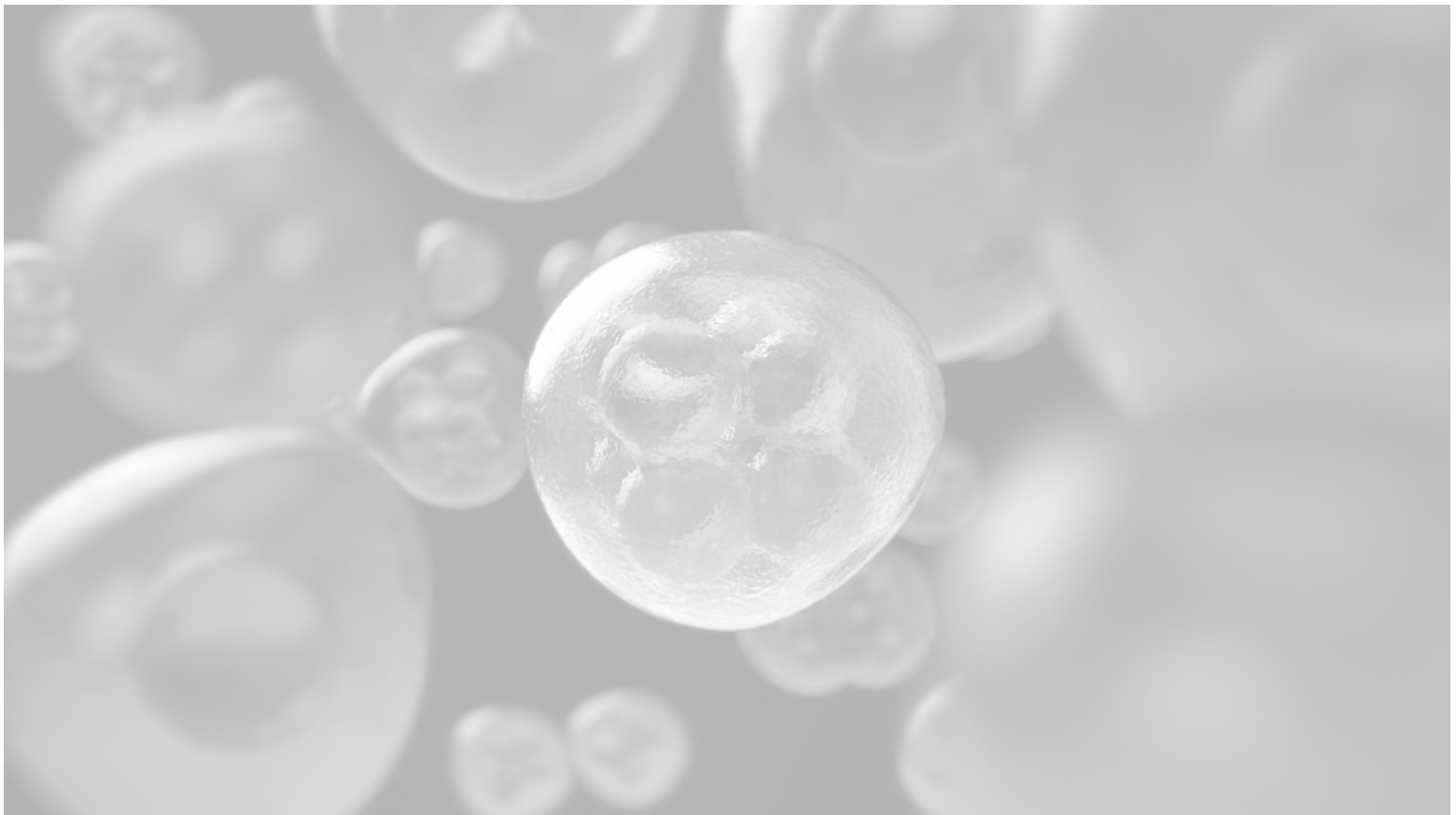




Mitigating the Impact of Delayed Cancer Care:

Employer Demonstration Project Case Study & Report



Mitigating the Impact of Delayed Cancer Care

Employer Demonstration Project Case Studies Report

Although, conceptually, employers and employees may agree on the value of timely, preventive cancer screenings, common sense does not always translate into sound decision making. Not only had levels of testing fallen below target ideals for years, an estimated 10 million cancer screenings were missed during the first months of the COVID-19 pandemic—a trend being watched closely for its downstream effects such as later diagnoses and poor cancer outcomes.¹

Several studies have reported a significant decrease in preventive care access—and in particular, cancer screenings—during the COVID-19 pandemic, because many imaging centers and physicians' offices closed, patients feared leaving their homes, and healthcare providers substituted telehealth for in-office meetings.²

The Dallas Fort Worth Business Group on Health (DFWBGH) recently conducted a high-level employer survey with more than a dozen Texas employers to assess employers' awareness of any decline in cancer screenings and vaccines during COVID, as well as benefits design strategies and communications to encourage cancer screenings, level of concern regarding post-pandemic increased cancer care costs, and strategies to mitigate unintended consequences of delayed or avoided cancer care.

