Transformational paradigms poised to redefine healthcare delivery

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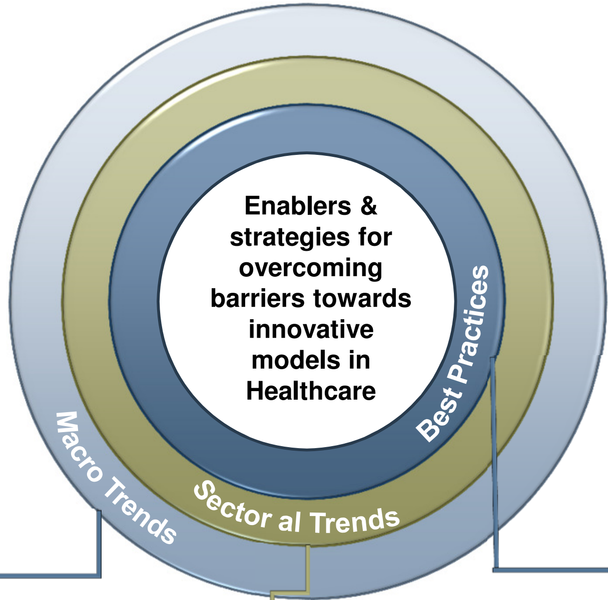
FROST & SULLIVAN

Frost & Sullivan's Transformational Health Practice Addresses the Forces Driving Change in Healthcare

Factors Transforming Healthcare	*From Today As-is-State (2015)*	*Future To-be-State (2025)*
Focus	Process/Provider Centric	Patient Centric & Participatory
Objective	Symptomatic, Curative	Predictive & Preventive
Access/ Location	Limited in-Hospital care (Centralized)	Any time, any place - Homecare (Decentralized)
Technology	Isolated Systems	Integrated Systems (Digital Medicine)
Treatment Methods	Episodic Care (Invasive)	Holistic Care (Minimum/Non Invasive)
Medication	Blockbuster Medicine	Personalized/Precision Medicine

How We Can Get There



Macro Trends – Overall Healthcare

Identify and analyse the Mega Trends and corresponding sub-trends that will have the strongest impact on existing business model

Sectoral Trends – Healthcare Delivery

Identify the future success potential of current and emerging business models across these industries.

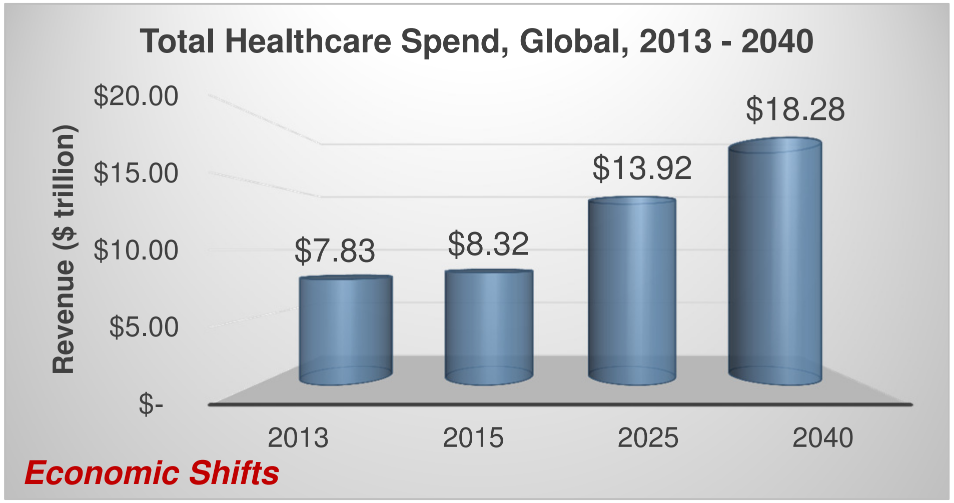
Best Practices – Company Specific

Illustrate the opportunities and emerging business model types across selected industries through industry best practices and case studies

