, Saskatchewan, 2018-2021.

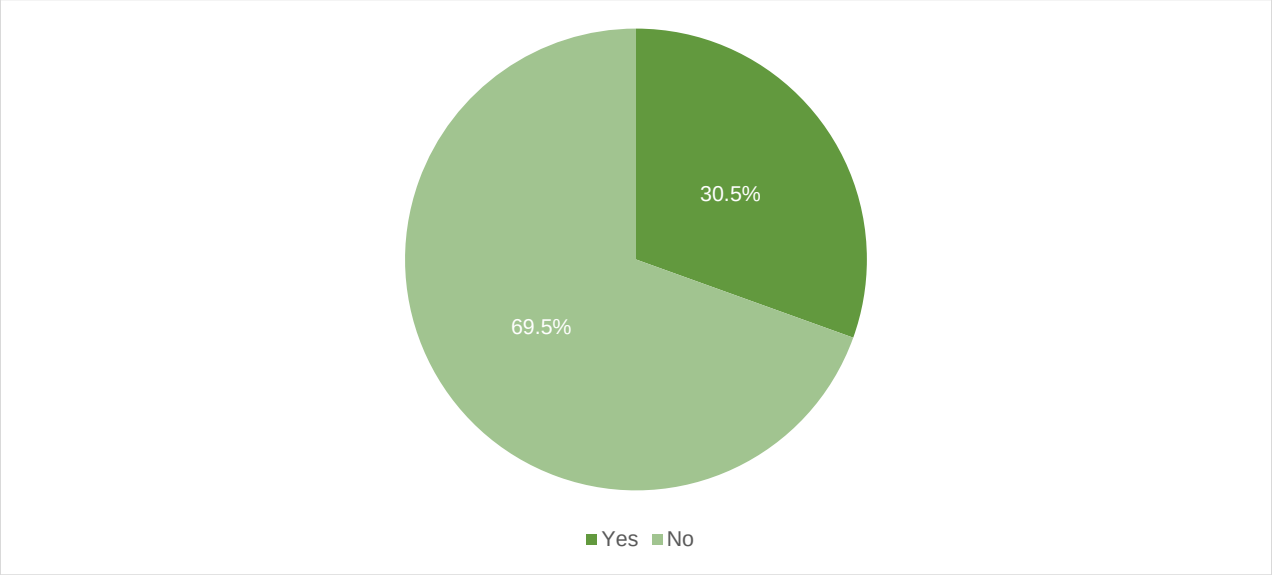
Found By	Counts	Percentage
Family Member	323	38%
First Responders	144	17%
Neighbour	109	13%
Partner	103	12%
Friend	95	11%
General Public	22	3%
Employment	sup	sup
Non-family co-resident	sup	sup
Staff Member	sup	sup
Other	sup	sup
Total	846	100%

Note: all suppressed figures will be denoted with “sup”.

Suicide note presence

Coroners will look for suicide notes as part of their scene investigation. If a coroner cannot attend the scene in person, they will ask those who are present (usually police) if a note has been found. The SCS considers suicide notes to be a message from the person who died by suicide in written form. This can include but is not limited to handwritten notes, electronic notes on devices such as a laptop or cellphone, social media posts, or messages written on surfaces at the scene (e.g., wall, chair, etc.). Roughly 31% of all deaths by suicide had a suicide note found at the scene (Figure 16).

Figure 16. Percentage of deaths by suicide with a suicide note present, Saskatchewan, 2018-2021.



Toxicology results

A total of 310 toxicology examinations were conducted, meaning that roughly 37% of all deaths by suicide had a toxicology exam ordered. Table 20 showcases the number of people who died by suicide that had a toxicology exam completed per mean/method, as well as the percentage of deaths in each mean/method that had a toxicology exam completed.

Table 20. Counts and percentage (per mean/method) of toxicology exams ordered and completed by means/methods of suicide, Saskatchewan, 2018-2021.

Means/methods	Count	Percentage per mean/method
Firearm	36	22%
Gas	22	71%
Hanging	105	22%
Toxicity	90	100%
Trauma	42	71%
Other	sup	79%
Total	310	N/A

Note: all suppressed figures will be denoted with “sup”.

There were 35 toxicology reports that were negative for any substance, meaning that no substances were detected.

Additionally, a total of 46 toxicology reports had substances detected but were not considered to have contributed to the death of the person. These findings are usually due to personal prescription medications or in-patient medications administered by a medical

professional, resulting in substances being detected at therapeutic levels. In the toxicology exam report, the forensic toxicologist will provide their opinion on whether a substance and metabolites have contributed to the cause of death (i.e., fatal levels of fentanyl detected indicate that fentanyl contributed to the cause of death). Note: multiple substances can contribute to the cause of death.

For the purposes of this section, the 13 toxicology reports with only gaseous substances detected will also be excluded. In total, 216 toxicology exams are relevant to this section.

Both substances and their metabolites can be listed in toxicology reports. Metabolites are used to indicate the presence of their parent substances, if they were known not to originate from other substances (e.g., acetylfentanyl is a metabolite of fentanyl and therefore indicates that fentanyl was present). The substances and their metabolites were collected and grouped into the following categories:

Table 21. Substance groups and corresponding metabolites detected in toxicology exams.

Groups	Substances and metabolites
Alcohol	Alcohol, ethanol
Antidepressants	Amitriptyline, buproprion, citalopram, duloxetine, fluoxetine, mirtazapine, nortriptyline, paroxetine, sertraline, trazodone, venlafaxine
Cannabinoids	Tetrahydrocannabinol (THC)
Opioids	Codeine, hydromorphone, meperidine, methadone, morphine, oxycodone, fentanyl (carfentanyl, acetylfentanyl, para-fluorofentanyl, and other fentanyl analogues), and combination drugs (e.g., Tylenol 3)[9]
Over the counter (OTC)	Acetaminophen, Benadryl, dextromethorphan, Gravol, pseudoephedrine
Stimulants	Amphetamine, cocaine, methamphetamine
Non-antidepressant psychiatric pharmaceutical drugs (non-antidepressants)	Olanzapine, quetiapine, bromazepam, clonazepam, diazepam, lorazepam, oxazepam, temazepam, gabapentin, pregabalin, zopiclone
Other	Atenolol, betahydroxybutyrate, colchicine, cyclobenzaprine, ethylene glycol, fesoterdine, glyburide, hydroxyzine, insulin, ketamine, labetalol, lamotrigine, lithium, metformin, methocarbamol, metoclopramide, metoprolol, phenobarbital, propranolol, propylene glycol, ranitidine, and others.

[9]For combination drugs they have been classified as non-fentanyl opioids for the purposes of categorization, but it is important to note that they also contain other substances, most commonly acetaminophen. These specific drugs are classified as a multi-substance toxicity.

Note: for the purposes of formatting, the non- antidepressant psychiatric pharmaceutical drugs category will be referred to as “non-antidepressants” moving forward.

For this section, results from toxicology exams have been separated into two groups: those who died by drug toxicity means/methods (toxicity deaths) and those who died by non-drug toxicity means/methods (non-toxicity deaths). The main distinction between these groups is that the cause of death is directly linked to the substances detected in those who died by drug toxicity means/methods, as specified by the forensic toxicologist. For those who died by non-drug toxicity means/methods, they had substances detected at significant levels (e.g., beyond therapeutic range, intoxication levels for alcohol) but the cause of death was not specific to said substances (e.g., trauma, drowning, etc.).

Note: in Saskatchewan toxicology exams regularly test for the presence of cannabinoids and stimulants (e.g., stimulants, methamphetamine) but results only indicate its presence and not the level it is detected at.

Among those who died by drug toxicity means/methods, the two most detected substances were antidepressants (19%) and opioids (17%). For those who died by non-drug toxicity means/methods, the two most detected substances were alcohol (29%) and stimulants (28%). Cannabis was also detected at a similar percentage (25%) to alcohol and stimulants in the non-drug toxicity means/methods (Table 22).

Table 22. Counts and percentage of people who died by suicide by toxicity and non-toxicity means/methods and toxicology substance groups, Saskatchewan, 2018-2021 (N=216)[10].

	Toxicity deaths		Non-toxicity deaths	
Substance groups	**Count**	**Percentage**	**Count**	**Percentage**
Alcohol	sup	sup	62	29%
Antidepressants	41	19%	sup	sup
Cannabis	sup	sup	53	25%
Opioids	37	17%	sup	sup
OTC	22	10%	sup	sup
Stimulants	sup	sup	61	28%
Non-antidepressants	21	10%	sup	sup
Other	22	10%	sup	sup

Note: all suppressed figures will be denoted with “sup”. Additionally, not all non-toxicity deaths had toxicology exams ordered.

Note: the sex related toxicity data has also been limited to percentage crude mortality rate calculations to align with small number reporting protocols (see About the Data). In general, antidepressants (11%), opioids (10%), and non-antidepressants (10%) were more commonly detected in females who died by drug toxicity means/methods, while alcohol (13%) and stimulants (11%) were more commonly detected in females who died

[10] Denominator for percentage calculations is the number of relevant toxicology exams as specified previously.

by non-drug toxicity means/methods. For males, stimulants were detected frequently across all means/methods, though for non-drug toxicity means/methods alcohol (16%) and cannabis (19%) was also seen frequently (Table 23).

Table 23. Percentage and crude mortality rates (per 100,000) of people who died by suicide by toxicity and non-toxicity means/methods, sex, and toxicology substance groups, Saskatchewan, 2018-2021 (N=216)[11].

Female				
	Toxicity deaths		Non-toxicity deaths	
Substance groups	Percentage	Rate	Percentage	Rate
Alcohol	4%	0.39	13%	1.16
Antidepressants	11%	1.03	0%	0.00
Cannabis	3%	0.30	6%	0.56
Opioids	10%	0.90	< 0%	0.04
OTC	5%	0.47	1%	0.13
Stimulants	4%	0.39	11%	1.03
Non-antidepressants	10%	0.90	< 0%	0.04
Other	6%	0.56	1%	0.09
Male				
	Toxicity deaths		Non-toxicity deaths	
Substance groups	Percentage	Rate	Percentage	Rate
Alcohol	2%	0.21	16%	1.48
Antidepressants	8%	0.72	0%	0.04
Cannabis	1%	0.08	19%	1.69
Opioids	7%	0.68	1%	0.08
OTC	5%	0.46	1%	0.13
Stimulants	17%	1.56	17%	1.56
Non-antidepressants	2%	0.17	2%	0.17
Other	4%	0.38	1%	0.13

Note: the data for age groups has also been limited to crude mortality rates for the purpose of respecting the small number reporting protocols (see About the Data). Additionally, these figures were not aggregated by drug toxicity and non-drug toxicity means/methods due to the lack of differences observed across means/methods. Notably, for the 20-29-year-old age group, they had the highest rates in the alcohol (5.21 deaths per 100,000), cannabis (3.74 deaths per 100,000), and stimulants (4.88 deaths per 100,000) substance groups. Stimulants also had a high rate observed amongst 30-39-year-olds (4.82 deaths per 100,000). Additionally, 50-59-year-olds had the highest rate for antidepressants (2.79 deaths per 100,000) and opioids (1.74 deaths per 100,000) (Table 24).

