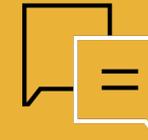




FY 2023 Venture Report

Medical Alley Venture Report

The Medical Alley Venture Report is a quarterly analysis of investment, M&A and other factors driving growth in Medical Alley[®], the epicenter of health innovation and care[®].



**Medical Alley
Starts highlights**



**Private and public
markets activity**



SBIR/STTR funding



**Job growth in
Medical Alley**

Medical Alley Starts

Venture platform to lower the cost of starting, scaling and pivoting new ventures



Global Investor Network:

Connecting startups to investors from pre-seed to growth.



Global Corporate Partner Network:

Facilitating partnership, M&A, JVs and other engagements with global leaders in healthcare



Ready Reserve Entrepreneur Volunteers:

A network of experienced entrepreneurs ready to lend their expertise to your venture



Medical Alley Starts – Highlights

- Medical Alley Starts served 1,347 companies in 2023, an almost 50% increase compared to 2022.
- Since launching in February 2021, Medical Alley Starts' work has delivered over \$30 million of direct value to the ecosystem, contributing to investments and acquisitions worth more than \$1 billion.
- Services were delivered to more than 30 states and 46 countries, including healthcare innovation in the United Kingdom, Israel, Benelux, Nordics, Australia, Japan and South Korea.



Medical Alley Starts – FY 2023

- Served **1,347** companies and delivered;
 - **179** investor introductions
 - **510** supplier connections
 - **233** corporate development connections
 - **330** peer connections
- **713** stories shared through Medical Alley channels



Medical Alley Starts – Q4/2023

- Served 258 companies and delivered;
 - 51 investor introductions
 - 133 supplier connections
 - 53 corporate development connections
 - 97 peer connections
- 201 stories shared through Medical Alley channels



FY 2023 – Key Takeaways

- Medical Alley continues to be a leading hub of healthcare innovation and investment. After Massachusetts and California, Medical Alley startups raised the third most private capital per capita out of all states in 2023, surpassing other venture capital hubs such as New York and Colorado.
- While Massachusetts' volume is driven by late-stage biotech and pharma rounds and California's by large digital health raises, Medical Alley's startups are much more diversified. However, late-stage deals were much more prevalent in 2023 than in previous years.
- \$1.57 billion in total startup funding represented only a 7% decrease over 2022, showing Medical Alley's resilience in unfavorable market conditions.
- Both public markets and M&A activity picked up toward the end of the year. This could suggest markets are stabilizing after a tumultuous 2023.



Startup Funding – FY 2023

Over \$1.5 Billion in Startup Funding

- Despite market uncertainties, Medical Alley startups raised \$1.57 billion in funding in 2023, a 7% decrease over 2022.
- Private capital was the largest contributor, with \$938 million raised.
- The \$601 million raised by public companies was on par with 2022.
- Companies continued to leverage non-dilutive SBIR/STTR grants and brought in \$33.55 million, which is the second highest since tracking began in 2012 (after \$37.37 million in 2019).

2023 Startup Funding	
Private Capital	\$938,412,611
Public Capital	\$601,379,500
SBIR/STTR	\$33,549,887
Total	\$1,573,341,998



Private Funding – FY 2023

\$938 Million in Private Funding

Medical Alley companies raised \$938 million in private capital, an 11% decrease from 2022 when they raised \$1.057 billion.

The trend of late-stage and growth deals continued. Medical Alley tracked 83 individual raises, 26 less than in 2022, for an average of \$11.3 million per raise (\$1.6 million more than last year).

The three largest publicly announced raises were Gravie's \$179 million growth round, Saluda Medical's \$150 million raise, and Nucleus Radiopharma's \$56 million Series A.

Despite the market uncertainties, 2023 saw the fourth most private capital raised since tracking began in 2001 (after 2020, 2019, 2022).

Biotech recorded its second-best year after 2022; digital health had its third-best year after 2020 and 2019.



\$388,344,513

Medical device

\$388,966,532

Digital health

\$112,941,566

Biopharma

\$48,000,000

Provider

Public Markets – FY 2023 On Par with Last Year

- Publicly traded Medical Alley companies raised \$601 million in 2023, which is nearly as much as in 2022 (\$609 million).
- Over two transactions, Lifecore Biomedical raised almost \$189 million, the most by a single company in 2023.
- Public market funding remained steady over the last three years.

Company	Amount
Lifecore Biomedical	\$188,750,000
ANI Pharmaceuticals	\$86,250,000
Anteris	\$63,607,500
Bright Health	\$60,000,000
Celcuity, Inc.	\$50,000,000
DiaMedica Therapeutics	\$37,500,000
Tactile Medical	\$32,500,000
Panbela Therapeutics	\$24,500,000
Envoy Medical	\$23,000,000
Imricor	\$19,600,000
Miromatrix	\$10,000,000
NeuroOne Medical	\$5,250,000
JanOne	\$422,000
2023 Total	\$601,379,500



M&A – FY 2023

Strong(er) Finish to an Otherwise Slow Year

- There were 7 M&A transactions in Q4/2023, second most in 2023 after 8 transactions in Q3.
- The 3 transactions with reported value were worth \$438.25 million, bringing this year's total to \$3.59 billion.
- This represents a significant drop off from 2022 (\$11.53 billion of reported value) and 2021.

Transaction
OpSense Signs Definitive Agreement for its Acquisition by Haemonetics
Zomedica Announces Acquisition of Qorvo Biotech LLC
Big Band Software Acquires Inphonite
AxoSim has acquired from StemoniX (a subsidiary of Vyant Bio) a proprietary drug discovery platform
Miromatrix Medical acquired by United Therapeutics
Ergotron Announces Acquisition of Enovate Medical
Savillex Completes Acquisition of ONFAB



SBIR/STTR Funding – FY 2023

Second Largest Year on the Record

- In 2023, Medical Alley companies secured \$33.55 million in SBIR/STTR funding. After 2019 (\$37.37 million), this is the second largest amount since tracking began in 2012.
- SBIR/STTR grants continue to supplement early-stage private capital, which has been challenging to raise.
- On a 3-year rolling average, the amount of SBIR/STTR grants obtained by Medical Alley company has been growing by nearly 10% each year.

