

== THE PAST, PRESENT, & FUTURE OF THE ==

HEALTHCARE INSURANCE INDUSTRY



Healthcare insurance in the U.S. is considered to have started with the Great Depression in the 1930s. Since then, spending on healthcare has risen to over **\$7 trillion globally**.

The healthcare industry today is being shaped by advancements in technology and healthcare consumerism.

HOW IT ALL STARTED



The global private health insurance market is expected to reach roughly **3 TRILLION USD** by 2025. But its beginnings were much more humble.

EARLY BEGINNINGS

THE GREAT DEPRESSION - 1930S

- As hospital receipts began to decline, charity care increased.
- The administrator of Baylor University Hospital, Justin Kimble, created a plan:

1,250 Dallas public school teachers would each pay 50 cents a month and would be promised 21 days of care in the hospital

The plan did not cover physicians' services — only the hospital

- In Sacramento, California, a plan was established to cover services at any hospital in the city.
- By 1933, there were 26 "hospital service plans."

AMERICAN HOSPITAL ASSOCIATION (AHA)



In 1933, AHA established its Committee on Hospital Service and began approving plans.

In 1933, the New York state insurance commissioner ruled that these plans should be treated and managed as insurance.

The opposing argument stated that the hospitals' "reserves" were their ability to provide services, rather than funds in the bank.

State legislature resolved the dispute by specifying that these Blue Cross hospitals would be "nonprofit & exempt from reserve requirements & state premium taxes."

20TH CENTURY DEBATE:

COMMUNITY RATING VS. EXPERIENCE RATING

As health care insurance plans continued to change and evolve, a major development was the shift from a community rating to an experience rating.

COMMUNITY RATING

members of the plan were part of one large risk pool and premiums were based on projections of claim growth, which were then divided by the number of insured individuals

EXPERIENCE RATING

low-risk individuals were offered lower-priced insurance premiums, reflecting their likely lower risk of filing a claim

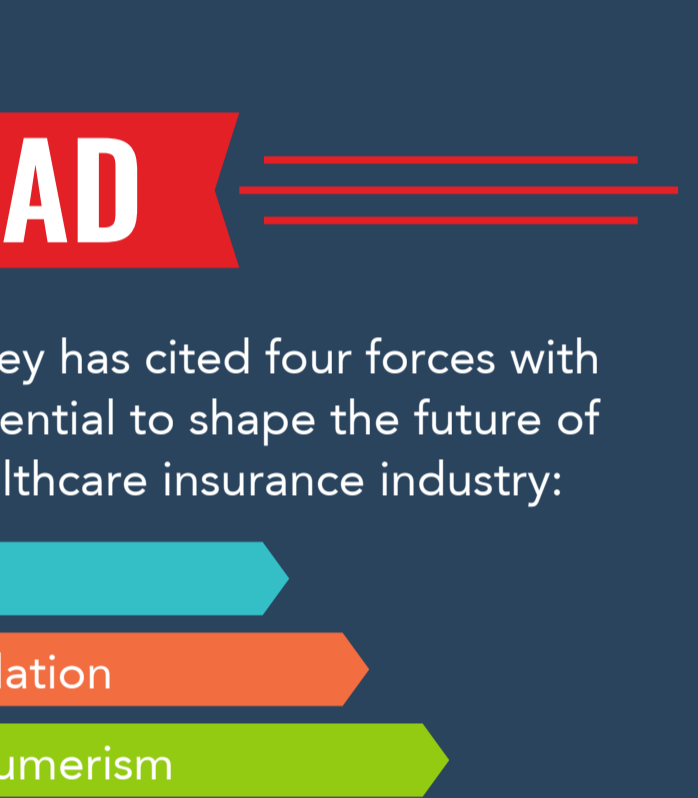
SNAPSHOT OF THE HEALTHCARE INSURANCE MARKET TODAY

- In 2016, 16.9% of U.S. GDP was spent on healthcare
- Drivers of health care spending and expenditure in developed markets:

Large aging population

Shifting patterns of care

Care for chronic conditions and communicable diseases



- Updating legacy technologies and infrastructure

LOOKING AHEAD



McKinsey has cited four forces with the potential to shape the future of the healthcare insurance industry:

