Key Facts

- 535 fewer cancer cases were diagnosed in Montana during 2020 than the annual average for the previous 5 years.
- Many fewer cases were diagnosed in March, April, and May of 2020 compared to those months in previous years.
- Female breast cancer, lung cancer, and melanoma had the larg-est drop in number of cases in 2020 compared to the previous 5 year average.
- Patients should get caught up on missed cancer screening tests as soon as possible.

How was cancer surveillance in Montana affected by the COVID-19 pandemic in 2020?

The COVID-19 pandemic has affected all aspects of life since 2020, including cancer surveillance. Many hospital and central tumor registry staff across the US were re-assigned to different duties in the early months of 2020 causing delays in reporting. Stay-at-home orders and overwhelmed medical staff caused many routine medical services to be unavailable. Some people may have avoided non-emergency medical care out of fear of being exposed to the SARS-CoV-2 virus in hospitals and clinics. Both the disruption in cancer surveillance workforce and changes to healthcare behaviors have a strong likelihood of impacting cancer registry data. This report explores how these interruptions may have affected cancer surveillance data in Montana.

As of September 2022, the Montana Central Tumor Registry (MCTR) had recorded 5,952 new cancer cases diagnosed during 2020 for an age-adjusted rate of 404 cases per 100,000 residents. This represents a significantly lower number of cases and rate than would be expected based on cancer incidence trends seen in Montana over the previous 10 years

(Figure 1). Case counts have been increasing consistently since 2010 with an average of 6,486 cases each year from 2015 to 2019; 535 fewer cancer cases were diagnosed in 2020 than the annual average. Cancer incidence rates have stayed between about 450 and 480 new cases per 100,000 since 2010 making a rate of 404 a dramatic change.

Figure 1. The **number** of new cancer cases and the age-adjusted cancer incidence **rate** in Montana are lower than expected in 2020 based on trends across the previous 10 years.

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MCTR did experience delays in receiving reports for cases diagnosed in 2020 compared to previous years. If there had not been an interruption to reporting we would expect to have 90% of cases diagnosed in 2020 by November 30 of 2021. However, we had only received 81.7% of expected cases for 2020 by then. Estimated completeness for 2020 didn't exceed 90% until the end of April 2022. However, reporting delays do not fully explain the lower case count for 2020. As of September 2022, all large hospitals in Montana report being finished with abstracting cases diagnosed in 2020 and MCTR has received fewer than 50 reports for cases diagnosed in 2020 since July 2022.

Patterns in case counts and pathology reports by month of diagnosis match known interruptions in healthcare utilization due to the pandemic (Figure 2). During March, April, and May of 2020 Montana had a stay-at-home order in place. These same months saw the largest decrease in new cancer cases being diagnosed and in pathology lab reports compared to the previous 5 years on average.

There was another smaller decrease in cases and lab reports during November and December when there was a large increase in COVID cases in Montana. Even though the monthly case count was close to normal from June to October there were too few cases diagnosed during those months to make up for the deficits from March to May.

The lower case count was not evenly spread across cancer sites either. The largest decreases in new cases compared to the previous 5-year average was in female breast cancer, lung cancer, and melanoma (Figure 3). There was also a significant decrease in cases of prostate cancer, bladder cancer, and leukemia. All of the other most common cancer sites had about the same number of cases as would be expected. Many of the cancer sites with lower case counts are often diagnosed at early stages before any symptoms are noticed: female breast, prostate, and melanoma. These cases may go undiagnosed when routine medical care and screening tests are delayed.

Figure 2. Many fewer cancer cases were diagnosed in March, April, and May of **2020** than in those months during the previous **5 years on average**

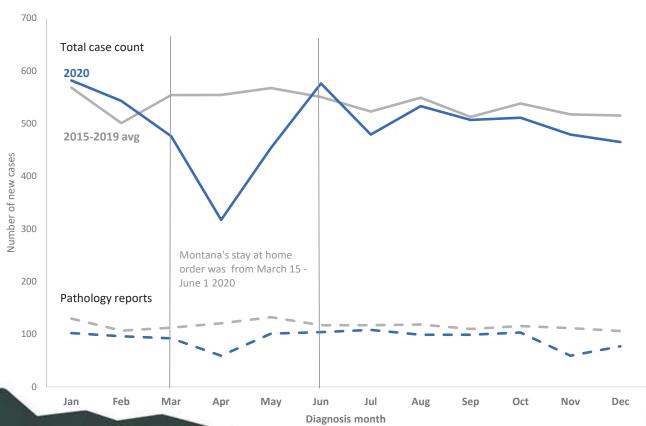
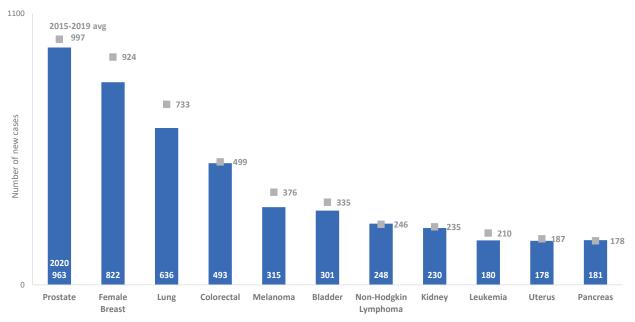






Figure 3. Female breast cancer, lung cancer, and melanoma had the largest drop in number of cases in 2020 compared to the previous 5 year average



There was no significant difference in stage at diagnosis among cases diagnosed in 2020 compared to previous years. However, it will be important to continue monitoring stage distribution (especially for cancer sites with lower incidence in 2020) in the coming years as there may be a shift toward later stage at diagnosis. If early stage cancers were not diagnosed during 2020 because of skipping or delaying screening tests those cancers may develop into later stage disease by the time they are diagnosed.

Healthcare providers should encourage their patients to get caught up on any missed screening tests. The United State Preventive Services Task Force recommends the following screening tests for average risk adults.

Breast Cancer Screening: women aged 50 to 74 should have a mammogram every 2 years.

Cervical Cancer Screening: women aged 21 to 29 should have a pap test every 3 years and women aged 30 to 65 should have either a pap test alone every 3 years or a pap test with high-risk HPV testing every 5 years.

Lung Cancer Screening: adults aged 50 to 80 who have a 20 pack-year smoking history and have smoked within the past 15 years should have a low-dose computer tomograph every year.

Colorectal Cancer Screening: adults aged 45 to 75 should

follow one of the following testing regimens: a colonoscopy

every 10 years, a CT colonography or a flexible sigmoidoscopy every 5 years, a high-sensitivity gFOBT or a

FIT test every year, or a DNA-FIT test every 3 years.

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