Organization Name	# of projects	Value
Minnesota Healthsolutions Corporation	11	\$7,589,417
Koronis Biomedical Technologies Corporation	5	\$3,375,146
Innovative Design Labs, Inc.	2	\$2,092,625
Moai Technologies, LLC	2	\$1,804,733
Applied Universal Dynamics Corporation	3	\$1,781,105
QRS Diagnostic	2	\$1,649,847
Piraeus Medical, Inc.	2	\$1,492,486
Quench Medical, Inc.	2	\$1,427,376
Metselex, Inc.	1	\$1,344,236
Aster Labs, Inc.	1	\$1,158,940
Emmyon, Inc.	1	\$990,411
Vergent Bioscience, Inc.	1	\$874,253
Shape Medical Systems, Inc.	1	\$844,522
Fistula Solutions Corporation	1	\$773,063
Advanced Medical Electronics Corporation	2	\$710,451
Luminary Therapeutics, Inc.	2	\$697,704
Neurotype Inc.	2	\$655,635
Trekka Therapeutics, LLC	2	\$547,802
Adapt Design Works, LLC	1	\$496,520
Habitaware, Inc.	1	\$420,178
Smart Information Flow Technologies	1	\$399,948
Myriel, Inc.	1	\$349,992
Recombinetics, Inc.	1	\$342,154
Elements Endoscopy INC	1	\$299,803
Humanetics Corporation	1	\$298,474
Myogenica, Inc.	1	\$292,719
Momease Solutions, Inc.	1	\$288,733
Ascan L.L.C.	1	\$276,073
Algenta Technologies	1	\$275,541
Total	54	\$33,549,887



NIH Funding – FY 2023

U of M and Mayo Clinic Continue to Lead

- Medical Alley companies brought in \$480.40 million in NIH grants.
- This represents a slight increase over last year's \$446.63 million
- University of Minnesota (58.28%) and the Mayo Clinic (37.24%) accounted for 96.52% of all NIH money in 2023.

Organization Name	# of projects	Value
University of Minnesota	537	\$279,959,629
Mayo Clinic Rochester	314	\$178,891,660
Hennepin Healthcare Research Institute	11	\$11,247,166
HealthPartners Institute	8	\$4,200,260
Minnesota State Dept. of Agriculture	5	\$1,984,870
Center for Veterans Research and Education	1	\$1,274,102
University of Minnesota Duluth	2	\$840,228
Gillette Children's Specialty Healthcare	2	\$532,925
Minnesota State Dept. of Health	3	\$501,619
Carleton College	1	\$435,885
The Beautywell Project	1	\$249,578
Children's Hospitals and Clinics	1	\$218,718
St. Olaf College	1	\$64,637
Minneapolis VA Medical Center	18	N/A
Total	905	\$480,401,277



Healthcare Employment – Q2/2023*

Steady Growth Across Industries

- Year-over-year, jobs grew steadily across all industries in Minnesota.
- Providers added more than 12,000 jobs, up 3.30% from last year and an increase of 1.55% over last quarter.
- Biotech and pharma industries recorded the second largest year-over-year growth (2.55%), narrowly edging out retail (2.53%).

Industry	Average Employment	Q-o-Q Change	Y-o-Y Change
Provider	393,301.00	1.55%	3.30%
Medical Device	34,509.00	0.53%	2.14%
Health Insurance	19,430.33	0.18%	1.53%
Retail	15,673.33	0.25%	2.53%
Pharm/Bio	6,961.00	0.12%	2.55%
Other	527.67	-1.12%	6.31%



* Federal jobs data has a 6-month delay so the most current data in Q4/2023 is for Q2/2023.

Startup Funding – Q4/2023

\$215 Million in Startup Funding

- To close the year, Medical Alley companies raised \$215.81 million.
- Private companies landed \$125.81 million, and publicly traded companies brought in \$90 million.
- This represents a 38% decrease year-over-year.

Q4/2023 Startup Funding	
Private Capital	\$125,811,944
Public Capital	\$90,000,000
Total	\$215,811,944



Private Funding – Q4/2023

Biopharma Leads the Way

Biopharma startups led in this quarter's private capital with almost \$71 million raised, which is the highest of any Q4 on record.

Medical device companies came in second with just over \$50 million raised.

The largest publicly announced raise was Nucleus Radiopharma's \$56 million Series A, which accounted for 46% of all private capital raised in Q4/2023.

Overall, 18 companies raised private capital with an average of almost \$7 million per raise.

\$70,972,800

Biopharma

\$50,281,461

Medical device

\$4,577,683

Digital health



Public Markets – Q4/2023

Two Transactions to Close the Year

- Compared to last year's 5 transactions worth \$236 million, this year's Q4 was quieter with only two publicly traded companies reporting new capital worth \$90 million.
- Celcuity^(xy) raised \$50 million in a private placement, and Anteris^(xy) raised \$40 million in new equity.

Company	Amount
Celcuity LLC	\$50,000,000
Anteris	\$40,000,000
2023 Total	\$90,000,000



NIH & SBIR/STTR Funding – Q4/2023

Traditionally Quieter Last Quarter

- Last quarters of the year are quieter when it comes to NIH funding, and this year was no exception.
- Organizations brought in almost \$50 million through non-SBIR/STTR NIH grants, with traditional leaders – the University of Minnesota and the Mayo Clinic.
- There were no SBIR/STTRs awarded to Medical Alley companies.

Organization Name	# of projects	Value
University of Minnesota	61	\$26,880,323
Mayo Clinic	53	\$21,871,454
Hennepin Healthcare Research Institute	1	\$245,833
Minneapolis VA Medical Center	8	N/A
Total	123	\$48,997,610



Contacts

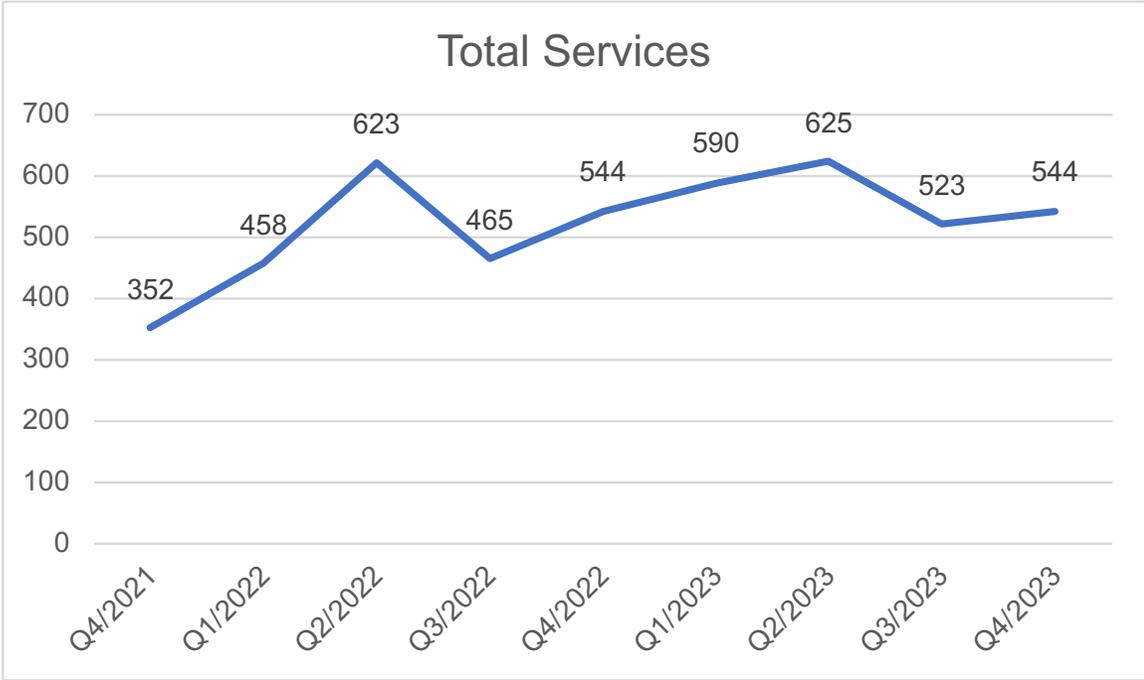
- Frank Jaskulke, VP of Innovation – fjaskulke@medicalalley.org
- Filip Kostal, Startup Principal – fkostal@medicalalley.org
- Dave Tierney, Web Developer – dtierney@medicalalley.org



