NATION BUILDING

Enabling India's

next generation towards an extra decade of

healthy living through

individual-driven action

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Task *at a* Glance

Health is central to a nation's social and economic progress and helps it unlock its full potential through healthy and productive workforces. A healthy India, however, cannot be envisaged without the state, communities, and individuals adopting healthy living practices. At the forefront of this movement are the youth, who are not only the drivers but also the primary beneficiaries of evolving and improving health outcomes in the decades to follow.

With this thought, the NationBuilding Case Study Competition, in its third edition, invites the country's youth to engage in the journey to nation-building and propose innovative solutions to reform the current healthcare ecosystem and attitudes for a healthier next generation.

Solutions Format

The purpose and main impact goal of the competition can be understood as increasing the current Health-Adjusted-Life-Expectancy (HALE) of India by a decade (10 years), and empowering the youth to live a healthy life for an elongated period through self-driven actions.

Participants are expected to craft and propose a solution that enables the achievement of the impact goal as defined above. The solution can be completely new or some creative combination of existing levers, but it must comply with and operate within mandated capacities of the government.

The proposed solution, in the second round, will be submitted in the form of a 5-slide presentation, which should articulate the broad contours of the solution and define linkage with the defined impact goals. Over the later rounds, participants will be expected to build upon the proposed solution in terms of format, while articulating the necessary modalities, resourcing, stakeholder relationships, execution, evidence, and values of impact. The solutions proposed by the participants will be assessed on the basis of fresh thinking, landscape understanding, critical thinking, strength of impact, and solution feasibility, along with the presentation and content.

For the benefit and reference of the participants, the subsequent document provides an overview of the current landscape relevant to various aspects of the problem statement. It outlines the relationship between healthy living and nation-building, the youth as catalysts of change, current healthy living indicators and practices in India, and the systemic intervention of the state to promote health and well-being. It also outlines a transformation model for healthy living and details the elements and their intertwined roles in driving change, which can be utilised by participants as a starting point.

Introduction

Healthy living, at a population level, refers to practices that are consistent with supporting, improving, maintaining and/or enhancing health. In an individualistic sense, it implies adoption of health-enhancing behaviours in physical, mental and spiritual capacity to make healthy choices.[2] It is about cultivating a balanced lifestyle through an ongoing process of informed decision-making that strengthens overall wellness, thereby enabling people to thrive in their daily lives and contribute meaningfully to families, communities, and society.

> **Health is more than the absence of illness; it is a state of physical, mental, and social well-being that enables individuals to live with dignity, purpose, and productivity.**
>
> **-WHO[1]**

While individual action is a personal responsibility for the health of oneself, it is also essential to drive mass transformational change. In this setting, India has already shown what individual action can achieve. During the COVID-19 pandemic, over 220 crore vaccine doses were administered, a milestone described by the Union Ministry of Health and Family Welfare (MoHFW) as ***"the world's largest people-led vaccination movement"***[3] Such an achievement was not merely the result of individual or state efforts, but a culmination of concerted public-driven efforts in a systemic manner, which resulted in mass awareness and acceptance of a novel proposition. This milestone clearly demonstrated how synergy between systemic preparedness under effective government leadership and individual ownership can generate national impact.

Healthy populations, achieved through heightened focus on health, are a powerful catalyst for wider societal progress. Healthier individuals contribute to more productive workforces; resilient communities are better equipped to endure and recover from adversities; a nation enriched with robust health capital accelerates its journey towards inclusive growth and social stability. Within this structure, the health of youth is specifically critical as they form the cornerstone of the future workforce and act as key contributors to national development. Cumulatively, this means that advancing healthy living at the national level demands synchronised efforts across multiple dimensions, where citizens adopt health-positive behaviours empowered through systems driven by forward-looking governmental policies, which are pro-actively shaped through youth advocacy and action.

India's view of health does not stop at lack of illness. Being free of diseases is just a stage on the way to wellness. Our goal is wellness and welfare for everyone. Our goal is physical, mental and social well-being.

- PM Narendra Modi

Healthy Living *as* Collective Value

Building on the vital connection between individual actions and strong systems, health takes top national priority because of its influence on every aspect of human life. While advances in healthcare have extended life expectancy at birth, many of these additional years are still burdened by disease or disability, underscoring the critical need to shift focus from merely increasing lifespan to extending healthspan, ensuring that the added years are lived in good health and full function, thereby enhancing quality of life as an outcome of healthy living.

In achieving such a society, health needs to be fully integrated into daily life, marked by the expectation that individuals maintain their well-being while having seamless access to the resources and support systems they need. As a result of these integrated efforts, optimal health can come to be regarded as the normative state rather than the exception. However, sustaining such an outcome will demand constant reinforcement through social environments and interactions that individuals engage with, thereby embedding health as a collective value and a foundational social norm.

When health is seen as a shared value, it ceases to be a matter of individual choice alone and becomes part of the collective fabric of society. This wider understanding is echoed in India's **constitutional framework,** which places health within directive principles of policy. Beyond this foundation, the Supreme Court has also consistently expanded the scope and interpretation of Article 21 (protection of life and personal liberty), accommodating the right to health and medical care as key aspects, thereby safeguarding health as a national responsibility for justice and equality.

Health as a priority, however, is not merely a national concern but a shared **global commitment,** one that the Indian government has repeatedly reaffirmed on the world stage. The country has consistently aligned its policies with global frameworks, notably the Sustainable Development Goals (SDGs), which recognise health as central to inclusive and sustainable development. This global commitment to health sets the stage for SDG 3, which aims to ensure healthy lives and promote well-being for all at all ages.[5] Beyond this goal, the interdependence across SDGs better demonstrates why extending healthy years of life is integral to national progress. For instance, SDG 2 on zero hunger[6] connects directly with nutritional security. Without addressing dietary practices at an individual level, the gains in child survival will not translate into long-term healthspan. Equally, SDG 6 on clean water and sanitation is fundamental to health.[7] Every individual practice of safe water storage, handwashing, and waste segregation directly adds to years of healthy living by maintaining the shared environments. SDG 11 on sustainable cities[8] highlights that urban health is shaped not only by policy but also by citizens' choices. From clean household energy to sustainable transport and waste practices, small daily actions can collectively extend life expectancy in polluted cities. Health also underpins SDG 8 on decent work and economic growth.[9] A workforce in poor health cannot sustain productivity gains, and premature morbidity erodes the demographic dividend. This connection illustrates a deeper truth: health is not only a development goal in itself but a key contributor to all the other dimensions of national progress and development.

UN Sustainable Development Goals

For India, the urgency of building a health-centric society stems not only from the aspirations of its people or the rising burden of both communicable and non-communicable diseases, but also from the nation's demographic profile. A population that enjoys longer years of healthy living is more productive, more innovative and more likely to participate in education, employment, and community life without any disease burden. Consequently, the nation benefits through higher output, greater resilience to shocks, and stronger social cohesion.

For example, the 5th largest global economy,[10] Japan, has one of the highest healthy life expectancies in the world. Japan's HALE stands at 73.4 years (2021), much higher than the global average of 61.9 years.[11] However, this was not the case from the outset. In the late 1960s, the country experienced rapid economic growth alongside a sharp increase in its life expectancy. Despite low national income in aftermath of World War II, targeted and scaled state interventions driven by strategic investments in public health resulted in unprecedented improvements.[12] Such progress in health outcomes and synchronous economic development can indicate a potential positive correlation between economic development and the health of the masses. The result is a workforce that, even with the burden of an ageing demographic, continues to sustain one of the world's largest economies.

Japan's example underscores a key lesson in economic development and population well being. In enabling a healthy population, health must be recognised not merely as an outcome of development but as a foundational enabler for nation-building.

Healthy Living *and* Nation Building

As an input to development of the nation, health must be recognised as one of the primary pillars for driving the country's economic development. The focus must be on a 'synergised, inclusive and futuristic healthcare ecosystem', which aligns with national priorities for growth. In this context, health improvements are perceived to be an important component of economic development for the takeoff toward sustained economic growth.[13]

The World Bank observes that "investments in health contribute directly to economic growth through improved productivity, enhanced learning, and reduced healthcare costs."[14] In such a background, health may be viewed as an integral input to productivity, similar to other conventional inputs such as labour and physical capital.

Demographic Dividend

As of 2024, 68% of India's population lies between 15 and 64 years, essentially the working age, which provides India with the golden opportunity to harness its demographic divide.[15] However, the country can leverage its **demographic dividend** only if its citizens attain optimum levels of health, driven by nutrition and cognition.[16] Only a healthy and productive workforce can contribute directly to economic growth and national output.

In 2021, it was estimated that the economic loss due to lost output from premature deaths and morbidity among adolescents stood at 1.3% of the country's GDP ($38.01 billion). Such economic loss is also associated with disinvestment in human capital stock, which can be understood as the knowledge and skills possessed by the population.[17]

Economic Burden

Even in the process of building the human capital stock, health barriers to learning act as a hurdle, undermining an individual's ability to acquire knowledge, academically perform or innovate. Moreover, beyond education, only healthy populations can participate in manual and physically strenuous work.[18] Thus, improved health of a nation's citizens not only impacts the size of the contributing population but also enables extended labour workforce participation and delays their conversion into dependents.[19]

Instances of sickness and overall ill health of the population also have **other associated economic costs.** These include lost production owed to economic inactivity due to long-term or temporary sickness, or informal caregiving that pulls people out of the workforce. Additionally, when an individual's health causes them to move from being economically active to economically inactive, the nation bears extra costs in terms of

lost economic productivity of the labour due to conditions limiting employment, as well as greater medical expenses both for the individual and the state.[20]

An analysis from Brookings India shows that over 7% of India's population is pushed into poverty every year due to healthcare costs, with the impoverishing impact being similar for both rural and urban areas.[21] These healthcare costs are primarily out-of-pocket-expenditures (OOPE), which are medical expenses directly borne by the public. This financing method is neither considered effective nor fair as it often increases the incidence and depth of poverty. Families often fund medical expenses through borrowing, adding or increasing economic pressure on them. This can push them to poverty, which in turn worsens health outcomes and their ability to live healthily. As per WHO SAGE 1 report (2007), 13% of total monthly household expenditure and 22% of non-subsistence monthly expenditure in India was spent on healthcare costs incurred as OOPE. As a result, 33% of households living below the poverty line incurred catastrophic health expenditure. Further, of all households which incurred catastrophic health expenditures, 24% became impoverished as a consequence.[22] Such incidences of OOPE are rarely isolated in nature. In early life, OOPE is associated with childbirth events, childhood illnesses and necessary vaccinations. Transitioning into adulthood, bearing health costs becomes further burdensome due to chronic nature of most diseases, which often continue into old age. The old age is further marked by diseases associated with ageing. Economically, across these life phases, OOPE negatively impacts investment in education during childhood and imposes an opportunity cost related to employment during adult years. Consequently, old age is correlated with increased financial insecurity and vulnerability and low or no income source.[23] This notion has been reiterated by LASI WAVE 1 report (2020), which substantiates that the per capita health spending of a household with an elderly member age 60 and above (₹405) is higher compared with a household without an elderly member (₹352).[24]

In terms of financial impact and vulnerability, expenditure on medical care also reduces current and accumulated **household savings**.[25] The situation strengthens the need for impactful public and private spending on healthcare. The government (union, state and local) has increased health expenditure from 3.94% in 2014-15 to 6.12% in 2021-22 in terms of general government expenditure. This is further substantiated by a decline in out-of-pocket expenditure as a share of total health expenditure from 64.2% in 2013-14 to 39.4% in 2021-22.[26] Even though the public sector spending is ever-increasing, it is overburdened owing to an imbalance between the supply and demand, making the private healthcare sector responsible for a majority of healthcare expenditure (59.7%) in India.[27,28]

Social Equity

While economic costs highlight health's role in development, health outcomes also stem from factors beyond the health sector, which makes addressing healthcare outcomes even more complex.