The Impetus for Change

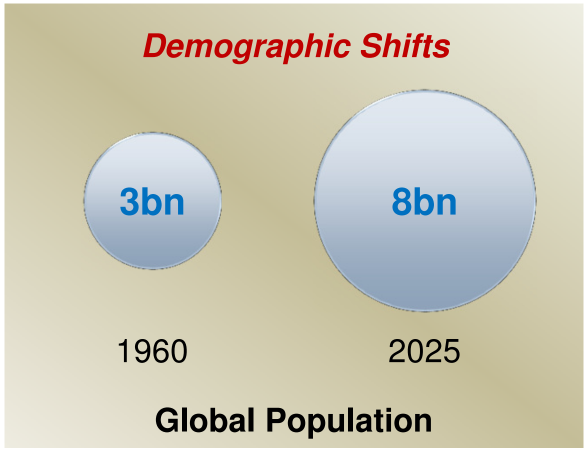
Macro Healthcare Spend Globally

It is expected that healthcare expenditure trends (2004-2014) will continue until 2025, with little change

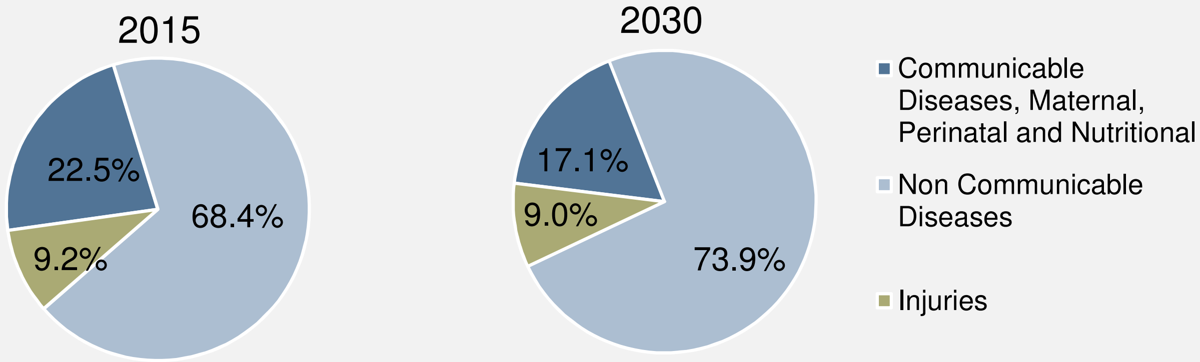


Ranking of regions by growth in healthcare expenditures (% of GDP), Global, 2015-2025

#1	Africa	#4	Europe
#2	Asia Pacific	#5	Middle East
#3	North America	#6	Latin America



Distribution of Deaths by Cause, Global, 2015 and 2030



Healthcare Approach – Personalization is Key

Customized care approaches will be the norm for healthcare

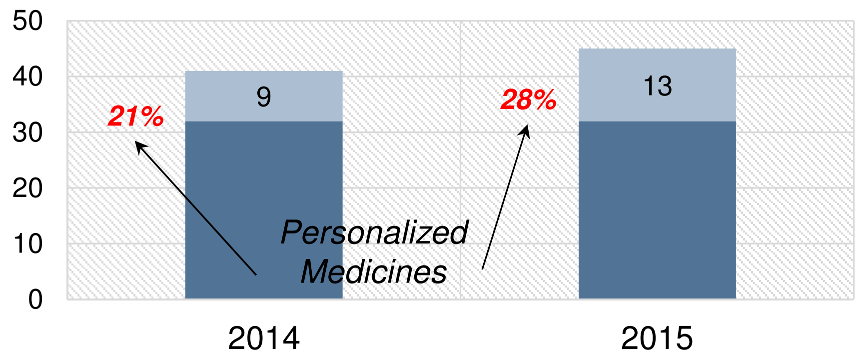
Patients'

- Genetics
- Eating habits' impact on health
- Response to medication

Are now being studied, moving away from the 'one-size-fits-all' approach

35% US patients feel **"Doctors largely provide an impersonal service and have no time for their patients."**

Personalized Medicines' Share of Novel New Drugs Approved by FDA, US, 2014 & 15



2014		2015	
• Zykadia	• Vimizim	• Nucala	• Rexulti
• Cardelga	• Harvoni	• Lonsurf	• Cholbam

Select Models

Benecure: Allows doctors to stratify chronic disease patients based on how well they are managing disease

23andMe: Launched a personalized medicine initiative in partnership with Pfizer for Lupus research