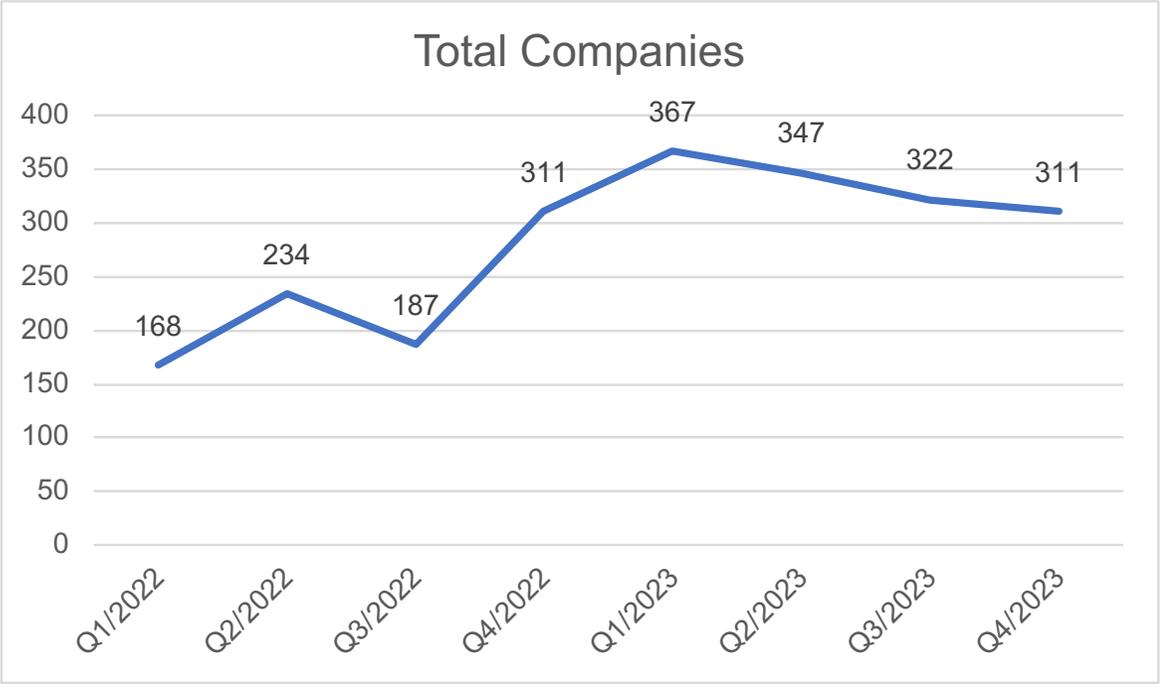


Appendix

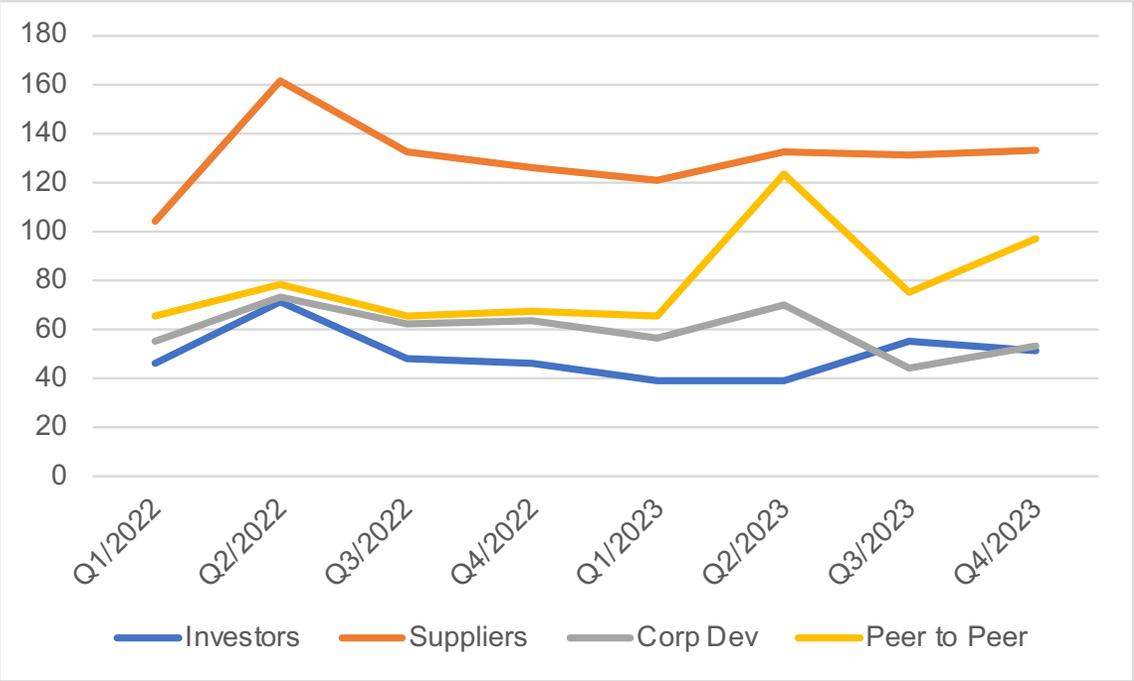
Medical Alley Starts – Services by Quarter