> "Our world is an unequal one. Where we are born, grow, live, work, and age significantly influences our health and well-being," quoted WHO Director-General Dr Tedros Adhanom Ghebreyesus at the launch of "world report on social determinants of health equity."

Health follows a **social gradient** whereby those living in deprived areas have lower incomes, fewer years of education, and fewer healthy years to live.[33] In India, NFHS-5 shows that the **under-5 mortality rate is as high as 59 per 1,000 live births for the lowest wealth quintile**, compared with 20.1 per 1,000 live births in the highest wealth quintile.[29] Beyond loss of life years, such patterns can also be observed in productivity loss. As measured by the HCI 2020, worldwide, any child born right before the advent of COVID-19 would expect to achieve on average only 56% of their full productivity as a future worker.[30] However, a child born in a low-income economy could expect to be only 37% as productive as if they had a full education and full health. In contrast, for a **child born in a high-income economy, this figure could be as high as 70%.**[30] These inequities, even within nations, are further exacerbated in populations that face discrimination and marginalisation.[33] The burden of illness is magnified among the disadvantaged groups, causing productivity loss, earlier exits from the workforce and higher caregiving burdens. Thereby, health can be understood as a precondition for and an outcome and indicator of the social, economic and environmental dimensions of sustainable development.[31] There is a two-way relationship between health status and socioeconomic factors. The benefits of good health extend beyond the individual, with payoffs in terms of improved social stability, helping curb the overall inequalities and pushing **social equity.**[32]

Beyond social inequities, healthcare also plays a crucial role in asserting **urban-rural divides** that often limit opportunity. Globally, health inequities experienced by rural populations result from adverse social and environmental determinants, as well as weaker health systems in rural areas,[33] and India reflects this pattern. Rural workers form about 62% of the worker population in India,[34] yet their participation has often been affected by preventable illnesses, restricted access to care, and higher exposure to communicable diseases. The health workforce is highly concentrated in urban areas with only 36% of health workforce being located in rural India,[35] limiting access to equitable care, and increasing likelihood of disease prevalence.

Over the years, the expansion of health infrastructure and services has begun to narrow this divide. Greater availability of primary care closer to rural populations has reduced the need for travel to urban hospitals, while wider immunisation coverage and maternal

health programmes have lowered preventable mortality. Data from successive NFHS surveys show a steady rise in institutional deliveries and child immunisation rates in rural areas, signalling that access is becoming less uneven across geographies.[36]

The expansion of healthcare has been instrumental in narrowing disparities between urban and rural populations, especially when viewed through a gendered lens, as exemplified by maternal care. The concept of **gender equity** recognises that there are differences between men and women in terms of health needs and the access or control over resources. It also recognises that these differences must be addressed in order to correct imbalances between the two genders.[37] Greater access to reproductive health and safe childbirth services, for instance, has sharply reduced India's maternal mortality ratio. These improvements have not only safeguarded women's health but also expanded their opportunities for education and economic participation, strengthening their role in households and the workforce. As healthier women and men share responsibilities more equitably, families become more resilient, and the cycle of disadvantage is gradually weakened.

In this sense, improved health outcomes are a prerequisite not only to improve the gender divide but also for developing countries to break out of the cycle of **poverty**.[38] Better health of all ensures that workers are not subject to ill health which directly contributes to increasing output, reducing turnover in the workforce, and increasing enterprise profitability and production from activities like agriculture. Increased labour productivity, in turn, also creates incentives for investment. Alongside, as health improves, rates of absenteeism and early school drop-outs fall, and children learn better, leading to growth in the human capital base. Such health improvements have intergenerational spill-over effects, which allow for the narrowing of the poverty gap.[38]

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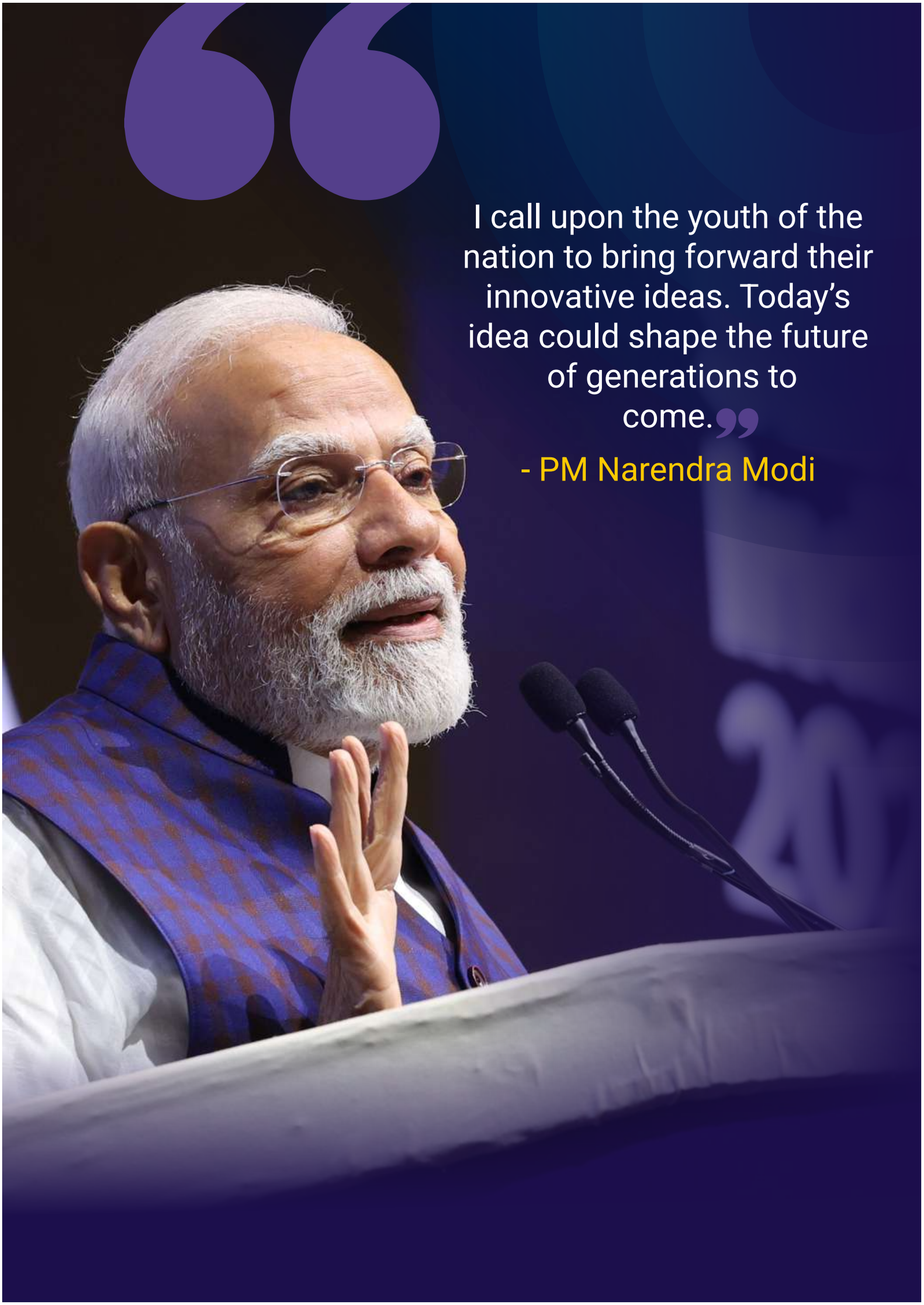
Youth *as* Enabler *of* Healthy Living in India


I call upon the youth of the nation to bring forward their innovative ideas. Today's idea could shape the future of generations to come.
- PM Narendra Modi

Youth as Driving Force

India has the largest youth population in the world, with about 65% of people under the age of 35 years.[39] This establishes that succeeding growth of the economy is not possible without the active involvement of this demoraphic of the country.[40] As the next generation, the youth are the driving force of progress, change and innovation. As agents of change, they shape outcomes for themselves and their generation, and are likely to guide the future generations. They hold the power to influence citizen behaviour at large and potentially strengthen the systems driving the nation towards development through healthy living.

In setting any such change to motion, the today's youth are uniquely positioned to make mass and intergenerational advancements. Supported by improved education, healthcare systems and other well-being mechanisms, they can directly drive positive change in their communities. Connected to each other like never before, young people can drive social progress and inspire change through coordinated ideas and actions at mass scales. Effectively utilising the interconnectedness and increasingly available advocacy platforms, they hold the ability to mobilise communities to improve the lives of people and the health of the planet. By adopting and promoting healthy behaviours, they can establish foundational norms that could benefit the future generations.

Identifying this potential, international organisations such as WHO amplify the voices of the youth through initiatives like Youth4Health, which connects young individuals directly in policy and decision making.[41,42] In this context, youth not only act as an agent of change but also the primary beneficiaries of healthier systems. However, to enable the success and contributions of the youth as tomorrow's healthy leaders, quality and timely investment in the next generation is essential.