Survey results revealed that availability and attention to meaningful data into employee cancer screening rates among participating employers is insufficient; in fact, many employers have not, to date, maintained or examined data on screening trends over time, particularly around cervical and lung cancers.

Incentives and education are lacking

The majority of employers polled offer **no incentives** (other than no cost-sharing) to encourage employees to participate in cancer screenings, and education around preventive tests tends to heavily favor certain forms of cancer (breast) far more than others (lung).

Anecdotally, certain trends emerged as likely areas of focus and concern for Texas employers in the coming months and years:

Organizations may anticipate healthcare costs to escalate significantly as a consequence of missed or delayed screenings during the pandemic, when virtually all non-emergent procedures were postponed. This may lead to heightened costs for treatment, short- and long-term disability, long-term support, mental health, and more.

A broad gap exists between what employers need to know about screening metrics for each type of cancer and what they know.

As the prevalence of preventive screenings was less than ideal *before* the pandemic, much education and communication is essential to make up shortfalls. Prevention will reduce likelihood of ballooning costs in coming years.

Concurrent with the survey, DFWBGH invited two employer members, City of Plano and Oncor Electric Delivery Company, to participate in an in-depth Employer Demonstration Project focused on evaluating the impact of the COVID-19 pandemic on preventive screenings for the following cancers: Breast, colorectal, cervical and lung—tests most employers offer employees with no cost sharing.

1 aacr.org/professionals/research/aacr-covid-19-and-cancer-report-2022/a-snapshot-of-the-impact-of-the-covid-19-pandemic-on-cancer-research-and-patient-care/

2 Xtelligent Healthcare Media: <https://patientengagementthit.com/preventive-care-takes-a-hit-cancer-screenings-drop-80-amid-pandemic>

We capture and discuss results of these efforts in this Report and in the more comprehensive *Timely Cancer Care Toolkit*, which we've designed to help employers:

Better understand current cancer screening rates

Educate employees about the importance of preventive cancer screenings

Refine or redesign benefit programs to encourage timely cancer screenings

Each organization was asked to:

- Assemble a Project Team composed of the benefits manager, benefits consultant, and TPA
- Collect preventive cancer screening claims data for three years: Y2019, Y2020, and Y2021
- Compare screening rates before COVID (2019), during the height of the pandemic (2020), and as the pandemic abated (2021).

The following cancer screening CPT codes were used for data collection:

Mammogram

77063, 77067 Rev code R403 no Dx requirement

Colorectal-Colonoscopy

G0105, G0120, G0121, G0122 no Dx requirement
44388, 44389, 44392, 44394, 45378, 45380, 45381, 45384 45385 45388 with dx Z00.00, Z00.01, Z12.10, Z12.11, Z12.12, Z80.0, Z83.71, Z83.79

Colorectal- FIT

G0328- no Dx requirement
82270, 82274 with Dxs Z00.00, Z00.01, Z12.10, Z12.11, Z12.12, Z80.0, Z83.71, Z83.79

Colorectal-Cologuard

81528- no Dx requirement

Cervical-Pap

G0101, G0123, G0124, G0141, G0143, G0144, G0145, G0147 G0148, Q0091, P3000, P3001- no Dx requirement
88141, 88142, 88143, 88147, 88148, 88150, 88152, 88153, 88155, 88164, 88165, 88166, 88167, 88174, 88175 with Dx Z00.00, Z00.01, Z01.411, Z01.419, Z12.4

Cervical-HPV Vaccination

90649, 90650, 90651 no Dx requirement

Lung

71271 with Dx -F17.10, F17.211, F17.213, F17.218, F17.219, Z87.891

Each project team also examined their respective organization's benefit strategies around supporting and promoting preventive screenings—such as incentives, communications, and education programs to encourage timely cancer testing—as well as barriers to access.

Any analysis of screening rates needs to take into consideration one important factor that may in some instances skew the data: Not everyone is eligible for a given screening every year. Some guidelines call for mammograms every two years, colonoscopies once every five or 10 years, and HPV vaccines only once.

