



Board of Supervisors Memorandum

September 20, 2022

COVID-19 Vaccination Requirements for Pima County Employees

Background

On [August 31, 2021](#), the County Administrator directed that all offers of employment should be contingent upon fully vaccinated against COVID-19 within 30 days of employment. This vaccine requirement was created to protect the workforce and the public they serve. It applied to all new hires, promotions, and those employees who had a transfer/change in status. Employees who failed to obtain a vaccine within the 30-day timeframe, could have their offer rescinded if there was not a medical or religious accommodation to be made. Shortly thereafter, effective [October 1, 2021](#), all new hires, promotional employees and those who had a transfer/change in status were to document their vaccination status on the date of hire.

On September 7, 2021, in response to increased COVID-19 related health plan costs and to further incentivize vaccination, the Board of Supervisors approved a vaccine surcharge on the health insurance medical premium of \$45.51 per pay period (\$1,183.26 annually). The surcharge was applied to all unvaccinated employees who were on our insurance plan effective November 2021. Unvaccinated employees with a valid medical or religious exemption were not subject to the surcharge.

Governor Ducey signed [House Bill 2498](#) on April 25, 2022. This law precludes any local government from requiring COVID-19 vaccination as a condition of employment. It becomes effective on September 24, 2022 (90 days after the end of the Arizona Legislature), and thus eliminates the ability of all government employers to use this tool to protect their employees or customers.

More recently on May 17, 2022, in response to House Bill 2498, the Board clarified the COVID-19 vaccine requirements for Pima County employees. It specifically continued the requirement for new hires and promotions until HB2498 becomes effective. The Board also continued to allow the requirement for vaccination for those employees working in clinical care environments.

Impact

The policy objective for incenting vaccination among our workforce has been achieved. On September 1, 2021, and prior to the approval of the surcharge, there were 4,632 vaccinated employees. Following the surcharge implementation, the total number of vaccinated employees by the end of the calendar year rose to 5,455. Last week, the current number of documented fully vaccinated employees was 5,635.

During the time period when COVID-19 vaccines were mandated, an employee could request a medical or religious exemption from vaccination. Human Resources received a total 284 such requests.

Religious requests were the majority, 257 religious exemption requests were received. Of these, 70 requests were incomplete. Of the remaining 187 requests, 149 accommodations were granted to current employees and 38 accommodations were granted to new hires or employees seeking promotional opportunities. Nineteen (19) religious exemptions were subsequently denied. Eleven (11) employees who requested and received religious accommodations later became vaccinated.

Medical requests numbered 27. Of these, 26 were approved, of which 14 of the 26 requests were temporary deferrals. The one (1) denial of a medical accommodation was due to a rescission of an offer of employment.

Not surprisingly, the number of employees subject to the insurance surcharge was low. Currently, only 236 employees pay the \$45.51 surcharge each pay period. Please note that employees granted a religious accommodation or medical exemption are not subject to the surcharge.

The overall fiscal impact of COVID-19 on our workforce and the Health Plan has been significant. The Health Plan processed 7,619 claims from plan members (covered employees and their dependents) from January 2020 to June 2022. Since the onset of the pandemic the health plan has paid well over \$5.4 million dollars for health care services associated with COVID-19 and related diagnoses. (Attachment 1)

The Board's decision to apply a surcharge was a response to increasing costs related to the very serious and very expensive COVID-related morbidity observed particularly in unvaccinated populations. Third party analyses by Milliman, projected the amount of incremental cost differential between vaccinated and unvaccinated beneficiaries was expected to add an additional \$8.85 to \$46.29 per member per month for similarly situated employers. (Attachment 2)

Our own experience for the period of enforcement of the insurance surcharge is more dramatic. We looked at the actual health care claims from employees while the Board's insurance surcharge was in place. All health care costs paid by the plan, between October 1, 2021 and July 31, 2022, were identified for the 568 unvaccinated and 4,400 vaccinated employees who received care during that time. Although unvaccinated employees were only 11.4% of all employees with health care claims, their total health care costs represented 17.3% (\$4,361,869) of the total spend during this time. The health care cost to Pima County for unvaccinated was \$768 per employee per month, compared to \$475 for vaccinated per employee per month. This difference was seen across 7 of 10 categories of health care services, but was driven overwhelmingly by differences in in-patient costs and specialty physician services. Even factoring out employees with very elevated/catastrophic

The Honorable Chair and Members, Pima County Board of Supervisors
Re: **COVID-19 Vaccination Requirements for Pima County Employees**
September 20, 2022
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health care expenditures (high cost claimants exceeding \$100,000 in claims), the cost differential remains significantly elevated. (Attachment 3)

Recommendation

I recommend ending the administrative requirement for the documentation of COVID-19 vaccination status for employment with Pima County effective September 24. At that time, the health insurance surcharge will also be eliminated. In its place, I recommend that vaccinated employees who provide a yearly documentation of COVID-19 booster vaccination status to Human Resources receive an additional 16 hours of paid leave to continue to incentivize a highly vaccinated workforce.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jan Leshner', with a large circular flourish at the beginning.

Jan Leshner
County Administrator

JKL/dym – September 7, 2022

Attachments

c: Francisco García, MD, MPH, Deputy County Administrator and Chief Medical Officer
Carmine DeBonis, Jr., Deputy County Administrator
Steve Holmes, Deputy County Administrator
Cathy Bohland, Director, Human Resources
Terry Cullen, MD, MS, Public Health Director, Health Department
Scott Zufelt, Director, Analytics and Data Governance

ATTACHMENT 1

COVID All-Time Experience: Jan 2020 - Jun 2022, paid through June 2022

Year Over Year Results:

Prior: Jan 2021 - Jun 2021, paid through June 2021

Current: Jan 2022 - Jun 2022, paid through June 2022

Why use this report?

Gain a deeper understanding of the overall utilization and trend impacts from the COVID pandemic.

This detailed Monthly Analytic Report provides insights into the following key areas:

- COVID-19 specific claim activity
- Telemedicine volumes and impact
- Overall health care utilization changes
- Risk profile for severe illness based on CDC guidance
- Counties that have high or emerging levels of COVID-19
- COVID-19 vaccinations

This data can help you more fully explore the types of services and population being impacted during the pandemic and will help you answer your key questions such as:

- How many members have evidence of the condition or been tested?
- How many hospitalizations have there been?
- How many people have been vaccinated?
- Where are people seeking care?
- How has overall utilization of physician services changed with social distancing and closure of physician offices?
- What is the demand and utilization for telehealth services?
- What is the higher risk for severe illness profile within this population? What is the risk profile for employees specific?
- Are we seeing the impact of deferral of care such as reduction in elective surgeries, etc.?

What codes are used in the COVID monthly view?

The following diagnoses and procedures are used to identify likely COVID-19 related claims in this report. **These codes represent our current best efforts to identify likely COVID-19 activity.** References to COVID-19 in this report are based on the codes below, some of which are not COVID-specific.

COVID-19- Specific Diagnosis and Related Codes - These are codes that are specific to COVID-19 related illness:

U07.1 - COVID-19 confirmed cases - Data is included when this code is billed as the primary, secondary or tertiary diagnosis

J12.82 - Pneumonia due to COVID-19 (new 1/1/2021)

M35.81 - Multi-inflammatory syndrome (new 1/1/2021)

M35.89 - Other specified systemic involvement of connective tissue (new 1/1/2021)

Coronavirus Diagnosis Codes - Providers were guided to bill these in the initial outbreak:

B97.29 - Other coronavirus as the cause of disease

B34.2 - Coronavirus infection, unspecified

Exposure Diagnosis Codes - Pre-existing and new codes used for COVID-19 exposure and non-confirmed/non-presumptive cases. Because these codes may also be used for suspected exposure to other biological agents and viral communicable diseases, some claims may be for non-COVID related cases:

Z03.818 - Suspected exposure to other biological agents ruled out

Z20.828 - Exposure to other viral communicable diseases

Z20.822 - Contact with and (suspected) exposure to COVID-19 (new 1/1/2021)

Encounter Diagnosis Code - New code introduced specifically for visits related to COVID screenings:

Z11.52 - Encounter for screening for COVID-19- (new 1/1/2021)

Testing Procedure Codes - Used to identify COVID-19 and antibody testing: **86328, 86408, 86409, 86413, 86769, 87426, 87428, 87635, 87636, 87637, 87811, C9803, G2023, G2024, U0001, U0002, U0003, U0004, U0005, 0202U, 0223U, 0224U, 0225U, 0226U, 0240U, 0241U.**

Home testing is identified through NDCs **08337000158, 10055097004, 11877001129, 11877001133, 11877001140, 14613033937, 14613033967, 14613033968, 14613033972, 50010022431, 50010022432, 50010022433, 51044000842, 56362000589, 56362000590, 56362000596, 56964000000, 82607066026, 82607066027, 82607066028, 82607066047, 42022224, 16490002574, 60006019166, 95893077490.**

Vaccination Administration Procedure / NDC Codes - Used to identify COVID-19 vaccination administration. The actual vaccine cost is being paid by the federal government; data in this report represents administration cost / utilization: **: 0001A, 0002A, 0003A, 0004A, 0011A, 0012A, 0013A, 0031A, 0034A, 0064A, 0051A, 0052A, 0053A, 0054A, 0071A, 0072A, 0073A, 0094A, 0074A, 0081A, 0082A, 0083A, 0111A, 0112A** and NDCs **59267100001, 59267100002, 59267100003, 80777027310, 80777027399, 80777027398, 80777027315, 59676058005, 59676058015, 59267102501, 59267102502, 59267102503, 59267102504, 59267105501, 59267105502, 59267105504, 80777027505, 80777027999, 59267007801, 59267007804, 80777027905**

Telemedicine - Metrics include Teladoc as well as community based providers performing approved telemedicine services

Things to consider when reviewing this data

Reporting is based on diagnosis and procedure codes that are billed on a claim

Standard codes and coding guidance have rapidly evolved throughout the pandemic. While healthcare institutions adjust to new codes and coding changes, claims may be understated based on:



- Provider variance in understanding billing guidance
- Inability to confirm diagnosis due to testing limitations



- Test results received by provider post-claim submission
- No claim submission (e.g., testing or vaccination administration covered by public health entity or inpatient)



- Claim submission prior to the introduction of COVID-19 specific ICD-10 codes
- COVID-19 vaccine administration information included in this report represents claims covered under the Aetna medical or Aetna pharmacy benefits. International claims may not be billed and processed in accordance with the coding and definitions used in this report and may impact the data/results shown
- Data in this report is compiled at the group number level. Member movement between group numbers may impact aggregate claimant counts.

Report terms

Here are more specific details behind terms used in this report:

Claimant Distribution Definitions:

- **Confirmed Cases** - The number of members who had a claim with the COVID-19 specific diagnosis code U07.1 billed as one of the first 3 diagnoses on a claim or had a claim with J12.82, M35.81 or M35.89 as a primary diagnosis

- **Probable Cases** - The number of members who have either of the general coronavirus codes shown on the left (B97.29 or B34.2) billed as the primary diagnosis on a claim

- **Exposure Cases** - The number of members who have any of the 3 exposure diagnosis codes shown on the left (Z03.818, Z20.828, Z20.822) billed as the primary diagnosis on a claim

- **Lab Test, Vaccine or Encounter Only Cases** - The number of members who had a lab test with a diagnosis code other than those identified above or only had evidence of an encounter for screening (Z11.52) or a vaccination with no other diagnosis codes used in this report. These members have ONLY had claims for testing, screening encounters or vaccines and do not have other claims that fit the criteria outlined above

High Risk Members - We used the CDC guidance to identify members within the population that may be at higher risk for severe illness. This includes members who are over 64 as well as those that have one or more conditions outlined by the CDC such as serious heart conditions, diabetes, chronic kidney disease, etc. The CDC guidance can be found here: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>.

Note: Customers new to Aetna 1/1/2022 will not have condition-based risk data populated until there is sufficient information to identify disease states.