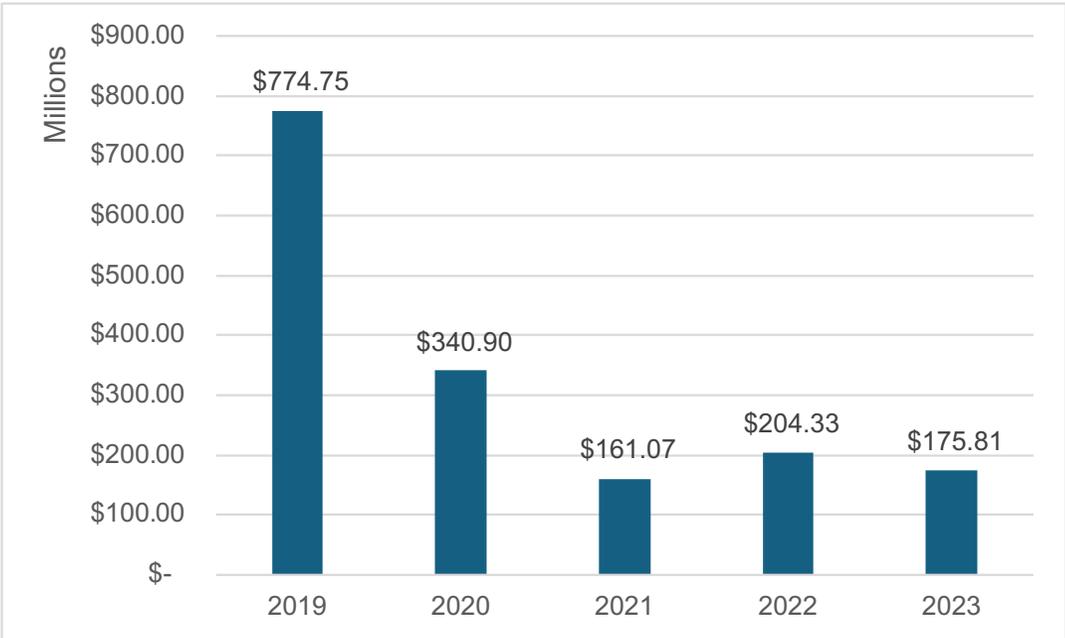
Medical Alley Starts – Companies Supported by Quarter



