BCG + Medi Assist + RAKSHA SUMMIT 2024

Borderless Health

November 2024

Foreword

India stands at the cusp of a generational leap towards vastly improved citizen outcomes, boldly framed under the Viksit Bharat aspiration. Transforming the health ecosystem holds the potential for the greatest impact on citizen welfare, especially given our relatively weaker starting position.

The challenge, however, is daunting. Addressing universal coverage, improving the quality of care, and tackling lifestyle and pollution-induced health conditions is the need of the hour. Borderless Health is conceived as the action agenda under which all stakeholders—policymakers, care providers, insurers, employers, and citizens—can collaborate to address India's unique health conundrum.

This report outlines the imperatives, the levers afforded to us from global learnings, data, automation and mobile technologies to create a comprehensive roadmap. It charts the path for India to achieve universal and quality healthcare coverage by 2047.

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Introduction

Borderless Health as the Cornerstone of Viksit Bharat

As India moves toward its "Viksit Bharat by 2047" vision, the welfare of our citizens across social, economic and health indicators becomes central to truly achieving this aspiration.

The **Viksit Bharat** vision emphasizes economic growth, social progress, technological advancement, and sustainability. The over-arching goal is underscored by India's ambition of evolving into a **$30 trillion economy** with a significantly higher per capita income of around $18,000-20,000. This vision is centered around eliminating prevalent barriers to access that hinders our citizens today. The Viksit Bharat vision therefore, focuses on building robust infrastructure that connects rural and urban areas, promotes digital governance that enables ubiquitous access, fosters green growth, and aims at ensuring India's self-reliance in defense and technology. The Viksit Bharat movement aims at establishing the roadmap for the longer-term transformation of delivering a healthier, more resilient and economically empowered India. (Refer Exhibit 1 below)

EXHIBIT 1 : INDIA'S VIKSIT BHARAT BY 2047 VISION

4 key pillars as building blocks of 'Viksit Bharat'

1 Employment

Employment linked incentives

- **First timers:** New entrants will receive a one-month salary up to INR 15,000
- **Job creation in manufacturing:** Subsidized EPFO contributions - both employers and employees
- **Support to employers:** Reimbursement to employers' EPFO contributions for all new hires for 2 years

2 Skilling

Train 20 lakhs youth over 5 years

- **ITI Upgradation:** 1,000 ITIs with outcome focused orientation
- **Improving affordability:**
  - **Skill loans** via guarantee fund to benefit 25,000 students/year
  - **Higher education** loans up to INR 10 lakh and e-vouchers benefitting 1,00,000 students/year

3 MSME

End to End support for MSMEs

- **Credit access:**
  - Credit guarantee fund
  - Ceiling expansion of Mudra loan (INR 10 to 20 lakhs)
  - New assessment models
- **Market Access:** E-commerce export hubs (MSMEs and artisans)
- **Push for food processing:** 50 multi-product food irradiation units

4 Middle class

Affordable housing and tax benefits

- Standard deduction increase to **INR 75,000 from 50,000** (new tax regime)
- **Long term capital gains:** Exemption limit increased on certain listed financial assets (INR 1,00,000 to 1,25,000/year)
- **PM Awas Yojana Urban 2.0:** Addressing housing needs of 1 crore urban poor and middle class families

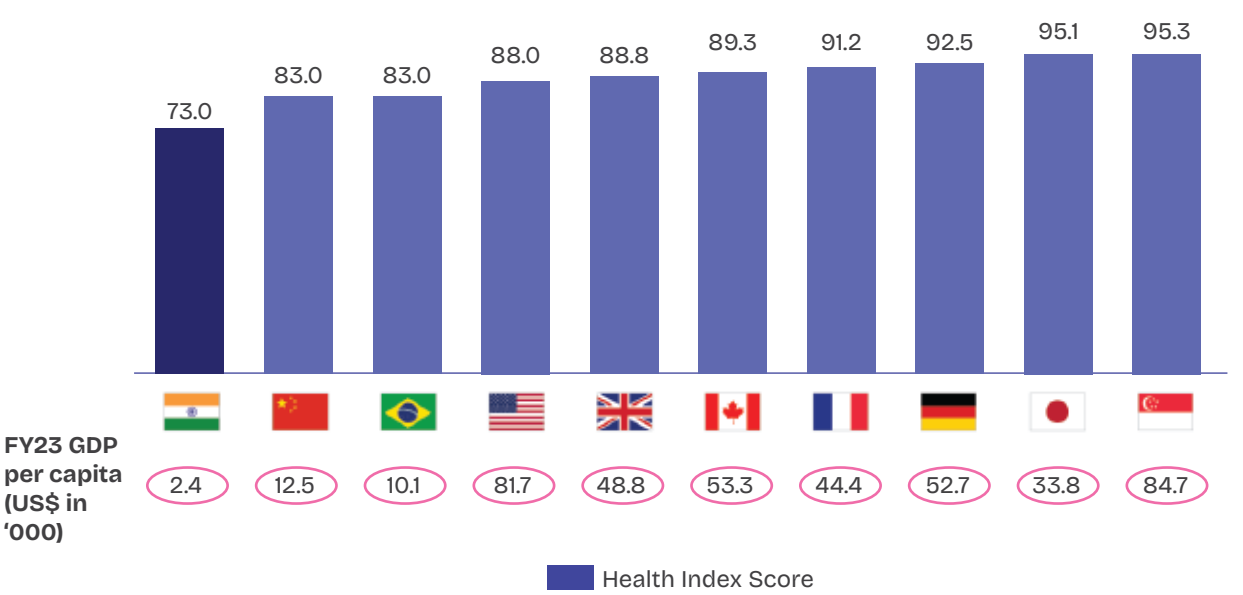
A central tenet of Viksit Bharat is to transform India's healthcare by removing barriers to access. As well as address the non-availability of worldclass healthcare paradigms prevalent globally. Viksit Bharat's healthcare vision spells out the imperative before India in creating a **universal healthcare system** accessible to all citizens. Goals include expanding the ambitious **Ayushman Bharat** coverage to a much higher proportion of citizens, introducing comprehensive benefits (e.g. 5 lakhs Sum Insured launched for senior citizens), strengthening Health and Wellness Centers (HWCs) to emphasize preventive care, and leveraging **digital health solutions** to increase healthcare reach and efficiency. The Viksit Bharat healthcare vision also aims to improve chronic disease management, encourage mental health support, and integrate more public-private partnerships to address infrastructure and service gaps, especially in underserved regions.

1.1 Health as a Core Driver of National Development

The Viksit Bharat healthcare vision is even more laudable given the strong correlation that is evidenced between citizen-health and prosperity of nation states. Healthier nations have more resilient economies, empirically premised on higher quality of producers in the economy, in turn driving growth and productivity. A review of Bloomberg's Global Health Index 2024 confirms this view with high GDP per-capita countries like Japan, Germany, and Singapore characterized by typically, higher Health Index Scores while lower GDP per capita nations tend to be associated with significantly lower Health Index scores. Interestingly, the U.S. ranks lower on health efficiency compared to many developed countries, primarily due to high obesity rates and chronic diseases. In contrast, India's Health Index Score is relatively lower (lowest among 10 peer countries as showcased in Exhibit 2), suggesting that while India is growing rapidly, focusing on improving health outcomes can further enhance productivity and sustain long-term economic growth and improve quality of life and livelihood.

EXHIBIT 2 : HEALTH QUALITY INDEX FOR INDIA VS. PEERS

Improving health quality index can further boost India's GDP growth



Source: World Bank - GDP Data: World Bank GDP Data by Country; Bloomberg's Global Health Index For 2024

1.2 India's Health Evolution

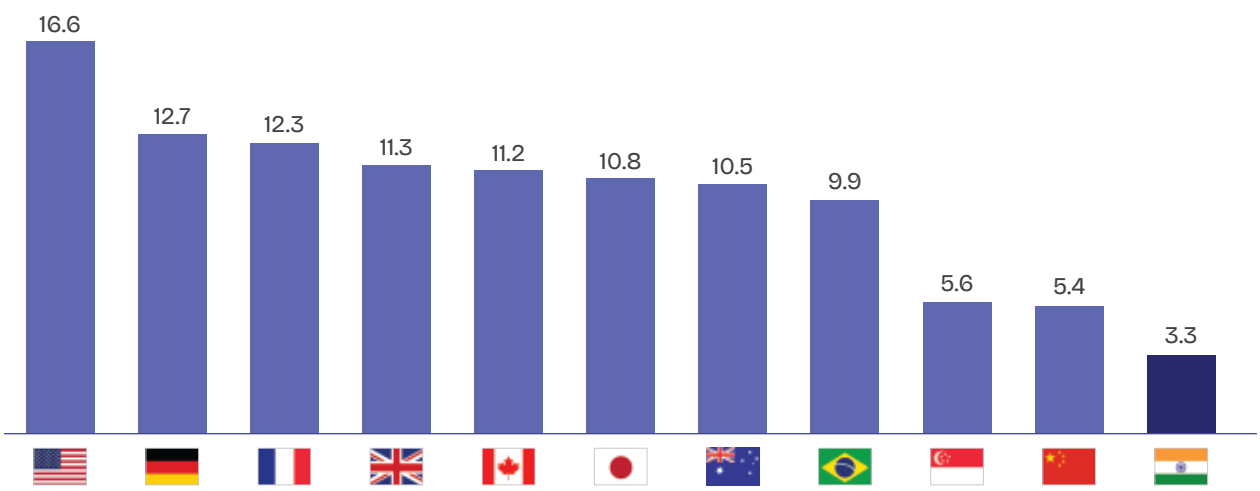
Rapid Strides Made, Hard Yards Ahead

India's health expenditure as a percentage of GDP stands at merely **3.3%,** which is significantly lower when compared to other countries globally (Refer Exhibit 3 below). The United States, with the highest spending amongst the developed nations, allocates **16.6%** of its GDP to healthcare, while countries like Germany and France spend **12.7%** and **12.3%,** respectively. Even emerging economies like Brazil, at 9.9%, allocate a substantially larger portion of their GDP to healthcare than India.

This lower expenditure in India coupled with underinsurance has resulted in a heavy burden to common citizens who incur significant out-of-pocket payments for healthcare given the relatively underfunded public healthcare system. The lower public-health spend to GDP policy stance has meant reduced availability and often lower quality of healthcare services, particularly in rural areas. Our nation's healthcare and insurance policy paradigm would need to solve for the nuances of each economic and geographic strata incorporating the unique preferences, challenges and affordability constraints. Hence, a one-size-fits-all approach would not be appropriate to fully address the intricacies embedded within the context of India and its diversity, both economic, geographic, cultural and societal.

EXHIBIT 3 : COUNTRY-WISE HEALTH SPEND AS % OF GDP

Country-wise health expenditure (%)



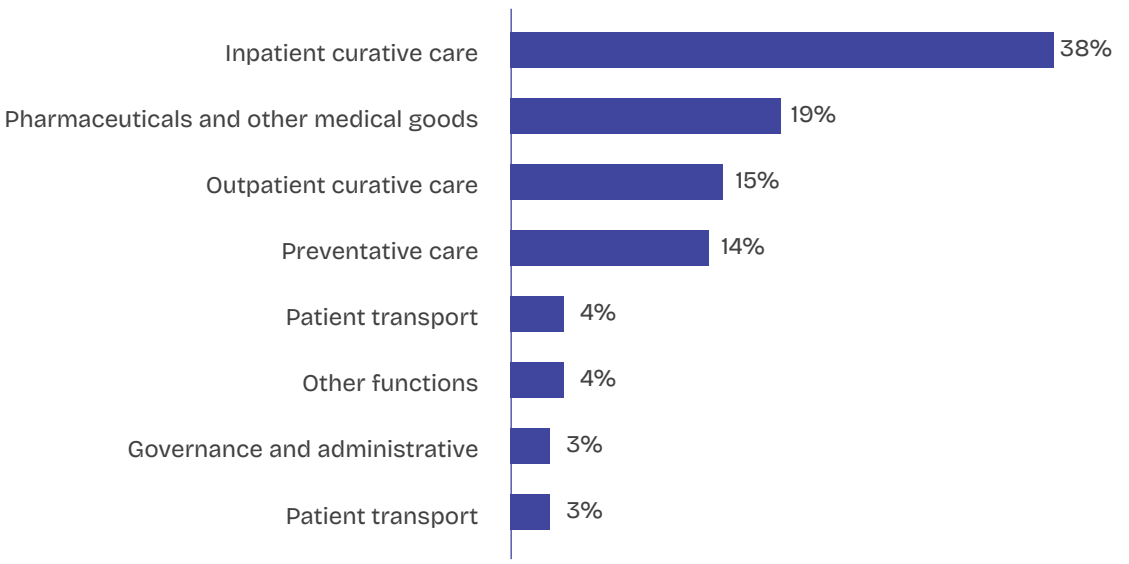
Source: World bank current health expenditure (% of GDP) 2024; latest data available for 2021/2022

The lower public-health spend has also, manifested itself in a unique profile of health-related expenditure. India's healthcare spending has a disproportionate share of outpatient expenses cutting across consultations, diagnostics and preventive care and pharma/ others. Furthermore, with over 70% OPD consultations requiring repeat visits, there is a significant opportunity for us to improve the effectiveness of our care paradigms and perhaps leverage technology enabled or powered by digital, AI or even GenAI to improve overall OPD care effectiveness.

