



Population Management

A Life Cycle Model for Andhra Pradesh

Operationalizing the Five-Pillar Model

GOVERNMENT OF ANDHRA PRADESH

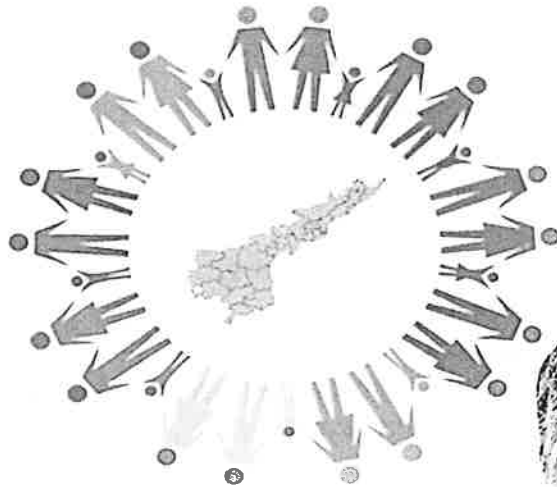


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GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Full Form / Description
ABDM	Ayushman Bharat Digital Mission – India's national digital health mission.
ABHA	Ayushman Bharat Health Account – A unique 14-digit health ID for every citizen.
ANM	Auxiliary Nurse Midwife – A village-level female health worker.
ART	Assisted Reproductive Technology – Medical procedures used to address infertility (e.g., IVF).
ASHA	Accredited Social Health Activist – A community health worker.
APSSDC	Andhra Pradesh State Skill Development Corporation – The nodal agency for skill development.
CCC	Care Coordination Call Centre – A 24x7 call centre for proactive outreach and care coordination under SANJEEVANI.
CGA	Comprehensive Geriatric Assessment – A multidimensional assessment of an elderly person's health.
CHC	Community Health Centre – A secondary-level health facility.
CHO	Community Health Officer – A mid-level health care provider at a Health and Wellness Centre.
CPE	Continuing Provider Education – Ongoing professional development for healthcare providers.
CVAP	Constituency Vision Action Plan – A localized development plan for each assembly constituency.
DBT	Direct Benefit Transfer – Electronic transfer of subsidies/benefits directly to bank accounts.
DiNC	Digital Nerve Centre – The central command and control center for Project SANJEEVANI.
ECCE	Early Childhood Care and Education – Programs for children from birth to eight years.
FLFPR	Female Labour Force Participation Rate – The percentage of working-age women in the labour force.
GoAP	Government of Andhra Pradesh.
HFR	Health Facility Registry – An ABDM registry of all health facilities.
HIE-CM	Health Information Exchange and Consent Manager – ABDM's consent management framework.
HMIS	Health Management Information System – A government web-based system for monitoring health programs.
HPR	Health Professional Registry – An ABDM registry of all healthcare professionals.
HPSC	High-Powered Steering Committee – The apex body for strategic oversight of this framework.
ICDS	Integrated Child Development Services – A government program for children under 6 and pregnant/lactating mothers.
IEC	Information, Education, and Communication – A strategy for health behaviour change.
IHCDP	Integrated Healthcare Delivery Platform – The core digital platform of Project SANJEEVANI.
IMR	Infant Mortality Rate – Deaths of infants under one year old per 1,000 live births.
IUCD / PPIUCD	Intrauterine Contraceptive Device / Post-Partum IUCD – A long-acting reversible contraceptive.
IVF	In Vitro Fertilization – An ART procedure.

Abbreviation	Full Form / Description
KPI	Key Performance Indicator – A measurable value used to track performance.
LHR	Longitudinal Health Record – A citizen's complete health record over time.
M&E	Monitoring and Evaluation – A process for tracking and assessing program performance.
MMR	Maternal Mortality Ratio – Annual maternal deaths per 100,000 live births.
MoHFW	Ministry of Health and Family Welfare (Government of India).
MTP	Medical Termination of Pregnancy – Legal and safe abortion.
MWRA	Married Women of Reproductive Age (usually 15-49 years).
NCD	Non-Communicable Disease – A disease not infectious (e.g., diabetes, heart disease).
NFHS	National Family Health Survey – A large-scale, multi-round household survey.
NHM	National Health Mission – The flagship program for strengthening health systems.
NPHCE	National Programme for Health Care of the Elderly – A central program for geriatric care.
NPV	Net Present Value – A method for valuing long-term financial commitments.
P4 Model	Public-Philanthropic-People's Partnership – A governance model promoted by GoAP.
PAP	Prospective Adoptive Parent – An individual or couple registered to adopt a child.
PCPNDT Act	Pre-Conception and Pre-Natal Diagnostic Techniques Act – An act to stop sex-selective abortion.
PHC	Primary Health Centre – The basic unit of public health services in rural areas.
PHWS	Population Health & Wellness Score – A composite health risk score under SANJEEVANI.
PMMVY	Pradhan Mantri Matru Vandana Yojana – A maternity benefit program.
POSHAN	PM's Overarching Scheme for Holistic Nourishment – India's national nutrition mission.
RKSK	Rashtriya Kishor Swasthya Karyakram – India's national adolescent health program.
RMNCH+A	Reproductive, Maternal, Newborn, Child, and Adolescent Health – India's national strategy.
RTI/STI	Reproductive Tract Infection / Sexually Transmitted Infection.
SBCC	Social and Behaviour Change Communication – A strategic process for promoting behaviour change.
SDG	Sustainable Development Goals – A set of 17 global goals adopted by the UN.
SRS	Sample Registration System – A large-scale demographic survey in India.
TFR	Total Fertility Rate – The average number of children a woman would have in her lifetime.
TSU	Technical Support Unit – The dedicated unit for implementing this framework.
UHI	Unified Health Interface – An ABDM framework for service discovery and interoperability.
UWM	Unified Workforce Management – A mobile application for frontline health workers under SANJEEVANI.
VHC	Village Health Clinic – The most peripheral public health facility.

EXECUTIVE SUMMARY

Andhra Pradesh stands at a critical juncture in its developmental trajectory, having successfully transitioned from high population growth to confronting the complex realities of **ultra-low fertility and accelerated population aging**. With a **Total Fertility Rate (TFR) of 1.5**, which is significantly below the replacement level of 2.1, and a **median age of 32.5 years** compared to the national average of 28.4, the state's demographic evolution increasingly parallels advanced economies like Japan and South Korea. However, this transformation is unfolding within a developing socio-economic framework, presenting unique challenges that threaten the **Swarnandhra@2047** vision. The consequences of sustained low fertility manifest in three critical dimensions: a shrinking youth base where the population aged 0-14 years is projected to decline to **15.7% by 2036**, a rising dependency ratio where the share of the population aged 60+ is projected to nearly double to **18.9% by 2036** and reach **~23% by 2047**, and significant economic risks termed **Shrinkonomics** where a shrinking workforce supports a rapidly aging population. **Closing the Female Labour Force Participation (FLFP) gap is identified as critical to raising State GSDP by 15%.**

This Framework heralds a fundamental philosophical and operational paradigm shift from **Population Control to Population Care**. The traditional paradigm focused on sterilization targets and two-child norms is recognized as outdated and counterproductive in the current context. The new approach positions **families** as the central unit of development planning, recognizing that sustainable demographic balance must emerge organically from empowered households making informed reproductive choices within a supportive environment. This shift is guided by core principles including being **rights-based and voluntary, gender-transformative, data-driven** via the SANJEEVANI platform, **fiscally sustainable** through NPV-based budgeting, and reliant on a **Public-Private-People Partnership (P4)** model. The state's role is defined as enabling and supporting rather than dictating, ensuring that population stabilization is an outcome of a society where individuals feel supported at every stage of life.

The policy adopts a **Life-Cycle Model**, acknowledging that an individual's journey is a continuum where disruptions at any stage cascade through the life cycle. The logic is integrated such that a healthy pregnancy under **MATRUTVA** leads to a healthy infant, while digital tracking via **SANJEEVANI** ensures proactive wellness from childhood. Empowered adolescents under **SHAKTI** and **NAIPUNYAM** become skilled adults who support children and aging parents, while **KSHEMA** ensures dignified aging allowing seniors to remain contributors via the Silver Dividend. This framework recognizes that population stabilization is not a goal in itself but an outcome of a society where individuals and families feel supported and empowered at every stage of life. **The strategic objective is to stabilize the population structure by supporting families, ensuring every pregnancy is wanted and healthy, empowering women economically, and skilling the population for a \$2.4 Trillion Economy.**

THE FIVE-PILLAR STRATEGIC ARCHITECTURE

To operationalize the life-cycle approach, the framework is structured around **five interconnected strategic pillars**. Each pillar addresses a critical life stage or a foundational enabler, and together they form a comprehensive safety net and opportunity network. The strength of this strategy lies in the powerful synergy where a young woman's journey is supported from adolescent health screenings via SANJEEVANI to safe delivery under MATRUTVA, return to work facilitated by SHAKTI crèches, and eventual dignified aging under KSHEMA. This integrated logic ensures that a family's decision to have a child is supported by a web of interconnected systems, making that decision a positive and

empowering one. **The implementation will be guided by the principle that SANJEEVANI serves as the central nervous system linking all pillars through real-time data and analytics.**

- Pillar I – MATRUTVA: Transforming Reproductive Care:** The MATRUTVA pillar constitutes the foundational element addressing the beginning of human life with a **comprehensive, rights-based approach**. The strategic significance extends beyond conventional healthcare to address the quantitative imperative of **demographic stabilization in the context of the declining TFR of 1.5**. Key interventions include **diversifying the contraceptive method mix to reduce the skew towards female sterilization from 70% to below 50% over five years** while promoting spacing methods. To address the growing burden of infertility, the framework proposes establishing a **Hub-and-Spoke Model for infertility care** anchored by a **MATRUTVA Centre of Excellence**. In order to support the eligible couples struggling with fertility issues, the provision of Fertility Support (IVF/ART cycles) will be **delivered through Government Facilities operating under the Public-Private Partnership (PPP) mode**, ensuring these advanced procedures are **available to beneficiaries entirely free of cost**. Furthermore, the pillar aims to **tackle high C-section rates through audits and midwifery-led models** while **reducing teenage pregnancy from 8.80% to <3%** through comprehensive sexuality education and strengthened adolescent-friendly health clinics.
- Pillar II – SANJEEVANI: The Digital Backbone:** **SANJEEVANI** represents a transformative reform shifting the public health system from episodic care to a continuous, citizen-centric health ecosystem. It is built on core principles of **Continuous Lifetime Proactive Healthcare** and **Healthcare Coordination through Digital Intelligence**. The ecosystem comprises an Integrated Healthcare Delivery Platform hosting longitudinal health records, a Care Coordination Call Centre making proactive outgoing calls, and a Unified Workforce Management app for frontline workers. The statewide rollout is targeted for **June 2026**, covering **5.2 crore population** and 2,086 facilities, positioning Andhra Pradesh as a national leader in digital public health. This digital backbone enables predictive risk alerts, automated follow-ups, and closed referrals, creating a modern system that evolves from real-world evidence to ensure continuous, accountable care across all life stages.
- Pillar III – SHAKTI: Empowering Women:** The **SHAKTI** pillar serves as the central engine of gender equity, premised on the fact that higher **Female Labor Force Participation (FLFP)** is a critical imperative for achieving demographic stability. The framework aims to increase FLFP by **25%** by removing barriers via workplace crèches, safe transport, and **Working Women Hostels**. A progressive policy proposal includes a **12-month Collective Parental Leave** with 2 months non-transferable per parent to normalize shared responsibility. The pillar also links with NAIPUNYAM to certify childcare providers through a **Child Caretaker Course**, creating dignified employment while enabling other women to work. Social norms are addressed through campaigns for **Shared Parenting** targeting men and communities to challenge patriarchal norms and normalize shared parenting duties within households.
- Pillar IV – KSHEMA: Dignity and Silver Dividend:** The **KSHEMA** pillar addresses the projected surge in the elderly population to **23% by 2047** by shifting from adding years to life to **adding life to years**. Infrastructure goals include ensuring **100% district coverage** for geriatric wards and operationalizing bi-weekly geriatric clinics at all 175 CHCs. The framework seeks to monetize the **Silver Dividend** by creating a **Silver Skills Registry** with a target of 50,000 senior consultants to enable healthy seniors to remain economically productive. Comprehensive care is ensured by training **5,000 geriatric care professionals annually** and integrating mental health support to address isolation and dementia. Social protection is strengthened through the NTR Bharosa

pension scheme with proposals to explore additional pensions for households with large family sizes.

- **Pillar V – NAIPUNYAM: Skilling for the Future Needs:** The **NAIPUNYAM** pillar serves as the critical economic engine ensuring the population is skilled and productive enough to drive the **Swarnandhra 2047 vision**. The strategy is structured across three tiers including Foundational Digital Literacy, creating a **Care Economy Workforce** through Child Caretaker and Geriatric Assistant training, and High-End Skilling for sectors aligned with the **610 MoUs** signed at the CII Summit. The framework mandates that skilling translates into tangible economic outcomes tracked via the Family Card, with targets for skilling completion rate **>75%** and placement rate **>80% by 2035**. This pillar ensures that the shrinking workforce is maximally productive through alignment of training outputs with the state's priority economic sectors and arising requirements in tune with the global scenario.

IMPLEMENTATION, GOVERNANCE, AND FINANCIAL SUSTAINABILITY

- **Implementation Architecture and Governance:** The success of this framework relies on a robust governance structure headed by a **Population Management Mission**. A **High-Powered Steering Committee** chaired by the **Honourable Chief Minister** will provide strategic political oversight, while a **Technical Support Unit (TSU)** under Project SANJEEVANI will serve as the apex technical coordination nucleus for data analytics and adaptive policy refinement. The **Family Card** is envisioned as the single source of truth for welfare data, used for precise beneficiary identification, preventing duplication, and tracking longitudinal outcomes across all five pillars. Dedicated teams at the State, District, and Mandal levels will be responsible for execution, ensuring that policies are implemented with fidelity and that real-time dashboards powered by SANJEEVANI data enable data-driven governance for all stakeholders including Collectors and Department Heads.
- **The Poshan Shiksha Suraksha Package:** To encourage family expansion and support the third child, a comprehensive incentive package termed the **Poshan Shiksha Suraksha Package** is proposed. This includes a **Poshan** component with **₹500/month** direct cash transfer for the first 5 years conditional on immunization, and a **Shiksha** component with milestone-based scholarships up to **₹3 Lakhs** over 18 years for the third child. A **Suraksha** component provides comprehensive health insurance cover until age 18/21, while a **Direct Birth Incentive** of **₹50,000** is proposed for mothers giving birth to a third child. The estimated **Year 1 Outlay** is **~₹521.25 Crores** assuming 75,000 families. Existing schemes like NTR Bharosa and PMAY will be reviewed to enhance benefits for large and joint families, promoting the cultural value of intergenerational support.
- **Financial Modelling and Sustainability:** Expenditures under this framework are viewed as **investment in human capital**, not consumption, with long-term commitments modelled using **Net Present Value (NPV)** analysis to ensure fiscal prudence. Funding will be sourced via reallocation, dedicated budget lines, **Public-Private-People Partnerships (P4)**, and CSR funds, with a specific exploration of a Demographic Resilience Fund. The framework prioritizes the convergence and rationalization of existing schemes before proposing new unfunded expenditures, ensuring that the fiscal strategy remains sustainable over the long term. Regular audits of the Family Card system will be conducted to prevent leakage, and the TSU will conduct annual evidence-based policy reviews to analyze progress against KPIs and propose specific recommendations for policy refinement based on emerging challenges.