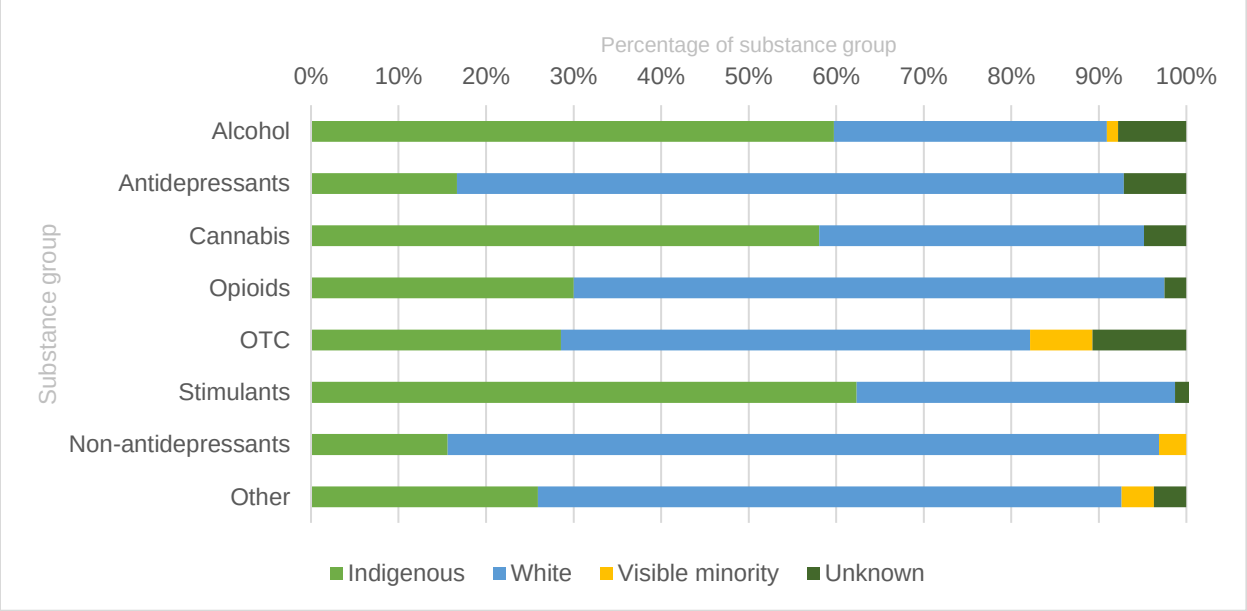
[11] Denominator for percentage calculations is the number of relevant toxicology exams as specified previously.

Table 24. Crude mortality rate (per 100,000) of people who died by suicide by age group and toxicology substance groups, Saskatchewan, 2018-2021.

Substance groups	10-19	20-29	30-39	40-49	50-59	60-69	70+
Alcohol	1.36	5.21	2.05	2.10	0.70	1.29	0.00
Antidepressants	0.51	0.33	0.88	0.70	2.79	0.92	1.17
Cannabis	1.36	3.74	1.75	0.88	1.92	0.18	0.39
Opioids	0.17	1.63	0.44	0.35	1.74	1.66	0.97
OTC	0.85	0.81	0.73	0.53	0.52	1.29	0.00
Stimulants	0.34	4.88	4.82	0.88	1.22	0.18	0.00
Non-antidepressants	0.34	0.65	1.02	0.00	1.57	0.74	1.17
Other	0.68	0.49	0.15	0.35	1.57	1.11	0.39

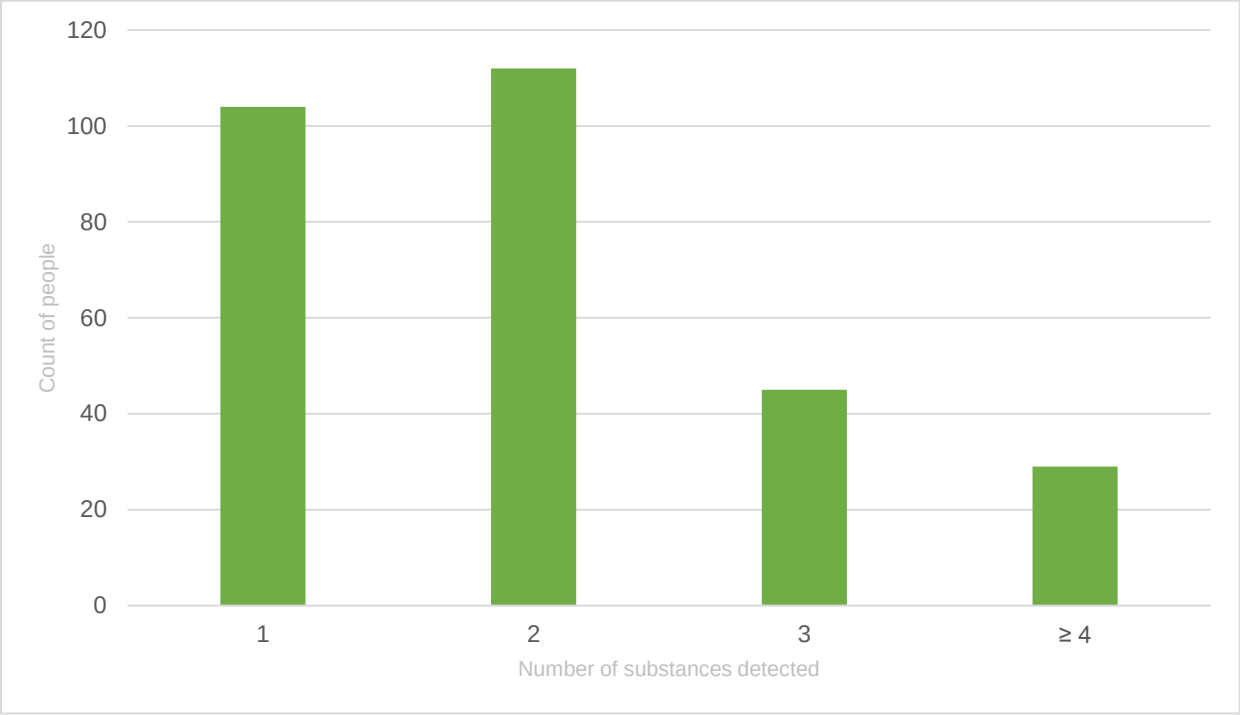
Figure 17 presents the percentage makeup of substance groups by race. In general, alcohol, cannabis, and stimulants were detected more frequently amongst the Indigenous group while antidepressants, opioids, and non-antidepressants were detected more frequently amongst the White race group. The aggregation of data by means/methods was not included in this figure as results from the analysis show similar findings to overall trends. Of note from said analysis, amongst those who died by drug-toxicity means/methods, opioids were the most detected substance amongst the Indigenous group while antidepressants were the most commonly detected amongst the White race group.

Figure 17. Percentage of people who died by suicide by race group and toxicology substance groups, Saskatchewan, 2018-2021.



Lastly, most people with detected substances had 2 substances identified in the toxicology report, closely followed by those who only had 1 substance identified (Figure 18).

Figure 18. Count of people who died by suicide by number of substances detected, Saskatchewan, 2018-2021.



Health history

Medical history

For 582 (69%) people, the coroners did not identify any documented medical history in the ROC. 264 (31%) people had a documented medical history— a formal diagnosis confirmed by a medical professional or medical records—identified in the ROC. For this report, medical diagnoses were grouped into the following categories:

- Brain injury: for any diagnosis of a brain injury, either traumatic (i.e., traumatic brain injury) or non-traumatic (i.e., stroke).
- Cancer: for any diagnosis of cancer that is not in remission at the time of death.
- Chronic conditions: including but not limited to diabetes, chronic obstructive pulmonary disease (COPD), hypertension, arthritis, high cholesterol, heart failure, etc.
- Chronic pain: pain that persists after 3 months that can be related to a chronic condition (i.e., arthritis), after an injury has healed, after a condition has been treated (i.e., cancer), or without a known cause.
- Sleep disorders: disorders that impact a person's quality, duration, and timing of sleep.

- Other: those with medical diagnoses that do not fit within the definitions of those stated above.

Amongst the people who died by suicide, the most common medical diagnoses were chronic conditions such as diabetes, COPD, hypertension, etc. (65%), followed by chronic pain (6%) and cancer (3%). The average age of these conditions was in the middle to older adults age range (50+ years old), with chronic pain having the youngest average age (49 years old) and cancer having the highest (72 years old) (Table 25).

Note: there were a small number of individuals who did inquire to their physicians about qualifying for Medical Assistance in Dying (MAiD) due to their physical condition prior to their death. These people did not qualify for MAiD and were denied. The SCS has decided to not publish these figures, in order to protect the privacy of these individuals.

Table 25. Counts, percentage, and average age of people who died by suicide with a documented medical history, Saskatchewan, 2018-2021.

Diagnosis	Counts	Percentage	Average age
Brain injury	sup	sup	50
Cancer	25	3%	72
Chronic conditions	211	25%	61
Chronic pain	54	6%	49
Sleep disorder	sup	sup	52
Other	sup	sup	63

Note: all suppressed figures will be denoted with “sup”.

Mental health history

For 511 (60%) people, the coroners did not identify any previous mental health history in the ROC. For 335 (40%) people, a mental health history was identified, meaning that the coroner found medical records or had a confirmed diagnosis from a medical professional of a mental health disorder. Note: this does not include anecdotes from loved ones (e.g., family, friends, etc.) that the person appeared to be struggling with their mental health (e.g., feeling depressed, experiencing low mood).

The mental health disorders identified in records have been grouped into the following categories:

- Anxiety disorders: refers to anxiety disorders in which a person can experience intense and persistent anxiety that interferes with daily activities.
- Bipolar disorder: characterised by the cycling of depressive and elevated moods known as depression and mania.
- Depression: a mood disorder that causes a persistent feeling of sadness and a loss of interest. It includes major depressive disorder and seasonal affective disorder. For the purposes of this section this category excludes postpartum depression.

- Personality disorders: refers to mental disorders that cause a rigid pattern of thinking and behaving that can cause a person to have difficulties with perceiving and relating to people and situations.
- Psychosis and psychotic disorders: psychosis refers to a condition where a person has lost contact with reality by having issues in distinguishing what is real and what is not real. Some mental health disorders can include psychosis, such as schizophrenia, schizoaffective disorder, delusions disorder, and drug induced psychosis. Those with depression and bipolar disorder can also experience psychosis but for the purposes of this report they are separated into their own categories.
- Posttraumatic stress disorder (PTSD): occurs when a person has difficulties adjusting and coping after experiencing a traumatic event and can include flashbacks, severe anxiety, and nightmares.
- Other: those with mental health history that do not fit within the definitions of those stated above (e.g., attention deficit/hyperactivity disorder (ADHD), adjustment disorder, eating disorders, obsessive compulsive disorder (OCD), etc.).

