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Jharkhand's Health Transition: Gaps, Inequities and Pathways to SDG 3

Md. Azharuddin Akhtar
Associate Fellow
Institute for Human Development, New Delhi

Aakash Sinha
Research-cum-Communication Associate
Institute for Human Development, New Delhi

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Md. Azharuddin Akhtar and Aakash Sinha

EXECUTIVE SUMMARY

Jharkhand is undergoing a significant demographic and epidemiological transition marked by slowing population growth, a persistent youth bulge, and a rapidly rising elderly population. Over the past decade, the state has achieved measurable gains in maternal and child health—most notably declines in fertility, maternal mortality, infant mortality and improvements in immunization coverage. Yet, these gains remain uneven, especially across tribal, remote, and under-served regions.

The health system continues to be constrained by large deficits in primary healthcare infrastructure, shortages of human resources, limited diagnostic capacity, and high household out-of-pocket expenditure (OOPE). Low levels of public spending on health, combined with persistent supply-side gaps, result in heavy reliance on private and informal providers, especially for outpatient care.

To accelerate progress toward SDG 3 and Universal Health Coverage (UHC), Jharkhand must adopt a targeted, equity-driven strategy that addresses demographic shifts, strengthens primary care delivery, improves financing, and focuses on the state's most vulnerable populations.

INTRODUCTION

Jharkhand's health landscape is shaped by its unique socio-demographic profile, predominantly rural and tribal population distribution, and the challenges posed by difficult terrain, poverty, and longstanding inequities in health service access. Over the past decades, the state has shown improvement in several maternal and child health indicators, rising institutional deliveries, and declining fertility rates. Despite these gains, progress remains uneven across districts, with tribal-dominated and

remote regions continuing to face structural disadvantages. This note presents a detailed and descriptive overview of population dynamics, health status, healthcare utilisation patterns, infrastructure readiness, and health financing in Jharkhand. It also highlights emerging concerns and the implications of demographic and epidemiological transitions for policy action.

1. POPULATION DYNAMICS

Jharkhand's demographic profile reflects a gradual but consistent population growth trajectory, one that has historically remained above the national average. Although the pace of growth has slowed over recent decades, the state continues to experience a higher rate of increase compared to India overall. This reflects both a slower fertility transition and persistent demographic momentum in rural and tribal populations.

1.1 Growth Trends and Projections

The state's population increased from 26.9 million in 2001 to 33.0 million in 2021. Projections indicate that although the growth rate will decline steadily—from 16.4 percent (2011–15) to 10.7 percent (2026–30)—it will continue to exceed the national rate across all periods (Census on India). This pattern points to an incomplete demographic transition, influenced by higher fertility levels and slower socio-economic improvements in certain districts.

Table 1
Projected Population Growth in Jharkhand

Projected Population growth rate (%)	*2011-15*	*2016-20*	*2021-25*	*2026-30*
Jharkhand	16.4	14.4	12.5	10.7
India	12.8	10.8	9	7.3

Source: Census of India, 2011; Population for India and States 2011-36

1.2 Evolving Age Structure

Jharkhand's age structure has been undergoing notable changes. The proportion of young children (0–4 years) has begun to contract, declining from 4.82 million in 2011 to a projected 4.23 million in 2031. Meanwhile, the adolescent and young adult population remains large, indicating future pressure on education, skilling, and employment systems. The working-age population (30–59 years) continues to

expand rapidly, rising from 10.05 million in 2011 to an anticipated 16.38 million by 2031. Most significantly, the elderly population (60 years and above) is expected to more than double, from 2.14 million in 2011 to 4.67 million in 2031. This shift toward an aging population will have long-term implications for chronic disease management, geriatric care, and social protection.

Table 2
Population Distribution Across Age Groups (2011–2031)

Age Group	*2011 (million)*	*2021 (million)*	*2031 (million)*
0–4	4.82	4.40	4.23
5–9	4.02	3.60	3.57
10–19	7.24	7.92	7.19
20–29	5.50	7.18	7.86
30–59	10.05	12.84	16.38
60+	2.14	3.25	4.67

Source: Census of India, 2011; Population Projection for India and States 2011-36

1.3 Life Expectancy Trends

With increasing population, the life expectancy in Jharkhand is also rising steadily, from 64 to 71.2 years for men and from 62 to 73.66 years for women between 2010–14 and the projected 2026–30 period, yet the state's gains begin from a lower base than India's, reflecting long-standing gaps in maternal health, undernutrition, and limited access to quality care in tribal and remote regions. The estimated sharp improvement in female longevity signals progress in reproductive and maternal health but also indicates a growing need for chronic disease management and geriatric care as women live longer. To sustain these gains and meet SDG 3 targets, Jharkhand must prioritize strengthening primary healthcare with a stronger NCD screening and treatment package, ensure equitable access through tribal-focused outreach and improved referral systems, and expand maternal and nutrition interventions in lagging districts. Simultaneously, early investments in geriatric services and financial protection for chronic care are essential to convert rising life expectancy into healthier and more equitable years of life for the state's diverse population.