Non-Healthcare

YouBar: Customer selects contents of nutrition bar

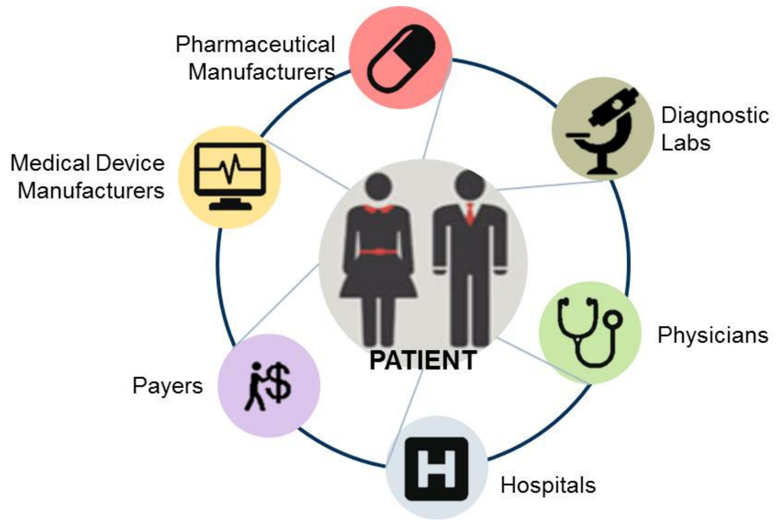
UPS My Choice: Time & location flexibility over home deliveries

Image Source: Respective company websites. Source: Prophet Survey, Personalized Medicine Coalition, Frost & Sullivan

Clinical Outcomes – Norm of Patient Centricity

Patient centricity and population health are moving beyond the buzzword status, with some stakeholders implementing processes and changes to adapt to the concepts.

Patient Centricity



Population Health Benefits

Patient

- Increased quality and efficiency of care
- Improved access to healthcare
- Fewer avoidable readmissions
- Higher satisfaction
- Personalized care
- Fewer ER visits
- Better health

Provider

- Synergy between providers, better patient outcomes
- Increased efficiencies for clinicians
- Shared risk and financial stability
- Patient lifecycle planning

Hospital

- Faster response times to quality issues
- Better management of funds
- Cost reduction
- More proactive care
- Shared risk

Select Models

ACUPERA

Population health tools use analytics that enable providers to segment and devise strategies for managing patient population

DATSTAT

Population health platform allows analysis of patient data (inside and outside clinic) with features like automated interactions and EHR integration

Non-Healthcare

UBER

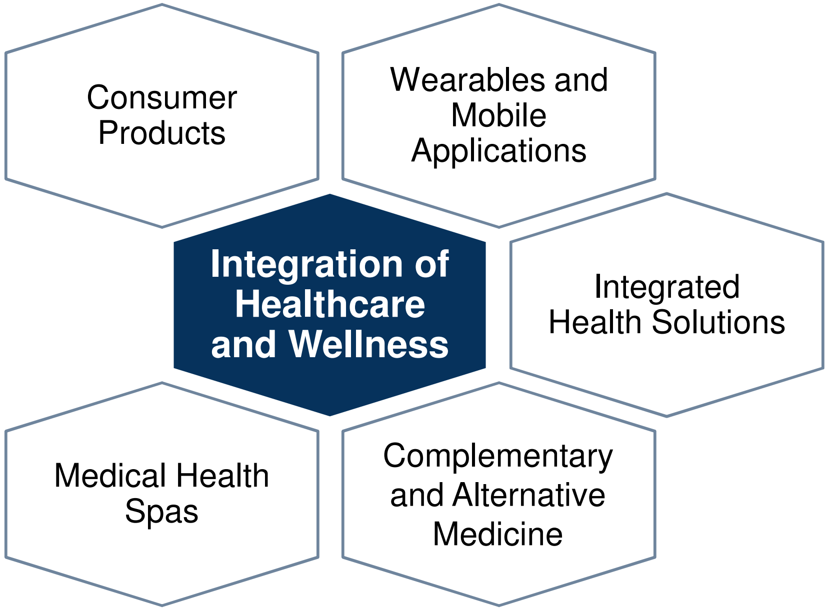
Meet customers where they are

Image Source: Frost Image Database. Respective company websites; Source: Beryl Health (now Stericycle Communication Solutions), Frost & Sullivan

