

DIGITAL HEALTH ECOSYSTEM

2022 Year End Report



Foreword

Trepidation. That one word describes the uncertain economic climate that gripped corporate and investment decision-makers. If we are to believe headlines, wallets have tightened, and investment in life science and digital health, as a result, has declined. That go-to conclusion takes a simple approach to a complex investment strategy for the digital health sector that has shown great resilience year-after-after.

The Digital Health sector has grown significantly during the past decade, primarily mobilized to address unmet health-system and care needs. From \$2 billion invested in 2011, that figure morphed 28-fold to \$56 billion in 2021. In the shadow of the COVID pandemic, unprecedented investment poured into digital health during this two-year window, accelerating the adoption of AI, remote patient monitoring, telehealth, digital therapeutics, wearables, VR and more.

After an extraordinary two-year pandemic funding spree, there are apparent shifts in how investors place their economic bets. In this year of geopolitical turmoil and uncertain financial performance, digital health remains vital to the future of the health economy and in addressing public health press points. However, the development stages in which funds are directed, therapeutic categories selected, provider systems that demand transformation, and the regions where innovators establish headquarters are now investment factors.

Bottomline, funding levels exceed the pre-pandemic values. Digital Health ventures are busy – submitting more than double the number of regulatory filings in 2021 than before

the COVID era. There is a dramatic increase in partnering activity over 2021. If dollars and Euros are the only indicators of energy and commitment, it is easy to see why hand-wringing news stories prevail. Look at all the metrics that determine a vibrant sector.

In combining investment, regulatory filings for new product introductions, and partnerships, we see that 2022 has been a formative period. Investors and innovators are putting in place the processes and systems – the people and science – that drive adoption and market traction.

Investors are no longer looking at the sector as monolithic. If 2021 was the year of exuberance, 2022 was, as Jim Collins, author of the classic business bestseller “Good to Great,” dedicated to putting the right people – leaders and digital health sectors – on the bus. For example, medical diagnostics ventures had an exceptional year by representing 12 percent of regulatory filings of Digital Health ventures across the globe, taking the top spot for ventures with significant Clinical Evidence (Evidence Signal >40), and capturing the highest investment volume share (17%), with the total cluster funding value falling short of 2021 by 16 percent.

Looking at the past year, it is evident that investor mindsets matured in 2022, and lessons learned were applied. Obstacles – from regulatory hurdles to payer pushback – made incubators, accelerators and private equity groups much more selective in their investment and partnership decisions. They looked beyond “invention” to innovation – where the market seeks to embrace a new product and rally to

its access within the health ecosystem. The year-end 2022 “Global State of Digital Health Report” does far more than examine monies invested in the broad digital health category – it offers a guide for decision-makers on how multiple data points translate into market shifts and how to pinpoint trends that provide predictive insight and best practices in investment strategies, across regions, Digital Health categories, therapeutic areas and technologies. With this report, data is shared not as “one-off” ideas but as puzzle pieces assembled to provide actional insight into a dynamic and evolving digital innovation sector that offers the transformative power to find effective detours around health ecosystem fragmentation.

The partnership between Galen Growth and FINN Partners was created to serve members of this innovation sector – investors and inventors – and the people who ultimately benefit through accessible innovation – people with pressing health needs.

As the worldwide leader in Digital Health private market intel and insights serving industry and investors, Galen Growth avoided hype and biases to create this rigorous analysis enabling any investor or potential business partner to weigh subjective decisions alongside objective facts. FINN Partners recognized that the fragmented health ecosystem centered around preserving the system itself needed to help product innovators and patients navigate their complexity to sustain life. Together, these two organizations are champions for valued ideas that sustain people’s lives.

While other reports highlight “media grabbers” and numbers disconnected from insight into where the money is going – from the investment stage to disease states–Galen Growth and FINN Partners connected more than 200 million critical analytic dots. Thanks to their depth and diligence, this report and the ones that follow will guide C-Suite leaders, business development and therapeutic area heads, private equity funds, and financial analysts to make savvy decisions that drive return-on-investment–whether the goals be financial or patient care.

Sara Schmachtenberg, Galen Growth, Digital Health Venture Expert, Head of Data and Analytics, Europe & USA, and Ritesh Patel, FINN Partners, Senior Partner, and Global Digital Health Leader, and their colleagues have been instrumental in making these insights accessible. Decisions will be made based on this collaborative effort. We hope that a new perspective that seeks balance between hype and hope to offer balanced optimism is a guide.

Gil Bashe

Chair, Global Health and Purpose
FINN Partners

Julien de Salaberry

CEO and Co-Founder
Galen Growth

Key Insights

- Digital Health has its feet back on the ground after the extraordinary 2-year pandemic period funding spree. In this year of geopolitical turmoil and looming economic recession, Digital Health is showing signs of resilience, with all global regions deploying funding that far exceeds the pre-pandemic levels of 2019, ventures submitting more than double the number of regulatory filings as 2021, and with an increase of 1.5x in partnering activity over 2021.
- Cumulative global venture funding across the globe experienced a steady decline across the first 3 quarters of 2022 and stabilized in Q4, with a final YoY deficit of 41% below 2021, ushering in a new phase of Digital Health, with less extravagance and higher expectations for proof points and ROI.
- While late and growth-stage funding stumbled, early-stage venture funding nearly kept pace with 2021 funding and promises a healthy pipeline of innovation.
- M&A activity has lost momentum, with a dip of 16% YOY, however, industry consolidation is becoming stronger, with Digital Health ventures accountable for 60% of acquisition activity. Acquisitions are being fueled by the slowdown in venture funding, with a global average of only 25% of ventures having raised capital in the last 18 months.
- The surge in funding during the height of the pandemic (2020 – 2021) was fueled by more than 5,100 investors, of whom 3,200 had not participated in funding Digital Health ventures in the previous 3 years. Across the pre-pandemic years (2018 – 2019), the height of the pandemic and 2022, there were only 870 investors active in all 3 of these periods.
- Ventures in the Medical Diagnostics cluster had an exceptional year by representing 12% of all regulatory filings of Digital Health ventures across the globe, taking the top spot for ventures with significant Clinical Evidence (Evidence Signal >40), and capturing the highest investment volume share (17%), with the total cluster funding value falling short of 2021 by 16%.
- The path forward into 2023 will certainly be more challenging, but this new landscape will strengthen the pipeline of ventures, driving innovation and business model viability further to bring the Digital Health promise nearer.

Scope

For this full year global report, experts from Galen Growth's data & research professionals collaborated with the FINN Global Digital Health Group to:

- Chart the complex & fragmented Digital Health landscape
- Uncover emerging market trends
- Identify areas of growth & innovation
- Look beyond funding to explore what's next in this fast-paced sector

The year-end summary builds on the Q3 analysis published in November. It reviews the 2022 Digital Health venture funding in the context of ecosystem developments throughout the year and highlights trends to expect in 2023. It also addresses themes that hold great potential to benefit from digital applications.

Want to get into the detail of your preferred regional ecosystem? The most comprehensive regional deep-dives for the full year 2022 will be published by Galen Growth at the end of January. To be notified and/or to access the reports, subscribe to HealthTechAlpha.com.

Since 2017, Galen Growth's research & analysis has set the standard for unbiased Digital Health reporting, with strict analytical criteria applied to ensure consistency and accuracy. Corporates, investors and ventures rely on Galen Growth's research to help make clear-sighted decisions based on industry-best data.

Get the Data Behind the Report

This report is powered by data from HealthTech Alpha,

the world's leading platform for Digital Health private market data & intel.

Scan the QR code to access the data behind this report.



Data & Methodology

Source of Data

Unless otherwise stated, all data are exclusively sourced from Galen Growth’s proprietary database **HealthTech Alpha™** – the global leading Digital Health intelligence and analytics on-demand platform. Presently, HealthTech Alpha tracks more than 250M data points and has a coverage exceeding 12,500 Digital Health ventures across the globe. For more information visit healthtechalpha.com.

Data Scope

- The analysis considers five key regions of Digital Health: Asia Pacific, the Middle East, western Europe, North America, and South America (key markets)
- The following scope of analysis criteria must be met in order to be included in this report:
 - The venture was incorporated after 2002
 - The venture has been qualified as being Digital Health i.a.w. Galen Growth’s rigorous taxonomy – see page 50
 - The venture’s geographic location is determined by its initial country of incorporation
 - Venture funding includes all stages up to but excluding the exit event
 - Subsidiaries of large corporations (e.g., Microsoft) are excluded

Methodology

Analytics presented in this report are Galen Growth’s proprietary algorithms and are explained on page 51.

Contents

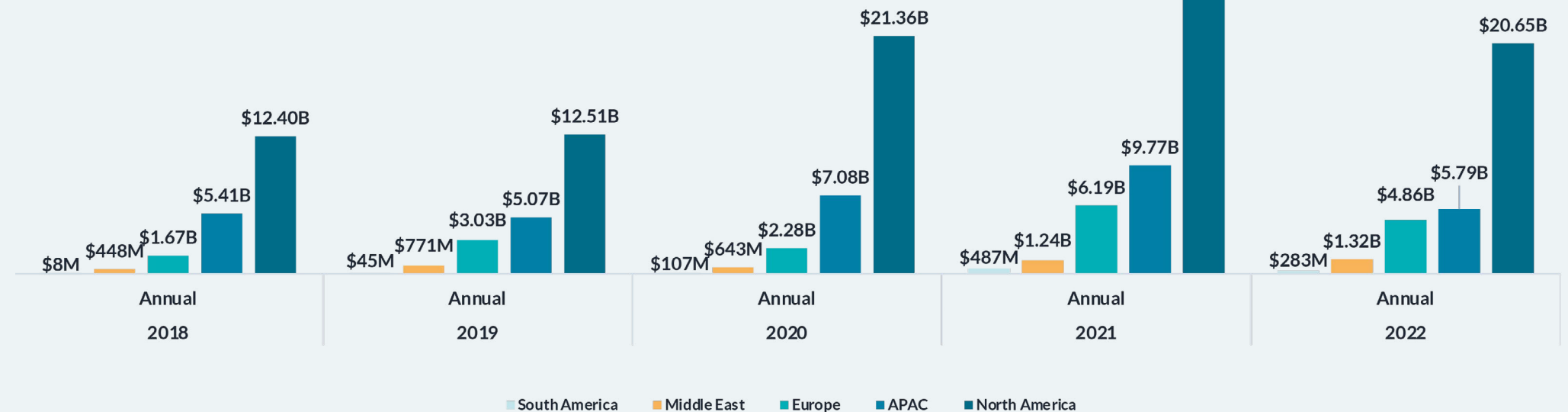
Ecosystem Insights	12
Investment Insights	16
Cluster Focus	28
Therapeutic Focus	34
Noteworthy	38
What’s Next?	47
Key Information	48
About Galen Growth	52
About FINN Partners	53
About our Partnership	54

Digital Health Headlines

In 2022
\$32.90B ▼ -41% YoY
of total funding was deployed across
1611 Deals ▼ -24% YoY
Globally

Global Digital Health Funding Across Regions

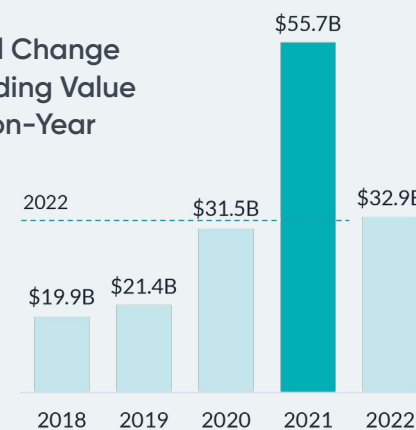
Digital Health has its feet back on the ground after the extraordinary 2-year pandemic funding spree. In 2022, cumulative Digital Health venture funding across North America, Europe, the Middle East and Asia Pacific closed at \$32.9B (excl. M&A, IPO and SPAC) across 1,611 deals, down 41% YoY compared to 2021. In a year of geopolitical turmoil and looming economic recession, Digital Health is showing signs of resilience, with all global regions deploying funding levels that exceeded the pre-pandemic values from 2019.



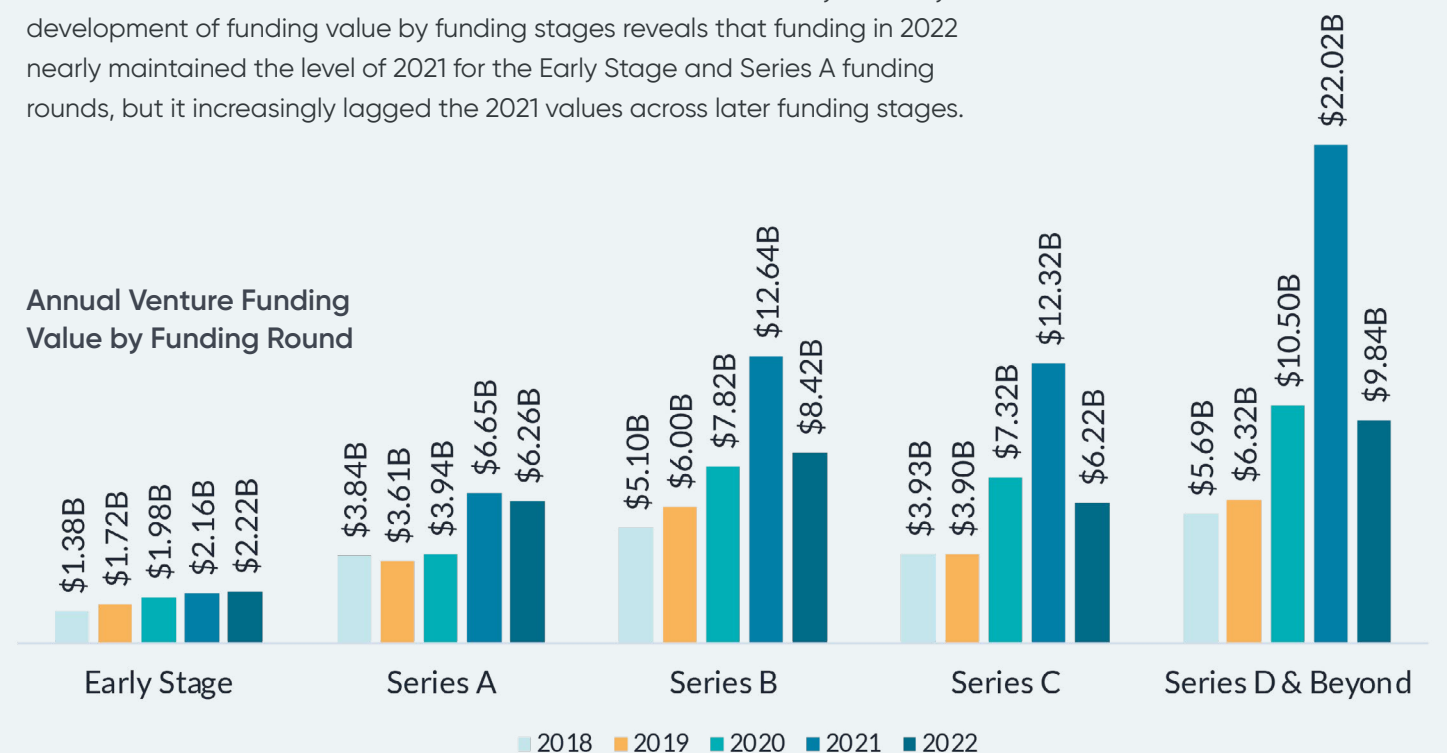
2021 Was an Exceptional Year for Digital Health Funding

Digital Health venture capital was unable to match the skyrocketing funding total of 2021 but closed ahead of 2020 levels. A closer look at the year-on-year development of funding value by funding stages reveals that funding in 2022 nearly maintained the level of 2021 for the Early Stage and Series A funding rounds, but it increasingly lagged the 2021 values across later funding stages.

