Models of Primary Care

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My Background

R1RCM (Accretive Health): Started my career in revenue cycle management.

Optum: Expanded into data-driven RCM solutions.

Management Consulting: Advised healthcare systems at **ECG** and **North Highland**.

Health Tech / Startups: Led RCM at **PlushCare** and **Tia,** building systems from the ground up.

Primary Care is Important

Out of all areas of the healthcare system, primary care stands out as the most **interesting** because it is the most **important**.

- **Gateway to the Healthcare System**: Primary care is typically the first stop for most patients entering the healthcare journey.
- **Critical First Impressions**: Getting things wrong at this stage can negatively impact the patient's entire experience with healthcare.
- **Making It Right**: On the flip side, when done right, primary care can significantly enhance the patient's overall healthcare experience.
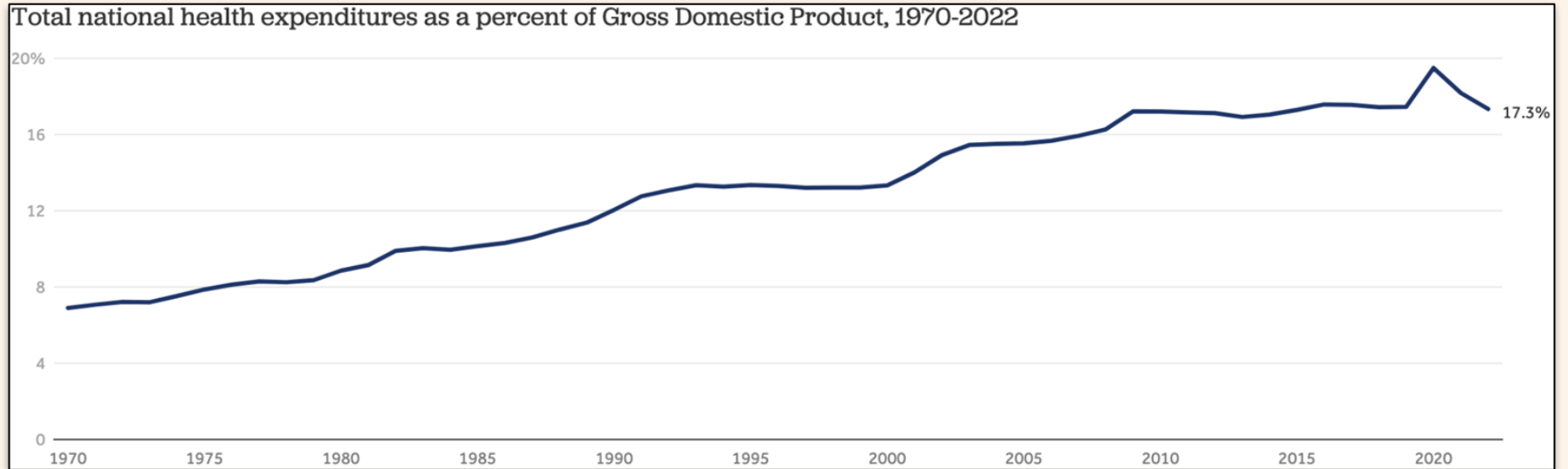

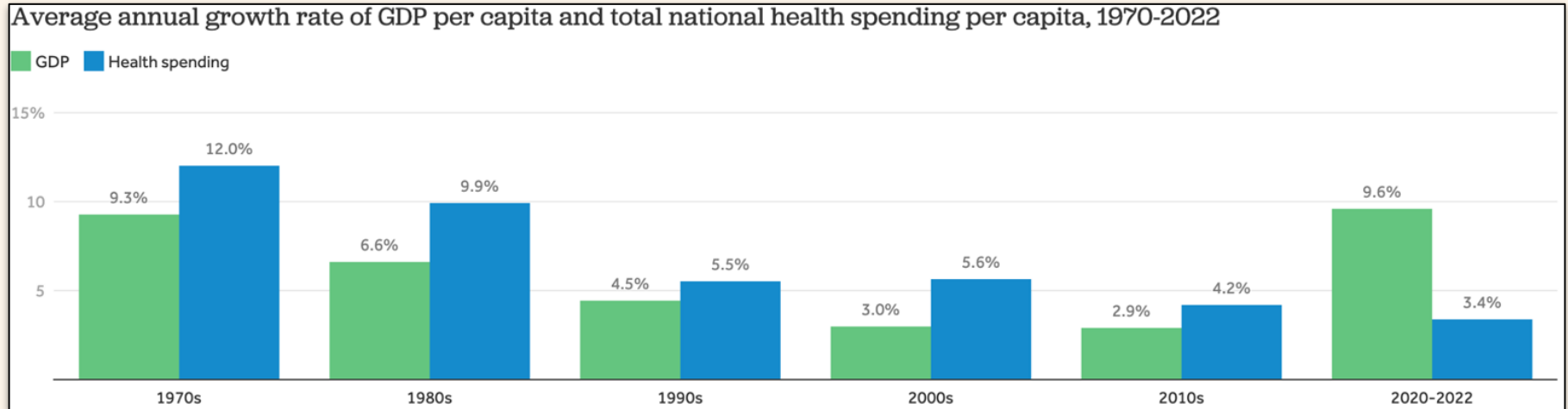Hospital Operated By Dads Just Big Room For Patients To Walk It Off
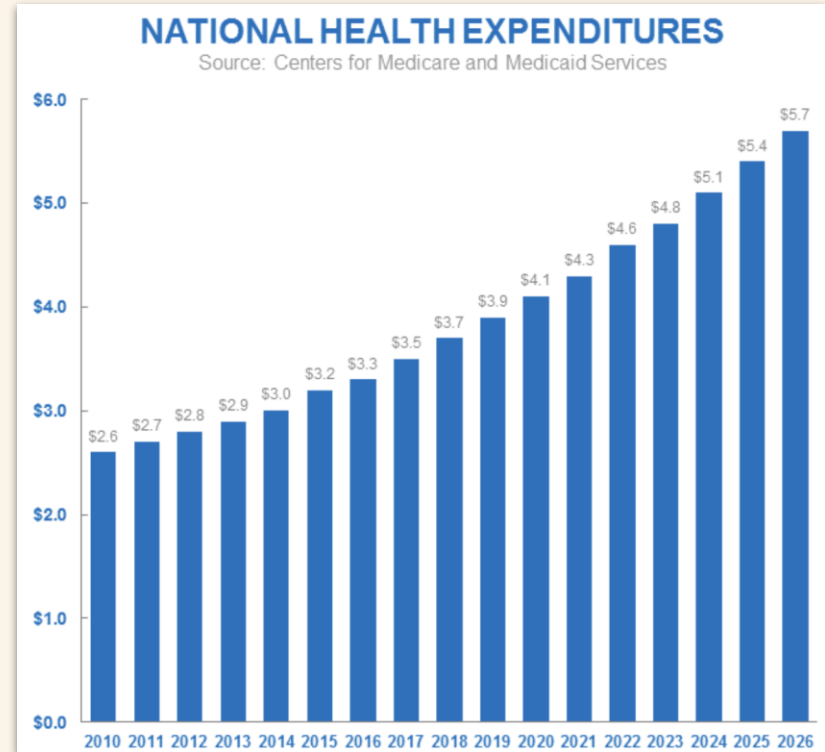
Spending