Time Periods - There are 2 time periods used in this report:

• COVID All-Time Experience

Represents incurred claims for COVID-related expenses from January 1, 2020 through the most recent incurred month

• Year Over Year Experience (Current and Prior)

Represents 2022 and 2021 incurred claims for the dates shown at the top of this report. The claim lag for both time periods is the same to provide a consistent year over year comparison.

Section I

COVID-19 Population Alerts

COVID-19 population alerts

Hot Spots in the United States - Map (to the right)

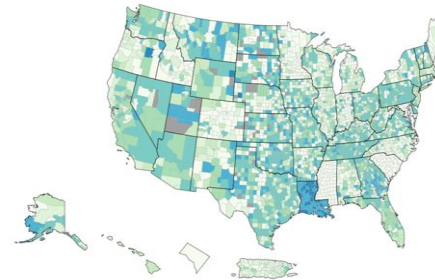
The map shows how the number of new cases have CHANGED in the last two weeks across the U.S. (not plan sponsor-specific). This provides an indication of which direction the level of new cases is trending.

County Alerts (below)

The tables below show the average daily new cases per 100,000 individuals by county over the past 7 days. These rates are reflective of the overall population of the county, not of your specific membership. This data is to highlight where you have membership in counties experiencing high or emerging rates of new cases.

We use information collected by the CDC to calculate a '7 day average new case count.' This data is normalized for population size (new cases per 100,000 individuals) to smooth unusual daily highs or lows, caused by data collection fluctuations.

The data below is for your top 25 counties (by membership) that are identified as having either a high or emerging average daily case rates. There could be less than 25 counties in the tables (or none) if the alert criteria is not met.



○ -25.01% or less ○ -25% - -10.01% ○ -10% - -0.01% ○ 0% - 10% ○ 10.01% - 100% ○ 100.01% - 1,000% ○ 1,000.01 or more ● No Data

Heat map of recent growth by county: This map shows the average growth between the last seven days and the previous seven days. Darker colors indicate an increasing trend while lighter colors indicate a decreasing trend.

Last Updated: 07/05/2022. Source: CDC

High risk counties (red) had greater than 25 daily new cases per 100,000 individuals

Emerging risk counties (orange) had between 10 and 25 daily new cases per 100,000 individuals

Data is for week ending:
07/03/2022

Note: Counties with less than 20 new cases in the prior week will not appear in this report. New case data is not available for approximately 30 counties. "Your members" represents your total commercial Aetna self-insured membership.

High Risk (>=25 new cases per 100,000 individuals)

State, County	County population	Your members	Avg daily new cases per 100K
Arizona, Pima	1,047,279	9,917	30.9
Arizona, Pinal	462,789	104	30.2
Arizona, Santa Cruz	46,498	65	27.0
Arizona, Cochise	125,922	60	41.2
Arizona, Maricopa	4,485,414	11	33.1
Arizona, Gila	54,018	8	29.4
Oregon, Deschutes	197,692	2	61.9
Oregon, Jefferson	24,658	1	47.5
Arizona, Coconino	143,476	1	34.7
North Carolina, Iredell	181,806	1	31.9
Arizona, Yavapai	235,099	1	31.7
Illinois, Cook	5,150,233	1	30.1
Montana, Yellowstone	161,300	1	26.9

Emerging Risk (10-24 new cases per 100,000 individuals)

State, County	County population	Your members	Avg daily new cases per 100K
Arizona, Yuma	213,787	2	14.0
Colorado, Arapahoe	656,590	1	15.0

Section II

All-Time COVID-19 Experience

Time period: Claims incurred Jan 2020 - Jun 2022, paid through June 2022

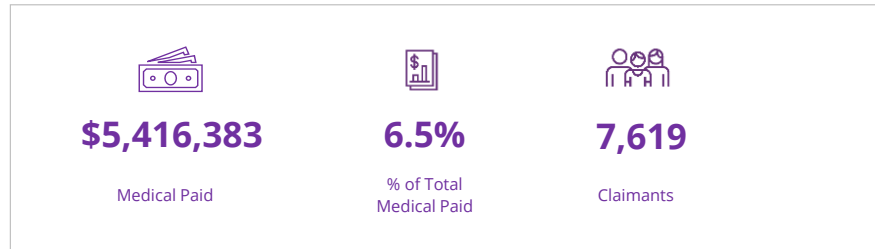
At a glance

COVID-19 All-time experience

Average Members: 10,677

Time period: Jan 2020 - Jun 2022, paid through June 2022

Key Statistics (Medical Claims Only)



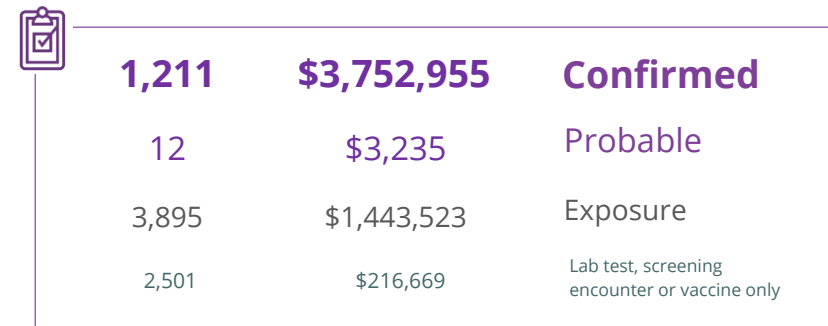
More detailed information is found on the next page to help you answer critical questions:

- ✓ How is COVID-19 impacting our health care spend? What is the context of trends and spend distribution across cost categories?
- ✓ How many members are affected?
- ✓ How many claims-based tests have been conducted for the virus and antibodies?
- ✓ How many individuals have received vaccinations?
- ✓ How is COVID spend trending in 2021 compared to 2020?

Additional views and detailed data tables following the main report also provide specific cost and utilization metrics across age band categories as well as service categories

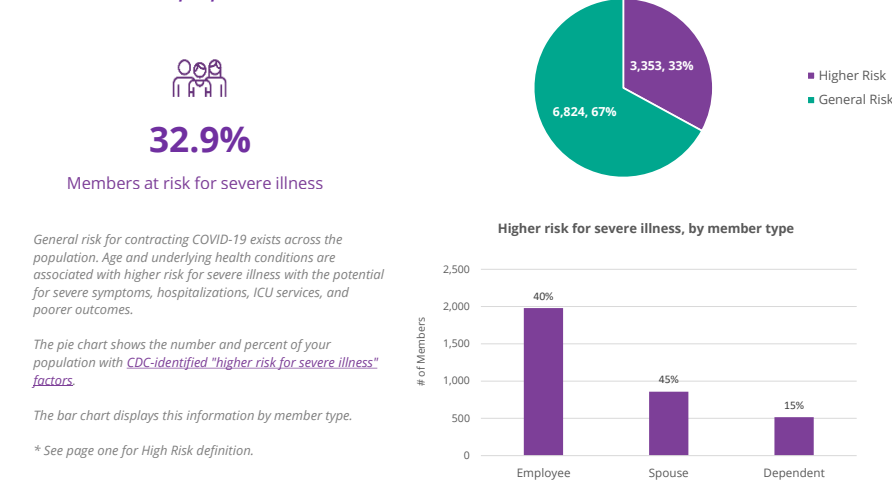
Claimant Distribution*

how your total claimants break down based on diagnosis code information

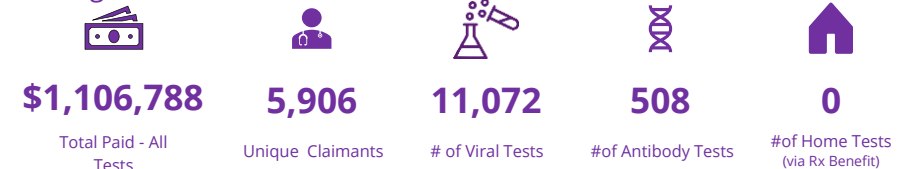


*refer to Report terms on page 1

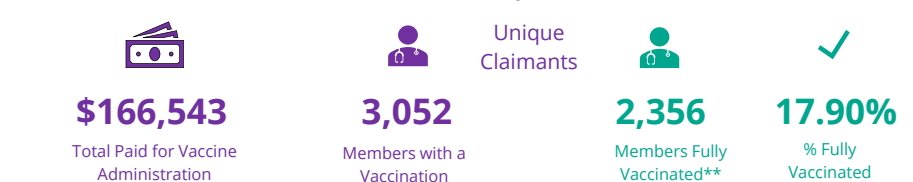
COVID-19 population risk*



Testing



Vaccine Administration (Medical & Pharmacy)*



*Includes claims paid under the Aetna Pharmacy benefit plan if applicable

**The unique count of members => 5 years of age who have received all of the required doses based on claims received

COVID-19 All-time experience details

Average Members: 10,677

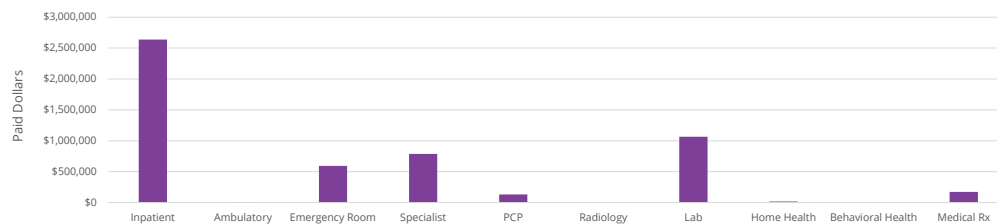
Time period: Jan 2020 - Jun 2022, paid through June 2022

COVID-19 Cost Detail Breakdown (Medical Claims Only)

\$5,416,383

represents COVID-related claims for 7,619 unique claimants across these medical cost categories:

COVID-19 represents 6.5% of total medical cost for experience period



Spotlight on specific categories

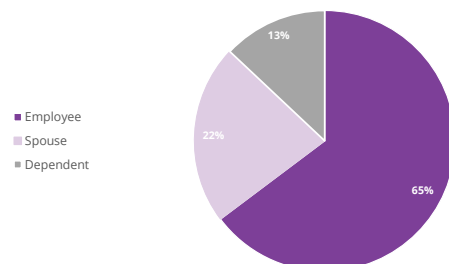


62
Admissions
Inpatient
Paid
\$2,637,570

533
Visits
Emergency Room
Paid
\$593,671

888
Visits
Telemedicine
Paid
\$45,837

Percent Paid by Member Type



Claimant distribution - All Members*

how your total medical claimants break down based on diagnosis code



1,211	\$3,752,955	Confirmed
12	\$3,235	Probable
3,895	\$1,443,523	Exposure
2,501	\$216,669	Lab test, screening encounter or vaccine only

*refer to Report terms on page 1

Claimant distribution - Employees*

how your total claimants break down based on diagnosis code information



693	\$2,683,871	Confirmed
9	\$2,254	Probable
1,956	\$716,645	Exposure
1,236	\$104,062	Lab test, screening encounter or vaccine only

*refer to Report terms on page 1

Claimant distribution - Spouse & Dependents*

how your total claimants break down based on diagnosis code information



518	\$1,069,084	Confirmed
3	\$981	Probable
1,939	\$726,877	Exposure
1,265	\$112,607	Lab test, screening encounter or vaccine only