The City of Plano, a self-insured city government in North Texas that employs 2,400 people—including fire, police, waste management, and many other employees who don't routinely work at a desk—shared comprehensive screening data and offered additional insights into their activities around cancer screening. Although the prevalence of cancer screenings among males covered under the City of Plano Medical Plan changed little between 2019 and 2021, data about covered females reveals some subtle but interesting changes, as highlighted below.

CITY OF PLANO 3-YEAR CANCER SCREENINGS DATA ANALYSIS

	Pre-pandemic (2019)	Pandemic (2020)	% change (2019-20)	Pandemic (2021)	% change (2020-21)	2-yr % change (2019-21)
Mammogram	614	501	↓18	507	↑1	↓17
Colonoscopy	223	205	↓8	202	↓1	↓9
Colorectal FIT	168	119	↓29	107	↓10	↓36
Cologuard	41	35	↓15	38	↑9	↓7
Cervical PAP	743	630	↓15	605	↓4	↓19
HPV vaccination	154	158	↑3	143	↓9	↓7
Lung	29	30	↑3	22	↓27	↓24
Neoplasm claims	5,295	4,720	↓11	5,220	↑11	↓1
Neoplasm claims cost	\$2,238K	\$1,997K	↓11	\$2,987K	↑50	↑33

OBSERVATIONS

In evaluating the data presented here, it's important to consider the social, economic, travel and other restrictions and disruptions during the height of the pandemic in 2020 and the slow and cautious rebound as the pandemic abated in 2021.

Cancer screenings of all types declined during the two-year pandemic, with the largest overall two-year drops in **colorectal FIT** (-36%), **lung** (-24%), **cervical PAP** (-19%) and **mammograms** (-17%). Only **Cologuard®** at-home screenings, recommended for adults over 45 years—which were very few to begin with pre-pandemic—declined during the height of the pandemic (2020), but rebounded slightly in 2021, for an overall two-year decrease of 7%.

The number of **Mammograms**, recommended for females over 45 years, dropped 18% in 2020, but regained 1% in 2021, for an overall decline of 17% during the two-year pandemic. The percentage of the City's 2,110 eligible females who had mammograms pre-pandemic (2019) was quite low: 29%. This declined to 25.4% in 2020, when many imaging centers were closed, but increased slightly to 26.3% in 2021, when imaging centers were reopening. (*Healthy People 2020 Goal: 81%*)

The number of **Cervical PAP** screenings, recommended for females aged 25-65, decreased during both years of the pandemic: by 15% in 2020 and another 4% in 2021, for an overall 19% decrease during the 2-year pandemic. However, the percentage of eligible females who had a **PAP** pre-pandemic (2019) was already low: Only 35% in 2019, then 32% in 2020, and 31% in 2021. (*Healthy People 2020 Goal: 93%*)

Colonoscopies, recommended for adults over age 45, also declined during the pandemic, when many test sites were closed. Moreover, the percentage of eligible adults who had a colonoscopy pre-pandemic was already very low (11% in 2019) and dropped to 10% of eligible adults during each year of the pandemic (2020 and 2021). (*Healthy People 2020 Goal: 70.5%*)

HPV vaccinations, recommended for everyone starting at age 11 or 12 to age 26, slightly increased 3% in 2020, but declined 9% in 2021, for an overall 7% decrease during the two-year pandemic.

Very few eligible members had **Lung** screenings across the three-year period, with a slight 3% uptick in 2020, then a 27% decline in 2021, for an overall two-year decrease of 24%.

Neoplasm Claims decreased 11% during the first year of the pandemic but rebounded 11% in year 2 (2021) as people began to resume their preventive cancer screenings, for an overall increase of 1% during the two-year pandemic period.

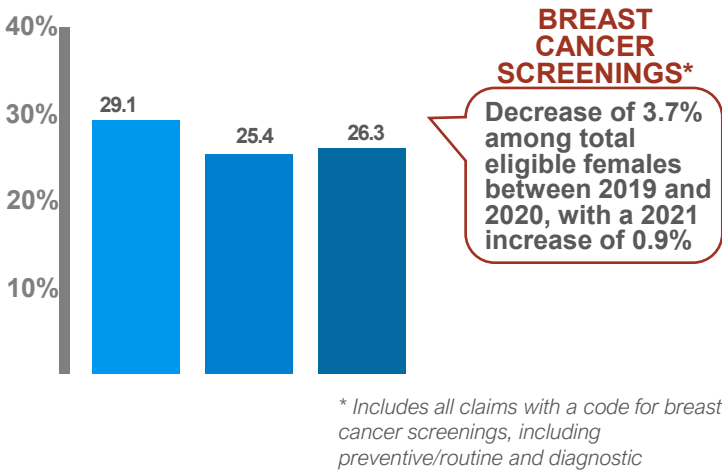
Interestingly, **Neoplasm Costs** also dropped 11% during the first year of the pandemic (2020), as covered members delayed or omitted preventive and early detection cancer screenings for many different COVID-related reasons. However, cancer costs nearly doubled in 2021, for an overall two-year increase of 33%.