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Healthcare Spending

Total national health expenditures as a percent of Gross Domestic Product, 1970-2022

17.3%

Healthcare Spending

Average annual growth rate of GDP per capita and total national health spending per capita, 1970-2022

GDP ■ Health spending

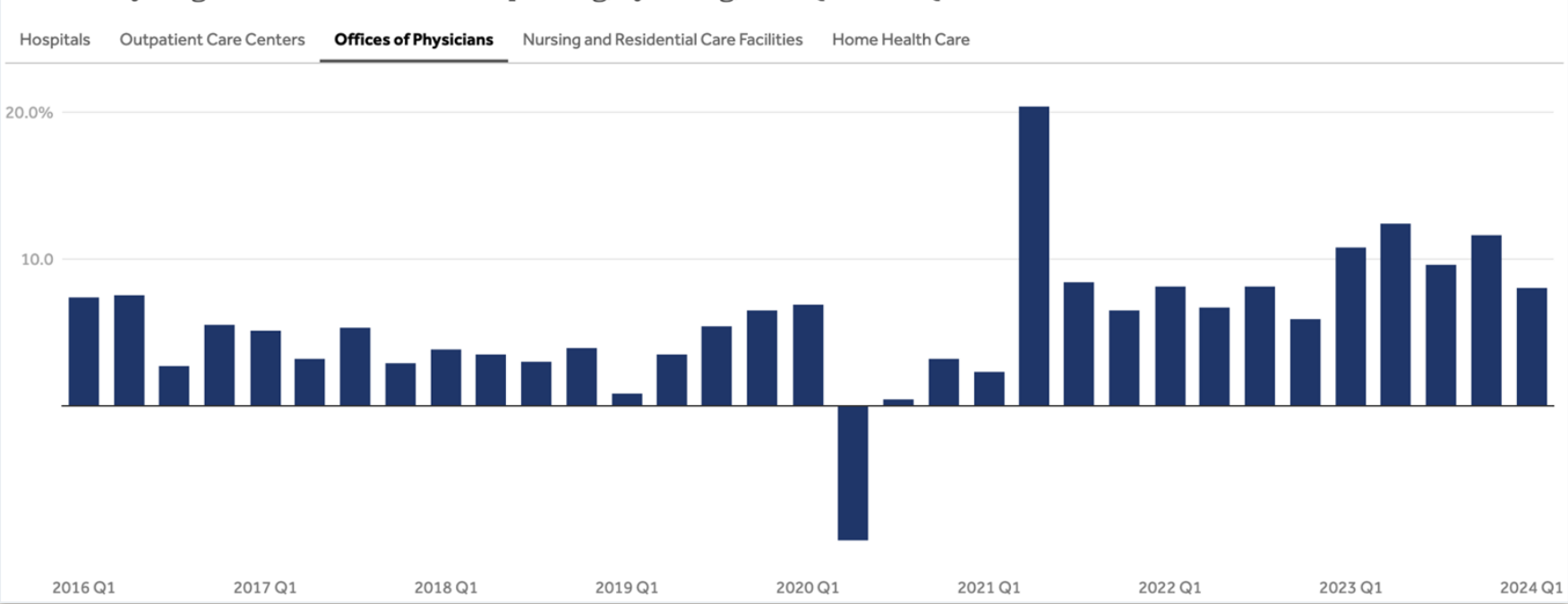| Decade	GDP	Health spending
1970s	9.3%	12.0%
1980s	6.6%	9.9%
1990s	4.5%	5.5%
2000s	3.0%	5.6%
2010s	2.9%	4.2%
2020-2022	9.6%	3.4%

Healthcare Spending

- **Exponential Growth**: Healthcare spending will rise from **$2.6 trillion in 2010** to **$5.7 trillion by 2026**, nearly doubling in just over a decade.
- **Pandemic-Driven Spike**: A notable surge occurred from **$3.9 trillion in 2019** to **$4.8 trillion in 2022**, reflecting the impact of the COVID-19 pandemic.

NATIONAL HEALTH EXPENDITURES
Source: Centers for Medicare and Medicaid Services

Year	Expenditure
2010	$2.6
2011	$2.7
2012	$2.8
2013	$2.9
2014	$3.0
2015	$3.2
2016	$3.3
2017	$3.5
2018	$3.7
2019	$3.9
2020	$4.1
2021	$4.3
2022	$4.6
2023	$4.8
2024	$5.1
2025	$5.4
2026	$5.7