Global Change in Funding Value Year-on-Year



Annual Venture Funding Value by Funding Round



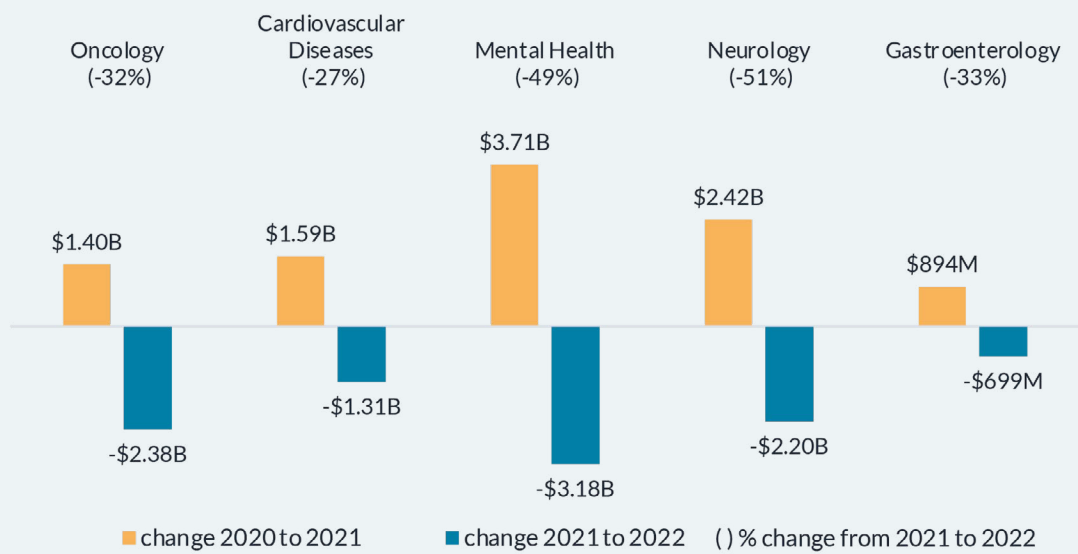
DIGITAL HEALTH HEADLINES

Winners and Losers in 2022 Digital Health Venture Funding

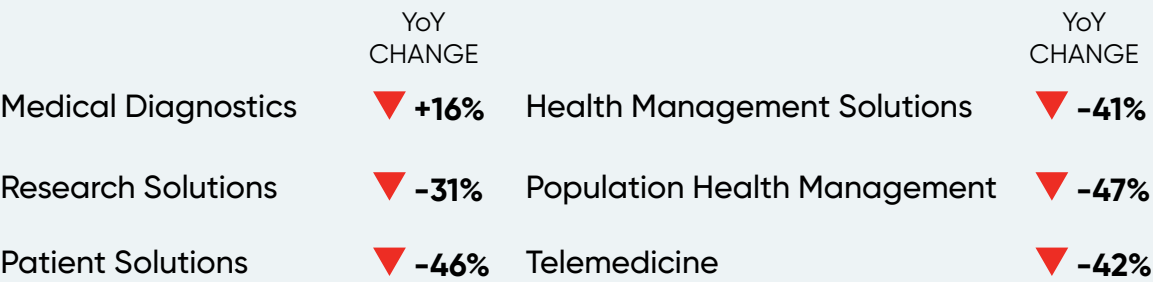
Big gains during 2021 for the highest-funded therapeutic areas reversed in 2022. Mental Health solutions, which experienced the biggest acceleration in 2020 and 2021, lost momentum in 2022 with a 49% downturn in venture funding.

Across the board, the top 6 highest-funded clusters all decreased in funding value, with Patient Solutions and Population Health Management seeing the biggest losses. Medical Diagnostics, the top-funded cluster, had the smallest YoY decline.

Change in Venture Funding by Therapeutic Area



Change in Venture Funding by HealthTech Cluster

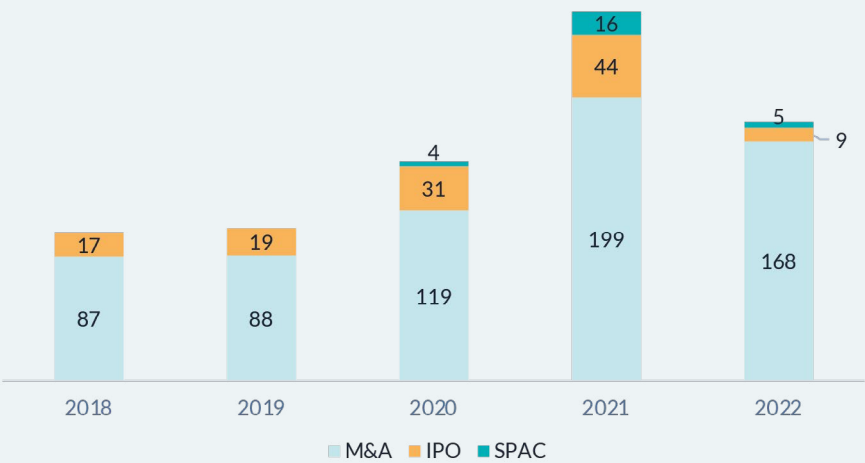


DIGITAL HEALTH HEADLINES

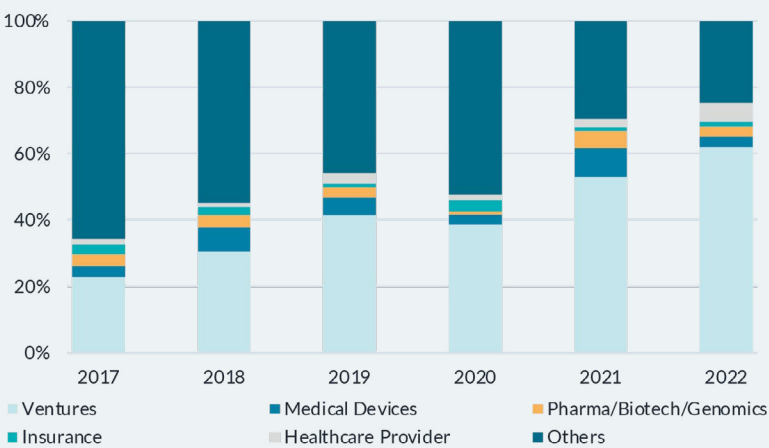
Growing Digital Health Consolidation is Led by Ventures

The IPO market slumped to 9 IPOs and 5 SPACs in 2022, while acquisitions declined by 16% but remained far above the number of acquisitions in 2020. Since 2017, acquisitions by pharma, medical device and insurance companies make up fewer than 12% of the total acquisition volume. In contrast, the proportion of Digital Health venture-to-venture acquisitions has risen from 22% in 2017 to 62% in 2022.

Volume of Investor Exits (IPO, M&A, SPAC)



Acquisition Share of Digital Health Ventures by Vertical



Ecosystem Insights



"Without a doubt, 2022 has proven to be a challenging year for fund raising in the EU. The market has reduced from this time last year in terms of overall volume, average and median deal size. Series B and beyond, there are some noteworthy deals to include Cera's \$160M Series C, Patchwork, Healthily and Doccla. Over the same period, the market in Asia however has stood its ground, boasting a similar profile of deals to last year, although overall activity still lags behind 2021's levels. Some notable later stage deals in Asia include Allm, We Doctor's Series G raise of \$150M, Diagnostic Robotics, CureApp and several other successful raises in the range of \$30-\$150M."

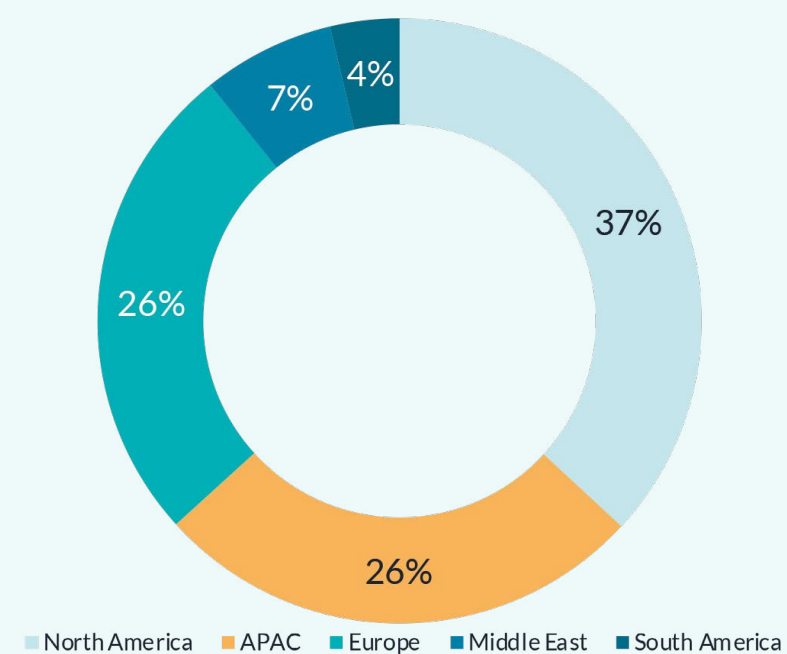
Shabir Chowdhary

Managing Partner, Ryse Asset Management

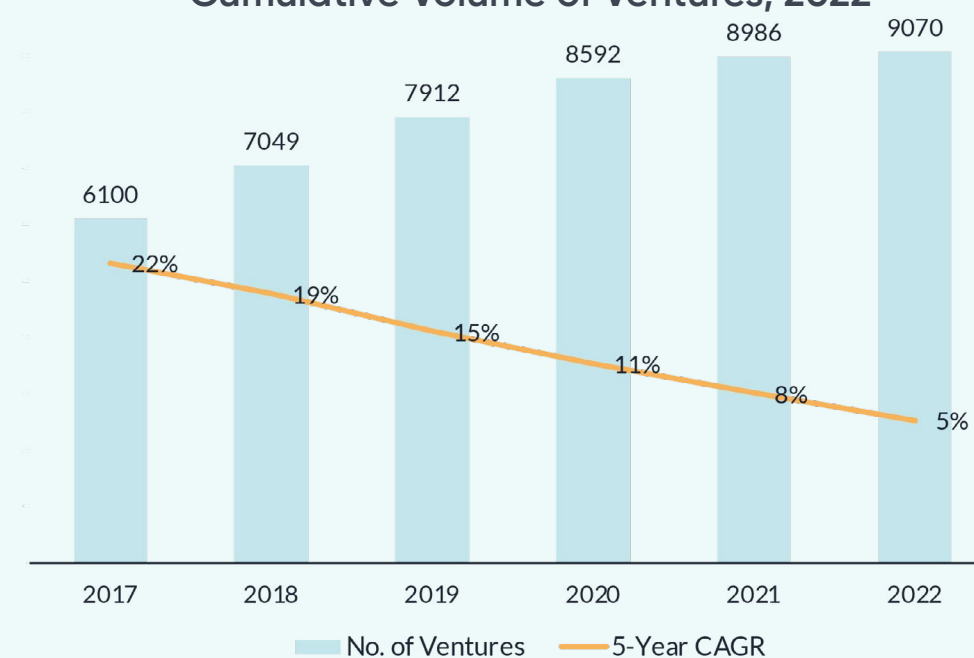
Global Ecosystem Development

There are more than 9,000 private and active ventures across the globe, and over the past 5 years, the ecosystem has been expanding at a CAGR of more than 5%. North America is the largest regional ecosystem and home to 37% of ventures in Digital Health.

Proportion of Ventures by Global Region



Cumulative Volume of Ventures, 2022

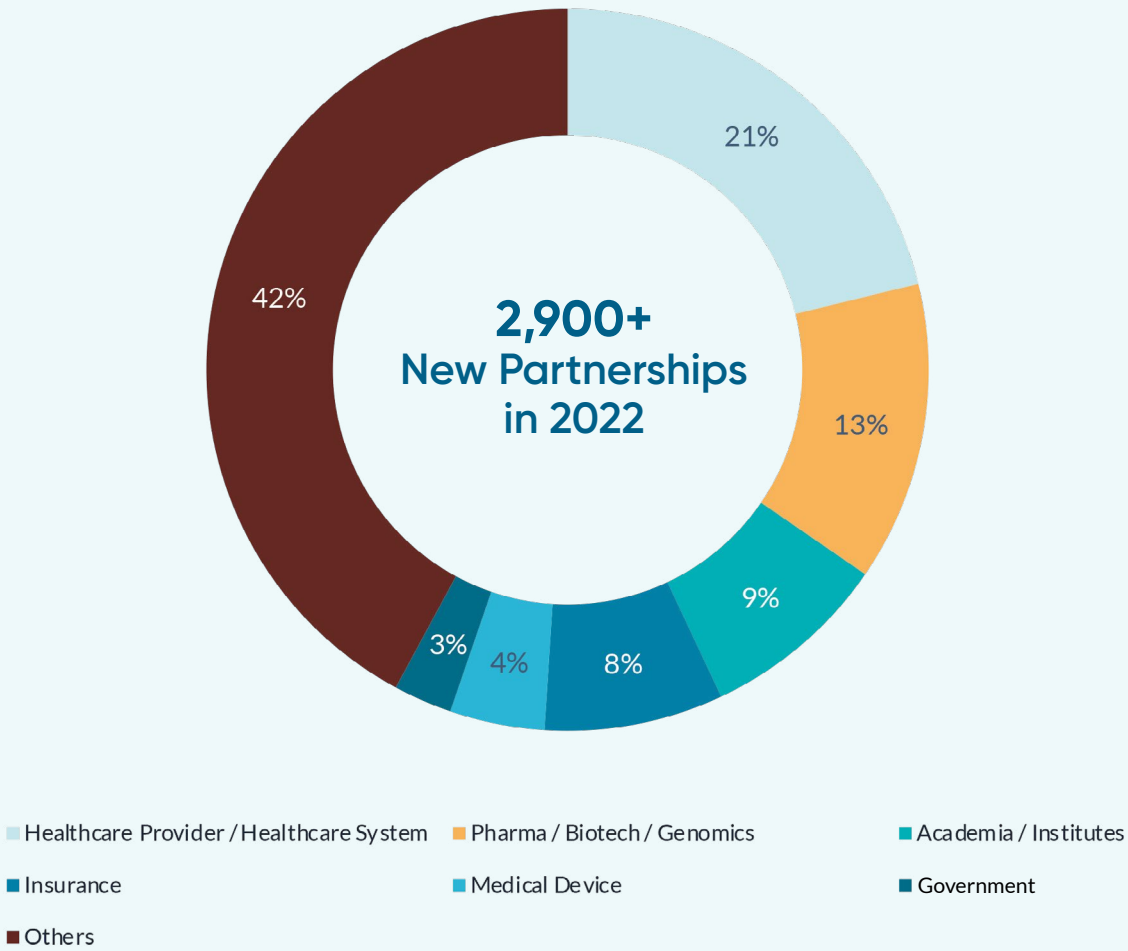


2022 New Partnerships

- Globally, Digital Health ventures disclosed over 2,900 partnerships in 2022.
- North America far surpassed the other regions with a total of more than 1,900 partnerships.
- Healthcare providers disclosed the largest share of partnerships with Digital Health ventures, while pharma/ biotech companies took second place.