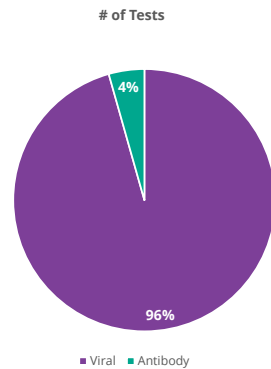
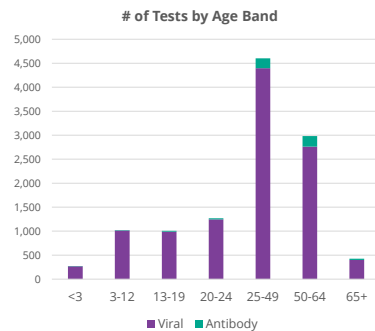
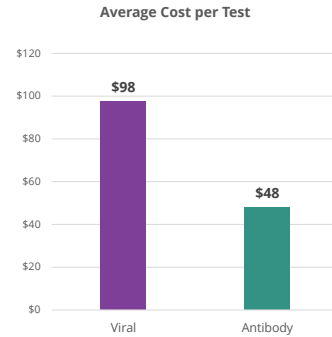
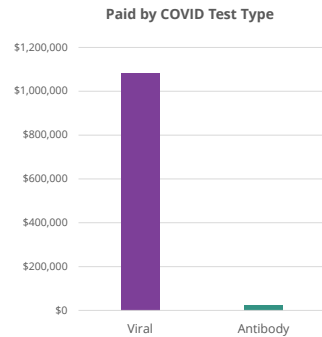
*refer to Report terms on page 1

COVID-19 All-time experience - Testing and Vaccination

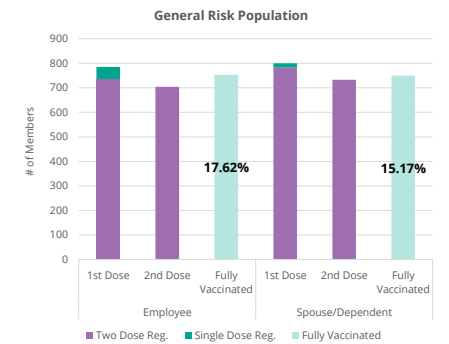
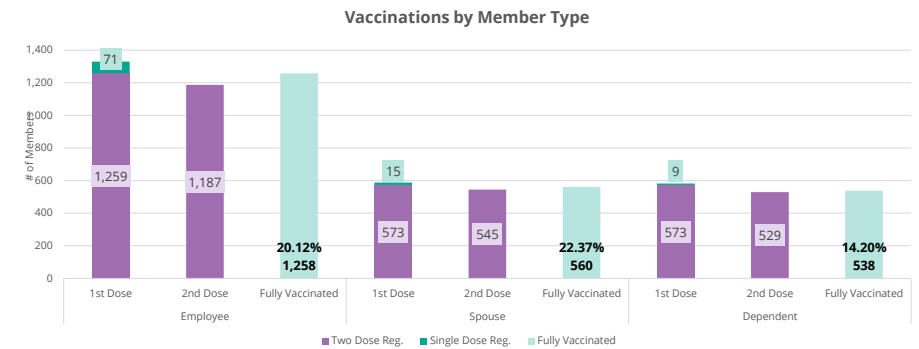
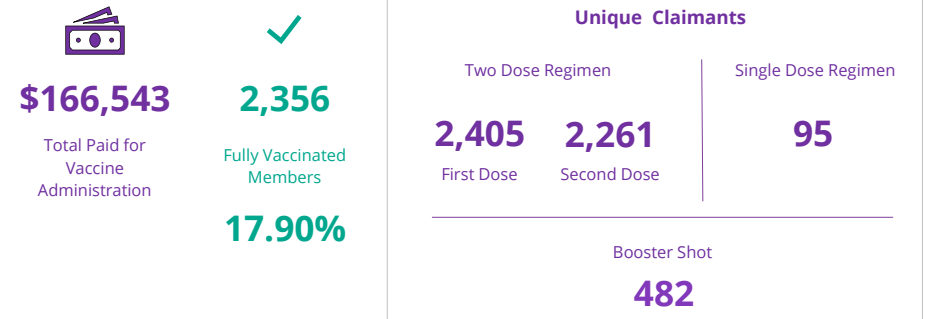
Average Members: 10,677

Time period: Jan 2020 - Jun 2022, paid through June 2022

COVID-19 testing



COVID-19 Vaccine Administration (Medical & Pharmacy)



* See page one for High Risk definition

Section III

Year Over Year Results

Current period: Claims incurred Jan 2022 - Jun 2022, paid through June 2022

Prior period: Claims incurred Jan 2021 - Jun 2021, paid through June 2021

Total health plan experience - year over year

Average Current Members: 10,230

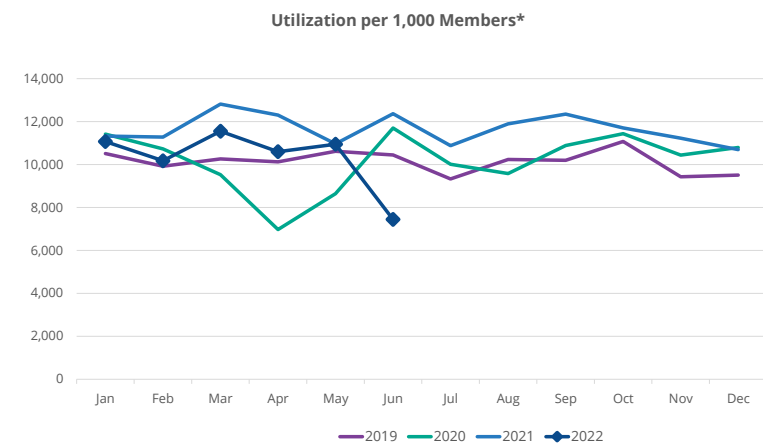
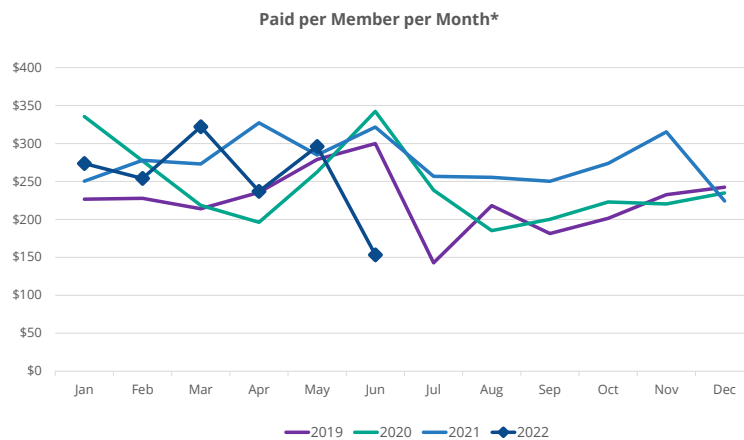
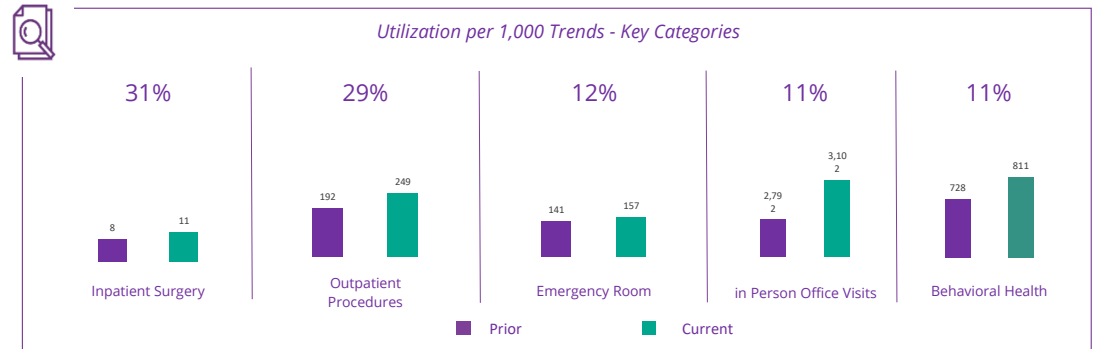
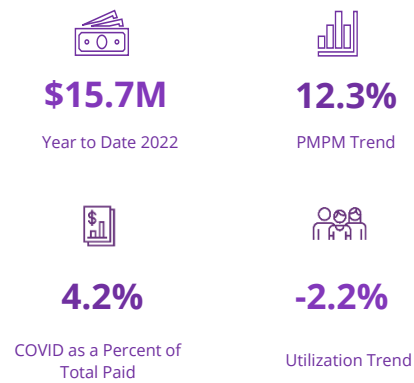
Current period: Claims incurred Jan 2022 - Jun 2022, paid through June 2022

Prior period: Claims incurred Jan 2021 - Jun 2021, paid through June 2021

Overall Healthcare Services (Medical Claims Only)

How are services changing?

Spotlight - How is utilization changing?



* Most recent months' claims are understated and will show lower results until claims become complete

* Most recent months' claims are understated and will show lower results until claims become complete

COVID experience - year over year

Average Current Members: 10,230

Current period: Claims incurred Jan 2022 - Jun 2022, paid through June 2022

Prior period: Claims incurred Jan 2021 - Jun 2021, paid through June 2021

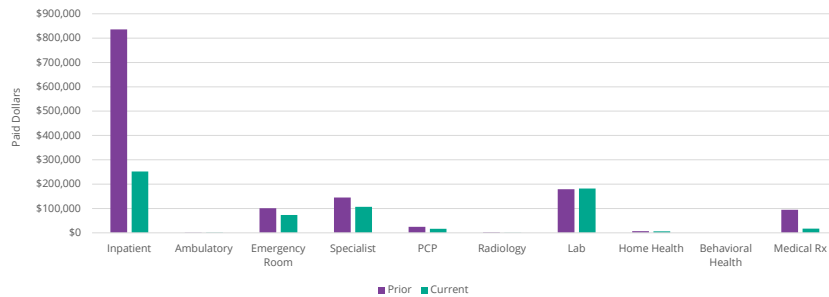
COVID-19 Cost Detail Breakdown (Medical Claims Only)

\$656,046

represents 2022 COVID-related claims for
unique claimants across these medical cost categories:

1,978

COVID-19 represents **4.2%**
of total medical cost for the current period

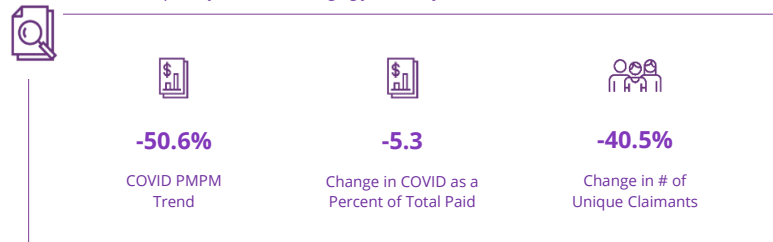


Current period spotlight on specific categories

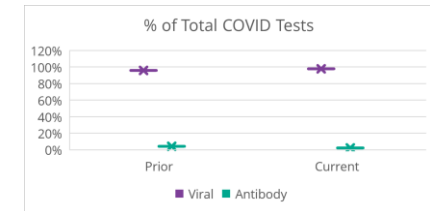
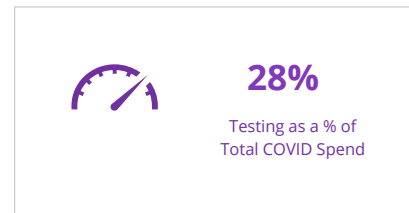
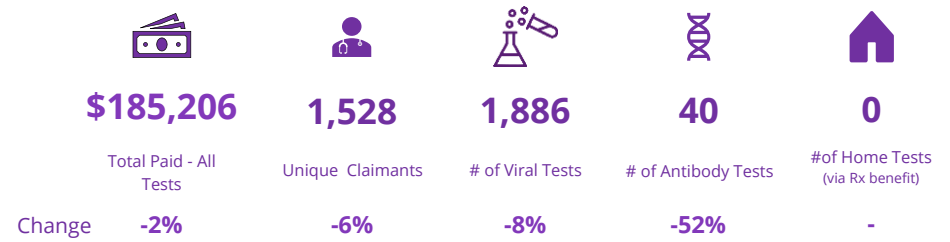


*For Aetna Pharmacy Benefit plans.

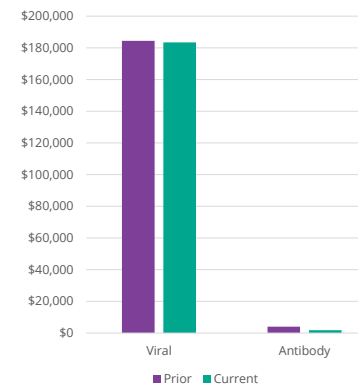
How is the impact of COVID-19 changing year over year?