Female breast and cervical cancer screenings falling short of pre-COVID-19 levels

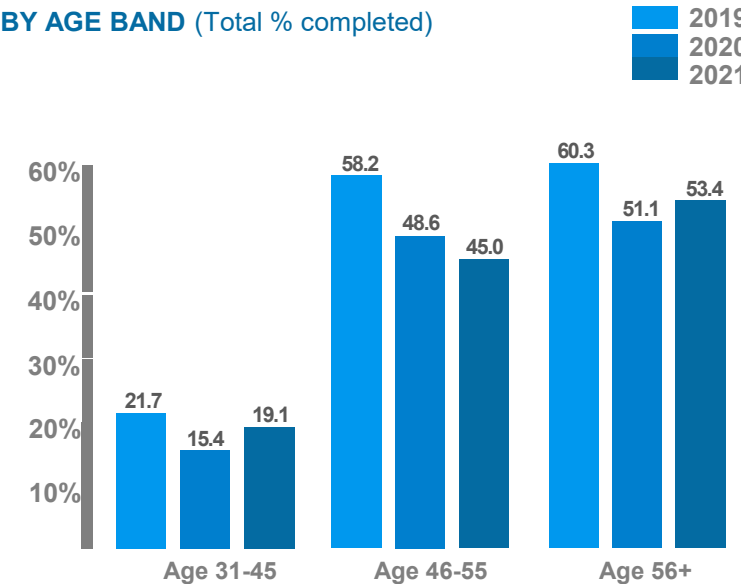
All 2,110 eligible covered females, across all age brackets, showed a reduction in breast cancer screenings from 2019 to 2020. Other than with females between ages 18 and 30, utilization stayed short of pre-pandemic levels in 2019.

Female cervical cancer screenings largely mirrored the reduction in breast cancer screenings from 2019 to 2020. No age brackets rebounded in 2021 to the pre-COVID-19 levels of 2019.

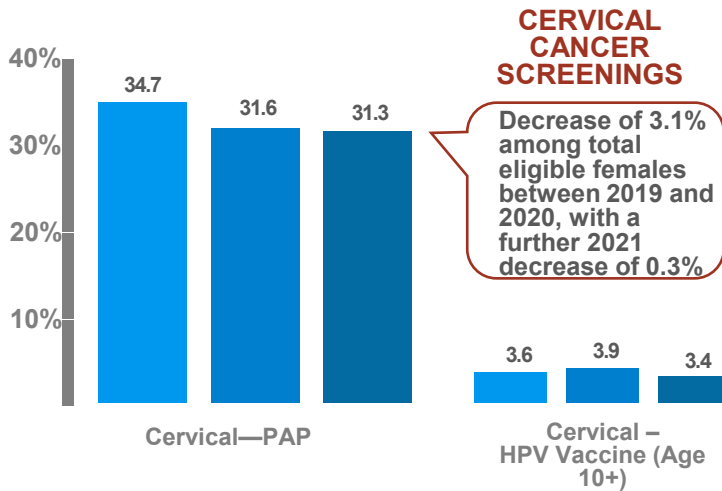
FEMALE BREAST CANCER SCREENINGS (Total % completed)



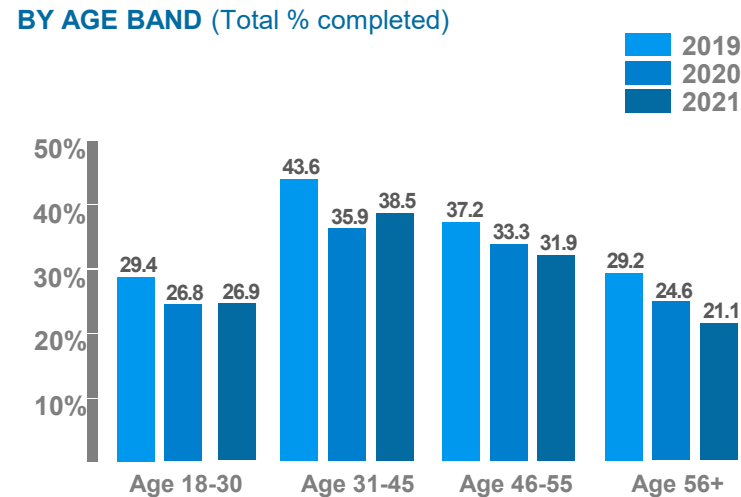
BY AGE BAND (Total % completed)