- **Phased Implementation Roadmap:** The implementation follows a phased roadmap starting with **Short-Term Actions (Year 1)** focused on foundation building including completing the SANJEEVANI rollout by 2026 and launching social movement campaigns. **Medium-Term Actions (Year 2)** involve statewide scaling such as establishing the MATRUTVA Centre of Excellence and scaling the Child Caretaker Course, while maturing SANJEEVANI analytics with AI/ML. **Long-Term Actions (Years 3+)** focus on consolidation ensuring geriatric infrastructure is fully matured and developing robust social security for the elderly. Key Performance Indicators will be tracked over a 10-year horizon including increasing **TFR towards 2.1**, increasing **FLFP by 25%**, reducing **IMR to <5**, and stabilizing the **Elderly Dependency Ratio by 2040**.

This Framework is a **social contract for the future** that **shifts the view of population from a problem to a dynamic asset**. Success relies on a true **Public-Private-People Partnership**: The Government sets the vision, the Private Sector builds family-friendly workplaces, and the People engage in their own well-being. Together, Andhra Pradesh can turn its demographic transition into a national model, ensuring today's **demographic dividend does not become tomorrow's demographic debt**. The goal is a wealthy, healthy, and happy **Swarnandhra** for generations to come. Achieving this requires **immediate action** to shape a demographic destiny that is **proactive, compassionate, and strategic**.

CHAPTER 1: THE DEMOGRAPHIC IMPERATIVE – FOUNDATIONS FOR A NEW FRAMEWORK

Andhra Pradesh stands at a critical inflection point in its developmental trajectory. The state has successfully transitioned from the challenges of high population growth in the previous century to confronting the complex realities of sub-replacement fertility and accelerated population aging. With the Total Fertility Rate (TFR) currently estimated at 1.5, significantly below the replacement threshold of 2.1, the state's demographic evolution increasingly parallels patterns observed in advanced economies such as Japan and South Korea. However, this transformation is unfolding within a socio-economic framework that remains distinctly Indian, presenting unique challenges and opportunities that demand nuanced policy responses. The median age in Andhra Pradesh stands at 32.5 years, compared to India's national average of 28.4 years, indicating an aging population trajectory that requires immediate strategic attention. This demographic shift carries profound implications for the state's economic future, with the demographic window of opportunity lasting only until 2040 before aging pressures intensify significantly.

Table 1.1: Key Demographic Indicators – Andhra Pradesh vs. National and Global Benchmarks

Indicator	Andhra Pradesh	India	Global Benchmark
Median Age	32.5 Years	28.4 Years	Japan: 49.5 (Oldest) / Niger: 14.5 (Youngest)
Total Fertility Rate (TFR)	1.5 (Below Replacement)	~2.0 (Replacement Level)	Replacement Level: 2.1
Life Expectancy	70.6 Years	72.03 Years	Hong Kong: 85.8 Years
Female Workforce Participation	31% (Gap vs. Male: 28%)	~37%	Iceland: ~80% / Sweden: ~80%
Productivity (GDP/Hour)	~\$9.20 (Estimated)	~\$8.70 (Rank 96)	Luxembourg: ~\$146

Source: Technical Group on Population Projections, MoHFW (2020); SRS Statistical Report 2023

A. THE CORE CHALLENGE: ULTRA-LOW FERTILITY AND ITS IMPLICATIONS

The most defining feature of Andhra Pradesh's demography is its sustained low fertility. The Total Fertility Rate has been below the replacement level of 2.1 for over a decade. As per the most recent Sample Registration System (SRS) data and state government estimates, the TFR in Andhra Pradesh stands at approximately 1.5. This is significantly lower than the national average of 2.0 and places the state among the lowest-fertility regions in India, comparable to its southern neighbours like Tamil Nadu and Kerala.

Table 1.2: Trends in Total Fertility Rate (TFR) – Andhra Pradesh (2011-2025)

Period	Population Growth Rate (%)	CBR (per 1000)	Total Fertility Rate
2011-15	7.1	15.2	1.68
2016-20	5.4	13.8	1.61
2021-25	3.5	12.2	1.54
2026-30 (Proj.)	1.7	10.9	1.51
2031-35 (Proj.)	0.3	9.9	1.50

Source: Source: Report of the Technical Group on Population Projections for India and States 2011-2036

The consequences of sustained low fertility manifest in three critical dimensions:

- **Shrinking Youth Base:** The proportion of the population aged 0-14 years is projected to decline sharply from over 25% in 2011 to just 15.7% by 2036. This translates to a smaller pool of future workers, students, and consumers, potentially constraining long-term economic growth and innovation capacity.
- **Rising Dependency Ratio:** Concurrently, the share of the population aged 60 years and above is projected to nearly double from around 10% in 2011 to 18.9% by 2036. By 2047, this figure is expected to reach approximately 23%, meaning nearly one in four persons in Andhra Pradesh will be a senior citizen. This structural shift places immense pressure on public finances, as a smaller working-age population must support a growing number of elderly dependents through taxes.
- **Economic Implications:** Closing the female labour force participation gap vs. males and increasing the women participation in labour force upto 60% can raise State GSDP by 15%. This economic gain underscores the critical importance of the SHAKTI pillar in the overall framework, as women's workforce participation becomes not merely a social objective but a critical imperative for achieving demographic stability and economic vitality.

B. FROM POPULATION CONTROL TO POPULATION CARE

This blueprint heralds a fundamental philosophical and operational paradigm shift: from "population control" to "population care." This new approach positions families—not abstract population statistics—as the central unit of development planning. It recognizes that sustainable demographic balance cannot be engineered through administrative fiat but must emerge organically from empowered households making informed reproductive choices within a supportive social, economic, and institutional environment. The traditional paradigm of "population control," with its focus on sterilization targets and two-child norms, is not only outdated but counterproductive in the current context. It fails to address the complex interplay of socio-economic factors that drive fertility decisions and ignores the profound implications of a rapidly aging society. The shift to "population care" is not merely semantic; it is the foundational principle upon which the entire Five-Pillar Strategy is built.

C. THE REPRODUCTIVE HEALTH PARADOX

Andhra Pradesh's low fertility co-exists with a set of complex and often contradictory reproductive health indicators. This suggests that the fertility decline is not solely a result of conscious, well-informed choice but also of systemic health issues and programmatic legacies.

- **High Sterilization Rates:** The state's family planning method mix is heavily skewed towards terminal methods. Approximately 70% of married women undergo sterilization, often at a young age (23-25 years). The Kuppam Pilot data revealed 69.6% sterilization-driven family planning mix with IUD uptake remaining negligible at 0.2%, indicating provider bias, limited informed choice, and low male engagement.
- **Alarming Hysterectomy Rates:** Andhra Pradesh has one of the highest rates of hysterectomies in India among women aged 15-49 (around 8.7%). This points to potential over-medicalization, unethical practices in the private sector, and a lack of access to quality alternative treatments for conditions like fibroids or excessive bleeding.
- **High Infertility Burden:** Integrating comprehensive infertility management into the national population framework is essential for addressing the **unmet need for fertility assistance** and ensuring reproductive rights alongside population stabilization goals. Current epidemiological data indicates that **infertility affects approximately 15% of reproductive-age couples across India**, translating to an estimated **3.5 crore couples** requiring medical intervention, according to multi-centric studies coordinated by the **Indian Council of Medical Research (ICMR)** and systematic reviews published in the *Journal of Human Reproductive Sciences* (2021). While state-specific

surveillance remains limited, **modeled estimates for Andhra Pradesh suggest a prevalence rate between 10%**, implying that roughly **11.2 lakh couples in the state** are impacted, a figure derived from **National Family Health Survey-5 (NFHS-5)** reproductive indicators and regional demographic audits. Despite this significant burden, **public health infrastructure remains critically under-resourced**, with **less than 15% of district hospitals** currently equipped to provide basic infertility screening or first-line treatment, forcing the majority of couples to rely on costly private sector services. To align with **Sustainable Development Goal (SDG) 3.7** on universal access to sexual and reproductive healthcare, population management policies must prioritize **capacity building for district-level OBGYNs**, expand **public-sector Assisted Reproductive Technology (ART) services**, and establish **state-level infertility registries** to replace modeled projections with accurate, real-time surveillance data.

- **Persistent Adolescent Health Issues:** Despite low overall fertility, the state grapples with a high prevalence of teenage pregnancy. The state average stands at 8.80%, well above the 5% benchmark target, with 21 out of 28 districts exceeding the target. Only Visakhapatnam (3.98%) remains below target. The highest burden districts include Palnadu (14.94%) and Kurnool (13.50%), indicating significant geographic clustering in Rayalaseema and South Coastal belt.

Table 1.3: Teenage Pregnancy Distribution by District Category (FY 2025-26)

Category	Percentage Range	Districts
Below Target	<5%	Visakhapatnam
Moderate	5-8%	Konaseema, West Godavari, Parvathipuram Manyam, Srikakulam, Vizianagaram, Krishna, Anakapalli, NTR, YSR Kadapa
High	8-10%	Alluri Sitharama Raju, Kakinada, East Godavari, Guntur
Very High	10-12%	Eluru, Annamayya, Chittoor, Tirupati, Sri Sathya Sai, Nandyal
Critical	>12%	SPSR Nellore, Prakasam, Anantapur, Bapatla, Kurnool, Palnadu

Source: Sample Registration System (SRS) Statistical Report 2023, Pg. No. 58

D. INSTITUTIONAL DELIVERY AND C-SECTION TRENDS

Analysis of institutional delivery patterns reveals significant public-private sector disparities that require policy attention. During April-January FY 2025-26, the private sector accounted for 57.07% of institutional deliveries (3,08,130 deliveries) compared to 42.93% in the public sector (2,31,805 deliveries). More concerning is the C-section rate disparity: private facilities show 67.58% of deliveries as C-sections compared to 42.06% in public facilities. This wide public-private gap suggests possible over-medicalization in private care, requiring strengthened public obstetric care, enforced clinical audits, and scaled midwifery-led normal delivery models.

Table 1.4: Institutional Deliveries and C-Section Trends (April-January FY 2025-26)

Indicator	Public Sector	Private Sector
Institutional Deliveries	2,31,805 (42.93%)	3,08,130 (57.07%)
C-Sections	97,508 (42.06%*)	2,08,227 (67.58%*)

Note: C-sections as percentage of institutional deliveries within sector. HMIS

E. SOCIO-ECONOMIC DRIVERS OF DEMOGRAPHIC CHANGE

Fertility decisions are not made in a vacuum. Several powerful socio-economic factors are driving couples in Andhra Pradesh to choose smaller families:

- **The Rising Cost of Living and Education:** The government's public consultation, which garnered over 433,000 responses, found that 53.7% of citizens cited high child-rearing expenses as the biggest challenge to having more than one child. This economic reality cannot be addressed by health policy alone.
- **The Erosion of the Joint Family System:** The traditional joint family system, which once provided built-in childcare, emotional support, and financial security, is eroding. The rise of nuclear families, driven by urbanization and changing social norms, places the burden of childcare squarely on individual parents, often the mother.
- **Urbanization and Changing Aspirations:** As more people move to cities and pursue careers, lifestyle aspirations change. Young people prioritize financial stability, work-life balance, and personal fulfilment, often leading to delayed marriage and childbearing.

F. ECONOMIC, SOCIAL, AND POLITICAL IMPLICATIONS

This demographic trajectory has cascading consequences that threaten the very foundation of the Swarnandhra@2047 vision:

- **The Shrinking Demographic Dividend:** With nearly 63% of its population below the age of 35, the state possesses a significant demographic dividend. However, this window is rapidly closing. A shrinking youth population means a smaller future workforce. If this workforce is not healthy, educated, and skilled, the dividend will evaporate, replaced by a demographic debt.
- **The Rising Dependency Ratio and Fiscal Pressure:** The shift in age structure will place immense pressure on public finances. A smaller working-age population will have to support a growing number of elderly dependents through taxes. This will strain pension systems (like NTR Bharosa), healthcare systems (requiring more geriatric care), and social welfare programs.
- **The Challenge of Political Representation and Federal Transfers:** In India's federal structure, population numbers influence political representation in the Parliament and the allocation of central resources through Finance Commission awards. States that have successfully stabilized their populations early, risk being "penalized" fiscally and politically as their share of the national population declines.

CHAPTER 2: A NEW PARADIGM – THE LIFE-CYCLE MODEL OF POPULATION MANAGEMENT

The demographic challenges elucidated earlier are deeply interconnected. The reasons for low fertility are not confined to the health sector; they are rooted in economics, education, gender dynamics, and social support systems. A couple's decision to have a child is influenced by their confidence in the healthcare system, their ability to balance work and family, the availability of quality childcare, their own job security, and their prospects for a dignified old age. Therefore, a policy response that focuses on any single issue in isolation is destined to fail. The Life-Cycle Model represents a paradigm shift designed to address this interconnectedness. It moves away from viewing population management as a series of standalone programs (e.g., a family planning program, an elderly care scheme) and instead builds a supportive ecosystem that nurtures human potential from conception to old age. The core logic is simple yet profound: an individual's journey through life is a continuum. Disruptions or lack of support at any stage have cascading effects on the entire life cycle and, consequently, on the state's demographic structure and economic prosperity.

- A healthy pregnancy (MATRUTVA) leads to a healthy infant.

- A well-nourished and stimulated child, tracked by a digital health system (SANJEEVANI), becomes a capable adolescent.
- A healthy and educated adolescent, supported by empowering social norms (SHAKTI) and quality education, becomes a skilled and productive adult.
- A skilled adult (NAIPUNYAM) contributes to the economy, supporting both their children and their aging parents.
- A financially secure and healthy adult, with access to quality geriatric care (KSHEMA), ages with dignity and remains a contributor to society for longer.

This framework recognizes that population stabilization is not a goal in itself, but an outcome of a society where individuals and families feel supported and empowered at every stage of life.

A. INTRODUCING THE FIVE-PILLAR STRATEGY: AN INTEGRATED ARCHITECTURE

To operationalize this life-cycle approach, the framework is structured around five interconnected strategic pillars. Each pillar addresses a critical life stage or a foundational enabler, and together they form a comprehensive safety net and opportunity network.

Table 2.1: The Five-Pillar Strategy – Overview and Strategic Focus

Pillar	Name Meaning	Focus Area	Strategic Objective
MATRUTVA	Motherhood	Reproductive Care & Fertility Ecosystem	Shift from family-size control to comprehensive family support; ensure every pregnancy is wanted and healthy
SANJEEVANI	Life-Giving	Preventive & Predictive Healthcare	Build digital backbone for life-course health; enable proactive, data-driven wellness management
SHAKTI	Power/Strength	Women's Workforce & Household Empowerment	Create enabling environment for women's economic participation; dismantle structural barriers
KSHEMA	Well-being	Active Ageing & Elderly Care	Reframe aging as opportunity; ensure dignified, productive old age
NAIPUNYAM	Skill/Expertise	Lifelong Skilling & Human Capital	Equip population with skills for \$2.4 trillion economy; professionalize care economy

B. THE SYNERGY IN ACTION: HOW THE PILLARS INTERCONNECT

The strength of the Five-Pillar Strategy lies not in the individual pillars but in their powerful synergy. A young woman's journey through life illustrates this perfectly:

- As an adolescent, she benefits from SANJEEVANI-enabled health screenings in school, which detect and address nutritional anemia (a key health issue).
- She is also exposed to foundational skills and career guidance through NAIPUNYAM programs.
- As she marries, SHAKTI policies and pre-marital counselling help her and her partner build a relationship based on shared responsibility and communication.
- When she decides to have a child, MATRUTVA provides quality antenatal care, a safe delivery, and postpartum support, including counselling on birth spacing, all tracked seamlessly in her SANJEEVANI digital health record.
- To return to work, she relies on an affordable crèche (SHAKTI), perhaps staffed by a certified caregiver trained through NAIPUNYAM's "Child Caretaker Course."

- Her husband, influenced by the shared parenting campaign (SHAKTI), takes paternity leave, supporting her return to work and bonding with their child.
- As she ages, SANJEEVANI helps manage her health, flagging early signs of diabetes or hypertension.
- Eventually, KSHEMA ensures she ages with dignity, with access to geriatric care and perhaps even a skill based and age appropriate role in her field of expertise, contributing her "silver dividend."