Primary Care: A Top Health Spending Area

Year-over-year growth in health services spending, by setting, 2016 Q1 - 2024 Q1

Hospitals   Outpatient Care Centers   **Offices of Physicians**   Nursing and Residential Care Facilities   Home Health Care
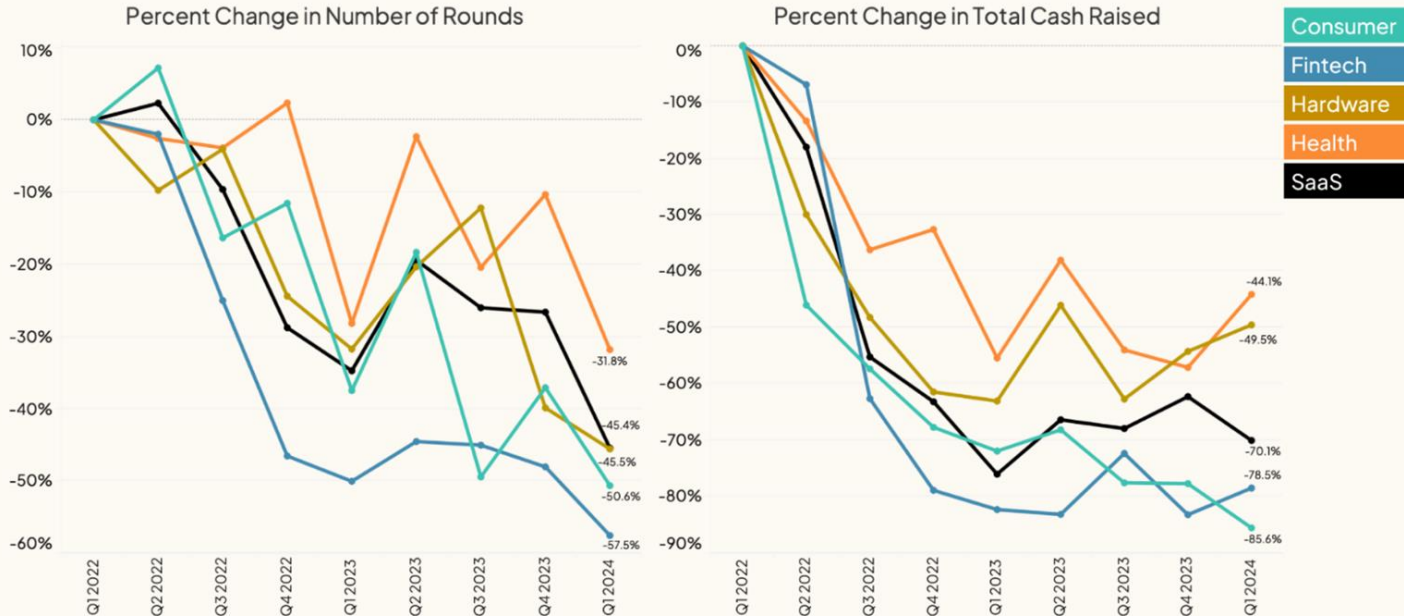
Venture Investment

Venture Investment in Healthcare

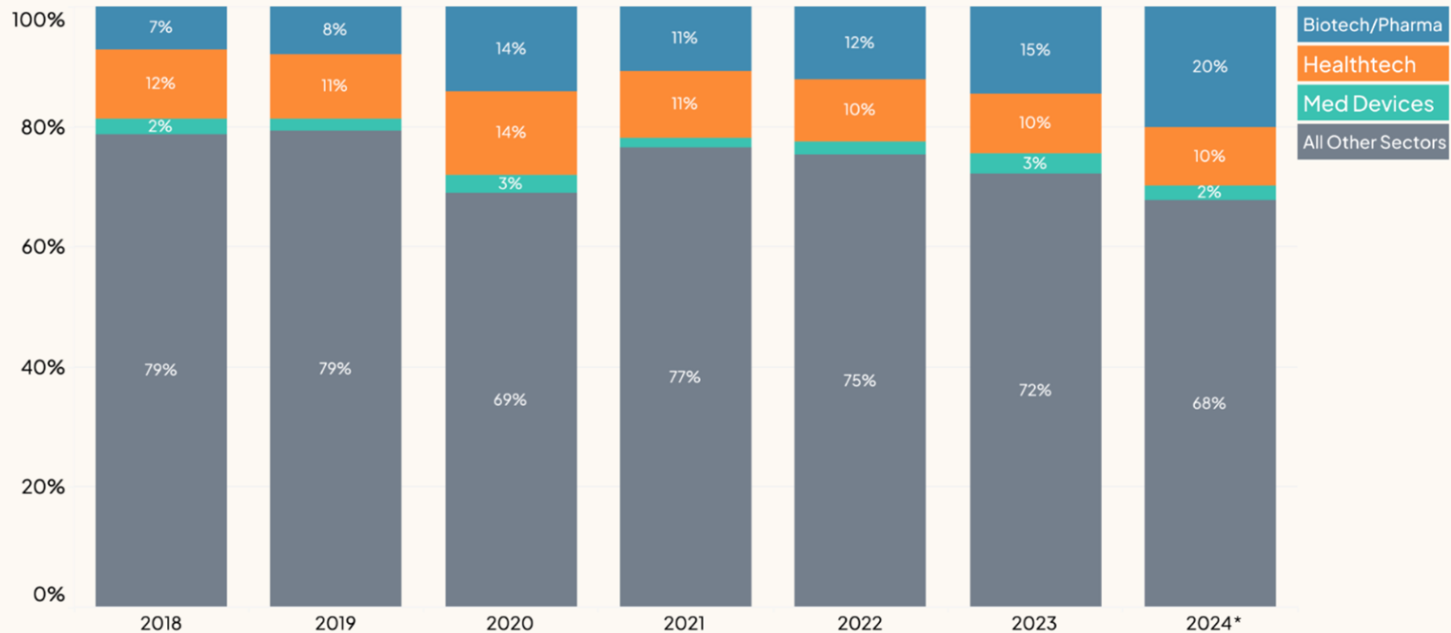## The health sector held up better than other VC sectors

Percent change in number of rounds and total cash raised by industry | Q1 2022 – Q1 2024

Venture Investment in Healthcare

**The health sector's share of venture capital has gone up since 2018**

Percent share of total cash raised by health industry segment | *Data through Q1 2024

Legend: Biotech/Pharma, Healthtech, Med Devices, All Other Sectors

Year	Biotech/Pharma	Healthtech	Med Devices	All Other Sectors
2018	7%	12%	2%	79%
2019	8%	11%	—	79%
2020	14%	14%	3%	69%
2021	11%	11%	—	77%
2022	12%	10%	—	75%
2023	15%	10%	3%	72%
2024*	20%	10%	2%	68%