FEMALE CERVICAL CANCER SCREENINGS (Total % completed)



BY AGE BAND (Total % completed)

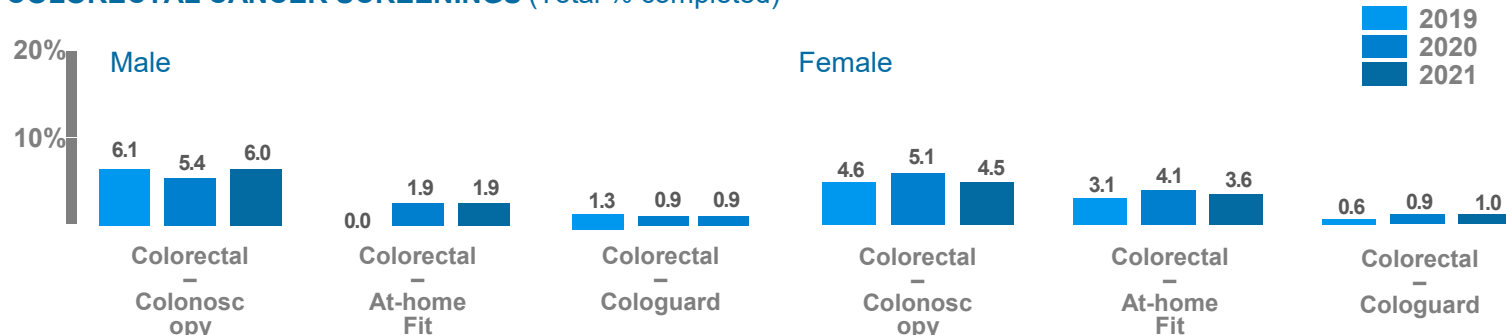


Although City of Plano lacks broad data on the impact over time of preventive screenings, a small sample suggested that those employees who had cancer detected at an early stage missed minimal work, while those who were not diagnosed until a later stage missed considerably more time and faced much less favorable outcomes.

Colorectal screenings and colonoscopies

Based on limited data, no significant difference in colorectal screening patterns seems to have occurred during the period from 2019-2021, particularly when broken out by gender.

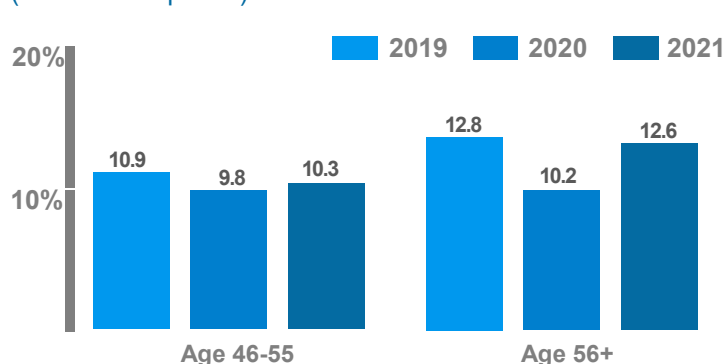
COLORECTAL CANCER SCREENINGS (Total % completed)



Male colonoscopy screening utilization fluctuated based on age

Eligible Males 46 and older saw decreased colonoscopy utilization from 2019 to 2020, followed by a rebound in 2021 almost to pre-pandemic levels.

MALE COLONOSCOPY SCREENINGS BY AGE BAND (Total % completed)



No significant difference in lung cancer screening patterns

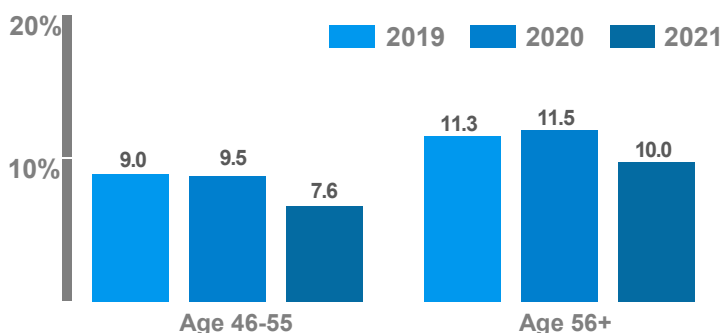
LUNG CANCER SCREENINGS (Total % completed)



Colonoscopy screenings among females were flat or increasing depending on age

Colonoscopy utilization among eligible females 45 and older stayed almost flat from 2019 to 2020 before decreasing in 2021.