Global Region	% of Partnerships
North America	64%
Asia Pacific	23%
Europe	10%
Middle East	2%
South America	<1%

Venture Partnership Share by Industry Vertical

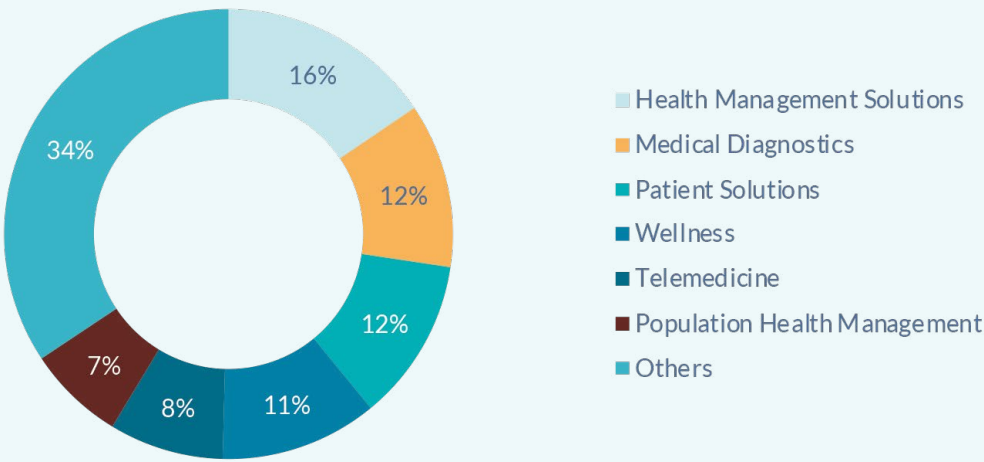


Clinical Evidence

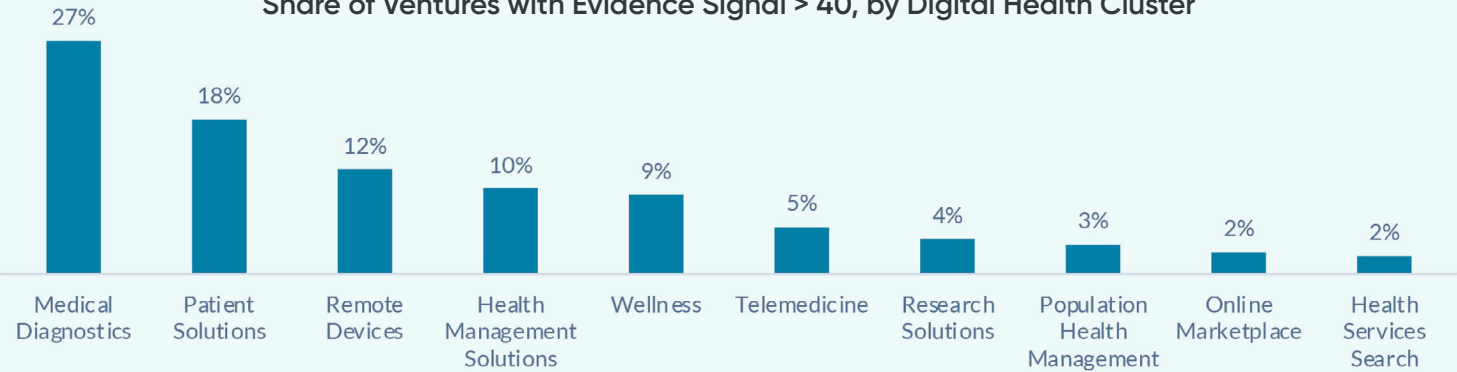
- In 2022, Digital Health ventures registered a total of 575 regulatory filings across the globe
- 50% of ventures receiving filings are in the Remote Devices and Health Management Solutions clusters
- Medical Diagnostics has the highest share of ventures with an Evidence Signal greater than 40, indicating that the venture has run clinical trials, received regulatory filings, or has more than 4 peer-reviewed publications

Global Region	# of Regulatory Filings in 2022	% Ventures in Region with Evidence Signal > 40
North America	214	19%
Asia Pacific	118	13%
Europe	174	19%
Middle East	60	20%

Regulatory Filings by Digital Health Cluster in 2022



Share of Ventures with Evidence Signal > 40, by Digital Health Cluster





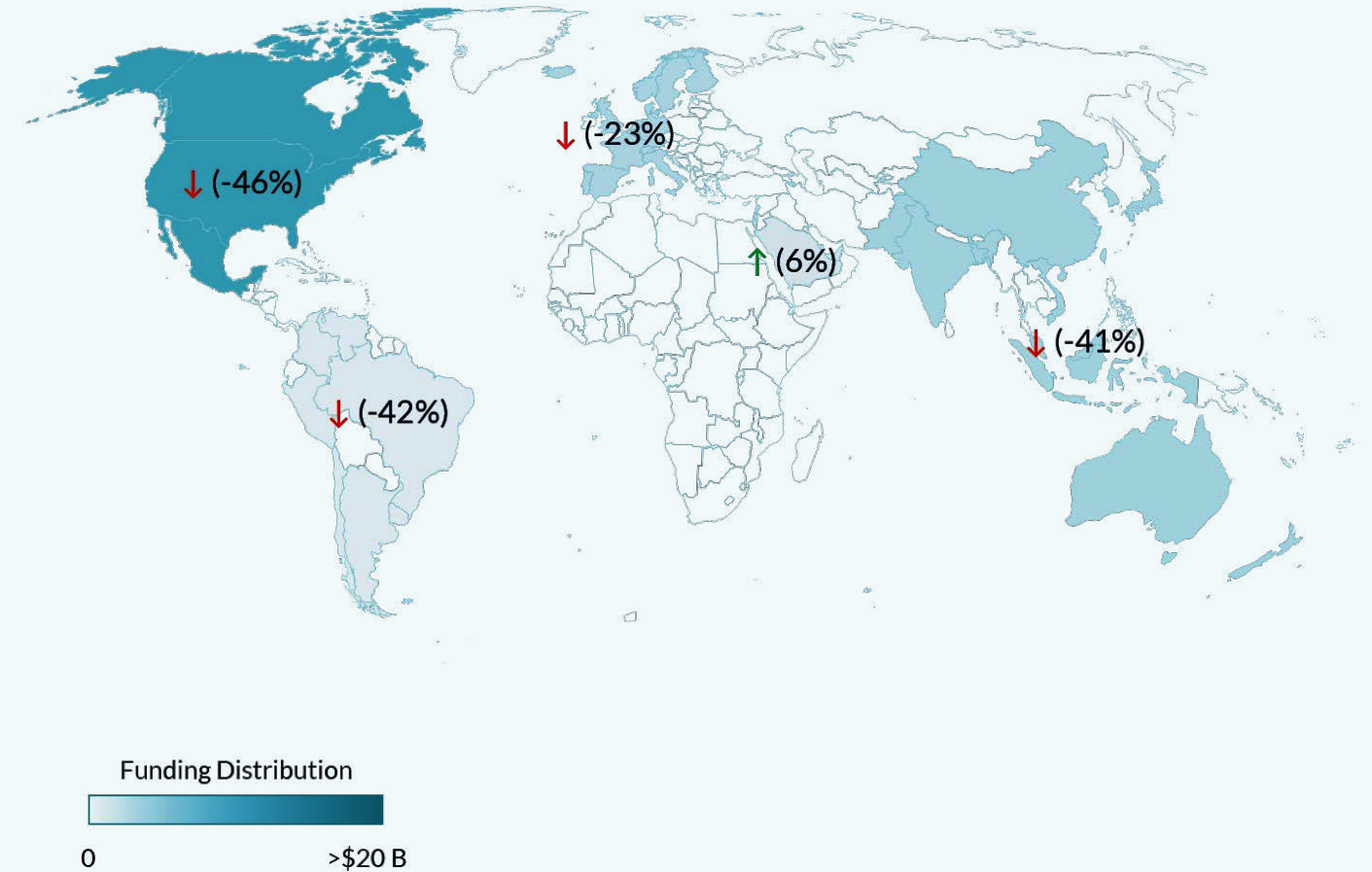
"2022 has been a year of recalibration that required all stakeholders to take a careful look at fundamentals. The operating assumption for companies across all stages should be that it will take them more time and money to reach the next major inflection point and raise their next round of capital. Extending runways is only one part of the solution. In the current environment, they must keep in mind that for their customers it's not just about clinical value but also about health economics. Those start-ups that can demonstrate to payers and providers their ability to help them achieve cost reduction or even generate revenue, stand the best chance to differentiate themselves from the pack and weather the storm."

Roy Wiesner
Managing Director
at Moon Fund

Global 2022 Year End Investment Insights

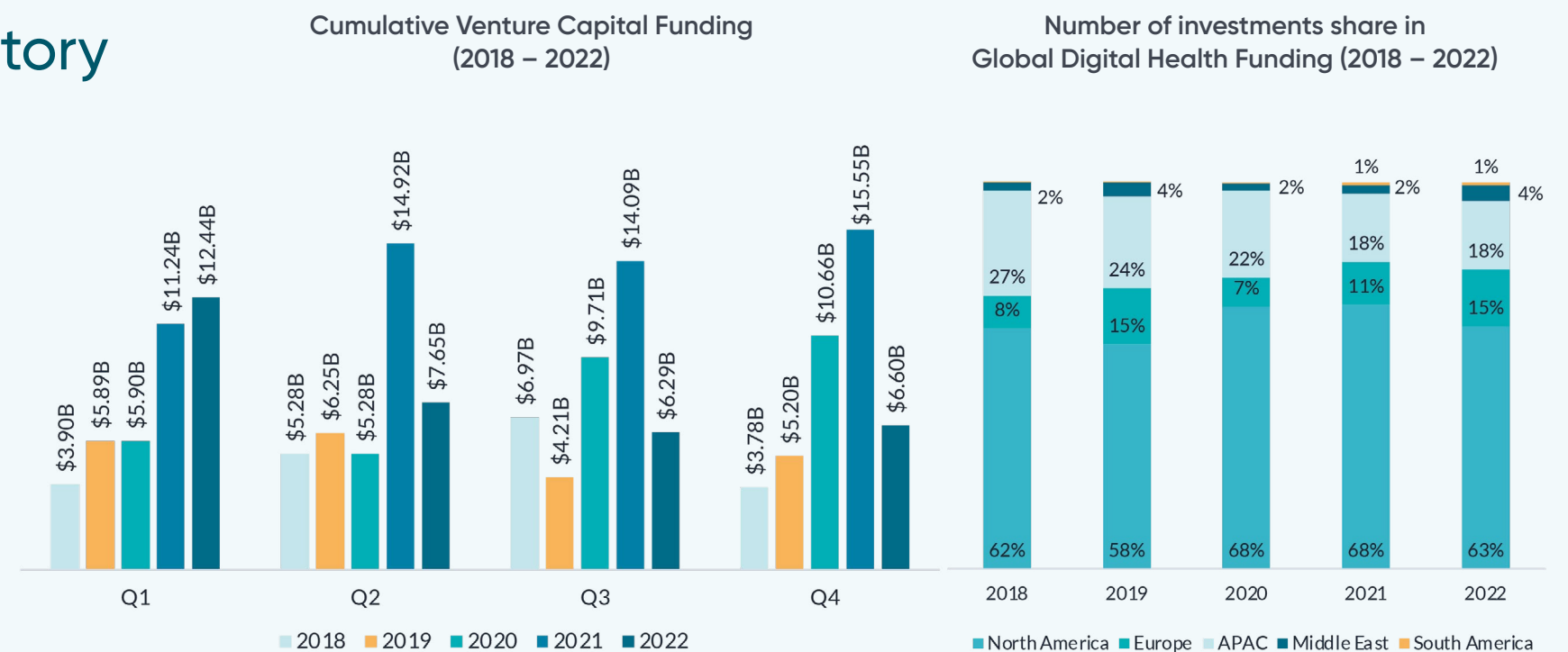
2022 Funding Distribution

Region	Total Funding (% change to 2021)
North America	\$20.62B ↓ (-46%)
Europe	\$4.86B ↓ (-23%)
Asia Pacific	\$5.79B ↓ (-41%)
Middle East	\$1.32B ↑ (6%)
South America	\$283M ↓ (-42%)



Digital Health Funding History

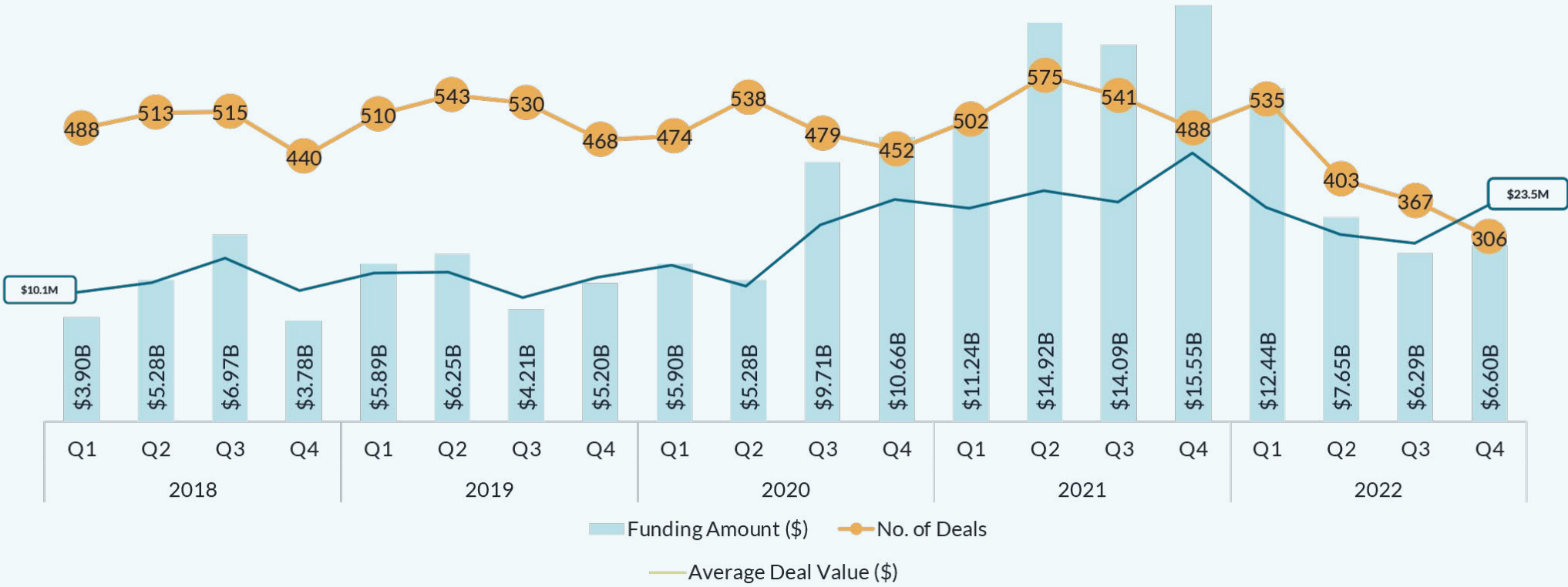
\$32.9B of total venture funding was deployed globally in 2022, down 41% versus last year. The quarter-on-quarter trend shows the stabilization of venture funding for the fourth quarter, giving optimism for a more positive trend going into 2023. Europe and the Middle East have shown more resilience to the downturn, with their share of global Digital Health funding having increased over 2021.