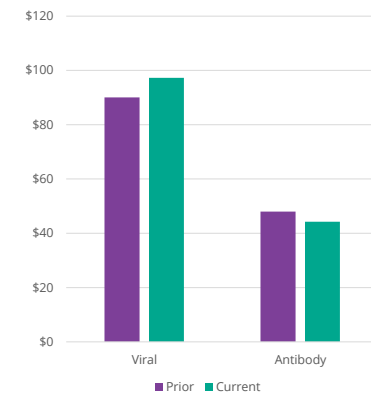
Testing



Paid by COVID Test Type



Average Cost per COVID Test



Telemedicine experience - year over year

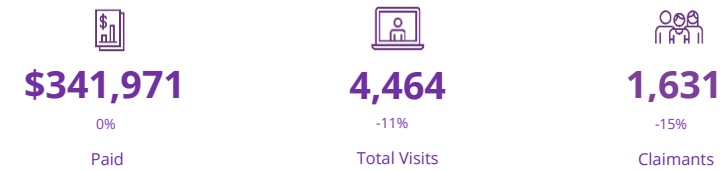
Average Current Members: 10,230

Current period: Claims incurred Jan 2022 - Jun 2022, paid through June 2022

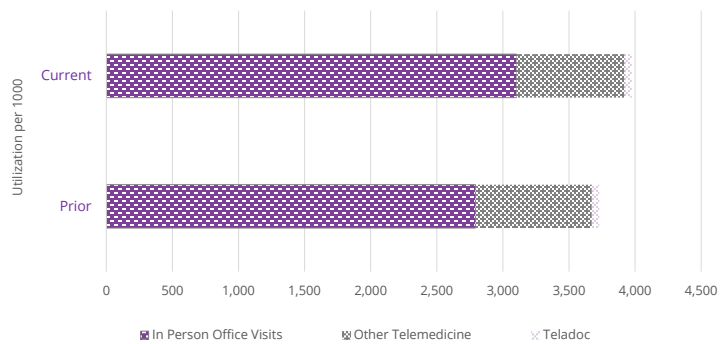
Prior period: Claims incurred Jan 2021 - Jun 2021, paid through June 2021

Telemedicine

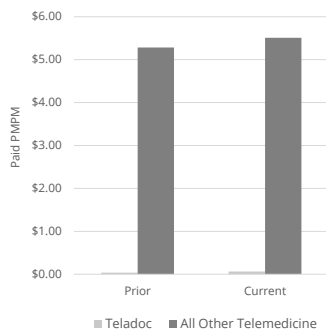
What is this population's telemedicine utilization and how has it changed?



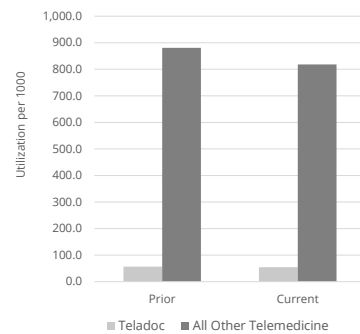
Utilization Patterns



Telemedicine Paid



Telemedicine Utilization

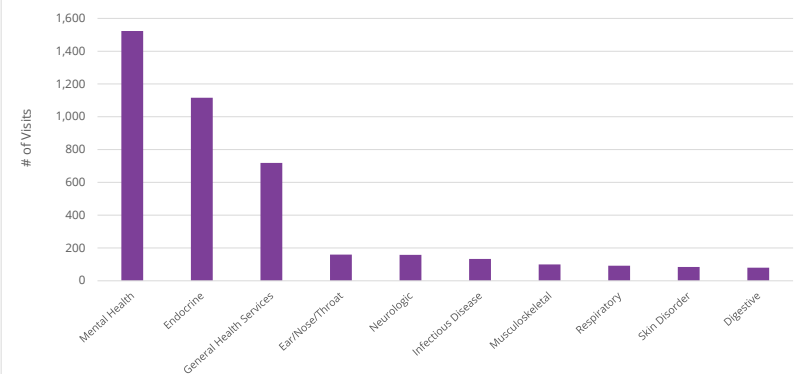


How telemedicine is being used in the context of the pandemic

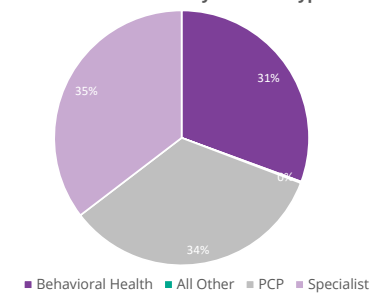
Changes in the use of telemedicine services are an immediate observable side effect of the pandemic. Stay at home orders and social distancing resulted in many healthcare providers ceasing non-emergent office visits and providing them virtually via secured technology. This change in practice has and will result in large increases in telemedicine utilization with expected decreases in office-based utilization.

Why is this population turning to telemedicine?

Telemedicine Visits - Top Diagnosis Categories



Telemedicine Visits by Provider Type



Section IV Appendix

Data tables - year over year COVID trends } Current period: Claims incurred Jan 2022 - Jun 2022, paid through June 2022
Prior period: Claims incurred Jan 2021 - Jun 2021, paid through June 2021

of Members at risk by state

COVID-19 alerts - top 50 counties with highest and emerging risk

Vaccination summary by state

COVID trends - year over year

Table 1: Total COVID-19 Medical Cost and Utilization:

Age Band	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Visits			Visits per 1,000			Cost per Visit		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	28	70	150.0%	\$5,220	\$15,143	190.1%	\$0.08	\$0.25	203.9%	48	99	106.3%	9.0	19.4	116.1%	\$109	\$153	40.7%
3 - 12 years	170	259	52.4%	\$26,755	\$38,490	43.9%	\$0.42	\$0.63	50.7%	242	381	57.4%	45.2	74.5	64.9%	\$111	\$101	-8.6%
13 - 19 years	268	183	-31.7%	\$42,477	\$37,836	-10.9%	\$0.66	\$0.62	-6.7%	454	298	-34.4%	84.7	58.3	-31.2%	\$94	\$127	35.7%
20 - 24 years	289	154	-46.7%	\$69,567	\$41,091	-40.9%	\$1.08	\$0.67	-38.1%	591	278	-53.0%	110.3	54.4	-50.7%	\$118	\$148	25.6%
25 - 49 years	1,400	686	-51.0%	\$955,093	\$204,228	-78.6%	\$14.85	\$3.33	-77.6%	3,022	1,141	-62.2%	564.0	223.1	-60.4%	\$316	\$179	-43.4%
50 - 64 years	1,019	545	-46.5%	\$192,462	\$305,056	58.5%	\$2.99	\$4.97	66.0%	2,190	957	-56.3%	408.7	187.1	-54.2%	\$88	\$319	262.7%
65+ years	153	81	-47.1%	\$98,466	\$14,203	-85.6%	\$1.53	\$0.23	-84.9%	365	128	-64.9%	68.1	25.0	-63.3%	\$270	\$111	-58.9%
Total	3,327	1,978	-40.5%	\$1,390,041	\$656,046	-52.8%	\$21.62	\$10.69	-50.6%	6,912	3,282	-52.5%	1,290.1	641.7	-50.3%	\$201	\$200	-0.6%

Table 2: COVID-19 Viral Testing. Not including COVID home tests covered under an Aetna Pharmacy benefit.

Age Band	# of Unique Claimants			# of Tests			Medical Paid Amount			Medical Paid PMPM			Cost per Test		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	23	60	160.9%	28	69	146.4%	\$2,265	\$5,936	162.0%	\$0.04	\$0.10	174.5%	\$81	\$86	6.3%
3 - 12 years	154	169	9.7%	174	198	13.8%	\$13,852	\$18,463	33.3%	\$0.22	\$0.30	39.6%	\$80	\$93	17.1%
13 - 19 years	149	134	-10.1%	184	174	-5.4%	\$16,399	\$17,148	4.6%	\$0.26	\$0.28	9.5%	\$89	\$99	10.6%
20 - 24 years	162	132	-18.5%	241	170	-29.5%	\$21,243	\$18,285	-13.9%	\$0.33	\$0.30	-9.8%	\$88	\$108	22.0%
25 - 49 years	618	554	-10.4%	823	706	-14.2%	\$73,638	\$69,636	-5.4%	\$1.15	\$1.13	-0.9%	\$89	\$99	10.2%
50 - 64 years	409	398	-2.7%	514	499	-2.9%	\$49,487	\$47,237	-4.5%	\$0.77	\$0.77	0.0%	\$96	\$95	-1.7%
65+ years	58	56	-3.4%	84	70	-16.7%	\$7,572	\$6,732	-11.1%	\$0.12	\$0.11	-6.9%	\$90	\$96	6.7%
Total	1,573	1,503	-4.5%	2,048	1,886	-7.9%	\$184,457	\$183,436	-0.6%	\$2.87	\$2.99	4.2%	\$90	\$97	8.0%

Table 2a: COVID-19 OTC ("Home") Viral Testing - This table will be populated for COVID home tests covered under an Aetna Pharmacy benefit. Home tests covered under an Aetna medical plan are included in Table 2, Viral Testing.

Age Band	# of Unique Claimants			# of Tests			Rx Paid Amount			Rx Paid PMPM			Cost per Test		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
3 - 12 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
13 - 19 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
20 - 24 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
25 - 49 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
50 - 64 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
65+ years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
Total	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-

Table 2b: COVID-19 Antibody Testing

Age Band	# of Unique Claimants			# of Tests			Medical Paid Amount			Medical Paid PMPM			Cost per Test		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	3	1	-66.7%	3	1	-66.7%	\$126	\$42	-66.7%	\$0.00	\$0.00	-65.1%	\$42	\$42	0.0%
3 - 12 years	4	1	-75.0%	4	1	-75.0%	\$211	\$42	-80.0%	\$0.00	\$0.00	-79.0%	\$53	\$42	-20.0%
13 - 19 years	5	1	-80.0%	5	1	-80.0%	\$211	\$84	-60.0%	\$0.00	\$0.00	-58.1%	\$42	\$84	100.0%
20 - 24 years	2	0	-100.0%	2	0	-100.0%	\$84	\$0	-100.0%	\$0.00	\$0.00	-100.0%	\$42	\$0	-100.0%
25 - 49 years	28	14	-50.0%	31	14	-54.8%	\$1,524	\$632	-58.5%	\$0.02	\$0.01	-56.6%	\$49	\$45	-8.2%
50 - 64 years	38	21	-44.7%	38	21	-44.7%	\$1,832	\$885	-51.7%	\$0.03	\$0.01	-49.4%	\$48	\$42	-12.6%
65+ years	1	2	100.0%	1	2	100.0%	\$42	\$84	100.0%	\$0.00	\$0.00	109.5%	\$42	\$42	0.0%
Total	81	40	-50.6%	84	40	-52.4%	\$4,031	\$1,769	-56.1%	\$0.06	\$0.03	-54.0%	\$48	\$44	-7.8%

Table 3: COVID-19 Vaccinations (Medical)

Age Band	# of Unique Claimants			# of Vaccinations			Medical Paid Amount			Medical Paid PMPM			Cost per Vaccination		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
3 - 12 years	4	96	2,300.0%	4	124	3,000.0%	\$163	\$5,032	2,983.6%	\$0.00	\$0.08	3,130.2%	\$41	\$41	-0.5%
13 - 19 years	122	44	-63.9%	185	46	-75.1%	\$6,205	\$1,846	-70.2%	\$0.10	\$0.03	-68.8%	\$34	\$40	19.7%
20 - 24 years	147	14	-90.5%	242	16	-93.4%	\$7,434	\$640	-91.4%	\$0.12	\$0.01	-91.0%	\$31	\$40	30.2%
25 - 49 years	817	69	-91.6%	1,464	70	-95.2%	\$41,799	\$2,815	-93.3%	\$0.65	\$0.05	-92.9%	\$29	\$40	40.9%
50 - 64 years	667	86	-87.1%	1,182	86	-92.7%	\$33,529	\$3,483	-89.6%	\$0.52	\$0.06	-89.1%	\$28	\$41	42.8%
65+ years	103	20	-80.6%	172	20	-88.4%	\$4,193	\$800	-80.9%	\$0.07	\$0.01	-80.0%	\$24	\$40	64.1%
Total	1,860	329	-82.3%	3,249	362	-88.9%	\$93,324	\$14,617	-84.3%	\$1.45	\$0.24	-83.6%	\$29	\$40	40.6%

Table 3a: COVID-19 Vaccinations (Pharmacy) - This table will only be populated for customers who have coverage under the Aetna Pharmacy Benefit plan. This data is not included in the total in any of the other data tables.