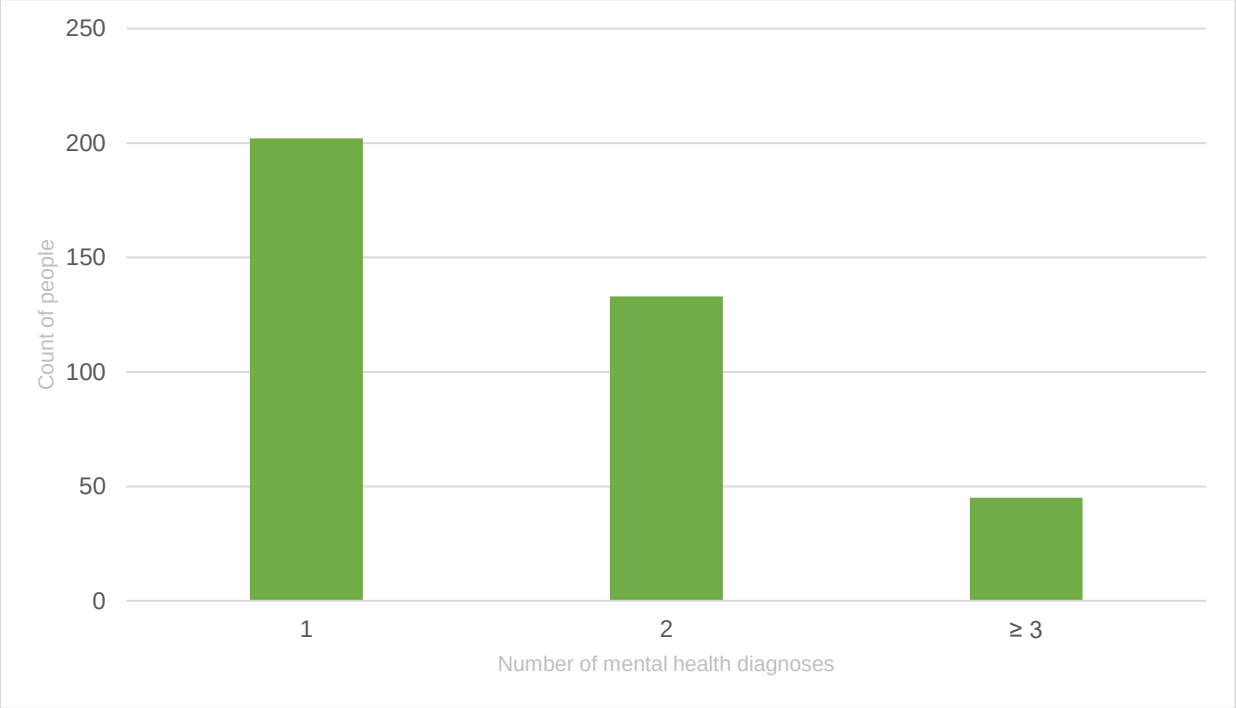
Amongst those who died by suicide, 28% had a history of depression and 12% had a history of anxiety. The average age for mental health disorders is younger than those seen in medical diagnoses, with most mental health disorders having an average age around 30-39 years old. Depression had the highest average age at 43 years old and those with disorders in the other category had the lowest average age. Of note within the other category, those with eating disorders had an average age within the 10-19-year-old age range (Table 26).

Table 26. Counts, percentage, and average age of people who died by suicide with a documented mental health history, Saskatchewan, 2018-2021.

Mental health history	Counts	Percentage	Average age
Anxiety disorders	105	12%	38
Bipolar disorder	36	4%	34
Depression	240	28%	43
Personality disorders	20	2%	32
Psychosis and psychotic disorders	46	5%	38
PTSD	21	2%	37
Other	40	5%	29

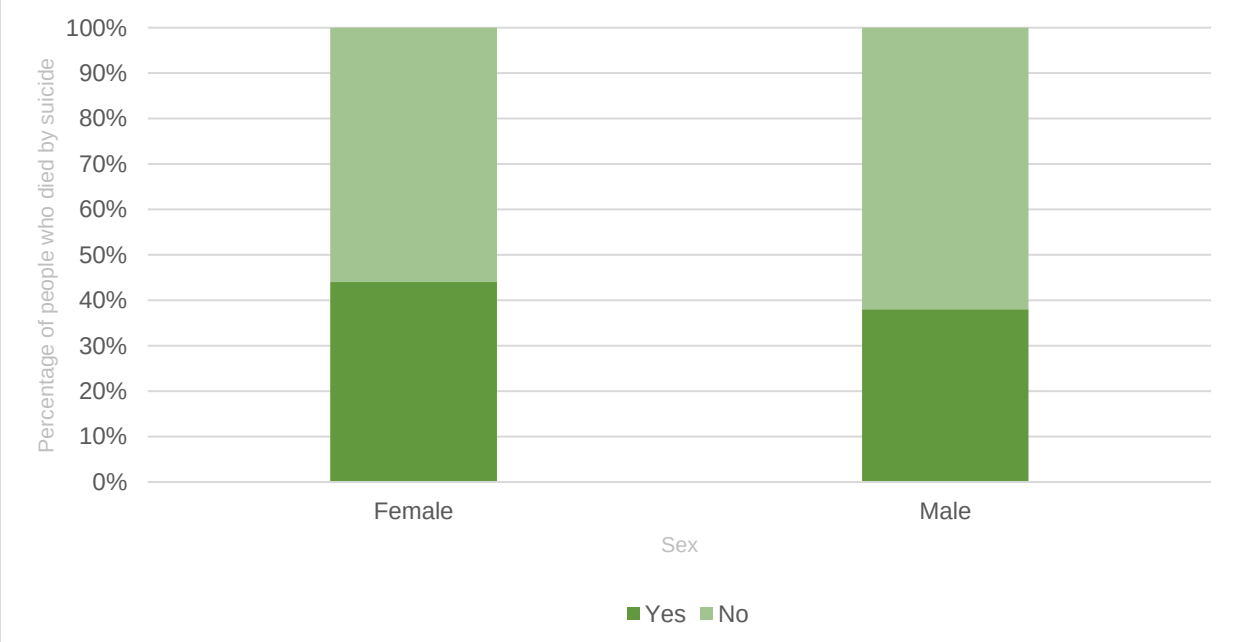
Additionally, most people who had a mental health history had one mental health diagnosis in their records (Figure 19).

Figure 19. Counts of people who died by suicide with a documented mental health history by number of diagnoses, Saskatchewan, 2018-2021.



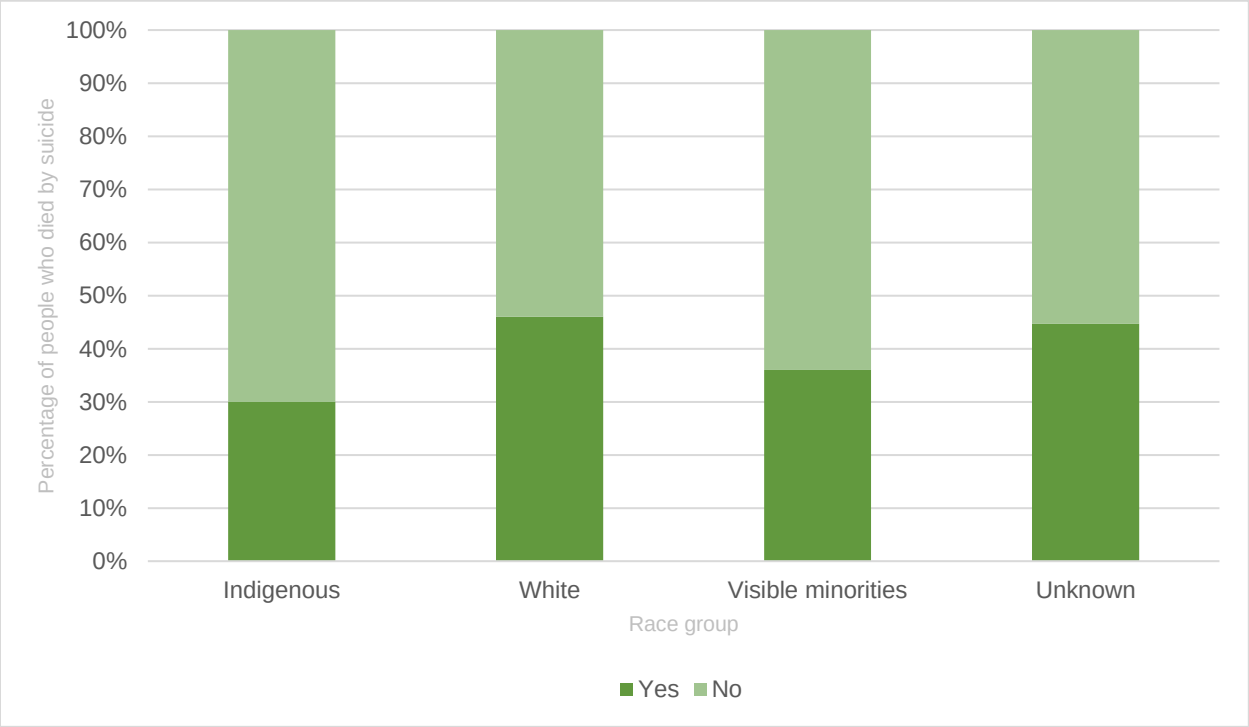
Of all the people who died by suicide, females (44%) had a higher proportion of those with a documented mental health history in comparison to their male (38%) counterparts (Figure 20).

Figure 20. Percentage of people who died by suicide with a documented mental health history by sex, Saskatchewan, 2018-2021.



When comparing race groups, the White race group (46%) had the highest proportion of people with a documented mental health history. Conversely visible minorities and Indigenous Peoples had the lowest proportion of those with a documented mental health history (36% and 30%) (Figure 21). Note: these figures should be approached with caution as lower figures can either indicate a lower level of mental health history, a lower level of documentation, or lack of access to services to receive a diagnosis.

Figure 21. Percentage of people who died by suicide with a documented mental health history by race group, Saskatchewan, 2018-2021.



Prescription medications

For each person whose death is investigated by the SCS, their records from the Saskatchewan Drug Plan are linked to their file, meaning that all coroners have access to their prescription medication records. For 345 (41%) people, their records indicated that they were prescribed mental health-related medications. Antidepressants were prescribed the most (52%), followed by antipsychotics (32%), Z-drugs (24%), benzodiazepines (21%), and then opioids (15%) (Table 27).

Table 27. Percentage of people who died by suicide by prescribed medication groups, Saskatchewan, 2018-2021 (N= 345)[12].