Table 3
Expected Life Expectancy in Jharkhand, 2010-30

	Jharkhand		*India*	
	Male	*Female*	*Male*	*Female*
2010-14	64	62.00	64.9	68.2
2021-25 (estimated)	70.4	72.66	69.37	71.76
2026-30 (estimated)	71.2	73.66	70.37	72.96

Source: Sample Registration System Bulletin, Census of India, 2011

2. HEALTH STATUS

Jharkhand has made measurable progress in key health indicators over the past decade. Fertility has declined, maternal mortality has fallen sharply, and immunization coverage has improved. However, persistent challenges in nutrition, neonatal survival, and antenatal care coverage continue to hold back the state's performance.

2.1 Fertility and Mortality Trends

Table 4
Important Health Indicators, 2011-30

Health Status	*Year*	*Jharkhand*	*India*
Crude Birth Rate (CBR) (Birth Rate: per 1000)	2011-15	22.1	20.1
	2016-20	20.5	17.9
	2021-25	18.8	16
	2026-30	17.3	14.4
Crude Death Rate (CBR) (per 1000 individuals)	2011-15	5.8	7.2
	2016-20	6.1	7.1
	2021-25	6.3	7
	2026-30	6.5	7.1
Infant Mortality Rate (IMR) (per 1000 live births)	2011-15	34	42.9
	2016-20	31	38.5
	2021-25	28	35.3
	2026-30	26	32.3

Health Status	*Year*	*Jharkhand*	*India*
Total Fertility Rate (TFR)	2011-15	2.78	2.37
	2016-20	2.46	2.13
	2021-25	2.17	1.94
	2026-30	1.98	1.81
Under-5 mortality rate (U5-MR) (per 1000 live births)	2011-15	49	56.7
	2016-20	45	50.9
	2021-25	42	46.7
	2026-30	38	42.8

Source: Sample Registration Survey (SRS) Bulletin 2018 & 2019; Census of India, 2011; Population Projection for India and States 2011-36

The Total Fertility Rate (TFR) in Jharkhand is projected to decrease from 2.78 during 2011–15 to 1.98 by 2026–30, placing the state close to replacement-level fertility. This decline reflects improvements in female education, access to reproductive health services, and expanding institutional delivery coverage. The Crude Birth Rate (CBR) is expected to fall from 22.1 to 17.3 per 1,000 population over the same period.

Crude Death Rate (CDR), on the other hand, shows a slight increase from 5.8 (2011–15) to 6.5 (2026–30). This rise corresponds with the state's evolving epidemiological profile, where communicable diseases remain prevalent in certain pockets while non-communicable diseases begin to rise, particularly among older adults.

Infant and under-five mortality indicators have also improved but remain areas of concern. The Infant Mortality Rate (IMR) is estimated to decline from 34 deaths per 1,000 live births (2011–15) to 26 (2026–30). The under-five mortality rate (U5MR) is projected to fall from 49 to 38 over the same interval. Neonatal mortality, which constitutes a large share of infant deaths, has shown smaller declines (from about 33 per 1,000 live births in 2015–16 to approximately 28.2 in 2020–21), underscoring the need to strengthen facility-based newborn care and immediate postnatal follow-up.

Together, these fertility and mortality trends signal an ongoing demographic and epidemiological transition in Jharkhand: fertility is approaching replacement levels even as the burden shifts toward older-age morbidity and neonatal survival challenges that require focused service-delivery improvements.

2.2 Maternal and Child Health

Jharkhand has shown notable improvement in maternal and child health outcomes. The Maternal Mortality Ratio (MMR) has declined from 76 (2015–17) to 50 (2020–22), performing better than the national average. Institutional births have increased from 61.9 percent (2015–16) to 75.8 percent (2019–21), reflecting greater reliance on facility-based delivery.

Neonatal mortality has declined but remains higher than national averages. Antenatal care coverage remains a major concern—only 38.6 percent of mothers receive at least four antenatal visits, significantly below the national level. This gap is more pronounced in tribal-dominated and remote areas, where healthcare access is limited.