Age Band	# of Unique Claimants			# of Vaccinations			Rx Paid Amount			Rx Paid PMPM			Cost per Vaccination		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
3 - 12 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
13 - 19 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
20 - 24 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
25 - 49 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
50 - 64 years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
65+ years	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-
Total	0	0	-	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	\$0	\$0	-

Table 4: Emergency Room Cost and Utilization of COVID-19:

Age Band	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Visits			Visits per 1,000			Cost per Visit		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	2	6	200.0%	\$1,047	\$5,913	464.8%	\$0.02	\$0.10	491.7%	2	6	200.0%	0.4	1.2	214.3%	\$523	\$985	88.3%
3 - 12 years	7	4	-42.9%	\$3,467	\$5,430	56.6%	\$0.05	\$0.09	64.0%	7	4	-42.9%	1.3	0.8	-40.1%	\$495	\$1,357	174.0%
13 - 19 years	6	8	33.3%	\$11,290	\$6,453	-42.8%	\$0.18	\$0.11	-40.1%	7	8	14.3%	1.3	1.6	19.7%	\$1,613	\$807	-50.0%
20 - 24 years	9	11	22.2%	\$5,033	\$4,411	-12.3%	\$0.08	\$0.07	-8.2%	9	12	33.3%	1.7	2.3	39.7%	\$559	\$368	-34.3%
25 - 49 years	49	26	-46.9%	\$46,392	\$35,542	-23.4%	\$0.72	\$0.58	-19.7%	49	27	-44.9%	9.1	5.3	-42.3%	\$947	\$1,316	39.0%
50 - 64 years	30	17	-43.3%	\$26,147	\$15,502	-40.7%	\$0.41	\$0.25	-37.9%	35	17	-51.4%	6.5	3.3	-49.1%	\$747	\$912	22.1%
65+ years	9	1	-88.9%	\$7,795	\$168	-97.8%	\$0.12	\$0.00	-97.7%	9	1	-88.9%	1.7	0.2	-88.4%	\$866	\$168	-80.6%
Total	112	73	-34.8%	\$101,169	\$73,420	-27.4%	\$1.57	\$1.20	-24.0%	118	75	-36.4%	22.0	14.7	-33.4%	\$857	\$979	14.2%

Table 5: Teladoc/Telemedicine Cost and Utilization of COVID-19:

Age Band	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Visits			Visits per 1,000			Cost per Visit		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	1	4	300.0%	\$69	\$173	150.0%	\$0.00	\$0.00	161.9%	1	4	300.0%	0.2	0.8	319.0%	\$69.35	\$43.34	-37.5%
3 - 12 years	6	7	16.7%	\$522	\$264	-49.5%	\$0.01	\$0.00	-47.0%	7	7	0.0%	1.3	1.4	4.8%	\$74.64	\$37.73	-49.5%
13 - 19 years	13	7	-46.2%	\$557	\$294	-47.3%	\$0.01	\$0.00	-44.8%	13	7	-46.2%	2.4	1.4	-43.6%	\$42.87	\$41.96	-2.1%
20 - 24 years	8	5	-37.5%	\$387	\$250	-35.4%	\$0.01	\$0.00	-32.3%	9	5	-44.4%	1.7	1.0	-41.8%	\$43.05	\$50.06	16.3%
25 - 49 years	50	47	-6.0%	\$3,255	\$1,354	-58.4%	\$0.05	\$0.02	-56.4%	77	52	-32.5%	14.4	10.2	-29.3%	\$42.27	\$26.04	-38.4%
50 - 64 years	54	38	-29.6%	\$4,811	\$1,647	-65.8%	\$0.07	\$0.03	-64.1%	76	45	-40.8%	14.2	8.8	-38.0%	\$63.30	\$36.59	-42.2%
65+ years	9	10	11.1%	\$794	\$297	-62.6%	\$0.01	\$0.00	-60.9%	13	12	-7.7%	2.4	2.3	-3.3%	\$61.11	\$24.74	-59.5%
Total	141	118	-16.3%	\$10,397	\$4,279	-58.8%	\$0.16	\$0.07	-56.9%	196	132	-32.7%	36.6	25.8	-29.5%	\$53.05	\$32.42	-38.9%

Table 5a: All Telemedicine (regardless of diagnosis)

Telemedicine	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Visits			Visits per 1,000			Cost per Visit		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
All Telemedicine	1,919	1,631	-15.0%	\$341,976	\$341,971	0.0%	\$5.32	\$5.57	4.8%	5,022	4,464	-11.1%	937.3	872.8	-6.9%	\$68	\$77	12.5%

Table 6: Urgent Care / Retail and Minute Clinic Cost and Utilization of COVID-19:

Age Band	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Visits			Visits per 1,000			Cost per Visit		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	5	12	140.0%	\$583	\$1,429	145.1%	\$0.01	\$0.02	156.8%	5	12	140.0%	0.9	2.3	151.4%	\$116.55	\$119.04	2.1%
3 - 12 years	69	53	-23.2%	\$7,381	\$6,199	-16.0%	\$0.11	\$0.10	-12.0%	75	58	-22.7%	14.0	11.3	-19.0%	\$98.41	\$106.88	8.6%
13 - 19 years	90	51	-43.3%	\$9,097	\$6,206	-31.8%	\$0.14	\$0.10	-28.5%	103	67	-35.0%	19.2	13.1	-31.9%	\$88.32	\$92.62	4.9%
20 - 24 years	100	72	-28.0%	\$10,311	\$8,095	-21.5%	\$0.16	\$0.13	-17.8%	123	87	-29.3%	23.0	17.0	-25.9%	\$83.83	\$93.05	11.0%
25 - 49 years	361	292	-19.1%	\$38,485	\$30,239	-21.4%	\$0.60	\$0.49	-17.7%	464	343	-26.1%	86.6	67.1	-22.6%	\$82.94	\$88.16	6.3%
50 - 64 years	193	202	4.7%	\$15,236	\$20,735	36.1%	\$0.24	\$0.34	42.6%	227	233	2.6%	42.4	45.6	7.5%	\$67.12	\$88.99	32.6%
65+ years	25	21	-16.0%	\$2,512	\$2,226	-11.4%	\$0.04	\$0.04	-7.2%	29	23	-20.7%	5.4	4.5	-16.9%	\$86.61	\$96.78	11.7%
Total	843	703	-16.6%	\$83,603	\$75,128	-10.1%	\$1.30	\$1.22	-5.9%	1,026	823	-19.8%	191.5	160.9	-16.0%	\$81.48	\$91.29	12.0%

Table 7: Inpatient Cost and Utilization of COVID-19:

Age Band	# of Unique Claimants			Medical Paid			Medical Paid PMPM			# of Admissions			Admissions per 1,000			Cost per Admission			Average Length of Stay		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
<3 years	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	0	0	-	0.0	0.0	-	\$0	\$0	-	0.0	0.0	-
3 - 12 years	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	0	0	-	0.0	0.0	-	\$0	\$0	-	0.0	0.0	-
13 - 19 years	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	0	0	-	0.0	0.0	-	\$0	\$0	-	0.0	0.0	-
20 - 24 years	3	0	-100.0%	\$21,510	\$7,285	-66.1%	\$0.33	\$0.12	-64.5%	3	0	-100.0%	0.6	0.0	-100.0%	\$7,170	\$0	-100.0%	2.3	0.0	-100.0%
25 - 49 years	3	1	-66.7%	\$711,135	\$57,269	-91.9%	\$11.06	\$0.93	-91.6%	3	1	-66.7%	0.6	0.2	-65.1%	\$237,045	\$57,269	-75.8%	5.3	6.0	12.5%
50 - 64 years	4	4	0.0%	\$37,298	\$187,696	403.2%	\$0.58	\$3.06	427.2%	4	4	0.0%	0.7	0.8	4.8%	\$9,325	\$46,924	403.2%	4.3	12.3	188.2%
65+ years	1	0	-100.0%	\$65,804	\$0	-100.0%	\$1.02	\$0.00	-100.0%	1	0	-100.0%	0.2	0.0	-100.0%	\$65,804	\$0	-100.0%	7.0	0.0	-100.0%
Total	11	5	-54.5%	\$835,746	\$252,251	-69.8%	\$13.00	\$4.11	-68.4%	11	5	-54.5%	2.1	1.0	-52.4%	\$75,977	\$50,450	-33.6%	4.3	11.0	157.4%

Table 8: Cost and Utilization of COVID-19 by Medical Cost Category

Med Cost Category	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Visits			Visits per 1,000			Cost per Visit		
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change
Inpatient	11	5	-54.5%	\$835,746	\$252,251	-69.8%	\$13.00	\$4.11	-68.4%	11	5	-54.5%	2.1	1.0	-52.4%	\$75,977	\$50,450	-33.6%
Ambulatory	9	3	-66.7%	\$812	\$1,016	25.0%	\$0.01	\$0.02	31.0%	11	3	-72.7%	2.1	0.6	-71.4%	\$74	\$339	358.4%
Emergency Room	112	73	-34.8%	\$101,169	\$73,420	-27.4%	\$1.57	\$1.20	-24.0%	118	75	-36.4%	22.0	14.7	-33.4%	\$857	\$979	14.2%
Specialist	875	667	-23.8%	\$144,965	\$106,898	-26.3%	\$2.25	\$1.74	-22.8%	1,234	797	-35.4%	230.3	155.8	-32.3%	\$117	\$134	14.2%
PCP	148	140	-5.4%	\$24,730	\$16,524	-33.2%	\$0.38	\$0.27	-30.0%	303	214	-29.4%	56.6	41.8	-26.0%	\$82	\$77	-5.4%
Radiology	29	15	-48.3%	\$2,143	\$522	-75.6%	\$0.03	\$0.01	-74.5%	52	17	-67.3%	9.7	3.3	-65.8%	\$41	\$31	-25.5%
Lab	1,596	1,511	-5.3%	\$179,211	\$182,084	1.6%	\$2.79	\$2.97	6.4%	2,479	2,203	-11.1%	462.7	430.7	-6.9%	\$72	\$83	14.3%
Home Health	25	11	-56.0%	\$6,835	\$6,013	-12.0%	\$0.11	\$0.10	-7.8%	95	61	-35.8%	17.7	11.9	-32.7%	\$72	\$99	37.0%
Behavioral Health	0	0	-	\$0	\$0	-	\$0.00	\$0.00	-	0	0	-	0.0	0.0	-	\$0	\$0	-
Medical Rx	1,871	349	-81.3%	\$94,429	\$17,318	-81.7%	\$1.47	\$0.28	-80.8%	3,261	382	-88.3%	608.6	74.7	-87.7%	\$29	\$45	56.6%
Total	3,327	1,978	-40.5%	\$1,390,041	\$656,046	-52.8%	\$21.62	\$10.69	-50.6%	6,912	3,282	-52.5%	1,290.1	641.7	-50.3%	\$201	\$200	-0.6%

Table 9: Total COVID-19 Medical Cost by Member Type:

Member Type	# of Unique Claimants			Medical Paid			Medical Paid PMPM			Distribution of Spend	
	Prior	Current	Change	Prior	Current	Change	Prior	Current	Change	Prior	Current
Employee	1,852	949	-48.8%	\$898,516	\$313,586	-65.1%	\$13.97	\$5.11	-63.4%	65%	48%
Spouse	737	370	-49.8%	\$376,664	\$210,006	-44.2%	\$5.86	\$3.42	-41.6%	27%	32%
Child	738	659	-10.7%	\$114,861	\$132,454	15.3%	\$1.79	\$2.16	20.8%	8%	20%
Total	3,327	1,978	-40.5%	\$1,390,041	\$656,046	-52.8%	\$21.62	\$10.69	-50.6%	100.0%	100.0%

IMPORTANT: Testing and treatment for the new coronavirus is still evolving and as a result claims experience may be effected as the industry adapts to the changing circumstances. Information is believed to be accurate as of the production date; however, it is subject to change. Aetna makes no representation or warranty of any kind, whether express or implied, with respect to the information in this report and cannot guarantee its accuracy or completeness. Aetna shall not be liable for any act or omissions made in reliance on the information.