- Risk
- Regulation
- Consumerism
- Technological innovation

TECHNOLOGY SPRINT



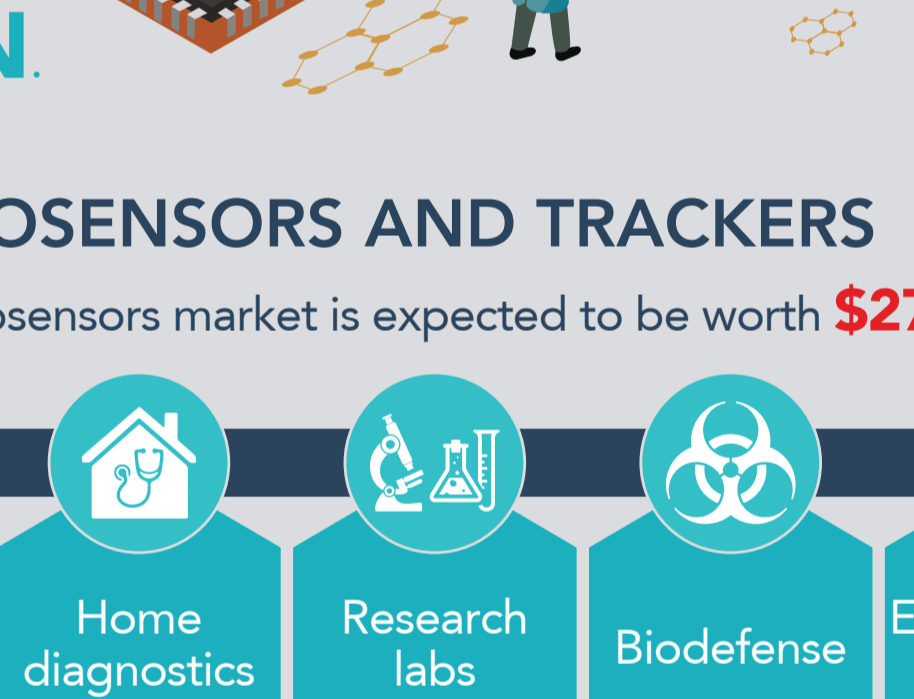
Developments in technology have spurred advancements across many areas in healthcare: prosthetics, point-of-care diagnostics, and fitness trackers, to name a few. Wellness apps & wearables have been welcomed by consumers and health care practitioners as a way to reduce the cost of chronic care by encouraging patients to take greater control of their lifestyle.

HEALTH TECH MARKET

3D PRINTING AND NANOTECHNOLOGY

By 2022, the global 3D printing medical devices market is expected to be worth **\$1.88 BILLION**.

By 2025, the global nanomedicine market is expected to reach **\$350.8 BILLION**.



APPLICATIONS:

- Prosthetics
- Medical implants
- Customized drug treatments
- Bioprinting
- Tissue fabrication

BIOSENSORS AND TRACKERS

By 2022, the global biosensors market is expected to be worth **\$27.06 BILLION**.

APPLICATIONS:

- Point-of-care diagnostics
- Home diagnostics
- Research labs
- Biodefense
- Environmental monitoring
- Food & beverage industry

ANALYZING THE IMPACT

THE IMPACT OF 3D PRINTING AND NANOTECHNOLOGY

Potentially remove the long waiting list for organs such as livers, lungs, or kidneys

3D-printed pills in different shapes can change drugs' release rates thereby improving effectiveness and efficiency

3D-printed casts can heal bones 40-80 percent faster than traditional casts, according to an article by HBR.

THE IMPACT OF BIOSENSORS AND HEALTH TRACKERS:

Benefits of remote patient monitoring (RPM) include improving outcomes for patients with the following conditions:

- 01 Obstructive pulmonary disease
- 02 Hypertension
- 03 Parkinson's disease
- 04 Low back pain