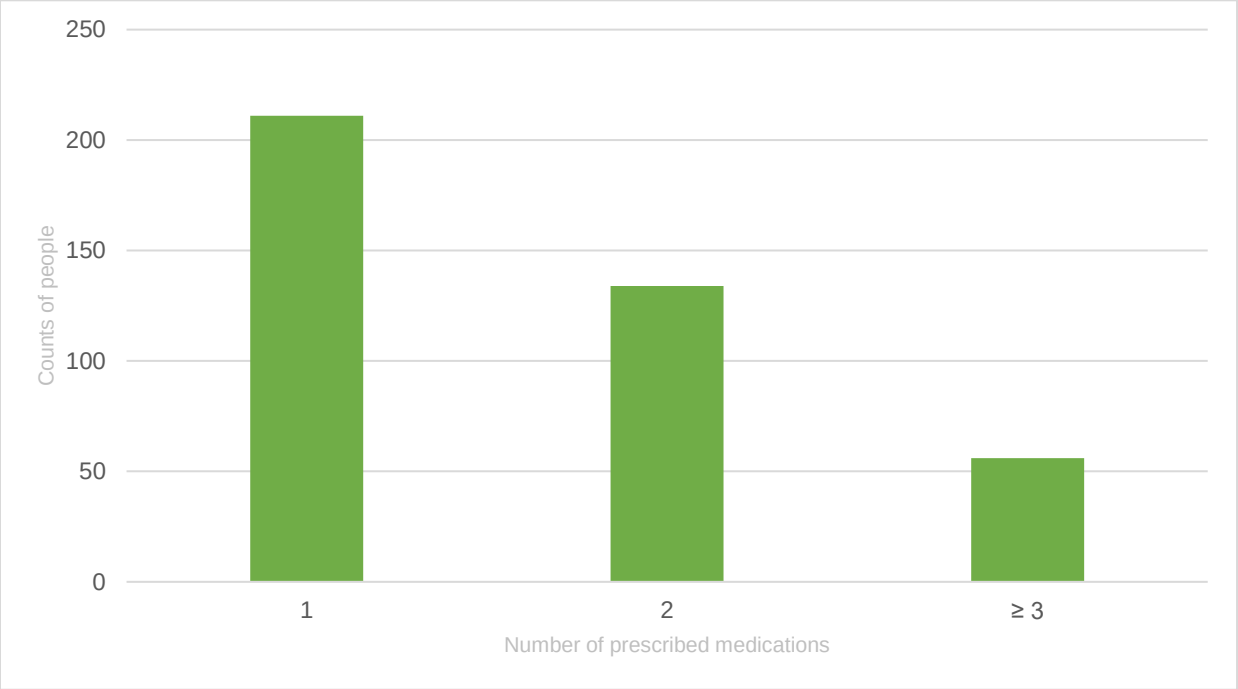
Prescription medication groups	Percentage
Antidepressants	52%
Antipsychotics	32%

[12] Denominator for percentage calculations is the number of people who were prescribed mental health related medications.

Prescription medication groups	Percentage
Benzodiazepines	21%
Mood Stabilizers	sup
Opioids	15%
Stimulants	sup
Z-drugs	24%
Other	sup

Most people who were prescribed mental health-related prescribed medications were prescribed one group of medications (211 people) (Figure 22).

Figure 22. Counts of those who died by suicide by number of prescribed medications, Saskatchewan, 2018-2021.



Substance use history

In this report, substance use refers to the consumption of substances beyond recreational use that includes non-pharmaceutical substances (e.g., “illegal” or unregulated substances), pharmaceuticals (substances that are not prescribed or diverted), alcohol, and cannabis.

For 529 people (63%) there was no known or documented history of substance use, as noted in the ROC. For 317 people (37%) there was a documented history of substance use in the ROC, with 136 people (16%) having a history specific to alcohol (Table 28).

Table 28. Counts, percentage, and average age of those who died by suicide by substance use history, Saskatchewan, 2018-2021.

Substance use history	Counts	Percentage	Average age
Yes	317	21%	31
Yes, alcohol only	136	16%	43
No	529	63%	43
Total	846	100%	41

Note: the inclusion of cannabis and alcohol is based on documentation of related substance use disorders as noted in medical records (e.g., alcoholism, cannabis use disorder). It does not include a history of recreational use.

Females had a higher proportion of documented substance use history in comparison to males (25% versus 20%), though males have a slightly higher proportion of alcohol only use (16% versus 15%) (Table 29).

Table 29. Percentage of those who died by suicide by substance use history and sex, Saskatchewan, 2018-2021.

Substance use history	Female	Male
Yes	25%	20%
Yes, alcohol only	15%	16%
No	60%	63%

Additionally, those amongst the Indigenous race group had a higher percentage of documented substance use history, including alcohol only use, in comparison to their non-Indigenous counterparts (Table 30).

Table 30. Percentage of those who died by suicide by substance use history and race group, Saskatchewan, 2018-2021.

Substance use history	Indigenous	Visible minorities	White	Unknown
Yes	34%	14%	14%	19%
Yes, alcohol only	18%	16%	15%	17%
No	48%	70%	70%	64%

Maternal health history

Some individuals who died by suicide had a documented maternal health history, including those who were postpartum, pregnant, or terminated a pregnancy within 6 months prior to their death. These figures are suppressed for this report to protect the privacy of these individuals, in accordance with the small number reporting policy (see *About the data).* Of note, 70% of people who had a documented maternal health history were identified as Indigenous.

Interactions with the healthcare system

Medical/mental health professional

Of all the people who died by suicide, 54% (455 people) had a documented medical or mental health provider in their coroner case file, 46% (391 people) did not. Note: those who did not have a medical/mental health provider documented in their case file can indicate that they did not have a provider, or the coroner was not able to identify a provider. Physicians, including family physicians (57%), psychiatrists (22%), and other disciplines, made up the majority of identified providers. Mental health practitioners (including therapists, counsellors, psychologists, etc.) also accounted for a sizable proportion of providers (11%) (Table 31).

Table 31. Counts and percentage of people who died by suicide and under the care of a primary care provider, Saskatchewan, 2018-2021 (N= 445)[13].

Provider	Count	Percentage
Correctional	sup	sup
Family physician	260	57%
Mental health practitioner	50	11%
Nurses	sup	sup
Physician (other)	sup	sup
Psychiatrist	98	22%
Other	sup	sup

Note: all suppressed figures will be denoted with "sup".

History of accessing care

Coroners may include an investigation into a person's history of accessing care in the ROC. For this report, care access has been separated into three categories:

- Emergency room (ER) visit one month prior to death: the person had been seen in an ER one month prior to death. The one-month timeline was chosen for consistency with our recent suicide disclosure variable (see *Suicide history)* as both refer to acute timelines/services. Additionally, the one-month timeline is in reference to the standards of care in which if a person is seen in the ER for mental health reasons and not admitted, and they should receive additional follow-up in the community within a one-month time period.
- Inpatient history timeline: if the person had been admitted to a facility to receive care (e.g., hospital, rehabilitation facility, long-term care, etc.).
- Outpatient history timeline: if the person had been receiving care in the community but not admitted into a facility (e.g., doctor visits, community mental health services, counsellor/therapy visits in the community, etc.).

The history timelines have been divided into the following categories:

- < 1 week

[13] Denominator for percentage calculations is the number of people with a documented medical or mental health provider

- 1 week - 1 month
- 1 month - 3 months
- 3 months - 6 months
- 6 months - 1 year
- > 1 year

Note: these figures should be approached with caution due to the large number of people who did not have any documented history of accessing care. These lower figures related to accessing care may indicate a lower level of documentation or a lack of access to services. Furthermore, the figures for >1 year for both inpatient and outpatient history should also be approached with caution as it covers a broader timeline in comparison to the other timeline categories. Additionally, these categories are not mutually exclusive, i.e., a person may have an inpatient and outpatient history with a visit to the ER one month prior to their death.

For ER visits, 69 people (8%) were reported to have been seen and received care one month prior to their death (Table 32).

Table 32. Counts and percentage of people who died by suicide and visited an emergency room 1 month prior to their death, Saskatchewan, 2018-2021.

ER visit (1 month prior)	Count	Percentage
Yes	69	8%
No	775	92%
Total	846	100%

For inpatient history timelines, 197 people (23%) had a documented inpatient history in the ROC while 649 people (77%) did not. Due to small number reporting protocols (see *About the data)*, the counts for inpatient history timeline have been removed. Other than > 1 year (31%) prior to their death, most people with an inpatient history were admitted 1 week – 1 month (21%) prior to their death (Table 33).

Table 33. Percentage of people who died by suicide by inpatient history timeline, Saskatchewan, 2018-2021 (N= 197)[14].

Inpatient history timeline	Percentage
Inpatient at time of death	sup
< 1 week	sup
1 week - 1 month	21%
1 month - 3 months	10%
3 months - 6 months	12%
6 months - 1 year	13%
> 1 year	31%
Unknown	sup

Note: all suppressed figures will be denoted with "sup".

For outpatient history timeline, 458 people (54%) had a documented outpatient history in the ROC while 386 people (46%) did not. Similar to inpatient history, most people had received outpatient care 1 week – 1 month (14%) prior to their death. However, 50% of people with a documented outpatient care history did not have a clear timeline on when they received care in their case files. Therefore, this timeline data should be approached with caution (Table 34).

Table 34. Counts and percentage of people who died by suicide by outpatient history timeline, Saskatchewan, 2018-2021 (N= 458)[15].

Outpatient history timeline	Count	Percentage
< 1 week	38	8%
1 week - 1 month	66	14%
1 month - 3 months	43	9%
3 months - 6 months	27	6%
6 months - 1 year	29	6%
> 1 year	24	5%
Unknown	231	50%

Suicide history

Part of the coroner's investigation when someone has died by suicide, is to determine any history of suicide attempts and ideations, self-harm, or knowing someone who died by suicide. For this report, all these areas of information have been grouped under "suicide history" and has been collected through medical records and/or speaking with loved ones (family, friends, etc.).

Prior history of self-harm, suicidal ideation, disclosure, and/or attempts

Of all the people who died by suicide, 488 people (58%) had a prior history of self-harm, suicidal ideation, disclosure, and/or attempts. This includes any of the previously

[14] Denominator for percentage calculations is the number of people with a documented inpatient history.

[15] Denominator for percentage calculations is the number of people with a documented outpatient history.

mentioned behaviours occurring at any point prior to death. For 337 people (40%), the coroner did not find any history of prior self-harm, suicidal ideation, disclosure, and/or attempts. For 21 people (2%) it was not clear in the case files if they had or had no history of self harm, suicide disclosure and/or attempts (Table 35).

Table 35. Counts and percentage of people who died by suicide and had a prior history of self-harm, suicidal ideation, disclosure and/or attempts, Saskatchewan, 2018-2021.

Prior self harm, disclosure, attempts	Counts	Percentage
Yes	488	58%
No	337	40%
Unreported	21	2%

Recent disclosure of suicidal ideation or intent prior to death

Amongst those who had a prior history of self-harm, suicidal ideation, disclosure, and/or attempts, 247 (51%) people had a recent disclosure of their suicidal ideations or intent a month prior to their death (Table 36).

A recent disclosure is specific to a person disclosing to someone in the month prior to their death any suicidal ideations or intent. This data element is inline with the data standards of the National Violent Death Reporting System (NVDRS) and the ER visit data in the *History of accessing care* section.

Table 36. Counts and percentage of people who died by suicide and had a recent disclosure of suicidal ideation or intent prior to death, Saskatchewan, 2018-2021 (N= 488)[16].

Recent disclosure prior to death	Counts	Percentage
Yes	247	51%
No	241	49%

Most people had disclosed to a family member (32%), followed by a partner/ex-partner (23%), and friends (11%) (Table 37).

Table 37. People who received a recent disclosure of suicidal ideation or intent from those who died by suicide, Saskatchewan, 2018-2021 (N= 247)[17].

Disclosure to who	Percentage
Employment	sup
Family member	32%
First responders	sup

[16] Denominator for percentage calculations is the number of people who had a prior history of self-harm, suicidal ideation, disclosure, and/or attempts

[17] Denominator for percentage calculations is the number of people who had a recent disclosure prior to death.

Disclosure to who	Percentage
Friend	11%
Partner/ex-partner	23%
Other	10%
Unknown	sup

Note: all suppressed figures will be denoted with "sup".

Known exposure to suicide

Amongst those who died by suicide, 59 people (7%) knew someone who had died by suicide. This could include family members, friends, partners, coworkers, etc. This information is usually collected as part of the family medical history or social history, if mentioned. For 787 people (93%) there were no mentions if the person knew anybody who had died by suicide (Table 38).

Table 38. Counts and percentage of people who died by suicide by known exposure to suicide, Saskatchewan, 2018-2021.