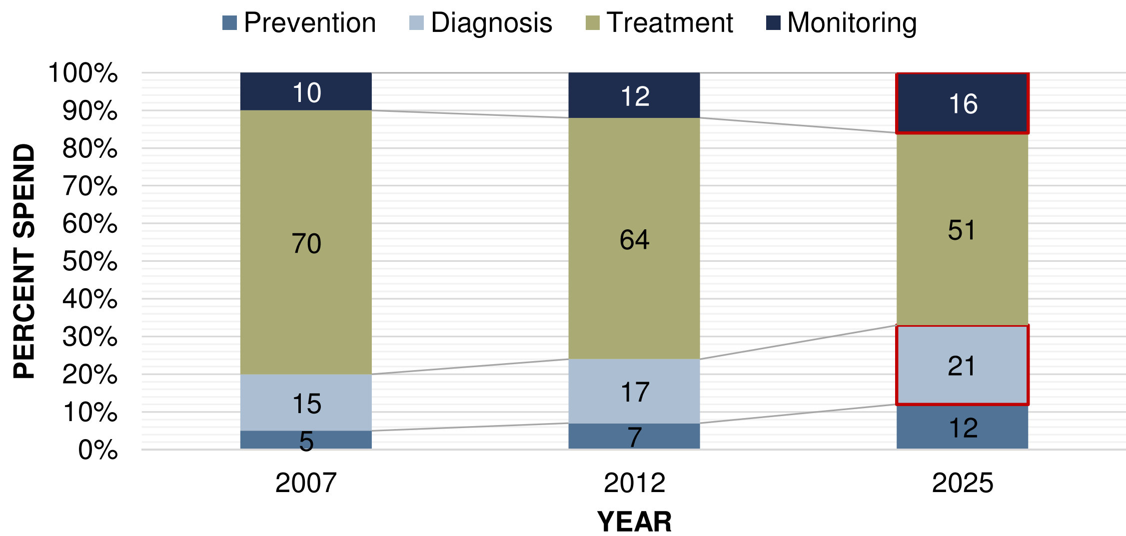
Treatment Focus – Shift to Wellness

Healthcare focus will shift from the sick to include the affected, vulnerable, and healthy, with the aim of prevention is better than cure

Healthcare Market: Healthcare Spend Areas, Global, 2015



Healthcare Market: Healthcare Spending by Type of Activity, Global, 2007–2025



Select Models

omada
16-week online prevention program for people with high risk of chronic disease

Counsyl
Genetic testing services to help people make knowledgeable decisions

HealthTap
Patients can virtually connect with doctors for health queries

And many more

Huneo
LUMO
neurotrack
fitbit

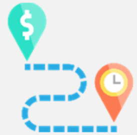
Government Policy Shifts

Macro-factors impacting government policies will shape the future of healthcare, and of other industries as well

Factors Influencing Policy Shifts


Population Growth


Climate Change


Migration


Technology

Other Healthcare-Affecting Policies

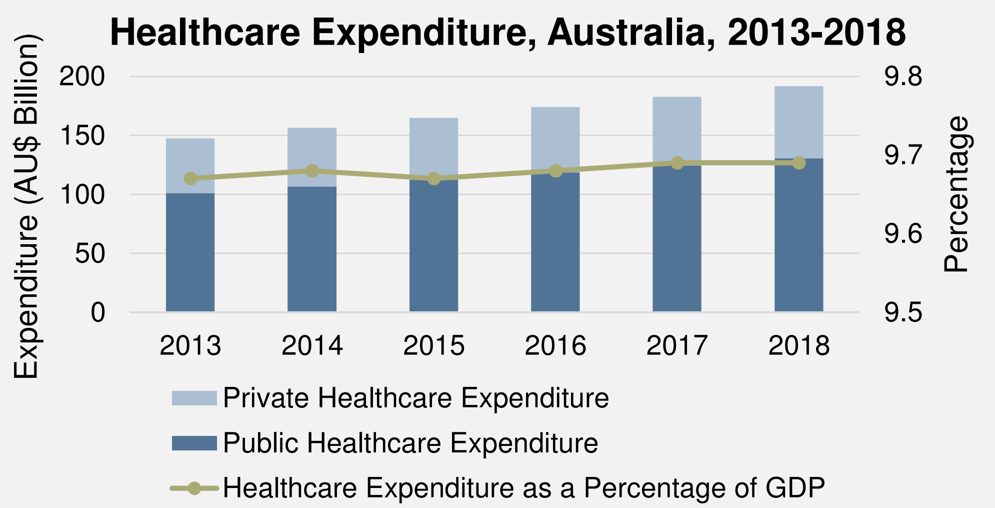
- Healthcare providers and manufacturers to invest in recycling and renewable energy resources
- Use of public transport systems encouraged to reduce carbon emissions
- Local business and communities preferred for healthcare trade
- Health literacy programs; part of school curriculums
- Financial incentives for retirees to lead a healthy life
- Income equality promotion
- Work-life balance improvements by regulating working hours