INVESTMENT INSIGHTS

QoQ Digital Health Funding

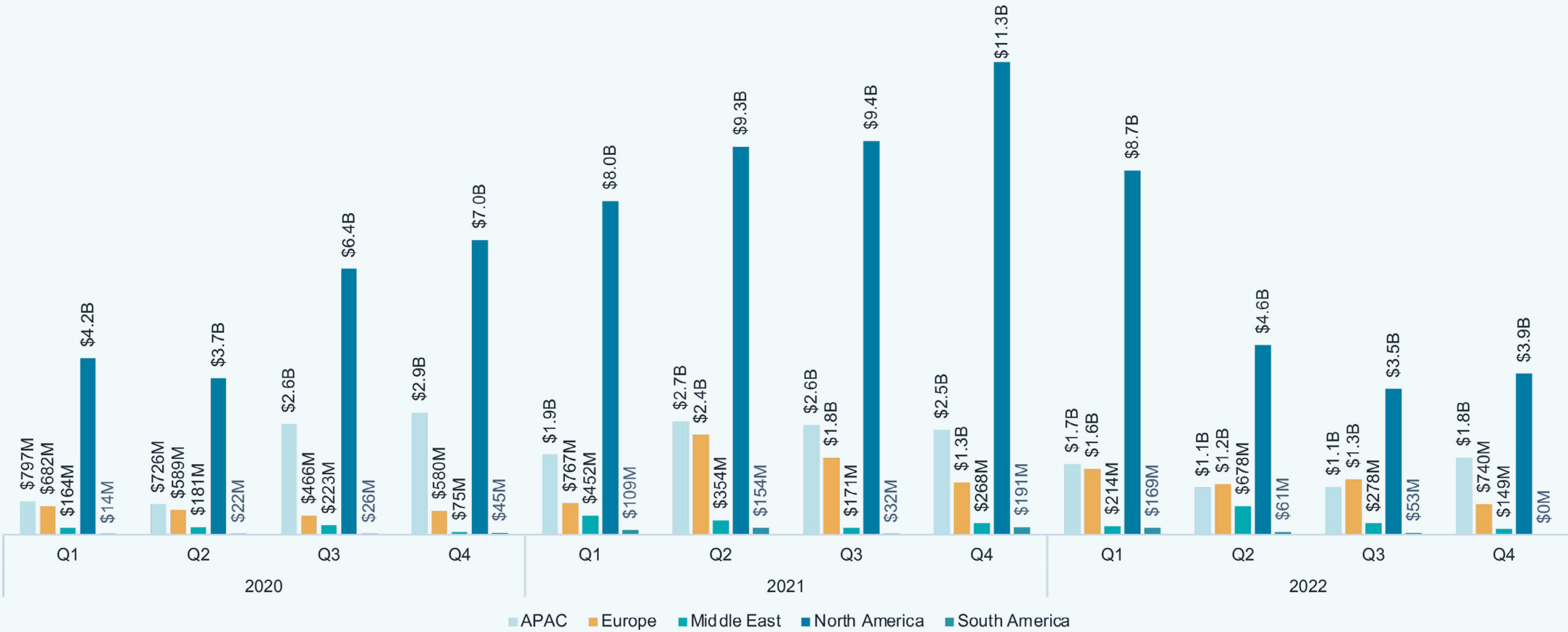
The number of venture investment deals in 2022 dipped to the lowest count since 2017, with political instability, looming global economic recession, and the sustained lock-down in China weighing down on global venture investment. Despite Q3 2022 closing at the lowest funding value level since before the pandemic, the average deal size has remained stable and indicates market resilience.



INVESTMENT INSIGHTS

QoQ Digital Health Regional Funding

While North America experienced a continuous QoQ decline in Digital Health venture funding value over the first 3 quarters of the year, and funding in Europe collapsed in the fourth quarter of the year, funding in Asia Pacific increased in Q4, indicating a positive rebound from the pandemic lock-downs in the region.



INVESTMENT INSIGHTS

Digital Health Funding Across Regions (2018 – 2022)



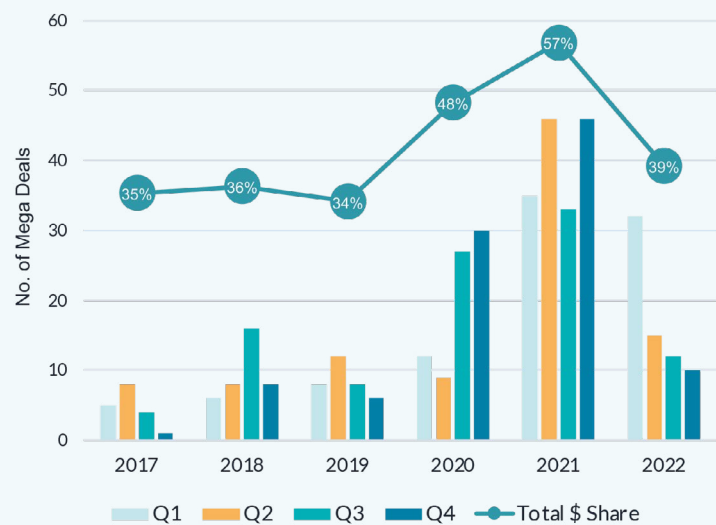
INVESTMENT INSIGHTS

Large Funding Events

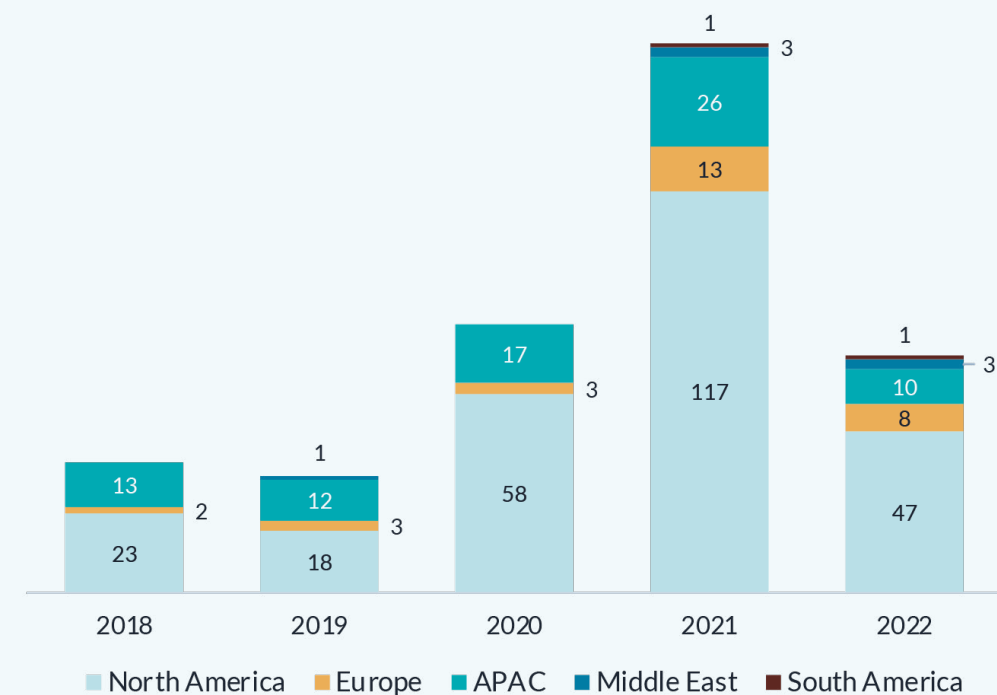
With strong geopolitical and economic headwinds impacting investor appetite, Mega Deal (≥\$100M) volume decreased in 2022 but remains 2x ahead of the pre-pandemic levels in 2019.

North America continues to dominate the Mega Deals across the globe, with 68% share of these deals in 2022.

Historical Volume of Mega Deals

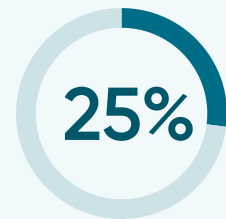


Regional Distribution of Mega Deals



INVESTMENT INSIGHTS

Funding Strength

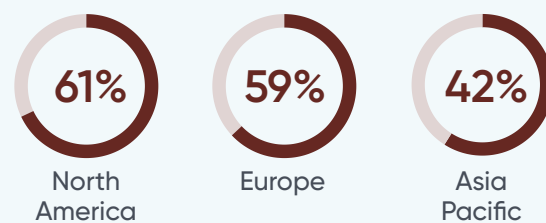


2021 was an exceptional year for fundraising, whereas 2022 is proving to be more challenging. For the ventures that successfully closed funding rounds in 2021, the deceleration in funding due to uncertain geo-political and economic conditions should be less daunting.

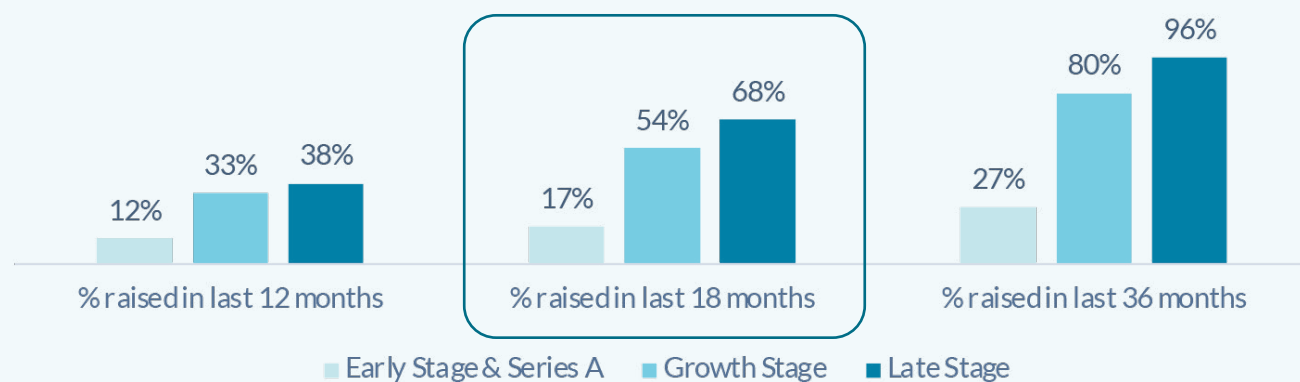
To better understand the current Funding Strength of the ecosystem, Galen Growth analyzed the number of ventures that have raised funding over the past 36 months.

With a global average across all funding stages of only 25% of ventures having raised in the last 18 months, the remainder of the ecosystem could be facing a bumpy ride, forcing them to cut costs &/or focus on profitability before growth &/or rethinking their business model.

Share of Growth Stage (Series B & Series C) **Digital Health** ventures with incorporation date after 2012 that have **raised funding in the past 18 months**



Global average percentage of ventures that have raised funding, by funding interval and current funding stage

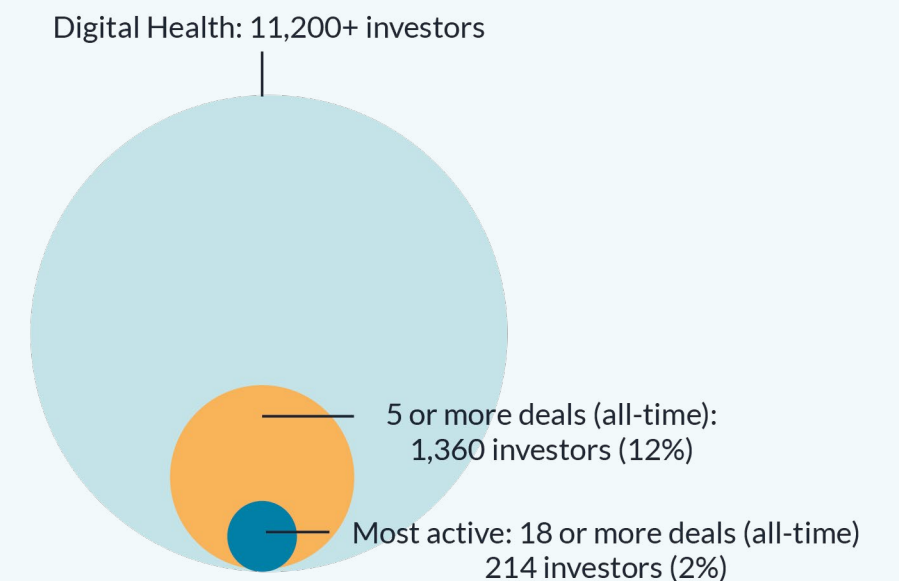


INVESTMENT INSIGHTS

Global Digital Health Investor Participation

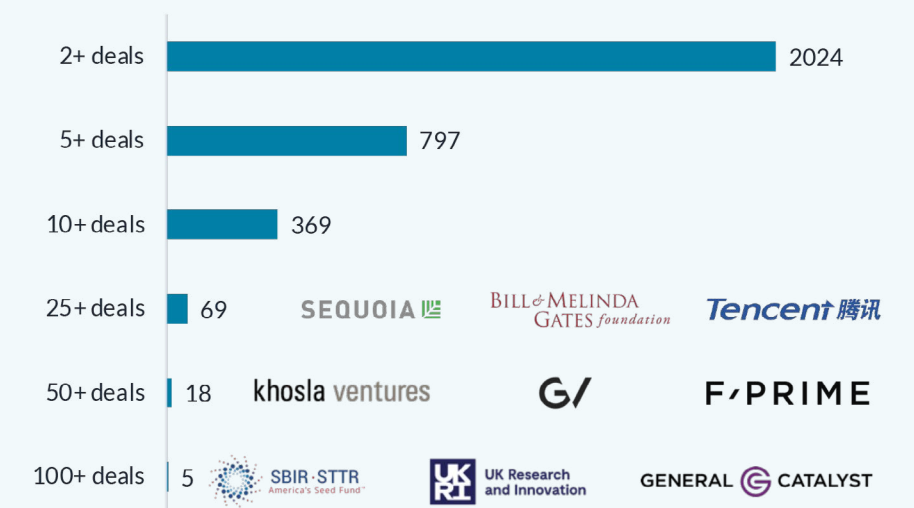
Globally, more than 11,200 investors have participated in a least one funding deal in Digital Health within the past 15 years. Since 2018, more than 8,800 investors have participated in at least one funding deal, while 797 have participated in 5 or more deals. The global investor participation skyrocketed during the pandemic and has remained above pre-pandemic numbers in 2022.