Current Situation *of* Healthy Living in India

The status of health in any country, region, or cohort is captured using a variety of markers, ranging from survival indicators to risk factors. Among these, the most relevant are life expectancy at birth and health-adjusted-life-expectancy (HALE). Life expectancy at birth measures the average number of years a newborn can expect to live, assuming current mortality trends continue, while HALE goes a step further, adjusting life expectancy by accounting for the years likely to be lived in less than full health due to disease or disability. In other words, while life expectancy only reflects the quantity of life, HALE also reflects the quality of those years.

India has made some leaps in increasing its **life expectancy at birth** from 63.2 in 2000 to 67.3 in 2021.[43] Though **HALE** has also improved to 58.1 years (2021), India still lags behind in absolute terms.[43] Comparatively the global averages are higher than India's, with life expectancy at birth at 71.4 years and HALE at 61.9 years.[52] This means that not only do Indians live shorter lives, but they also spend more years in ill health as compared to both global averages and high-income countries.

S. No.	Country	Life Expectancy at Birth			Health Adjusted Life Years		
		2000	2021	Change %	2000	2021	Change %
1	United States of America	76.7	76.4	-0.39	65.3	63.9	-2.14
2	China	70.8	77.6	9.60	63.1	68.6	8.72
3	Germany	78.1	80.5	3.07	67.5	68.9	2.07
4	India	63.2	67.3	6.49	54.1	58.1	7.39
5	Japan	81.5	84.5	3.68	71.1	73.4	3.23
6	United Kingdom	77.9	80.1	2.82	67.3	68.6	1.93
7	France	78.9	81.9	3.80	68	70.1	3.09
8	Italy	79.4	82.2	3.53	68.4	70.6	3.22
9	Brazil	71.5	72.4	1.26	60.9	61.8	1.48
10	Canada	79.1	81.6	3.16	68.5	69.8	1.90

Table 1: Life expectancy at birth and HALE from 2000 to 2021 in world's top 10 economies (by GDP)[44]

*World Bank and the Government of India report a life expectancy of 72 years;76 however, this report uses WHO data for consistency and comprehensive coverage.

Other indicators of healthy living reflect a similar but more nuanced picture. While Infant Mortality Rate (IMR), another crucial indicator, has fallen to 25 per 1,000 live births (2023), it is still above the global average of 18. Similarly, the Maternal Mortality Ratio (MMR) has declined to 80.5 per 1,00,000 live births (2023), bringing India closer to the SDG target of <70, but still showing slow progress made in maternal health services.[46]

Drainers of Healthy Living

The gap between life expectancy and healthy living is evident in disease burden. **Disability Adjusted Life Years (DALYs)** measure the total years lost due to premature death and years lived with disability. While the figure has grown over time, the rate of change has been slow, reflecting progress in controlling infectious diseases and improving child survival. However, in terms of global comparison, India's total DALYs represent a significant burden on the country when compared with countries with similar economic profiles.

S. No.	Country	DALY (Absolute, in millions)			Global DALY Distribution (%)		
		2000	2021	Change %	2000	2021	Change %
1	United States of America	89.48	126.67	41.55	3.38	4.39	1.02
2	China	378.15	402.63	6.47	14.27	13.97	-0.30
3	Germany	27.32	29.52	8.05	1.03	1.02	-0.01
4	India	509.68	530.25	4.04	19.23	18.39	-0.84
5	Japan	34.72	39.06	12.52	1.31	1.35	0.05
6	United Kingdom	19.25	21.61	12.28	0.73	0.75	0.02
7	France	18.13	20.02	10.40	0.68	0.69	0.01
8	Italy	18.11	19.62	8.37	0.68	0.68	0.00
9	Brazil	57.72	78.66	36.28	2.18	2.73	0.55
10	Canada	8.13	11.01	35.53	0.31	0.38	0.08

Table 2: Burden of DALYs from 2000 to 2021 in world's top 10 economies (by GDP)[47]

The composition of the diseases contributing the most to the total disease burden has changed significantly. A remarkable shift is observed with non-communicable diseases (NCDs) such as ischemic heart disease, Chronic Obstructive Pulmonary Disease (COPD), and stroke occupying top positions. While communicable diseases (CDs) like neonatal conditions, diarrhoea and tuberculosis (TB) still continue to be alarming for the country, a declining trend has been observed over time. From 1990 to 2021, the disease burden (DALYs) attributable to communicable diseases has reduced by over 45% in India, but they still constitute over 30% of the disease burden on the country.[47] Thus, while communicable diseases remain prevalent, their growth has slowed, leading to non-communicable diseases emerging as a rising concern The unfortunate scenario is such that cardiovascular diseases come to affect the populace in India a lot earlier as compared to their western counterparts, thus affecting golden productive years and increasing financial burden. These shifts in the diseases are reflected in both DALYs and prevalence patterns, highlighting the evolution of the population.

Prevalence, which measures the proportion of people in a population who are affected by the disease, has been steady with a rate of 98,047.42 per 1,00,000 people in 2021 versus 99,281.24 per 1,00,000 people in 1990.[47] What has changed, though, is the composition of diseases, with neurological and sense organ diseases taking a leap and CDs such as Malaria witnessing a decline.

The high prevalence of diseases is closely linked to underlying risk factors. **Risk Factors** are conditions that increase the likelihood of developing or contracting a disease, either as a direct or an indirect cause.

Risk factors such as diabetes, hypertension, obesity, and smoking are increasingly common, reflecting shifts in diet, sedentary lifestyles and urbanisation. Nearly one in four Indian adults has hypertension,[47] while diabetes prevalence among adults aged 15-49 is close to 5%, with a substantial number undiagnosed.[47] Smoking remains highly prevalent, with 40% of households having at least one smoker, further adding to the risk burden.[47] These risk factors not only sustain high prevalence but also influence the flow of new cases across the population.

Incidence, which measures the number of new cases of a given cause, has seen a minor reduction, amounting to 5,30,764.71 per 1,00,000 in 2021 from 5,53,182.62 per 1,00,000 in 1990.[47] Interestingly, the top disease groups from 1990 to 2021 remained unchanged, with respiratory infections and enteric infections leading the tally. However, what has changed is the incidence of nutritional deficiencies that earlier occupied 5.9% of overall cases in India (1990) but have decreased by 67.4% and occupy only 1.9% of the total new cases (2021).[47]

Cohort-wise Status of Healthy Living

1 Gender

Population-level health patterns can be understood by examining outcomes across demographic cohorts. **Gender,** for instance, reveals stark disparities in risk exposure and disease burden. For example, women, particularly in the 15–49 age group, face a higher burden of anaemia; 57% of women are anaemic, against 25% of men.[29] As opposed to India, globally the prevalence of anaemic population is much lower, with the global average being 30.7%,[48] highlighting a stark differential from India's current situation. In the case of nutritional status, a paradox can be observed with more women than men being underweight as well as obese. Reproductive and maternal health is another key gender differential. NFHS-5 indicates progress with 89% of births being delivered by a skilled provider, steadily reducing maternal mortality. However, considerable geographical disparities persist, especially in states like Bihar and Uttar Pradesh,[29] where women still face insufficient antenatal and postnatal care. In case of males, men face higher behavioural risks, with 38% of those over 15 using tobacco, compared to only 9% of women.[29]

2 Age

Health risks, however, do not only affect adults. **Age** is another critical dimension shaping the country's health profile. 36% of children under five are stunted, and 32% are underweight.[29] By comparison, child stunting globally stands at a lower rate of 23.2%.[49] This metric becomes crucial because it not only reduces chances of survival in childhood but also makes children prone to several chronic diseases in the future. In adolescents and young adults (15–29 years), a different challenge is emerging with the early onset of metabolic risk factors, like hypertension and obesity, which contribute to progress of metabolic syndromes. Around 5% women and 9% men in the age group of 20-24 years already exhibit hypertension.[55] Rates of obesity have also increased rapidly in this group, particularly in urban and semi-urban populations, with sedentary lifestyles and dietary shifts driving the change. These patterns, however, are not uniform across the population and are heavily influenced by economic status.

3 Economic Status

Economic status, a strong indicator of one's health outcomes, shows sharp inequalities across wealth quintiles, amplified by high OOPE in India (39.4% as of 2022).[50] Malnutrition in children follows a clear economic differential; 46% of children in the poorest quintile are stunted compared to only 23% in the wealthiest. Similarly, underweight prevalence is 42% among the poorest households versus 23% among the richest.[29] It becomes more obvious how wealth correlates with nutrition, and how poverty amplifies chronic undernutrition, while affluence provides better nutrition and healthcare access. Among adults, the difference is even more striking, with signs of double burden of nutrition, implying simultaneous existence of undernutrition and

overnutrition in a cohort. Obesity rises steeply with affluence; among women, 39% in the richest quintile are overweight or obese compared to just 10% in the poorest; while among men, the figures jump from 10% among the lowest quintile to 37% in the highest quintile. Anaemia also reflects this inequality; 64% of women in the lowest quintile are anaemic compared to 51% in the richest, while for men it drops by half, from 36% to 18%, across the same wealth quintiles.[29] These figures show that while wealthier groups are shifting towards lifestyle-related risks (obesity, metabolic complications), poorer households remain trapped in undernutrition and anaemia. Economic disparities, however, intersect with geography, creating further variation in health outcomes across India's diverse regions.

4 Geographies

India is a vast landmass, beaming with diversity, which leads to varying results across **geographies,** even in the context of health. For example, stunting among under-5 children is highest in Meghalaya (46.5%) and Bihar (42.9%), and much lower in states like Kerala (23.4%) and Puducherry (20%).[29] This could indicate a plausible pattern that economically better performing states, especially in terms of per capita income, tend to fare better in health outcomes. Through the urban-rural split, it is observed that stunting is at 37% in rural areas versus 30% in urban populations. Hypertension, a major risk factor for NCDs, has a prevalence of 26.6% among men in urban areas and 22.7% in rural areas, while for women it is 23.6% in urban versus 20.2% in rural geographies.[29] This can probably be explained by the varying reliance on energy-dense processed foods, coupled with a sedentary lifestyle, across territorial regions.

5 Marginalised Communities

At the intersection of this geographical and socio-economic diversity, certain **marginalised communities** face significant vulnerabilities. Scheduled Tribes (STs) represent one of the most vulnerable groups, especially in terms of resource access and healthcare inequality in the country. For instance, child mortality rates among STs remain alarmingly high - the under-5 mortality rate stands at 50.3 deaths per 1,000 live births, compared with the national average of 42. Among adults, STs continue to face higher risks of undernutrition. Close to 20% of ST women and 19% of ST men are classified as thin, compared with 13–14% among the general communities.[29] These can also be coupled with the fact that STs are more likely to live in remote, rural, and forested areas with limited healthcare access, higher exposure to environmental hazards, and socio-economic marginalisation.