FEMALE COLONOSCOPY SCREENINGS BY AGE BAND (Total % completed)



City of Plano maintains a sick leave loan program under which an employee makes a one-time donation of 10 hours and in turn becomes eligible to receive up to three loans of 320 hours in event of a catastrophic illness. Many employees contribute to make the benefit possible for others. Although this program may not advance the overall goal to promote prevention and early diagnosis, it offers a good example of how employers may focus on how to improve quality of life for those with a longer-term, debilitating illness.

Is there a way to evaluate how much the pandemic delayed screenings and treatment compared to pre-pandemic levels?

Overall, such analysis would require more detail than is included in standard carrier claims information, including clinical notes and disease management insight. However, as an observation only, members accessing treatment appear to be sicker and with more advanced disease.

Anecdotally, some members said their screening was done promptly and a biopsy completed; others experienced a delay in physician follow-up around confirming a diagnosis. One member reported waiting 15 months for treatment, while another reported several weeks of delay.

Overall number of cancer cases under the plan has been in decline during the pandemic

The overall number of cancer cases (including benign cancers) under the city’s health plan decreased from 2019 through 2021.

While many cancers decreased in count from 2019 to 2020 before rebounding in 2021, breast, testicular and skin cancer cases jumped in 2020, then dropped in 2021. Cervical and lymphoid cancers increased steadily both years.

Overall and per-member cancer-related costs jumped in 2021 after declining in 2020

OVERALL CANCER-RELATED CLAIMS					AVERAGE PER-MEMBER CANCER-RELATED COSTS				
2019	10.8%	2020	49.6%	2021	2019	4.9%	2020	27.5%	2021
\$2,237,868	▼	\$1,996,507	▲	\$2,986,768	\$19,566	▼	\$18,613	▲	\$23,740

Cancer care costs vary by cancer site and stage. One would expect costs of early-stage prostate cancer to be far less than for stage IIIB colon cancer. Studies show overall annualized costs are highest in the end-of-life cancer phase.

City of Plano has removed some of the cost-share barrier by covering preventive screenings that lead to a more thorough diagnostic test. The City also provides access to an onsite Nurse Navigator who can connect employees to the next appropriate level of care.

Looking ahead: Possible adjustments to engagement strategy and plan design

The City of Plano’s primary goal is to reduce or eliminate financial barriers to important screenings and other health care. Already, the plan covers 100% of all routine and diagnostic colonoscopies and Cologuard® testing, and 100% of any necessary secondary screenings. Still, the City saw significantly fewer overall cancer screenings in 2021 than before the pandemic.

Lung cancer screenings

The City is considering coverage of lung cancer screenings at 100% to ensure those who need such screenings (based on living circumstances or other direct exposure to inhalant carcinogens) can get tested without fear of prohibitive costs.

Enhanced focus on preventive care

A significant portion of the eligible female population opts against routine mammograms (71%) and colonoscopies (95%), despite the proven value of these diagnostic tests. The best path to increase participation in preventive care is recommendation of a physician. The City’s focus will be on improving communication to members, so they engage with a physician. This doctor is expected to follow up to ensure all screenings and procedures are completed in a timely manner and to provide guidance on results and next steps.

More convenient access to mammograms

The City is also considering various ways to further support and promote an increase in scheduled mammograms among covered members. Ideas include inviting an on-site mobile mammogram testing unit with a catchy name like “Mammo-Glams” or “Mimosa and Mammos” with some incentive to participate, and working with a local hospital system to have mobile mammogram units available in May during Women’s Health Month.

Employee communications and incentives

The City continuously communicates the importance of preventive screenings using bathroom flyers, text messages, “TeamPlano” newsletters, postcards, benefit guides, and benefit face-to-face meetings with departments. The City also offers incentives to encourage screenings—particularly a lower premium if patients get appropriate and timely screenings.