Healthcare spending is heavily skewed toward hospital-based (curative) care, which consumes approximately 38% of total healthcare spending, primarily covering inpatient services and treatments. In contrast, preventive care receives only about 14% of total spending, which includes health screenings, immunizations, and public health education. Additionally, ambulatory care (outpatient services), which includes managing chronic diseases, accounts for around 15% of the spending. (Refer Exhibit 4 below)

EXHIBIT 4 : HEALTHCARE SPEND PROFILE BREAK-UP

Distribution of current health expenditure basis functions



Source: HFS Research, National Health Accounts Estimates for India 2021-22 published in 2024

This imbalance in spending indicates a strong focus on reactive healthcare, where resources are allocated toward treatment after health issues arise rather than preventing them. This model leads to long-term inefficiencies, such as increased hospital burdens and higher healthcare costs, as curative treatments are generally more resource-intensive than preventive interventions. Shifting more resources towards preventive care could help reduce the incidence of chronic diseases and hospital admissions, leading to improved population health outcomes and lower healthcare costs over time. Expanding preventive health initiatives would support India's broader goals of building a sustainable and cost-effective healthcare system.

The Out-of-Pocket burden

Healthcare costs in India are surging, with an 11.4% increase in claim sizes and medical inflation at 14% in 2023. This underscores the importance of comprehensive insurance coverage to mitigate the financial burden on families, especially since the burden of healthcare costs is primarily shouldered by out-of-pocket (OOP) payments, which account for around 45% of total healthcare expenditures, one of the highest levels globally.

Demographical and Regional health disparities

There are notable health trends, showcasing demographic and regional disparities in healthcare needs across India from FY23 to FY25: (Refer Exhibit 5 below)

Cardiac and Cancer Burden

States like Delhi, Maharashtra, and Telangana show rising claims for cancer and cardiac issues, highlighting a high disease burden in urban centers. In Telangana, cancer-related claims increased by **16.7%** from FY23 to FY25, while cardiac claims rose by **8.7%** in the same period. In Delhi, cardiac claims surged by **24%.** Overall, there is higher increase in costs for women (7-8%) vs men (4-5%) attributed to rising incidence of Cancer, Cardiac and Cataract cases.

Respiratory Issues in Urban Centers

Delhi and Maharashtra consistently report high respiratory-related claims, correlating with higher pollution levels in these areas. For instance, respiratory claims in Delhi climbed by 8.3% from **FY23 to FY25**, pointing to an urgent need for more respiratory health programs in these states. Overall respiratory disorders have had the highest increase with 10-12% YoY.

Maternity and Female Health Needs

Maternity claims, especially for C-sections, are rising in states like Maharashtra, where female claims increased by **17.9%** from FY23 to FY25. This reflects increased utilization of maternity services, emphasizing the need for expanded women's health coverage.

EXHIBIT 5 : INSIGHTS ON HEALTHCARE COST BY AILMENTS & STATES

State with highest increase in healthcare cost

States	Rank order	Leading city contributors
Delhi	1	New Delhi
Maharashtra	2	Mumbai, Raigad, Nashik
Andhra Pradesh	3	Guntur, Visakhapatnam
Uttar Pradesh	4	Ghaziabad, Noida
Kerala	5	Thiruvananthapuram
Rajasthan	6	Jaipur
Karnataka	7	Mangalore
Telangana	8	Hyderabad
West Bengal	9	
Madhya Pradesh	10	
Haryana	11	
Tamil Nadu	12	
Gujarat	13	
Punjab	14	
Chhattisgarh	15	
Odisha	16	
Bihar	17	
Jharkhand	18	

Ailment wise increase in costs

Ailment	Rank order
Respiratory	1
Cardiac	2
Cancer	3
Cataract	4
Maternity	5
Kidney	6

Incident rate increase FY24 vs. FY23

Ailment	Rank order
Cancer	1
Cardiac	2
Cataract	3
Kidney	4
Maternity	5
Respiratory	6

Source: Medi Assist internal data

Insurance coverage is gradually increasing but still represents a smaller portion of healthcare spending. Government schemes, like **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY),** along with employer-based health insurance, contribute to the health spending landscape but do not fully offset OOP expenses. Private insurance in the retail segment covers an estimated **5-7%** of healthcare costs, while corporate health plans provide partial coverage for formal sector employees.

Despite efforts to expand insurance coverage, the relatively low insurance penetration and limitations in coverage (e.g., sub-limits, deductibles, and co-pays) lead to a high OOP burden. This underscores the issue of **underinsurance** in India, where existing policies often fail to cover the full range of medical expenses, driving up out-of-pocket costs for both retail and corporate policyholders. Fundamental drivers for this high OOP spending primarily include the list below:

- **Non-Medical Expenses (NME):** In both retail and corporate plans, non-medical expenses account for **8-10%** of total costs. This includes items not covered under the sum insured, which policyholders have to pay out-of-pocket.
- **Proportionate Deduction and Copay:** Retail plans have higher **proportionate deductions** (2-3%) than corporate plans (1-2%), while corporate plans have a higher **copay** requirement (7-9% vs. 4-5% in retail). These deductions and copayments mean that even with insurance, individuals often pay a significant portion of healthcare costs directly.
- **Excess over Sum Insured and Sub Limits:** Expenses exceeding the sum insured and sub-limits on treatments lead to **5-7% and 2-3%** additional out-of-pocket costs in both retail and corporate plans. This is particularly challenging in cases of serious illness or hospitalization, where costs frequently exceed coverage limits.
- **Other Deductions (Intimation Penalties, etc.):** Miscellaneous deductions such as penalties for late intimation of claims or deductibles further add **0.5-1%** to the OOP burden.

Hence, we have two fundamental challenges underpinning the OOP burden:

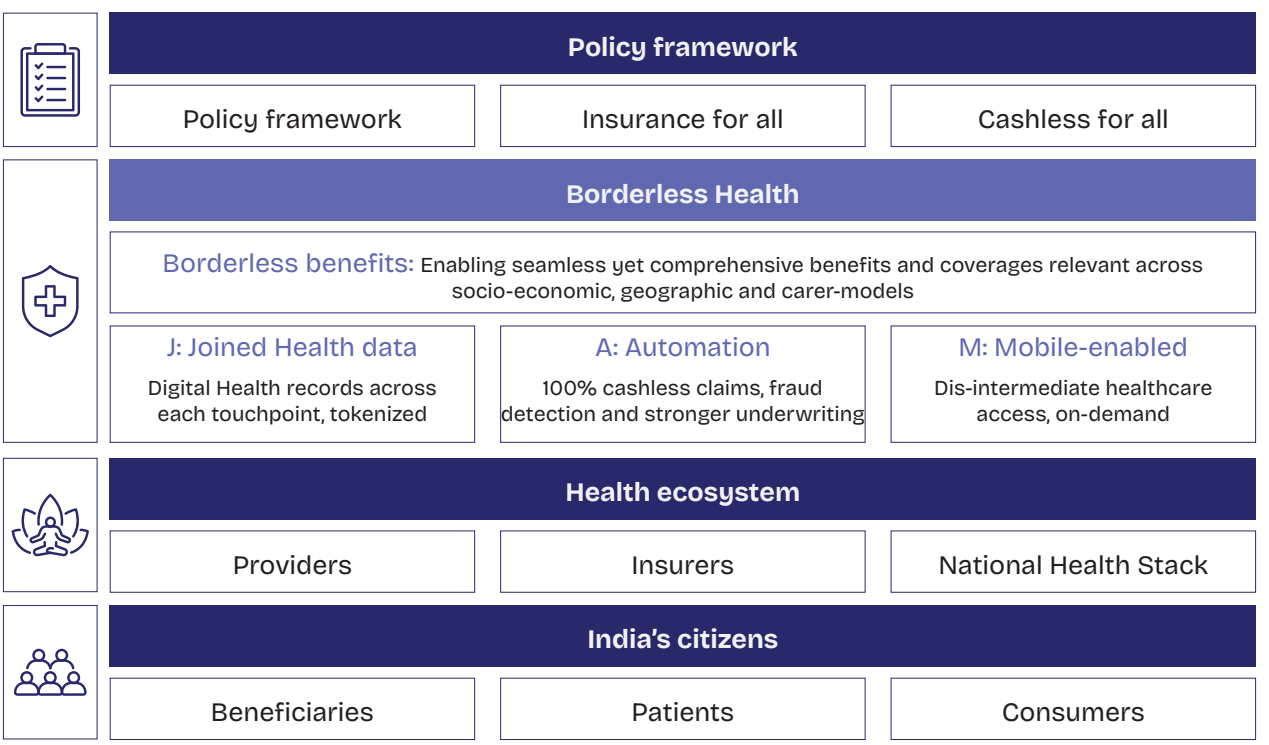
- **Lack of Insurance penetration** where a massive expansion in strategies by the Government with universal public health insurance programs like PM-JAY and strategies by Insurers would need to be tailored to challenges in each customer segment x geographic tier to drive up adoption.
- **Under-insurance within the insured base:** Need to re-imagine healthcare and health insurance policies to offer more comprehensive coverage to reduce the overall OOP challenge which is a significant drain on citizens.

1.3 Borderless Health

A Vision to Bridge the Barriers

Borderless Health is an execution paradigm that would enable maximizing efficiency of the country's medical infrastructure and networks of care-providers vis-a-vis the India's policies and objectives. Borderless Health would be centered around defining a true choice architecture where each citizen can access relevant care packages and borderless benefits which could be availed across the country seamlessly. To enable and deliver the vision, Borderless Health would heavily leverage the troika of the Medical JAM – Joined Health Data, Automation and Mobile-enabled. (Refer Exhibit 6 below)

EXHIBIT 6 : "BORDERLESS HEALTH" AN EXECUTION PARADIGM TO DELIVER INDIA'S VIKSIT BHARAT HEALTHCARE ASPIRATION



02

Health Benefits

Becoming Borderless

As India strives to achieve its vision of Borderless Health, it is essential to address the diverse health needs across various segments of India's population. The health paradigm would also need to cater to the various nuances from insurance provisioning models straddling universal basic insurance offered by government-linked schemes to those availing mandatory group insurance via corporates as employers or to the individual coverages opted for by individuals directly. By leveraging both global benchmarks and insights from Indian care packages, we can create a comprehensive, modular, and inclusive healthcare system that works for all segments of society.

2.1 A Tale of Three Indias

The concept of Borderless Health envisions healthcare that transcends traditional boundaries—be it geographical, institutional, or even the conventional ways healthcare is delivered. India's healthcare landscape is highly segmented based on income and access, shaping health coverage across urban and rural areas with significant gaps in access and coverage across different socio-economic groups. These gaps reflect the need for a borderless approach that harmonizes health benefits across the country:

Affluent India

Affluent group residing in Metro/Tier 1/ 2 cities who are covered by either corporate group insurance and/or individual insurance brought directly, enjoy access to advanced medical treatments, outpatient care, and wellness programs.