Known exposure to suicide	Counts	Percentage
Yes	59	7%
No	787	93%

Interactions with the justice system

Note: For the purposes of adhering to small number reporting protocols (see *About the data*), counts have been removed from this section.

Less than 10% of all those who died by suicide had documented interactions with the justice system. Of those with documented interactions with the justice system, 25% were awaiting a court date (hearings and trails), 28% had been previously charged prior to their death, and 8% were under investigation from the police or RCMP. Additionally, 6% were in custody at the time of their death and 33% had been previously incarcerated (Table 39).

Note: the denominator for percentage calculations in this section is the number of people who had documented interactions with the justice system which has not been disclosed due to privacy reasons.

Table 39. Percentage of people who died by suicide with interactions with the justice system by interaction types, Saskatchewan, 2018-2021.

Interactions with the justice system	Percentage
Awaiting court date	25%
In custody	6%
Previously charged	28%
Previously incarcerated	33%
Under investigation	8%

A majority of those who have had interactions with the justice system were male (92%) (Table 40).

Table 40. Percentage of people who died by suicide that had interactions with the justice system by sex, Saskatchewan, 2018-2021.

Sex	Interactions with the justice system
Female	8%
Male	92%

Those in the Indigenous Peoples race group had the highest proportion of interactions with the justice system, in comparison to their non-Indigenous counterparts (Table 41). Additionally, of note: all of those who died in custody by suicide were Indigenous.

Table 41. Percentage of people who died by suicide that had interactions with the justice system by race group, Saskatchewan, 2018-2021.

Interactions with the justice system	Yes	No
Indigenous	11%	89%
Visible minorities	sup	sup
White	5%	95%
Unknown	sup	sup

Note: all suppressed figures will be denoted with “sup”.

Occupation and Industry

Based on research findings and consultation with provincial partners, an industry that is of relevance to suicide prevention in Saskatchewan is agriculture. Coroners will sometimes note the occupation of a person in their social history. Agriculture workers (i.e., farmers) made up the largest occupation group noted in case files. Agricultural work has unique factors that can contribute to poor mental health and suicide (44). Some of those factors include:

- Financial uncertainty: farmers rely on factors, such as the weather, which are out of their control and can be a source of significant stress. Additionally, there are high costs with running a farm and economic factors (e.g., tariffs, trade agreements, etc.) also have significant impact on the finances of a farmer (45).
- Barriers to mental health services: farmers often live in remote, rural, and small communities that have limited mental health care access. Even with the emergence of telehealth, many farmers and ranchers in Canada do not have access to high-speed internet. Additionally, there may be a reluctance to seeking help due to stigma as a sign of weakness and concerns about confidentiality in small communities (45).

- Isolation: farming work is often done in isolation and while members of a small community can feel closer, it also means that there are fewer resources for support (45).
- Work-life balance: farmers often live on the same property where they work, causing an imbalance between work/personal life. Farmers may feel pressured into always working and while the weather is favourable. As a result, they may have a hard time relaxing and de-stressing. Farming is also often a family venture and family dynamics can increase tension in both work and personal life (45).
- Easy access to firearms: farmers also have easy access to firearms, the most lethal suicide method (45).

Amongst all those who died by suicide, 6% were noted to be farmers, 92% were not, and 2% it was unclear (Table 42).

Table 42. Counts and percentage of people who died by suicide that occupation was reported as a farmer, Saskatchewan, 2018-2021.

Agriculture occupation	Counts	Percentage
Yes	49	6%
No	775	92%
Unknown	22	2%

Recipient of social assistance and/or services

When the SCS is notified of a death by suicide in a child or young adult under the age of 21 years old, requests are sent to confirm if they were under the care or receiving assistance from social services at the time of their death. For adults aged 21 years and over, this is not a requirement for coroner investigations, though coroners may include information on financial assistance (i.e., Canadian Emergency Response Benefit (CERB)) if known.

Amongst those who died by suicide under the age of 21, 13% of people were reported to receive some form of assistance (Table 43).

Table 43. Percentage of people who died by suicide under the age of 21 years old who were recipients of social assistance and/or services, Saskatchewan, 2018-2021.

Recipient of assistance and/or services	Percentage
Yes	13%
No or unknown	87%

Living alone status

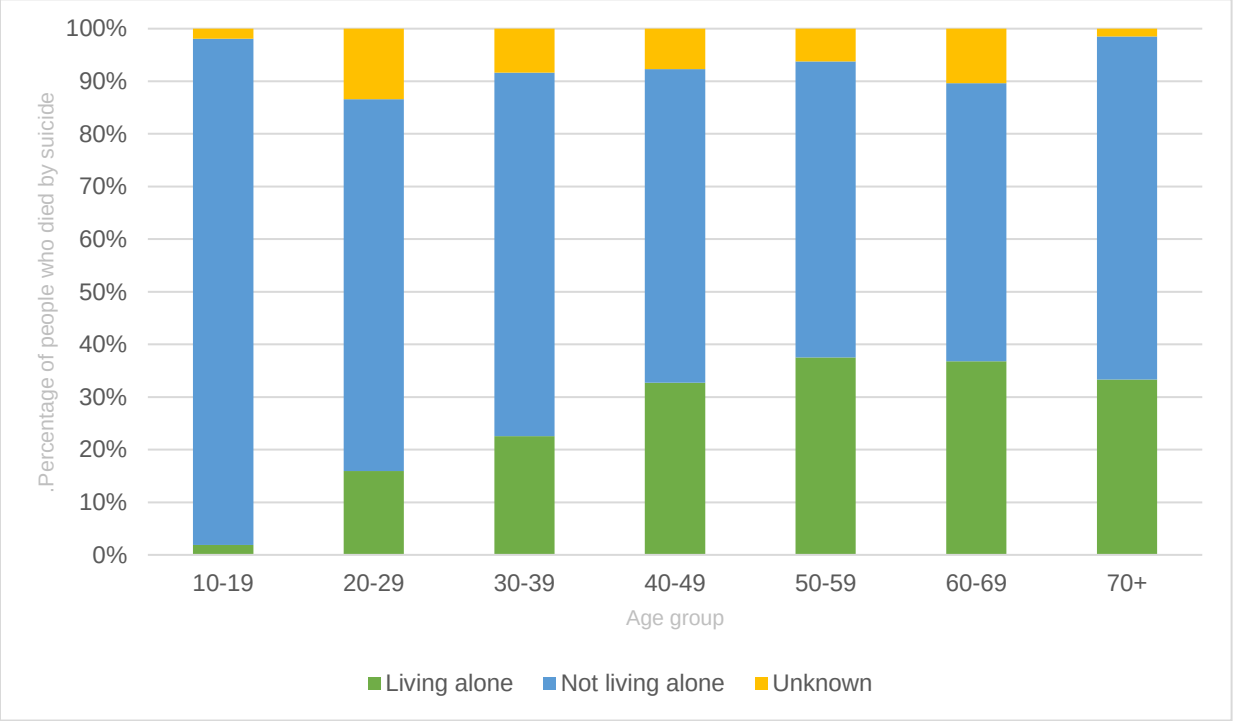
Most people who died by suicide did not live alone (68%), meaning that at least one other person lived in the same household as them (e.g., roommates, family, etc.) (Table 44).

Table 44. Counts and percentage of people who died by suicide and was living alone at the time of death, Saskatchewan, 2018-2021.

Living alone	Counts	Percentage
Yes	205	24%
No	573	68%
Unknown	68	8%

Additionally, the middle age groups (40-60 years old) had the highest percentage (33%) of people living alone (Figure 23).

Figure 23. Percentage of people who died by suicide and living alone at the time of death by age group, Saskatchewan, 2018-2021.



Relationship status

Most people had a relationship status of single (30%), followed by those who were married (17%) and divorced/separated (16%). Relationship status was unknown for 154 people (18%) (Table 45).

Table 45. Count and percentage of people who died by suicide by relationship status, Saskatchewan, 2018-2021.

Relationship status	Count	Percentage
Common law	64	8%
Divorced/separated	136	16%
Married	146	17%

Relationship status	Count	Percentage
Relationship	64	8%
Single	256	30%
Widowed	26	3%
Unknown	154	18%

Note: the relationship status divorced/separated includes individuals who are still legally married and going through a separation, as well as those who were not legally married but experienced a separation in their relationship.

Additionally, for both females and males most were single at the time of their death (Table 46). However, the relationship status for 30% of females was unknown, so these figures should be approached with caution.

Table 46. Percentage of people who died by suicide by relationship status and sex, Saskatchewan, 2018-2021.

Relationship status	Female	Male
Common law	9%	7%
Divorced/separated	12%	18%
Married	13%	19%
Relationship	11%	6%
Single	21%	34%
Widowed	5%	3%
Unknown	30%	14%
Total	100%	100%

Life stressors

In their investigation, coroners will attempt to piece together what factors may have contributed to a person's desire to attempt suicide. For this report, these factors have been named life stressors and range from economic to social influences.

For 702 people (83%) the coroners noted life stressors that may have contributed to a person's death by suicide. For the remaining 144 people (17%), there were no mentions of life stressors in their case file (Table 47). Note: the omission of life stressors in case files may not indicate that the person had no life stressors, rather it could be the result of limited information available to the coroner.

Table 47. Counts and percentage of people who died by suicide by life stressors presence, Saskatchewan, 2018-2021.

Life stressors	Counts	Percentage
Yes	702	83%
No/unreported	144	17%

Life stressors have been categorized into the following:

- COVID-19: stressors related to the COVID-19 pandemic.

- Employment: stressors related to employment (e.g., workload, conflict, etc.), including unemployment.
- Family: stressors related to the person's family.
- Financial: stressors related to a person's finances.
- Interpersonal: stressors related to a person's interpersonal relationships that exclude family and intimate relationships (e.g., friends, neighbours, etc.).
- Legal: stressors related to a person's interaction with the justice system or any ongoing legal process and procedures.
- Mental health: stressors related to one's own mental health.
- Physical health: stressors related to one's own physical health.
- Relationship: stressors related to a person's intimate partner across marital status (e.g., spouse, significant other, fiancé, etc.)
- School: stressors related to school/academic settings across education levels from elementary to post-secondary.
- Social isolation: stressors related to a person feeling socially isolated or lonely.
- Substance use: stressors related to one's own substance use.
- Other: stressors that did not fit into the categories above (e.g., gender and sexual identity, body image, etc.)

Note: these categories are not mutually exclusive as someone may experience multiple life stressors.

Amongst those who had reported life stressors, relationship (38%) and family (30%) stressors were mentioned the most frequently. Financial (17%), mental (18%) and physical health (18%) were also common stressors (Table 48).

Table 48. Percentage of people who died by suicide by life stressor categories, Saskatchewan, 2018-2021 (N=702)[18].

Life Stressors Categories	Percentage
COVID-19	4%
Employment	15%
Family	30%
Financial	17%
Housing	7%
Interpersonal	6%
Legal	10%
Mental Health	18%
Physical Health	18%
Relationship	38%
School	3%
Social Isolation	8%
Substance Use	10%

[18] Denominator for percentage calculations is the number of people who had reported life stressors.

Life Stressors Categories	Percentage
Other	12%

Further aggregation of life stressors was completed for the employment, family, interpersonal, relationship, and school categories.