Global Analysis of Digital Health Investors



Global Deal Participation (2018 – 2022)

Number of unique investors by cumulative investment count

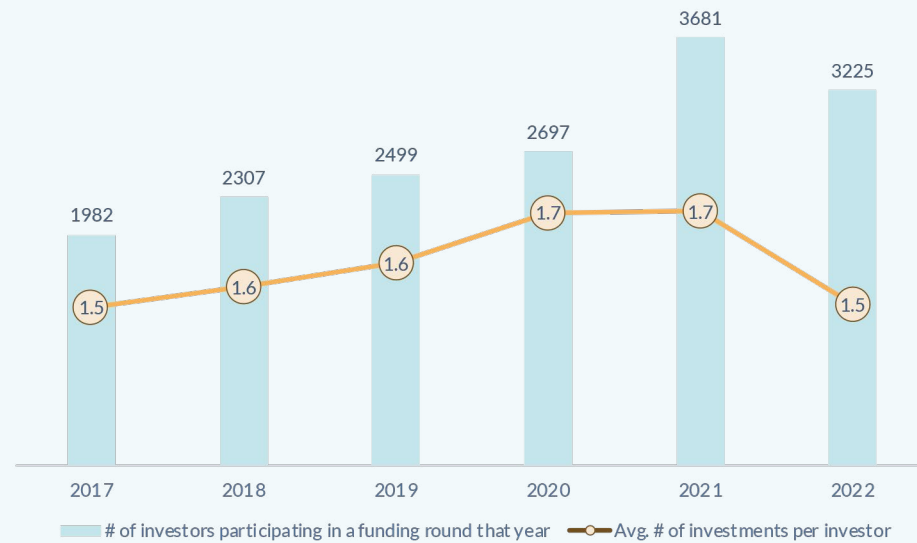


INVESTMENT INSIGHTS

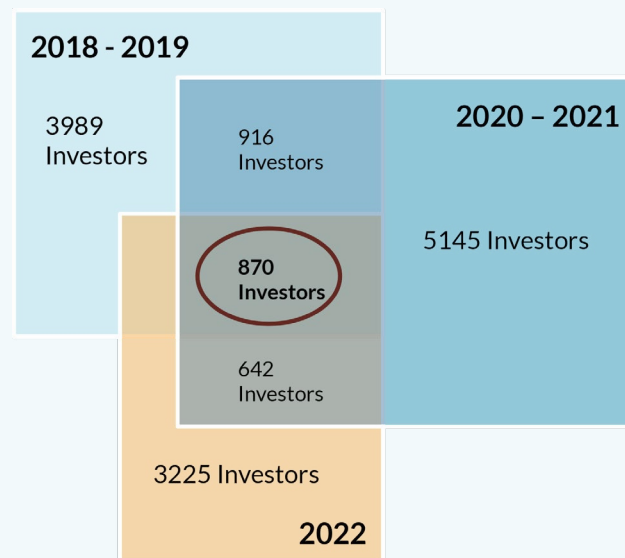
Global Digital Health Investor Deal Count

Deal participation of unique investors has increased since 2017 to reach more than 6,400 unique investor transactions in 2021, up 37% as compared to 2020. With a total of over 8,800 unique investors from 2018 – 2022, 10% of those investors participated in rounds across all periods: pre-pandemic, during the pandemic, and this year (2022).

Unique Investor Participation Over Time



Recurring Investor Participation (2018 – 2022)



INVESTMENT INSIGHTS

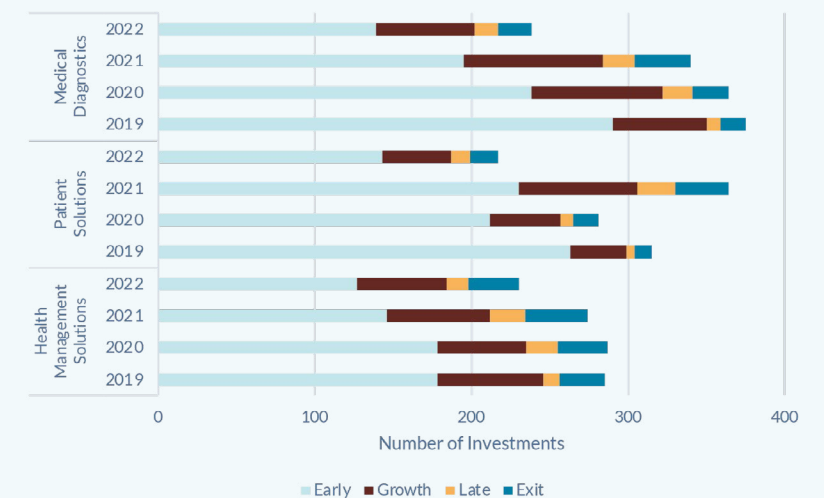
Investor Participation by Digital Health Cluster

Close to 25,000 unique investments were disclosed in Digital Health globally over the past 5 years. With each representing 8% of transaction share, Teleconsultation and Disease Management attracted the most investors, followed by Medical Imaging and Wellness Apps, both representing 6% of the total transaction share.

Unique Investor Volume Share (2018 – 2022) by Digital Health Cluster



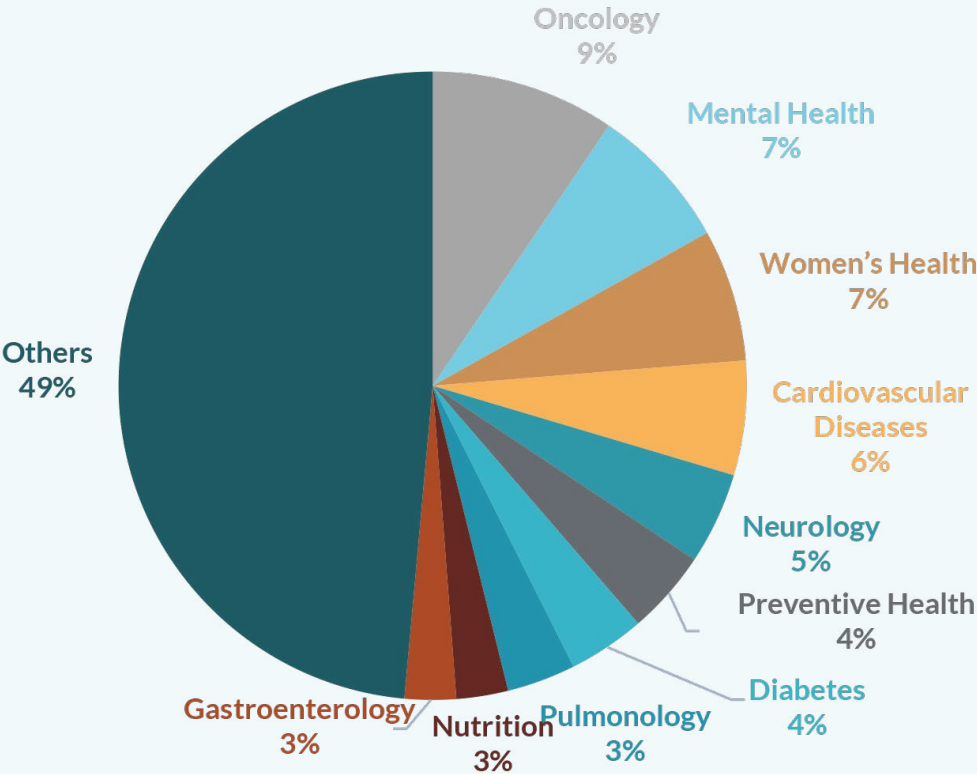
Investment rounds over time for top 3 Digital Health Clusters



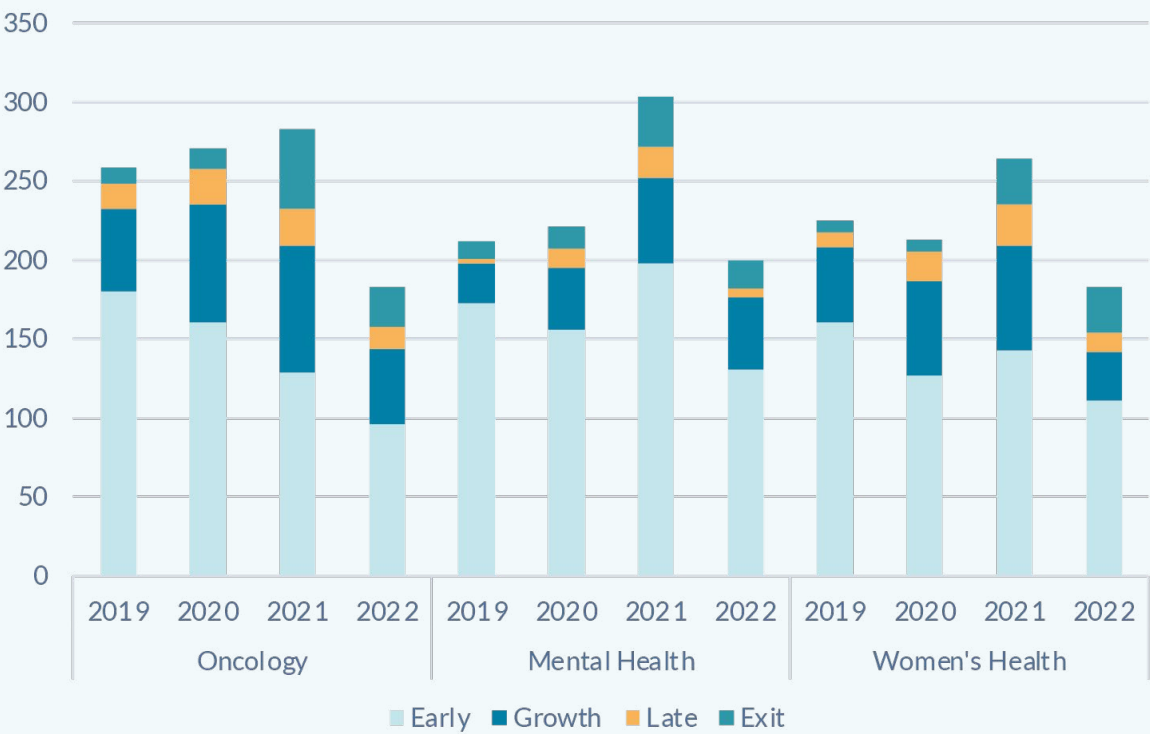
Investor Participation by Therapeutic Area

Within the disease-specific investments, Oncology saw the highest participation of investors (9%), followed by Mental Health (7%) and Women's Health (7%). Each of the top 3 disease areas saw a steep decline in the number of investment rounds from 2021 to 2022.

Unique Investor Volume Share (2018 - 2022)
by Therapeutic Area



Annual Investment Volume for
Top 3 Therapeutic Areas



Global 2022 Year End Cluster Focus

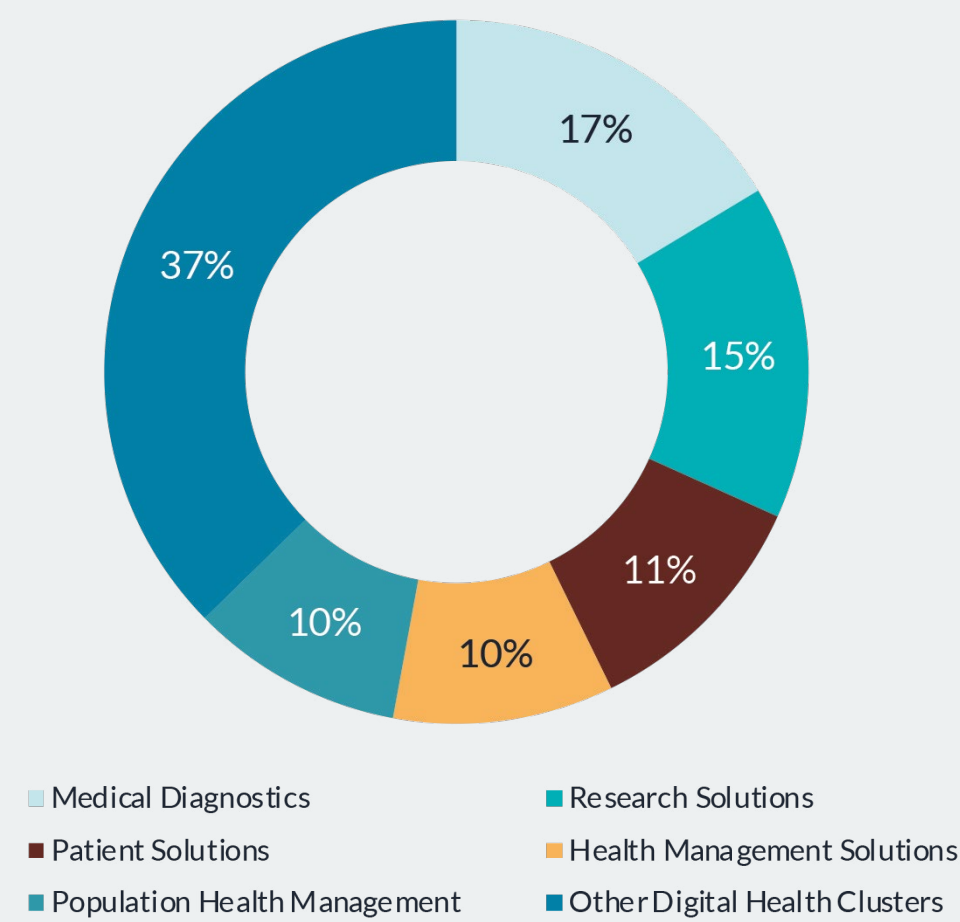
Digital Health Taxonomy

Health Management Solutions EHR / PHR Hospital Pharmacy Physician / Clinic Prescriptive Analytics	Health Services Search Healthcare Navigation Medical Concierge Medical Tourism Triage	Health InsurTech Health Claim Management Health Insurance Medical Payments	Medical Diagnostics Diagnosis Tools Medical Imaging Omics Related Diagnosis
Medical Education Consumer Education HCP Education Health Information Platform	Online Health Communities Other HCP Networks Patient Health Forums Physician Networks	Online Marketplace Consumer Marketplace On-demand Lab Tests Online Pharmacy Professional Marketplace	Patient Solutions Digital Therapeutics Disease Management Health / Symptom Checker Medication Management
Population Health Management Care Coordination Corporate Health Home Healthcare Integrated Solutions	Remote Devices Assistive Care Remote Diagnostic Devices Remote Monitoring Devices	Research Solutions Bioinformatics Drug Discovery Omics Related Research	Clinical Trials Decentralized Clinical Trials Clinical Trial Matching Data Collection Tools
Telemedicine Teleconsultation Telepathology Teleradiology Telesurgery	Veterinarian Animal Health Forums Animal Imaging Animal Monitoring Omics Related Veterinary Televeterinary	Wellness Omics Related Applications Smart Equipment Wearables Wellness Apps Wellness Information Platform	Safety & Security Counterfeit Tracking Cybersecurity Pharmacovigilance
Healthcare Logistics Transportation Management On-demand Delivery	Other Contamination Management HCP Job Board Healthcare Marketing Social Enterprise Software Provider		

Venture Funding in Key Digital Health Clusters

The Research Solutions and Medical Diagnostics clusters captured 32% of the total funding value deployed in 2022. Research Solutions, which held the top spot in 2021, dropped to second place in 2022. Boosted by Mega Deals, the top 5 funded clusters represented 63% of the total value invested in 2022.