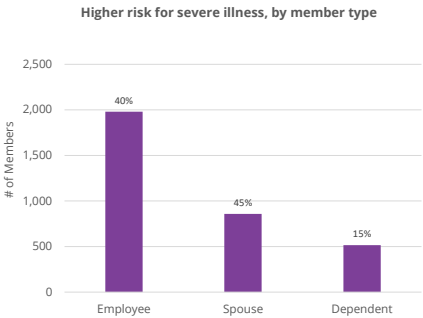
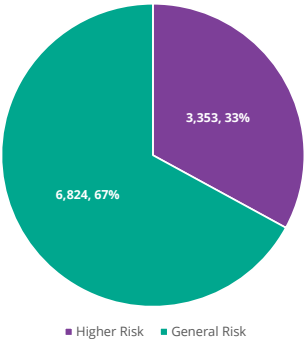


Risk of the Population

3,353

members are at higher risk for severe illness,
of the population, using CDC-identified higher risk factors like age and pre-existing chronic conditions

32.9%

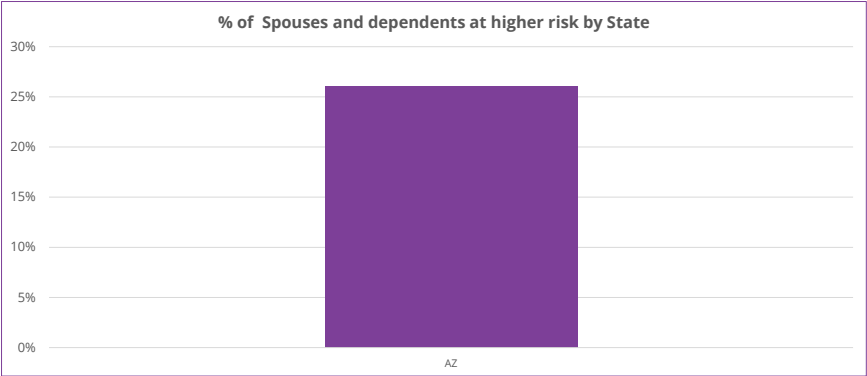
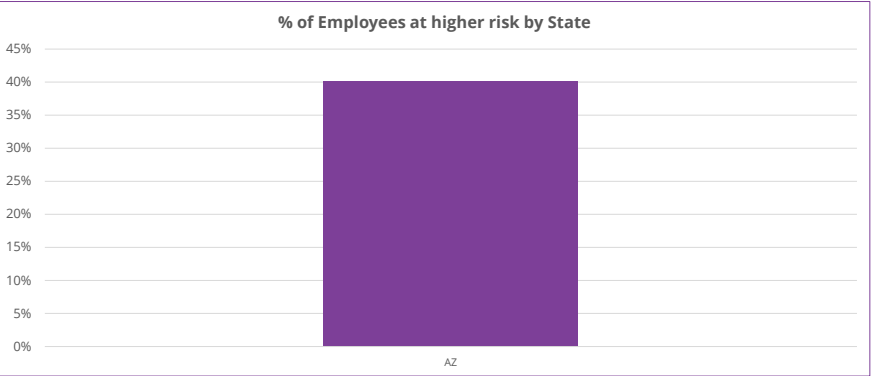


General risk for contracting COVID-19 exists across the population. Age and underlying health conditions are associated with higher risk for severe illness with the potential for severe symptoms, hospitalizations, ICU services, and poorer outcomes. The CDC provides guidelines, recommendations, and resources for those who are considered at higher-risk for severe illness.

The pie chart shows the percent of members with CDC-identified "higher risk for severe illness" factors.

The bar chart to the left shows risk by member type.

The bar charts below provide a sense of risk by state.



Data in these charts is only shown for states where there are at least 50 employees

Alerts for the top 50 counties with high new cases rates in which you have membership

State, County	County population	Your members	Average daily new cases per 100K	Risk Level
Oregon, Deschutes	197,692	2	61.9	High Risk
Oregon, Jefferson	24,658	1	47.5	High Risk
Arizona, Cochise	125,922	60	41.2	High Risk
Arizona, Coconino	143,476	1	34.7	High Risk
Arizona, Maricopa	4,485,414	11	33.1	High Risk
North Carolina, Iredell	181,806	1	31.9	High Risk
Arizona, Yavapai	235,099	1	31.7	High Risk
Arizona, Pima	1,047,279	9,917	30.9	High Risk
Arizona, Pinal	462,789	104	30.2	High Risk
Illinois, Cook	5,150,233	1	30.1	High Risk
Arizona, Gila	54,018	8	29.4	High Risk
Arizona, Santa Cruz	46,498	65	27.0	High Risk
Montana, Yellowstone	161,300	1	26.9	High Risk
Colorado, Arapahoe	656,590	1	15.0	Emerging Risk
Arizona, Yuma	213,787	2	14.0	Emerging Risk



County Alerts

This table shows the rate of average daily new cases per 100,000 individuals that live in that county. These rates are reflective of the overall general population of the county, not of your specific membership in that county. We are providing this information to inform you which counties you have membership in that are experiencing a high incidence rate of new cases.

The CDC collects new case counts at the county level. We use this information to calculate a "7 day average new case count." This data is then normalized for population size (new cases per 100,000 individuals) to smooth unusual daily highs or lows, often caused by data collection fluctuations.

The county information is for your top 50 counties in which you have membership that have the highest average daily new cases over the past seven days. Average daily new cases of 25 per 100k members are denoted as high risk (red) and those with 10-24.9 are denoted as emerging risk (orange).

Note: There may be less than 50 counties or none at all depending upon where you have membership vs. the counties with the highest risk.

Vaccinations by State

All Eligible Members

<https://covid.cdc.gov/covid-data-tracker/#vaccinations>

13,163

Eligible Members

State	Your Members	Fully Vaccinated Members		Two Dose Regimen		Single Dose Regimen	Booster
				# of Members 1st Dose	# Members 2nd Dose	# Members	# Members
AK	6	-	-	-	-	-	-
AL	1	-	-	-	-	-	-
AR	4	-	-	-	-	-	-
AZ	12,504	2,351	19%	2,399	2,256	95	482
CA	3	1	33%	1	1	-	-
CO	1	-	-	-	-	-	-
CT	-	-	-	-	-	-	-
DC	-	-	-	-	-	-	-
DE	-	-	-	-	-	-	-
FL	2	-	-	1	-	-	-
GA	1	-	-	1	-	-	-
GU	-	-	-	-	-	-	-
HI	-	-	-	-	-	-	-
IA	-	-	-	-	-	-	-
ID	-	-	-	-	-	-	-
IL	1	1	100%	-	1	-	-
IN	-	-	-	-	-	-	-
KS	-	-	-	-	-	-	-
KY	-	-	-	-	-	-	-
LA	1	-	-	-	-	-	-
MA	1	-	-	-	-	-	-
MD	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-
MI	-	-	-	-	-	-	-
MN	-	-	-	-	-	-	-
MO	3	-	-	-	-	-	-
MS	-	-	-	-	-	-	-
MT	3	-	-	-	-	-	-
NC	3	-	-	-	-	-	-
ND	-	-	-	-	-	-	-
NE	-	-	-	-	-	-	-
NH	-	-	-	-	-	-	-
NJ	-	-	-	-	-	-	-
NM	-	-	-	-	-	-	-
NV	2	-	-	-	-	-	-
NY	-	-	-	-	-	-	-
OH	-	-	-	-	-	-	-
OK	-	-	-	-	-	-	-
OR	3	1	33%	1	1	-	-
PA	-	-	-	-	-	-	-
PR	-	-	-	-	-	-	-
RI	-	-	-	-	-	-	-
SC	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-
TN	-	-	-	-	-	-	-
TX	1	-	-	-	-	-	-
UT	-	-	-	-	-	-	-
VA	1	-	-	-	-	-	-
VT	-	-	-	-	-	-	-
WA	4	2	50%	2	2	-	-
WI	1	-	-	-	-	-	-
WV	-	-	-	-	-	-	-
WY	-	-	-	-	-	-	-

Vaccinations by State

All Eligible Employees

<https://covid.cdc.gov/covid-data-tracker/#vaccinations>

6,253

Eligible Employees

State	Your Employees	Fully Vaccinated Employees		Two Dose Regimen		Single Dose Regimen	Booster
				# of Employees 1st Dose	# Employees 2nd Dose	# Employees	# Employees
AK	1	-	-	-	-	-	-
AL	1	-	-	-	-	-	-
AR	1	-	-	-	-	-	-
AZ	6,229	1,255	20%	1,255	1,184	71	300
CA	2	1	50%	1	1	-	-
CO	1	-	-	-	-	-	-
CT	-	-	-	-	-	-	-
DC	-	-	-	-	-	-	-
DE	-	-	-	-	-	-	-
FL	1	-	-	-	-	-	-
GA	1	-	-	1	-	-	-
GU	-	-	-	-	-	-	-
HI	-	-	-	-	-	-	-
IA	-	-	-	-	-	-	-
ID	-	-	-	-	-	-	-
IL	-	-	-	-	-	-	-
IN	-	-	-	-	-	-	-
KS	-	-	-	-	-	-	-
KY	-	-	-	-	-	-	-
LA	1	-	-	-	-	-	-
MA	-	-	-	-	-	-	-
MD	-	-	-	-	-	-	-
ME	-	-	-	-	-	-	-
MI	-	-	-	-	-	-	-
MN	-	-	-	-	-	-	-
MO	2	-	-	-	-	-	-
MS	-	-	-	-	-	-	-
MT	2	-	-	-	-	-	-
NC	2	-	-	-	-	-	-
ND	-	-	-	-	-	-	-
NE	-	-	-	-	-	-	-
NH	-	-	-	-	-	-	-
NJ	-	-	-	-	-	-	-
NM	-	-	-	-	-	-	-
NV	1	-	-	-	-	-	-
NY	-	-	-	-	-	-	-
OH	-	-	-	-	-	-	-
OK	-	-	-	-	-	-	-
OR	2	1	50%	1	1	-	-
PA	-	-	-	-	-	-	-
PR	-	-	-	-	-	-	-
RI	-	-	-	-	-	-	-
SC	-	-	-	-	-	-	-
SD	-	-	-	-	-	-	-
TN	-	-	-	-	-	-	-
TX	1	-	-	-	-	-	-
UT	-	-	-	-	-	-	-
VA	1	-	-	-	-	-	-
VT	-	-	-	-	-	-	-
WA	3	1	33%	1	1	-	-
WI	1	-	-	-	-	-	-
WV	-	-	-	-	-	-	-
WY	-	-	-	-	-	-	-

ATTACHMENT 2

Do unvaccinated employees incur higher healthcare costs, and if so, how much more?