CASE STUDY: Oncor Electric Delivery Company

Oncor Electric Delivery Company is the largest transmission and distribution electric utility in Texas. Its health plans cover 4,200 employees and 9,800 total members, of which 55% are male and 45% are female. Oncor promotes a belief that the success of the company is directly tied to the wellbeing of its people. The Live Well enrichment program provides employees with resources to live their best life, at home and at work. The company covers all preventive services at 100% and offers a range of financial incentives to employees and spouses to get annual physical exams and participate in other health-related activities.

ONCOR ELECTRIC 3-YEAR CANCER SCREENINGS DATA ANALYSIS

	Pre-pandemic (2019)	Pandemic (2020)	% change (2019-20)	Pandemic (2021)	% change (2020-21)	2-yr % change (2019-21)
Mammogram	812	876	↑ 8	974	↑ 11	↑ 20
Colonoscopy	673	591	↓ 12	658	↑ 11	↓ 2
Colorectal FIT	41	41	— 0	31	↓ 24	↓ 24
Cologuard	43	61	↑ 42	74	↑ 21	↑ 72
Cervical PAP	359	324	↓ 10	306	↓ 6	↓ 15
HPV vaccination	175	179	↑ 2	188	↑ 5	↑ 7
Lung	15	3	↓ 80	18	↑ 500	↑ 20
Neoplasm claims	4,600	4,024	↓ 13	4,214	↑ 5	↓ 8
Neoplasm claims cost	\$5,212K	\$5,931K	↑ 14	\$5,984K	↑ 1	↑ 15

OBSERVATIONS

In evaluating the data presented here, it's important to consider the social, economic, travel and other restrictions and disruptions during the height of the pandemic (2020) and the slow and cautious rebound as the pandemic abated in 2021.

Several types of Cancer Screenings declined during the first year of the pandemic (2020), including **Lung** (-80%), **Colonoscopy** (-12) and **Cervical PAP** (-10%). However, the second year (2021) saw rebounds in **Lung** (+500%) and **Colonoscopy** (+11%). Screenings.

Cervical PAP screenings for eligible females declined each year of the pandemic, by 10% in 2020 and another 6% in 2021, for an overall 15% decrease during the two-year pandemic.

However, a few types of Cancer Screenings increased during the two-year pandemic, contrary to City of Plano's experience:

- The number of **Mammograms** for eligible females grew 8% in 2020 and another 11% in 2021, for an overall increase of 20% during this 2-year period. The percentage of eligible females who had **Mammograms** pre-pandemic (2019) was quite high: 67.8%. Surprisingly, the percentage increased slightly in 2020 even though many imaging centers were closed, but then dropped slightly in 2021 to 65.8%. (*Healthy People 2020 Goal: 81%*)
- **Cologuard**® Screenings were very few pre-pandemic (43) and showed the largest increase each year of the pandemic: 42% in 2020 and 21% in 2021 for an overall gain of 72% during the two-year period.
- **HPV Vaccines**, recommended for everyone starting at age 11 or 12 through age 26, increased 2% in 2020 and another 5% in 2021, for an overall 7% increase during the 2-year pandemic.
- **Lung** screenings for eligible members, which were very few to start with (15 in 2019), had the largest decline (-80%) in the first year of the pandemic, but rebounded 500% in 2021 to 18, for an overall two-year gain of 20%.

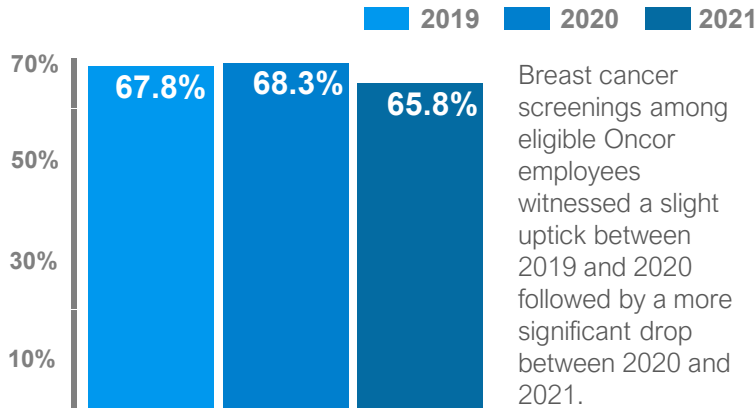
The number of **Neoplasm Claims** decreased 13% during the first year of the pandemic, with a slight 5% uptick in 2021; nevertheless, there was an overall decrease of 8% during the two-year pandemic.

Neoplasm Claims Costs increased 14% in 2020, plus another 1% in 2021, for an overall two-year increase of 15% during the pandemic.