Determinants of Healthy Living

The burden of disease in India is not only explained by prevalence and incidence rates but also by the contributors that increase or reduce these drivers of unhealthy living. These contributors highlight what determines a population's health at its roots, ranging from biological and genetic predispositions to lifestyle choices, environmental exposures, occupational risks, and mental well-being.

1 Genetic Predisposition

Among these, genetic predisposition is a critical factor that places certain populations at higher inherent risk.

Indians, owing to their South Asian characteristics, have an increased genetic susceptibility to NCDs such as type 2 diabetes (T2D) and cardiovascular diseases (CVD), leading to earlier onset compared to other populations.[51]

This predisposition can be explained by elevated insulin resistance, skinny fat deposition, and early metabolic dysfunction. Resultingly, South Asians are more likely to develop T2D and CVD at younger ages and with lower BMI compared to other ethnic groups.[52]

2 Lifestyle Behaviours

While genetic risk provides the inherent vulnerability that a population faces, l**ifestyle behaviours** influence how quickly these risks translate into a disease. Physical inactivity is a leading contributor to the rising burden of NCDs in India.[53] Nearly half of Indian adults (49.4%) are insufficiently active, with inactivity levels being higher among women (57.2%) than men (42%). Among adolescents aged 11–17, around 74% do not meet the WHO-recommended levels of physical activity, with girls being slightly more inactive than boys.[54]

3 External Factors

Beyond behaviour, **external factors,** forming the **environment** in which people exist, play an equally decisive role. India faces severe environmental health burdens that amplify disease incidence, increase DALYs, and reduce healthy life expectancy. Air pollution is one of the most pressing threats. Outdoor and indoor air pollution contribute heavily to respiratory infections, stroke, lung cancer, chronic obstructive pulmonary disease (COPD), and cardiovascular diseases. For instance, many Indian cities have annual PM 2.5 levels which are seven times higher than WHO guidance; Delhi and other urban centres regularly exceed safe standards, which increases risks of lung diseases and metabolic disorders like type-2 diabetes.[55] Water and sanitation issues add another dimension to environmental risk. Many parts of rural and poorer urban India still suffer from unsafe drinking water, microbial contamination, chemical pollutants (like arsenic and fluoride), and poor sanitation, which lead to diarrhoeal diseases, typhoid, hepatitis, and other gastrointestinal illnesses. WHO and UN report that around 37.7 million Indians

are affected by waterborne diseases annually, and under-five child mortality remains significantly tied to poor water, sanitation and hygiene (WASH) services.[56] Temperature extremes, especially heat waves, further compound health risks. Heat waves in India, which significantly occur from March to June, have measurable effects on mortality.[57]

4 Occupational Hazards

Occupational hazards further worsen India's health burden, particularly among informal workers, leading to a high incidence of injury, disability, and disease. Currently, over 3% of the disease burden can be attributed to them.[47] According to the WHO, occupational health risks in India include exposure to carcinogens, airborne particulates, noise, ergonomic stressors, and hazards from chemicals such as pesticides.[58] Excessive heat exposure is a critical occupational risk; the International Labour Organization estimates that over 70% of workers globally are exposed to harmful heat conditions, which are linked with kidney diseases, reduced productivity, and elevated risk of fatal and non-fatal injuries.[59]

5 Mental Health

Lastly, but most importantly, mental health is not only a disease in itself but also contributes to the manifestation of physical ailments. It is integral to the overall health and well-being of a human, so much so that the projected economic loss due to mental health conditions in India between 2012 and 2030, is estimated at $1.03 trillion.[60] GoI's Economic Survey 2023-24 reports that 10.6% of adults suffer from one or more mental disorders. Mental morbidity is higher in urban metropolitan areas (~13.5%) compared to rural (6.9%) and urban non-metro (4.3%) areas. Adolescents, too, are affected. According to NCERT's Mental Health and Well-being of School Students Survey,[61] about 11% of students report anxiety, 14% report extreme emotion, and 43% report mood swings, especially since the COVID-19 pandemic.[62] Despite the pressing condition, the services for mental health in India remain weak. For instance, India has about 9,000 working psychiatrists in total; to meet the WHO's ideal norms (~3 psychiatrists per 1,00,000 population), India would need roughly a total of 36,000 psychiatrists, indicating

Enablers and Barriers

Beyond the direct biological, lifestyle, and environmental contributors to health, the scale at which these factors impact the population is determined by broader enablers and barriers. These include institutional systems, policies, and financial mechanisms.

In this direction, **public health financing** is perhaps the most important factor in determining whether prevention, early detection and long-term solutions can be delivered and adopted at scale. India's total health spending was about 3.8% of GDP in 2021–22, but the government health expenditure remained only ~1.84% of the GDP.[66] Although government health expenditure has increased relatively over the years, it faces

two issues: firstly, India's combined government health expenditure, which stood at 1.84% of GDP, was well below the guidelines of the National Health Policy (2017)[64] which suggests an expenditure of 2.5% of GDP or more for adequate universal health coverage; secondly, MoHFW's share in the union budget has been declining and for FY 2025-26, stands at close to 2%.[65] This means public financing covers less than half of the total health spend. By international comparisons, this level of public spending is low. The spending on health as a percentage of global GDP stands at 10.3% as of 2021.[66] Among the EU countries, Germany (12.6%), France (11.9%) and Austria (11.2%) had the highest current healthcare expenditure relative to GDP in 2022.[67] Higher healthcare expenditure has enabled advanced countries to invest heavily in universal primary care, robust screening programs, mental-health services and injury prevention. However, India's relative public outlays constrain similar population-level prevention and continuity of care.

In India, 53.24% of Current Health Expenditure (CHE) is directed towards inpatient and outpatient curative care (37.94% of CHE and 15.30% of CHE, respectively), while only 13.55% of CHE is allotted to preventive care.[64] This skew toward curative care over preventive services highlights the underfunding of preventive interventions like immunization and public health education, which has resulted in a growing burden of NCDs that continues to weigh heavily on the Indian masses.

Access to health services and resources, beyond financial access, is influenced by elements like geographical proximity, healthcare manpower, physical and technological infrastructure, and socio-cultural awareness and acceptance. **Physical healthcare infrastructure** in India is less than desirable, even in the urban areas. In contrast to one of the best performing countries, Greenland, which has 14.4 hospital beds per 1,000 population, India trails with 1.4 beds per 1,000 population.[68] Further, there is a huge gap in the demand and supply of **healthcare professionals** in the country. Although India has a doctor-population ratio of 1:834 compared to the WHO standard of 1:1000, the concentration of these professionals is significantly higher in urban areas, with the urban to rural doctor density ratio being 3.8:1 (as on August 2019).[69] Similarly, registered nursing personnel stand at 36.14 lakh (as on December 2022),[70] which does not meet the requirement of 1/3 doctor-nurse ratio. Even within the states, there is a huge disparity between districts in terms of availability and accessibility to healthcare facilities, which leads to delays in access to specialised services and diagnostics.

In such a landscape, health literacy, technological advancements and insurance expansion act as enablers.

It massively impacts the healthcare service utilisation in the country, as it has been proven by many community-based studies that the health indicators reflecting the health outcomes are far better in countries like The Netherlands, where the masses are capable of making informed decisions about their health and having shifting preferences in terms of health priorities.[71]

> Health literacy refers to an individual's ability to acquire, communicate, process and comprehend vital health-related information and services.

Institutional Initiatives *for* Healthy Living *in* India

India's healthcare system has witnessed transformations over the years as a result of government's focus on making quality healthcare accessible and affordable to all citizens, with emphasis on the underprivileged and rural populations. Guided by the National Health Policy of 2017, the Indian government's initiatives for healthy living envisage the attainment of the highest possible level of health and well-being for all at all ages, through a preventive and promotive health care orientation, and universal access to good quality health care services without the burden of financial hardship as a consequence.[65] Marking a shift from sick care to well-being, the policy sets ambitious targets, including addressing both NCDs and infectious diseases, strengthening healthcare delivery and capacity, reducing out-of-pocket expenditure, and enhancing economic productivity through a healthier workforce. The National Health Mission (NHM), with its two sub-missions, National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), aims to ensure universal access to equitable, affordable and quality health care services, accountable and responsive to people's needs.[72]

Flagship Schemes

In attaining the objective of Universal Health Coverage (UHC), the government launched Ayushman Bharat, recommended under the 2017 National Health Policy, to holistically address the healthcare system at the primary, secondary and tertiary levels. It incorporates two larger components. Firstly, the Pradhan Mantri Jan Arogya Yojana (PM-JAY), the world's largest health insurance programme, aimed at protecting the economically vulnerable population from catastrophic healthcare expenditures. Secondly, to reduce geographical constraints in accessing care, Health and Wellness Centres (HWCs) have been established by transforming the existing Sub Centres and Primary Health Centres, to cover maternal and child health services as well as non-communicable diseases. While the insurance scheme caters to secondary and tertiary care, HWCs focus on prevention.[73]

GoI also launched the Ayushman Bharat Digital Mission (ABDM) to establish a robust and integrated digital health ecosystem across the country. At the heart of the mission is the Ayushman Bharat Health Account (ABHA), which allows citizens to digitally link and manage their health records for seamless, paperless access to services. Further, to strengthen the public health infrastructure and effectively manage and respond to any future pandemics and outbreaks, the government announced the PM-Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), strengthening and integrating health service delivery across all levels of care.

Targeted Interventions

Beyond overarching health interventions, the government has also been vigilant in introducing initiatives to address rising concerns. In the realm of CDs, key programmes include the Integrated Disease Surveillance Programme (IDSP), National Tuberculosis Control Programme (RNTCP), and National Leprosy Eradication Programme (NLEP),

Beyond overarching health interventions, the government has also been vigilant in introducing initiatives to address rising concerns. In the realm of CDs, key programmes include the Integrated Disease Surveillance Programme (IDSP), National Tuberculosis Control Programme (RNTCP), and National Leprosy Eradication Programme (NLEP), among other interventions focusing on vector-borne diseases, AIDS, polio, hepatitis, rabies and Anti-Microbial Resistance (AMR). To address the growing burden of NCDs, the government supports the National Tobacco Control Programme (NTCP), National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) and National Mental Health Programme, among other programmes targeting occupational diseases, deafness, blindness and visual impairment, dialysis services, care for elderly (NPHCE), burn injuries and oral health.