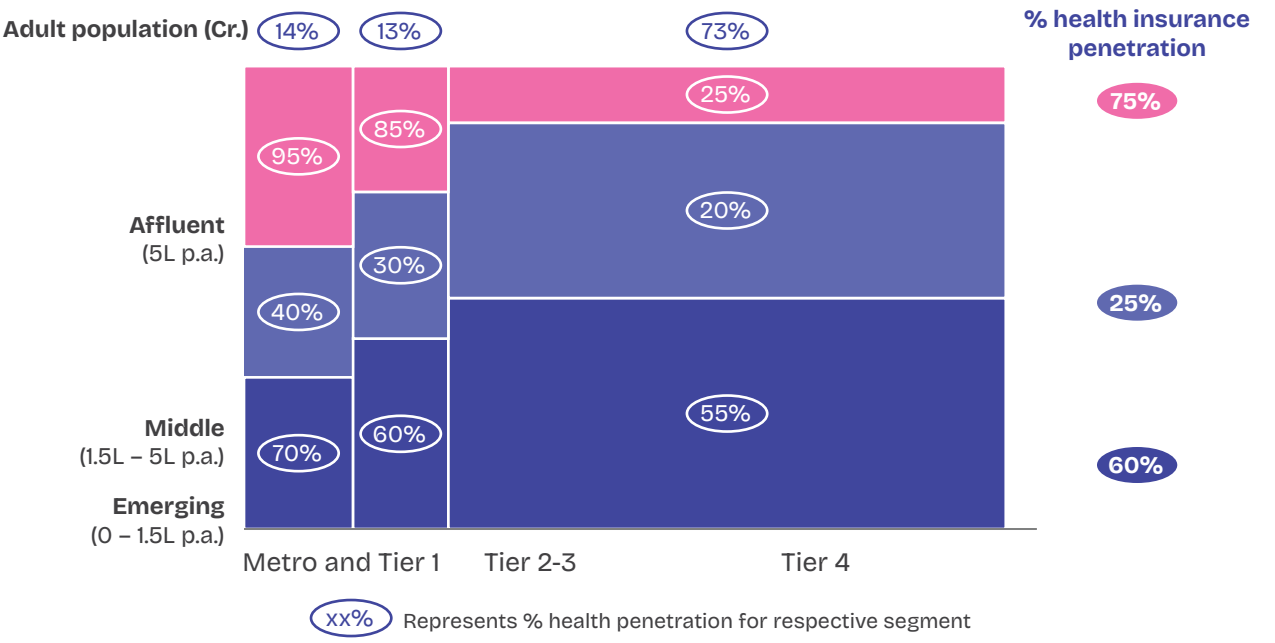
Middle India

Middle-income group citizens typically residing in Tier 2/3/4 cities and rural areas often reliant on employer-provided group insurance, have coverages that focuses on hospitalization but lacks access to preventive care, outpatient care, chronic disease management, and mental health services.

Emerging India

The lower-income population in Metro/Tier 1/ 2/3/4 cities and rural areas who are largely reliant on public healthcare schemes like Ayushman Bharat, often face limited coverage for hospitalization, preventive care, outpatient services, and mental health support.

EXHIBIT 7 : A TALE OF THREE INDIAS-EACH WITH THEIR OWN DYNAMICS



Source: IRDAI, CCI data, BCG analysis

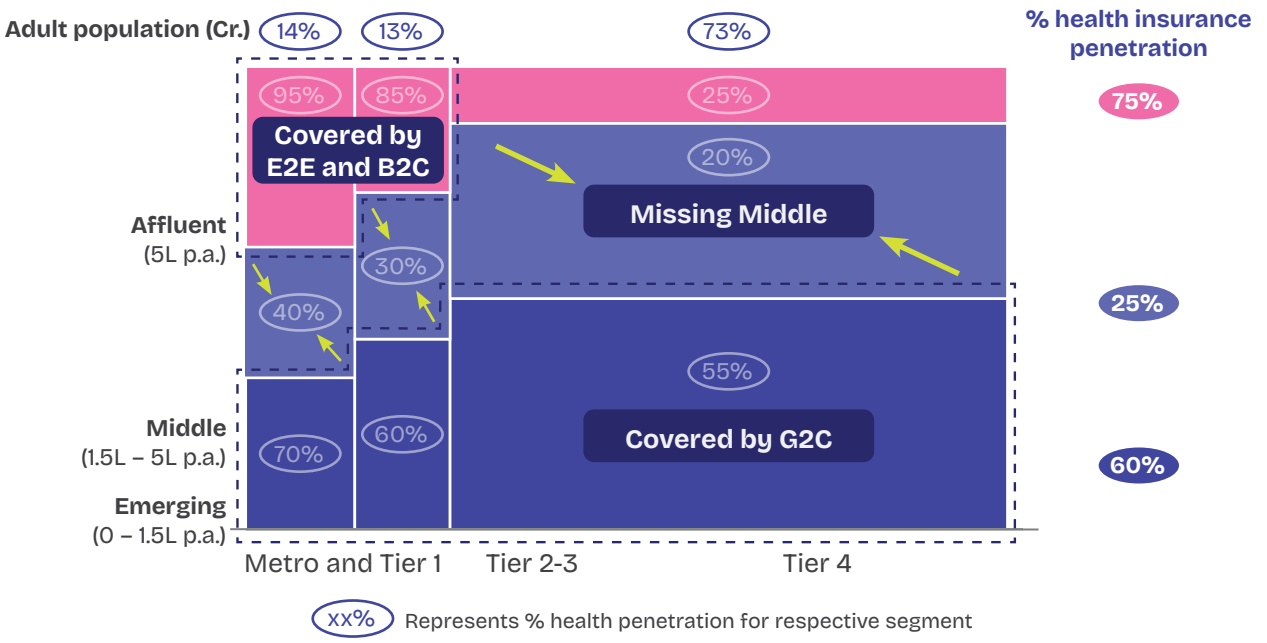
While Affluent India (~14% of total population) surges ahead with strong health insurance coverage at ~75%, both Middle India (~13% of total population) and Emerging India (~73% of total population) are currently lagging behind both in quantum and quality of health coverage. Affluent India is already well covered by private retail health insurance and/or Employer-employee coverage. However, Affluent India segment in Tier 4+ regions still face massive out-of-pocket burdens with only ~25% having availed formal health insurance (primarily through retail private insurers). (Refer Exhibit 7)

Emerging India on the other hand suffers from inadequate coverage with government (Union/ State) health insurance coverages currently capping out at ~5 Lakhs. We have made good progress with ~60% health insurance penetration in Emerging India through G2C schemes but the under-insured burden in Emerging India is still alarming. The fact that G2C medical covers are the only source of medical coverage for Emerging India, makes it even more pertinent to drive universal access and start driving up healthcare coverage limits with the right investments in healthcare infrastructure. High decibel adoption drives to ensure universal enrolment in the Tier 4+ regions to bring up the penetration from the current ~60% are the need of the hour.

Lastly, Middle India is often characterized as the "Missing Middle" given its neither the focus of private insurers nor well covered by G2C universal healthcare schemes. The overall health insurance penetration in Middle India is the lowest at ~25%. Beyond the Metro-Tier 1 in Middle India, health insurance penetration drops off dramatically indicating a structural gap and a need for health insurers and G2C schemes to start focusing on Middle India with the right products that balance affordability with appropriate coverages. (Refer Exhibit 8 below)

To address these disparities, India must adopt a borderless health benefits system that offers comprehensive, modular coverage tailored to the needs of all segments of the population, regardless of socio-economic status or employment type.

EXHIBIT 8 : A TALE OF THREE INDIAS-EACH WITH THEIR OWN DYNAMICS



2.2 The Three Vectors of Health Benefits Delivery

To achieve borderless health benefits, India must optimize health benefits delivery, care paradigms and insurance coverage across three key vectors:

G2C (Government to Citizen)

These are government-backed health insurance schemes, like Ayushman Bharat, aimed at providing affordable or free healthcare to lower-income populations i.e. Emerging India. They focus on essential inpatient and hospitalization services and aim to reduce out-of-pocket expenses for the underserved population.

E2E (Employer to Employee)

Typically offered by companies to their employees as a workplace benefit, these group health insurance plans cover hospitalization, sometimes extending to outpatient services and wellness programs. Coverage can vary widely based on company policy, with larger employers often offering more comprehensive benefits.

B2C (Business to Customer)

Individually purchased health insurance plans catering to those who may not have employer or government provided coverage or those who want a more comprehensive coverage than being offered by their employer.

2.3 India's Current Health Benefit Landscape

India currently has all three delivery vectors active- G2C, E2E as well as B2C. The three vectors address the needs of different segments to varying degrees. Refer Exhibit 9 for comparison of coverage across the three delivery vectors.

2.3.1 G2C (Government to Citizen)

Coverage:

As of 2023, approximately 50% of India's population is covered by government health insurance schemes, primarily through Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY) and various state-sponsored health insurance programs. PM-JAY alone covers around 40% of the most economically vulnerable populations, targeting 55 crore (550 million) individuals.

Offering: Key offerings of PM-JAY and similar schemes

1. **Hospitalization Coverage:** Provides cashless access to secondary and tertiary care with up to ₹5 lakh (approximately $6,700) coverage per family per year.
2. **Access to Public and Private Hospitals:** Empaneled hospitals, both public and private, across the country offer treatments under PM-JAY, ensuring broad reach.
3. **Focus on Catastrophic Health Expenses:** The scheme aims to prevent financial hardship by covering major health expenses, especially for catastrophes that require hospitalization.
4. **Preventive Care and Health Promotion:** PM-JAY operates alongside Health and Wellness Centres (HWCs), part of Ayushman Bharat's focus on preventive care to reduce the disease burden over time.

Challenges: Current government schemes have limited coverage scope, several exclusions and also suffer from partial reimbursements. Hence, it must expand to include outpatient care, preventive care, and chronic disease management. For example, Ayushman Bharat can integrate modular packages for routine screenings, vaccinations, rehabilitative care and mental health support to improve the comprehensiveness of public healthcare. As of 2021-22, OOP expenses still constituted about 45% of total health expenditure.

2.3.2 E2E (Employer to Employee)

Coverage:

Approximately 10-15% of India's population is currently covered by employer-sponsored health insurance. This coverage primarily benefits employees in the formal sector, typically in medium and large enterprises, and includes immediate family members for many policies.

Offering: Key offerings of employer-sponsored health insurance in India

1. **Comprehensive Hospitalization Coverage:** Most plans cover inpatient care, including surgery and hospitalization costs, which is critical in high-cost medical scenarios.
2. **Outpatient Coverage:** Some plans offer outpatient benefits, covering consultations, diagnostics, and routine health check-ups, as well as wellness programs.
3. **Maternity and Specialized Care:** Many employer-provided plans offer maternity benefits, mental health support, and specialized care options like dental and vision coverage, though this varies by employer and plan level.
4. **Cashless Treatment Options:** Coverage usually includes a network of hospitals where employees can avail cashless treatments, easing the burden of upfront payments.

Challenges: Employer-sponsored health insurance is often considered essential in India's healthcare landscape, given the high costs of private healthcare and the limited reach of government schemes, but corporate health plans must go beyond basic hospitalization coverage. Corporate plans should offer modular packages that include outpatient and rehab care, mental health counselling, and wellness services to better support the evolving health needs of the workforce, especially with the rise of chronic diseases like diabetes and hypertension. Especially, health benefits will increasingly define the **Employee Value Proposition (EVP)** for organizations, particularly in a post-pandemic world where **mental and physical wellness** play central roles. **Global employers** are already leading the way by offering **DNA-based screenings, wellness programs,** and comprehensive mental health support. Indian corporates have been innovating and expanding offerings but will need to continue pushing the envelope in an increasingly competitive talent market amid rising health concerns and costs.

2.3.3 B2C (Business to Customer)

Coverage:

As of 2023, about 5-7% of India's population is covered by retail or individually purchased health insurance plans. This segment caters mostly to individuals who lack employer-sponsored or government-provided coverage, including self-employed professionals and those in the informal sector. It also includes those covered by their employers but seeking a more comprehensive coverage than offered by their employer.