- Employment: employment life stressors were subcategorized into stressors specific to unemployment and other work-related stressors
- Family: family life stressors were subcategorized into stressors specific to conflict with another family member, the loss/bereavement of a family member who has died, and other family related stressors.
- Interpersonal: similar to family, interpersonal stressors were subcategorized into conflict, loss/bereavement, and other.
- Relationship: in addition to subcategories of conflict, loss/bereavement, and other, relationship life stressors also include a separation subcategory that is specific to a relationship separation versus conflict (break-up versus fighting).
- School: school stressors were subcategorized into stressors specific to academics, conflict with peers (including bullying) or teachers/staff, and other school related stressors.

Table 49 outlines these further aggregations, and some significant findings include:

- 61% of all employment stressors were specific to unemployment.
- 64% of family stressors were due to conflict with family members, 30% were due to the loss of a family member.
- 69% of interpersonal stressors were due to conflict, 29% due to loss.
- 90% of relationship stressors were due to conflict (49%) and separations (41%).
- 53% of school stressors were due to interpersonal conflicts and 37% were due to academic related stressors.

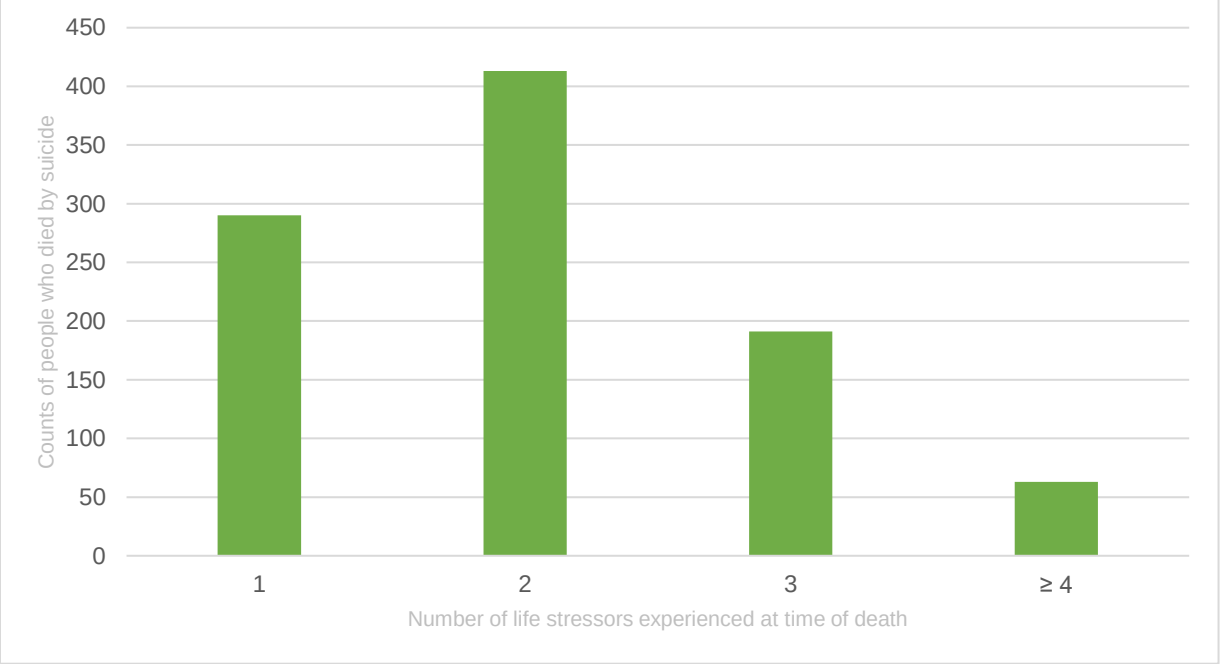
Table 49. Further aggregation of interpersonal and employment life stressors categories, Saskatchewan, 2018-2021.

Life stressors category	Percentage
Employment life stressors	
Unemployment	61%
Employment (other)	39%
Family life stressors	
Family (Conflict)	64%
Family (Loss/bereavement)	30%
Family (Other)	6%
Interpersonal life stressors	
Interpersonal (Conflict)	69%
Interpersonal (Loss/bereavement)	29%
Interpersonal (Other)	2%

Life stressors category	Percentage
Relationship life stressors	
Relationship (Conflict)	49%
Relationship (Separation)	41%
Relationship (Loss/bereavement)	7%
Relationship (Other)	3%
School life stressors	
School (Academic)	37%
School (Conflict)	53%
School (Other)	11%

Additionally, most of the people who died by life stressors were experiencing two life stressors (43%) at the time of death (Figure 24).

Figure 24. Counts of people who died by suicide by number of life stressors experienced at time of death, Saskatchewan, 2018-2021.



Community consultations

As previously mentioned, the SCS conducted community consultations as part of the suicide report. These consultations were completed to uphold principles of data sovereignty and transparency in public health research.

Consultations were completed in two steps:

1. Initial communication: the SCS reached out to identified organizations of interest to introduce the project, provide an executive summary, and gauge interest and capacity to provide feedback.
2. Feedback collection: organizations that expressed interest in participating were then sent a copy of the full report and asked to provide their feedback. Feedback was provided through a variety of communication means including email, phone calls, and virtual video calls.

The SCS defined organizations of interests as groups with a mental health and suicide prevention focus and groups that may have a special interest in the results of the report. Additionally, various provincial government ministries were also contacted to provide their input on the report. Twenty-two organizations were contacted to participate in the project's consultations; nine organizations expressed interest and provided feedback on the report. These organizations include: Association of Métis, Non and Status Indians Saskatchewan; Federation of Sovereign Indian Nations (FSIN); Meadow Lake Tribal Council, Men of the North; Peter Ballantyne Cree Nation Health Services; Roots of Hope Meadow Lake (SHA); SaskAg Matters; and Saskatchewan Urban Municipalities Association (SUMA); Ministry of Social Services; and Ministry of Advanced Education

Note: The Ministry of Health was also consulted to act as editors for this report. Their comments and suggestions were collected and analyzed to determine common themes, which have been integrated into this document. Additionally, their feedback on next steps for suicide prevention will be presented in the *Community consultation* section.

The SCS sought feedback on two areas of interest:

1. How the data has been presented in the report; and
2. How this data may inform next steps in suicide prevention efforts in the province.

Feedback pertaining to how data has been presented in the report has been integrated into this report.

Feedback and future steps with the data for suicide prevention

Overall, organizations expressed the importance of making death by suicide data publicly available and consistently seeking community input into suicide prevention efforts. The need for collaborative and community focused interventions, as well as an urgency from government to develop suicide prevention strategies, was emphasized.

The feedback collected was analysed to identify core themes and the findings have been grouped into the two areas of interest noted above.

The following summarizes the key findings from all participating organizations into these themes:

How the data has been presented in the report:

- Statistics and figures were congruent or confirmed impressions and anecdotal experience of deaths by suicide in the province. The data and figures, while not surprising, are still sad and harrowing to see.
- Such data is timely and needed in the province, as the province is currently in a mental health crisis. The variables and the statistics presented provide a very clear picture to what is happening in the province.
- The inclusion of community consultations is needed to have a comprehensive and collaborative approach to suicide prevention.
- Alcohol and substance use and access to mental health supports were figures that standout.
- The data shows the growing correlation of co-existing issues (e.g., unresolved trauma and substance use).
- The report is a valuable document for both government agencies and communities, due to its focus on systemic factors related to suicide.
- Suicide is not just a race issue, and the report makes an effort to highlight the multiple factors that are related to suicide.
- Some information could have been further broken down in areas such as geographics and medical history.[19]
- The emphasis on dying by suicide vs committing suicide is an important distinction to reduce stigma and the report addresses this well.

How this data may inform next steps in suicide prevention efforts in the province:

- Every organization expressed the desire that the provincial government use the information presented in the report to inform solutions.
- The data in the report will help inform preventative interventions rather than reactive interventions.
- Need for program development to occur at all levels of government as there is a lack of services.
- Access to medical detox centres need to be improved as people face barriers such as bed availability and transportation to facilities.
- Additionally, the province needs more culturally based treatment facilities and services that incorporate traditional Indigenous healing practices.
- Public awareness around suicide needs to continue to be an area of focus, particularly with stigma reduction.
- The provincial government is encouraged to do more as figures in the report appear to demonstrate a failure in preventing deaths by suicide.

[19] Some of the aggregations could not be completed due to privacy concerns (see *About the data)*

- Concern that something needs to happen in the province or else things will get worse.
- More information and clarity is needed on how and when to utilize the mental health act for admission of family members to mental health facilities.
- The report can also be used to inform and develop education-based programs that can be implemented in schools.
- More mental health supports and services that are accessible are needed in the province.
- A collaborative effort from the provincial government is critical to moving forward with suicide prevention efforts in the province. More collaborative partnerships and outreach are needed to build trust with Indigenous communities.

Discussion

Suicide is a significant public health concern that affects people from different backgrounds and circumstances. This report is the first of its kind in Saskatchewan, providing an in-depth analysis of coroner data to further understand deaths by suicide. As per the findings, 846 people died from suicide during the 4-year period of 2018-2021. Previous reporting has been specific to socio-demographics and geographics. This report presents new data across multiple factors related to case information, medical and mental health history, and sociodemographic and risk factors. The SCS has made upgrades in the monthly reporting of deaths by suicide, most recently to include race-based data; however, this report provides a further in-depth analysis of coroner data.

Data for this report was collected from all coroner case files that met the report's definition of a death by suicide in Saskatchewan. It is possible that there are some people who died by suicide that were not included in this report if their deaths were not reported to the SCS or not identified as a death by suicide. Additionally, this report excludes "open" cases, meaning that a case is still under investigation. This may introduce potential bias in 2020 and 2021 figures as they are more likely to have open investigations, potentially underestimating the number of deaths by suicides. Furthermore, individuals who died outside of the province but are residents of Saskatchewan were not included in this report as their death investigations would be under the jurisdiction of the province/territory they died in. The SCS does not have access to these case files and, therefore, cannot conduct an analysis on these deaths.

The availability of data across the variables of interest differed across individual coroner case files and calendar year, due to changes and developments within the SCS in coroner training and documentation standards. Due to the varying limitations in data collection, some of the figures in this report may underestimate the burden and introduce potential bias due to differences in case files and documentation. It is imperative to note that this report only presents figures that represent the minimum proportion of those who died by suicide in Saskatchewan and more likely underestimates the prevalence of the various variables of interests.

Additionally, this report utilizes documents in coroner case files that are subject to the interpretation and opinion of coroners, law enforcement, members of the general public, family, friends, coworkers, etc. This presents potential opportunities for bias to be introduced due to other's interpretations of certain events and circumstances. The SCS attempts to reduce this bias by implementing extensive standardized training for all coroners, as well as peer reviews of coroner case files by a panel of full-time coroners before submission. Coroners also complete thorough investigations of each person's death by collecting information from a variety of sources direct from the person such as personal diaries, social media posts, text messages, etc.

Conclusions and Final Thoughts

The results from this report have demonstrated that the circumstances that lead up to a death by suicide are complex and multifaceted. The SCS would like to once again emphasize that every figure in this report is represented by a person whose life cannot be captured in singular data tables and graphics. The aim of this report is to better understand the personal and contextual factors that surround deaths by suicide in the hopes of providing an opportunity for further discussion and awareness on suicide and suicide prevention in the province.