Top Funded Digital Health Clusters (2022)



Digital Health Cluster	Total Funding in 2022	Rank in 2021	Largest Deal in 2022
Medical Diagnostics	\$5.40B	#3	<u>Freenome</u> \$290.0M (Series D1)
Research Solutions	\$5.06B	#1	<u>Enzymaster (酶赛)</u> \$300M (Series C)
Patient Solutions	\$3.63B	#2	<u>Somatus</u> \$300M (Series E)
Health Management Solutions	\$3.34B	#5	<u>Clarify Health</u> \$150M (Series D)
Population Health Management	\$3.22B	#4	<u>Cera</u> \$315.62M (Series C)

GLOBAL 2022 YEAR END: CLUSTER FOCUS

Top Ventures
in Key Clusters

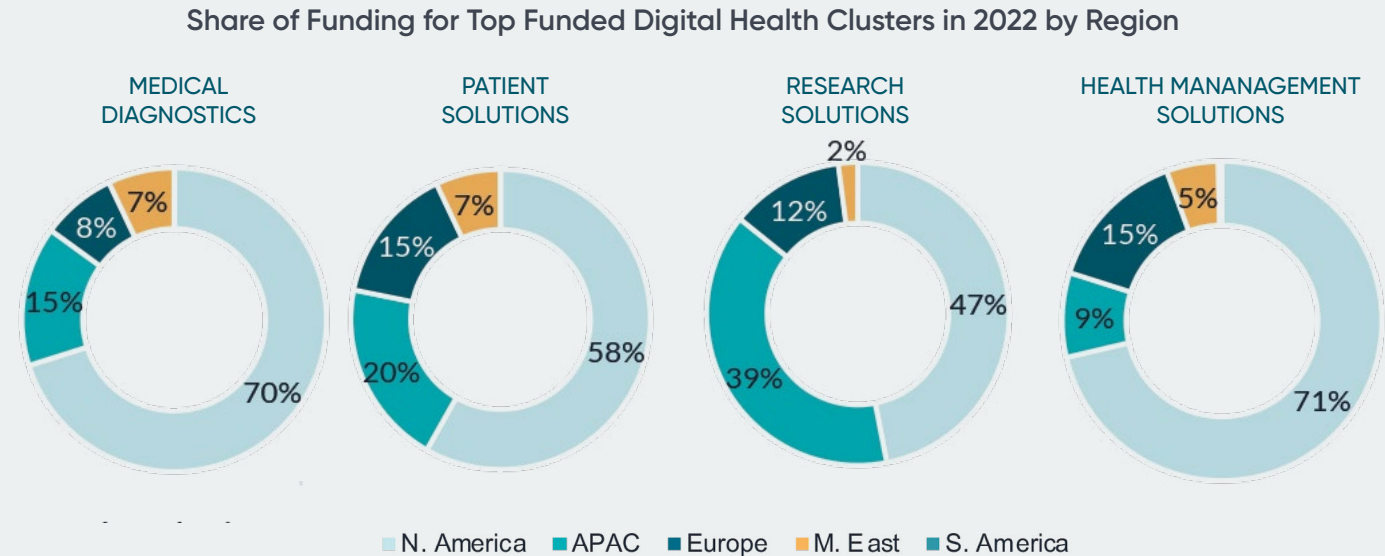
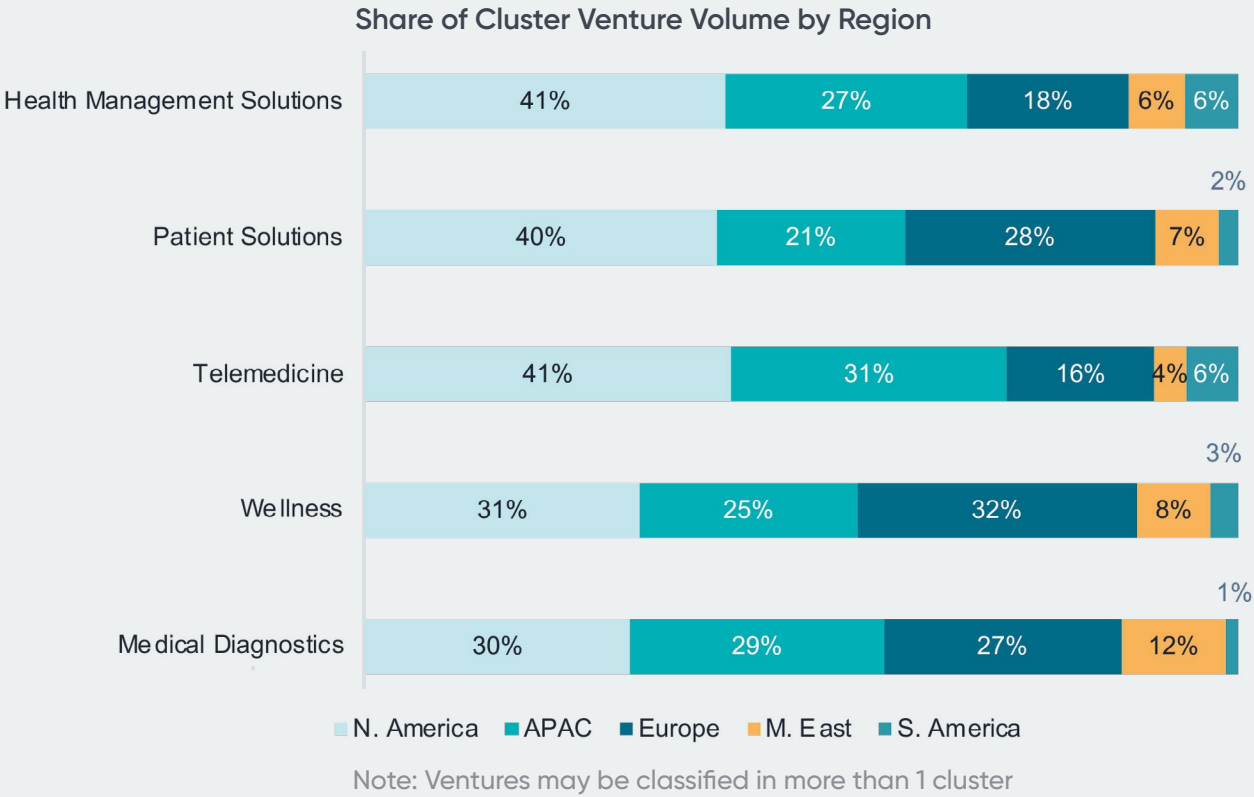
With 19% of the Digital Health ventures across the globe, the cluster with the most ventures is Health Management Solutions, followed by Patient Solutions (15%). Medical Diagnostics was also the top-most invested cluster in 2022, but it ranks only in 5th place for the number of ventures.



GLOBAL 2022 YEAR END: CLUSTER FOCUS

Global Venture
Distribution by
Clusters

Funding across the largest Digital Health Clusters is dominated by North American ventures, with the exception of Research Solutions, which was boosted significantly by the strategic research collaboration announced by Sanofi and [Insilico Medicine](#). The distribution of venture volume is more balanced between the top 3 global regions. Europe edges out North America for the top spot for number of ventures focused on Wellness solutions.





"This report showcases the importance of partnerships across the globe. As we look at 2023, I believe we will see an increase demand from investors on path to revenue for earlier stage startups. This will include a focus on more corporate, health systems and innovator partnerships to develop, test and bring actual value, driving clinical grade therapeutics to the market."

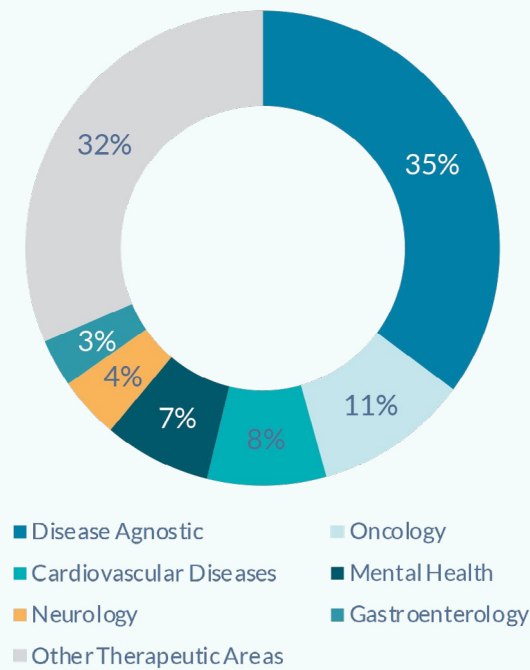
Robin Roberts
Co-Founder and COO
Novartis Biome

Global 2022 Year End
Therapeutic
Focus

Venture Funding
in Key
Therapeutic
Areas

Driven largely by a \$290M investment in California-based venture Freenome, Oncology maintained its top position as the most invested therapeutic area in 2022. Mental Health, which was a favorite in many parts of the globe in 2021, dropped to third position. Gastroenterology rocketed into the TOP5, driven by a \$225M investment in the Oncology and Gastroenterology focused venture Delfi Diagnostics.

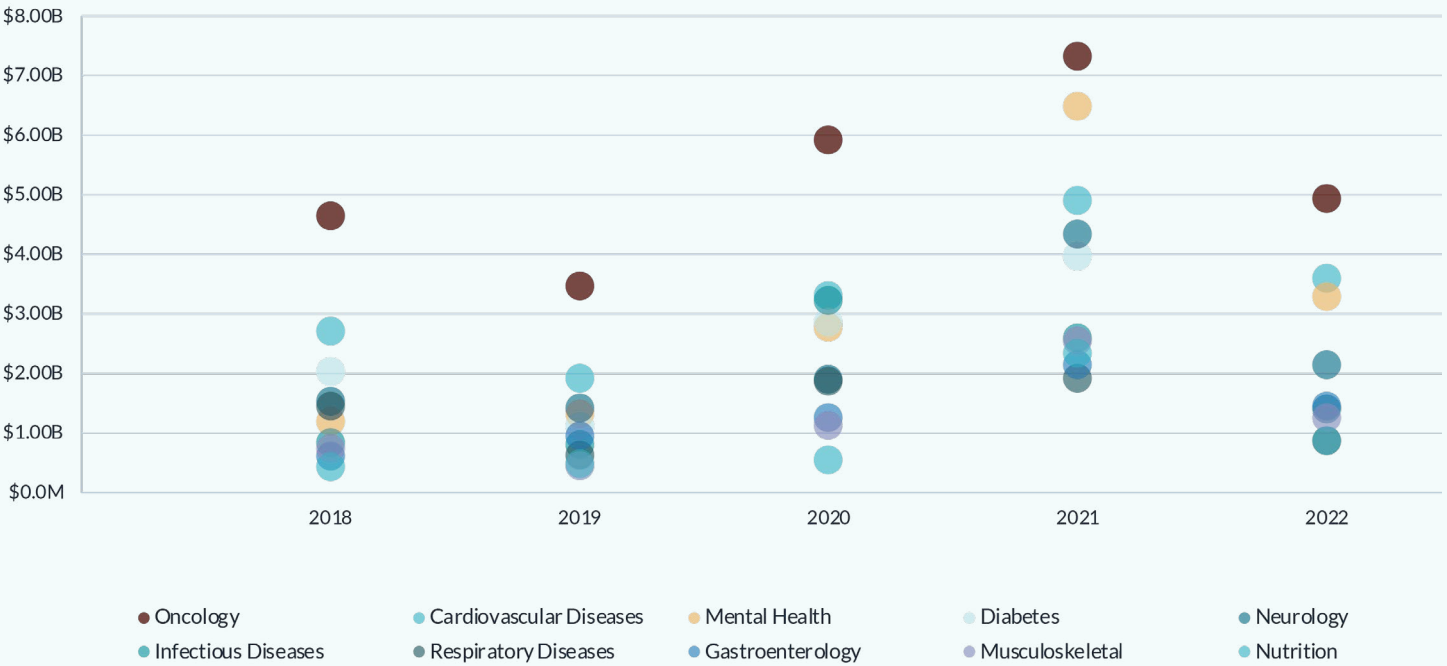
Top Funded Therapeutic Areas (2022)



Therapeutic Areas	Total Funding in 2022	Rank in 2021	Largest Deal in 2022
Oncology	\$4.94B	#1	<u>Freenome</u> \$290M (Series D1)
Cardiovascular Diseases	\$3.59B	#3	<u>Biofourmis</u> \$300M (Series D)
Mental Health	\$3.29B	#2	<u>Lyra Health</u> \$235M (Series F1)
Neurology	\$2.13B	#5	<u>Tempus</u> \$275M (Series B)
Gastroenterology	\$1.44B	#9	<u>Delfi Diagnostics</u> \$225M (Series B)