Offering: Key offerings of retail health insurance in India typically

1. **Customizable Coverage Options:** Retail plans offer flexibility in coverage, allowing policyholders to choose plans that align with their needs, including family coverage, maternity benefits, and critical illness riders.
2. **Comprehensive Inpatient and Outpatient Benefits:** Most retail policies provide inpatient hospitalization coverage, and some also include outpatient services, diagnostics, and doctor consultations, particularly for higher-end plans.
3. **Chronic Disease and Wellness Programs:** Many policies now offer coverage for chronic disease management, preventive health check-ups, and wellness programs, promoting a holistic approach to healthcare.
4. **Cashless Treatment at Network Hospitals:** Policyholders can access cashless treatment across a wide network of hospitals, easing the financial burden at the point of care.

Challenges: This modular, retail-driven approach would enable self-employed individuals and those outside the corporate safety net to design health coverage that fits their specific needs. Retail health policies are primarily structured around hospital indemnity coverage, which closely resembles corporate packages. However, a key distinction is that retail customers often face more limited sum-insured options, with under-insurance being a significant issue for outpatient and preventive care services. In addition to under insurance, the cost of retail insurance is very high especially at higher age groups.

EXHIBIT 9 : COVERAGE GAPS ACROSS THE THREE DELIVERY VECTORS

Cover Type		Availability			Adequacy		
		E2E	B2C	G2C	E2E	B2C	G2C
AYUSH cover	Alternative medicine treatments e.g. Ayurveda, Yoga, Naturopathy	✓	✓	✓	✗	✗	✗
Dental cover	Dental Treatment Cover with/ without cosmetic treatment	✓	✓	✗	✗	✗	✗
Extended care/ At home care	Non-hospital based care e.g. Nursing care	✓	✗	✗	✗	✗	✗
Mental health cover	Mental health treatments and therapies	✓	✓	✓	✗	✗	✗
OPD cover	Physician consultation/ Pharmacy/Diagnostics	✓	✓	✗	✗	✗	✗
Gender specific cover	LGBTQ Cover (Sex Reassignment Surgeries, Hormone Replacement Therapy, etc.) Menopause and Puberty related treatments	✓	✗	✗	✗	✗	✗

Cover Type		Availability			Adequacy		
		E2E	B2C	G2C	E2E	B2C	G2C
Maternity and new born cover	Maternity Cover, Pre and Post Natal Expense Cover	✓	✓	✓	✓	✗	✗
	New Born Baby Cover-Day 1	✓	✓	✓	✓	✗	✗
	New Born Baby Cover-Day 91	✓	✓	✓	✗	✗	✗
	Treatment for Infertility	✓	✓	✗	✗	✗	✗
	Surrogate Maternity Cover	✓	✗	✗	✗	✗	✗
	Well Baby Expenses (e.g. Baby expenses post-delivery like nursery charges/ Incubator charges)	✓	✗	✗	✓	✗	✗
	Maternity Complication Covers	✓	✓	✗	✓	✗	✗

✓ Available ✗ Not available ✓ Adequately insured ✗ Underinsured

2.4 Learnings for India from Global Health Paradigms

As India strives to achieve its vision of Borderless Health, it is essential to address the diverse health needs across corporate (Employer to Employee), retail (Business to Customer), and government-linked schemes (Government to Citizen). By leveraging insights from leading global benchmarks, India can draw inspiration and adopt best practices to improve access, affordability, and quality of healthcare for its citizens and create a comprehensive, modular, and inclusive healthcare system that works for all segments of society.

Healthcare is moving towards **preventive and personalized care.** Through digital health platforms, patients can access **concierge services,** helping them navigate their healthcare journeys, access key emergency protocols including hospitals and carers of choice and prevent **mis-selling of insurance products. Self-selection** empowers patients to choose tailored benefits packages, promoting **preventive care** and long-term health management.

Combining insights across global benchmarks for government, corporate, and retail health insurance reveals a set of common strategies to improve India's healthcare system for broader access, affordability, and quality. This will enable the developenment of a comprehensive healthcare system, supporting universal access, financial protection, and health outcomes for all citizens.

We have identified five key learnings from global benchmarks which are relevant for India. (Refer Exhibit 10)

EXHIBIT 10 : KEY LEARNINGS FROM THE GLOBAL BENCHMARKS

1 Enhanced coverage scope across all plans

- **Inpatient and outpatient coverage**
  Indian corporate and retail plans often focus on hospitalization but lack outpatient and mental health services. Expanding coverage to outpatient services, preventive care, and mental health, as seen in Singapore and Australia, would provide holistic healthcare and reduce out-of-pocket expenses across all segments
- **Preventive and chronic disease management**
  Emulating Germany's chronic disease management and Australia's preventive care programs can enhance long-term health outcomes. A preventive care focus across corporate, government, and retail plans would reduce healthcare costs for both individuals and insurers. A huge opportunity exists to create Care Anywhere models that meet patients where and how they want their healthcare

2 Modular, flexible plans for personalization

- **Tiered and customizable plans**
  Countries like Singapore allow individuals and employees to choose coverage levels suited to their health needs. A similar tiered approach in India would enable customers—whether in corporate, government, or retail plans—to select add-ons like chronic care, mental health, and wellness programs based on individual or family requirements
- **Public-private coverage integration**
  A hybrid model, as in Australia and Germany, allows public schemes like Ayushman Bharat to cover core health services, with private insurers offering top-ups for specialized or faster access. This model could meet the diverse needs of India's population, balancing affordability and quality care

3 Preventive health and wellness programs

- **Employer-supported wellness initiatives**
  Australia and Singapore prioritize employee wellness, offering gym memberships, preventive screenings, and mental health support. Indian employers could introduce similar wellness programs, reducing long-term healthcare costs and supporting employee health
- **Government and private support for preventive care**
  Integrated preventive health initiatives in government and private plans would promote healthier lifestyles, reduce the incidence of chronic diseases, and ultimately decrease claims and healthcare costs

4 Tax incentives and financial support for coverage expansion

- **Incentives for private coverage**
  Singapore offers tax benefits on premiums and contributions to health savings accounts, encouraging private health coverage. India could implement similar tax incentives, such as reduced GST on premiums and income tax deductions, to increase private insurance adoption and reduce reliance on out-of-pocket payments
- **Climate-related and catastrophic health coverage**
  With climate-induced health risks on the rise, as noted in the UK and US, India could expand insurance policies to cover respiratory, heat-related illnesses, and other climate-sensitive diseases. Corporate and retail plans could include these coverages, promoting financial protection against emerging health risks

5 Integrated care pathways for seamless healthcare

- **Unified care coordination**
  Drawing on the UK's NHS model, integrating care pathways across corporate, government, and retail plans would streamline coordination among hospitals, outpatient services, and insurers. This system could help ensure continuous, high-quality care across health needs, minimizing gaps in treatment and administrative hurdles

Refer Exhibit 11 for a comparative analysis of global health insurance paradigms across five key countries illustrating their diverse approaches to healthcare financing and access, offering insights into their unique strengths and challenges.

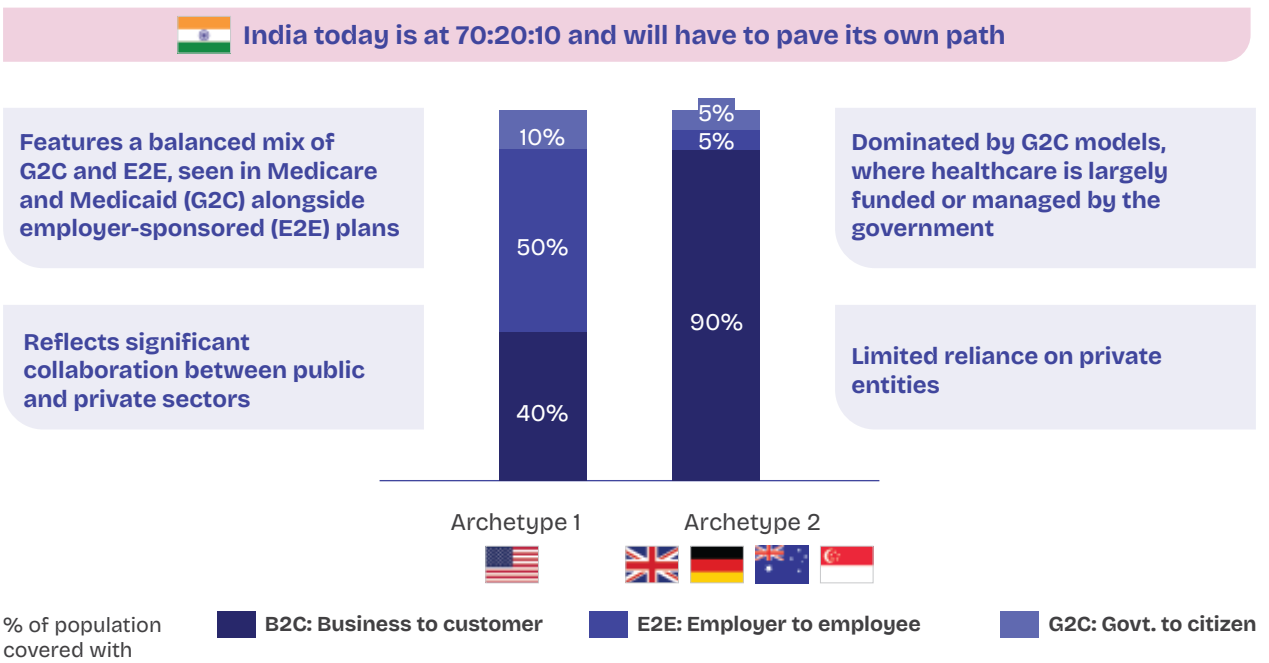
EXHIBIT 11 : A COMPARISON OF GLOBAL HEALTH INSURANCE PARADIGMS

Key Features	United States	United Kingdom (NHS)	Germany (Dual-System Healthcare)	Australia (Medicare)	Singapore (Medisave)
Coverage	Corporate plans cover ~49% of working adults; Large employers are mandated by the Affordable Care Act (ACA) to provide health insurance to full-time employees, while government programs like Medicaid and Medicare serve low-income individuals and seniors **E2E dominant**	Universal healthcare through NHS with optional employer-provided private insurance for faster access to specialized care **G2C dominant**	Statutory Health Insurance (SHI) covers 90% through shared employer-employee contributions; PHI available for higher-income individuals **G2C dominant**	Universal coverage through Medicare; private insurance options for faster access and additional services **G2C dominant**	Universal coverage via Medisave accounts for health costs, supplemented by government subsidies and private insurance **G2C dominant**
Preventive and Chronic Care	Corporate plans typically cover preventive and chronic care but vary in dental and mental health coverage. Medicare and Medicaid prioritize preventive care, yet lack comprehensive support for ongoing and specialized therapies	NHS emphasizes preventive care but faces long wait times for elective procedures	Strong emphasis on preventive care and Disease Management Programs (DMPs) for chronic conditions	Focus on preventive care through screenings, vaccinations, and chronic disease management programs	Preventive care integrated into public system; Medisave helps fund chronic disease management
Flexibility	Corporate health plans frequently offer Flexible Spending Accounts (FSAs) and Health Savings Accounts (HSAs), allowing employees to use pre-tax contributions for healthcare costs. However, high out-of-pocket costs persist for many services, impacting affordability	Limited need for flexibility due to NHS's comprehensive coverage; private plans supplement with faster specialist access	Employer-funded supplemental insurance offers additional benefits, e.g., private rooms and faster specialist access	Public-private collaboration allows flexibility and choice between public and private hospital treatments	Tiered plans provide flexibility; individuals choose coverage levels for outpatient and specialized care
Challenges	Despite coverage, high deductibles, co-payments, and limited coverage for certain services create significant financial burdens.	Challenges include managing wait times, budget constraints, and balancing cost-effective universal care	Higher-income individuals opting for PHI face higher premiums; the system strives for balance between affordability and quality	Voluntary private insurance uptake varies, with some individuals relying solely on public healthcare based on personal health needs	High out-of-pocket expenses for certain treatments; Medisave covers basic needs but private insurance often required for advanced care

India has a choice to shape its health insurance system by drawing from 2 key global models that uniquely balance government-led initiatives and private sector participation (Refer Exhibit 12). Striking the right mix of public and private contributions will be key to addressing the unique needs of its population ensuring accessibility, sustainability, and inclusivity to pave the way for a robust healthcare ecosystem.