Venture Investment in Healthcare

Biotech/pharma leads in cash raised; healthtech leads in volume

Total number of rounds and total cash raised by health industry segment | Q1 2022 – Q1 2024
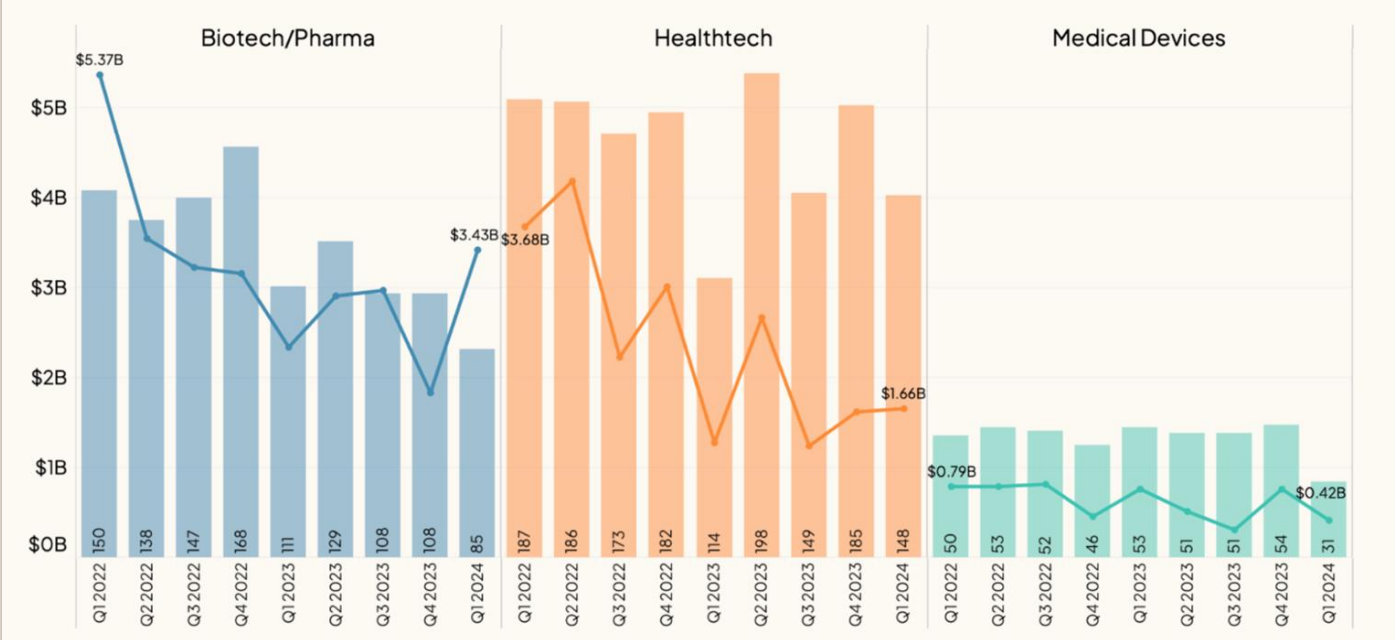
Primary Care is Changing

Primary care is evolving due to two key forces:

1. Transformation Catalysts (forces accelerating change):
These are factors that are actively pushing primary care into the future.

- **Technological Advancements** (AI, telehealth, & wearables).
- **Shifting Patient Expectations** (demand for personalized and accessible care).

2. Systemic Strains (forces demanding change):
These are the stressors and inefficiencies that are pushing the system to adapt.

- **Chronic Disease Burden** (increased prevalence and complexity of conditions).
- **Provider Burnout** (workforce fatigue and shortages).

Transformation Catalysts

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Transformation Catalysts - Tech advancements in Artificial Intelligence

Comfort Rising: 39% of Americans are now comfortable with AI in healthcare, despite initial discomfort.

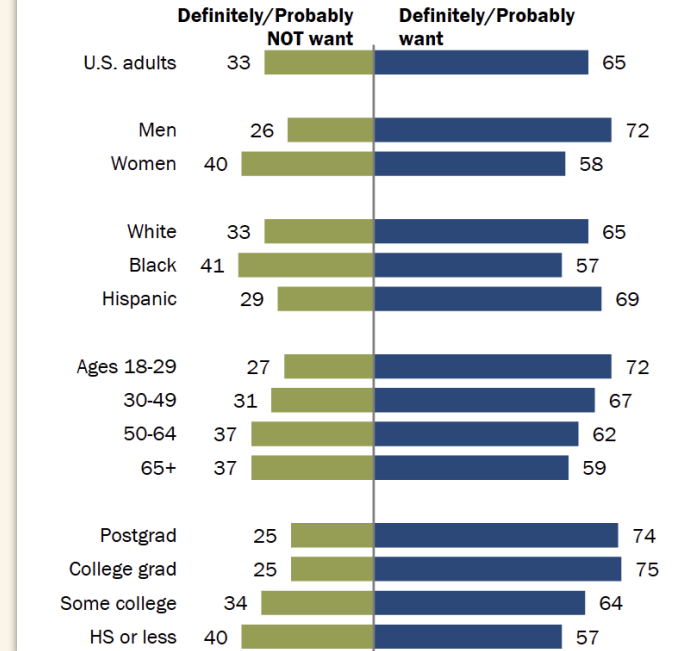**Improving Outcomes**: 38% believe AI will lead to better patient outcomes, reflecting growing optimism.

Reducing Errors: 40% think AI will reduce medical errors, improving care quality.

AI in Skin Cancer Screening: 65% of Americans would want AI used for their own skin cancer screening.

Younger Generations More Supportive: 72% of adults aged 18-29 support AI in healthcare.

65% of U.S. adults say they would want AI to be used in their own skin cancer screening

% of U.S. adults who say they would ___ artificial intelligence to be used in their screening for skin cancer

	Definitely/Probably NOT want	Definitely/Probably want
U.S. adults	33	65
Men	26	72
Women	40	58
White	33	65
Black	41	57
Hispanic	29	69
Ages 18-29	27	72
30-49	31	67
50-64	37	62
65+	37	59
Postgrad	25	74
College grad	25	75
Some college	34	64
HS or less	40	57

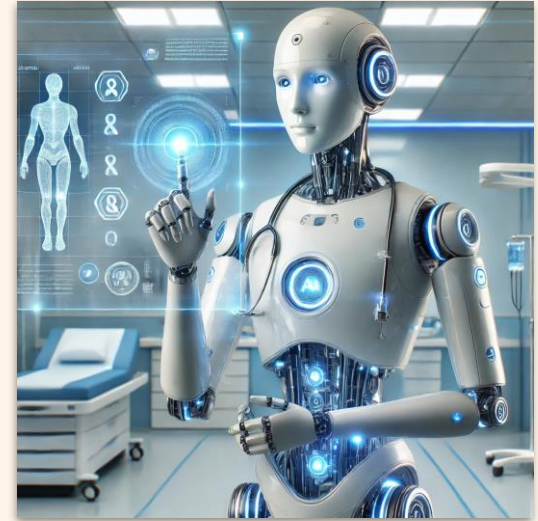# Transformation Catalysts - Tech advancements in Artificial Intelligence

Precision Diagnostics & Chronic Care: AI analyzes patient data to detect early signs of chronic diseases, facilitating proactive interventions and offering personalized care management through real-time monitoring.

Operational Efficiency: Automating routine tasks like documentation and data entry, AI enables providers to focus on patient care, boosting both productivity and decision-making.

Proactive Prevention & Patient Engagement: AI identifies at-risk patients, drives preventive care, and scales patient outreach with automated communications, improving adherence and satisfaction.