The government has also heavily focused on the area of reproductive, maternal, neonatal, child, and adolescent Health (RMNCH+A), with major schemes such as Universal Immunisation Programme, Mission Indradhanush, Janani Suraksha Yojana (JSY), and the National Programme for Family Planning, among others.

Since modern lifestyles have brought about significant shifts in dietary patterns and food consumption, lifestyle-related health conditions have also gained increased attention in the policy space, with increased inclusion in the scope of policy reforms, community engagement, and regulatory measures. Addressing diet-related health problems, programmes like POSHAN Abhiyaan, PM Poshan (earlier Mid-day Meal Scheme), Eat Right India, etc., have been launched, beyond programmes like National Iodine Deficiency Disorders Control to tackle nutritional deficiencies. In addition to the policy reforms, the government actively emphasises the importance of lifestyle-related interventions through its public communication channels (radio programmes, social media, etc.) and initiatives like International Yoga Day to highlight fitness and raise global awareness. Similarly, the Fit India Movement was also launched in 2019 to encourage indigenous sports and physical fitness.

Beyond physical well-being, the government is increasingly promoting mental well-being through initiatives like the National Mental Health Policy (2014) and the Mental Healthcare Act (2017). Other major efforts include the Tele MANAS, which combines scale through digital access with wide-reaching accessibility.

Focus on the First 1000 Days of a Child's Life

Popularization of Beneficiary Module in the Poshan Tracker App

Management of Malnutrition through CMAM Module

Healthy Lifestyle to Address Childhood Obesity

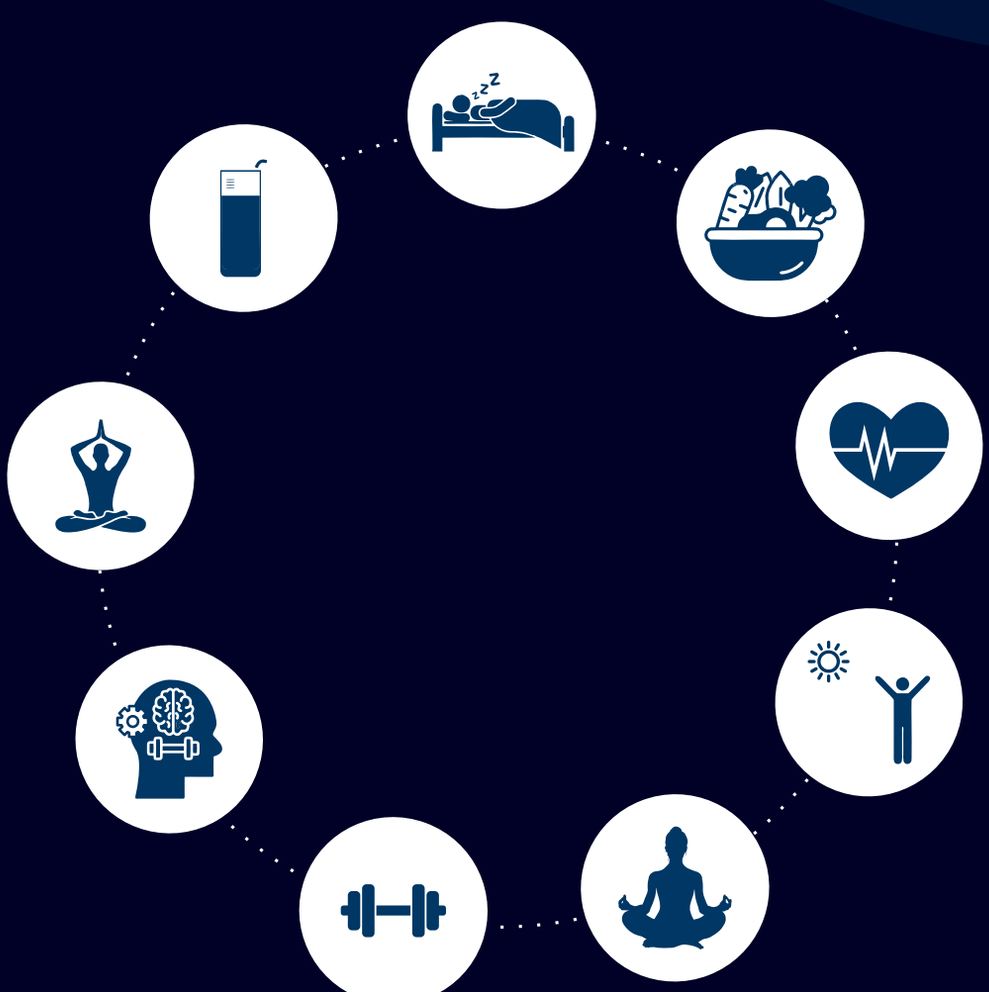
Poshan Abhiyaan

Traditional Medicine

With a vision of reviving the knowledge of ancient Indian systems of medicine, the government established the Ministry of AYUSH (Ayurveda, Yoga, and Naturopathy, Unani, Siddha and Homoeopathy) in November 2014. The ministry has launched various central sector schemes such as Ayurgyan, Ayurswasthya, Ayush Oushadhi Gunvatta Evam Uttpadan Samvardhan Yojana and National Ayush Mission (NAM), with the latter being the most prominent publicly due to the establishment of Ayush Health and Wellness Centres at PHC, CHC and District Hospital (DH) levels.

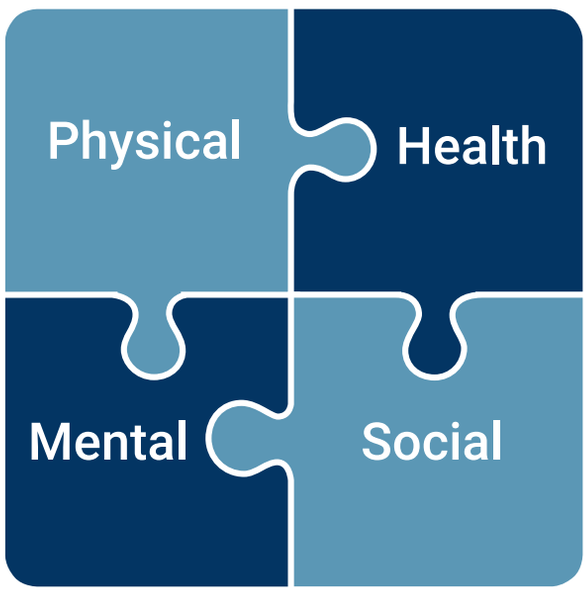
Building on these initiatives and furthering the agenda of “health for all”, as India looks to progress forward, the focus shall remain on inclusive, resilient and people-centric healthcare.

Nation Building Case Study Challenge *on* Healthy Living



While the nation has made strides in extending the length of its citizens' lives, India faces an acute crisis of those additional years being spent laden with the burden of diseases. Thus, the 3rd edition of the NationBuilding Case Study Competition focuses on improving the health outcomes in India for the next generation, the youth. With this objective, we invite the youth of the nation to participate and propose revolutionary solutions to reform the current healthcare ecosystem and attitudes for a nation-building.

While the scope of health outcomes and indicators for prioritisation is broad and open to subjective interpretation, for the purpose of this competition, we focus solely on the internationally recognised parameter of Health-Adjusted Life Expectancy (HALE).



The goal here entails increasing the current HALE of India, which stands at 58.1 years (2021) by a decade, i.e. 10 years, and thereby, empowering the youth to live a healthy life for an elongated period.

While attainment of this goal will also impact India's life expectancy at birth, improvement of this metric does not fall under the primary scope of objectives.

We believe that the youth, as the future of the country, are not only the primary beneficiaries of such a goal but also the first movers to drive change for their individual and collective well-being. Thus, their immersion and involvement are vital to shaping the health and progress of the nation and its future generations.

Scoping the Problem: Transformation Model

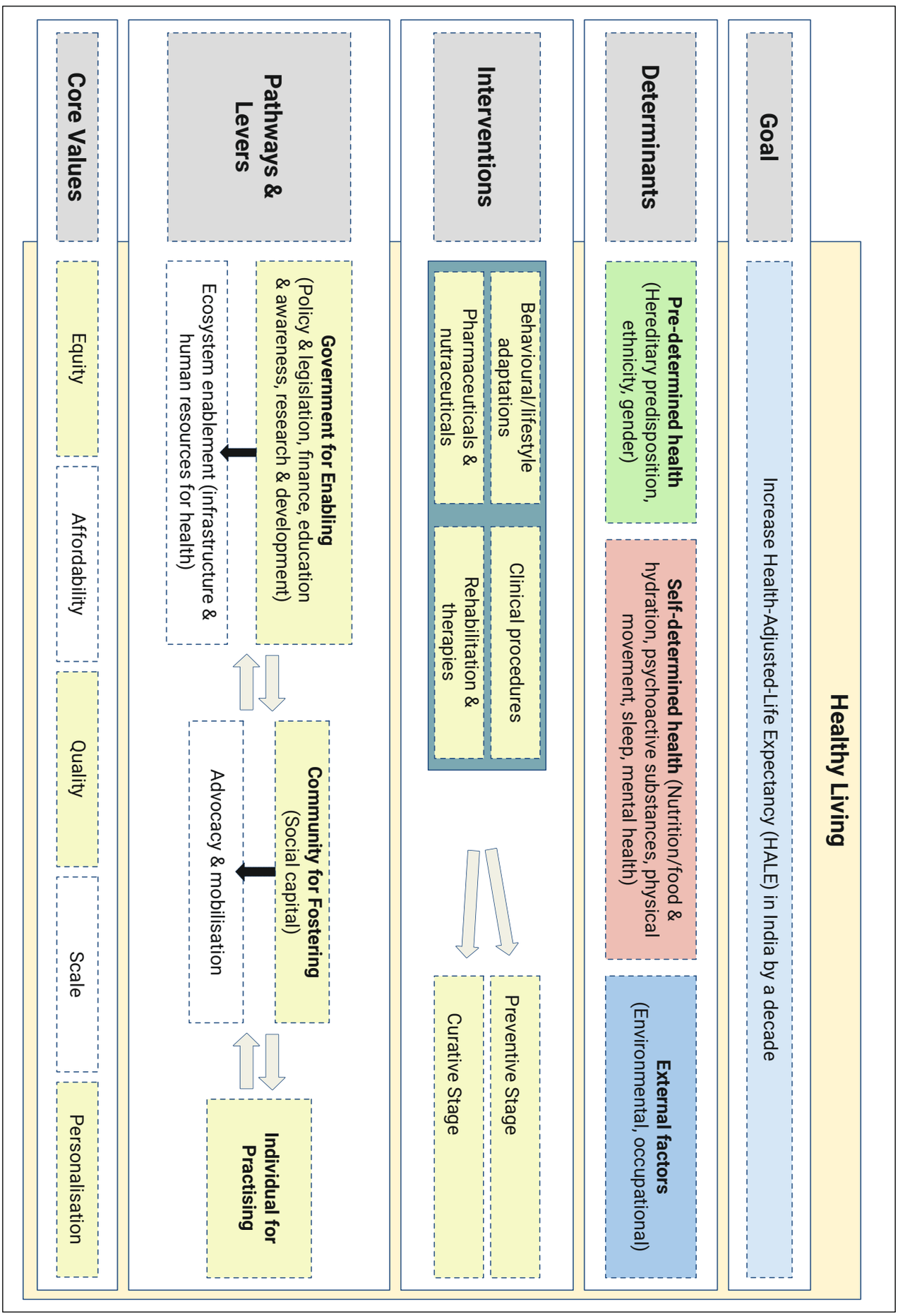


Figure 1: Transformation model for healthy living

Considering the broad spectrum of the health ecosystem, we articulate a transformational model to better define and understand the problem space for the NationBuilding Case Study Competition. This model provides an at-a-glance view of the setting and dynamics of the healthcare system in India. Participants may refer to this model to establish their understanding of the problem space and its potential levers.