By [Jill Van Den Bos](#) and [Shelley Moss](#)

07 October 2021

There has been much discussion among employers trying multiple approaches to entice their employees to get vaccinated against COVID-19. One approach that has been in the news recently is an employee contribution differential (a surcharge or an incentive) between vaccinated and unvaccinated employees such that unvaccinated employees pay more toward their health benefits than their vaccinated counterparts. For example, in late August, Delta Airlines announced that unvaccinated employees would have to pay an additional \$200 each month toward their medical benefits compared to their vaccinated colleagues.¹ An article in Forbes suggests the typical “surcharge” under consideration is lower, more like \$20 to \$50 per month.²

The monthly employee contribution incentive or surcharge amount is not necessarily intended to tie directly to actual expected differences in medical costs between the two groups; it may be intended partly to cover additional medical costs, partly to cover other employer costs such as lost productivity and other types of claims (e.g., life insurance, disability insurance, legal claims, and workers’ compensation³), and partly a simple incentive. In addition, employers may be limited in the amount of the incentive or surcharge; they have to meet legal requirements for any contribution differential to provide “affordable” coverage as defined by the Patient Protection and Affordable Care Act (ACA), and the wellness program differential cannot exceed 30% of total cost as defined under HIPAA (and amended by the ACA).⁴

On September 9, 2021, the Biden administration disseminated an executive order prescribing mandates that widely impact COVID-19 vaccination requirements for employees. The order further clarified the mandates that would cover employees of the federal government and entities doing business with the federal government. This is in addition to federal mandates that cover the Department of Defense, Department of Veterans Affairs, Indian Health Service, National Institutes of Health, and the healthcare facilities that receive federal Medicare or Medicaid funds.⁵ In addition, the executive order asks the Occupational Safety and Health Administration (OSHA) to issue an Emergency Temporary Standard (ETS) to require all employers with more than 100 workers to enact programs to ensure all employees are vaccinated or be subject to weekly COVID-19 testing.

However, as of this publication, no rule has been issued by OSHA, so many of the details of the employer mandate are unclear. Additionally, these executive orders are being met with considerable resistance, and are expected to meet a flurry of litigation and legislation.⁶ For example, on September 23, Senator Mike Lee introduced Senate Bill S.2843, which would prohibit penalties for violation of a COVID-19 vaccine mandate.⁷ As such, the future of these mandates is a question mark at this point. However, employers need not wait for a federal resolution and may still be considering measures to encourage employee vaccination, like a medical employee contribution credit/surcharge depending on vaccination status.

This concept of incentives and surcharges raises the question, “do unvaccinated employees incur higher healthcare costs, and if so, how much more?” Although actual healthcare claims data from patients with COVID-19 related hospitalizations is still emerging, it is possible to estimate the magnitude of these differences using prior published Milliman research, published COVID-19 surveillance data, and a few

key assumptions. Using two separate sets of COVID-19 case and hospitalization rates, we developed two scenarios where the per member per month (PMPM) claim cost difference between vaccinated and unvaccinated employees were estimated to be \$8.85 PMPM and \$46.29 PMPM. Although these data points are not intended to represent the full range of potential values, these results illustrate the magnitude of potential health benefit cost impacts from non-vaccinated employees.

Method and results

To perform our simple analysis, we used published probabilities of contracting COVID-19 in a month; then applied published probabilities of a having hospital stay for COVID-19 patients. These case rate and hospitalization probabilities were estimated separately for fully vaccinated and not fully vaccinated employees.

We then divided the hospital stays by type using published percentages of hospital care severity for COVID-19 patients: severe without critical care, critical care without a ventilator, and critical care with a ventilator. Finally, we assigned the average cost of each type of hospital case using published research.

To get the final costs per month, we multiplied the probabilities and costs to arrive at separate composite costs PMPM and calculated the difference between the costs of vaccinated and unvaccinated employees.

We developed two scenarios, A and B, using different assumptions for the infection and hospitalization rates.

Hospital cost estimates

Milliman previously published estimated mean hospital payments per admission by inpatient severity level for commercially insured patients using claims experience for COVID-19 inpatient treatment in 2020 for hospital admission dates from April 1 through July 31. The distribution of the claims data used for this analysis was unknown and may not represent a nationwide average.⁸ We applied a 5.0% annual trend to project to July 2021 allowed cost per case. These cost estimates are presented in Figure 1.

Figure 1: Key COVID-19-Related Medical Cost Estimates

Severity Level – Anticipated Treatment	Allowed Per Case July 2021
Inpatient Severe	\$25,191
Inpatient Critical – No Ventilator	\$60,445
Inpatient Critical – Ventilator	\$126,410

Although COVID-19 patients are likely to use a full spectrum of medical services, hospitalizations represent the majority of the medical costs related to COVID-19 treatment. Given the available data, we have limited this analysis to hospital costs, although this approach will understate the actual costs.

We used these same hospitalization costs for both scenarios.

Infection rates, hospitalization rates, and hospitalization severity

Research disseminated by the Centers for Disease Control and Prevention (CDC) on September 10, 2021, quantified the difference in case (infection) rates, hospitalization rates, and death rates between vaccinated and unvaccinated populations for 13 U.S. jurisdictions for the period from April 4 through July 17, 2021.²

Meanwhile, the highly contagious Delta variant has caused an increase in infection rate, ramping up through August. More recent data published by New York City’s Department of Health (NYC DOH), including data accessed on September 21, 2021, suggest much higher infection and hospitalization rates,

particularly among the unvaccinated, and an increased spread in infection and hospitalization rates between unvaccinated and vaccinated.¹⁰

We relied on the June 20 through July 17, 2021, national average weekly case and hospitalization rates from the CDC research to inform Scenario A, and average weekly case and hospitalization rates from the NYC DOH from August 1 through September 5, 2021, to inform Scenario B.

COVID-19 surveillance data from the CDC were used to allocate hospitalizations into the type of care received: ventilator (assumed to be in the intensive care unit [ICU]¹¹), non-ventilator ICU, and other hospital stays.¹² We blended the monthly percentages from February through June 2021 for ages 18 to 64 based on a nationwide average commercially insured working age population. We used these hospitalization type of care probabilities in both scenarios.

Note that we present two different point estimates based on publicly available data. These scenarios are not intended to capture the full range of possible outcomes.

Composite costs

Using the hospitalization type of care probabilities from the CDC combined with the hospitalization claims costs in Figure 1, we developed the tree diagrams in Figures 2 and 3 that show the various COVID-19 pathways for employees culminating in estimated per member per month (PMPM) costs for COVID-19-related hospitalizations for Scenarios A and B. Monthly infection rates are shown at the first level, and then conditional probabilities are shown at each subsequent level.*

Figure 2 presents the pathways using nationwide infection and hospitalization rates from the CDC (Scenario A), and Figure 3 presents the pathways using more recent (but more localized) infection and hospitalization rates from NYC DOH (Scenario B). For both scenarios, we used the same splits of hospitalizations into severity of care, and the same hospitalization average costs.

Figure 2: COVID-19 Pathways With Monthly Incidence Rates, Conditional Hospitalization Probabilities, and Estimated PMPM Claims Costs – Scenario A**

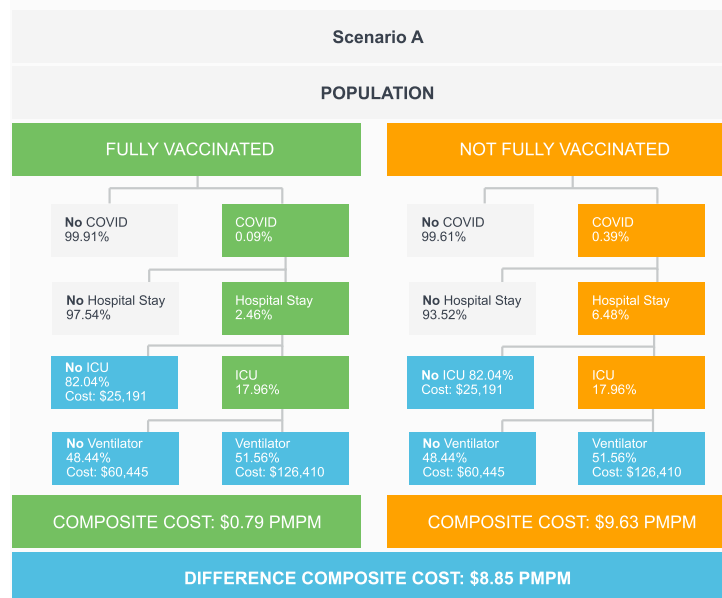


Figure 2 key assumptions and caveats: Monthly infection and hospitalization rates are based on a September 10, 2021, CDC study using data from June 20 to July 17, 2021. These rates were blended assuming a nationwide average commercial working age 18-64 population. ICU and ventilator rates were based on a CDC COVID-19 hospitalization study using data from February to June 2021. Hospital costs are from Milliman published estimated mean hospital payments per admission by inpatient severity level for commercially insured patients. The above scenario represents one possible estimate of cost differential between vaccinated and not fully vaccinated employees, and not a lowest possible estimate.

For example, the right branch of Figure 2 illustrates how an employer with 100,000 unvaccinated employees could expect 390 employees (0.39%), on average, to be infected with COVID-19 in a month (given the assumed monthly rates of infection in this scenario). Among those infected, 25 (6.48%) are

expected to have a hospital stay. Of those with a hospital stay, 4.5 (17.96%) are expected to require ICU care. Of those in the ICU, 2.3 (51.56%) are expected to require a ventilator and 2.2 (48.44%) are expected not to require a ventilator.

Compositing the costs using the infection and hospitalization rates from the CDC shown in Figure 2, we have a total estimated difference in hospitalization costs (these severe cases comprise most of the medical cost differential) between vaccinated and unvaccinated employees of roughly \$8.85 per member per month.

Figure 3: COVID-19 Pathways With Monthly Incidence Rates, Conditional Hospitalization Probabilities, and Estimated PMPM Claims Costs – Scenario B***

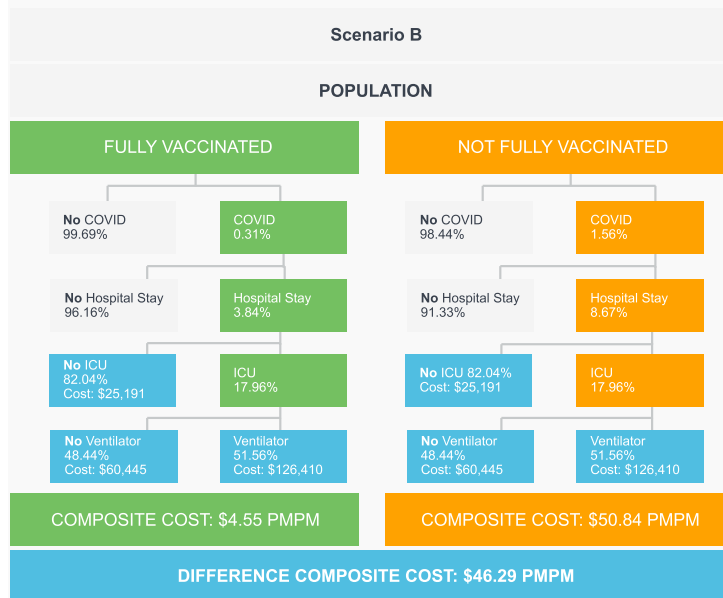


Figure 3 key assumptions and caveats: Monthly infection and hospitalization rates are based on NYC DOH published data for August 1 through September 5. ICU and ventilator rates were based on a CDC COVID-19 hospitalization study using data from February to June 2021. Hospital costs are from Milliman published estimated mean hospital payments per admission by inpatient severity level for commercially insured patients. The above scenario represents a one possible estimate of cost differential between vaccinated and not fully vaccinated employees, and not a highest possible estimate.

Compositing the costs using the monthly infection and hospitalization rates from NYC DOH shown in Figure 3, we have a total estimated difference in hospitalization costs (these severe cases comprise most of the medical cost differential) between vaccinated and unvaccinated employees of roughly \$46.29 per member per month.