Top 10
Therapeutic
Areas by
Venture Funding
Value,
2018– 2022

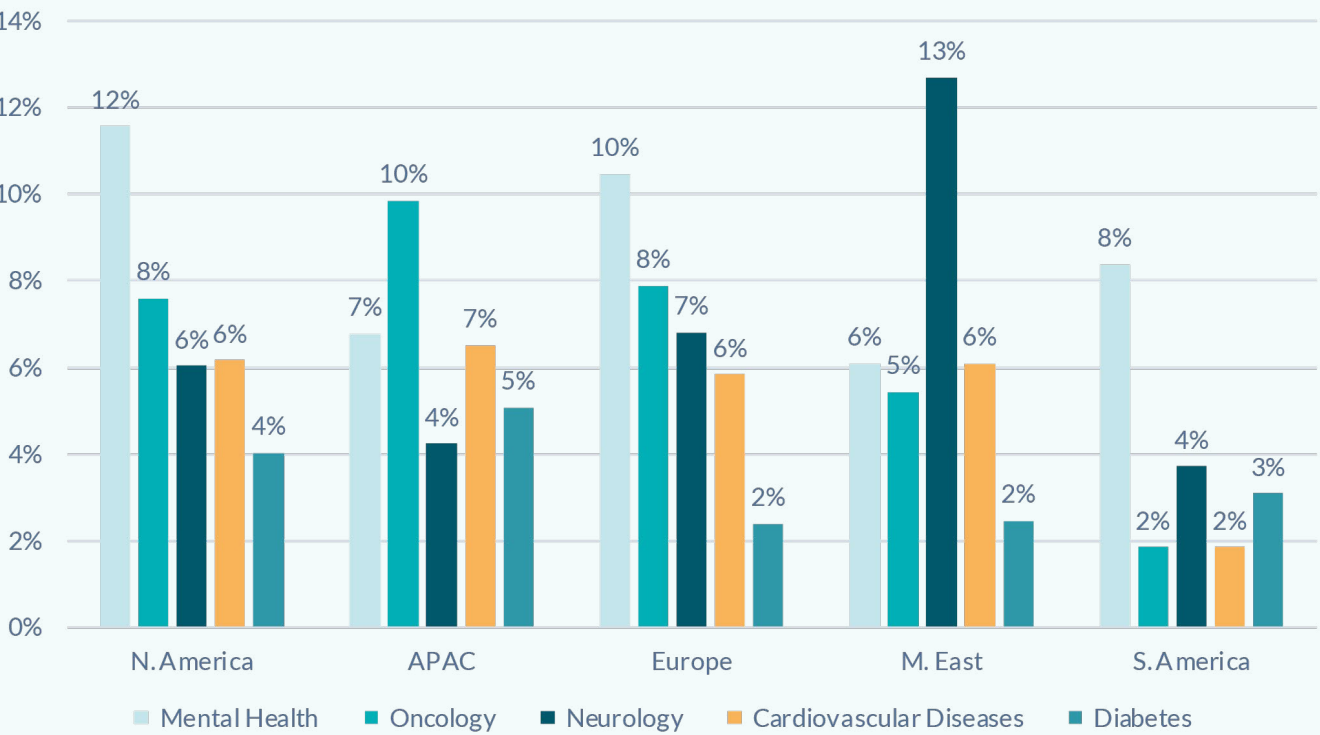
Funding in Oncology ventures dropped by 33% to \$4.9B in 2022 compared to \$7.3B invested in 2021. Cardiovascular Diseases and Mental Health funding value remained above the 2020 levels, although Cardiovascular Diseases recaptured the second place spot after investment in Mental Health dropped 49% in value from 2021.



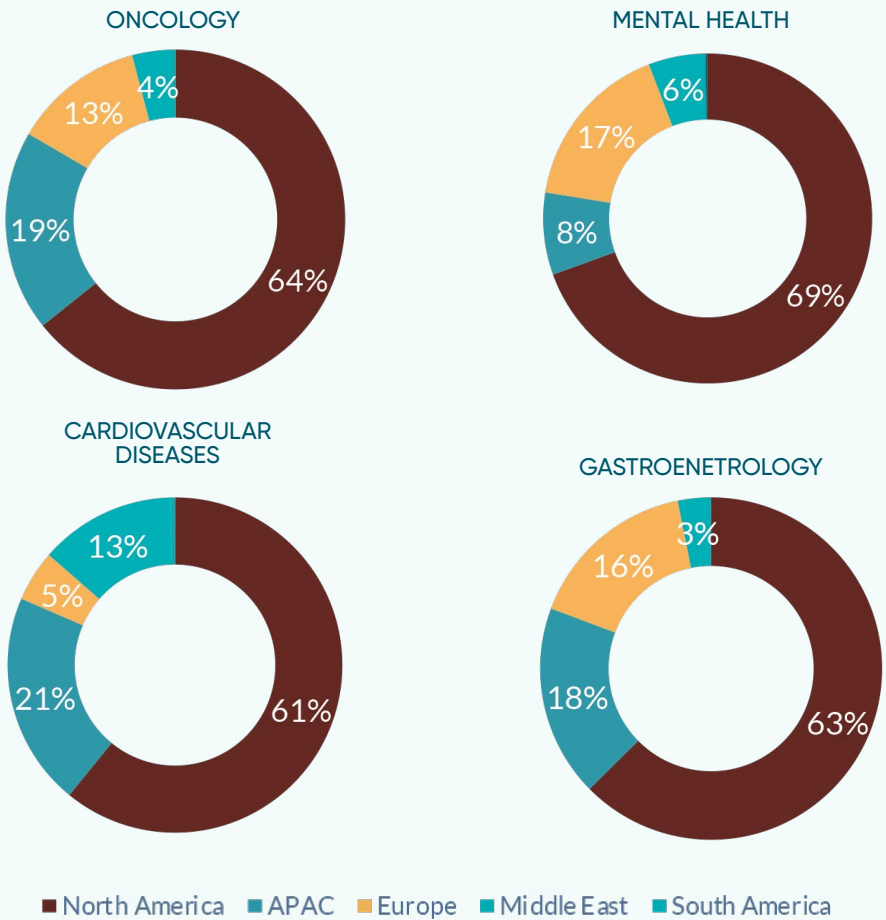
Global Venture Distribution by Therapeutic Area

Across the 5 major global regions for Digital Health, Mental Health dominates as the largest therapeutic area (by number of ventures) in the Americas and in Europe, while Oncology captures the largest share of ventures in Asia Pacific, and Neurology takes the top spot in the Middle East. Across all of the largest therapeutic areas, North America captures more than a 60% share of venture funding value.

Share of Venture Volume by Therapeutic Area and Region



Share of Funding for Top Funded Therapeutic Areas In 2022 by Region





GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Deals North America

Venture	Lead Investors	HQ Country	Category	Stage	Date	Deal Value (\$)
<u>DispatchHealth</u>	Optum Ventures	United States	Home Healthcare	Series E	11 / 2022	330M
<u>Somatus</u>	Wellington Management	United States	Disease Management	Series E	2 / 2022	325M
<u>TigerConnect</u>	Vista Equity Partners	United States	Hospital, Care Coordination,	Series E	1 / 2022	300M
<u>Freenome</u>	Roche	United States	Omics Related Diagnosis	Series D1	1 / 2022	290M
<u>Tempus</u>	Ares Management (debt financing), previous investors	United States	Clinical Trial Matching, Prescriptive Analytics, Omics Related Diagnosis,	Series H & Debt Financing	10 / 2022	275M

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Exits North America

M&A

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>Signify Health</u>	CVS Health	United States	Home Healthcare, Care Coordination	9 / 2022	8.0B
<u>One Medical</u>	Amazon	United States	Teleconsultation	7 / 2022	3.9B
<u>Castlight Health</u>	Vera Whole Health, Morgan Health	United States	Medical Concierge, Corporate Health, Health Insurance, Healthcare Navigation	2 / 2022	379M
<u>Caravan Health</u>	Signify Health	United States	Hospital	2 / 2022	250M
<u>Artemis Health</u>	Nomi Health	United States	Health Insurance	1 / 2022	200M

SPAC

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>Profusa</u>	NorthView Acquisition Corp.	United States	Remote Monitoring Devices	11 / 2022	264M
<u>Foxo Technologies</u>	Delwinds Insurance Acquisition Corporation	United States	Omics Related Applications, Omics Related Research	9 / 2022	224M
<u>Akili Interactive</u>	Social Capital Suvretta Holdings Corp.	United States	Digital Therapeutics	8 / 2022	163M

IPO

Venture	HQ Country	Category	Date	Opening Price*	Amount Raised At IPO (USD)	Market Cap	Change In Share Price %**
<u>Aclarion</u>	United States	Medical Imaging	4 / 2022	\$4.35 USD	\$9.42M	\$3.76M	-90%
<u>PanGenomic Health</u>	Canada	Wellness Apps	7 / 2022	\$0.25 CAD	\$0.8M	\$9.55M	12%
<u>Bloom Health Partners</u>	Canada	Corporate Health	7 / 2022	\$0.20 USD	\$2M	\$3.81M	-55%
<u>Bruush</u>	Canada	Consumer Marketplace	8 / 2022	\$4.16 USD	\$15.5M	\$4.33M	-86%
<u>Acrivon Therapeutics</u>	United States	Omics Related Diagnosis	11 / 2022	\$12.50 USD	\$94.4M	\$243.31	-8%

** opening share prices as of 27 Dec 2022 39

Noteworthy Deals

Asia Pacific

Venture	Lead Investors	HQ Country	Category	Stage	Date	Deal Value (\$)
<u>Insilico Medicine</u>	Sanofi	Hong Kong	Drug Discovery	Strategic	11 / 2022	1.2B
<u>Enzymaster</u> (酶赛)	Yuansheng Chuangtou	China	Omics Related Research, Bioinformatics,	Series C	1 / 2022	300M
<u>Biofourmis</u>	General Atlantic	Singapore	Digital Therapeutics	Series D	4 / 2022	300M
<u>PharmEasy</u>	General Atlantic, Canada	India	Consumer Marketplace	Series F	9 / 2022	250M
<u>WeDoctor</u> (微医)	Shandong Tianye	China	Medical Concierge	Series F	7 / 2022	149M

Noteworthy Exits

Asia Pacific

** opening share prices as of 27 Dec 2022

M&A

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>ResApp</u>	Pfizer	Australia	Diagnosis Tools	10 / 2022	179M
<u>Total Brain</u>	SonderMind	Australia	Consumer Education, HCP Education	11 / 2022	undisclosed
<u>Preferred Networks</u>	Undisclosed	Japan	Diagnosis Tools, Medical Imaging, Omics Related Diagnosis, Drug Discovery, Omics Related Research Imaging, Omics Related	10 / 2022	undisclosed
<u>3Sunny</u>	Teijin Pharma	Japan	Medical Concierge, Care Coordination	10 / 2022	undisclosed
<u>Medo</u>	Exo	Singapore	Medical Imaging	7 / 2022	undisclosed

SPAC

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>EUDA Life</u>	8i Acquisition 2 Corp.	Singapore	Teleconsultation	4 / 2022	90M

IPO

Venture	HQ Country	Category	Date	Opening Price*	Amount Raised At IPO (USD)	Market Cap	Change In Share Price %**
<u>Zhiyun Health</u>	China	Hospital	7/ 2022	30.5 HKD	\$86.3M	314.7 HKD	-59%
<u>Lunit</u> (루닛)	South Korea	Diagnosis Tools	7 / 2022	30,000 KRW	\$27.7M	246.9B KRW	-10%
<u>Mega Genomics</u> (美因基因)	China	Omics Related Diagnosis	6 / 2022	17.82 HKD	\$20.0M	4.22B HKD	-27%
<u>Microba Life Sciences</u>	Australia	Omics Related Diagnosis	4 2022	0.44 AUD	\$30.0M	99.55 AUD	-23%

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Deals Europe

Venture	Lead Investors	HQ Country	Category	Stage	Date	Deal Value (\$)
<u>Doctolib</u>	Eurazeo	France	Medical Concierge, Teleconsultation	Series F	3 / 2022	550M
<u>Cera</u>	Credo Ventures	United Kingdom	Disease Management, Home Healthcare	Series C	8/2022	316M
<u>Dataiku</u>	Wellington Management	France	Prescriptive Analysis	Series F	12 / 2022	200M
<u>Alan</u>	Index Ventures	France	Health Insurance	Series E	4 / 2022	194M
<u>Kry (also LIVI)</u>	Project A Ventures	Sweden	Teleconsultation	Debt Financing	7 / 2022	160M

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Exits Europe

M&A

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>MiroBio</u>	Medicxi Ventures	United Kingdom	Omics Related Research	8 / 2022	404M
<u>PlusDental</u>	Straumann Group	Germany	Wellness Apps	5 / 2022	138M
<u>Biim Ultrasound</u>	Observe Medical	Norway	Diagnosis Tools	1 / 2022	21M
<u>Champion Health</u>	Physitrack	United Kingdom	Corporate Health	5 / 2022	12M
<u>Alva</u>	Vira Health	United Kingdom	Patient Health Forums	11 / 2022	undisclosed

IPO (NONE in 2022)

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Deals Middle East

Venture	Lead Investors	HQ Country	Category	Stage	Date	Deal Value (\$)
<u>Aidoc</u> (לקידם קודיאיא)	TCV	Israel	Medical Imaging	Series D	6 / 2022	110M
<u>Vayyar</u> (האמדה ראיאו)	Koch Disruptive Technologies	Israel	Medical Imaging, Remote Monitoring Devices	Series E	6 / 2022	108M
<u>Viz.ai</u>	Tiger Global Management, Insight Partners	Israel	Medical Imaging	Series D	4 / 2022	100M
<u>CathWorks</u>	Medtronic	Israel	Medical Imaging	Strategic	7 / 2022	75M
<u>Hello Heart</u>	Stripes Group	Israel	Disease Management, Corporate Health, Medication Management	Series D	5 / 2022	70M

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Exits Middle East

M&A

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>Medigate</u> (מ"עב קט טייגידמ)	Claroty	Israel	EHR / PHR, Cybersecurity	1/2022	undisclosed
<u>BreezoMeter</u> (רטימודירב)	Google	Israel	Disease Management	9/2022	\$200M

IPO (NONE in 2022)

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Deals South America

Venture	Lead Investors	HQ Country	Category	Stage	Date	Deal Value (\$)
<u>Betterfly</u>	Glade Brook Capital Partners	Chile	Health Insurance, Social Enterprise	Series C	2/2022	\$125M
<u>Conexa Saúde</u>	Goldman Sachs Asset Management	Brazil	Medical Concierge, Care Coordination, Teleconsultation	Series C	6/2022	\$38M
<u>Dr.consulta</u>	Kamaroopin	Brazil	Teleconsultation	Series D	8/2022	\$33M
<u>Examedi</u>	General Catalyst	Chile	Remote Monitoring Devices, On-demand Lab Tests	Series A	6 / 2022	17M
<u>Medway</u>	Softbank	Brazil	HCP Education	Series A	3/2022	\$15M

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Partnerships

Corporate / Organization	Venture	Country	Date	Primary Category
<u>Sumitomo Life Insurance</u>	<u>Famione</u>	Japan	12 / 2022	Health Information Platform
<u>Lilly</u>	<u>Prescriptive Health</u>	United States	12 / 2022	Health Claim Management
<u>AstraZeneca</u>	<u>Clinithink</u>	United Kingdom	12 / 2022	Prescriptive Analytics
<u>FWD Insurance</u>	<u>Thoughtfull</u>	Malaysia	12 / 2022	Corporate Health
<u>Baptist Health</u>	<u>TytoCare</u>	Israel	12 / 2022	Remote Monitoring Devices