Medical Alley Starts – Services by Quarter



Healthcare Private Raises by Quarter – Q4



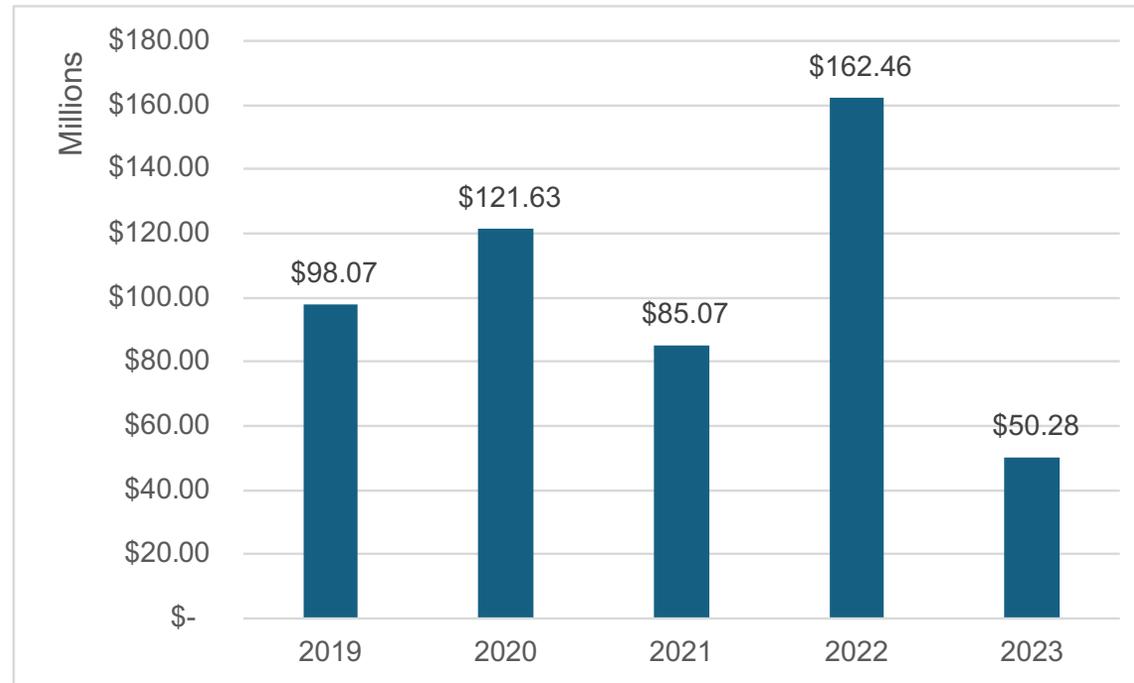
With Bright Health



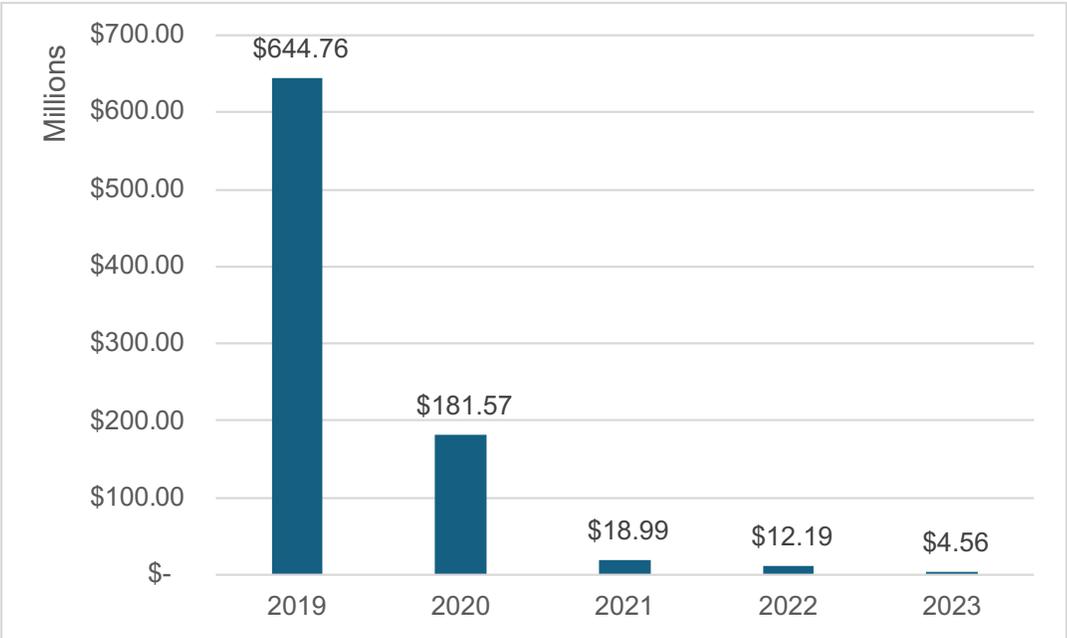
Without Bright Health



Medical Device Private Raises by Quarter – Q4



Digital Health Private Raises by Quarter – Q4



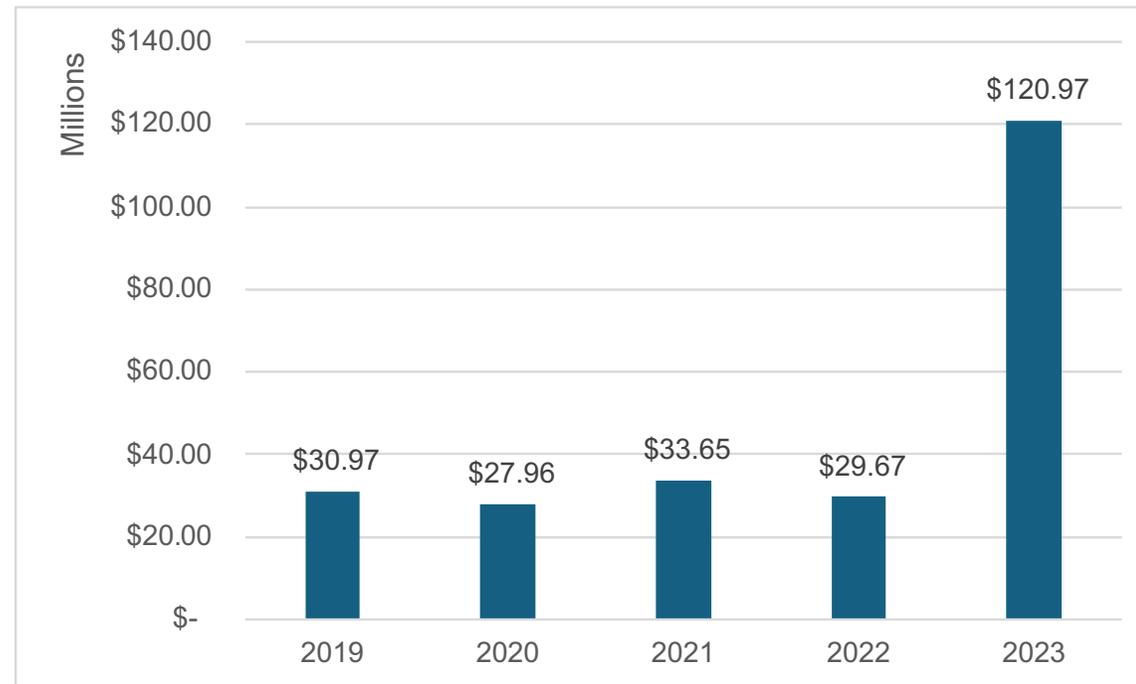