2.3 Nutrition

Child nutrition remains one of Jharkhand's most pressing challenges, reflecting deep-rooted socio-economic and infrastructural constraints that affect dietary diversity, food security, and access to timely health and nutrition services. While the state has seen a decline in stunting from 45.3 percent (2015–16) to 39.6 percent (2019–21), the levels remain among the highest in the country and signify chronic undernutrition resulting from long-term deprivation, repeated infections, and poor maternal nutrition. Stunting rates are especially high in tribal-dominated districts, where inadequate access to diversified food, low household incomes, and limited coverage of early childhood interventions contribute to persistent deficits.

Wasting has reduced from 29 percent to 22.4 percent during the same period, yet it continues to signal acute nutritional stress among children under five. This form of malnutrition is closely linked to seasonal food shortages, recurrent diarrhoeal diseases, and gaps in timely access to healthcare. High wasting levels also suggest that many children remain vulnerable to sudden nutritional shocks, particularly in communities where access to safe drinking water, sanitation, and prompt treatment for infections is limited.

Overall, these patterns of stunting and wasting highlight the need for strengthened and better-targeted nutrition programmes, improved convergence between health and ICDS services, and greater emphasis on maternal nutrition, diversified diets, and community-based management of acute malnutrition.

Table 5
Maternal and Child Health, 2015-22

Maternal and Child Health		*Jharkhand*	*India*
Maternal Mortality Ratio (MMR) (Per lakh live birth)	2015-17	76	122
	2020-22	50	88
Neonatal mortality rate (NNMR) (per 1,000 live births)	2015-16	33	29.5
	2020-21	28.2	24.9
Institutional births (%)	2015-16	61.9	78.9
	2019-21	75.8	88.6
Mothers who had at least 4 antenatal care visits (%)	2015-16	30	51.2
	2019-21	38.6	58.1
Children age 12-23 months fully vaccinated based on information from vaccination card only (%)	2015-16	72.7	62.6
	2019-21	79.2	76.8
Children under 5 years who are stunted (height-for-age) (%)	2015-16	45.3	38.4
	2019-21	39.6	35.5
Children under 5 years who are wasted (weight-for-height) (%)	2015-16	29	21
	2019-21	22.4	19.3

Source: National Family Health Survey 4 (2015-16) and 5 (2019-21); Office of the Registrar General of India, Ministry of Home Affair.

3. HEALTH INFRASTRUCTURES

3.1 Existing Capacity

Jharkhand's health infrastructure continues to face long-standing gaps across all tiers of care, reflecting a combination of historical underinvestment, geographic barriers, and slow expansion of medical education. The state currently operates 23 district hospitals and 13 sub-district hospitals, which together form the backbone of secondary-level care. These facilities are supported by 7 government medical colleges, which handle both tertiary care and the training of medical professionals.

Table 6
Key Secondary and Tertiary Health Facilities in Jharkhand

Facility Type	Number Available
District Hospitals	23
Sub-district Hospitals	13
Government Medical Colleges	7
Private/Trust Medical Colleges	0

Source: Rural Health Statistic (RHS) 2019-20

However, the absence of private or trust-run medical colleges remains a significant limitation. This restricts opportunities for scaling up specialist training, slows the production of skilled human resources, and contributes to persistent shortages in disciplines such as obstetrics, anaesthesia, radiology, and paediatrics. Many district hospitals continue to function with minimal specialist coverage, which in turn affects the quality and range of services available to the population.

The limited tertiary care ecosystem also means that a substantial proportion of patients—especially those requiring oncology, cardiology, neurosurgery, or nephrology services—must travel outside the state, adding financial and logistical burdens on households.

3.2 Rural and Urban Health Systems

Rural health infrastructure in Jharkhand continues to face serious systemic gaps. The shortfall is substantial across all levels of primary and secondary care, which directly affects service readiness, staffing, and the ability of facilities to deliver timely maternal, child, and preventive health services. Primary Health Centres (PHCs) show a 73.33 percent shortfall, indicating that fewer than one in three required PHCs are actually available. Community Health Centres (CHCs)—critical for providing specialist services and managing obstetric emergencies—have a 37.13 percent shortfall. Sub-centres, which form the frontline of service delivery for immunization, antenatal care, and outreach, remain 43.81 percent below requirement**.**

Urban areas exhibit a similarly significant deficit. Only 60 Urban PHCs are operational against a required 196, reflecting a 69.39 percent shortfall. This gap limits consistent

access to primary-level care for rapidly growing urban and peri-urban populations, resulting in overcrowding at district hospitals for conditions that should be managed at the primary level.