Placed within the context of any society, the health of any individual is based on status and strength of **determinants**, most of which can be addressed through certain cross-cutting **interventions,** whose success, existence and nurturing are determined by **pathways and levers** at various stages. By aiming to improve the determinants and effectively leveraging interventions while upholding **core values** for impact, healthy living for youth in a developed India can be achieved.

1. Determinants of Health

Health is the outcome of multiple factors, often in interplay with each other, which impact individuals positively or negatively. These complex factors are determined by controllable and uncontrollable circumstances and may have a disproportionate role in determining an individual's physical and mental well-being. They can largely be categorised under 3 broad categories of pre-determined health, self-determined health and health influenced by external factors. While pre-determined health is largely outside of anyone's control, self-determined health is entirely set on the choices made by an individual. And while external factors cannot be controlled by an individual, they can be shaped by larger systems and the state.

The determinants forming an individual's **pre-determined health** set the foundation stone of one's healthspan as well as lifespan. Genes are its core, and affect both the physical and biological makeup of a person. They serve as the blueprint for health and set the baseline for one's health trajectory. They can be determined in terms of inheritance from parents or in a broader evolutionary context. Genes passed down from parents not only result in directly inheriting certain diseases but also raise the risk of the onset of others, a condition which is commonly understood as hereditary predisposition. These genes, often impacted by past mutations, can both negatively and positively impact the health trajectory of generations in a family. In an evolutionary context, genetic adaptations occur to suit certain environments, mostly visibly noticed in the realm of ethnicities. For example, genes in Asians and proto-Europeans north of Africa have fine-tuned the production of skin pigment over time, depending on their amount of exposure to sunlight.[74] While such adaptations are triggered by a series of independent factors, they can pose both advantages and risk factors in modern contexts. Another pre-determined factor impacting health outcomes is gender. The differences in chromosomes and their expressions, hormone-gone interaction, et cetera, result in greater susceptibility of one gender to develop certain disorders and diseases than the other.

On a diametrically opposite spectrum, certain factors are largely based on the lifestyles of humans and form the **self-determined health** of individuals. It majorly rests on the bodily functions of eating/drinking, moving, coping and resting, the latter being important in both physical and mental terms. Nutrition and hydration are fundamental in terms of fueling the body and assisting it in performing other core functions important for balance and growth. The consumption of food and water in terms of both quality and quantity bears an impact on health outcomes. While food and water are necessary for the body, substance use, including alcohol, tobacco and illicit drugs, holds less value in terms of human sustenance. Despite debatable evidence, substance use compromises health, especially due to prevalence of irresponsible consumption in the masses. Moving or physical movement is important for active energy expenditure and ensuring the resilience of the body. Irrespective of the intensity, regular physical movement is important to counter lifestyle risks associated with a sedentary lifestyle. Sleep and rest, though contrary to the purpose of movement, are also essential for the ability, especially for maintaining immunity and cognitive function. Along the same lines, mental health is also a core determinant that not only impacts emotional well-being but has direct outcomes on physical health as well.

Beyond determinants directly associated with oneself, the **external factors** also play a crucial role. Environmental determinants like air and water quality, sanitation, climate and weather, et cetera, directly affect the body and can result in both immediate and long-term outcomes. Similarly, occupational determinants, irrespective of the type of job, pose unique circumstances with health influences. Working conditions, working environments, ergonomics, etc., are certain factors associated with determinants influenced by occupations.

While these determinants do have a standalone impact, healthy living cannot be achieved until they are addressed together. Often, the impact of one determinant is compounded by the impact of the others, leading to adverse circumstances for the individual.

2. Interventions

Though the outcomes of certain determinants, especially genetic, may be irreversible, especially in preventive terms, most of them can be addressed and managed to maximise health. These interventions are cross-cutting and not only aid in reversing the damage of determinants but also in preventing their buildup or risk multiplier effect on the body. When these determinants are addressed and managed before they strike the body, they are treated as **preventive** interventions, whereas when they are managed after certain manifestations on the body for either reversing the effect or further managing their progression, they are understood as **curative** measures.

The most sustainable intervention and deterministic at an individual level remains **behavioural adaptations** for a healthy lifestyle. This largely translates into addressing determinants under self-determined health by shifting the approach to accommodate healthy dietary preferences, regular exercise, and management of sleep and mental health. In terms of food and water, this means consuming nutritious and safe food. While nutritional requirements can vary per individual, safe food and water can be assessed in terms of sanitation, usage of pesticides and insecticides, type of packaging and manufacturing process, including processing, additives and preservatives, among others. Secondly, physical activity and exercise are subjective requirements, but must be dealt with while considering the type/nature of exercise, the goals of the body and past health history. Sleep and rest are vital for the recovery of the body, and require attention in terms of duration and quality. Beyond physical health, mental well-being, especially in terms of stress management and coping, must be managed through mindful practices.

While lifestyle adaptations are necessary for both prevention and cure, they may not be enough, especially in cases of high vulnerability to or prevalence of certain diseases. In such a case, **pharmaceuticals and nutraceuticals** or supplements become indispensable to address existing risk factors and guard the body against both acute and chronic conditions. While pharmaceuticals include vaccines and medicinal drugs like antibiotics, analgesics, antacids, antivirals, et cetera, and directly target specific conditions, nutraceuticals are additional support provided to the body that is not fulfilled by food for nutritional requirements. These largely include dietary supplements, herbal products, probiotics, et cetera.

At a more critical level, there are **clinical and laboratory procedures**. While some of these, like laboratory screenings and diagnostic tests, only serve a preventive purpose, invasive surgeries and radiation procedures have a curative purpose. This intervention has the potential for the highest impact in reversing or entirely eliminating a risk factor while addressing a disease, even stemming from genetic predisposition.

Lastly, **rehabilitative interventions** serve a more counselling and restorative purpose. These include physical therapies, occupational therapies, wellness therapies and psychological therapies, targeting mobility and cognition for the reintegration of individuals and attainment of optimal health.

3. Pathways and Levers

The interventions addressing determinants are largely dependent on the environments enabling their development, access and adoption. Thus, for the interventions to succeed and reach the unit order, levers associated with each pathway (government, community and individual) must be deployed and reinforced in interconnection with each other.

3.1 Government

At the highest order, the government acts as an enabler by establishing and providing the platforms to access and leverage the interventions effectively. Governments influence individual health outcomes by shaping the health systems and regulating all sectors outside the health systems, having an impact on individuals' health. The state's role can be understood in terms of building and strengthening health capacity and capability, both in terms of infrastructure and technology, as well as human resources. Infrastructural and technological resource systems include but are not limited to physical structures (hospitals, laboratories, medical institutes, pharmacies, research labs), equipment (home medical equipment, surgical, diagnostic, life support), ICT systems, and all other supporting services (insurances, ambulances). Parallely, human resources include clinical staff (doctors, nurses, pharmacists), community health workers (midwives, ASHA and anganwadi workers), allied health professionals (technicians, dieticians, therapists) and support staff for administrative, operational and management functions. These systems largely form the backbone for the interventions to function and require constant capability building.

However, these resource systems are shaped through systemic tools leveraged by the state. Policies and legislation are the most important tools in this kitty, exclusively available to this arm, which sets the norms and priorities for health outcomes of its citizens. It can not only promote and mandate certain acts but also regulate and ban factors that are deterrent to health outcomes. In line with its policy and legislative acts, governments also enable financing mechanisms either by funding the systems on their

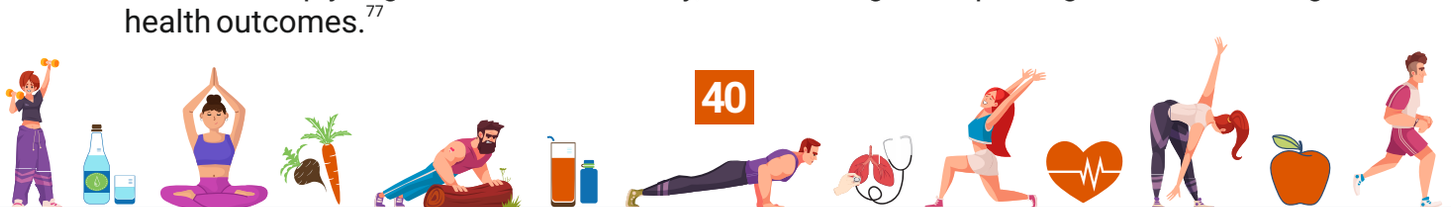
own or incentivising relevant players. The financing mechanisms in this context constitute subsidies, insurance schemes, annual budgets and incentives, among others. While financing enables access, without awareness and literacy, it remains meaningless. Thereby, the government utilises its systems to raise education and inform citizens on relevant subjects through campaigns, curriculum and other narrative methods to attract attention and focus on priority matters. However, to strengthen its systems and stay at par with global standards and development, the government leverages its other levers to generate innovation through its evolving research ecosystem. Research and development are not limited to interventions but also deepen the understanding of determinants, which further shape the outcomes. Governments not only undertake R&D on their own but also signal, nudge, fund and incentivise other players in the sector to act.