For context, the 2020 average premium for a single employee was \$622.50 per month (of which covered workers, on average, contribute 17%), according to the Kaiser Family Foundation (KFF) 2020 Employer Health Benefits Survey.¹³ Given that, we estimated the differential in estimated COVID-19 hospitalization costs to be between 1.4% and 7.4% of nationwide average monthly premium.

Considerations

As discussed above, this estimated hospitalization cost differential represents just a portion of an incentive or surcharge and employer may choose to implement.

There are many potential nuances in the implementation of an incentive or surcharge. Some compliance-related considerations have been discussed elsewhere, for example by the Society for Human Resource Management (SHRM)¹⁴ and JacksonLewis.¹⁵¹⁶ In addition, the Equal Employment Opportunity Commission (EEOC) has provided some specific guidance on this topic.¹⁷

Other nuances stem from the newness of the disease itself, and the vaccines available to inoculate employees against it. It is not currently known whether having the disease once or getting vaccinated against it will impart lasting immunity. That leads to the question as to how long a potential incentive or surcharge should last, and how often does it need to be revisited and revised? If an employee is vaccinated in March 2021, should the financial advantage last for a year? Two years? Five years? Does it only continue if booster shots are taken? How does an employer verify vaccination status?

As the pandemic wears on, new treatments will be developed to treat COVID-19. For example, a new pill that is reported to reduce COVID-19 hospitalizations and death by half was announced recently by Merck.¹⁸ This is an example of one of many treatment options that may be used in the future to reduce

risk of costly hospitalizations and progression of the disease, further eroding the medical cost differential between vaccinated and unvaccinated employees over time.

Meanwhile, there is some debate as to the value of natural immunity versus vaccinated immunity. A study by the CDC using data from Kentucky found 2.3 times better immunity against reinfection following vaccination compared to natural (post-disease) immunity.¹⁹ However, an Israeli study with a much larger sample size found disease-naïve vaccinated patients had a risk of subsequent infection 13 times greater compared to previously infected patients.²⁰ Regardless, the immunity level of an unvaccinated group will increase over time as its members experience and (mostly) recover from the disease. That implies that the difference in case rates and hospitalizations between the vaccinated and unvaccinated groups will diminish over time, which would reduce the \$8.85 to \$46.29 estimated medical cost differential.

Employers, particularly medical care providers, have required vaccination against various illnesses as a condition for employment previously; this is not a new concept with COVID-19.²¹ However, these newer mandates have attracted lawsuits, many of which have been resolved in favor of the employer. For whatever reason, the vaccination mandate has become a hot-button issue. This may be, in part, because the COVID-19 vaccines were initially disseminated prior to full approval by the U.S. Food and Drug Administration (FDA). It also may be, in part, due to the touchy political climate in the United States at present.

Conclusion

Our analysis showed a modest estimated cost differences of \$8.85 and \$46.29 PMPM between vaccinated and unvaccinated employees in terms of the most impactful medical expense for COVID-19 (hospitalization). Employers have implemented (or considered) much larger cost differentials between the two groups as a medical benefit contribution incentive or surcharge, for example the \$200 surcharge for unvaccinated Delta Airlines employees mentioned above. This could be due to not having an estimated medical cost differential, and/or wanting to put some “teeth” into the incentive or surcharge to influence employee behavior.

It is important to reiterate that our estimated difference in cost between the vaccinated and unvaccinated employees is focused solely on the cost from COVID-19-related hospitalizations. There could potentially be other cost differences between the two populations, including (but not limited to) other medical costs related to COVID-19 treatment, productivity differences due to missed work from COVID-19 illness, disability claims, life insurance claims, workers’ compensation claims, and litigation costs. This analysis focused on COVID-19-related hospitalizations as one of the more expensive health benefit events that would differentiate the two groups.

Other possible employer requirements, such as mandated social distancing or masking, may impact the cost estimates estimate above. It would make sense that the more effective an employer is at other methods for slowing spread, the lower the value of the vaccine incentive or surcharge and vice versa.

If the Biden administration’s executive order is ultimately implemented, employers may still choose to impose an incentive or surcharge on unvaccinated employees. Employers will still be on the hook for excess costs for unvaccinated employees, possibly including the required weekly COVID-19 testing going forward. If employers are required to verify and submit periodic data to OSHA as proof of vaccination or testing, it could create an additional administrative cost burden for employers as well.

And, while COVID-19 is typically described in the context of a current pandemic, the World Health Organization predicts it to become endemic; that is, it is here to stay.²²

Key sources of analysis

As mentioned above, the key sources for our analysis include:

- CDC-published COVID-19 case rates and hospitalization rates from June 20 through July 17, 2021
- NY DOH COVID-19 case rates and hospitalization rates from August 1 through September 5, 2021
- CDC splits of hospitalizations by type and severity of care from February through June 2021
- Milliman research estimates on costs of COVID-19 hospitalizations using claims from April 1 through July 31, 2020, trended to July 2021 using 5.0% annual trend

The situation is very fluid regarding infection and hospitalization rates and treatments; these values are constantly changing. These sources will need to be updated for specific time periods and populations as the COVID-19 pandemic evolves.

Caveats

Data available for this simple analysis are still emerging, and therefore the values used are highly likely to be revised over time. The distribution of the claims data analyzed by market and geographic region is unknown and may not represent a nationwide average. Hospital payments vary significantly by region, meaning payments to hospitals in some locations may differ significantly from the nationwide estimates presented in this white paper. Differences between the claims data summarized in this white paper and current or future nationwide payment amounts may result from evolution in disease treatment patterns, payer-specific payment structures, geographic variation in the incidence of COVID-19 admissions, new legislation, federal rulemaking, and other unforeseen events that affect the per-admission hospital payment for COVID-19 admissions.

We note the following limitations with respect to the claims costs used in this analysis:

- *Hospital payment estimates do not include payments for other services provided to hospitalized COVID-19 patients, such as professional payments for inpatient physician visits.* Costs other than the hospital payment for an inpatient admission can be substantial and are outside the scope of this analysis.
- *The hospital payment methodologies for all payers underlying the experience are not known.* Commercial hospital payment methodologies vary significantly by carrier due to the wide range of structures available in the commercial market, which are often not public.

We focused solely on the costs of COVID-19-related hospitalizations. Other COVID-19-related costs, such as costs for COVID-19 testing, office visits, emergency room visits, and other medical and nonmedical costs, are not reflected in these estimates.

Hospitalization percentages by type of hospitalization (ICU with ventilator, ICU total, and other) are the same for the vaccinated and unvaccinated populations in our analysis because we did not have these rates specifically for each of the two populations. It may be that vaccinated and unvaccinated hospital patients have different likelihoods of needing various levels of hospital care.

Our analysis is premised on assumptions regarding the spread of the disease, including assumptions as to how many people are hospitalized in a population, how hospitalization rates vary by age and gender, the severity of healthcare services utilized by those infected, and other variables. Scientific knowledge of these items is incomplete and new data on the spread of COVID-19 in the United States is still emerging. In addition, actions taken by governmental authorities and the healthcare system related to the COVID-19 pandemic are rapidly changing. Consequently, our results will evolve as new information becomes available and new actions are taken by the authorities and other stakeholders. Due to the limited information available on the pandemic, any analysis is subject to a substantially greater than usual level of uncertainty.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Jill Van Den Bos and Shelley Moss are members of the American Academy of Actuaries and meet the qualification standards for performing the analyses documented in this article.

A special thank you to our peer reviewers, Brent Jensen and Sue Taranto, and many other colleagues who provided valuable feedback.

*Note that the Mayo Clinic estimates that as of September 19, 2021, 54.9% of the U.S. population is fully vaccinated. For adults ages 18 to 64, the percentage of fully vaccinated people ranges by state from 39.1% in West Virginia to 75.0% in Massachusetts. See <https://www.mayoclinic.org/coronavirus-covid-19/vaccine-tracker>.

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ATTACHMENT 3

VACCINATED EMPLOYEES (4,440)				
Medical Cost Category Name	*Number of Claims	Paid Amount	Average Paid Per Claim	**PEPM
Inpatient Facility	307	\$3,394,941.50	\$11,058.44	\$ 77
Ambulatory Facility	1,994	\$3,213,580.62	\$1,611.63	\$ 73
Emergency Room	1,392	\$1,604,739.54	\$1,152.83	\$ 36
Specialist Physician	34,122	\$5,265,788.52	\$154.32	\$ 120
Primary Physician	11,880	\$861,903.67	\$72.55	\$ 20
Radiology	6,522	\$897,709.52	\$137.64	\$ 20
Lab	20,101	\$997,626.03	\$49.63	\$ 23
Home Health	2,430	\$302,991.85	\$124.69	\$ 7
Mental Health	4,994	\$852,409.29	\$170.69	\$ 19
Medical Pharmacy	6,772	\$3,493,652.67	\$515.90	\$ 79
Total		\$20,885,343.21		\$ 475

NON-VACCINATED EMPLOYEES (568)				
Medical Cost Category Name	*Number of Claims	Paid Amount	Average Paid Per Claim	**PEPM
Inpatient Facility	126	\$1,983,266.77	\$15,740.21	\$ 349
Ambulatory Facility	322	\$472,631.56	\$1,467.80	\$ 83
Emergency Room	191	\$193,205.76	\$1,011.55	\$ 34
Specialist Physician	4,992	\$923,651.63	\$185.03	\$ 163
Primary Physician	1,434	\$120,845.52	\$84.27	\$ 21
Radiology	1,311	\$176,129.66	\$134.35	\$ 31
Lab	2,907	\$147,760.70	\$50.83	\$ 26
Home Health	389	\$53,182.07	\$136.71	\$ 9
Mental Health	486	\$45,391.70	\$93.40	\$ 8
Medical Pharmacy	846	\$245,803.67	\$290.55	\$ 43
Total		\$4,361,869.04		\$ 768

VACCINATED EMPLOYEES NET HCC 100K (4,372)				
Medical Cost Category Name	*Number of Claims	Paid Amount	Average Paid Per Claim	**PEPM
Inpatient Facility	249	\$2,346,199.81	\$9,422.49	\$ 53.32
Ambulatory Facility	1,833	\$2,769,596.51	\$ 1,510.96	\$ 62.95
Emergency Room	1,354	\$1,559,213.87	\$ 1,151.56	\$ 35.44
Specialist Physician	32,699	\$3,691,230.24	\$ 112.89	\$ 83.89
Primary Physician	11,626	\$752,463.66	\$ 64.72	\$ 17.10
Radiology	6,144	\$815,233.29	\$ 132.69	\$ 18.53
Lab	19,257	\$924,008.74	\$ 47.89	\$ 21.00
Home Health	2,200	\$245,144.70	\$ 111.43	\$ 5.57
Mental Health	4,881	\$713,575.58	\$ 146.19	\$ 16.22
Medical Pharmacy	6,127	\$1,701,551.44	\$ 277.71	\$ 38.67
Total		\$15,518,217.84		\$ 352.69

NON-VACCINATED EMPLOYEES NET HCC 100K (560)				
Medical Cost Category Name	*Number of Claims	Paid Amount	Average Paid Per Claim	**PEPM
Inpatient Facility	76	\$921,971.82	\$ 12,131.21	\$ 162
Ambulatory Facility	310	\$458,948.73	\$ 1,480.48	\$ 81
Emergency Room	179	\$188,577.65	\$ 1,053.51	\$ 33
Specialist Physician	4,656	\$646,245.76	\$ 138.80	\$ 114
Primary Physician	1,324	\$96,610.95	\$ 72.97	\$ 17
Radiology	1,134	\$158,310.29	\$ 139.60	\$ 28
Lab	2,758	\$137,346.73	\$ 49.80	\$ 24
Home Health	350	\$46,249.34	\$ 132.14	\$ 8
Mental Health	485	\$45,261.70	\$ 93.32	\$ 8
Medical Pharmacy	762	\$243,023.29	\$ 318.93	\$ 43
Total		\$2,942,546.26		\$ 518

*Claims Incurred Between 10/1/2021 to 7/31/2022 (10 month)

Average total Membership: 4,400 Enrolled Employees

**Per Employee Per Month (PEPM)