With Bright Health



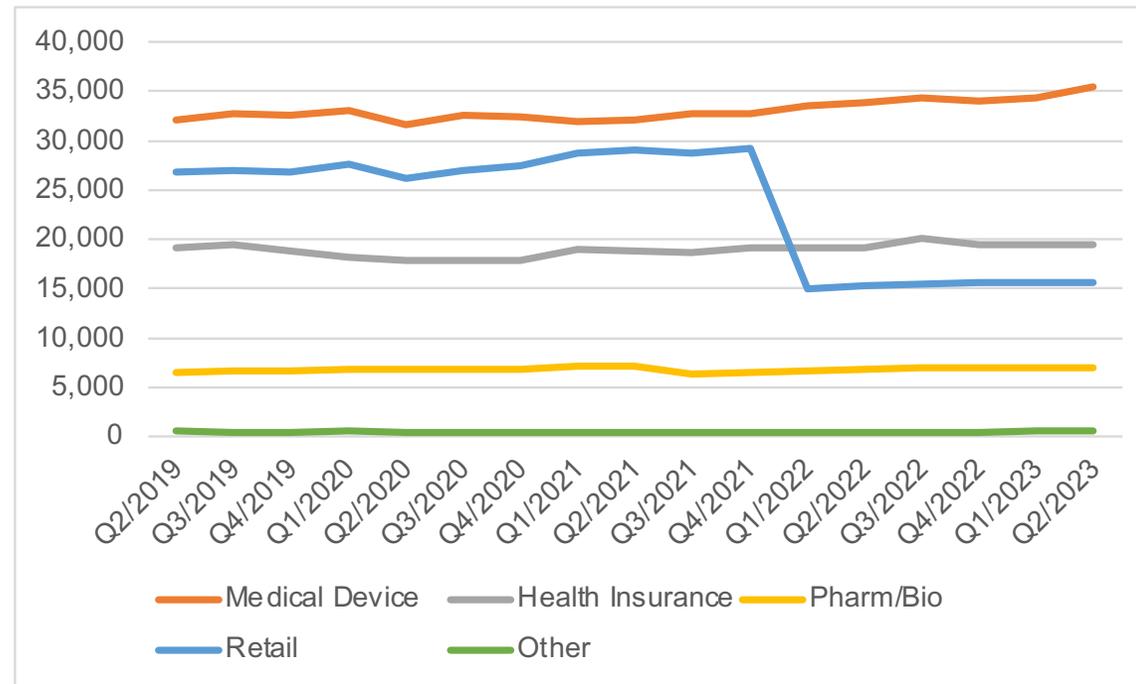
Without Bright Health



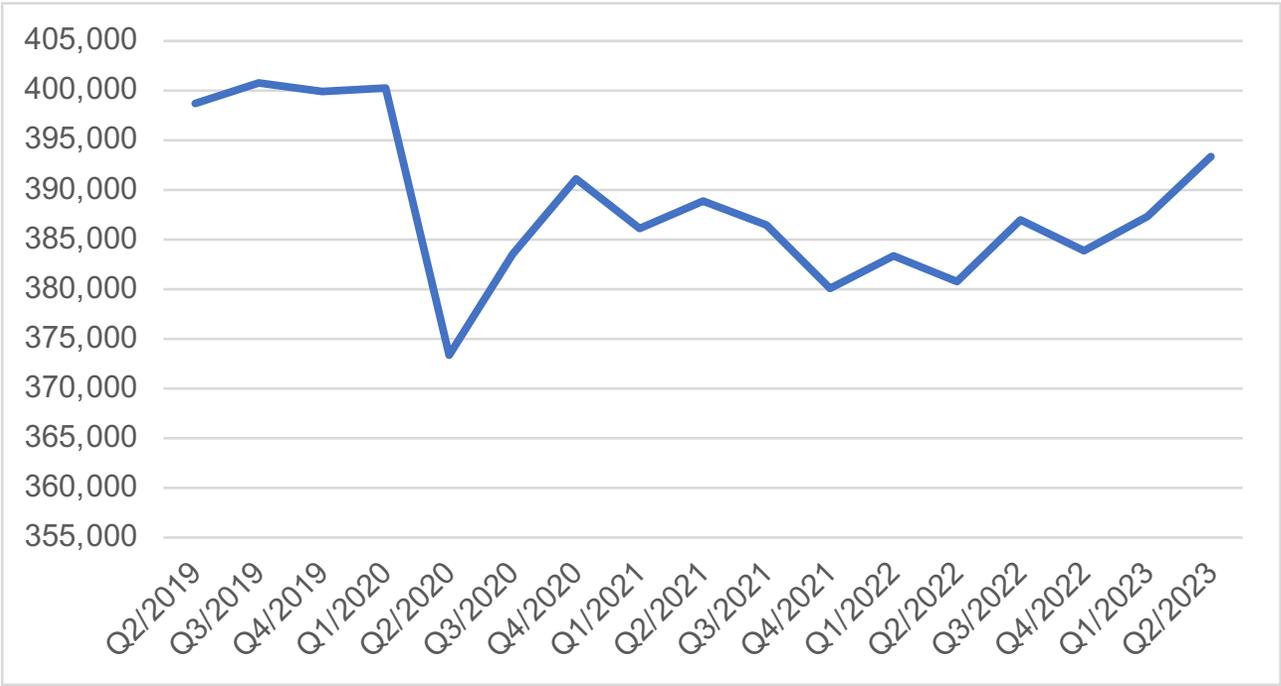
Biopharma Private Raises by Quarter – Q4



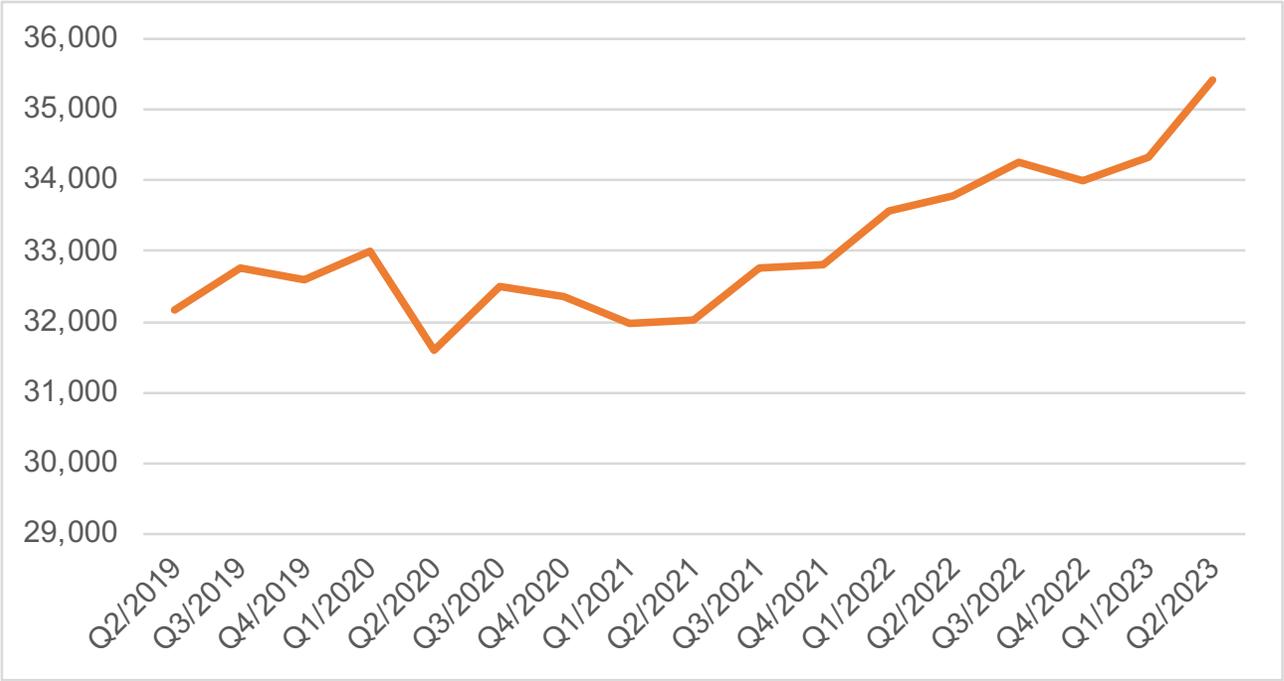
All Healthcare (without Providers) – Quarterly Employment in Minnesota



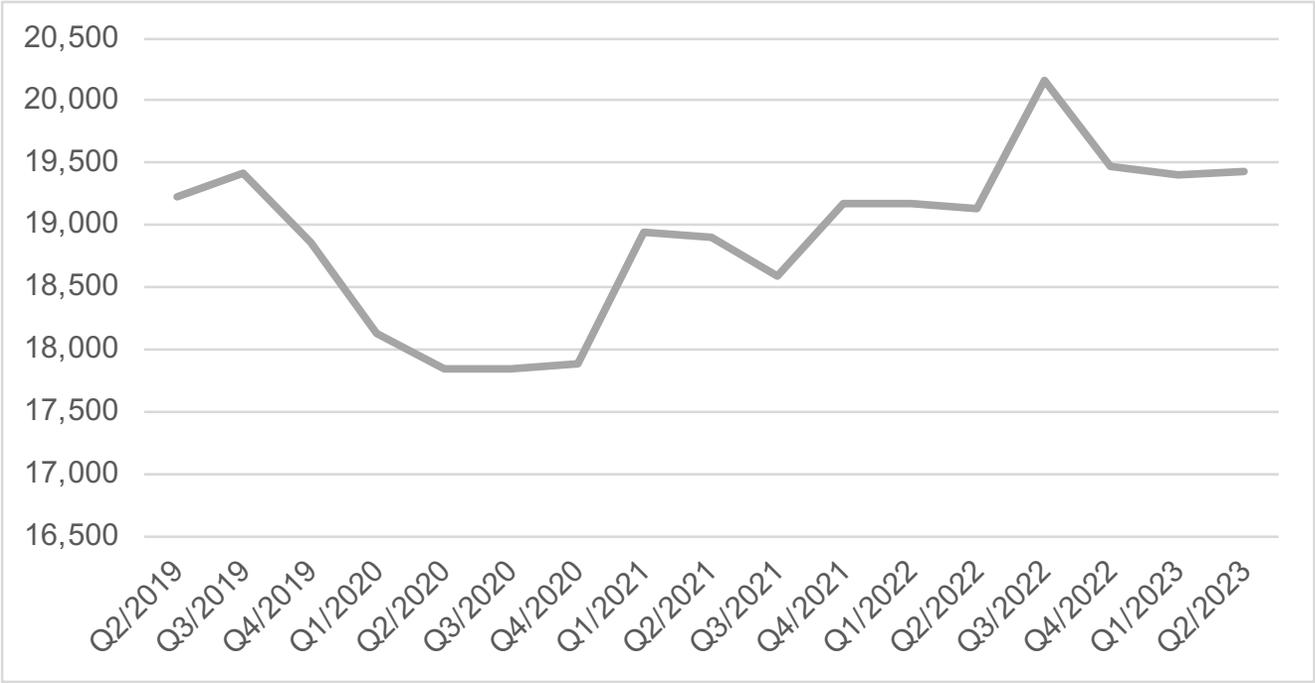
Providers – Quarterly Employment in Minnesota