EXHIBIT 12 : HEALTH INSURANCE COVERAGE PARADIGMS GLOBALLY : TWO ARCHETYPES

India needs to pave its own path: conceive a hybrid model



For **Affluent India** (as defined in Section 2.1), which includes high-income individuals in urban areas, there is an increasing demand for **personalized health plans** that go beyond standard corporate or government offerings. This segment is well-positioned to invest in B2C options, which provide advanced and specialized care, including outpatient services, wellness programs, and mental health support. Tailoring B2C products to this group could help meet their expectations for comprehensive healthcare access while reducing their dependency on limited government resources. Additionally, making these B2C plans more flexible with a range of customizable add-ons would allow affluent individuals to select coverage that aligns with their specific health needs, further enhancing the appeal of B2C insurance in India.

For **Middle India** (as defined in Section 2.1), expanding E2E coverage can be transformative. This group often employed in formal sectors but also including a large informal workforce, needs accessible and affordable healthcare options. However, the high prevalence of informal employment in India limits the potential reach of employer-sponsored health insurance. Formal sector employers, therefore, have an opportunity to offer flexible, affordable group health insurance plans that cover hospitalization, preventive care, and select outpatient services. Expanding E2E coverage in this way could not only improve healthcare access for middle-income families but also strengthen employee satisfaction, retention, and productivity, creating a mutually beneficial model for both employers and employees.

For **Emerging India** (as defined in Section 2.1), which constitute the largest segment in India, government health schemes like Ayushman Bharat are essential to providing basic healthcare access. However, there are challenges due to the limitations in government healthcare infrastructure and funding. Strengthening G2C coverage and the required infrastructure is crucial to protect this population from high out-of-pocket expenses for essential healthcare services. Collaboration with private insurers could play a significant role here, as public-private partnerships may help expand the reach and efficiency of government schemes. Furthermore, offering affordable B2C options (even if as top-ups) targeting low-income groups for essential services such as preventive care and outpatient treatment could empower these individuals to proactively manage their health without overwhelming the public healthcare system.

The importance of B2C insurance is further underscored by the structure of India's labor market. Despite efforts to formalize employment, only around 10-15% of India's workforce is estimated to be in the organized, formal sector in the foreseeable future. This limited reach means that Employer-to-Employee (E2E) insurance plans can only serve a limited portion of the population. With the rise of the gig economy, self-employed individuals, and those working in unorganized sectors, the vast majority of India's workforce—nearly 85-90%—lacks access to formal employer-sponsored health insurance. Given these employment dynamics, B2C insurance becomes crucial as it can provide coverage to individuals who would otherwise have no access to health benefits. By adopting a hybrid model that combines elements of G2C, E2E, and B2C insurance, India can address the distinct needs of its diverse population. An expanded B2C market could help affluent and middle-income groups access specialized and supplemental care, reducing their reliance on government programs. Meanwhile, strengthening G2C coverage with support from private players would provide essential healthcare access to lower-income populations. This multi-faceted approach can ensure more inclusive, sustainable healthcare access across income levels in India, building a robust and resilient health system tailored to the country's unique socio-economic landscape.

2.5 Key Takeaways for Enhancing India's Health Insurance

Taking into account the specific needs of the three Indias, India's starting point as well as global benchmarks and experiences, we have identified the following areas to help India accelerate its journey to delivering a comprehensive, modular and inclusive healthcare system:

- **Integrated Wellness Programs:** Encourage wellness programs that integrate with wearable devices to monitor health, incentivize preventive care, and promote healthy lifestyles.
- **Flexible and Modular Insurance Options:** Inspired by Singapore's Medisave, offer modular health packages allowing customers to choose top-ups for specific needs like wellness programs, maternity, or chronic care.
- **Tiered B2C Models:** Adopt tiered B2C insurance plans, allowing individuals to select coverage levels for services like mental health and alternative medicine, providing flexibility based on personal preferences.
- **Chronic Disease Management in Government Schemes:** Implement chronic disease management programs in government schemes, similar to Germany's DMPs, to support conditions like diabetes and hypertension.
- **AYUSH and Alternative Care:** Integrate AYUSH coverage into retail and corporate policies through modular top-up options to meet the growing demand for traditional and alternative healthcare.
- **Expanded Outpatient Services:** Increase outpatient coverage in both retail and government schemes, offering low-cost outpatient packages and e-consultation options to improve accessibility and routine care to everyone in the insurance chain.
- **Comprehensive Mental Health Support:** Expand mental health coverage in modular plans to include counseling, psychiatric care, long term rehab care in mental health institutions and rehabilitation, making affordable mental health services accessible to more people.
- **Inclusive Maternity and Newborn Care:** Add maternity and newborn care in retail plans, covering prenatal, postnatal, and assisted reproductive treatments (artificial insemination, surrogacy etc), catering to individuals outside formal employment.
- **Gender-Specific Health Packages:** Develop packages for women's health (e.g. menopause, puberty care) and introduce transgender health coverage (e.g. gender change, hormone treatments and other treatments related to the genetic disposition), addressing currently unmet gender-specific needs.
- **Home Healthcare Services:** Provide comprehensive home healthcare coverage for elderly patients and those needing post-surgery care, reducing the strain on hospital infrastructure. As the population ages and the prevalence of chronic illnesses rises, there is a growing demand for home healthcare services.
- **Cross-Sector Collaboration for Comprehensive Coverage:** To achieve universal health insurance by 2047, corporates, retail insurers, and government programs should jointly expand outpatient, chronic, and preventive care options. Corporates can offer modular add-ons, retail plans can provide customizable health options, and government schemes can expand preventive services.

03

Achieving Borderless Health

The Health JAM

While Borderless Health lays out a rich vision and details implications for insurance coverage across the intersection of Affluent, Middle and Emerging India for each of G2C, E2E and B2C, a related and perhaps steeper challenge is ensuring a vastly more efficient operating model that can deliver these packages and care models effectively and at lowest unit cost. The problem is exponentially higher for India given the scale of its population, the diversity of its healthcare network providers in-terms of digital connectivity, infrastructure and the somewhat problematic predilections for potential fraud and abuse that still persists within pockets of the system. India's greatest growth stories have been characterized as generational leapfrogs e.g. our digital leapfrog from 2G to 4G. For India to effectively leapfrog on Health insurance coverage and care models, all stakeholders will need to holistically embrace digital, AI and technology. Hence, complementing the vision of Borderless health offering personalized health packages, is the troika of the three key powerhouses of the **JAM trinity: J for Joined Health Data, A for Automation and M for Mobile-enabled.** (Refer Exhibit 13 below)

EXHIBIT 13 : THE JAM TRINITY UNDERPINNING BORDERLESS HEALTH

Introducing the Health "JAM" trinity

J — Joined Health Data

- 100% tokenized, digital health data of citizens
- Universal: all hospitals, clinics, diagnostic centers, doctors, treatments by default
- Consent-based access to ecosystem

A — Automation

- Automated claims assessment and processing
- Personalized packages creation at segment-of-one
- Fraud detection
- Sharper pricing

M — Mobile-enabled

- Empower citizens on "choice"
- On-demand provision of available capacity, carer and location
- Self-serve, education and preventive

3.1 Joined Health Data

The Backbone of Borderless Health

The integration of health data is crucial for Borderless Health, with Joined Health Records serving as the backbone of the system. This offers several advantages:

Unique medical records
Every citizen has a health ID that stores medical history, improving care continuity and enabling personalized care.

Prescription histories
Centralized data helps track medication use, preventing drug interactions or misuse.

Cashless discharges
Instant verification of health claims allows patients to be discharged quickly with cashless claims processed in real time.

Personalized underwriting
Insurers can use patient health data to tailor premiums and policies, ensuring fair pricing and better risk management.

Healthcare organizations and other relevant stakeholders are increasingly focusing to build their own **Patient 360** to capture comprehensive patient specific health data. This intuitive data set when available through simplified dashboards would not only empower healthcare professionals to deliver more personalized care but also enable health insurers to offer more personalized health insurance offers. Refer Exhibit 14 for a view on the kind of data that can be captured in the joint health data.

EXHIBIT 14 : PATIENT 360 AS A BACKBONE OF JOINT HEALTH DATA

Joined Health data | India's next DPI marvel

Leverage data to power an automated and personalized world through Patient360, Network360 and Provider360

Non-Exhaustive

Medical history

- Number of hospitals visits and doctor visits
- Prescriptions taken/ongoing
- Diseases suffered or treatments undertaken or ongoing
- Diagnosis and test reports

Demographic data

- Age
- Gender
- Residential address
- Residential stability index
- # of dependents

Policy details

- Insurer name
- Insured period
- Policy coverages
- Benefit thresholds
- Premium details

Claims and service history

- No. of claims raised and Average claim size
- Category of claim accepted/denied
- Out of pocket expenses for claim covered
- Type of policy covering the claim (group, health, govt)
- Hospitals and care received
- Re-admission frequency

Self-reported lifestyle

- Smoking habits
- Eating habits
- Fitness pattern
- Family disease history

Third-party data

- Proximity to grocery stores
- Proximity to health centers
- Air and water pollution in resident area
- Housing security

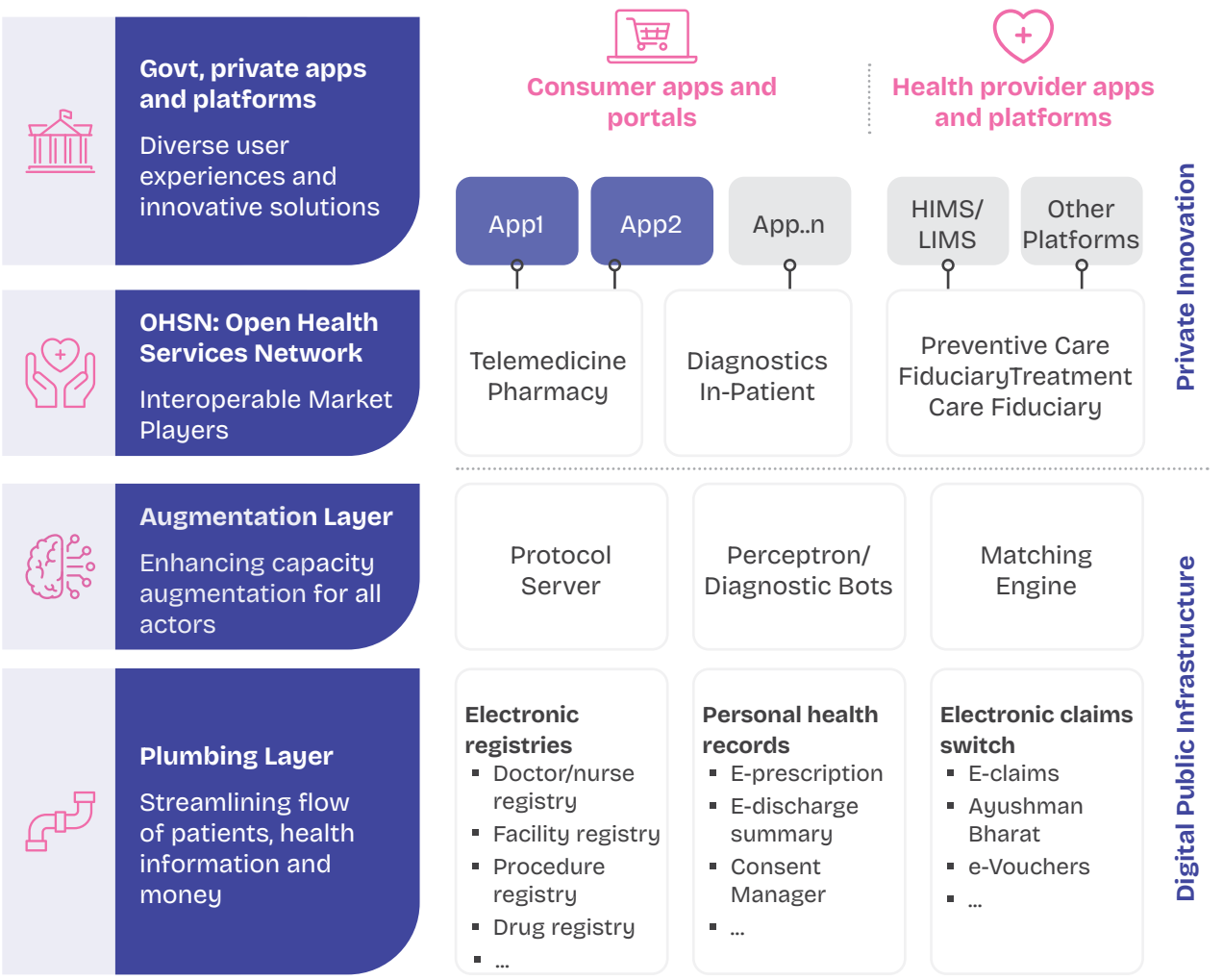
India's National Health Stack is envisioned as a worldclass Digital Public Infrastructure. The National Health Stack would be powered through three core elements of Joined Health Data:

- **Electronic Registries** for doctors/ nursers, drug registry, facilities registry, procedure registry, etc. bringing together and standardizing the entire carer and care-procedure ecosystem
- **Personal Health Records** covering Health ID (e.g. AYUSH ID), e-prescriptions, e-discharge summaries, consent managers
- **Electronic Claims Switch:** e-Claims, Ayushman Bharat claims, e-vouchers, etc.