This integrated, reinforcing logic is the hallmark of the new paradigm. It ensures that a family's decision to have a child is supported by a web of interconnected systems, making that decision a positive and empowering one.

C. GUIDING PRINCIPLES OF THE FRAMEWORK

The implementation of the Five-Pillar Strategy will be guided by a set of core principles:

- **Rights-Based and Voluntary:** All interventions will be grounded in the principles of reproductive rights, bodily autonomy, and informed choice. There will be no coercion, no targets, and no discrimination. The state's role is to enable and support, not to dictate.
- **Gender-Transformative:** The framework explicitly aims to challenge and change harmful gender norms. It promotes shared responsibility in childcare, equal opportunities for women in the workforce, and the active engagement of men in reproductive health and family life.
- **Data-Driven and Evidence-Based:** SANJEEVANI will serve as the central nervous system for the entire framework. All policies and programs will be continuously monitored, evaluated, and refined based on real-time data and rigorous evidence, ensuring accountability and adaptive management.
- **Fiscally Sustainable:** Long-term commitments, such as scholarships for the third child, will be modelled using fiscally prudent methods like Net Present Value (NPV) analysis. The framework will prioritize the convergence and rationalization of existing schemes before proposing new, unfunded expenditures.
- **Public-Private-People Partnership (P4):** The framework embraces a collaborative governance model that leverages government resources, private sector innovation, and community participation to achieve demographic objectives.

CHAPTER 3: DEMOGRAPHIC DEEP DIVE – GRANULAR ANALYSIS FOR TARGETED ACTION

A. DISAGGREGATING FERTILITY DYNAMICS

The state's aggregate Total Fertility Rate of 1.5, while confirming that Andhra Pradesh has firmly transitioned below replacement level fertility, masks a complex tapestry of reproductive behaviour across its 28 constituent districts. A nuanced analysis of this spatial heterogeneity is not merely an academic exercise but an essential prerequisite for calibrating interventions to local realities and ensuring that resources are directed to areas of greatest need.

Drawing upon validated administrative data from the 2023-24 fiscal year, districts may be classified into three distinct fertility regimes, each characterized by unique demographic dynamics and requiring correspondingly differentiated strategic responses.

Table 3.1: District-Wise Categorization by Total Fertility Rate with Strategic Implications

Fertility Category	TFR Range	Districts with TFR Values	Demographic Characteristics	Strategic Implications
High Fertility	> 1.7	Alluri Sitharama Raju (1.87), Kurnool (1.85), Srikakulam (1.77)	Predominantly rural districts with lower female literacy and later age at marriage; higher unmet need for spacing methods	Prioritize strengthening maternal and child health service delivery; address unmet family planning needs through comprehensive contraceptive access; promote optimal birth spacing via targeted community-based counselling
Moderate Fertility	1.4 – 1.7	YSR Kadapa (1.64), Anantapur (1.66), Tirupati (1.63), NTR (1.59), Visakhapatnam (1.58), Sri Sathya Sai (1.58), Parvathipuram Manyam (1.43), Prakasam (1.46), Palnadu (1.46), Vizianagaram (1.46), Bapatla (1.43), West Godavari (1.43), Guntur (1.48), Krishna (1.48)	Mixed urban-rural composition; transition zones with evolving reproductive norms; established health infrastructure	Sustain informed reproductive choice; expand access to modern spacing methods; initiate foundational work on fertility preservation and infertility care services
Ultra-Low Fertility	< 1.4	Annamayya (1.39), Chittoor (1.38), Nandyal (1.36), Eluru (1.35), Kakinada (1.35), Sri Potti Sriramulu Nellore (1.34), Dr. B.R. Ambedkar Konaseema (1.34), East Godavari (1.31), Anakapalli (1.29)	Predominantly coastal and delta districts; higher urbanization and female workforce participation; delayed marriage and childbearing	Designate as high-priority for fertility-supportive policies; expand access to affordable infertility treatment; cultivate positive social narrative around family formation; systematically mitigate structural barriers to childbearing

Source: National Family Health Survey (NFHS) 2019-21

This district typology is conceived not as a static classification but as a dynamic framework for ongoing policy refinement and resource allocation. It will serve as a foundational analytical tool for the proposed Technical Support Unit, enabling evidence-guided decisions regarding resource allocation, communication strategy tailoring, and intervention prioritization in a manner commensurate with local demographic imperatives.

B. TEMPO AND TIMING OF FERTILITY

Beyond the quantum of fertility, measured by the total number of children women bear over their lifetimes, the tempo or timing of childbearing provides indispensable insights into evolving reproductive behaviours and identifies critical leverage points for policy intervention.

- **Adolescent Fertility: Addressing a Persistent and Multidimensional Vulnerability:** Notwithstanding the state's achievement of low overall fertility, the proportion of pregnancies occurring among adolescents aged 15 to 19 years remains a significant public health and social concern, with current estimates indicating that the state average stands at 8.80%, well above the 3% benchmark target. This phenomenon is inextricably linked to a constellation of adverse outcomes including elevated risks of maternal mortality and morbidity, higher rates of infant mortality and low birth weight, compromised educational attainment and economic prospects for young mothers, and the intergenerational transmission of poverty through constrained human capital development. The strategic response to adolescent fertility must be comprehensive and multi-sectoral, recognizing that the drivers of early childbearing extend far beyond the health sector alone. First and foremost, the Prohibition of Child Marriage Act of 2006 must be operationalized with renewed vigour through the constitution of multi-departmental task forces at the district level that integrate the police, education department, and women and child welfare functionaries.
- **The Prime Childbearing Years: Enabling Informed Choices During Ages 20 to 29:** The age group spanning 20 to 29 years accounts for majority of births in Andhra Pradesh and simultaneously represents the cohort navigating critical educational completion and career establishment phases. This convergence of reproductive prime with career foundation creates an inherent tension that increasingly shapes fertility outcomes. The strategic imperative for this cohort centres on enabling rather than directing reproductive choices, removing the structural impediments that constrain rather than support family formation during these prime childbearing years. The operationalization of the SHAKTI pillar's commitments to flexible work arrangements, adequately funded parental leave policies, and accessible, affordable childcare infrastructure assumes particular importance for this demographic.
- **Late-Age Childbearing: Managing Emerging Risks Associated with Ages 35 and Above:** As women increasingly pursue higher education and professional trajectories, and as couples prioritize economic stabilization before family formation, the mean age at first birth is gradually rising across Andhra Pradesh. While this trend reflects positive developmental achievements including enhanced female educational attainment and workforce participation, delayed childbearing is associated with elevated risks of infertility, prolonged time to conception, miscarriage, and obstetric complications.

C. THE EVOLVING CONCEPT OF UNMET NEED

The conventional demographic definition of unmet need captures the gap between women's desire to limit or space births and their non-use of contraception. In contemporary Andhra Pradesh, however, a more expansive conceptualization is required, one that encompasses the emerging unmet need for quality, comprehensive reproductive health services that extend far beyond traditional contraceptive provision.

- **Contraceptive Method Mix: Addressing the Systemic Predominance of Female Sterilization:** With approximately 70 percent of married women relying on female sterilization as their contraceptive method, Andhra Pradesh exhibits one of the most skewed contraceptive methods mixes not only in southern India but nationally. The Kuppam Pilot data revealed 69.6% sterilization-driven family planning mix with IUD uptake remaining negligible at 0.2%, indicating provider bias, limited informed choice, and low male engagement.
- **The Hysterectomy Phenomenon: Investigating Systemic Drivers and Curbing Clinical Overuse:** The elevated rates of hysterectomy observed in Andhra Pradesh, particularly concentrated in specific districts and demographic subgroups, constitute a serious public health

concern warranting urgent investigation and decisive policy response. While medically indicated hysterectomies for conditions such as cancer, severe haemorrhage, or symptomatic fibroids unresponsive to conservative management are entirely appropriate and necessary, the sheer volume of procedures and their geographic and socioeconomic clustering strongly suggest widespread over-treatment.

- **Infertility: Confronting the Silent Burden with Comprehensive Care Pathways:** Modeled epidemiological estimates indicate an infertility prevalence of 10% in Andhra Pradesh, aligning with broader national trends of 15% reported by the Indian Council of Medical Research (ICMR), thereby affecting an estimated 11.7 lakh couples who currently face significant barriers to accessing diagnostic and treatment services. While often overlooked in traditional population stabilization frameworks, **involuntary childlessness represents a critical unmet reproductive need** that is distinct from voluntary family planning choices and must be addressed to ensure **equitable reproductive health outcomes**. Beyond its demographic implications, the **psychosocial burden of infertility is clinically significant**, recognized by the **World Health Organization (WHO)** as a disease condition associated with **elevated rates of anxiety, depression, and marital discord**. Evidence from the *Indian Journal of Psychological Medicine* and regional health audits highlights that **social stigma and isolation exacerbate mental health morbidity**, creating a cycle of suffering that undermines overall family well-being and community stability. Consequently, population management strategies must evolve to include **structured mental health support and subsidized treatment pathways**, ensuring that **reproductive justice** encompasses both the right to prevent and the right to achieve pregnancy within a **rights-based healthcare framework**.

D. SYSTEMATIC MAPPING OF FLOWS FOR PROACTIVE MULTI-SECTORAL PLANNING

A critical data gap that currently impedes evidence-based policy across multiple sectors is the absence of a real-time, granular migration tracking system capable of capturing the volume, direction, composition, and timing of population movements into, out of, and within Andhra Pradesh. The SANJEEVANI digital health platform, with its universal coverage and real-time data capture capabilities, presents a unique and transformative opportunity to address this long-standing data deficiency.

- **Out-Migration of Skilled Youth: Understanding and Mitigating Human Capital Flight:** Anecdotal evidence, labour market indicators, and qualitative research consistently suggest significant out-migration of educated youth from rural areas and smaller towns to metropolitan centers within and outside the state, driven by pursuit of higher education opportunities and professional employment aspirations. If substantiated through systematic data collection, this trend constitutes a brain drain that potentially depletes the state's most valuable human capital assets.
- **In-Migration as a Workforce Strategy: Learning from Comparative Experiences:** Neighbouring states with comparable low fertility regimes, notably Kerala and Tamil Nadu, have successfully mitigated labour market shortages in critical sectors by attracting migrant workers from other states with higher fertility and surplus labour. Andhra Pradesh must prepare for a future in which in-migration becomes an increasingly significant demographic and economic phenomenon.

E. TRANSLATING GRANULAR ANALYSIS INTO DIFFERENTIATED ACTION

The granular demographic analysis presented in this chapter reveals a state of substantial heterogeneity, where district-level fertility variations, age-specific reproductive patterns, evolving

unmet needs, and migration dynamics combine to create a complex policy landscape requiring nuanced, differentiated responses.

- **The establishment of a State Population Data Registry** is mandated as an urgent priority. This registry is being maintained in the form of Household and Resident Data by SGSW department. It shall be strengthened to integrate all demographic data streams including civil registration systems capturing births, deaths, and marriages. It shall be further linked to SANJEEVANI platform providing real-time population coverage and tracking service utilization of healthcare services. The State Population Data Registry shall be further informed by the sample survey estimates (NPHS / SHS etc.) as well as periodic data collection exercises to consolidate and enrich the population and household database.
- **The institutionalization of annual district demographic profiles** represents an essential step toward decentralizing evidence-based planning. These profiles should extend well beyond the Total Fertility Rate to encompass critical indicators including contraceptive method mix with particular attention to sterilization prevalence, age-specific fertility rates, hysterectomy rates with appropriate risk adjustment, adolescent fertility trends, infertility prevalence estimates where available, and migration flows.
- **Dedicated research funding** must be allocated for deep-dive analytical studies investigating priority questions. These studies should examine the root causes of elevated hysterectomy rates through mixed-methods research combining quantitative analysis of claims data with qualitative investigation of provider and patient decision-making.
- **Finally, the Technical Support Unit** must be mandated to operationalize data-driven differentiated strategy development. This requires moving beyond one-size-fits-all approaches to design and implement district-specific action plans that are authentically responsive to local demographic realities and strategic priorities.

CHAPTER 4: PILLAR I – MATRUTVA: TRANSFORMING REPRODUCTIVE AND FERTILITY CARE

A. KEY IDEAS AND STRATEGIC OBJECTIVES

The MATRUTVA pillar constitutes the foundational element of Andhra Pradesh's life-cycle model, addressing the very beginning of human life with a comprehensive, rights-based approach that fundamentally reorients the state's reproductive health paradigm. This pillar represents a decisive shift away from the decades-old programmatic focus on population control and female sterilization toward a holistic vision of reproductive well-being that encompasses the full spectrum of individual and family needs. The strategic significance of MATRUTVA extends beyond conventional healthcare delivery, as it addresses both the quantitative imperative of demographic stabilization in the context of Andhra Pradesh's declining Total Fertility Rate (TFR) of 1.5—substantially below the replacement level of 2.1—and the qualitative dimension of reproductive health outcomes that determine maternal and child well-being across generations.

Table 4.1: MATRUTVA Pillar – Strategic Objectives and Expected Outcomes

Strategic Objective	Key Interventions	Expected Outcome
Enable informed, voluntary, and healthy reproductive choices	Comprehensive contraceptive counselling; full range of modern methods; rights-based approach	Couples make informed decisions aligned with life circumstances and aspirations

Population Management: A Life-Cycle Model for Andhra Pradesh

Ensure every pregnancy is wanted, safe, and leads to healthy mother and child	Preconception care; comprehensive antenatal care; skilled birth attendance; postnatal support	Reduced maternal and infant mortality; improved birth outcomes
Address the full spectrum of reproductive health needs	Adolescent services; infertility support; RTI/STI management; reproductive cancer screening; menopause care	Comprehensive reproductive health across life course
Transform the legacy of sterilization-centric program	Recalibrate incentive structures; retrain providers; reshape public perceptions; build trust	Balanced contraceptive method mix; genuine reproductive autonomy

B. DIVERSIFYING THE CONTRACEPTIVE METHOD MIX

The most visible and critical task of the MATRUTVA pillar is to correct Andhra Pradesh's highly skewed contraceptive method mix, where female sterilization has historically dominated family planning acceptance, accounting for over 70% of modern contraceptive use in the state. The Kuppam Pilot revealed 69.6% sterilization-driven family planning mix with IUD uptake remaining negligible at 0.2%, indicating provider bias, limited informed choice, and low male engagement.

- **Supply-Side Readiness for Spacing Methods:** Ensuring consistent availability of all modern contraceptives at all levels of the health system constitutes the foundational requirement for method diversification, requiring comprehensive procurement and logistics strengthening to prevent stock-outs and maintain buffer stocks at district warehouses.
- **Demand Generation for Spacing Methods:** Supply-side readiness must be matched by sustained efforts to create demand for spacing methods through comprehensive IEC campaigns that address the pervasive myths and misconceptions deterring couples from adopting reversible contraception.
- **Focus on Post-Partum IUCD (PPIUCD):** The immediate postpartum period represents a critical opportunity for offering spacing methods, as women are highly motivated to prevent rapid repeat pregnancies, are already in contact with the health system, and can receive the method before discharge.
- **Recalibrating Incentive Structures:** The current incentive system under the National Health Mission has inadvertently reinforced the predominance of sterilization by providing significantly higher incentives for providers and ASHA workers for sterilization compared to spacing methods. Thus, all incentives for sterilisation shall be eliminated and replaced by benefits for adoption of child spacing techniques.
- **Embedding Quality, Non-Coercive Counselling at All Touchpoints:** The transformation from a sterilization-centric program to a rights-based, choice-focused approach ultimately depends on the quality of counselling provided at every interaction between clients and the health system.