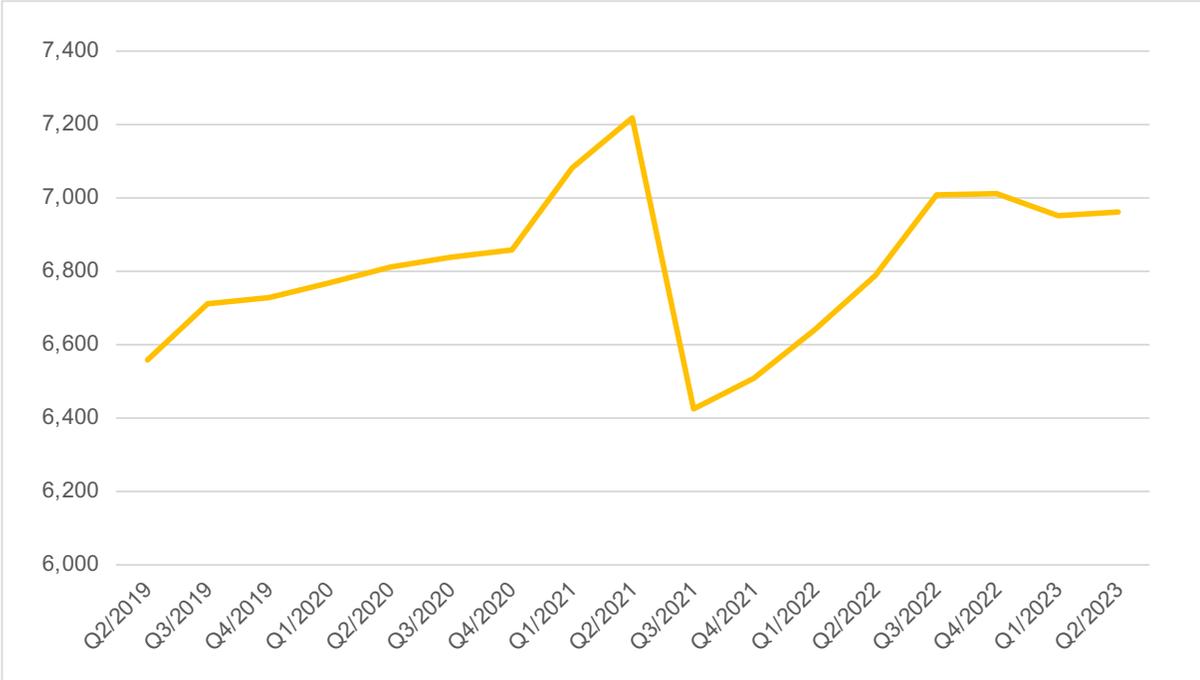
Medical Device – Quarterly Employment in Minnesota



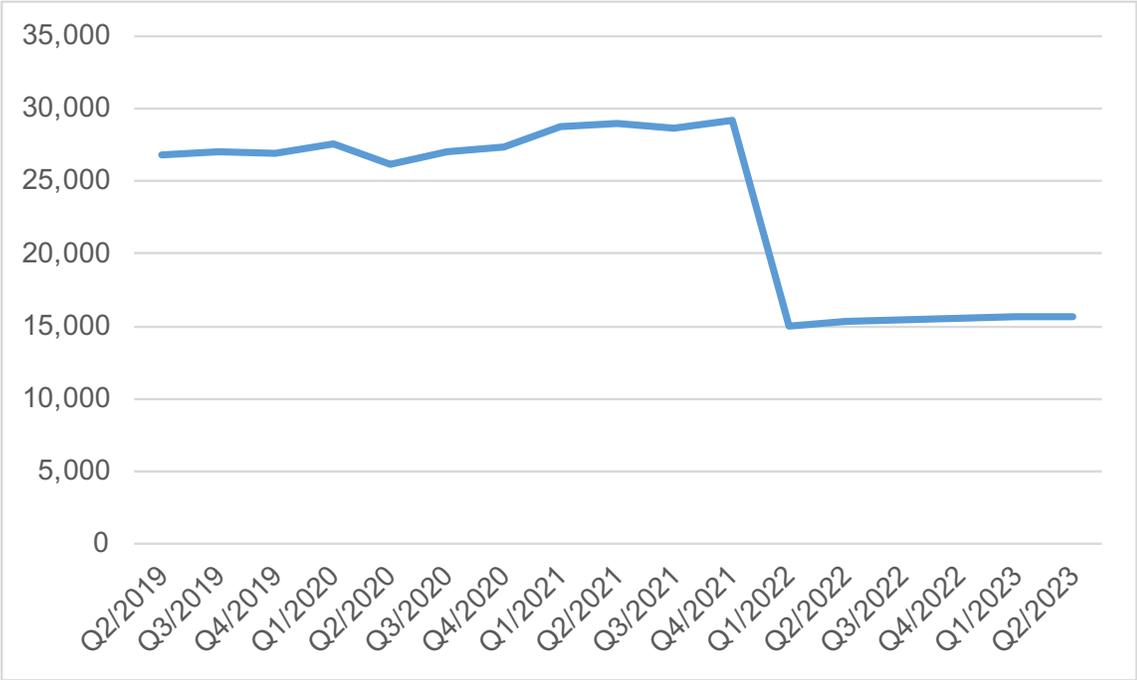
Health Insurance – Quarterly Employment in Minnesota