Beyond these conventional data sources, an explosion in personalized health indicators is expected as Indians start adopting personal wearables like Continuous Glucose Monitoring (CGMs), fitness trackers and sleep monitors.

India's health ecosystem is evolving with the integration of digital public infrastructure, fostering seamless collaboration between public and private sectors. We have a robust health stack conceptualized (Refer Exhibit 15 below) which leverages innovative technologies to enhance accessibility, interoperability, and efficiency in healthcare delivery.

EXHIBIT 15 : HEALTH STACK UNDER NDHM POWERED BY JOINT HEALTH DATA AS DIGITAL PUBLIC INFRASTRUCTURE



There are 4 key benefits expected with this health stack:

- Faster underwriting and claims processing with higher transparency / visibility
- Reduction in cost of underwriting and claims processing
- Improved fraud detection
- Can become a global standard - like India's UPI system

With the new Digital Personal Data Protection (DPDP) laws expected to become extant in 2025, consent management and protecting extremely sensitive medical information should become non-negotiable. The heavy punitive civil and potential criminal liabilities under infringements of the DPDP acts provides the necessary teeth to deter mis-use of data across the ecosystem covering insurers, hospitals, carers, TPAs and employers.

As organizations seek to harness the power of data, its encryption, tokenization and security must become infallible properties of our Joined Health data in India.

3.2 Automation

Driving a Step-change in Efficiency and Experience

Automation has emerged as a true disruptor delivering step-change in the human experience across all industries, bringing in faster and superior outcomes in each facet. For health insurance and borderless health to truly penetrate across 100% of India's population, automation would be the most potent weapon.

Joined health data described in section 3.1 is the fuel that can drive at-scale automation ushering in transformative shifts across each dimension of health insurance and care provision. We see four fundamental shifts that automation would enable:

1 **Automated claims assessment and processing**

2 **Personalized packages creation at segment-of-one**

3 **Fraud detection**

4 **Sharper and tighter pricing**

With the increased power of the AI and GenAI technologies and the fast pace of onset of personalization that we have witnessed in the last 12-18 months, the ability for insurers, carers and TPAs to truly leverage automation is growing exponentially, thereby, enabling even faster, more accurate and touchless decisions and experiences. The Ayushman Bharat Digital Mission (ABDM) is setting-up unique pillars to support this automated vision across claims, personalization of packages, fraud detection and superior underwriting and it is incumbent on carers and payers to work together with the ABDM to truly disrupt the space. (Refer Exhibit 16)

EXHIBIT 16 : AYUSHMAN BHARAT DIGITAL MISSION

Stakeholders / Beneficiaries		Primary Benefits
Citizens	Individual citizens/ beneficiaries of Public health schemes, Insured with private insurers	▪ Medical history ▪ Search and book medical care ▪ Order medicines ▪ Better insurance premium ▪ ...
Healthcare Facilities	Hospitals, Clinics Pharmacies, ...	▪ Better medical care with patient history ▪ Faster insurance processing ▪ ...
Healthcare Professionals	Doctors, Pharmacists, Radiologists, ...	▪ Better medical care with patient history ▪ Reducing quacks ▪ Wider range and reach of services with telemedicine ▪ ...

Stakeholders / Beneficiaries		Primary Benefits
Government / Insurers / Payers	Insurance firms, central, state, local governments	▪ Wider public health reach ▪ Auditable medical care ▪ Innovative small ticket health covers ▪ ...
Software Tech Firms	Hospital info. systems, Citizen Health Lockers, Claims processors, ...	▪ Larger scale of operations ▪ Increased market size for digital health solutions ▪ ...

ABDM Building Blocks and Rails

ABHA[1] Number	Health Facility Registry	ABHA[1] App	Healthcare Professionals Registry	Unified Health Interface (UHI)	National Health Claims Exchange
Unique identifier for all citizens	Listing of all Healthcare providers (Hospitals/ Clinics/ Labs/ ...)	App to store and manage health documents (Locker) and consent for data sharing	Listing of all Healthcare professionals (Doctors, Pharmacists, ...)	Integrated Health open protocol network "Rails" to build Health stack	Standardized Health Claims data exchange layer

1. Ayushman Bharat Health Account

3.2.1 Automated claims

Automated claims management is a key enabler of **Borderless Health**, ensuring that claims are processed quickly, accurately, and in a way that benefits insurers, patients and healthcare providers. In this section, we explore how various **claims processing archetypes**—including **one-time benefits**, **capped benefit plans,** and **pre-defined packages**—can be leveraged within India's health system, while integrating insights from **Section 2 (Health benefits)** and **Section 3.1 (Joined Health Data)** to make claims processes more robust and personalized.

There are five fundamental levers that will help India re-imagine its Health Claims experience, processing accuracy and pivot to 100% cashless:

Lever 1: Cashless electronic intimations leveraging public utilities/ standards via NHCX that enable seamless digital and real-time transmission from the Health Data stack

Lever 2: Standardized claims processing paradigms across all TPAs/ insurers powered by the NHCX data, adopting unified guidelines like DRG-based processing, etc.

Lever 3: Differentiated claims processing rules codified based on treatment type to expand automation potential for all procedures (one-off, recurring, pre-authorized)

Lever 4: Post-settlement services and raising awareness about lapsing/unused benefits

Lever 5: Robust reconciliation across the chain among hospitals, TPAs and insurers

Universal Cashless Claims: Leveraging NHCX for Borderless Health

The **National Health Claims Exchange (NHCX)** will serve as the digital backbone of **universal cashless claims** in India. This platform will enable real-time exchange of claims-related information between hospitals, insurers, TPAs, and government agencies. By integrating **India's top hospital chains** with the NHCX, the vision of **universal cashless** claims can be scaled to cover a large portion of India's healthcare needs.

In addition to NHCX there is a need to have a standardized disease coding and procedure framework to exchange the data between the providers and the payers. This will make the data structured and machine readable thus improving the efficiency and acceptability of insurance by the providers.

One Unified Claims Processing Platform

The creation of a **centralized claims processing platform** as a national standard is essential for harmonizing claims management across insurers, hospitals, and TPAs. The **NHCX platform,** which integrates TPAs, offers several benefits:

- **National Standardization of Claims Protocols:** All hospitals, will follow uniform claims protocols, ensuring consistency in claims processing across regions. This will reduce the administrative burden on hospitals, allowing them to process claims faster and more efficiently.
- **Real-Time Data Access:** The platform will offer real-time access to **patient data, treatment histories, and pre-approved limits,** which will enable TPAs to automatically reconcile claims with the hospitals billing systems. For example, Hospitals will benefit from immediate access to patient data linked with Ayushman Bharat, speeding up **pre-authorizations** and reducing errors in claim submissions.

In addition to NHCX, India should also explore ways to adopt a unified Diagnosis Related Groups (DRG)-based claim processing platform that would support not just automated claims but also enhance pricing transparency, and facilitate comparisons of hospital performance, improving efficiency and promoting value-based care across the healthcare sector. 3M's All Patient Refined Diagnosis Related Groups (APR DRGs) system has been instrumental in enhancing healthcare efficiency and quality worldwide. For instance, in the United States, over 30 state and federal agencies utilize 3M APR DRGs to adjust for severity of illness and risk of mortality, enabling more accurate facility comparisons and improving reimbursement accuracy by capturing patient acuity differences. Additionally, countries like Spain and Belgium have adopted 3M APR DRGs for reporting and payment adjustments, demonstrating the system's adaptability and effectiveness in diverse healthcare settings.

Claims Archetypes and Enhancing the Patient Experience

Different **claims processing archetypes** can be designed to meet the varied healthcare needs of patients, linking directly to the **care packages** outlined in **Section 2.** These archetypes allow for flexible claims processing based on the type of healthcare services offered:

- **One-Time Benefits without Caps:** For major surgical procedures or life-threatening conditions, **one-time benefits** can be claimed in full, without any financial cap. For instance, hospitals could offer **full coverage** for a heart surgery, ensuring patients are not burdened by high out-of-pocket costs.
- **Capped Amount Benefits with Unlimited Claims:** For conditions requiring regular treatment, such as **dialysis or chemotherapy, a capped amount benefit** (e.g., ₹10 lakhs) would allow patients to claim as many times as needed during the cover period, without restrictions on the number of claims. This ensures comprehensive coverage for **chronic conditions** like cancer, where patients need frequent care.
- **Pre-Defined Benefits for Fixed Time Period:** Patients with **predefined care packages** (e.g., maternity care or orthopedic surgeries) would be eligible for fixed benefit payouts during a limited period (e.g., **one year**). The claim would be automatically processed when the patient avails these benefits within the **pre-defined package**, ensuring consistency in care delivery.

Residual Benefits and Post-Settlement Services

Residual Benefits play a crucial role in the post-settlement claims experience, offering patients access to unused coverage:

- **Insurers can alert patients** about unused benefits from their insurance package, such as **preventive screenings, wellness programs,** or **physical therapy sessions** by leveraging health data from Joined Health Records. This enhances the overall claims experience by giving patients opportunities to engage in **long-term health management.**
- Patients can also receive **real-time notifications** on their claim status through the NHCX platform, ensuring transparency and minimizing anxiety during the treatment process.

Robust Reconciliation and Settlement Between TPAs, Hospitals, and Employers

Efficient reconciliation is key to ensuring **seamless settlement** between **TPAs, hospitals, and employers:**

- **Reconciliation of Claims and Payments:** For large hospital chains managing payments across a large volume of claims is critical. The **central platform** will ensure that claims data is matched in real-time between the hospital and TPAs, preventing billing errors or duplicate claims.
- **Employer Integration:** Employers offering **corporate health benefits** can monitor **employee health coverage utilization** and claims data through the platform. They can adjust their benefits packages based on data insights, ensuring their workforce receives adequate health benefits.

By integrating **NHCX and AI-driven platforms,** India can transform its claims management system to deliver **universal cashless healthcare**, streamline **fraud prevention,** and offer **personalized health benefits.** The involvement of major hospitals ensures that a significant portion of health claims is handled efficiently, providing patients with **frictionless access** to healthcare. With tailored claims archetypes—such as **one-time benefits, capped claims, and predefined packages—**patients can enjoy comprehensive coverage for a wide range of health conditions, while insurers and hospitals benefit from **automated adjudication and reconciliation.** By linking these systems to **Joined Health Data** (Section 3.1) and s**tandardized care packages** (Section 2), India can move closer to achieving a truly **borderless healthcare ecosystem.**

3.2.2 Standardized Health Packages

As described in Section 2, care packages are a key feature of borderless health. For instance, predefined packages for chronic conditions such as diabetes or heart disease—offered through public schemes like Ayushman Bharat—could be automatically linked to cashless claims processing. This would enable patients to receive cashless treatment for specific conditions, regardless of the hospital's network.