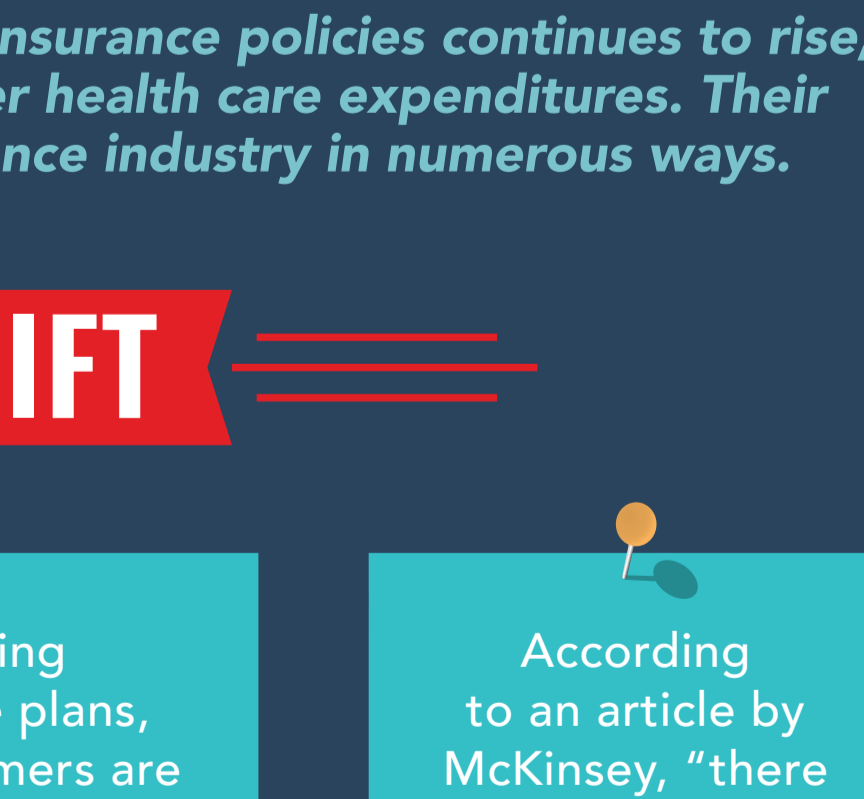
Wearables and fitness trackers are critical for:

- 01 Managing chronic or high-risk diseases
- 02 Personalizing treatment
- 03 Early diagnosis
- 04 Prevention

Biofeedback for individuals with the following conditions: Asthma, Anxiety, Cardiovascular disease Sagepub

In summary, these technologies have the potential to reduce the cost of chronic care and more efficiently serve the needs of aging patients.

HEALTHCARE CONSUMERISM



As the number of cost-sharing health care insurance policies continues to rise, consumers have even greater control over health care expenditures. Their choices will affect the health care insurance industry in numerous ways.

THE SHIFT

Consumerism can be defined as "the personalization of care to facilitate health outcomes."

When selecting health insurance plans, healthcare consumers are making their decisions based on multiple factors — not just price.

According to an article by McKinsey, "there is no 'average' healthcare consumer."

HEALTHCARE INSURANCE INDUSTRY RESPONSE

Healthcare insurance companies should segment customers according to clear objectives and develop a specific action plan to meet the needs of those segments. For example, a health insurer should analyze behavioral data to look at patient interactions with providers and payers.

Industry participants should consider the various nuances impacting consumer engagement:

- Consumer communication preferences
- Which consumers want to be engaged
- Engagement approaches

To design an "ecosystem" that meets the needs of consumers, industry professionals need to consider offering the right insurance products

Health insurance companies should understand that individual choices are influenced by cognitive biases, budget constraints, and time constraints.

CONCLUSION:

As consumers' needs evolve, so will the healthcare insurance industry. Still, one question remains. How well will the industry keep up?

SOURCES: https://www.nature.com/articles/s41746-017-0002-4 https://catalyst.nejm.org/consumerism-in-health-care/ https://journals.sagepub.com/doi/pdf/10.1177/1541931213601871 https://healthcare.mckinsey.com/enabling-healthcare-consumerism https://hbr.org/2016/03/3d-printing-is-already-changing-health-care https://www.grandviewresearch.com/press-release/global-nanomedicine-market https://www.researchgate.net/publication/281939684_Future_Medicine_The_Impact_of_3D_Printing https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Life-Sciences-Health-Care/gx-lshc-hc-outlook-2018.pdf https://www.pnwswire.com/news-releases/3d-printing-medical-devices-market-worth-188-billion-usd-by-2022-68616681.html https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/the-growth-opportunity-for-private-health-insurance-companies