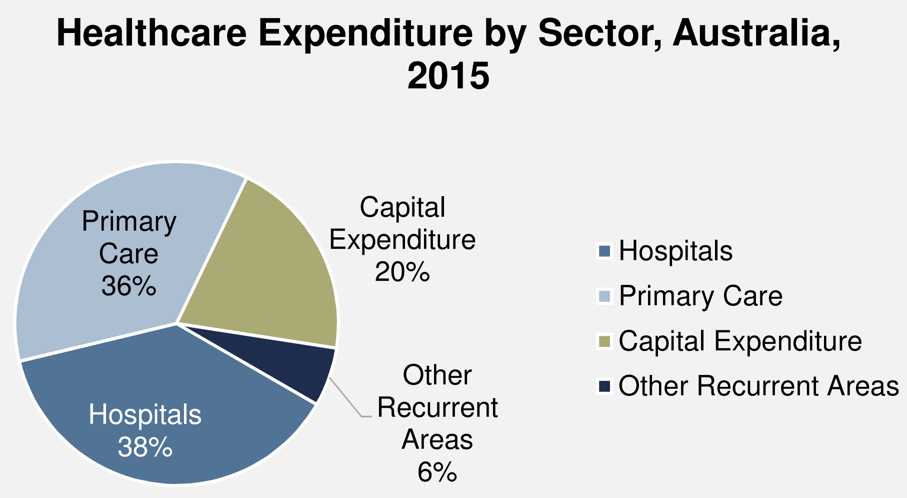
Healthcare Policy Shifts

- Focus on prevention, personalized health support
- Improving healthcare infrastructure a priority where necessary
- Hospitals focus on specialized treatments only; general, less-specialized care moves to other care delivery settings, including home
- Specific disease-focused efforts
- Increasing (% GDP) spend on healthcare
- Encourage walking, cycling and other carbon-neutral, health-enhancing modes of transport, supplemented by public networks

Australia within the Global Context

Healthcare expenditure per capita hits AUD 6,639… Not only the cost but also the sources of funding and their sustainability is a concern





Economic

Australian government expenditure on health and aged care systems will almost double from 18.5% in 2014 to 33% in 2050, a statistic that will see Australia overhauling its Medicare program and improve healthcare efficiency.

Socio-Political

Changes to health insurance regulation expected in Australia with the government framing new policies to provide care with 'value for money'.

Health

In its focus on tackling chronic NCDs, the government is targeting chronic diseases (>11 million overweight Australians)