Expanded Access to Care: AI-powered virtual assistants provide 24/7 access to healthcare information and responses to patient inquiries, reducing pressure on providers and improving patient accessibility.

Financial Upside: By reducing administrative burdens and optimizing workflows, AI enhances operational efficiency and strengthens financial outcomes across primary care practices.
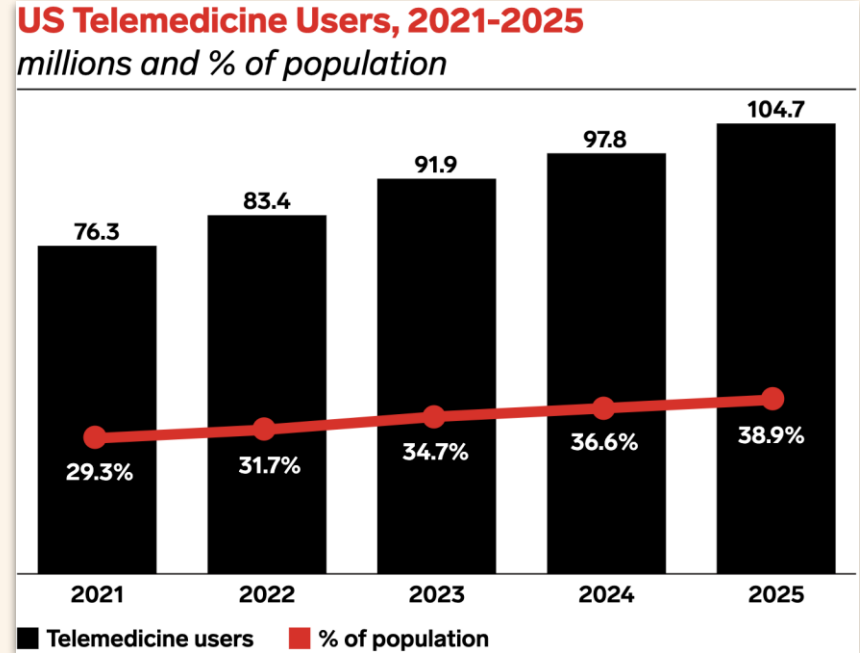
Transformation Catalysts - Tech advancements in - Telehealth

Widespread Adoption: By 2024, **97.8 million Americans** (36.6% of the population) are actively using telemedicine, highlighting its mainstream acceptance.

Sustained Growth: Telemedicine usage is projected to reach **104.7 million** users by 2025, representing **38.9%** of the U.S. population.

Post-Pandemic Integration: Telemedicine has transitioned from a pandemic necessity to a permanent and integral part of healthcare, expanding access to care across all demographics.

US Telemedicine Users, 2021-2025
millions and % of population

Year	2021	2022	2023	2024	2025
Telemedicine users	76.3	83.4	91.9	97.8	104.7
% of population	29.3%	31.7%	34.7%	36.6%	38.9%

■ Telemedicine users ■ % of population

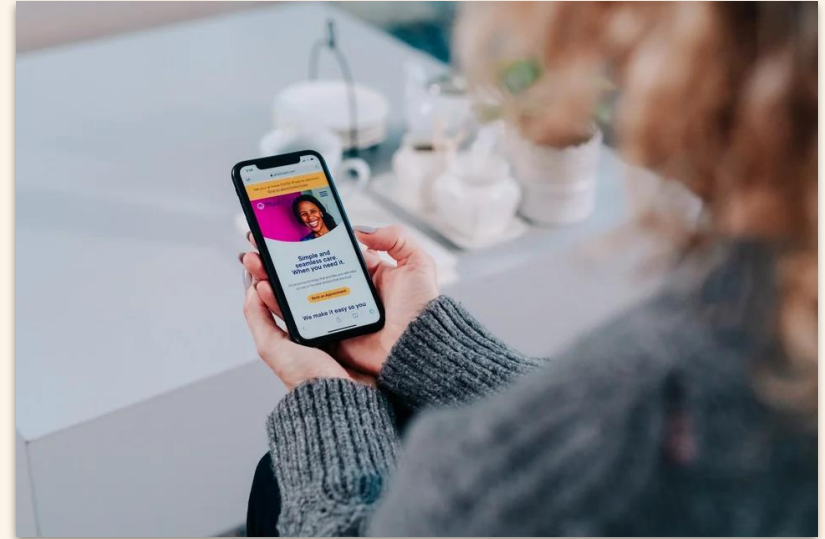# Transformation Catalysts - Tech advancements in - Telehealth

Expanded Access: Telehealth innovations bridge the gap in care for underserved and rural populations, increasing healthcare accessibility nationwide.

Improved Patient Monitoring: Integration with wearable devices and remote patient monitoring allows for real-time data collection, enhancing chronic disease management.

Enhanced Convenience: Telehealth platforms offer seamless scheduling, virtual consultations, and follow-ups, reducing barriers to care and improving patient satisfaction.

Cost Efficiency: Telehealth technology reduces overhead costs for providers while cutting travel and time expenses for patients, driving both patient and provider adoption.

AI Integration: The use of AI in telehealth platforms aids in diagnostics, patient triage, and personalized care plans, optimizing care delivery.

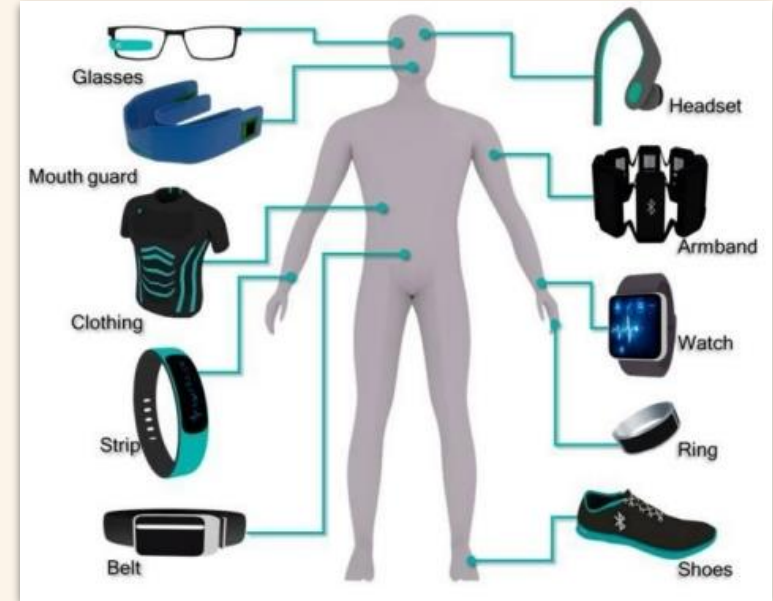# Transformation Catalysts - Tech advancements in - Wearables

1. Smartwatches: Devices like Apple Watch and Fitbit monitor heart rate, physical activity, and sleep, making them popular for everyday health tracking.