Table 4.2: Proposed Rebalancing of Contraceptive Method Mix Targets

Method Category	Current Share (%)	5-Year Target (%)	10-Year Target (%)	Strategic Priority
Female Sterilization	70	50	50	Gradual reduction through informed choice
Male Sterilization	0.5	5	10	Aggressive promotion through male engagement
IUCD/PPIUCD	0.2	20	50	Major expansion through quality services

Method Category	Current Share (%)	5-Year Target (%)	10-Year Target (%)	Strategic Priority
Injectable Contraceptives	2	7	10	Rapid scale-up with community-based delivery
Oral Pills/Condoms	7.5	10	10	Sustained availability and promotion

C. BUILDING A COMPREHENSIVE INFERTILITY CARE PATHWAY

Addressing infertility represents a groundbreaking dimension of the **MATRUTVA framework**, acknowledging that for the estimated **11.7 lakh couples in Andhra Pradesh** facing infertility, the inability to have a child is a source of profound personal distress with significant social and psychological consequences. Grounded in **authentic epidemiological data**, the framework aligns with **Indian Council of Medical Research (ICMR)** findings that establish a **national infertility prevalence of 15%**.

State-specific projections derived from National Family Health Survey-5 (NFHS-5) indicators indicate **Andhra Pradesh's prevalence is approximately 10%**, underscoring the urgent necessity to integrate fertility care into public health services to support these couples effectively. This data-driven approach ensures that **population management strategies** are not only focused on contraception but also on **fulfilling the reproductive aspirations** of couples who face biological barriers, thereby promoting **equitable access to healthcare** across the state.

- **De-stigmatizing Infertility: Awareness and Community Sensitization:** The first step in building an effective infertility care pathway is to bring infertility out of the shadows and address the stigma that surrounds it. A sustained public awareness campaign will be launched to normalize the experience of infertility and reshape public understanding through multiple platforms.
- **Support for Infertility Treatment:** In order to support the eligible couples struggling with fertility issues, the provision of Fertility Support (IVF/ART cycles) will be **delivered through Government Facilities operating under the Public-Private Partnership (PPP) mode**, ensuring these advanced procedures are **available to beneficiaries entirely free of cost**. It is proposed to cover 50,000 couples every year under this programme.
- **Establishing a Hub-and-Spoke Model for Infertility Care:** Currently, access to advanced infertility treatments like IVF is limited to the private sector and remains prohibitively expensive for most couples, with a single cycle costing between ₹1.5 lakh and ₹2.5 lakh. The MATRUTVA Centre of Excellence in Reproductive Medicine will be established as a state-of-the-art facility at a major medical college (such as Sri Venkateswara Institute of Medical Sciences, Tirupati, or Andhra Medical College, Visakhapatnam), offering a full range of Assisted Reproductive Technology (ART) services. The state shall also encourage setting up of Colleges of Fertility Management in a public private partnership mode by providing land at subsidised rates and other incentives to establish such colleges.
- **Academic Architecture and Implementation Framework:** Andhra Pradesh aims to establish itself as India's first Fertility Education Hub with the following training pipeline:
 - **6-Month Diploma:** Diagnostics, Ovulation induction, ART basics (IUI/IVF), Embryology exposure, Ethics
 - **1-Year Advanced ART Fellowship:** ICSI, IMSI, Embryo biopsy, Cryopreservation
- **International Observer Programs:** Position AP as global training destination: This addresses the critical gap that 4,000+ OBGYNs graduate annually with no structured fertility training pathway.

Table 4.3: MATRUTVA Centre of Excellence – Training Pipeline

Program	Duration	Key Components	Target Output
Diploma in Reproductive Medicine	6 Months	Diagnostics, Ovulation induction, ART basics (IUI/IVF), Embryology exposure, Ethics	District-ready fertility specialists
Advanced ART Fellowship	1 Year	ICSI, IMSI, Embryo biopsy, Cryopreservation, Research/Audits	Tertiary care specialists
Super Specialty Degree	2 Years	MD / PG Diploma Courses	Tertiary care specialists
International Observer Program	Variable	Global best practices, Advanced techniques	International trainees

D. ENSURING SAFE MOTHERHOOD AND QUALITY PERINATAL CARE

A healthy start to life begins with a healthy pregnancy and safe delivery, and despite significant progress in maternal and child health indicators, challenges remain in ensuring quality care throughout the pregnancy continuum.

- **Tackling the High C-Section Rate:** Andhra Pradesh has witnessed a dramatic increase in Caesarean section rates over the past decade, with over 67.58% of deliveries in the private sector and 42.06% in public facilities now occurring through C-section (April - January FY 2025-26). This exposes women to increased risks in current and future pregnancies, adds to healthcare costs, and potentially affects fertility. The incentives and package rates being offered for C-Section deliveries under NTR Vaidya Seva / Universal Health Insurance scheme for private healthcare facilities shall be withdrawn.
- **Strengthening Antenatal and Postnatal Care Services:** While central and state schemes for maternal health have achieved impressive coverage, their impact can be significantly enhanced through better convergence, quality improvement, and personalized follow-up enabled by digital integration and systematic protocols. There shall be a common database for pregnant women and lactating mothers that shall be maintained by Health Department and used by Women & Child Development Department for Poshan and other care services. All the antenatal and postnatal care services being provided by Health Department as well as Women & Child Development Department shall be tracked through the Sanjeevani digital backbone.
- **Promoting Maternal Nutrition and Lifestyle Management:** Maternal nutrition is a critical determinant of pregnancy outcomes, influencing not only birth weight and neonatal health but also the child's long-term development trajectory. There shall be specific nutrition packages for pregnant women and lactating mothers based on their individual requirements as ascertained through the antenatal and postnatal checkups to promote the adage of healthy mothers rearing healthy children.

E. ADDRESSING ADOLESCENT REPRODUCTIVE HEALTH

Adolescence represents a critical window for establishing healthy reproductive behaviours and preventing future reproductive health problems, yet this age group has historically been neglected in reproductive health programming.

- **Comprehensive Sexuality Education in Schools:** The government will work with the Education Department to introduce a scientifically accurate, age-appropriate, and culturally sensitive comprehensive sexuality education (CSE) curriculum in all upper primary and secondary schools (Classes 6-12). The School Health and Wellness Teams shall be established with one or two staff

members being designated as School Counsellors and trained on respectful communication, especially for girls, adolescents, and those with mental-health or substance-use concerns, to reduce stigma. The adolescent-led groups ("SAKHI"/peer educators) shall be formed as part of School Health and Wellness Teams and trained for peer-to-peer sessions, with clear SOPs and referral pathways to adolescent-friendly health clinics (AFHCs) for follow-up. A Knowledge Partner / Technical Support Agency shall be onboarded to provide domain knowledge and technical support for training the School Counsellors and provide handholding support as well as monitoring the activities of School Health and Wellness Teams. Such agency shall be providing technical assistance for all the health and wellness promotion activities including life skills, comprehensive sexuality education, programmatic support under RKSK etc.

- **Strengthening Adolescent-Friendly Health Clinics:** Under the Rashtriya Kishore Swasthya Karyakram (RKSK), the state will ensure that every district has well-publicized, functional adolescent-friendly health clinics (AFHCs) providing confidential consultations on sexual and reproductive health concerns. To strengthen Adolescent-Friendly Health Clinics (AFHCs), the focus should be on making them more accessible, confidential, respectful, and technically competent from an adolescent perspective. Every PHC and CHC shall have a separate area designated as AFHC with comfortable seating, posters, and basic privacy (curtains or partitions). One staff member in every PHC / CHC (per AFHC) as "adolescent-friendly" staff, with documented orientation on RKSK guidelines and adolescent-friendly communication (non-judgmental, confidentiality-oriented). Adolescent-friendly timings (evening/weekend sessions) shall be fixed per AFHC to allow walk-in or flexible appointments by the school/college-going adolescents and access is provided for adolescent appropriate commodities such as iron-folic acid, sanitary pads, condoms, basic diagnostics, and referral mechanisms to ICTC, de-addiction centres, NCD clinics, and mental-health services, with standardised referral forms and feedback loops so adolescents are not lost to follow-up
- **Preventing Early Marriage and Teenage Pregnancy:** Child marriage remains prevalent in several districts of Andhra Pradesh with significant consequences for girls' health, education, and life opportunities. The state average for teenage pregnancy stands at 8.80%, well above the 3% benchmark target. A decent marker or an early warning signal for a teenage pregnancy or child marriage is the absence of girl students from educational institutions. Any girl child who is remaining absent from the school for more than ONE WEEK continuously has to be reported by the head of the institution (Headmaster / Principal concerned) to the Mandal Education Officer who shall maintain a line list of such girl child dropouts. There shall be monthly coordination meetings at all levels (State, District, Mandal) among the functionaries of Health, Women & Child Welfare, and Education Departments to identify the school dropouts among girls in the age group 12-18 years (Classes 6th to 12th). Home visits shall be jointly carried out on monthly basis by the Community Health Officer (CHO) of Health Department, Superintendent of Women & Child Welfare Department, and the Mandal Education Officer (MEO) for providing counselling and other support services for such households.

F. KUPPAM PILOT: EARLY SYSTEM-LEVEL GAINS AND WAY FORWARD

The Kuppam Pilot has demonstrated significant early system-level gains that provide a proof of concept for statewide scaling:

- **Provider Knowledge Improvement:** Provider knowledge improved by 26% overall, with correct sterilization counselling increasing from 37% to 74%, and adolescent health knowledge improving from 26% to 89%.
- **Community Engagement:** 137 counselling take-ups with 37% conversion rate; male participation increased from 0% to 36%; significant reduction in FP myths (e.g., IUD irreversibility).

- **Digital Adoption:** Health-seeking via app increased from 3% to 96%; 84% retention among return users; increased community discussions on menstrual health and pregnancy planning.
- **Way Forward:** Validate HMIS uptake (IUD, OCP, condom distribution); institutionalize male engagement strategy; scale structured counselling model across districts; capacity building of 345 providers (54% trained; ahead of schedule).

G. KEY RECOMMENDATIONS FOR MATRUTVA

Based on the comprehensive analysis, the following strategic recommendations are proposed to enhance the MATRUTVA pillar. They are organized to create a cohesive and impactful framework for action, spanning the entire lifecycle from adolescence to early childhood.

- **Governance, Strategy, and Quality Assurance**
 - **Launch the State Maternal & Newborn Action Plan (S-MNAP) 2026–30:** Develop and adopt a comprehensive action plan aligned with national frameworks like EPMM and INAP. This plan must **address critical gaps in human resources, referral logistics, and blood availability**. It should also define targeted strategies for **managing high C-section clusters** and set specific, time-bound, district-level targets for **reducing maternal and neonatal mortality**.
 - **Strengthen Quality Assurance with Robust Clinical Governance:** Establish a rigorous quality assurance framework by implementing **mandatory, regular C-section audits using the Robson Classification** system across all delivery facilities. Investigate facilities with persistently high or aberrant rates, and **reinforce provider training in evidence-based labor management practices** to ensure patient safety and appropriate surgical intervention.
 - **Integrate Climate-Resilient Planning into MNCH Programs:** Proactively address the impact of climate change on maternal and child health. This involves **developing maternal vulnerability maps** linked to climate data, issuing timely heatwave and disaster advisories, **ensuring birthing centers are disaster-resilient**, maintaining buffer stocks of essential nutrition, and incorporating relevant climate indicators into the Health Management Information System (HMIS).
- **Enhancing Reproductive Health and Family Planning**
 - **Optimize the Contraceptive Method Mix with a "Spacing Suraksha" Campaign:** Actively promote the adoption of **spacing methods—such as IUCDs (including PPIUCD), injectable contraceptives, and oral pills—**through targeted provider training, demand-generation activities, and strategic incentive restructuring. Set a clear, measurable five-year target to **reduce the current reliance on sterilization from over 70% to below 50%** of the total method mix.
 - **Launch a "Purush Shakti" Campaign for Male Engagement:** Develop and implement a dedicated campaign to foster shared responsibility in reproductive health. The initiative should **normalize dialogue around male contraceptive methods, particularly vasectomy**, by engaging men as informed and supportive partners in family planning decisions.
 - **Institutionalize a Comprehensive Postpartum Family Planning Package:** Ensure every woman **receives contraception counseling and services before discharge** from a delivery facility. This integrated package should include a clear follow-up plan, linking postpartum care directly with family planning to **prevent short-interval pregnancies and improve birth spacing**.
- **Specialized Care: From Infertility to Adolescence**
 - **Establish a Public-Sector Infertility Care Pathway:** To ensure equitable access, this initiative will provide **advanced fertility treatments, including IVF/ART cycles, free of cost to eligible beneficiaries** exclusively through **Government Facilities operating under a Public-Private Partnership (PPP) mode**. The program will be structured as a **hub-and-**

spoke model for comprehensive infertility services, anchored by a "**Centre of Excellence in Reproductive Medicine**" at a major medical college. This model centralizes expertise while decentralizing care. The initiative aims to support approximately **50,000 such couples annually**, thereby democratizing access to reproductive technology.

- **Position the State as a National Fertility Education Hub:** Develop a dedicated **Clinical and Embryology Fellowship ecosystem** to attract and train medical professionals. By offering specialized **6-month diploma and 1-year advanced ART fellowship programs**, the state can establish itself as a premier destination for fertility training, both nationally and internationally.
- **Curb Unnecessary Hysterectomies through Regulatory Oversight:** Strengthen regulatory oversight by **mandating medical audits for all hysterectomies**, especially among young women from marginalized communities. Develop and disseminate **conservative treatment protocols** for gynecological conditions and launch public awareness campaigns to educate women about alternatives, thereby preventing unnecessary procedures.
- **Scale Up Targeted Adolescent Health Interventions:** Intensify efforts to **prevent child marriage and teenage pregnancy** by activating multi-sectoral district task forces. This should be complemented by **implementing comprehensive sexuality education** in all secondary schools and strengthening the outreach and quality of adolescent-friendly health clinics.
- **Optimizing Care Across the Continuum: Preconception to Early Childhood**
 - **Institutionalize Preconception Care at the Primary Level:** Establish dedicated **Preconception Clinics at PHCs and UHCs** to identify and manage risks before pregnancy. Services must include **mandatory folic acid supplementation, systematic screening for anaemia, diabetes, thyroid disorders, and PCOD**, coupled with reproductive life planning and digital tracking via the SANJEEVANI-ABHA platform.
 - **Mainstream Midwifery for Physiological Births: Scale up Midwifery Led Care Units (MLCUs)** across the state to institutionalize midwife-led continuity of care. This involves **mandating physiological labor protocols**, introducing **performance-linked financing to incentivize the reduction of avoidable C-sections**, and creating clear career pathways for midwives.
 - **Implement "C-Safe" Interventions for Rational C-Section Management:** Adopt the comprehensive **"C-Safe" intervention package** to govern cesarean section practices. Key components include routine **Robson Classification monitoring, quarterly clinical audits, hands-on training in Assisted Vaginal Delivery**, and establishing **second-opinion protocols for elective Caesareans** to enhance surgical safety and reduce unnecessary procedures.
 - It is recommended to **develop a detailed action plan for establishing child care centers in workplaces**, ensuring alignment with the provisions of the **W&CD and Labour departments**, and **implementing a monitoring mechanism** to oversee their functioning effectively. **Under the NAIPUNYAM pillar, Pre-School and Day Care Facilitator trainings** shall be provided to build the workforce of caregivers who can provide support for holistic development of children 3-6 years in day care/pre-school environments.
 - **Strengthen Structured Postnatal Care Beyond the First Week: Mandate and digitally track facility-based postnatal visits on Day 14 and Day 24.** This structured follow-up must integrate **maternal mental health screening, skilled breastfeeding support, neonatal growth monitoring, and early childhood development (ECD) counseling** to address late maternal and neonatal morbidity.
 - **Scale Up Comprehensive Early Childhood Development (ECD) Interventions:** Establish a **State ECD Council** to ensure effective cross-departmental convergence. **Mandate developmental screening at 6, 9, and 18 months**, strengthen referral pathways to District

Early Intervention Centers (DEICs), and expand the evidence-based **ECD parenting support package** to every corner of the state.