GLOBAL 2022 YEAR END: NOTEWORTHY

Noteworthy Exits South America

M&A

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>Zetta Health Analytics</u>	Semantix	Brazil	Prescriptive Analytics	8/2022	undisclosed
<u>Feegow</u>	DocPlanner	Brazil	Physician / Clinic	8/2022	undisclosed
<u>TNH Health</u>	Gympass	Brazil	Corporate Health, Teleconsultation	4/2022	undisclosed

SPAC

Venture	Acquirer	HQ Country	Category	Date	Deal Value (\$)
<u>Semantix</u>	Alpha Capital SPAC	Brazil	Hospital	8 / 2022	320M

IPO (NONE 2022)

GLOBAL 2022 YEAR END: NOTEWORTHY

Most Active Partners in Digital Health

Corporate Partner	Partner Type	Total No. of Digital Health Partnerships since 2012	No. of Digital Health Partnerships in 2022	Recent Partnership	Venture Category
<u>Roche</u>	Bio-/Pharma	119	8	<u>TOPGEN</u> (鼎晶生物)	Omics Related Diagnosis
<u>AstraZeneca</u>	Bio-/Pharma	118	17	<u>Clinithink</u>	Prescriptive Analytics
<u>Novartis</u>	Bio-/Pharma	109	11	<u>Integrity Healthcare</u> (インテグリティ・ヘルスケア) スケア)	Disease Management
<u>Pfizer</u>	Bio-/Pharma	95	14	<u>Anumana</u>	Diagnosis Tools
<u>Bayer</u>	Bio-/Pharma	90	4	<u>Doctor Anywhere</u>	Teleconsultation

Most Active Investors in Digital Health in 2022

Investor	Type	Cumulative # of Digital Health Deals since 2012	# of Investments (in 2022)	Latest Participated Investment	Date	Total Value of Latest Deal
<u>General Catalyst</u>	Venture Capital	121	31	<u>Vevo Therapeutics</u>	12 / 2022	\$12M
<u>UK Research and Innovation</u>	Government	386	26	<u>Labgenius</u>	10 / 2022	Undisclosed
<u>Insight Partners</u>	Venture Capital	60	20	<u>RapidSOS</u>	10 / 2022	\$75M
<u>Gaingels</u>	Venture Capital	44	18	<u>Juno</u>	12 / 2022	\$12M
<u>Optum Ventures</u>	Venture Capital	71	17	<u>BehaVR</u>	12 / 2022	\$13M

So What's Next for Digital Health in 2023?

2022's geopolitical uncertainty has precipitated the inevitable transition from the Digital Health 1.0 era to the 2.0 era with Digital Health reaching an inflexion point, and evolving into a more mature ecosystem enabled by numerous factors:

- **+20% Increase of unique investors** in 2022 over the investors in 2020 indicates that the pandemic encouraged investors' appetite to invest in the Digital Health ecosystem. Investment downturn in 2022 is driving a flight toward quality funding opportunities and greater due diligence rigor, such as evaluating a venture's Clinical Strength to confirm that the venture's solution can deliver the expected medical results.
- **21% of partnerships with Digital Health ventures were captured by healthcare systems and providers**, who are driven by a need for greater productivity and are demanding end-to-end solutions that don't require a patchwork of software solutions or apps for a single patient or physician. These Digital Health platforms are becoming possible as mature ventures, which were able to raise capital for expansion during 2020 and 2021 a focus on unit-economics and less mature ventures seek strategic exit opportunities to survive the lack of funding.
- **62% of acquisitions in 2022 were venture-to-venture**. Ventures are finding that funding terms & conditions are far less favorable and valuations are continuing to return to reality. This is leading to consolidation, where ventures that are unable to find scaling capital are acquired by mature ventures looking to capitalize on economies of scale.
- **40 biopharma companies have at least 5 Digital Health ventures in their partnership portfolios**, with the number increasing YOY due to the margins of healthcare incumbents increasingly being pressured lower and leadership teams scrambling to improve productivity. Biopharma has the opportunity to accelerate innovation through partnering with Digital Health ventures in Research Solutions and Clinical Trials in order to fill in the gaps of missing capabilities to boost their pipeline.

Digital Health solutions are building proof points, while health systems are beginning to understand the value that these solutions will bring to productivity and their relevance to patients. The path forward into 2023 will certainly be more challenging, but this new landscape will strengthen the pipeline of ventures, driving innovation and business model viability further to bring the Digital Health promise nearer.

Key Information

Scope of Report

This report covers Digital Health ventures with an incorporation date after 2002. The data is valid as of January 1, 2023

HealthTech is defined as the intersection between healthcare and technology, and is also referred to as Digital Health. HealthTech does not include Biotech (protein research or pharmaceuticals), MedDev (devices that are mechanical and electronic in nature), neuro-stimulates, opioids and minimal-invasive instruments. We recommend reviewing our taxonomy on the next page for further details.

Data Sourcing and Tracking

Galen Growth tracks a comprehensive inventory of key data points ranging from company demographics, funding and valuation to in-market capabilities on a continuously growing and curated list of HealthTech ventures drawn from global markets. Data is collated from primary research, public domain sources (press releases, news, public filings), proprietary analytics and from its unique network.

The information is:

- Disclosed and undisclosed by nature
- Continuously updated with the latest data
- Curated from both direct and indirect verified sources
- Augmented with our proprietary algorithms

Each HealthTech Alpha Index and Score is calculated using proprietary algorithms and data points drawn from our carefully curated HealthTech Alpha database. We recommend reviewing page 51 for further insights.

Key Terms and Definitions

Base Currency	USD
Early Stage	All deals up to and including Series A Stage
Growth Stage	All deals at Series B & C stage
Late Stage	All deals at Series D & Beyond Stage
Exit	IPO, SPAC and M& A deals
HTA	Health Tech Alpha

Important Information

This report is provided solely for informational purposes and was prepared in good faith on the basis of public information available at the time of publication without independent verification. Numbers will be updated from time to time to reflect information identified after the event.

Galen Growth does not guarantee or warrant the reliability or completeness of the data nor its usefulness in achieving any particular purpose.

Galen Growth shall not be liable for any loss, damage, cost or expense incurred by reason because of any persons use or reliance on this report.

This report is a proprietary aggregation of publicly available and undisclosed data and shall not be forwarded or reproduced without the prior written consent of Galen Growth.

Research Inquiries

For more information about data, research and Galen Growth's proprietary algorithm contact: research@galengrowth.com for more information.

Digital Health Taxonomy

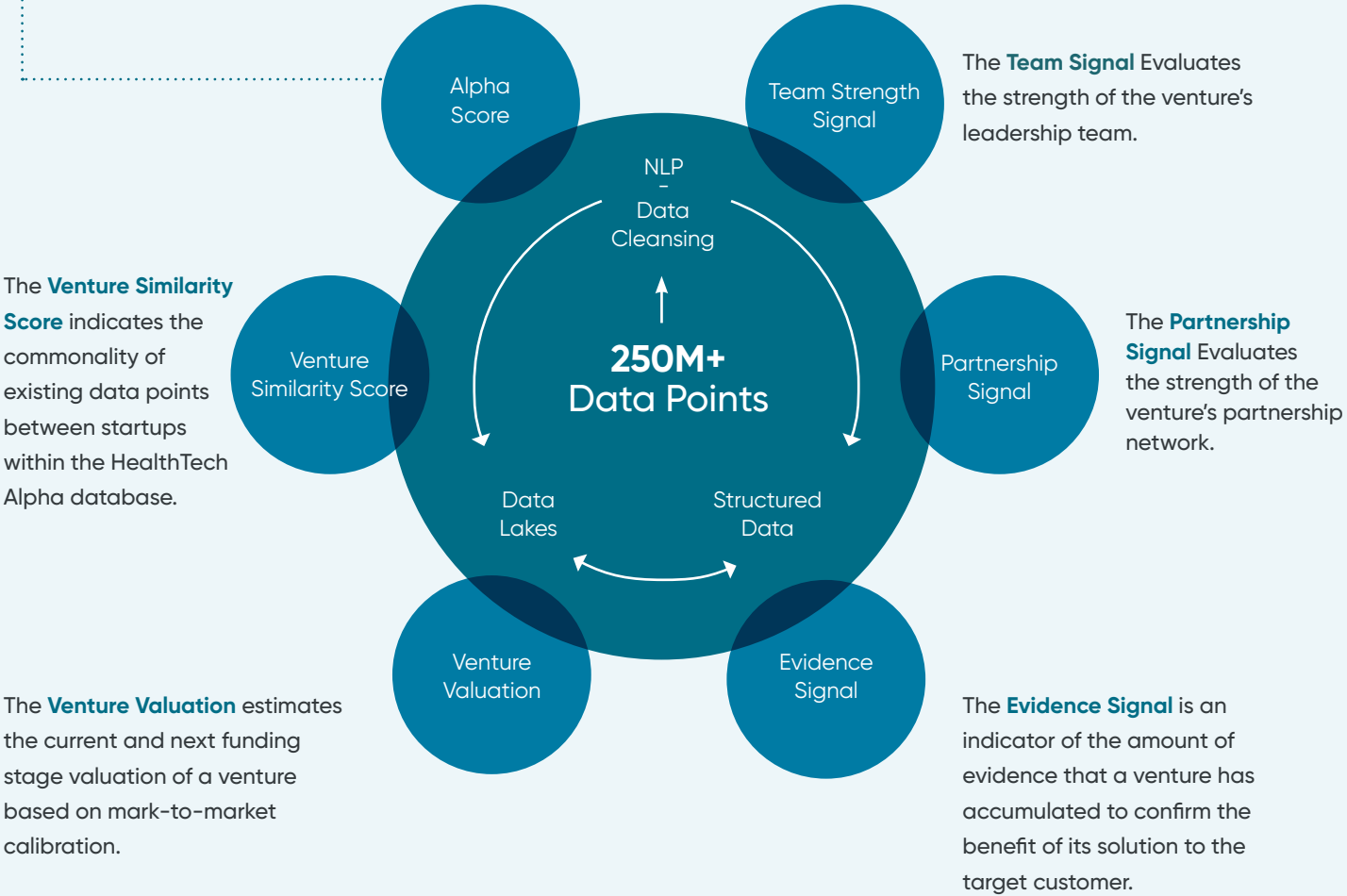
Health Management Solutions EHR / PHR Hospital Pharmacy Physician / Clinic Prescriptive Analytics	Health Services Search Healthcare Navigation Medical Concierge Medical Tourism Triage	Health InsurTech Health Claim Management Health Insurance Medical Payments	Medical Diagnostics Diagnosis Tools Medical Imaging Omics Related Diagnosis
Medical Education Consumer Education HCP Education Health Information Platform	Online Health Communities Other HCP Networks Patient Health Forums Physician Networks	Online Marketplace Consumer Marketplace On-demand Lab Tests Online Pharmacy Professional Marketplace	Patient Solutions Digital Therapeutics Disease Management Health / Symptom Checker Medication Management
Population Health Management Care Coordination Corporate Health Home Healthcare Integrated Solutions	Remote Devices Assistive Care Remote Diagnostic Devices Remote Monitoring Devices	Research Solutions Bioinformatics Drug Discovery Omics Related Research	Clinical Trials Decentralized Clinical Trials Clinical Trial Matching Data Collection Tools
Telemedicine Teleconsultation Telepathology Teleradiology Telesurgery	Veterinarian Animal Health Forums Animal Imaging Animal Monitoring Omics Related Veterinary Televeterinary	Wellness Omics Related Applications Smart Equipment Wearables Wellness Apps Wellness Information Platform	Safety & Security Counterfeit Tracking Cybersecurity Pharmacovigilance
Healthcare Logistics Transportation Management On-demand Delivery	Other Contamination Management HCP Job Board Healthcare Marketing Social Enterprise Software Provider		

Digital Health Analytics



The **Alpha Score** is a 360° Venture Maturity assessment that aggregates four distinct and independent Alpha Indices

- **Momentum index:** evaluates the present performance and fitness of the venture relative to its ecosystem peers.
- **Money index:** quantifies the financial strength and well-being of the venture based on its financial history and investor quality.
- **Market index:** evaluates the health of the sector category and sub-category in which a startup competes.
- **Innovation index:** evaluates the degree to which the venture is solving healthcare pain points.



About Galen Growth



Our unique combination of data, analytics, specialist teams and a Digital Health network, enables our clients to outperform their competition.

Global Digital Health Ecosystem Coverage

Our unmatched coverage of the world's most innovative Digital Health ventures means more innovation choice and better outcomes.

Our US, Asia and European offices serve clients worldwide.

Specialist Team with Decades of Experience

With decades of experience, our team of analysts, researchers, insurance & life sciences industry experts extend your team with specialist insights and skills.

Tailored Innovation Solutions

Whatever stage you are at in your innovation journey, we have a world class solution to enable you to succeed. Every solution leverages our unrivaled Digital Health data.



About FINN Partners



Founded in 2011, FINN is one of the world's fastest growing independent agencies, serving clients through a powerful combination of hands-on partnerships, highly specialized, deep-rooted expertise and a values-driven culture that champions collaboration and innovation, and strives to create a more equitable world.

More than an integrated marketing agency, we are a bold collective of communications advocates, stewarding brands, protecting reputations, pioneering industries, influencing public policy and leveraging data and analytics to shape the most important conversations of our day.

We are smart, passionate people on a mission to make a difference in the world.

33
offices

15+
industries

3
continents

1,400+
people

About Our Partnership

Galen Growth, the leading digital health, data-driven market intelligence company, and FINN Partners, a global integrated marketing services agency, announced a joint effort to mine data and produce the first “Global State of Digital Health Report.” The first report drawing input from some 200M data points and more than 12,000 digital health ventures across the globe, was released at the November HLTH Conference in Las Vegas. The second report will be available in January 2023 at the JP Morgan Healthcare Conference in San Francisco, CA, as part of the Future & Health Event. Additional quarterly reports are anticipated throughout the coming year.

With this partnership, experts from the FINN Global Digital Health Group are working side-by-side with Galen Growth data and research professionals to chart the complex and often fragmented digital health landscape, emerging market trends and areas of growth and innovation, and look beyond equity funding to explore what’s expected to happen in this fast-paced digital health sector. The combined team will look beyond the “hype” of digital to map the priority and practical opportunities for decision-makers.

The first of the two reports laid the groundwork for future reports recapping the year-to-date in digital health and focus on global investment insights, categories and therapeutics, to name a few themes that hold great potential to benefit from digital applications and 2023 trends.



“Gone are the days for funding based on growth. 2022 has shown that we are now expecting clinical evidence based, path to profit models appearing, which will impact valuations and funding. FINN Partners is proud to partner with Galen Growth on tracking the market and providing our clients with the most informed perspective on digital health, globally.”

Ritesh Patel

Senior Partner, Global Digital Health
FINN Partners