2. Fitness Trackers: Focused on tracking steps, calories, and exercise, devices like Fitbit Charge and Garmin are widely used for fitness and lifestyle improvement.

3. Wearable ECG Monitors: Devices like KardiaMobile monitor heart rhythms and are especially valuable for detecting irregularities such as atrial fibrillation.

4. Continuous Glucose Monitors (CGM): Devices like Dexcom G6 and FreeStyle Libre provide real-time glucose monitoring for diabetic patients.

5. Biosensors: Wearable sensors like the Oura Ring track various health metrics including heart rate variability, sleep, and activity, offering deeper health insights.

Transformation Catalysts - Tech advancements in - Wearables

Real-Time Monitoring & Data: Continuous tracking of vitals (e.g., heart rate, glucose) provides actionable data for early interventions and personalized, adaptive treatment plans.

Chronic Disease & Remote Management: Wearables reduce hospital visits by enabling efficient, data-driven management of chronic conditions through both in-person and virtual care.

Telehealth Integration: Wearables supply continuous data during virtual visits, improving diagnostic accuracy and care coordination, especially for remote patients.

Preventive: Data from wearables on physical activity, sleep, and habits encourages healthier behaviors, supporting preventive care and long-term health improvements.

Transformation Catalysts - Shifting Patient Expectations

Demand for Seamless Access: Patients now expect healthcare to be as accessible as any consumer service, driving the adoption of telehealth, virtual care, and on-demand consultations.

Integration of Wellness & Fitness: Healthcare is increasingly expected to include wellness components like fitness, nutrition, and mental health for a holistic approach to care.

Personalized Treatment: Patients seek care tailored to their unique health data, lifestyle, and preferences, pushing providers to offer more customized solutions.

Transparency & Engagement: There's growing demand for clear communication, transparent pricing, and a collaborative role in healthcare decisions.

Transformation Catalysts - Shifting Patient Expectations

Cost

Insurance coverage was the

#1 attribute

patients prioritized when seeking **knee replacement** surgery

Survey of 983 knee replacement patients in 2020

Access

60%

of top 10 attributes for choosing a new **primary care** clinic were access-related

Survey of 1,499 respondents in 2019

Quality

Clinical quality ranked among

top 4 features

cancer patients prioritize when seeking care

Survey of 1,200+ cancer patients in 2019

Experience

Friendly staff and patient-focused care was ranked the

#4 attribute

in choosing a new **primary care** clinic

Survey of 1,499 respondents in 2019

Reputation

15% of patients ranked positive online reviews among the

top 3 reasons

for **specialist** selection

Survey of 1,300 specialty care patients in 2015

Systemic Strain - Chronic Disease Burden

- **6 in 10 U.S. Adults** have at least one chronic disease.
- **4 in 10 U.S. Adults** suffer from two or more chronic diseases.
- Chronic diseases are the leading cause of **death and disability** in the U.S.
- They account for **$3.5 trillion** in annual healthcare costs.
- **Heart disease**, **cancer**, and **diabetes** are among the most prevalent and costly chronic conditions.
- Chronic diseases are responsible for **90% of healthcare spending** in the U.S.
- **Diabetes** affects **34.2 million** people in the U.S. and costs over **$327 billion** annually in direct medical expenses.
- **Chronic kidney disease** affects **37 million** Americans, with treatment costing **$120 billion** annually.

Systemic Strain - Chronic Disease Burden

Increased Primary Care Demand: With chronic disease affecting more Americans than ever before, primary care is seeing a surge in patient volume. Chronic conditions such as heart disease, diabetes, and obesity now require ongoing management, driving up the need for frequent primary care visits.

Pharmaceutical Solutions Require Oversight: The rise of novel pharmaceutical treatments, such as **GLP-1** medications for diabetes and obesity, offers promising outcomes but demands **closer monitoring** and regular check-ins to manage side effects and adjust dosages.

Complexity of Care: As more treatments become available for chronic conditions, patients require more frequent, coordinated, and personalized care, increasing the **workload for primary care providers**.

Chronic Disease Prevalence Among Medicare Population (in Millions)
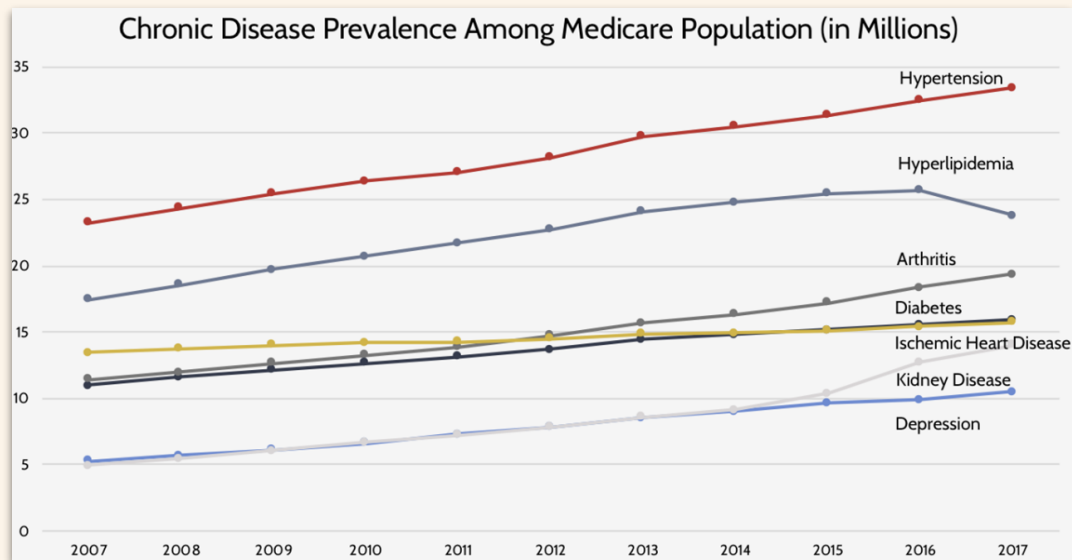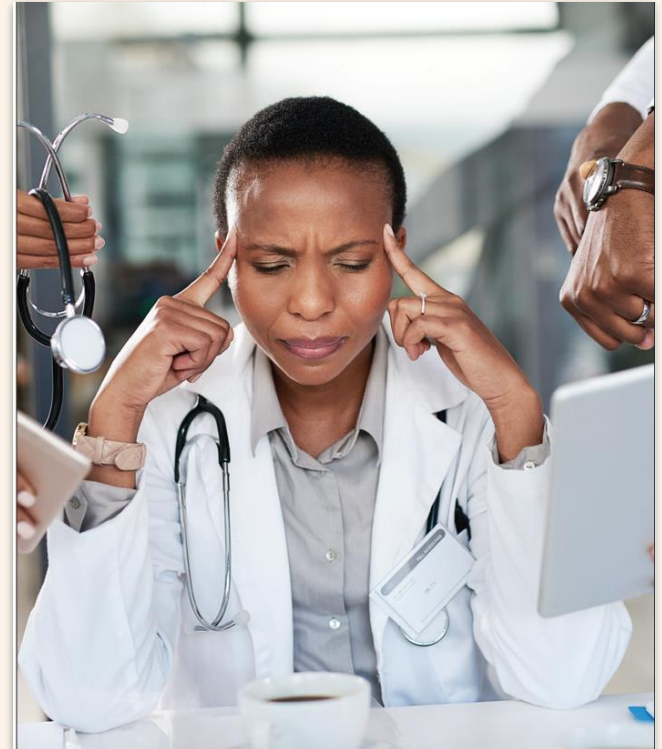
Systemic Strain - Provider Burnout