These shortfalls also have cascading impacts on frontline health workers. ANMs and ASHAs in many blocks cover larger geographic areas than intended, especially in tribal districts with scattered habitation, which reduces service reach and contributes to low utilisation of public facilities.

Table 7
Shortfall in Rural and Urban Health Facilities

Facility Type	*Required*	*Available*	*Shortfall (%)*
Community Health Centres (Rural – CHC)	272	171	37.13%
Primary Health Centres (Rural – PHC)	1,091	291	73.33%
Sub Centres (Rural – SC)	6,848	3,848	43.81%
PHCs (Urban)	196	60	69.39%

Source: National Health Profile, 2020

3.3 Health and Wellness Centres (HWCs)

Jharkhand has operationalized 1,645 Health and Wellness Centres (HWCs), including 1,413 at the sub-health centre level and the remainder at PHCs (Rural Health Statistics, 2020). While HWCs are designed to deliver comprehensive primary healthcare—including screening for diabetes, hypertension, cervical cancer, mental health services, and physiotherapy—their performance varies across districts.

Many HWCs continue to face:

- Irregular availability of staff nurses or Community Health Officers (CHOs)
- Stockouts of essential medicines, particularly for chronic disease management
- Limited laboratory capabilities, often restricted to basic tests
- Inconsistent internet connectivity, hampering teleconsultation services

Despite these constraints, HWCs remain a promising platform for expanding preventive and promotive health services. Their success will depend on sustained

investments in staffing, logistics, digital support, and timely supply of drugs and diagnostics.

4. HEALTH FINANCING AND UTILISATION

Jharkhand's health financing pattern reveals a structurally underfunded public health system that continues to rely heavily on household spending, reflecting both fiscal constraints and persistent service delivery gaps. The state's per capita government health expenditure of ₹1,174 is modest relative to its epidemiological profile, which is characterised by high burdens of maternal–child undernutrition, communicable diseases in tribal belts, and rising chronic illnesses in peri-urban centres. Public spending amounts to only 1.5 percent of GSDP and 6.6 percent of general government expenditure, indicating limited fiscal prioritisation of health within the state budget. This underinvestment translates into thin primary-care provisioning, high patient load at district hospitals, and irregular availability of diagnostics and medicines factors that directly shift the financial burden of care onto households.

The elevated out-of-pocket expenditure (OOPE) share, 61.8 percent of total health expenditure, confirms that families in Jharkhand are financing the majority of their healthcare needs privately, often through informal providers and unregulated markets prevalent in rural and tribal areas. This pattern increases the risk of catastrophic health spending, particularly among low-income and Scheduled Tribe households that already face geographical and socio-economic barriers to accessing public facilities. Moreover, with the Health Department accounting for only 4.74 percent of total state expenditure, resource constraints limit the functioning of Health and Wellness Centres, hamper recruitment and retention of staff, and weaken essential public health programmes. Strengthening public financing is therefore critical for Jharkhand: raising the health budget share, improving fund utilisation at district and block levels, and prioritising medicines, diagnostics, and transport could significantly reduce OOPE while improving service readiness in underserved regions.

Table 8

Expenditure on Healthcare, 2021-22

	Jharkhand
Per Capita Government Health Expenditure (in ₹)	1174
Government Health expenditure as % of Gross Domestic Product (GSDP)	1.5
Government Health Expenditure as % of General Government Expenditure (GGE)	6.6

OOPE as a Share of Total Health Expenditure (THE) %	61.8
State Health Department expenditure as a share of total expenditure (%)	4.74

Source: National Health Accounts, 2021-22

Healthcare utilisation patterns in Jharkhand underscore a persistent dependence on private providers despite the state's limited purchasing power and widespread rural poverty. Public-sector OPD utilisation is notably low—31 percent in rural and only 15 percent in urban areas—reflecting weak primary-care availability, frequent stockouts, and reliance on informal providers prevalent in tribal and remote blocks. For inpatient care, public utilisation is somewhat higher (43 percent rural and 37 percent urban), yet still below optimal levels, indicating continued gaps in service readiness, especially in district hospitals and CHCs that face infrastructural and staffing constraints. These utilisation patterns are closely linked to cost differentials: OPD and IPD care in private facilities are substantially more expensive than in public facilities, with Jharkhand's rural private OPD cost (₹1,156) exceeding the national rural average, signalling a high financial burden on households even for routine ailments.