The industry should also explore an option of moving to a standardized payment module where the rates between the payers and providers are fixed basis either the cost of service as defined by the DRG model used in various countries like USA, Australia, Singapore, etc. or based on the Average Revenue Per Occupied Bed (ARPOB) for the hospitals based on the occupancy guaranteed by the payers. This will help in reducing the abuse and also make revenue streams of the providers and payers outgo predictable.

3.2.3 AI and Analytics Powered Fraud Prevention and Adjudication

The use of **AI and data analytics** is critical for enhancing the speed and quality of the entire claims adjudication process. Data-driven systems can significantly reduce fraud while ensuring faster claim settlements. Here's how these technologies work:

- **Auto-Adjudication:** AI-driven auto-adjudication connected to the NHCX system enables faster, more accurate claims processing by instantly matching policies with patient health records to verify eligibility and assess risk. This reduces processing times from days to minutes, allowing human adjudicators to focus on complex cases. For example, Hospitals could quickly adjudicate claims for common procedures like appendectomies or gallbladder surgeries based on pre-approved limits within the NHCX system. Additionally, NHCX provides a platform to enable claim assessment quality by ensuring standardized, data-driven decisions, reducing errors, and minimizing fraud.
- **Fraud Prevention:** AI-powered systems analyze health data from **Joined Health Records** (as described in **Section 3.1**) to identify suspicious claims. **Algorithms can detect** across a wide variety of soft and hard frauds like Misrepresentation, Impersonation, Forgery, Non-Disclosure, Upcoding, Unbundling and others.

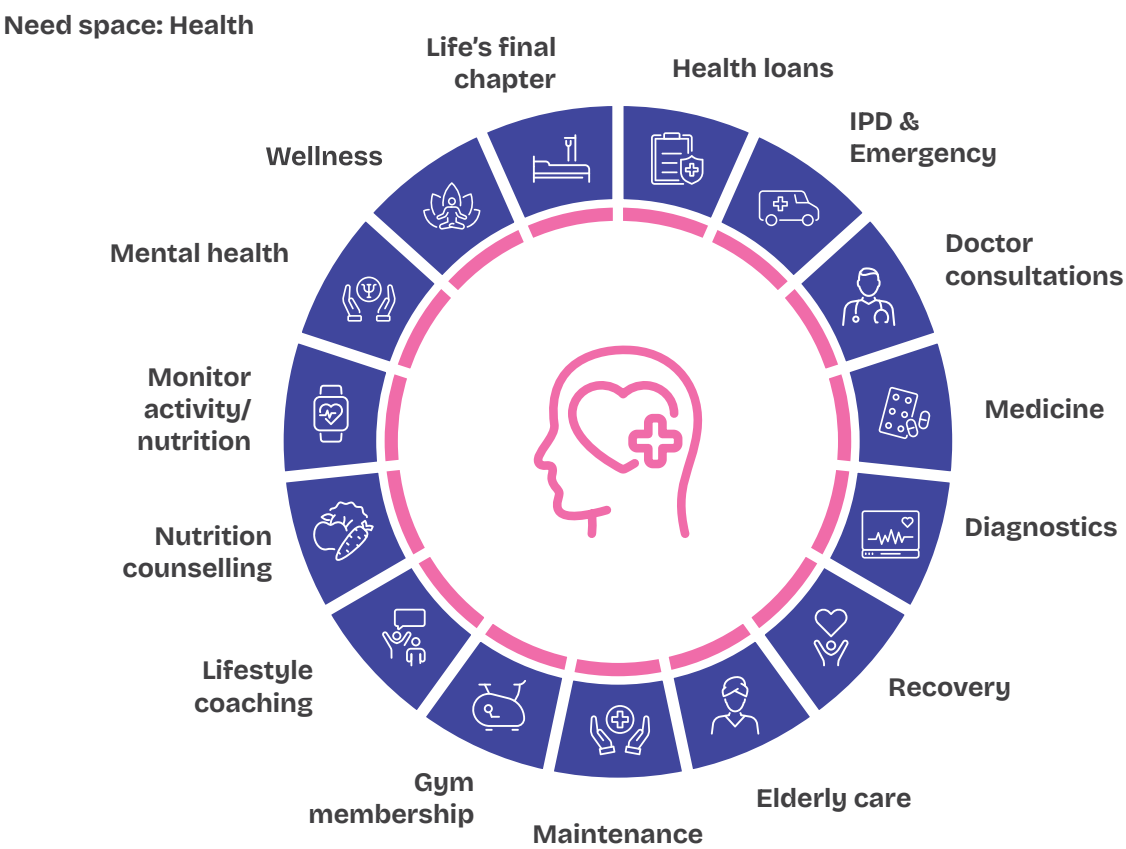
3.2.4 Sharper and Tighter Pricing

Leveraging data for sharper and personalized pricing in health insurance in India requires a blend of advanced analytics and innovative technology. By utilizing data from wearable devices, electronic health records, and lifestyle assessments, insurers can create risk profiles that reflect individual health behaviors. Predictive analytics and AI enable insurers to move beyond traditional pricing, offering tailored premiums that reward healthy habits and lower risk customers. Pricing differentiation would enable better risk discrimination, enhancing trust and satisfaction of customers that demonstrate healthier life-style choices, hospitalization patterns, judicious consumption of benefits and thereby, create a virtuous cycle that promotes overall increased insurance penetration. Such personalized approaches would not only make insurance more affordable but also increase its appeal, driving penetration in underserved markets while delivering greater customer value and fostering healthier communities. This shift would require policymakers, insurers and crucially, re-insurers to work together to ensure a fair, transparent but much more differentiated pricing paradigm leveraging the power of digital data, and AI/ ML.

3.3 Mobile Enabled Services for All

Mobile phones have become the great leveler of our times. With universal smartphone penetration now a matter of a few short years for India, mobile-enabled services would be a game-changer in enabling access for all, truly overcoming geographic barriers. Mobile apps and technology underpin our country's ability to empower individuals with choice around their health journeys, controlling and managing their health coverage, accessing preferred locations/ carers for preventive/ emergency care, and most importantly, leveraging the mobile phone to deliver connected care journeys and disseminate information. It is a win-win for health ecosystems, anchored either by our insurers, carers, TPAs or government bodies, to think through the entire lifecycle of individual customer/ patient needs and offer them in a holistic unified health super-app ecosystem (Refer Exhibit 17 below).

EXHIBIT 17 : HEALTH NEEDS-SPACE ENABLED ACROSS ONE ECOSYSTEM MOBILE APP



Mobile-enabled healthcare services in India focus on improving accessibility and affordability, particularly in underserved areas. They often include features like telemedicine, health tracking, and integration with government health initiatives, such as Ayushman Bharat and can generate/

read insights from Joined Health data. The need for mobile-enabled health services has become increasingly important due to several key emerging factors:

1 Increased Demand for Accessibility

- **Geographic Barriers:** Many individuals, especially in rural or underserved areas, have limited access to healthcare facilities which can be mitigated by bringing healthcare to their fingertips.
- **Convenience:** Users can access healthcare services anytime, anywhere, reducing the need for travel and long waiting times.

2 Rising Healthcare Costs

- **Cost-Effective Solutions:** Mobile health services can provide more affordable care options, helping users manage expenses associated with traditional healthcare.
- **Preventive Care Focus:** Mobile platforms often emphasize preventive care through regular reminders for wellness check-ups, tests and imparting health education which can reduce the incidence of serious health issues and lower long-term healthcare costs.

3 Integration of Technology

- **Telehealth Expansion:** The COVID-19 pandemic accelerated the adoption of telehealth through mobile platforms, making remote consultations a standard practice
- **Health Tracking and Monitoring:** Mobile apps allow users to track their health metrics, enabling proactive management of chronic conditions and better overall health.
- **Personalization:** Mobile platforms can offer personalized health insights and recommendations, enhancing user engagement and satisfaction.

4 Focus on Mental Health

- **Mental Health Resources:** The increasing awareness of mental health issues necessitates accessible resources. Mobile apps can provide immediate access to mental health support and counseling.
- **Community Support:** Mobile platforms can foster communities for users to share experiences and seek support, particularly important for mental well-being.

5 Data Utilization and Analytics

- **Health Insights:** Mobile platforms can collect and analyze user data to provide actionable health insights, improving individual and population health outcomes.
- **Resource Allocation:** Better data collection helps healthcare providers allocate resources more effectively, improving overall service delivery.

Mobile-enabled health services are vital in today's healthcare landscape. As consumer expectations evolve and the demand for convenient healthcare solutions grows, these services play a crucial role in enhancing health outcomes and managing the complexities of modern healthcare.

Multiple Indian and global platforms cater to different stages of the healthcare delivery lifecycle, offering comprehensive solutions tailored to specific health needs. For instance, global players like **Lemonade Health** (US) have enabled **AI-powered claims processing** and **on-demand care/**prescriptions through their platforms, while **Vitality** (UK) offers a unique **rewards program** to encourage healthy behaviors, allowing users to redeem points for discounts on health insurance premiums.

Amazon's recent entry into healthcare with tech initiatives like **One Medical's** AI tools marks a significant shift for a company previously outside this space. By leveraging technology, Amazon aims to redefine healthcare delivery, highlighting a broader trend of non-traditional players entering the market to enhance accessibility and personalization in global healthcare services. The new AI tools are designed to enhance patient care by streamlining diagnostics and improving overall access to healthcare services e.g. taking real time patients notes, summarizing their medical history, creating AI based prompt patient messages/responses response among many other features.

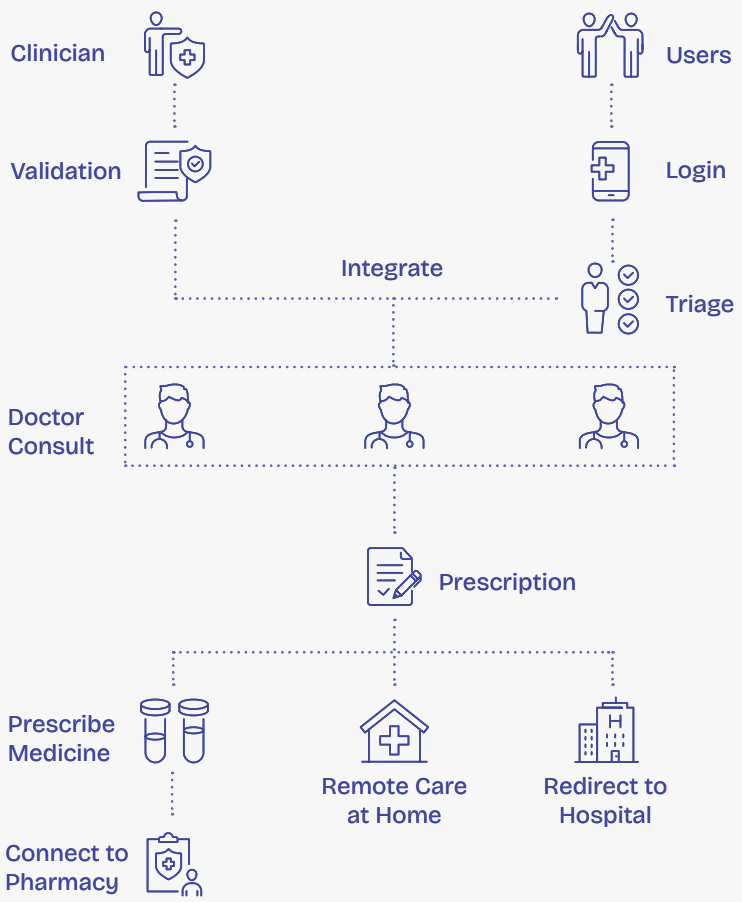
Swasth Alliance aims to connect patients with a **network of healthcare providers,** enhancing accessibility in underserved regions and ensuring continuity of care. MediAssist is one of the founding members of Swasth Alliance. (Refer Exhibit 18).

Collectively, these platforms improve the overall healthcare experience by addressing various aspects of health management and delivery. They showcase a range of unique features that leverage technology to enhance the healthcare experience. From personalized health plans and telemedicine services to integrated wellness programs and AI-driven support, these offerings cater to the evolving needs of users in India and globally.