Burnout Crisis: Over **50% of healthcare providers** report experiencing burnout, leading to emotional and physical exhaustion.
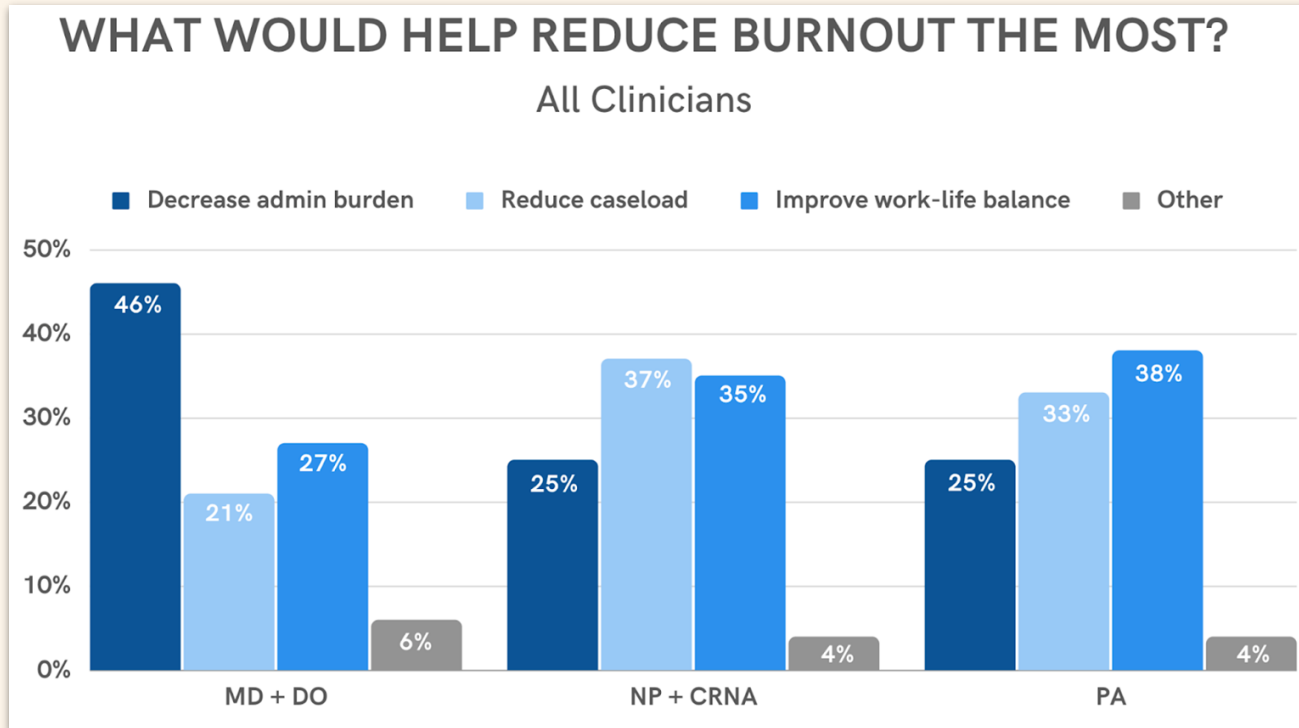
Key Contributors:

- **Intense Workloads**: The rising number of patients, particularly those with chronic illnesses, is overwhelming providers.
- **Complexity of Care**: Providers face increasingly complex cases, requiring more time and mental energy.
- **Administrative Load**: Excessive non-clinical tasks, like paperwork and regulatory compliance, further drain energy and time.

Consequences:

- **Declining Care Quality**: Burnout contributes to increased medical errors and reduced patient satisfaction.
- **Staff Turnover**: High burnout levels are driving early retirements and worsening workforce shortages.

Systemic Strain - Provider Burnout

WHAT WOULD HELP REDUCE BURNOUT THE MOST?
All Clinicians

- Decrease admin burden
- Reduce caseload
- Improve work-life balance
- Other

	MD + DO	NP + CRNA	PA
Decrease admin burden	46%	25%	25%
Reduce caseload	21%	37%	33%
Improve work-life balance	27%	35%	38%
Other	6%	4%	4%

Factors influencing decision to leave current position,[1]
% of respondents, n = 451

■ Important　　▨ Neutral　　■ Not important

Factor	Important	Neutral	Not important
Don't feel listened to or supported at work	64	17	19
Family needs and/or other competing life demands	64	20	16
Insufficient staffing levels	63	21	15
Demanding nature and intensity of workload	62	22	16
Emotional toll of job	61	22	17
Too much uncertainty or lack of control	54	25	20
Administrative burden or lack of administrative support	53	20	27
Financial considerations or seeking higher-paid position	51	20	29
Physical toll of job	44	25	31
Don't see an appealing professional-development pathway	44	25	31
Retirement	44	15	42
Lack of respect from some patients or their families	32	22	46
Personal growth or feel like I chose wrong profession	28	22	50
Fear of COVID-19 infection of self or family	16	23	60
Don't feel prepared or trained sufficiently	11	15	74

Recap

Increased Spending

⬇

Increased Investment

⬇

Transformation Catalysts

⬇

Systemic Strains

⬇

Novel Primary Care Models

Novel Primary Care Models

Harnessing transformation catalysts & systemic strains to Redefine Care Delivery

Virtual-First Care: Telehealth-driven for easier access.