3.2 Community

While governments enable interventions, communities actually foster them, encouraging change and development upwards, and adoption downwards. They serve as the bridge between governments and individuals, and allow for schemes to turn into realities. These communities are social networks that mobilise their members and foster ideas into beliefs and customs. The social capital of the community is its network and local resources, norms and shared trust, which hold the power to influence individuals at a large scale. These communities can be formed on the pillar of shared geographies or resembling socioeconomic conditions and can be identified as youth-led advocacy groups, caste or cohort-based organisations and self-help groups, among others. Beyond mobilising its members, these communities also act as watchdogs, holding governments accountable and seeking redress against barriers for their members. Thus, these communities hold potential to drive and normalise healthy living behaviours at a mass scale.

3.3 Individuals

Individuals form the core and stand at the unit level of the model. No policies, schemes or practices and beliefs can be successful until they are adopted for practice by individuals. Irrespective of the influences, it is ultimately the individual agency that determines the choices that make up healthy living. Conversely, individuals also play an integral role in shaping the pathway - they voice their opinions, mobilise themselves into communities and advocate for their rights, which in turn shape the policies and government products. Thus, only by invigorating individuals and encouraging healthy living as a personal responsibility can the interventions produce successful and consistent results. For example, Japan's high HALE is linked to decades of emphasis on preventive health, nutrition, and community-based care. While state interventions played an enabling role for these practices, individuals played the decisive role by adopting them. As a result, over the past few decades, comprehensive and regular health checkups have become a societal norm. Similarly, individual-driven habit of maintaining nutritious and balanced diets, such as by reducing dietary salt intake, has become deeply ingrained in the society, contributing to improving and maintaining health outcomes.[77]



4. Core Values

While the pathways determine the success of any intervention, they must be laid without compromise on certain shared values throughout the process - the design, implementation and administration. These values, which form the wireframe of impact for healthy living, are integral for both mass and long-term impact.

4.1 Equity

Holistic development cannot be achieved without fair and equitable access and availability for all in terms of interventions for positive outcomes. The principle holds true in bridging all inequities - urban and rural, caste and class, and gender and regional. These disparities are not just to be addressed from a one-time intervention perspective but must be sustainable and all-encompassing in nature. The transformation must explicitly focus on marginalised and disadvantaged groups who are burdened by disproportionate health burdens. Notably, it must also be mindful of how factors outside the system also affect equity and what their outcomes are on populations within the system.

4.2 Affordability

The cost of healthcare is not only a financial barrier but also an economic mobility tool that often pushes those at a disadvantage further down in the chain. Thus, for impact to be wide-reaching, financial inability must not act as a deterrent for individuals to seek prevention and care. This thought, however, should account for all direct and indirect costs associated with healthy living across the life span. Affordability must be struck not just in terms of pricing but also funding mechanisms, while accounting for variances based on diversity in population, in terms of gender, region and age, which impact the subjective interpretation of affordability among the masses.

4.3 Quality

In the process of maximising value for affordability, any compromise on the quality of services and resources could result in erosion of trust, dismantling the whole ecosystem. Thus, unshakeable but incrementally improving standards must be set at the highest level to aim for excellence. Considering the criticality of the subject and possible outcomes on one's existence, evidence-based standards should be striven for, ensuring the safety of each individual interacting with the ecosystem. The principles of transparency and accountability of those providing the services can be leveraged for adherence and maintenance of set standards.

4.4 Scale

Programs and resources make little headway in terms of impact if they cannot be extended at massive scales. In achieving healthy living for the youth, transformation requires targeting all those between the ages of 18 and 24 years across the nation, which will require scalable solutions. The availability of resources, including infrastructure and human resources for health (HRH), must witness an exponential growth for the delivery of services throughout the length and breadth of the country. This, however, will have to account for the diversities in terms of requirements and fitment for resources.

4.5 Personalisation

While the solutions are designed to impact the masses, they must acknowledge the biological, behavioural and cultural differentiations, which make the needs of each individual for healthy living unique in nature. Thus, while solutions should be scalable for a spreadout footprint, they must be tailored to adapt to the environment, lifestyle and socioeconomic circumstances, including awareness and education, of each individual. Simply put, what may convince one individual to adapt to healthy living may not influence others, and thus, a personalised approach, especially in health communication, may be curated for sustainable adoption.

Within the realm of this transformation model, we believe, lie the transformational solutions that will have the potential of creating an impactful change in the journey of nation-building by reorienting India's youth towards healthy living.

The Task

With the above context, the participants are expected to craft and propose a solution that enables an increase in HALE in the country by 10 years.

Format and Content of Solution

The proposed solution, in the second round, will be submitted in the form of a 5-slide presentation, which should articulate the broad contours of the solution and its linkage with the defined impact goals.

Over the subsequent rounds, the participants will be expected to build upon the solution in terms of format, detailing, and overall integration as per the indicative progression as follows:

- **Zonal Rounds:** The submission will include greater details and modalities of the solutions proposed, roles of stakeholders, resourcing of the solution, etc.
- **National Round:** The submission will be expected to provide a comprehensive view of the solution, including the execution plan, supporting evidence, an assessment of alternatives, and adherence to principles of impact.

Nature of Solution

The proposed solutions of the participants should empower individuals to adopt and sustain healthy living behaviours at a mass scale. In enabling this, public policy should be anchored as a catalyst and facilitator for systemic action and response. State instruments, including, but not limited to, policy guidance, legislation, regulation, schemes, missions, guidelines, budgetary resources, communication, behavioural change, taxation, and incentives, can be utilised as levers for solutions. Further, they may involve partnerships between governments, civil societies, academic systems and the private sector. Solutions can be completely afresh or a creative combination of existing levers. Ultimately, the objective should be to encourage individual or self-driven action while paving the way for the required environment and systems, as indicated through the pathways in the transformation model. The solutions should also ideally address at least one determinant of healthy living highlighted in the model outlined previously. The overarching expectation for the solution, however, is that it must establish a clear and causal path to the impact goal as defined above.

Evaluation Criteria

The presented solutions of the participants will generally be assessed based on the creativity and originality of the solution, understanding of the landscape, critical application of mind, logical comprehension, and cohesiveness, completeness and real-world feasibility of the solution and its strength of impact, along with the content and presentation of the submission, etc. As the rounds progress, these general assessment criteria will be applied in the context of the changing formats and expectations from the submissions. The capstone assessment principle, however, will continue to be the potential for impact created by the solution.

References

1. Constitution of the world health organization. (n.d.). https://www.who.int/about/governance/constitution
2. Canada, P. H. A. of. (2009, November 26). Healthy living [Navigation page]. https://www.canada.ca/en/public-health/services/health-promotion/healthy-living.html
3. National covid-19 vaccination programme meets its goals by overcoming r&d and logistical challenges, says economic survey 2022-23. (n.d.) https://www.pib.gov.in/PressReleasePage.aspx?PRID=1894907
4. Text of pm's addresses at one earth one health – advantage healthcare india 2023. (n.d.).https://www.pib.gov.in/www.pib.gov.in/Pressreleaseshare.aspx?PRID=1919826
5. Goal 3 | Department of Economic and Social Affairs. https://sdgs.un.org/goals/goal3
6. Goal 2 | Department of Economic and Social Affairs. https://sdgs.un.org/goals/goal2
7. Goal 6 | Department of Economic and Social Affairs. https://sdgs.un.org/goals/goal6
8. Goal 11 | Department of Economic and Social Affairs. https://sdgs.un.org/goals/goal11
9. Goal 8 | Department of Economic and Social Affairs. https://sdgs.un.org/goals/goal8
10. GDP, current prices (2025). (n.d.). International Monetary Fund. https://www.imf.org/external/datamapper/NGDPD@WEO/WEOWORLD
11. Japan. (n.d.). Datadot. http://data.who.int/countries/392
12. Japan: A champion for health and well-being at all ages. (n.d.). https://www.who.int/about/funding/contributors/japan
13. Bloom, D. E., Kuhn, M., & Prettner, K. (2018). Health and economic growth. In IZA Discussion Paper Series (IZA DP No. 11939). https://docs.iza.org/dp11939.pdf
14. Overview. (n.d.). World Bank. https://www.worldbank.org/en/topic/health/overview
15. World Bank Open Data. (n.d.). World Bank Open Data. https://data.worldbank.org/indicator/SP.POP.1564.TO.ZS?locations=IN
16. NITI Aayog, NITI Aayog, Saraswat, V. K., Chand, R., Paul, V. K., Kant, A., Mathur, Y., Gupta, R. P., Sanghi, S., Naik, S., Kumar, A., Srivastava, A., Roy, A., Jain, A. K., Mishra, J. P., Kumar, J., Dwivedi, M. K., Mahto, P., Goyal, R., Nair, T. (2018). Strategy for New India @ 75. https://www.niti.gov.in/sites/default/files/2019-01/Strategy_for_New_India_2.pdf
17. Kumar, G. A., Pandey, A., & Dandona, R. (2025). Economic loss attributable to premature deaths and morbidity among adolescents in India and its states. BMC Medicine, 23(1), 51. https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-025-03895-5
18. Cylus, J., & Al Tayara, L. (2021). Health, an ageing labour force, and the economy: Does health moderate the relationship between population age-structure and economic growth? Social Science & Medicine, 287, 114353. https://www.sciencedirect.com/science/article/pii/S0277953621006857
19. Bank, W. (n.d.). Productive longevity: What can the world bank do to foster longer and more productive working lives? - rethink social protection and jobs in an actively aging world. World

Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120924111570331

20. The cost of working age ill-health and disability that prevents work. (2025b, March 18). GOV.UK. https://www.gov.uk/government/statistics/the-cost-of-working-age-ill-health-and-disability-that-prevents-work/the-cost-of-working-age-ill-health-and-disability-that-prevents-work
21. Kumar, A., & Sarwal, R. (2021). Health insurance for India's missing middle (By NITI Aayog) [Book]. NITI Aayog. https://doi.org/10.31219/osf.io/s2x8r
22. Parasuraman, S., & Lhungdim, H. (2013). INDIA Study on global AGEing and adult health (SAGE), Wave 1, 2007. https://iipsindia.ac.in/sites/default/files/SAGE_Wave1_India_Report.pdf
23. Alemayehu, B., & Warner, K. E. (2004). The lifetime distribution of health care costs. Health Services Research, 39(3), 627–642. https://pmc.ncbi.nlm.nih.gov/articles/PMC1361028
24. Longitudinal Ageing Study in India (LASI) INDIA REPORT NATIONAL PROGRAMME FOR HEALTH CARE OF ELDERLY & INTERNATIONAL INSTITUTE FOR POPULATION SCIENCES MINISTRY OF HEALTH & FAMILY WELFARE GOVERNMENT OF INDIA. (2020). https://www.iipsindia.ac.in/sites/default/files/LASI_India_Report_2020_compressed.pdf
25. Bloom, D. E., & Canning, D. (2008). Population health and economic growth (Commission on Growth and Development Working Paper No. 24). World Bank. https://hdl.handle.net/10986/28036
26. Union Health Ministry releases National Health Accounts Estimates for India 2020-21 and 2021-22. (n.d.-b). https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2058791
27. World Bank Open Data. (n.d.-b). World Bank Open Data. https://data.worldbank.org/indicator/SH.XPD.PVTD.CH.ZS?locations=IN
28. INDIA HEALTH IMPACT REPORT. (2019). IFC. https://documents1.worldbank.org/curated/en/186621582288120005/pdf/India-Health-Impact-Report.pdf
29. International Institute for Population Sciences & ICF. (2021). National Family Health Survey (NFHS-5), 2019-21. In India: Vol. Volume I (p. CONTENTS) [Report]. International Institute for Population Sciences. https://dhsprogram.com/pubs/pdf/FR375/FR375.pdf
30. World Bank. (2020). The human capital index 2020 update: Human capital in the time of covid-19. The World Bank. https://doi.org/10.1596/978-1-4648-1552-2
31. World Health Organization: WHO. (2025, March 26). Universal health coverage (UHC). https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)
32. James, C., Devaux, M., Sassi, F., Organisation de Coopération et de Développement Économiques, Organisation for Economic Co-operation and Development, & Scarpetta, S. (2017). Inclusive growth and health. In OECD Health Working Papers (No. 103). https://www.oecd.org/content/dam/oecd/en/publications/reports/2017/12/inclusive-growth-and-health_334d53e7/93d52bcd-en.pdf
33. Addressing health inequities among people living in rural and remote areas. (2021, July 13). https://www.who.int/activities/addressing-health-inequities-among-people-living-in-rural-and-remote-areas
34. Periodic labour force survey (Plfs) – key employment unemployment indicators for 2024. (n.d.) https://www.pib.gov.in/www.pib.gov.in/Pressreleaseshare.aspx?PRID=2120359
35. Selvaraj, S., Karan, A., Srivastava, S., Bhan, N., & Mukhopadhyay, I. (2022). India health system review. World Health Organization, Regional Office for South-East Asia. https://phfi.org/wp-content/uploads/2022/04/2022-India-health-system-review.-New-Delhi.pdf

36. Government of India, Ministry of Health and Family Welfare, & MANDAVIYA, M. (2021). COMPENDIUM OF FACT SHEETS INDIA AND 14 STATES/UTs (Phase-11) National Family Health Survey (NFHS-5) 2019-21. https://main.mohfw.gov.in/sites/default/files/NFHS-5_Phase-II_0.pdf

37. Gender equality in health. (2025, August 22). PAHO/WHO | Pan American Health Organization. https://www.paho.org/en/topics/gender-equality-health

38. World Health Organization & Organisation for Economic Co-operation and Development. (2003). DAC Guidelines and reference series Poverty and Health. Organisation for Economic Co-operation and Development. https://www.oecd.org/content/dam/oecd/en/publications/reports/2003/04/poverty-and-health_g1gh3188/9789264100206-en.pdf

39. Factsheet details: (n.d.). https://www.pib.gov.in/FactsheetDetails.aspx?Id=149107

40. Ministry of Health and Family Welfare & Ministry of Youth Affairs and Sports. (2021). Youth policy initiatives in India. In Youth Policy Initiatives in India (pp. 8–10). https://mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/policies_and_programmes.pdf

41. Youth4health. (n.d.). https://www.who.int/europe/initiatives/youth4health

42. Youth4Health network. (n.d.). https://www.who.int/europe/groups/youth4health-network

43. World Health Organization. (n.d.). India - WHO data. https://data.who.int/countries/356

44. World Health Organization. (2024). Countries. Data.who.int. https://data.who.int/countries/

45. Release of publication “children in india 2025.” (n.d.). https://www.pib.gov.in/www.pib.gov.in/Pressreleaseshare.aspx?PRID=2171202

46. Government of India. (2023, March 21). Unstarred Question No. 2341: Maternal and Infant Mortality Rate. Rajya Sabha. https://sansad.in/getFile/annex/259/AU2341.pdf?source=pqars

47. Institute for Health Metrics and Evaluation. (n.d.). GBD Results. VizHub. https://vizhub.healthdata.org/gbd-results/

48. Seenappa, K., Kulothungan, V., Mohan, R., & Mathur, P. (2024). District-wise heterogeneity in blood pressure measurements, prehypertension, raised blood pressure, and their determinants among indians: National family health survey-5. International Journal of Public Health, 69, 1606766. https://www.ssph-journal.org/journals/international-journal-of-public-health/articles/10.3389/ijph.2024.1606766/full.

49. World Health Organization. (2025, August 8). Anaemia in women and children. https://www.who.int/data/gho/data/themes/topics/anaemia_in_women_and_children

50. World Health Organization, United Nations Children's Fund, & World Bank Group. (2025, July 21). Levels and trends in child malnutrition: UNICEF/WHO/World Bank Group joint child malnutrition estimates: Key findings of the 2025 edition. https://www.who.int/publications/i/item/9789240112308

51. Press Information Bureau. (2024, October 4). National Health Account (NHA) estimates 2020–21 and 2021–22: A comprehensive overview. Ministry of Health and Family Welfare, Government of India. https://www.pib.gov.in/PressNoteDetails.aspx?ModuleId=3&NoteId=153237

52. Gholap, N., Davies, M., Patel, K., Sattar, N., & Khunti, K. (2011). Type 2 diabetes and cardiovascular disease in South Asians. Primary Care Diabetes, 5(1), 45–56. https://www.primary-care-diabetes.com/article/S1751-9918(10)00097-5/abstract

53. Joseph, A., Thirupathamma, M., Mathews, E., & Alagu, M. (2022). Genetics of type 2 diabetes mellitus in Indian and global populations: A review. Egyptian Journal of Medical Human Genetics, 23(1), 135. https://doi.org/10.1186/s43042-022-00346-1

54. Anjana, R. M., Pradeepa, R., Das, A. K., Deepa, M., Bhansali, A., Joshi, S. R., Joshi, P. P., Dhandhania, V. K., Rao, P. V., Sudha, V., Subashini, R., Unnikrishnan, R., Madhu, S. V., Kaur, T., Mohan, V., Shukla, D. K., & for the ICMR– INDIAB Collaborative Study Group. (2014). Physical activity and inactivity patterns in India – results from the ICMR-INDIAB study (Phase-1) [ICMR-INDIAB-5]. International Journal of Behavioral Nutrition and Physical Activity, 11(1), 26. https://ijbnpa.biomedcentral.com/articles/10.1186/1479-5868-11-26

55. World Health Organization. (2024). Physical activity factsheet – India 2024. https://cdn.who.int/media/docs/default-source/searo/pa-factsheet2024/pa-factsheet-_india2024.pdf?sfvrsn=7a7e793f_2

56. World Health Organization. (n.d.). Air pollution – India. https://www.who.int/india/health-topics/air-pollution

57. World Health Organization. (n.d.). Water, sanitation and hygiene (WASH) – India. https://www.who.int/india/health-topics/water-sanitation-and-hygiene-wash

58. United Nations India. (n.d.). Health, water and sanitation. https://india.un.org/en/171844-health-water-and-sanitation

59. World Health Organization. (n.d.). Occupational health – India. https://www.who.int/india/health-topics/occupational-health

60. International Labour Organization. (2024). Ensuring safety and health at work in a changing climate. https://www.ilo.org/publications/ensuring-safety-and-health-work-changing-climate

61. World Health Organization. (n.d.). Mental health – India. https://www.who.int/india/health-topics/mental-health

62. Manodarpan. (2024). Mental health and well-being of school students survey. Ministry of Education, Government of India. https://manodarpan.education.gov.in/assets/downloads/Mental_Health_WSS_A_Survey.pdf

63. Advancing mental healthcare in india. (2025). https://www.pib.gov.in/www.pib.gov.in/Pressreleaseshare.aspx?PRID=2100706

64. Ministry of health and family welfare. (2024). http://www.pib.gov.in/PressNoteDetails.aspx?NoteId=153261

65. Government of India, Ministry of Health and Family Welfare. (2017). National Health Policy 2017. https://mohfw.gov.in/sites/default/files/9147562941489753121.pdf

66. Upadhyaya, R. (2025, March 1). Demand for Grants 2025–26 Analysis: Health and Family Welfare. PRS Legislative Research. https://prsindia.org/files/budget/budget_parliament/2025/DFG_Analysis_2025-26-Health.pdf

67. World Economic Forum. (2024, August 5). Health spending takes up 10% of the global economy: How can tech help reduce costs and improve lives? https://www.weforum.org/stories/2024/08/healthcare-costs-digital-tech/

68. Eurostat. (2025, September 29). Healthcare expenditure statistics – overview. European Commission. https://ec.europa.eu/eurostat/statisticsexplained/index.php/Healthcare_expenditure_statistics_-_overview

69. Hospital beds by country 2025. (n.d.). World Population Review. https://worldpopulationreview.com/country-rankings/hospital-beds-by-country

70. Faqs on national medical commission (Nmc) bill 2019. (2019). https://www.pib.gov.in/newsite/PrintRelease.aspx?relid=192491

71. Update on ratio of patients and doctors nurses. (2013). https://www.pib.gov.in/www.pib.gov.in/Pressreleaseshare.aspx?PRID=1985423

72. The european health literacy survey | european health information portal. (n.d.). https://www.healthinformationportal.eu/european-initiative/european-health-literacy-survey

73. Nhm: National health mission. (n.d.). https://nhm.gov.in/index4.php

74. About pm-jay—National health authority | goi. (n.d.). https://nha.gov.in/PM-JAY

75. Evolutionary adaptation and positive selection in humans | learn science at scitable. (n.d.). https://www.nature.com/scitable/topicpage/evolutionary-adaptation-in-the-human-lineage-12397/

76. World Bank. (n.d.). Life expectancy at birth, total (years) – India. The World Bank. https://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=IN

77. Ikeda, N., Saito, E., Kondo, N., Inoue, M., Satoh, T., & Wada, K. (2011). What has made the population of Japan healthy? The Lancet, 378(9796), 1094–1105. https://www.sciencedirect.com/science/article/pii/S0140673611610556

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