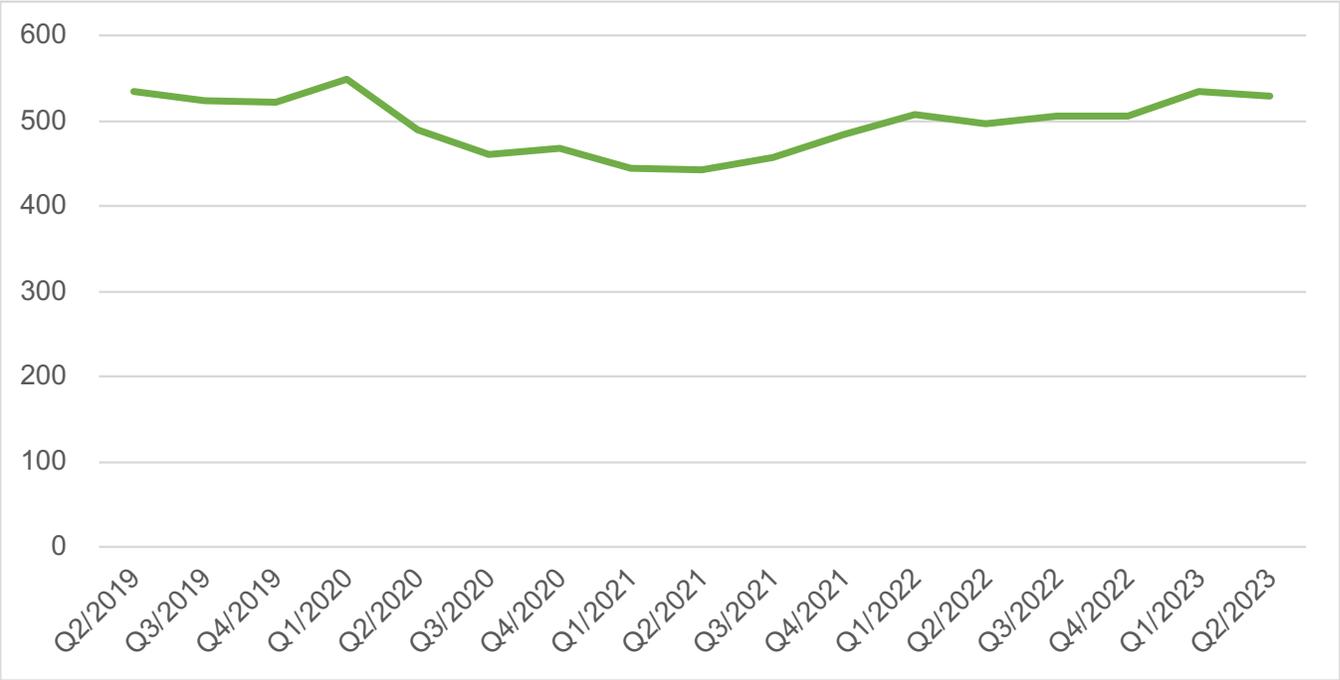
Biotech & Pharma – Quarterly Employment in Minnesota



Retail – Quarterly Employment in Minnesota



Other Healthcare – Quarterly Employment in Minnesota



Healthcare Raises Per Capita in 2023 (1/2)				
State	Population	Amount Raised	Amount Raised per Capita	Number of Raises
Massachusetts	7,001,399	\$8,725,616,562	\$1,246.27	275
California	38,965,193	\$12,239,492,772	\$314.11	708
Minnesota	5,737,915	\$988,412,611	\$172.26	84
District of Columbia	678,972	\$102,493,793	\$150.95	18
New York	19,571,216	\$2,599,902,742	\$132.84	308
Tennessee	7,126,489	\$929,982,491	\$130.50	24
Maryland	6,180,253	\$722,608,981	\$116.92	62
Washington	7,812,880	\$901,674,759	\$115.41	57
Colorado	5,877,610	\$595,454,751	\$101.31	61
Utah	3,417,734	\$264,733,447	\$77.46	29
New Hampshire	1,402,054	\$101,455,959	\$72.36	8
Pennsylvania	12,961,683	\$931,445,948	\$71.86	110
Illinois	12,549,689	\$635,516,274	\$50.64	75
Texas	30,503,301	\$1,347,534,659	\$44.18	139
Virginia	8,715,698	\$362,723,262	\$41.62	35
New Jersey	9,290,841	\$368,760,002	\$39.69	46
Vermont	647,464	\$25,050,002	\$38.69	3
Connecticut	3,617,176	\$138,256,562	\$38.22	33
Missouri	6,196,156	\$224,430,114	\$36.22	26
New Mexico	2,114,371	\$68,474,071	\$32.39	8
Arizona	7,431,344	\$227,106,275	\$30.56	33
Indiana	6,862,199	\$205,040,091	\$29.88	24
North Carolina	10,835,491	\$306,694,368	\$28.30	68
Georgia	11,029,227	\$306,694,368	\$27.81	45
Kansas	2,940,546	\$78,247,376	\$26.61	10
Nebraska	1,978,379	\$52,529,000	\$26.55	13
Ohio	11,785,935	\$235,270,687	\$19.96	45

Source: Pitchbook and internally tracked data



Healthcare Raises Per Capita in 2023 (2/2)				
State	Population	Amount Raised	Amount Raised per Capita	Number of Raises
Wisconsin	5,910,955	\$110,298,183	\$18.66	23
Florida	22,610,726	\$405,432,080	\$17.93	113
Michigan	10,037,261	\$168,671,297	\$16.80	50
Kentucky	4,526,154	\$75,425,071	\$16.66	8
Iowa	3,207,004	\$50,576,769	\$15.77	7
Nevada	3,194,176	\$49,027,517	\$15.35	11
Rhode Island	1,095,962	\$14,404,630	\$13.14	7
Oregon	4,233,358	\$43,140,614	\$10.19	12
Oklahoma	4,053,824	\$37,791,567	\$9.32	11
Montana	1,132,812	\$9,100,001	\$8.03	5
Maine	1,395,722	\$10,150,000	\$7.27	6
South Carolina	5,373,555	\$21,249,467	\$3.95	14
Louisiana	4,573,749	\$18,017,500	\$3.94	4
Idaho	1,964,726	\$5,980,373	\$3.04	2
Arkansas	3,067,732	\$7,562,405	\$2.47	5
South Dakota	919,318	\$2,255,000	\$2.45	3
North Dakota	783,926	\$1,200,000	\$1.53	3
Alabama	5,108,468	\$6,993,910	\$1.37	10
West Virginia	1,770,071	\$1,560,000	\$0.88	1
Wyoming	584,057	\$500,000	\$0.86	2
Delaware	1,031,890	\$200,000	\$0.19	2
Mississippi	2,939,690	\$109,992	\$0.04	2
Hawaii	1,435,138	\$0	\$0.00	0
Alaska	733,406	\$0	\$0.00	0

Source: Pitchbook and internally tracked data



References

- 1 [Bizjournals – Cancer research company Celcuity raises \\$50 million](#)
- 2 [Anteris Raises \\$40 million in new equity](#)