Direct Primary Care: Membership model for unlimited care.

Concierge Medicine: Personalized care with exclusive access.

Condition-Specific Virtual Care: Tailored virtual care for chronic conditions.
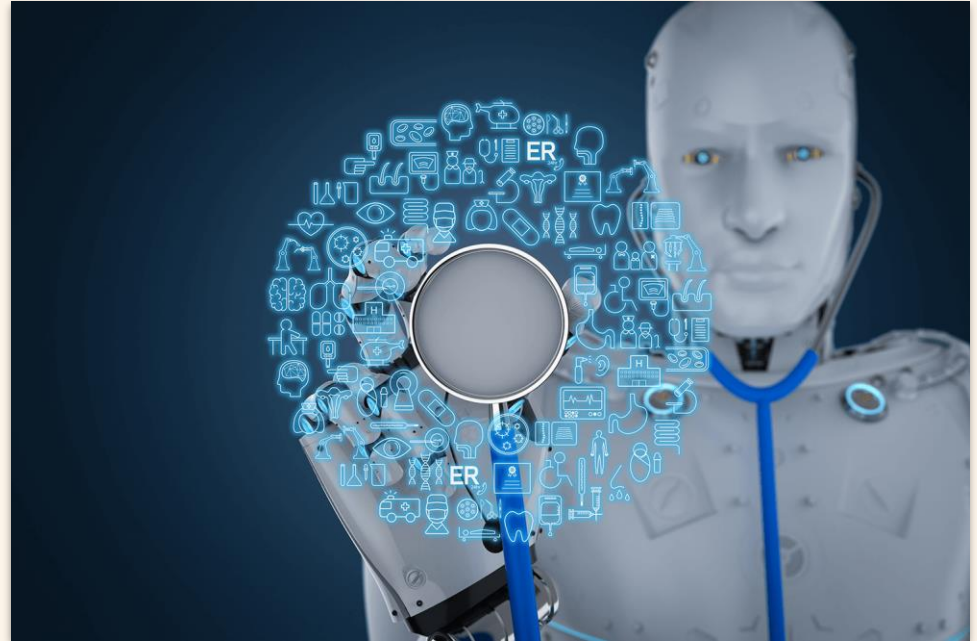
Virtual-First Care

PlushCare: A pioneer in virtual-first care, PlushCare offers patients access to licensed physicians through telehealth consultations. With over **500,000 users**, PlushCare delivers quick, convenient care, including diagnosis, treatment, and prescriptions, without the need for in-person visits.
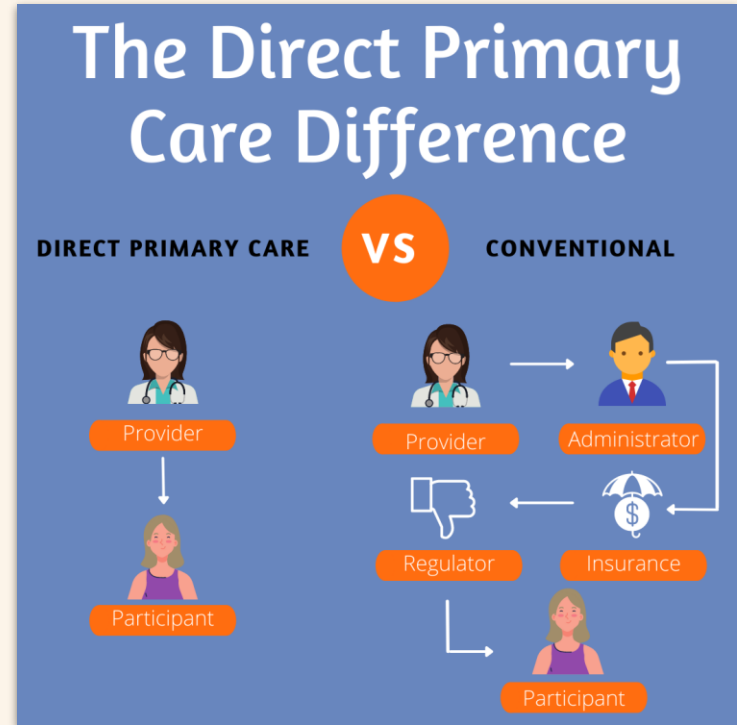
Tia: Tia integrates telehealth with in-person services to provide women with holistic healthcare. Patients can begin with virtual visits and transition to in-person care as needed, ensuring both **accessibility** and **personalization** in women's health.

Circle Medical: A virtual-first primary care provider partnered with **UCSF Health**, Circle Medical offers ongoing telehealth services for **chronic disease management**, preventive care, and same-day virtual visits, making healthcare accessible from anywhere.

Direct Primary Care

Forward: A tech-driven direct primary care model offering personalized care with a monthly membership, including unlimited visits, preventive care, and real-time health data.

The Direct Primary Care Difference

DIRECT PRIMARY CARE **VS** CONVENTIONAL

Provider — Participant

Provider — Administrator — Insurance — Regulator — Participant

Concierge Medicine

Eden Health:
A concierge healthcare provider offering a blend of **telehealth, in-person care**, and **behavioral health** services. Eden Health integrates care coordination for employers, ensuring seamless, personalized experiences. Patients benefit from 24/7 access to healthcare professionals and enhanced patient-provider relationships through continuous, individualized care.

Crossover Health:
Provides **membership-based concierge care** designed for self-insured employers. Crossover Health delivers comprehensive, personalized healthcare through **physical and virtual centers**, with a focus on preventive care, chronic disease management, and integrated wellness programs that cater to the specific needs of each patient.

Condition-Specific Virtual Care

Allara Health:
Specializes in virtual care for **women with polycystic ovary syndrome (PCOS)**. Allara Health offers personalized treatment plans through telehealth, connecting patients with specialists in **hormonal health** and **reproductive care**, supported by continuous coaching and lifestyle management.

Midi Health:
Focuses on **women's midlife health,** providing virtual care for conditions related to **menopause** and hormonal changes. Midi Health offers telehealth consultations with specialists, giving women personalized, comprehensive care to manage symptoms and improve their quality of life during this critical stage.

Pandia Health:
A telemedicine platform dedicated to **birth control management**. Pandia Health provides online prescriptions and medication delivery, ensuring consistent, easy access to contraception without the need for in-person visits.

Thank you!

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