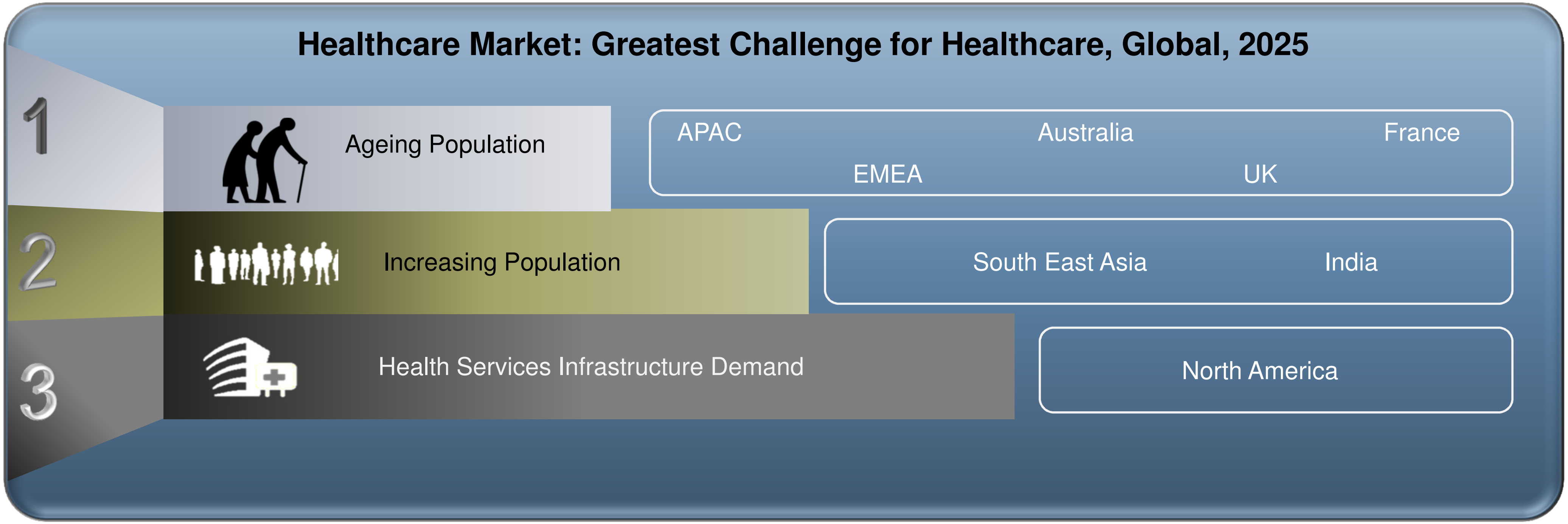
Techno-logy

Availability of advanced telehealth services in Australia and increasing costs of nursing home care will continue to allow growth of 'in-home' care.

Source: Australian Institute of Health and Welfare (AIHW); Frost & Sullivan

2025 Healthcare Regional Challenges

Ageing population, population growth and demand for infrastructure are perceived to be the top global healthcare challenges



A burgeoning population in South-East Asia, especially India, is likely to become the greatest challenge for the region. The APAC and EMEA areas will struggle to serve the healthcare needs of ageing populations by 2025. North America on the other hand perceives health services infrastructure to be the major challenge.

Note: APAC-Asia Pacific
EMEA-Europe Middle East North Africa

Image Source: Pixabay, Frost & Sullivan; Source: 'Healthcare in 2025' Polycom Survey, Frost & Sullivan

Regional Inhibitors for Achieving a Better Healthcare Future

Funding, healthcare access and lacking government support are universal issues; wealth distribution disparity and increase in chronic disease incidences are top inhibitors for some of the developed regions

Region	Inhibitor #1	Inhibitor #2	Inhibitor #3
North America	Access to healthcare	Wealth distribution disparity	Funding
Europe, Middle East, North Africa	Funding	Inadequate government support	Access to healthcare
UK	Funding	Inadequate government support	Rise in chronic diseases
France	Funding	-	-
Asia Pacific	Funding	Access to healthcare	Inadequate government support
Australia	Funding	Access to healthcare	Wealth distribution disparity
South-East Asia	Funding	Access to healthcare	Inadequate government support
India	Access to healthcare	Inadequate government support	Funding

Global

- #1 Funding
- #2 Access to healthcare
- #3 Inadequate government support
- #4 Wealth distribution disparity
- #5 Rise in chronic diseases

- Globally, funding is a major inhibitor for achieving healthcare 2025 goals
- Regional variations are reflected in the perceptions of healthcare inhibitors – wealth distribution disparity is a major issue for developed regions, but inadequate government support is more worrisome for developing regions.

Note: Results from a survey of 1,200 Healthcare professionals conducted by Polycom

Source: 'Healthcare in 2025' Polycom Survey, Frost & Sullivan

2025 Regional Focus on Technology Applications

Inaccessible, remote regions abundant in APAC prompt them to seek virtual care delivery; lack of public health awareness drives need for health education; effective care coordination is the demand in developed regions

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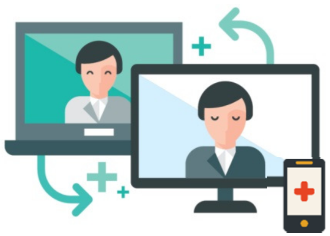