- **Leveraging Digital Technology for Impact**
 - **Digitally Integrate All Reproductive Health Services on the SANJEEVANI Platform:** Mandate the recording of all MATRUTVA services on the SANJEEVANI platform, linked to the woman's ABHA (Ayushman Bharat Health Account). This integration will enable **personalized follow-up, automated health reminders, and robust data analytics** for program monitoring and improvement. It shall also serve as a comprehensive resource for mothers and families. The platform should provide **trimester-specific guidance, automated ANC/PNC reminders, evidence-based breastfeeding and newborn care messaging, and content designed to engage male partners**, ultimately improving service compliance and health-seeking behavior.

Table 4.4: MATRUTVA Pillar – Key Performance Indicators and Targets

Key Performance Indicator	Baseline (2025)	Target (10 Years)	Data Source
Total Fertility Rate (TFR)	1.5	Towards Replacement Level	RTGS, SRS, HMIS
% Eligible Couples Receiving Incentive	N/A	>80% enrollment	Family Card
Contraceptive Method Mix (Sterilization)	70-82%	<60%	HMIS, NFHS
IUD Uptake Rate	0.2-8%	>20%	HMIS
Infertility Treatment Cycles (Subsidized)	N/A	7,500 annually	MATRUTVA CoE
Teenage Pregnancy Rate	8.80%	<3%	HMIS, SRS
C-Section Rate (Private Sector)	67.58%	<40%	Clinical Audits
Provider Training Completion	54%	100%	Training Records

CHAPTER 5: PILLAR II – SANJEEVANI: THE DIGITAL BACKBONE FOR LIFE-COURSE HEALTH & CARE COORDINATION

A. FROM REACTIVE TREATMENT TO PROACTIVE WELL-BEING

Project Sanjeevani represents a transformative reform of Andhra Pradesh's public health system, shifting it from episodic, facility-based care to a continuous, citizen-centric health ecosystem. It is a systemic reinvention designed to create proactive health management across a person's lifetime, supported by a unified digital platform. SANJEEVANI is built on two core principles:

1. **Continuous Lifetime Proactive Healthcare:** Sanjeevani adopts a life-course approach, viewing health as capital accumulated from childhood through old age and prioritizing proactive care at every life stage.
2. **Healthcare Coordination through Digital Intelligence:** Each citizen is provided access to all their healthcare profile and records so that there is a continuum of care established. It is supported by a central Digital Nerve Centre which is the brain of the healthcare system.

This structure uses integrated data for predictive risk alerts, automated follow-ups, and closed referrals, creating a modern and integrated health system that evolves from real-world evidence to ensure continuous, accountable care.

Table 5.1: SANJEEVANI Strategic Shift – From Traditional to Transformative

Traditional Model	SANJEEVANI Model
Episodic, facility-based care	Continuous, citizen-centric health ecosystem
Reactive treatment when sick	Proactive health management across lifetime
Fragmented health records	Unified digital platform with longitudinal health records
Patient-initiated interactions	88.8% staff-initiated outgoing calls for care coordination
Siloed health programs	Integrated life-course tracking (Maternal, Adolescent, NCD, Mental, Geriatric)

B. THE SANJEEVANI DIGITAL ECOSYSTEM

The operational power of SANJEEVANI lies in its integrated digital architecture, designed from the ground up to be fully compliant with the Ayushman Bharat Digital Mission (ABDM). This ecosystem comprises five key components, each with a distinct function, working in concert to create a cohesive and intelligent health system.

- **Integrated Healthcare Delivery Platform (IHCDP): The Core Transactional System:** The IHCDP is the central nervous system of Sanjeevani. It is a comprehensive platform that hosts the ABHA-linked longitudinal health records (LHRs) for every citizen. Every clinical encounter—an OPD consultation, a lab test, a pharmacy dispensation, an admission, a referral—is recorded in the IHCDP in real-time.
- **Care Coordination Centre (CCC): The Proactive Outreach Arm:** The CCC is the digital nerve center or the brain of the Sanjeevani system, serving as its primary interface with citizens. It is a 24x7 multi-channel centre that makes outbound calls and receives inbound calls for a range of services. It is linked to the IHCDP to fetch the health seeker's data in real time through a consent-based mechanism. In the Kuppam pilot, an impressive 88.8% of all transactions were outgoing calls, demonstrating the power and acceptance of this proactive model.
- **Unified Workforce Management (UWM): Empowering Frontline Workers:** The UWM is a mobile application that provides a single, unified digital interface for all frontline health workers—ASHAs, ANMs, Community Health Officers (CHOs), and their supervisors. This tool enables intelligent task management by pushing daily, prioritized task lists to workers based on real-time data and algorithmic triggers from the IHCDP.
- **State Health Data Lake and Analytics Engine:** This is the analytical powerhouse of Sanjeevani. It ingests data from the IHCDP, CCC, UWM, HMIS, and other sources into a massive, secure data lake, creating an unprecedented resource for public health intelligence. This data is utilized for population health stratification, creating sophisticated Population Health & Wellness Scores (PHWS).
- **ABDM Compliance: Ensuring Interoperability and National Alignment:** Sanjeevani is being built as an "ABDM-native" system, ensuring full compliance with all core building blocks of the national digital health mission. This alignment ensures long-term interoperability, scalability, and alignment with national health priorities.

Table 5.2: The SANJEEVANI Digital Ecosystem Components and Their Functions

Component	Primary Function	Strategic Importance for Population Management
IHCDP	Core transactional system; hosts longitudinal health records (LHRs) for every citizen	Creates a unified, lifelong health journey for every citizen, linking reproductive, chronic, and geriatric care data across all facilities
CCC	24x7 multi-channel centre for proactive outreach, navigation support, and grievance redressal	Enables personalized follow-ups, targeted health education, and scheme linkage; 88.8% outgoing calls in Kuppam pilot

Component	Primary Function	Strategic Importance for Population Management
UWM	Mobile interface for frontline workers; provides intelligent task management and decision support	Empowers ASHAs, ANMs, and CHOs with prioritized tasks and clinical tools, ensuring efficient last-mile service delivery
Health Data Lake & Analytics Engine	Central repository for advanced analytics, AI/ML modelling, and real-time dashboard generation	Powers population health risk stratification, predictive modelling for disease outbreaks, and real-time, data-driven policy monitoring
ABDM Compliance Framework	Ensures interoperability with national systems, data security, and citizen-centric consent management	Guarantees a future-ready, secure, and interoperable system that aligns with India's digital health ecosystem

C. FROM PILOT TO STATEWIDE SCALE

The journey of SANJEEVANI is a testament to the government's commitment to a phased, learning-based implementation approach, ensuring that the system is robust, user-friendly, and demonstrably effective before statewide deployment.

- **Kuppam Pilot: Proof of Concept:** The pilot at Kuppam has covered 2,98,045 individuals who were digitally registered and whose health profiles have been created. Gender distribution is balanced with 50.9% females (≈ 1.52 lakh) and 49.1% males (≈ 1.46 lakh), indicating near-universal and equitable digital inclusion. A total of 106 public health facilities is integrated with the Sanjeevani Digital Nerve Center, comprising 92 Village Health Clinics, 13 Primary Health Centres, and 1 Area Hospital. Service uptake is highest among women of reproductive age (20–39 years) and adults aged 40–59 years, reflecting strong Maternal & Child Health coverage (86%), and screening of Non-Communicable Diseases (nearly 100%).
- **Phase II – Scale up in Chittoor District and Naravaripalle:** Sanjeevani has been expanded to cover Chittoor district from 1st January 2026. It shall cover 19.75 lakh population, 1 district hospital, 4 area hospitals, 6 CHCs, 68 PHCs, 464 village health clinics. The digital workflows for registration, consultation, diagnostics, pharmacy, referrals, follow-ups, and reporting are being standardized.
- **Roadmap to Statewide Rollout:** The government has set an ambitious target for statewide rollout to 5.2 crore population and 2,086 facilities from June 2026. This will be the largest implementation of a comprehensive, ABDM-compliant digital health system in any Indian state, positioning Andhra Pradesh as an undisputed national leader in digital public health.

Table 5.3: SANJEEVANI Implementation Phases and Coverage

Phase	Timeline	Population Coverage	Facilities Integrated	Key Achievements
Kuppam Pilot	Completed	2,98,045 individuals	106 facilities (92 VHCs, 13 PHCs, 1 AH)	86% MCH coverage; ~100% NCD screening; 88.8% outbound calls
Phase II (Chittoor)	From 1st January 2026	19.75 lakh	543 facilities (1 DH, 4 AH, 6 CHCs, 68 PHCs, 464 VHCs)	Digital workflows standardized; infra, IT & training readiness completed
Statewide Rollout	From June 2026	5.2 crore	2,086 facilities	Largest ABDM-compliant system in India; complete digital health backbone

D. TRANSFORMING SANJEEVANI INTO A CITIZEN-OWNED HEALTH COMPANION

The way forward priorities for transforming Sanjeevani into a citizen-owned health companion include: **Citizen Health & Wellness App:** Launch at scale with Telugu language support, offline support, and assisted onboarding through village and ward secretariats. Enable comprehensive Personal Health Record (PHR) access, visit history, lab reports, prescriptions, immunization, ANC/NCD tracking, and referrals.

- **Integrated Services:** Integrate appointment booking, tele-consultation, medication refill requests, service feedback, and grievance redressal as standard features. Introduce behavioural nudges such as medication reminders, follow-up alerts, lifestyle prompts, and preventive screening notifications.
- **Trust and Consent:** Build trust through citizen consent management while sharing individual health records with data privacy controls, and clear communication of citizen rights.
- **Life-Course Integration:** Institutionalize tracking for pregnant women and newborns, nutrition counselling, immunization reminders, and growth monitoring. Establish school-linked adolescent health modules covering nutrition, anaemia, mental health, substance use, and reproductive health awareness. Integrate routine mental health screening and geriatric care journeys with chronic disease monitoring.
- **Emergency Integration:** Link emergency transport systems (108/104, Thalli Bidda Express) into DiNC for digital triage, referral coordination, and outcome tracking.
- **AI-Powered Decision Support:** Operationalize AI-powered Care Planogram and Health cum Wellness Meter as decision-support tools for clinicians and district administrators. Generate Panchayat-level wellness indices to identify high-risk geographies and underserved populations.
- **Predictive Analytics:** Implement risk stratification models for NCDs, maternal health, TB, and mental health to enable proactive outreach. Use predictive analytics for workforce planning, ambulance positioning, drug forecasting, and facility workload balancing.
- **ABDM Integration:** Make Sanjeevani into the first completely digital Ayushman Bharat Digital Stack compliant system so that it can integrate with all public and private healthcare providers.

Table 5.4: SANJEEVANI Way Forward – Key Features and Capabilities

Feature Category	Specific Capabilities	Expected Impact
Citizen Empowerment	Health App (Patient Health Records, labs, prescriptions, wellness score); Consent-based data sharing; Behavioural nudges for preventive healthcare	Increased citizen engagement and health literacy; empowered self-management
Life-Course Integration	All health programs - Maternal, adolescent, NCD, mental & geriatric tracking; 108/104 emergency integration; AYUSH integration	Comprehensive health tracking across entire life cycle
Predictive Governance	AI based Risk Stratification & Care Planogram; Community wellness score (Panchayat to State); Drug requirement & referral load forecasting	Shift from reactive to truly proactive and preventive care
Statewide Implementation	Citizen Health Screening for 71 lakh High Risk Cases + Hostel Children; Rollout to 5.2 crore population; All health facilities	Universal access to digital health benefits; national and global recognition

E. SANJEEVANI AS THE ENABLER OF THE FIVE PILLARS

SANJEEVANI is the critical connective tissue that binds the other four pillars together, enabling the synergy and compounding impact that is the hallmark of this framework.

- **MATRUTVA Linkage: Digital Tracking of Reproductive Health & Adolescent Health including referral services:** All services under Pillar I are recorded in the SANJEEVANI IHDCP, creating a comprehensive digital reproductive health record for every woman. This enables automated reminders for ANC visits and immunization via the CCC, risk stratification to flag and intensively monitor high-risk pregnancies, and robust program evaluation to track the impact of new interventions on key metrics. All referral services from School Health and Wellness Teams to Adolescent Friendly Health Clinics (AFHCs) and from AFHCs to de-addiction centres, NCD clinics, and mental-health services shall also be tracked through SANJEEVANI IHDCP.
- **SHAKTI Linkage: Care Coordination Center (CCC) Outreach for Women's Welfare Schemes:** The CCC becomes a powerful outreach and information dissemination tool for Pillar III. Outbound calls can proactively inform eligible women about new crèche facilities near their workplace or home, the availability and location of working women's hostels, and their entitlements under various central and state maternity benefit schemes.
- **KSHEMA Linkage: Geriatric Cohorts and Chronic Disease Management:** SANJEEVANI is the ideal platform for managing the complex and often multiple health needs of the aging population. The system automatically creates cohorts of elderly citizens with chronic conditions. The CCC makes regular, scheduled check-in calls to these individuals, reminding them to take medication, schedule follow-up appointments, and monitoring for any signs of deterioration.
- **NAIPUNYAM Linkage: Data for Strategic Workforce Planning:** The rich health and demographic data from SANJEEVANI provide valuable inputs for strategic workforce planning under Pillar V. By tracking the health status of adolescents and young adults, the system can identify districts or blocks with high rates of anemia, malnutrition, or other conditions that can impact "learnability," cognitive development, and future workforce productivity.

F. MISSED OPPORTUNITIES AND THE PATH FORWARD

A forward-looking and critical review reveals several opportunities to enhance SANJEEVANI's impact:

- **Integrating Mental Health into the Core Workflow:** The current architecture, while robust for physical health, does not yet have mental health deeply embedded into its core workflows and data models. The recommendation is to explicitly integrate validated, culturally appropriate mental health screening tools and clear, confidential referral pathways into the IHDCP and UWM app.
- **Leveraging AI for Predictive Analytics and Personalized Nudges:** The next evolutionary step is to leverage advanced AI and machine learning for more sophisticated predictive analytics and the delivery of personalized behavioural nudges. The recommendation is to invest strategically and sustainably in building an in-house AI/ML capability within the TSU.
- **Transforming the Citizen Health & Wellness App into a Tool for Empowerment:** The Citizen Health & Wellness App could be transformed into a much more powerful tool for citizen engagement, health literacy, and behavioural change. The recommendation is to evolve the Citizen Health & Wellness App into a comprehensive, engaging, and personalized "Health Companion."
- **Establishing Data Governance Framework:** Most importantly for maintaining and enhancing public trust, the state must establish, publish, and enforce a robust and transparent data governance framework for SANJEEVANI, ensuring the highest standards of data privacy,

security, and the ethical use of AI, in full and demonstrable compliance with the Digital Personal Data Protection Act.

Table 5.5: Summary of Strategic Imperatives and Key Recommendations for SANJEEVANI

Strategic Imperative	Key Recommendation	Expected Impact
Integrate Mental Health	Embed screening tools and referral pathways into IHCDP/UWM; develop CCC protocols for high-risk groups; link to "Mano AP" network	Early detection and treatment of mental health conditions; reduced stigma; holistic well-being for all age groups
Leverage AI for Predictive Analytics	Build in-house AI/ML capacity within TSU; develop models for predicting NCDs, complications, and dropouts; generate personalized nudges	Shift from reactive to truly proactive and preventive care; optimized resource allocation; improved health outcomes
Transform the Citizen App	Evolve app into an engaging "Health Companion" with personalized feed, gamification, wellness challenges, and direct CCC/teleconsultation access	Increased citizen engagement and health literacy; empowered self-management; stronger citizen-system partnership
Complete Statewide Rollout	Maintain aggressive timeline with robust change management, infrastructure support, and continuous handholding for all users	Universal access to digital health benefits; largest ABDM-compliant system in India; national and global recognition
Establish Data Governance Framework	Create and enforce a transparent framework for data privacy, security, and ethical AI, in compliance with the Digital Personal Data Protection Act	Sustained public trust; ethical innovation; legal and social license to operate for all digital health initiatives

G. KEY RECOMMENDATIONS FOR SANJEEVANI

To fully realize its potential as the digital backbone of the Population Management Framework, the following key recommendations are critical:

1. **Complete the statewide rollout by the target of June/July 2026**, while ensuring robust change management, last-mile infrastructure support (including reliable power and network connectivity), and continuous, empathetic handholding for all health facilities and frontline workers.
2. **Deepen ABDM integration**, going beyond mere compliance to actively contributing to and shaping the national mission's evolution, thereby positioning Andhra Pradesh as the undisputed national model and innovation lab for a fully ABDM-compliant state health ecosystem.
3. **Integrate mental health comprehensively** into the core IHCDP, CCC, and PHR (Patient Health Records) platforms, moving it from the periphery to the absolute center of the holistic care model.
4. **Make a strategic, funded commitment to invest in advanced analytics capabilities**, building sustained internal capacity for ethical AI/ML-driven predictive analytics to transition the system from reactive to truly proactive, personalized, and preventive healthcare.
5. **Transform the Citizen App into an engaging and empowering "Health Companion"** to activate citizens as partners in their own health and to build a statewide culture of wellness.
6. **Establish, publish, and enforce a robust and transparent data governance framework** for SANJEEVANI, ensuring the highest standards of data privacy, security, and the ethical use of AI.