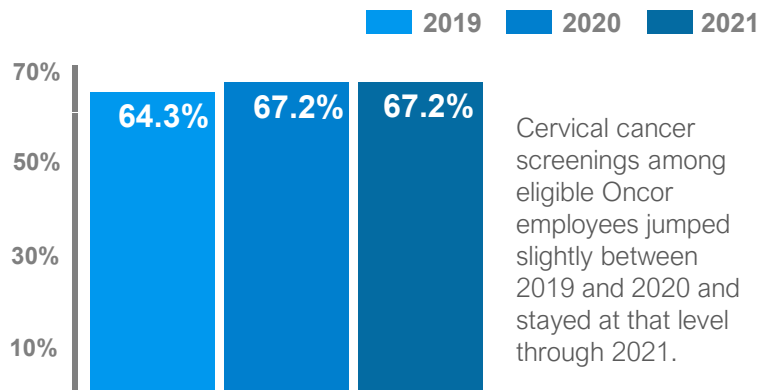
Small changes in cancer screening rates during the 2-year pandemic period

The three-year period from 2019 (baseline) through 2021 saw only minor changes in the percentage of patients screened for breast, cervical and colorectal cancer among Oncor Electric employees. Overall, 2020 screenings were down 10%-15% but returned to normal levels in 2021.

BREAST CANCER SCREENINGS (Total % completed)



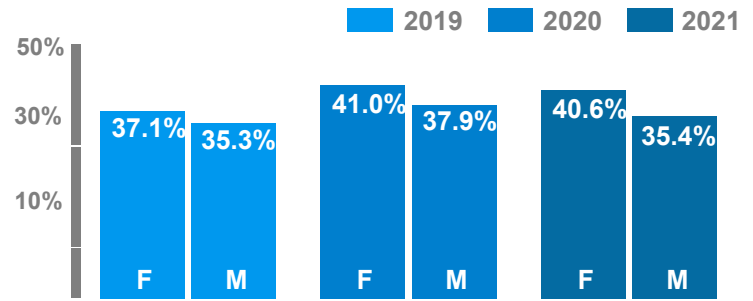
CERVICAL CANCER SCREENINGS (Total % completed)



Oncor believes that while some screenings may have been slightly delayed, covered members quickly got their screenings up to date. They do not expect increased cancer treatment costs as a result of pandemic-related delays.

COLORECTAL CANCER SCREENINGS

(Total % completed)



Among both females and males, colorectal cancer screenings increased between 2019 and 2020 before declining slightly in 2021.

Oncor takes pride in its success at promoting annual physicals and removing barriers to screening and other early detection techniques. In addition, Oncor's "culture of safety" may contribute to greater compliance with screening suggestions from a primary care physician.

Observations and future plans include:

There has been no significant change in cancer claims from year to year. It appears the number of cancer claimants decreased in 2020, but claims paid for cancer went up. There were no long-term disability claims for cancer in any of the three years.

Based on limited data, it appears severity/cost of cancer was up in 2020 compared to 2019 with cost up 14% and number of claimants down 13%. A slight uptick in claimants with minimal change in cost occurred in 2021.

Blue Cross Blue Shield will be providing mobile mammography for Oncor members in certain Texas locations where access is limited that will hopefully catch some employees or spouses who are having trouble getting a mammogram scheduled.

Oncor plans a renewed focus on wellbeing and communications around wellbeing incentives, including the importance of preventive exams and screenings.

The Dallas-Fort Worth Business Group on Health (DFWBGH) is grateful for the generous support of our project sponsors, without whom this important research would not have been possible.



We also appreciate the participation of DFWBGH employers, **City of Plano**, and **Oncor Electric Delivery Company** and their project teams, who were generous with their time, talent and resources to help other employers better understand the impact of delayed cancer care screenings during the pandemic.

Finally, we also would like to recognize **Aon**, **BCBS-TX**, **Brown & Brown**, **Hays**, and **WebTPA** for guidance, data and insights that added substance and value to this report.

How we conducted our research

Project teams were formed for each participating organization, composed of the benefits manager, benefits consultant, and TPA representative.

City of Plano Project Team

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Kim Brown, Account Executive, WebTPA

Oncor Electric Delivery Company Project Team

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The Dallas-Fort Worth Business Group on Health (DFWBGH)
is an employer-led coalition of Dallas and Fort Worth area employers and health services organizations committed to educating and empowering employers and their employees to make informed, value-driven healthcare decisions and to promoting healthcare quality, cost-effectiveness, transparency and accountability in our community.

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