This report covers data from a crucial time period, the COVID-19 pandemic during 2020-2021. Mental health and wellbeing were a significant concern during these years due to the variety of stressors that people were experiencing related to the pandemic. As we continue to move forward, the impacts of the pandemic on mental health remains a major concern and further research is needed to fully understand the scope of impact. The SCS hopes that this report provides some preliminary baseline data and community feedback to provide guidance in interventions moving forward.

The SCS hopes that the findings of this report will help support and evaluate policies, programming, and interventions that inform and prioritize suicide prevention and mental health support and promote further research opportunities.

Glossary

Adjustment disorder: a short-term stress-related condition that arises due to difficulty managing stress during life changes (e.g., loss of a family member, relationship issues, work-related problems, etc.).

Age-adjusted rates: mortality rates adjusted for differences in age distribution of different populations by giving the comparable groups the same age distribution structure as a standard population (36).

Anxiety: refers to anxiety disorders in which a person can experience intense and persistent anxiety that interferes with daily activities.

Attention-deficit/hyperactivity disorder (ADHD): a neurodevelopment disorder that can impact the attention span, concentration, and impulsivity of a person.

Bipolar disorder: characterized by the cycling of depressive and elevated moods known as depression and mania.

Brain injury: for any diagnosis of a brain injury, either traumatic (i.e., traumatic brain injury (TBI)) or non-traumatic (i.e., stroke).

Canadian Index of Multiple Deprivation (CIMD): provided by Statistics Canada, an area-based index of social inequalities that utilizes 2016 Census data to measure the level of deprivation across 4 dimensions: residential instability, economic dependency, ethno-cultural composition, and situational vulnerability. The index uses factor analysis to group a large number of correlated variables into the 4 dimensions. For each dimension, the CIMD dataset provides a factor score and a ranked quintile variable, which ranks factors scores from lowest to highest and then divides them into 5 equally sized quintiles. A quintile score of 1 is considered to be least deprived and a quintile score of 5 is considered to be most deprived (26). Further information on the specifics of analyses will be discussed in the *Data analysis* section.

Case information: variables that pertain to the circumstances of death.

Chronic conditions: including but not limited to diabetes, chronic obstructive pulmonary disease (COPD), hypertension, arthritis, high cholesterol, heart failure, etc.

Chronic pain: pain that persists after 3 months that can be related to a chronic condition (i.e., arthritis), after an injury has healed, after a condition has been treated (i.e., cancer), or without a known cause.

Closed case: when the death investigation process has been reviewed and completed.

Community coroner: fee-for-service coroners who conduct the death investigations and are assigned regions to cover.

Complete post-mortem examination (PME): external examination of a body including the clad and unclad body, documentation of general features and characteristics, documentation of any disease or injury, the incising and opening of the thoracic cavity, the abdominopelvic cavity, the cranial cavity and the neck, an inspection and dissection of the contents of the thoracic cavity, the abdominopelvic cavity, the cranial cavity and the neck; and the retrieval of specimens for histological, microscopic and toxicological examination (Section 4(1)(a) The Coroners Regulations).

Coroner Case Management System (CCMS): SCS electronic database where all coroner case files are stored.

Coroner case: when an unexpected, unnatural, or unexplained death has occurred. For example: an injury from a fall, or any death that occurs while a person is in custody or under the care of a government. In these cases, an investigation is conducted by the coroner. If the death is classified as a suspicious case and charges may be laid, police will lead the investigation with the assistance of a coroner. If the death is classified as a non-suspicious case, a coroner leads the investigation with the assistance of the police.

Coroner: a death investigator who uses medicolegal investigation principles and techniques to coordinate all aspects of death investigations.

Correctional location: correctional facilities including all levels of government (federal, provincial, municipal).

COVID-19 stressors: stressors related to the COVID-19 pandemic.

Crude rates: mortality rates that are not adjusted for factors like age.

Date of death: the date that death was pronounced or when the person was found to be deceased. This data does not include any hospitalization periods (i.e., time spent in hospital after an attempt but prior to death being pronounced).

Depression: a mood disorder that causes a persistent feeling of sadness and a loss of interest. It includes major depressive disorder and seasonal affective disorder. For the purposes of this report this category excludes perinatal depression.

Deprivation: “inability for individuals and communities to attain basic resources and services such as food, housing, work, education, or social connection” (35).

Economic dependency: describes the reliance on the workforce or dependence on other sources of income outside of employment. Includes indicators like the dependency ratio (the population aged 0-14 and population aged 65+ divided by the population aged 15-64) and the proportion of the population that is older than 65 years old (35).

Employment person: those who knew the deceased in a professional capacity. Examples: coworkers, managers, supervisors, etc.

Employment stressors: stressors related to employment (e.g., workload, conflict, etc.), including unemployment.

Ethno-cultural composition: includes indicators such as the proportion of the population that is foreign born, identifies as visible minority, recent immigrants, and those experiencing linguistic isolation (no knowledge of the official languages) (35).

External post-mortem examination (PME): examination of the clad and unclad body, documentation of the general features and characteristics of the body, documentation of any evidence of disease or injury, and the retrieval of specimens for toxicology examination (Section 4(1)(b) The Coroners Regulations).

Family person: those who had familial connections to the person who died by suicide but excludes intimate partners. Examples: children, parents, siblings, cousins, grandparents, etc.

Family stressors: stressors related to the person's family.

Financial stressors: stressors related to a person's finances.

Firearms means/methods: when the cause of death is a result of a firearm being used.

First Nation(s): "Legally defined under the *Indian Act* (1876) to describe the First Peoples in North America who are living in what is now known as Canada". (, p.4)

First responder person: those who immediately attend the scene when the person is discovered to be deceased. Examples: emergency medical services (EMS), fire departments, local and on-reserve police, municipal police, Royal Canadian Mountain Police (RCMP), Conservation Officers, etc.

Friend person: those who knew the deceased in a friendship capacity.

Full-time coroner: oversee and assist community coroners with their investigations and reports and conduct death investigations.

Gas means/methods: when the cause of death is *directly* a result of inhalation of a gaseous substance (i.e., carbon monoxide).

Geography conversion table: provided by the Ministry of Health, a file that converts municipalities/communities into their respective provincial health regions.

Hanging means/methods: when the cause of death is a result of intentional hanging, strangulation, or suffocation.

Home location: the person's primary place of residence.

Indigenous Peoples: Used in reference to the original peoples of any lands globally. The Indigenous peoples of Canada are comprised of the First Nations, Inuit, and Métis, all of whom have distinct cultures, languages, and histories.

Inpatient: a person that has been admitted to a facility to receive care (e.g., hospital, rehabilitation facility, long-term care, etc.).

Inquest: a mandatory legal process for when a person's unnatural death occurs in any lock-up, e.g., correctional institution or police detention centre, as defined in Part V, Section 20 of *The Coroners Act (1999)* or when the person who died is considered a youth in custody, as defined in *The Youth Criminal Justice Act (2003)*. The Chief Coroner may also call an inquest if of the opinion that one or more of the criteria set out in Section 19 of *The Coroners Act (1999),* are met.

Interpersonal stressors: stressors related to a person's interpersonal relationships that exclude family and intimate relationships (e.g., friends, neighbours, etc.).

Inuit: "Circumpolar peoples who have a distinct language, culture and traditions. Canadian Inuit live primarily in Inuit Nunangat, which is made up of four regions: Inuvialuit in the Northwest Territories, Nunavut, Nunavik in Northern Quebec, and Nunatsiavut in Northern Labrador" (44, p.4)

Legal stressors: stressors related to a person's interaction with the justice system or any ongoing legal process and procedures.

LGBTQ2S+: Lesbian, gay, bisexual, trans, queer, two-spirit, and more. The acronym used to encompass a variety of gender and sexual identities.

Means/methods of suicide: cause of death for each person's death by suicide.

Medical and mental health history: variables surrounding the health history of the deceased, including physical and mental health.

Medical Assistance in Dying (MAiD): when an authorized physician or nurse practitioner administers a medication that intentionally brings about a person's death at their request.

Medical facility location: includes hospitals, medical clinics, long-term care facilities, and assisted living facilities.

Medical records: from various clinical settings (e.g., hospitals, clinics, etc.), that outline a person's medical history and include notes from healthcare providers who provided care.

Member of the general public person: those who did not know or have any prior relationship with the person who died by suicide.

Mental health stressors: stressors related to one's own mental health.

Métis: "A person who self-identifies as Métis, is distinct from other Aboriginal peoples, is of historic Métis Nation Ancestry and who is accepted by the Métis Nation" (45)

Mortality rates (or death rates): the number of deaths in a specific population at a specific time, expressed as the number of deaths that occur per a given population size. For this report, all mortality rates will be number of deaths per 100,000 population.

Neighbour person: those who lived in a separate home from the person who died by suicide but lived in close proximity. This includes those who lived in the same building complex.

Non-coroner case: when a coroner determines that a person's death does not fall within the parameters of unexpected, unnatural, or unexplained.

Non-family co-resident person: those who lived in the same home as the person who died by suicide but did not have any familial or intimate relationships. Examples: roommate, housemate, etc.

Obsessive-compulsive disorder (OCD): when a person experiences a pattern of unwanted or intrusive fears, urges, or thoughts (obsessions) that lead to rituals or repetitive behaviours (compulsions) that interfere with daily activities and cause significant distress.

Open case: when the death investigation process is still ongoing, meaning that aspects of the case are still subject to change.

Outpatient: a person that has been receiving care in the community but not admitted into a facility.

Partner/ex-partner person: those who were intimate partners with the person who died by suicide. This includes previous partnerships ("exes") and spousal and non-spousal relationships (e.g., common-law partners, fiancé, dating, etc.)

Personality disorders: refers to mental disorders that cause a rigid pattern of thinking and behaving that can cause a person to have difficulties with perceiving and relating to people and situations. There are currently 10 personality disorders recognized.

Person-first language: a communication approach that places emphasis on people and their experiences instead of defining people through their actions, conditions, or diagnoses. For example: using the phrase people with depression versus depressed people (5).

Physical health stressors: stressors related to one's own physical health.

Police reports: prepared by the present law enforcement individuals at the scene of death, provides the initial assessment of the scene and when/how the person was found.

Postal Code Conversion File Plus (PCCF+): provided by Statistics Canada, a dataset that links Canada Post postal codes with standard geographic areas to provide census data. The PCCF+ is made up of a set of associated datasets (postal code population weight file, geographic attribute file, health region boundary files, etc.) and a SAS program. The program uses postal codes to assign standard geographic areas based on population-weighted random allocation that links postal codes to more than one geographic area (34). Further information on the specifics of analyses will be discussed in the *Data analysis* section.

Post traumatic stress disorder (PTSD): occurs when a person has difficulties adjusting and coping after experiencing a traumatic event and can include flashbacks, severe anxiety, and nightmares.

Previous trauma, abuse, or assault stressors: stressors related to a person's past experience of trauma, abuse, or assault.

Private property location: location is owned by another person and is not used for living purposes (e.g., private business, farmland, etc.).

Provincial health regions: specific to the 2021 Census, includes seven health regions: Far North, North Central East, North Central West, Saskatoon, Regina, South East, and South West.

Psychosis and psychotic disorders: psychosis refers to a condition where a person has lost contact with reality by having issues in distinguishing what is real and what is not real. Some mental health disorders can include psychosis, such as schizophrenia, schizoaffective disorder, delusions disorder, and drug induced psychosis. Those with depression and bipolar disorder can also experience psychosis but for the purposes of this report they are separated into their own categories

Public area location: location is public property that is not owned by an individual (e.g., park, lake, roadways, bridge, etc.)