CHAPTER 6: PILLAR III – SHAKTI: EMPOWERING WOMEN, STRENGTHENING HOUSEHOLDS

A. KEY IDEAS AND STRATEGIC OBJECTIVES

The SHAKTI pillar serves as the central engine of gender equity and economic empowerment within the Andhra Pradesh Population Management Policy's Life-Cycle Model. It is constructed upon a fundamental macroeconomic premise: the prosperity of the state is inextricably linked to the economic and social empowerment of its women. As Andhra Pradesh marches towards the Swarnandhra 2047 vision of building a \$2.4 trillion economy, the utilization of human capital becomes the primary determinant of success. Higher Female Labor Force Participation (FLFP) is not merely a social objective or a metric of progressive governance; it is a critical imperative for achieving demographic stability and economic vitality.

- **The Economic Case for Women's Workforce Participation:** Current female workforce participation in Andhra Pradesh stands at 31%, with a gap of 28% compared to male participation. Closing this female labour force gap (31% vs. 59% potential) can raise State GSDP by 15%. This economic gain underscores the critical importance of the SHAKTI pillar in the overall framework. The demographic context of Andhra Pradesh presents a paradox where the state has achieved a Total Fertility Rate (TFR) of 1.5, well below the replacement level of 2.1. While this was once a goal of family planning, it now signals a demographic shift that threatens future economic vitality through a phenomenon termed "shrinkonomics." This condition is characterized by a shrinking workforce supporting a rapidly aging population, which risks straining pension systems, reducing the tax base, and slowing the engine of growth.

Table 6.1: SHAKTI Pillar – Strategic Objectives and Expected Outcomes

Strategic Objective	Key Interventions	Expected Outcome
Significantly raise FLFP across all sectors	Remove barriers to entry and retention; create compatible jobs; flexible work arrangements	Increase FLFP by measurable percentage over 10 years; contribute directly to state's GDP growth
Ensure universal access to affordable, quality childcare, safe housing, and reliable transport	Expand Working Women Hostels; establish Pink Toilets; ensure safe transport	Physical safety translates into economic opportunity; mobility constraints removed
Foster cultural shift towards shared responsibility for childcare and household work	Year-Long Communication Calendar; IEC campaigns on gender equality and work-life balance	Challenge patriarchal norms; normalize shared parenting
Ensure women's safety in public spaces, on commute, and within workplace	Strengthen Quick Response Systems; strict adherence to POSH Act	Sustain women's participation in workforce and public life
Position SHGs as powerful agents of economic and social change	Integrate SHGs into care economy and livelihood missions	Create sustainable, scalable livelihoods; solve childcare crisis

B. ENABLING INFRASTRUCTURE FOR WORKING WOMEN

Infrastructure deficits are often the silent killers of women's economic ambition. SHAKTI addresses this head-on with a multi-pronged strategy that leverages existing state assets while introducing new innovations.

- **Workplace Crèches:** The lack of reliable, affordable childcare is the single biggest barrier to women's workforce participation. The government will strictly enforce the Maternity Benefit Act's provision for crèches in establishments with 50 or more employees. This mandate will be extended to all government offices and actively promoted among corporate and industrial units as a core component of their HR policy and a key area for Corporate Social Responsibility (CSR) investment. In partnership with the Women & Child Development (WCD) Department, the government will expand the network of crèches, particularly in industrial clusters, urban poor settlements, and rural areas. These will be developed as Anganwadi-cum-Crèches to maximize existing infrastructure and frontline worker reach. Women shall be trained as Pre-School and Day Care Facilitator under the NAIPUNYAM pillar to provide caregiving for holistic development of children 3-6 years in day care/pre-school environments. It is a significant economic opportunity that can be unlocked to increase female participation in labour workforce.
- **Working Women Hostels:** Safe and affordable accommodation is essential for women migrating to urban and industrial hubs for employment. The 23 existing working women's hostels will be comprehensively assessed and upgraded to ensure they meet modern standards of safety, hygiene, digital connectivity, and comfort. The three new hostels under construction in Visakhapatnam, with a capacity for 1,000 women and a total cost of Rs. 172 Crore, will be completed expeditiously. Going forward, it is proposed to set up one working women hostel per one lakh population in urban and peri-urban areas by the Woman & Child Welfare Department.
- **Pink Toilets and Safe Transport:** A widespread network of clean, well-maintained, and well-lit "Pink Toilets" will be established in all public places, markets, bus stands, industrial areas, and along major highways. This shall be carried out by the Municipal Administration and Panchayati Raj Department, either through own funds, or by mandating the local business establishments to have Pink Toilets in their premises. The government will incentivize the expansion of women-only cab services and ensure that public transport (buses, trains) is safe and reliable, mandating features like GPS tracking, CCTV cameras, and well-lit stops.
- **Quick Response System:** A robust Quick Response System to address safety-related problems is essential for sustaining women's participation in the workforce and public life. Immediate reporting channels, helplines, and digital alert mechanisms (such as the DISHA App) will be integrated with local law enforcement to ensure timely intervention.

Table 6.2: Infrastructure Targets and Investment Overview

Infrastructure Component	Current Status	Proposed Expansion	Investment Estimate	Implementation Timeline
Working Women Hostels (Woman & Child Development Department)	23 Functional	3 New in Visakhapatnam (1000 capacity) + One for every One Lakh Population (PPP models in Urban and Peri Urban areas)	Rs. 172 Crore (Visakhapatnam)	Immediate Completion for Vizag; 3 Years for PPP
Workplace Crèches (Woman & Child Development Department &)	Mandated for 50+ employees	Universal enforcement + Anganwadi convergence	CSR & State Budget	1-5 Years

Population Management: A Life-Cycle Model for Andhra Pradesh

Infrastructure Component	Current Status	Proposed Expansion	Investment Estimate	Implementation Timeline
Labour Department)				
Pink Toilets (Municipal Administration & Panchayati Raj Department)	Limited availability	All public places, markets, bus stands, highways	State Municipal Budget	2 Years
She Cabs/ Safe Transport (Transport Department)	Pilot stages	Statewide expansion with GPS/CCTV	Public-Private Partnership	3 Years

C. PROGRESSIVE POLICY AND LEGAL SUPPORT

Infrastructure must be backed by progressive policy frameworks that legally empower women and normalize their participation in the economy.

- **Collective Parental Leave:** Andhra Pradesh has already taken a major step by extending paid maternity leave to 180 days for government employees (2025), with no two-child cap. A more ambitious reform is envisaged in the form of a collective parental leave entitlement. This model introduces a collective parental leave of 12 months, with 6 months allocated to each parent. To ensure shared caregiving, 2 months of this leave would be non-transferable, requiring each parent to take at least 2 months off. This policy is a game-changer. It signals that childcare is a shared responsibility, helps normalize paternity leave, and crucially, reduces workplace discrimination against women of childbearing age by making men equally "risky" to hire.
- **Flexible Work Arrangements:** For many women, a rigid 9-to-6 schedule is incompatible with family responsibilities. The government will issue binding guidelines for its departments to offer flexible working hours and work-from-home options for employees with young children (up to 3 years of age).
- **POSH Act Compliance:** A safe and respectful workplace is non-negotiable. The Labour Department will conduct regular, unannounced audits to ensure all registered establishments have a functional Internal Complaints Committee (ICC) as mandated by the POSH Act, with annual reports being mandatory and publicly accessible.
- **Pre-Marital Counselling:** The government's network of 26 One Stop Centres (under Mission Shakti) will be leveraged to offer voluntary, accessible pre-marital counselling. This counselling will help young couples discuss and align expectations around gender roles, finances, careers, and family planning before marriage.

Table 6.3: Proposed Parental Leave Structure

Leave Type	Current Provision (AP Govt)	Proposed SHAKTI Model	Key Feature
Maternity Leave	180 Days (All childbirths)	Part of 12-month Collective Pool	Extended security for mothers
Paternity Leave	2 Weeks	6 Months (Part of Collective)	Significant increase to encourage involvement
Collective Entitlement	Not Applicable	12 Months per Couple	Shared responsibility

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Leave Type	Current Provision (AP Govt)	Proposed SHAKTI Model	Key Feature
Non-Transferable Clause	Not Applicable	2 Months per Parent	Ensures fathers take leave
Eligibility	Government Employees	Pilot for Government; Nudge for Private	Phased rollout

D. BUILDING A PROFESSIONAL CARE ECONOMY (THE NAIPUNYAM LINK)

A key innovation of the SHAKTI pillar is its symbiotic linkage with NAIPUNYAM (Pillar V) to formalize and professionalize the "care economy" workforce. This creates dignified employment while enabling other women to work, effectively turning a demographic challenge (aging population, childcare needs) into an economic opportunity.

- **Child Caretaker Course (Childcare Provider Certification):** The government will scale up a certified training program for childcare providers. The program will primarily target women, especially from SHG networks and economically weaker sections, creating a pathway to formal employment. The course will be a comprehensive module covering child development, nutrition, health and safety, first aid, and positive discipline. Certification will be mandatory for employment in all government and registered private crèches.
- **Geriatric Care Assistant Training:** In parallel, specialized training programs will be developed for geriatric care assistants, home health aides, and nursing assistants to meet the burgeoning demand from the aging population (KSHEMA Pillar). This creates a formal job market of elderly caretakers in the "silver economy," offering dignified and skilled employment, particularly for women with existing caregiving experience.

Table 6.4: Care Economy Workforce Development

Training Program	Target Audience	Curriculum Components	Employment Pathways
Child Caretaker Course	Women from SHGs; Youth seeking social sector employment	Child development, nutrition, health & safety, first aid, positive discipline, breastfeeding counselling	Government & private crèches; Home-based daycare enterprises
Elderly Caretaker Course	Women / Men with caregiving experience; Elderly seeking part-time work	Palliative care, mobility assistance, NCD management, medication management	Home care services; Old age homes; Community health programs

E. ADDRESSING SOCIAL NORMS: THE CAMPAIGN FOR SHARED PARENTING

Infrastructure and policies are necessary but not sufficient. Long-lasting change requires a fundamental shift in deep-seated social norms. The "**Andhra Pradesh Campaign for Shared Parenting**" is designed to achieve this, leveraging the Social and Behaviour Change Communication (SBCC) strategies.

- **Multi-Channel Media Campaign:** A multi-channel, sustained media campaign will be launched with a culturally resonant hashtag like **#TalliTandhulaSamanaBadhyata**. Social media platforms (YouTube, Instagram, Facebook) will be used to share engaging video content featuring relatable couples, celebrities, and influencers modelling shared parenting in everyday situations.

- **Targeting Men:** The campaign will deliberately target men, moving beyond a directive approach to one of positive engagement. Annual "Father's Day" campaigns will be launched in workplaces and communities to recognize and celebrate men who actively share parenting and domestic duties. Respected male figures—sports stars, local leaders, successful entrepreneurs—will be recruited to speak publicly and authentically about their own experiences with shared parenting.
- **Community Mobilization:** Panchayats, SHG federations, and school PTAs will be mobilized as platforms for regular discussions and workshops on gender equality and shared family responsibilities.

F. IMPLEMENTATION GOVERNANCE AND FINANCIAL MODELLING

The success of the SHAKTI pillar relies on robust governance and sustainable financing. Secretary Women & Child Development shall oversee the SHAKTI pillar. Teams shall be organised at the State, District, and Mandal levels will be responsible for execution.

- **Financial Viability:** While specific costs for crèches and hostels are significant, they are framed as investments to mitigate future pension and healthcare liabilities. Expanding hostels (e.g., the Visakhapatnam project at ₹172 Crore) and subsidizing childcare will require dedicated budget lines. Funding will be sourced through a mix of state budget allocation, realignment of existing welfare schemes and Public-Private-People Partnerships (P4). Leveraging Corporate Social Responsibility (CSR) funds for specific projects like crèche development is highly recommended.

Table 6.5: Key Performance Indicators for SHAKTI Pillar

Indicator	Baseline (2025)	Target (2035)	Measurement Mechanism
Female Labor Force Participation	31% (Current State Average)	Double	Labour Department Surveys
SHAKTI Certified Employers	0	1,000 Employers	Certification Body Audit
Crèche Compliance	Variable	100% for 50+ employees	Labour Inspections
Safety Incident Reduction	Current Report Rate	25% Reduction	DISHA App/ Police Data
Paternity Leave Utilization	Low	50% of Eligible Fathers	Family Card Data
Certified Caretakers Trained	Limited	10,000 Annually	NAIPUNYAM

G. KEY RECOMMENDATIONS FOR SHAKTI

To ensure the successful implementation of the SHAKTI pillar, specific consolidated recommendations are proposed:

1. **Universalize Access to Childcare:** Mandate workplace crèches, aggressively expand free public crèches (Anganwadi-cum-Crèches) and create a certified childcare workforce (NAIPUNYAM) to staff them.
2. **Reform Parental Leave:** Pilot a 12-month collective parental leave policy with a non-transferable portion for fathers, positioning Andhra Pradesh as a national leader in family-friendly policy.
3. **Launch a "SHAKTI Certification" for Workplaces:** Create a formal recognition and incentive scheme to motivate private sector companies to adopt and exceed women-friendly policy benchmarks.

4. **Integrate SHGs into the Care Economy:** Develop a dedicated program to train, finance, and support SHGs to become entrepreneurs and providers of professional childcare and eldercare services.
5. **Address the Unorganized Sector with "SHAKTI for All":** Launch an initiative with innovative, community-based solutions (mobile crèches, Anganwadi-plus) specifically designed for women in informal employment.
6. **Shared Parenting Initiative Expands Leave for Mothers and Fathers:** As part of the **shared parenting initiative #TalliTandrulaSamanaBadhyata**, the initiative will provide collective parental leave of 12 months, with 6 months allocated to each parent. To ensure shared caregiving, 2 months of this leave would be non-transferable, requiring mandatory paternity leave of at least 2 months. This progressive measure underscores a commitment to balanced caregiving, recognizing that both parents play integral roles in early childhood development. By extending dedicated leave to fathers, it challenges traditional norms and fosters a more equitable distribution of parenting responsibilities, ultimately strengthening family bonds and supporting gender equality in the workplace.
7. **Scale the Shared Parenting Campaign:** Implement a sustained, multi-channel media campaign and targeted male engagement programs to fundamentally shift social norms around gender roles and family responsibilities.
8. **Establishing a Section 8 Company for Working Women Hostels under W&CD Leadership:** To effectively address the housing needs of working women, it is recommended to establish a dedicated non-profit entity under **Section 8 of the Companies Act**. This can be achieved either by incorporating a **new company** or by leveraging the existing framework of the **Andhra Pradesh Industrial Infrastructure Corporation (APIIC)**. The core mission of this entity should be to develop and manage **Working Women Hostels**, providing safe, affordable, and dignified accommodation. This initiative must be a collaborative effort, securing robust **support from the Government of India, the State Government, industries, and the Labour Department** to ensure comprehensive resources and alignment with labor welfare standards. For effective implementation and governance, the **Women and Child Development (W&CD) Department** should be designated as the nodal agency, ensuring the programme remains focused on its core objective of empowering working women.