EXHIBIT 18 : SWASTH ALLIANCE | ACTIVATED THE HEALTH CARE ECOSYSTEM TO DELIVER VALUE-BASED INTEGRATED CARE TO UNDERSERVED COMMUNITIES

Platform assists patients to maintain health and wellbeing from home

How the Swasth Alliance platform works



Swasth's operating structure drew together 100+ initial private businesses across the HC ecosystem

Health Tech Players	Hospitals and Doctors	Pharmacy / Diagnostic Chains	Expert Partners
Curefit	Hospital 1	Dava India	BCG
Practo	Hospital 2	Emcure	FICCI
mfine	...	Suraksha Diagnostics	NASSCOM
1mg		SRL Diagnostics	...
MedLife		Suburban Diagnostics	
Portea		Frank Ross Pharmacy	
Policy Bazaar		...	
PharmEasy			
Wysa			
...			

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In India, emerging platforms are also focusing on **personalized health management** and chronic disease care, while emphasizing integrated services and cashless hospitalization.

In recent times, several players have begun leveraging **health cards and prepaid instruments with integrated API-based apps** of Third-Party Administrators (TPAs) to facilitate cashless claims in healthcare.

For example, globally, **Cigna** offers a prepaid health card that allows users to access cashless medical services directly at partnered healthcare facilities. **UnitedHealthcare** provides health spending accounts that enable members to pay for eligible healthcare expenses upfront, simplifying the claims process and enhancing user convenience. **Aetna** offers Flexible Spending Accounts (FSAs) that let members use prepaid funds for eligible outpatient services, making it easier to manage healthcare costs.

In India, a few insurers similarly offer a **prepaid health card** that ensure seamless and cashless claims settlement for select categories through a mobile app.

Integrating the insights from **Section 2.4 (India's current health benefit landscape) and mobile enabled healthcare delivery, some players are** harnessing technology to enhance the outpatient experience by providing integrated health solutions, prepaid plans, and a user-friendly platform. By launching an innovative payment app-based system they aim to automate the claim process, transforming insurance into a seamless, wallet-like experience. This solution leverages Pre-Paid Instruments (PPI) and an integrated UPI App granting policyholders unprecedented autonomy and convenience. With the outpatient services market being under-penetrated, as noted in Section 2.5, this offering could provide comprehensive coverage, improving customer satisfaction and significantly increasing the claims settlement ratio for insurers. This enables the insurer to offer top-tier services for OPD-related cashless claims and aligns well with the growing demand for efficient and accessible healthcare services.

04

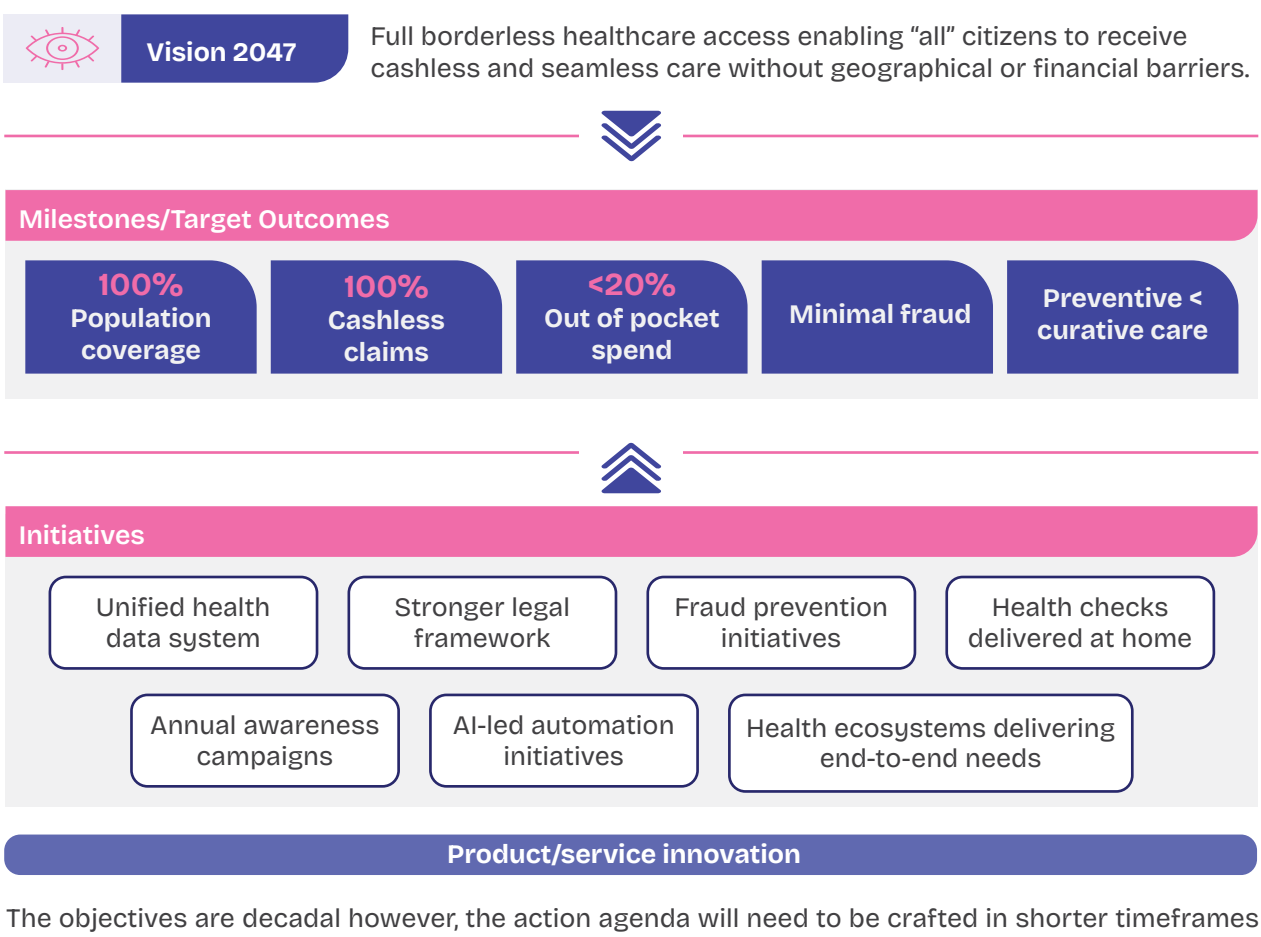
Key Implications for Stakeholders

Borderless Health is a truly ambitious execution paradigm that can galvanize India towards realizing its Vikshit Bharat vision with "Insurance for all by 2047" as the goalpost along with a dramatic improvement in health outcomes.

4.1 A Roadmap for Borderless Health Vision

Healthcare providers, insurers, policy makers and employers must collaborate to ensure the success of Borderless Health: offering universal affordable, and accessible healthcare to every Indian. As a nation, India must commit to specific milestones that would underpin this vision. These milestones need to address the heart of the challenge driving up insurance coverage to 100% of the population, making cashless claims with low fraud-rates the default without exception and more importantly, help drive a dramatic reduction in out of pocket expenses and instilling the habit and willingness to adopt preventive care. It is imperative for stakeholders to craft an actionable set of initiatives within the Viksit Bharat framework that work towards each of these goals individually, and collectively. As health insurance becomes universal, it is important to enhance stakeholder trust and financial prudence in the ecosystem with AI powered Fraud, Waste and Abuse systems. (Refer Exhibit 19 below)

EXHIBIT 19 : FRAMING THE AMBITION TO BORDERLESS HEALTH



The objectives are decadal however, the action agenda will need to be crafted in shorter timeframes with milestones for each of 2025, 2030, 2035, and beyond.

By 2030

Ensure 80% of the population has access to universal health insurance.

By 2040

Fully implement a unified health data system, ensuring all citizens' health records are accessible.

By 2047

Achieve full borderless healthcare access, allowing all citizens to receive cashless and seamless care without geographical or financial barriers. The movement ushered under Viksit Bharat and Borderless Health will thereby, lay out a roadmap that we embark upon and deliver.

4.2 Call to Action for All Stakeholders

Delivering on this bold ambition of Borderless Health would require all stakeholders to come together and act in unison. The actions should be mutually reinforcing to multiply the impact and leverage synergies across policies, care procedures, doctor's practices and government/ employer policies.

4.2.1 Healthcare Providers

Healthcare providers must embrace **digital health systems** to participate in the **Borderless Health ecosystem.** This includes adopting **interoperable health record systems,** and expanding care networks to underserved areas. Providers need to upgrade and move to a standardized and structured data capture model for ailments and procedures e.g. International Classification of Diseases (ICD) 11 and Current Procedural Terminology (CPT) coding. This will help in integrating with the Insurer/TPA modules for easier identification and billing of the services, making the overall customer experience seamless.

In addition, the providers should also invest in arriving at models with a standard billing process without much variation based on duration of admission or the ailment or the complexity. Here the providers should study the APR-DRG models available across the world which groups the ailments and derives relative weights to arrive at the price of service thus eliminating the need for complex billing and adjudication at the service provider end.

4.2.2 Payers

Insurers need to leverage **data-driven underwriting** and **automated claims processing** to offer fast and accurate claim settlements. Collaborating with healthcare providers to offer **modular and flexible health packages** will also be key. They should develop tailored health **plans specifically designed for SMEs** to increase penetration and support small business owners in providing affordable health coverage while catering to the diverse needs and budgets of SMEs.

There is a need for Insurers to work on Sandbox ideas to bring innovative products currently not available which could explore options like the Life insurance products where post certain period of premium payment, cover for life is available without premium. Such products may help fund Insurance for the elderly after retirement. Similarly, there can be innovative sachet products available through outlets like Pharmacy/Petrol Pumps/Motor Insurance agents to increase the penetration especially in the Tier 3 and rural areas of the country. Insurers should design geography-specific coverage plans to address India's diverse demographic needs. In South India, where higher Human Development Index Human Development Index (HDI) levels correlate with a higher prevalence of chronic diseases, tailored coverage is essential. Meanwhile, Northern India faces a dual burden: high rates of infectious diseases alongside a rising incidence of chronic conditions as Human Development Index (HDI) improves.

4.2.3 TPAs

TPAs should focus on capturing and maintaining structured customer data, including demographics and health information, to enable smooth data exchange with payers and providers.

They should leverage AI/ML technologies to enhance automation, accuracy, and prevent fraud in claims processing. By collaborating with payers and providers, TPAs can work to optimize payouts while minimizing costs for the insured.

TPAs should continue to drive large-scale orchestration of personalized benefits, adopt AI-led claims assessment, and ensure OPD health coverage. Furthermore, TPAs have a unique opportunity to create mobile-enabled health super-apps, facilitate seamless data exchange, expand provider networks, and integrate with wellness, pharmacy, and diagnostic services to unify OPD and IPD offerings.

4.2.4 Employers

Employers need to design **comprehensive benefits packages** that address both the physical and mental health needs of their employees, particularly in the context of **remote work** and the **gig economy.** Employers need to start viewing health insurance and health benefits as a core element of their Employee Value Proposition including modern day care packages, differentiated thresholds linked to individual. For example, employers in South Korea will not pay their employee bonus unless mandatory health check-up is completed.

4.2.5 Policy Makers

Policy makers should focus on creating a **regulatory framework that** promotes **data privacy and security** while enabling the **interoperability of health records.** This will be crucial in scaling **Joined Health Data systems** across the country. Policy makers should also, consider legal reforms that **criminalize health claims fraud**. Policy makers could implement **tax incentives**, such as reduced GST on premiums and income tax deductions, to reduce reliance on out-of-pocket payments. Policy makers should also, drive innovative universal health care concepts like the Health Saver Account concept that is prevalent Singapore. Furthermore, to drive a step-change in Insurance health records and preventive care, an annual mandatory **"at-home" health check-up** should be made mandatory for each individual, covered either under public-health insurance or private health insurance but delivered at the door-step.

By focusing on Borderless Health, India can transcend its current healthcare challenges and ensure universal access to quality care earlier than 2047. Leveraging Health Data, automated and cashless claims systems and driving stakeholder collaboration, India can realize its vision of Borderless Health. As Indians across the country suffer from the increased spate of lifestyle diseases, the AQI worsens and pollution induced ailments explode, it's a sombre reminder of the task at hand and a clarion call to commit to Borderless Health for all.

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