Race: "is a social construct used to judge and categorize people based on perceived differences in physical appearance in ways that create and maintain power differentials within social hierarchies. There is no scientifically supported biological basis for discrete racial groups" (46, p.5)

Relationship stressors: stressors related to a person's intimate partner across marital status (e.g., spouse, significant other, fiancé, etc.)

Report of Coroner: a final report created by the investigating coroner that summarizes all findings of the death investigation.

Residence location: location is the primary residence of someone else who is not the person who died from suicide.

Residential instability: describes how the neighbourhood's inhabitants change over time and includes indicators such as the proportion for the population living on their own and the average number of people living in a residence and proportion of dwellings that are apartments (35).

Saskatchewan Drug Plan: the provincial health records that outline a person's prescription drug history to determine which medications had been prescribed.

School stressors: stressors related to school/academic settings across the education system levels from elementary school to post-secondary education.

Situational vulnerability: describes the variation of housing and education while considering other socio-demographic characteristics. Includes indicators such as the proportion of the population that identifies as Indigenous, that is low income, aged 25-64 without a high school diploma, and the proportion of dwellings that need major repairs (35).

Sleep disorders: disorders that impact a person's quality, duration, and timing of sleep.

Social isolation stressors: stressors related to a person feeling socially isolated or lonely.

Sociodemographic and risk factors: variables related to the demographic information of the deceased and potential measures that are predictive of suicide.

Staff person: those who were staff members of the location where the person who died by suicide is discovered. These settings can include but are not limited to correctional facilities, hospitals, medical clinics, homeless shelters, and group homes. Examples: nurses, security, social workers, doctors, etc.

Status Indian: refers to the status given to a First Nations person under the *Indian Act* which is determined through lineage of those who were registered or entitled to be registered.

Substance use: consumption of substances beyond recreational use that include non-pharmaceutical substances (e.g., "illegal" or "illicit" substances as noted in the ROC), pharmaceuticals (only include substances that are not prescribed or diverted), alcohol, and cannabis.

Substance use stressors: stressors related to one's own substance use.

Suicide attempt: a person intentionally attempts to end their own life.

Suicide note: a message from the person who died by suicide in written form. This can include but is not limited to handwritten notes, electronic notes on devices such as a laptop or cellphone, social media posts, or messages written on surfaces at the scene (e.g., wall, chair, etc.).

Suicide: the intentional action to deliberately end one's own life. Some suicide-related behaviours include thinking about, considering, planning, or attempting suicide (6).

Suicide survivor: Following a suicide attempt, suicide survivors are individuals who have lost someone through suicide or have survived the suicide attempt (6). For this report it refers to the individuals who lost someone through suicide.

The Coroners Act (1999) **:** *The Coroners Act (1999)* is Saskatchewan's legislation setting out the authority and responsibilities of the Office of the Chief Coroner. In this report it will be referred to as *The Coroners Act (1999)*.

Saskatchewan Coroner Service (SCS): independent agency responsible for carrying out death investigations, as defined by *The Coroner's Act (1999)*.

Toxicity means/methods: when the cause of death is a result of poisoning or overdose from *nongaseous* substances, including those from the illicit or legal pharmaceutical markets.

Toxicology exam: determines the amount and type of substances in the retrieved specimens from the deceased's body. Complete and external PMEs always include the taking of specimens for toxicology. The final results of the examination are outlined in a toxicology report.

Trauma means/methods: when the cause of death is a result of a person having both penetrating (e.g., stab wound) and non-penetrating trauma (e.g., fall from a height, hit by a motor vehicle).

Visible minorities: people who are not Caucasian in race or non-white in colour but does not include Indigenous Peoples.

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Appendix: Data tables for figures

Table 1:

Figure 1. Counts and total average number of people who died by suicide by month and year, Saskatchewan, 2018-2021.

Month	2018	2019	2020	2021	Average (2018-2021)
January	27	15	13	17	18
February	13	10	13	19	14
March	21	15	16	14	17
April	31	20	17	11	20
May	18	20	30	21	22
June	22	20	15	19	19
July	20	17	22	12	18
August	22	12	14	27	19
September	18	20	8	14	15
October	17	14	17	20	17
November	15	23	15	17	18
December	16	17	16	16	16

Table 2:

Figure 2. Counts and total average number of people who died by suicide by weekday and year, Saskatchewan, 2018-2021.

Weekday	2018	2019	2020	2021	Average (2018-2021)
Sunday	33	26	33	28	30
Monday	45	34	29	33	35
Tuesday	33	22	18	29	26
Wednesday	30	31	25	27	28
Thursday	34	34	32	33	33
Friday	29	25	22	32	27
Saturday	36	31	37	25	32

Table 3:

Figure 3. Age adjusted suicide mortality rates (per 100,000 population) by year and means/methods, Saskatchewan, 2018-2021.

Mean/Method	2018	2019	2020	2021
Firearms	5.66	3.11	3.46	4.17
Gas	0.69	1.18	0.93	0.43
Hanging	11.78	8.87	9.72	9.86
Toxicity	3.14	2.30	2.16	1.60
Trauma	1.32	2.11	0.74	1.60
Other	0.25	0.62	0.25	0.49

Table 4:

Figure 4. Percentage of people who died by suicide by means/methods and sex, Saskatchewan, 2018-2021.

Mean/Method	Female	Male
Firearm	4%	96%
Gas	16%	84%
Hanging	28%	72%
Toxicity	56%	44%
Trauma	24%	76%
Other	16%	84%

Table 5:

Figure 5. Median and average age of people who died by suicide by means/methods, Saskatchewan, 2018-2021.

Mean/Method	Median Age	Average Age
Firearm	49	48
Gas	51	50
Hanging	32	35
Toxicity	53	48
Trauma	47	41
Other	35	46

Table 6:

Figure 6. Age-adjusted suicide mortality rates (per 100,000 population) by year of death and sex, Saskatchewan.

Rates	Female	Male
2018	12.57	37.32
2019	8.20	32.27
2020	9.36	29.34
2021	11.26	29.49

Table 7:

Figure 7. Crude mortality rates (per 100,000 population) of people who died by suicide by age group and year, Saskatchewan.

Age Group	2018	2019	2020	2021
10-19	2.49	2.30	2.12	2.03
20-29	4.12	4.25	4.16	4.56
30-39	3.34	3.06	3.31	3.47
40-49	3.34	1.62	1.70	2.20
50-59	3.60	2.64	2.29	2.37
60-69	1.80	1.96	1.95	1.69

Table 8:

Figure 8. Crude mortality rates (per 100,000 population) of people who died by suicide by age group and sex, 2018-2021, Saskatchewan.

Age Group	Female	Male
10-19	16.99	18.60
20-29	20.85	43.50
30-39	11.60	33.30
40-49	4.64	31.26
50-59	9.22	34.90
60-69	6.70	25.34
70+	2.81	38.44

Table 9:

Figure 9. Percentage distribution of people who died by suicide by race group and sex, Saskatchewan, 2018-2021.

Race	Female	Male
Indigenous	39%	61%
Visible minorities	9%	91%
White	18%	82%
Unknown	25%	75%

Table 10:

Figure 10. Percentage distribution of people who died by suicide by race group and means/methods, Saskatchewan, 2018-2021.

Race	Firearm	Gas	Hanging	Toxicity	Trauma	Other
Indigenous	10%	1%	76%	7%	5%	1%
Visible minorities	5%	5%	45%	9%	18%	18%
White	27%	6%	45%	13%	7%	3%
Unknown	8%	2%	69%	4%	10%	6%

Table 11:

Figure 11. Crude mortality rates (per 100,000) of people who died by suicide by age group and race group, Saskatchewan, 2018-2021.

Age Group	Indigenous	Visible minorities	White
10-19	1.23	0.28	0.72
20-29	2.28	0.32	1.68
30-39	1.51	0.21	1.57
40-49	0.62	0.23	1.36
50-59	0.55	0.21	1.96
60-69	0.06	0.09	1.70
70+	0.04	0.15	1.21

Table 12:

Figure 12. Crude mortality rates (per 100,000 population) of people who died by suicide by race group and year, Saskatchewan.

Race	2018	2019	2020	2021
Indigenous	5.32	5.95	6.71	7.19
Visible minorities	1.54	1.79	1.27	1.35
White	13.72	9.52	8.66	8.96

Table 13:

Figure 13. Percentage distribution of Indigenous Peoples who died by suicide by sex and Indigenous identity, Saskatchewan, 2018-2021.

Indigenous Identity	Female	Male
First Nations	41%	59%
Métis	16%	84%

Table 14:

Figure 14. Percentage of Indigenous Peoples who died by suicide by age group and sex, Saskatchewan, 2018-2021.

Age Group	Indigenous Female	Indigenous Male
10-19	30%	13%
20-29	37%	35%
30-39	20%	27%
40-49	5%	13%
50-59	6%	10%
60+	2%	2%

Table 16:

Figure 16. Percentage of deaths by suicide with a suicide note present, Saskatchewan, 2018-2021.

Suicide Note Presence	Percentage
Yes	30.5%
No	69.5%

Table 17:

Figure 17. Percentage of people who died by suicide by race group and toxicology substance groups, Saskatchewan, 2018-2021.

Row Labels	Indigenous	White	Visible minorities
Alcohol	60%	31%	9%
Antidepressants	17%	62%	21%
Cannabis	58%	37%	5%
Opioids	29%	69%	2%
OTC	26%	56%	19%
Stimulants	62%	36%	3%
Non-antidepressants	16%	18%	3%
Other	17%	78%	4%

Table 18:

Figure 18. Count of people who died by suicide by number of substances detected, Saskatchewan, 2018-2021.

Row Labels	Total
1 substance	104
2 substances	112
3 substances	45
≥ 4 substances	29

Table 19:

Figure 19. Counts of people who died by suicide with a documented mental health history by number of diagnoses, Saskatchewan, 2018-2021.

Number of Mental Health Disorders	Count
1	202
2	133
≥ 3	45

Table 20:

Figure 20. Percentage of people who died by suicide with a documented mental health history by sex, Saskatchewan, 2018-2021.

Mental Health History	Female	Male
Yes	44%	38%
No	56%	62%

Table 21:

Figure 21. Percentage of people who died by suicide with a documented mental health history by race group, Saskatchewan, 2018-2021.

Mental Health History	Indigenous	White	Visible minorities	Unknown
Yes	30%	46%	36%	45%
No	70%	54%	64%	55%

Table 22:

Figure 22. Counts of those who died by suicide by number of prescribed medications, Saskatchewan, 2018-2021.

Number of Medications	Count
1	211
2	134
≥ 3	56

Table 23:

Figure 23. Percentage of people who died by suicide and was living alone at the time of death by age group, Saskatchewan, 2018-2021.

Age Group	Living alone	Not living alone	Unknown
10-19	2%	96%	2%
20-29	16%	71%	13%
30-39	23%	69%	8%
40-49	33%	60%	8%
50-59	38%	56%	6%
60-69	37%	53%	10%
70+	33%	65%	2%

Table 24:

Figure 30. Counts of life stressors experienced by people who died by suicide, Saskatchewan, 2018-2021.

Life Stressors	Percentage
1	290
2	413
3	191
≥ 4	63