CHAPTER 7: PILLAR IV – KSHEMA: DIGNITY, CONTINUITY, AND THE SILVER DIVIDEND

A. STRATEGIC OBJECTIVES AND CORE PHILOSOPHY

Projections indicate that by 2047, citizens aged 60 and above will constitute nearly 23% of the state's populace, creating what economists' term "shrinkonomics"—a condition where a shrinking workforce must support a rapidly aging population. The KSHEMA pillar represents far more than an optional welfare addition to the state's policy framework. It constitutes a core economic and social strategy essential for navigating this demographic transition successfully. The foundational philosophy of KSHEMA centers on a profound conceptual shift from merely adding years to life toward adding life to years. This philosophical transformation underpins every operational strategy within the pillar, moving systematically from reactive sick-care models to proactive health-care and social integration frameworks.

Table 7.1: KSHEMA Pillar – Strategic Objectives

Strategic Objective	Key Focus	Expected Outcome
Strengthen healthcare infrastructure and workforce capacity	Build robust geriatric-specific healthcare delivery system at district, community, and primary care levels	Meet specific and complex needs of aging population
Promote healthy and active aging through preventive interventions	Delay onset of disability and dependence through nutrition, physical activity, and chronic disease management	Preserve functional ability for as long as possible
Create economic opportunities for the elderly	Enable healthy seniors to remain productive members of society for as long as they choose and are able	Transform elderly from dependents to economic assets
Establish robust social safety net for vulnerable elderly	Specifically designed for "old-old" population aged 80 and above, along with most vulnerable elderly	Ensure dignity and security for those lacking family support or financial resources
Integrate mental health support into geriatric care systems	Address depression, dementia, and social isolation that frequently accompany aging	Preserve quality of life and functional capacity in old age

B. STRENGTHENING THE GERIATRIC CARE ARCHITECTURE

- Expanding and Upgrading Geriatric Wards and Clinics:** The foundation of KSHEMA rests upon a robust healthcare delivery system specifically designed for the elderly population. This infrastructure builds upon existing frameworks under the National Programme for Health Care of the Elderly (NPHCE) while introducing significant upgrades to meet the projected surge in demand through 2047. Current data indicates that dedicated geriatric wards have been established in major district hospitals including Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Guntur, Kadapa, and Ananthapuramu (7 functional wards). However, to meet the 2047 challenge where nearly one-quarter of the population will be elderly, this coverage must become universal across all districts. Four additional wards are currently under construction and will be completed on an accelerated priority basis. At the Community Health Centre level, the policy mandates operationalization of bi-weekly geriatric clinics at all 175 CHCs, each staffed by a medical officer and a physiotherapist. Primary Health Centres will continue and strengthen the practice of weekly geriatric clinics at every PHC, currently held every Thursday across the state.
- Establishing a State Geriatric Excellence Centre:** To build expertise and leadership in geriatric care, the government will establish a State Geriatric Excellence Centre at a premier medical institution. This center will likely be housed at the All-India Institute of Medical Sciences at Mangalagiri or another major government medical college with adequate infrastructure and academic capacity.
- Building a Cadre of Geriatric Care Specialists:** The shortage of trained geriatricians represents a national challenge that Andhra Pradesh will address through proactive human resource development strategies. The target is to train 5,000 geriatric care professionals annually, creating sufficient capacity to serve the growing elderly population.
- Wellness Leave for Government Employees:** There are an estimated 50,000 government employees who are retiring from service every year, and who can contribute to the society if they are introduced to the concept of holistic healthcare and wellness before their retirement. Thus, it is targeted to provide wellness leave of 15 days to the government employees within two years of their retirement so that they can visit any government empanelled wellness center with their spouse and get acquainted with preventive and holistic healthcare practices such as Yoga and Naturopathy. This is expected to enhance their healthy lifespan and lead to a reduction in public

spend on treatment of sickness and ailments. The near-to-retirement government employees shall be provided wellness leave along with an entitlement of up to Rs. 50,000 to take treatment in such wellness centers.

Table 7.2: NPHCE Service Architecture Expansion Plan

Component	Current Status	Strategic Target	Strategic Importance
District Geriatric Wards	23 functional, 3 under construction	100% District Coverage	Specialized inpatient and rehabilitation care
CHC Geriatric Clinics	175 CHCs identified	Bi-weekly clinics at all CHCs	First-line screening, continuity of care
PHC Weekly Clinics	All PHCs (Every Thursday)	Weekly clinics with NCD focus	Early detection, NCD control
CGA Camps in Old Age Homes	54 institutions covered	100% Registered Homes	Frailty and disability prevention
Geriatric Care Professionals	Limited availability	5,000 trained annually	Addressing human resource bottleneck

C. MONETIZING THE SILVER DIVIDEND

- **Promoting Healthy Aging through Preventive NCD Management:** The most transformative aspect of KSHEMA argues for a strategic shift from defining working age purely by chronology to defining it by functional ability and health status. Project Sanjeevani will play a central role in this transition through its digital health infrastructure and care coordination capabilities.
- **Creating Flexible Employment Models for Seniors:** A healthy 65-year-old with decades of professional experience represents a valuable economic asset rather than a dependent. The state will work systematically to create pathways for willing and able seniors to remain engaged in the economy. Government departments, public sector undertakings, and private companies will be encouraged to create formal "Senior Consultant" or "Mentor" pools.
- **Establishing Senior Skill Registries and Placement Mechanisms:** In partnership with Pillar V – NAIPUNYAM, the government will create a voluntary online "Silver Skills" Registry where retired professionals can list their skills, availability, and preferences for consulting or mentoring roles. The target is to register 50,000 elderly people in the Silver Skills Registry over 10 years.

Table 7.3: Health Interventions and Productivity Link

Intervention	Functional Gain	Economic Impact
CGA & NCD Control	Delayed disability	Extended work life
Rehabilitation	Restored mobility	Continued farm/service work
Vision & Hearing Care	Improved communication & safety	Retail, teaching, supervision
Mental Health Support	Preserved cognition	Advisory & mentoring roles

D. ENSURING COMPREHENSIVE GERIATRIC CARE

- **Integrating Rehabilitation into Primary Care:** Loss of mobility represents a primary cause of dependence in old age, making access to physiotherapy and rehabilitation services crucial for maintaining independence. The policy mandates that every CHC must have a trained physiotherapist and basic rehabilitation equipment available for elderly patients.
- **Strengthening Community-Based and Home-Based Care:** Most elderly citizens prefer to age in place within their own homes and communities rather than institutional settings. The NAIPUNYAM pillar's training programs for geriatric care assistants will create a professional pool of caregivers who can provide paid home-care services.

- **Integrating Mental Health Support for the Elderly:** Aging is frequently accompanied by social isolation, depression, and cognitive decline including dementia. KSHEMA will work closely with the **Mano AP mission** to integrate mental health services into geriatric care systems.

E. SOCIAL PROTECTION AND INCLUSION

- **Strengthening Pension Systems:** The NTR Bharosa social pension scheme serves as a vital lifeline for many elderly citizens lacking other income sources. The government is committed to strengthening and ensuring the long-term sustainability of this program. There is a proposal to explore provisions for additional pensions for households with large family sizes, which simultaneously supports elderly care and encourages joint family systems.
- **Promoting Intergenerational Programs and Community Support:** Social inclusion proves as important as financial security for dignified aging. The policy actively promotes the cultural and social value of large and joint family systems as a cornerstone of intergenerational support.

Table 7.4: KSHEMA Key Performance Indicators

Pillar Focus	Key Performance Indicator	Target (10 Years)
Healthcare Infrastructure	Percentage of Districts with Functional Geriatric Wards	100%
Human Resources	Number of Elderly Caretakers Trained Annually	5,000
Health Coverage	Percentage of Elderly Covered by Health Insurance	100%
Social Protection	Pension Disbursement Efficiency through Direct Benefit Transfer	95%
Economic Participation	Number of Elderly Persons Registered in Silver Skills Registry	50,000
Demographic Balance	Elderly Dependency Ratio	Stabilize by 2040

F. STRATEGIC GAPS AND ENHANCEMENT OPPORTUNITIES

- **Adapting Digital Platforms for Geriatric Cohorts:** While SANJEEVANI serves as the foundational digital platform, its current design may not be fully optimized for the complex needs of elderly citizens who often manage multiple chronic conditions simultaneously. The recommendation is to develop a dedicated Geriatric Care Module within the Integrated Healthcare Delivery Platform.
- **Age-Friendly Urban Planning:** The current KSHEMA framework focuses heavily on healthcare and social support but lacks a comprehensive component on age-friendly urban planning. The recommendation is to integrate Age-Friendly City and Village principles into all urban and rural planning policies.
- **Leveraging Technology for Aging in Place:** The potential of technology to support aging in place remains immense yet largely untapped in the current framework. The recommendation is to launch a pilot program on Technology-Enabled Aging, including tele-geriatrics hub and wearable devices for high-risk elderly individuals.

G. KEY RECOMMENDATIONS FOR IMPLEMENTATION

1. **Complete the geriatric care infrastructure pyramid** by ensuring fully functional geriatric wards in all district hospitals, bi-weekly clinics at all CHCs, and weekly clinics at all PHCs, linked by a clear referral system.

2. **Establish a State Geriatric Excellence Centre** for training, research, and advanced care to build a cadre of specialists and raise the standard of geriatric care statewide.
3. **Develop a SANJEEVANI Geriatric Care Module** that adapts the IHCDP platform to manage poly-morbidity, polypharmacy, and comprehensive geriatric assessments.
4. **Create pathways for the Silver Dividend** by establishing Senior Consultant pools, a Silver Skills registry, and promoting flexible employment models that enable healthy and willing seniors to remain economically productive.
5. **Integrate age-friendly planning** by mandating that all urban and rural development plans incorporate principles of age-friendly design for public spaces, housing, and transport.
6. **Pilot technology-enabled aging programs** to test the use of tele-geriatrics and wearables that support aging in place and improve care for elderly citizens in remote areas.
7. **Track all interventions through Key Performance Indicators** established for the KSHEMA pillar, with quarterly reviews to assess progress and adjust strategies as needed.

CHAPTER 8: PILLAR V – NAIPUNYAM: SKILLING THE POPULATION FOR A \$2.4 TRILLION ECONOMY

A. KEY IDEAS AND STRATEGIC OBJECTIVES

The NAIPUNYAM pillar serves as the critical economic engine within the Andhra Pradesh Population Management Policy Guidance Framework. While the preceding pillars focus on building a healthy, supported, and empowered population, NAIPUNYAM answers the pivotal question of economic sustainability: Once we have a healthy population, how do we ensure they are skilled and productive enough to drive the ambitious Swarnandhra 2047 vision? Andhra Pradesh stands at a demographic crossroads. The state's Total Fertility Rate (TFR) has declined to 1.5, well below the replacement level of 2.1. Concurrently, the elderly population (60+) is projected to surge to 23% by 2047. A shrinking workforce cannot sustain a rapidly aging dependency ratio without a massive increase in individual productivity.

Table 8.1: NAIPUNYAM Pillar – Strategic Objectives

Strategic Objective	Key Focus	Expected Outcome
Bridge labour supply and demand	Eliminate skills mismatch through alignment of training outputs with state's priority economic sectors	Maximally productive shrinking workforce
Professionalize the Care Economy	Create certified, skilled workforce for childcare and geriatric care	Support SHAKTI and KSHEMA pillars; create employment
Equip youth with 21st-century competencies	Foundational digital literacy, critical thinking, and adaptability required for Industry 4.0	Future-ready workforce
Foster innovation and entrepreneurship	Shift mindset from "job seeker" to "job creator"	Job creation; local innovation
Ensure decent employment and livelihoods	Guarantee skilling translates into tangible economic outcomes	Tracked through MIS and Family Card

B. THE THREE TIERS OF NAIPUNYAM

The NAIPUNYAM strategy is structured across three interconnected tiers. This tiered approach ensures a pipeline of talent from foundational skills to high-end expertise, catering to diverse demographic segments across the state's 28 districts.

Tier 1: Foundational and Life-Course Skilling (School Integration, Digital Literacy): This tier focuses on building core competencies from an early age and ensuring the existing workforce can adapt to technological shifts.

- **Integration with School Education** enriches the school curriculum (from Class 6 onwards) with an introduction to various trades and future job markets.
- **Universal Digital Literacy** represents a mission-mode program to ensure every citizen has basic digital literacy. This is a prerequisite for participating in the modern economy and for accessing digital services like Project Sanjeevani and the Family Card portal.
- **Continuous Upskilling for Adults** recognizes that learning doesn't stop at 25. NAIPUNYAM supports continuous upskilling and reskilling pathways for adults already in the workforce.

Tier 2: Creating the "Care Economy" Workforce (Nannies, Geriatric Assistants): This is a landmark innovation of the framework, directly linking NAIPUNYAM with the SHAKTI and KSHEMA pillars.

- **The "Child Caretaker Training" (Childcare Provider Certification)** represents a comprehensive, certified training program developed and scaled through State Skill Development Centres. The program targets women, particularly from SHGs, and youth seeking employment in the social sector. The target is to train 5,000 child caretaker professionals annually.
- **Elderly Caretaker Training** develops specialized programs for geriatric care assistants, home health aides, and nursing assistants to meet the burgeoning demand from the aging population. The target is to train 5,000 elderly caretaker professionals annually.

Tier 3: High-End Skilling for a Future-Ready Economy (IT, Green Energy, Electronics): This tier aims to position Andhra Pradesh as a hub for high-value talent, aligned with the state's industrial policy and the Swarnandhra 2047 vision.

- **Centres of Excellence (CoEs)** will be established in partnership with industry leaders and top academic institutions.
- **Focus on Sunrise Sectors** aligns skill development programs aggressively with the state's economic vision, focusing on high-growth sectors identified in the 610 MoUs signed at the CII Summit.
- **Industry-Led Curriculum Design** ensures all high-end skilling programs are co-designed with industry partners to guarantee market relevance and immediate employment.

Table 8.2: NAIPUNYAM Integration with Other Pillars

Pillar	Integration Point	Expected Outcome
MATRUTVA	Fertility awareness in skilling centers	Informed reproductive choices among youth
SANJEEVANI	Health data for skilling readiness	Reduced dropout rates, healthier trainees
SHAKTI	Certified Child Caretaker Courses	Women enabled to join workforce
KSHEMA	Geriatric Care Training	Elderly care as employment opportunity
Family Card	Beneficiary tracking	Transparent incentive delivery

C. INSTITUTIONAL FRAMEWORK FOR SKILL DEVELOPMENT

- **Strengthening APSSDC as the Nodal Agency:** The Andhra Pradesh State Skill Development Corporation (APSSDC) will be strengthened as the nodal agency to coordinate all skill development efforts. Its enhanced role includes Quality Assurance, Industry Partnerships, Data and Analytics (maintaining a real-time "Skills Observatory"), and Monitoring and Evaluation.
- **Establishing Centres of Excellence in Partnership with Industry:** CoEs in strategic sectors will be established as autonomous bodies with strong industry representation on their boards, ensuring they remain agile and responsive to market needs.
- **Decentralized Planning: The Role of Young Professionals and CVAPs:** The government has launched an innovative program to recruit 175 Young Professionals, one for each of the state's 175 assembly constituencies. These professionals will work under the aegis of the AP State Development Planning Society (APSDPS) to develop and implement Constituency Vision Action Plans (CVAPs).
- **The Technical Support Unit (TSU) Role in Skilling:** The TSU under Project Sanjeevani plays a crucial role in NAIPUNYAM through Data Integration and Feedback Loops that inform resource allocation for skilling centers based on projected youth population shifts in specific districts.