Virtual Care Delivery

APAC
Australia

2

Public Health Education

South-East Asia
India

3

Care Coordination

North America
EMEA
UK
France

Note: APAC-Asia Pacific
EMEA-Europe Middle East North Africa

Image Source: Thinkstock, flaticon; Source: 'Healthcare in 2025' Polycom Survey, Frost & Sullivan

The Future Healthcare Ecosystem

The Connected Healthcare Ecosystem

Integration & coordination of a broad spectrum of tools & technologies will result in seamless care delivery across settings

A connected ecosystem of sensors and devices on and around the individual serve the function of:

- Capture & Measure
- Identify
- Stratify Risks
- Inform
- Make Decision
- Take Action

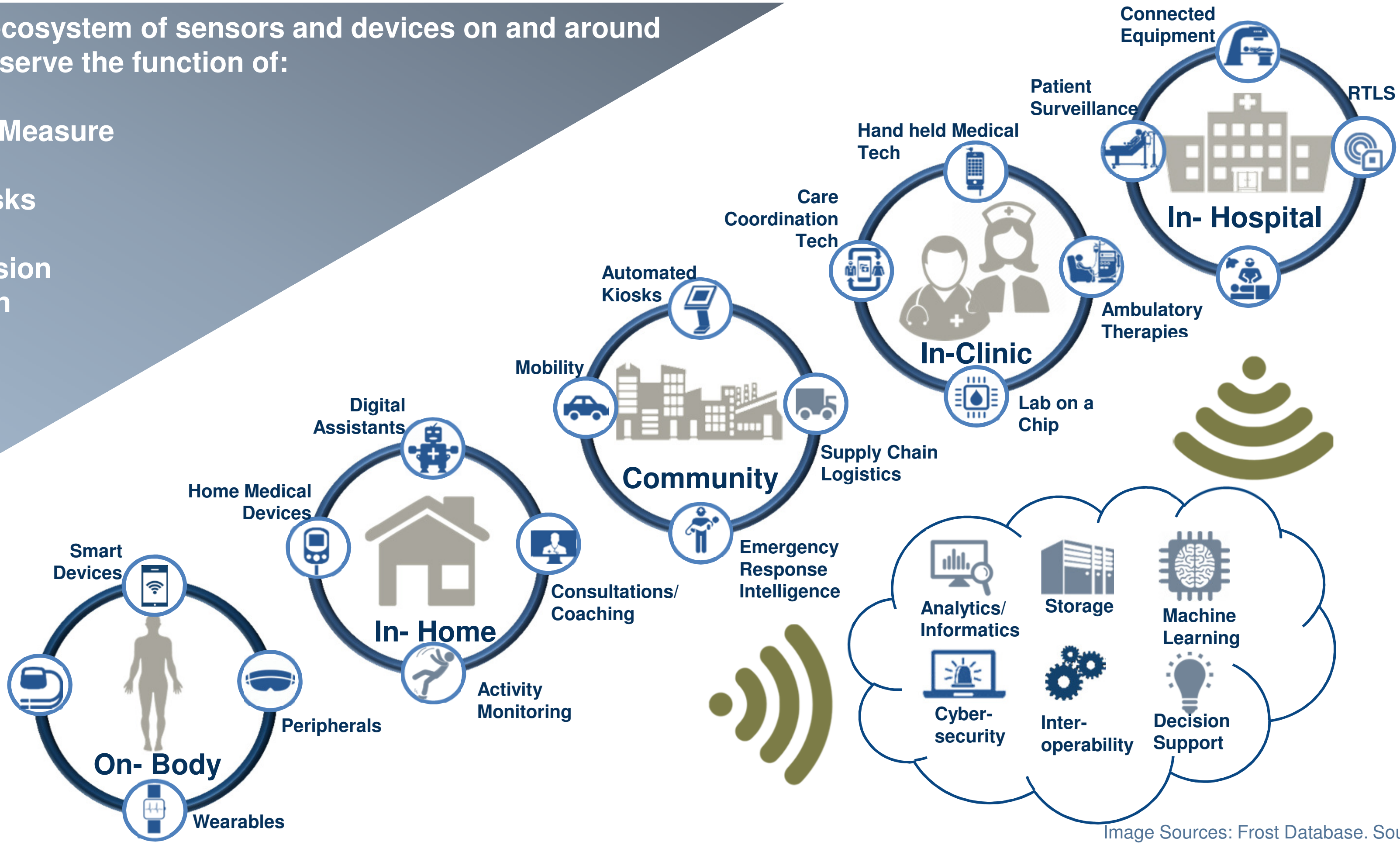


Image Sources: Frost Database. Source: Frost & Sullivan

Healthcare Industry Evolution

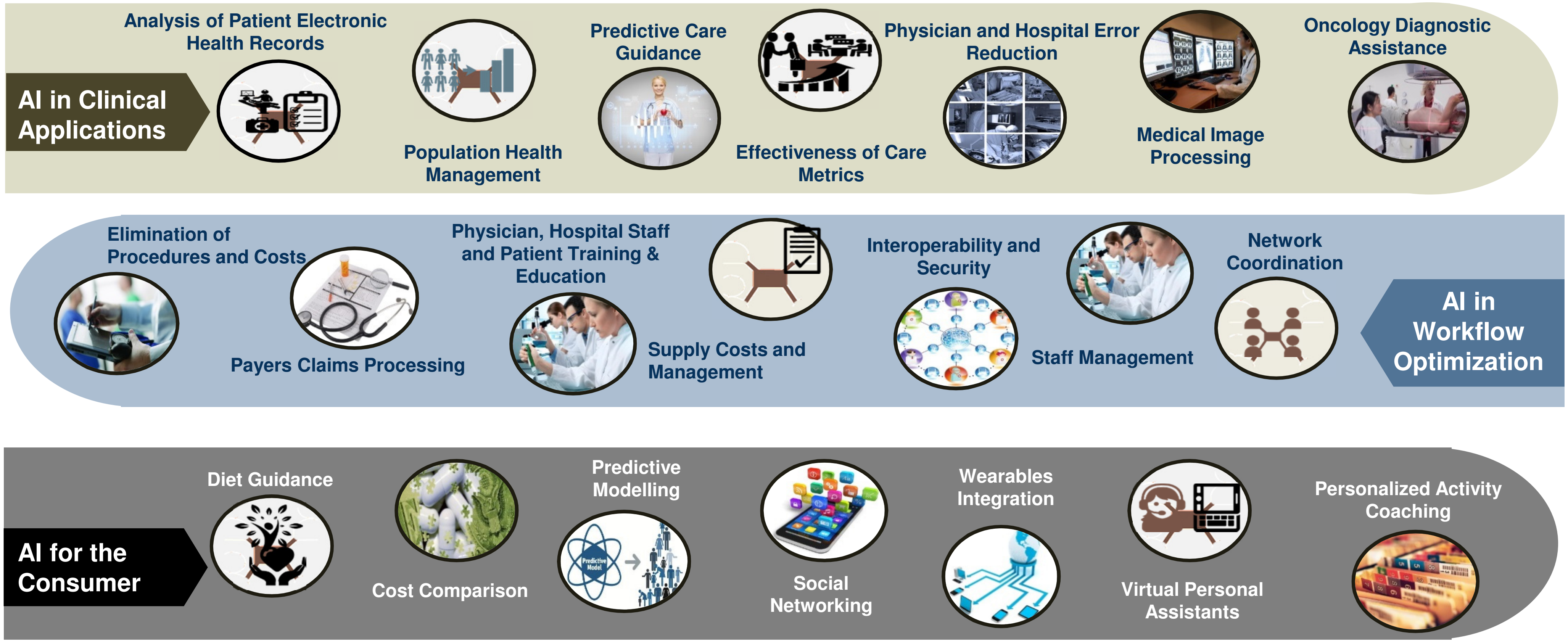
Marking an end of episodic and discrete treatment models, these new paradigms are aligned with long term strategy focus areas for payers, providers, patients, and solution developers

Image Sources: Thinkstock, Frost Database

Source: Frost & Sullivan

Healthcare Automation and AI will be Harnessed by Health Systems Increasingly to Enable Care and Reduce Costs

Use of AI beyond clinical can solve billions of dollars in administrative waste and enable patient engagement through deep learning systems



Concluding Thoughts

How will we integrate Primary Care and Home-based care considering the significant challenges population and growing incidence of chronic diseases?

Who will be our partners in the new era of open innovation?

How can we effectively create Digital Health Platforms, that extend your reach closer to the patient?

Where do we need to invest to move from a fee for service based model to an outcome and service-oriented business model?

How can we disrupt and transform the way healthcare is delivered?

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