The magnitude of out-of-pocket expenditure is further illustrated in inpatient costs, where private hospitalisation averages ₹29,103 in rural and ₹31,441 in urban Jharkhand—levels that are prohibitive for most households and substantially above public-sector IPD costs. The composition of public-sector inpatient spending also highlights systemic deficiencies: drugs account for 59 percent of IPD medical expenditure in rural areas, well above the national average, indicating frequent unavailability of essential medicines in government facilities and forcing patients to purchase them from private pharmacies. Diagnostics, although forming a smaller share, also reflect out-of-pocket reliance due to limited laboratory capacity at public hospitals. Even childbirth, expected to be largely cashless under existing schemes, continues to impose average OOP costs of ₹2,087 in rural areas, driven by transport, medicines, and informal payments, and private childbirth costs remain extremely high, reinforcing inequities.

Overall, the data indicate that low public utilisation, high medicine-related expenses, and elevated private-sector costs combine to create a significant financial burden for Jharkhand's households, especially in rural and tribal districts. Strengthening public facility readiness—particularly availability of medicines, diagnostics, and 24×7 emergency services—alongside reducing informal costs and expanding coverage under financial risk–protection schemes is essential to shift utilisation toward public facilities and reduce out-of-pocket expenditure across the state.

Table 9
Healthcare and Out-of-Pocket Expenditure, 2017-18

Healthcare Utilisation and Healthcare Expenditure	*Jharkhand*		*India*	
	Rural	*Urban*	*Rural*	*Urban*
OPD - % of non-hospitalized cases using public facility	31	15	33	26
IPD - % of hospitalized cases using public facility	43	37	46	35
OPD - Per non-hospitalized ailing person (in INR) in last 15 days - Public	431	788	472	486
OPD - Per non-hospitalized ailing person (in INR) in last 15 days - Private	1156	1364	845	915
IPD - Per hospitalized case (in INR) - Public	5,736	16,764	5,729	5,939
IPD - Per hospitalized case (in INR) - Private	29,103	31,441	28,816	34,122
IPD - % of diagnostics expenditure as a proportion of inpatient medical expenditure in Public (NSSO)	12	10	18	17
IPD - % of drugs expenditure as a proportion of inpatient medical expenditure – Public (NSSO)	59	45	53	43
Childbirth - Average out of pocket expenditure per delivery in public health facility (₹) (NSSO)	2,087	3,081	2,402	3,091
Childbirth - Average out of pocket expenditure per delivery in private health facility (₹)	14,813	19,405	20,692	26,701

Source: National Sample Survey: Health 75th Round (2017-2018)

5. CONSLUSION

Jharkhand stands at a pivotal point in its health transition. While the state has made measurable progress—particularly in fertility reduction, expansion of institutional deliveries, and improvements in key maternal and neonatal indicators—the overall pace of advancement remains slower than the national trajectory. Significant disparities persist across regions and population groups, especially in tribal-dominated and geographically remote districts.

Child nutrition remains among the most critical challenges. Stunting and wasting levels, though gradually improving, continue to exceed national averages and reflect deep-rooted socio-economic vulnerabilities, recurrent infections, and long-standing deficits in maternal nutrition and household food security. Similarly, while neonatal and under-five mortality have declined, the pace of reduction is modest, indicating gaps in quality antenatal care, early-life interventions, and facility-based newborn services.

Large and persistent shortfalls in primary health infrastructure—73.33 percent in rural PHCs, 43.81 percent in sub-centres, 37.13 percent in CHCs, and nearly 69.39 percent in Urban PHCs—remain fundamental bottlenecks to service delivery. These gaps restrict access to essential care, weaken referral pathways, and overburden secondary hospitals. Combined with shortages of trained human resources, inconsistent availability of medicines and diagnostics, and logistical constraints in remote areas, these deficits significantly affect the reliability and utilisation of public health services.

The state's low levels of public health spending and high dependence on out-of-pocket expenditure continue to place a heavy financial burden on households, especially poorer and tribal families. Even within public facilities, the need to pay for medicines, diagnostics, and transport leads to delays in seeking care or increased preference for private providers, despite higher costs.

Looking forward, Jharkhand's ability to accelerate health gains will depend on sustained investments in primary healthcare, ensuring robust supply chains for medicines and diagnostics, and strengthening Health and Wellness Centres to deliver comprehensive, community-oriented care. Targeted efforts to address child malnutrition, expand antenatal and postnatal services, and improve reach in remote and underserved areas will be essential. Strengthening financial protection—by reducing household expenditure and improving access to free or low-cost quality services—remains central to achieving equitable health outcomes.

With strategic planning, improved governance, and coordinated action across health, nutrition, and social welfare systems, Jharkhand can close existing gaps and ensure that its demographic transition leads to meaningful and lasting improvements in population health.

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