D. LINKING NAIPUNYAM WITH THE BROADER ECOSYSTEM

- **Aligning Skilling with Industrial Policy (610 MoUs):** The 610 MoUs worth over ₹13 lakh crore signed at the CII Summit represent a massive potential demand for skilled labour. NAIPUNYAM will be the talent-supply arm of this industrial policy.
- **Integrating Health Data from SANJEEVANI for a "Skilling-Ready" Workforce:** A healthy population is a pre-requisite for a productive and "skilling-ready" workforce. Data from SANJEEVANI can be used to identify geographic pockets with high rates of malnutrition or anaemia among adolescents and young adults.
- **Ensuring Employment Linkages and Tracking Outcomes:** Skilling is meaningless if it does not lead to employment. NAIPUNYAM will have a relentless focus on outcomes, tracked via the Family Card.
- **Financial Convergence and Incentives:** To support skilling, the framework leverages existing financial schemes. Schemes like Ambedkar Overseas Vidya Nidhi and NTR Bharosa Pension may be reviewed to support larger families or multi-skilled households.

E. MISSED OPPORTUNITIES AND STRATEGIC IMPLICATIONS

- **Creating a State-Level "Skills Observatory" for Real-Time Demand Mapping:** A more dynamic and real-time approach is needed. Establishing a State Skills Observatory would create a unit within APSSDC, supported by the TSU, that uses a combination of data sources to generate real-time reports on emerging skill demands, wage trends, and sectoral growth.
- **Integrating Soft Skills and Financial Literacy into All Training Modules:** While technical skills are essential, soft skills (communication, teamwork, problem-solving) and financial literacy are equally critical for success in the workplace.
- **Fostering Entrepreneurship and Innovation among Youth:** The focus of NAIPUNYAM should be balanced with fostering a culture of entrepreneurship and innovation, turning youth into job creators.
- **Addressing Gender Disparities in Skilling:** If skilling programs do not account for gendered barriers (mobility, safety, care burden), the SHAKTI pillar's goals will not be met.

F. KEY RECOMMENDATIONS FOR NAIPUNYAM

1. **Establish a State Skills Observatory** by creating a **dynamic, real-time unit** within **APSSDC**, integrated with the **TSU**, to **map skill demand** and **guide training investments**.
2. **Launch the "Care Economy" Skilling Mission** by rapidly scaling up the certified **"Child Caretaker Training"** and **"Elderly Caretaker Training"** programs, with a target of **training 5,000 child caretaker and 5,000 elderly caretaker professionals annually**.
3. **Initiate Skilling for Grandparents** by designing tailored programs that focus on **digital literacy, financial management, and modern skills**, enabling older adults to **stay engaged and contribute to society**. This ensures that grandparents are equipped to navigate contemporary challenges and support intergenerational learning.
4. **Mandate Soft Skills and Financial Literacy** by integrating a **standardized module** on these essential **"life skills"** into **all certified skilling programs**.
5. **Foster Entrepreneurship** by establishing **district-level incubation centers (T-Hubs)** and integrating **entrepreneurship education** into **higher-level skilling**.
6. **Strengthen APSSDC** by empowering it with the **mandate, resources, and data capabilities** to be a **world-class nodal agency for skill development**.
7. **Link Skilling to Industrial Policy** by creating a **systematic mechanism** to **map the skill requirements** of every major new investment (**610 MoUs**) and develop **customized training programs**.
8. **Leverage the Family Card** as the **primary identifier** for **skilling beneficiaries** to enable **tracking of longitudinal outcomes** and **prevent duplication**.
9. **Implement Risk Mitigation Strategies** by adopting the **Risk Management Framework** to address **behavioural resistance, data fragmentation, and supply chain gaps** in **skilling infrastructure**.

Table 8.3: Phased Implementation Plan for NAIPUNYAM

Phase	Timeframe	Key Actions	Responsible Agency
Foundation	Year 1	Launch Skills Observatory; Pilot Child Caretaker Courses in 5 Districts; Integrate Family Card with APSSDC	APSSDC, TSU, HM&FW
Expansion	Year 2	Scale Care Economy Training Statewide; Establish District T-Hubs; Align Curriculum with 610 MoUs	APSDPS, Industries Dept
Maturation	Year 3+	Full Digital Literacy Coverage; Geriatric Care Workforce Stabilized; Entrepreneurship Ecosystem Mature	Education Dept, APSSDC

Table 8.4: Key Performance Indicators (KPIs) for NAIPUNYAM

Indicator	Baseline (2025)	Target (2035)	Data Source
Skilling Completion Rate	60%	>75%	APSSDC MIS
Placement Rate	50%	>80%	Family Card/ TSU
Care Economy Workforce	Unorganized	50,000 Certified	WCD Dept/ HM&FW
Female LF Participation	~35%	Increase by 25%	PLFS/ TSU
Digital Literacy	65%	95%	Village Secretariats

CHAPTER 9: A NEW SOCIAL CONTRACT FOR FAMILIES AND IMPLEMENTATION ARCHITECTURE

A. THE POSHAN SHIKSHA SURAKSHA PACKAGE FOR FAMILY SUPPORT

The State recognizes that the decision to have a third child is often hindered by the long-term financial commitment required for upbringing. This policy framework marks a paradigm shift from population control to population management, acknowledging that our demographic destiny is not fixed but can be shaped by proactive, compassionate, and strategic intervention.

- **Stipend for Nutrition (Poshan):** A direct cash transfer of ₹1000 (One Thousand) per month is proposed for the first five years of the child's life from 3rd child onwards. This stipend is conditional on full immunization and regular growth monitoring. For estimated 75,000 children who are 3rd born annually, this amounts to ₹90 Crores in the first year and shall increase to ₹450 Crores annually in five years. The details are mentioned in table below.
- **Education Support (Shiksha):** Milestone-Based Scholarships inspired by successful models like Haryana's Aapki Beti Hamari Beti and UP's Kanya Sumangala Yojana, but adapted for the third child in Andhra Pradesh. The third child and thereafter shall be entitled to receive education in the residential welfare school / any other public school as chosen by the parents, and the entire expenditure of education till 18 years of age shall be borne by the Government.
- **Health Support (Suraksha):** It is proposed that comprehensive lifelong health insurance shall be provided as part of state health insurance scheme to the entire household that opts to have three or more children. Such health insurance shall be provided in the highest care bracket irrespective of the financial status of the household.
- **Direct Birth Incentive:** In addition to the long-term support package, a direct financial incentive of ₹50,000 is proposed for mothers giving birth to a third child.

B. ENCOURAGING LARGE FAMILIES AND SCHEME CONVERGENCE

- **Promoting Joint Family Systems:** The Government will actively promote the cultural and social value of large and joint family systems as a cornerstone of intergenerational support and community resilience. Departments are directed to design facilitative measures that make family expansion and joint living more sustainable and attractive, including priority access to housing schemes, enhanced utility support, and simplified processes for welfare entitlements for joint households.
- **Regulatory Facilitation for Adoption:** To encourage and facilitate the adoption of children in the State of Andhra Pradesh, the Government will introduce measures to simplify and expedite the adoption process. The state accounts for merely 2% of India's legal adoptions despite having substantial numbers of orphaned and abandoned children.
- **Leveraging Existing Schemes for Convergence:** The Government will integrate and align ongoing programs with this Guiding Framework. Rather than creating entirely new, unfunded programs, the strategy prioritizes the convergence and rationalization of existing schemes.

Table 9.1: Review and Enhance Existing Schemes for Better Beneficiary Impact

Scheme	Current Benefit	Proposed Enhancement for Large Families
Ambedkar Overseas Vidya Nidhi	₹1.5 crore grant (1 beneficiary/ family)	Review eligibility to allow multiple beneficiaries from medium/large families

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The Matsyakara Sevalo	₹20,000 seasonal relief (1 beneficiary/family)	Revise beneficiary limits for households with medium/large family size engaged in fishing
NTR Bharosa Pension	One pension per family	Explore provisions for additional pensions for households with large family size
Deepam-2	3 cylinders per family annually	Review allocation norms for households with large family size
Chandranna Bhima	Insurance coverage (1 member)	Consider coverage for multiple earning members in medium/large families
PMAY – NTR Housing	Interest subsidy on home loans	Prioritize housing benefits for large families; provision for expansion of existing houses

C. IMPLEMENTATION ARCHITECTURE AND GOVERNANCE

- **The Family Card as a Cornerstone:** The Family Card is envisioned as the single source of truth for all welfare-related data in Andhra Pradesh. It will contain a unique digital identity for every family unit, storing information on members, eligibility, and utilization history. Its primary function within this policy is to act as the definitive tool for precise beneficiary identification for the ₹50,000 incentive and scholarships, preventing duplication and ensuring transparency.
- **Institutional Mechanism – the Population Management Mission:** A dedicated Population Management Mission will be the central coordinating body, headed by Secretary Health and Family Welfare. This mission will have teams at the State, District, and Mandal levels, responsible for overseeing the execution of policies across the five pillars.
- **Technical Support Unit (TSU) under Project Sanjeevani:** The TSU is envisaged as the State's apex technical coordination and advisory nucleus for population stabilization. The Government has issued an RFP for Selection of Technical Agency for Establishment, Operations and Management of a Technical Support Unit. The initial tenure will be 12 months, extendable up to 5 years based on performance.
- **Governance Structure and Oversight:** A dedicated Population Stabilization Task Force will be constituted to oversee the execution of policies. It will be chaired by the Chief Secretary and include as members the Principal Secretaries / Secretaries of all key departments. For strategic guidance and political oversight, a High-Powered Steering Committee will be chaired by the Honourable Chief Minister.

D. FINANCIAL MODELLING AND FISCAL SUSTAINABILITY

- **Long-Term Liability and Investment Perspective:** The population management is an investment in human capital that yields economic returns via a larger future workforce. The state must view these expenditures not as consumption but as capital investment in demographic stability.
- **Funding Sources and Fiscal Strategy:** To ensure fiscal sustainability, funding will be sourced through a mix of strategies including Reallocation, a Dedicated Budget Line under the Finance Department for Demographic Stability, Public-Private-People Partnerships and Corporate Social Responsibility funds, and exploration of a Demographic Resilience Fund. The government will adopt Net Present Value-based budgeting for all such long-term schemes.

E. PHASED IMPLEMENTATION ROADMAP

- **Short-Term Actions (Foundation Building – Year 1):** Infrastructure Development including Strengthening Anganwadi Centres and Establishment of Crèches in government offices; Social

Movement Campaigns involving Launching state-wide campaigns and Gram / Ward Sabhas; Capacity Building focusing on Training healthcare workers and local administrators; Policy and Governance actions including Formal notification of the Five-Pillar Strategy and constitution of the Population Stabilization Task Force; Digital Backbone strengthened by completing the statewide rollout of SANJEEVANI by June 2026.

- **Medium-Term Actions (Statewide Scaling – Year 2):** Infrastructure Expansion including establishing the MATRUTVA Centre of Excellence for Reproductive Medicine and the State Geriatric Excellence Centre; Programmatic Scale-up involving the statewide rollout of the Child Caretaker Course and geriatric care assistant training programs; Data and Analytics maturing the SANJEEVANI analytics engine to include predictive AI and ML models.
- **Long-Term Actions (Consolidation and Adaptation – Years 3+):** System Maturation ensuring the geriatric care infrastructure is fully matured to meet the needs of the projected elderly population; Monitoring and Adaptation involving monitoring demographic trends and periodically revising the framework; Comprehensive Social Support including developing robust social security systems for the elderly.

F. MEASURING IMPACT AND MANAGING RISKS

- **Key Performance Indicators:** To ensure accountability, specific Key Performance Indicators will be tracked over a ten-year horizon across all five pillars.

Table 9.2: Key Performance Indicators and Targets

Pillar	Key Performance Indicator (KPI)	Target (10 Years)
MATRUTVA	Total Fertility Rate (TFR)	Towards Replacement Level
MATRUTVA	% Eligible Couples Receiving Incentive	>80% enrollment
SANJEEVANI	Infant Mortality Rate (IMR)	<5 per 1000 live births
SANJEEVANI	Maternal Mortality Ratio (MMR)	<15 per 100,000 live births
SHAKTI	Female Labor Force Participation	Increase by 20%
SHAKTI	# Certified Women-Friendly Employers	1,000 employers
SHAKTI	# Child Care Professionals Trained	5,000 annually
KSHEMA	Elderly Dependency Ratio	Stabilize by 2040
KSHEMA	# Elderly Care Professionals Trained	5,000 annually
NAIPUNYAM	Skilling Completion Rate	>75%

- **Real-Time Dashboards and Data-Driven Governance:** The SANJEEVANI platform will be the primary source of data for monitoring these KPIs. The TSU will develop a suite of role-based, real-time dashboards for different stakeholders including Chief Minister's Dashboard, Task Force Dashboard, District Collector's Dashboard, and Departmental Dashboards.
- **Risk Management Framework:** In the context of Andhra Pradesh's evolving demographic transition, the establishment and operationalisation of a Technical Support Unit must be underpinned by a robust, forward-looking Risk Response Framework. Systemic Risks include Behavioural resistance to spacing methods due to socio-cultural norms, Limited male participation in reproductive health, Fragmented data systems limiting continuity of care, Low provider familiarity with digital platforms, and District-level supply chain gaps.

G. IMPACT OF TFR INCREASE PROJECTION MODELS

A successful policy leading to a gradual increase in TFR would have profound impacts by 2047 and 2070. Under the Baseline Scenario where TFR remains at 1.5, the population peaks early and

declines rapidly, leading to a high old-age dependency ratio that could exceed 30%. Under the Target Scenario where TFR stabilizes at 2.1, the population stabilizes and the working-age population remains robust enough to support the elderly, keeping the ratio closer to 20-25%, significantly reducing the fiscal burden on the state.

H. GOVERNANCE FRAMEWORK AND IMPLEMENTATION STRATEGY FOR POPULATION MANAGEMENT

The governance framework for the **Arogya Andhra - Population Management** initiative is built upon a robust, multi-tiered structure designed to ensure strategic oversight and meticulous execution. At the apex is a **High-Powered Steering Committee**, chaired by the **Hon'ble Chief Minister**, which provides the highest level of policy direction. This is supported by a **Population Stabilization Task Force**, led by the **Chief Secretary**, which drives inter-departmental coordination and implementation on the ground. To anchor these efforts in empirical evidence, the framework relies on a **Technical Support Unit (TSU)** that conducts **data-driven analytics under SANJEEVANI**, transforming raw data into actionable intelligence. The integrity of this entire system is maintained by the **Family Card Database**, which serves as the **single source of truth for tracking** beneficiaries and outcomes, thereby minimizing discrepancies and ensuring targeted delivery.

The institutional mechanism is further codified through the establishment of the **Arogya Andhra Population Management Committee (AAPMC)**. This body ensures that governance is not merely a top-down directive but a continuous, iterative process. A critical component of this approach is the mandate for **rigorous monthly outreach programs**, which shall be held every **4th Saturday** of the month. During these sessions, officials are required to visit the villages and hold discussions with the local community on population management, the urgency of the situation, and the measures that are envisaged to promote AROGYA ANDHRA PRADESH. This regular dialogue with focus on demographic metrics, coordination among the stakeholder departments and cadence of accountability ensures that resources are utilized efficiently and that demographic trends are monitored in real-time, allowing for swift corrective actions where necessary.

In a significant move to enhance public participation and transparency, it has been proposed that the **4th Saturday of every month is to be designated as Praja Vedika on Arogya Andhra - Population Management**, drawing inspiration from the successful **Swachh Andhra Swarna Andhra (SASA) program**. This initiative would transform the governance structure into a participatory platform, bringing the administration face-to-face with the community. By institutionalizing this interface, the program aims to foster collective ownership and grassroots-level dialogue on population stabilization. **Detailed guidelines shall be issued** for this novel outreach program, ensuring its seamless integration with the existing data-driven and high-level oversight mechanisms.

1. KEY RECOMMENDATIONS FOR SUCCESS

1. **Strengthening Institutional Capacity:** The Population Management Mission should be staffed with dedicated professionals who have expertise in demography, public health, and social welfare. The Technical Support Unit should be given sufficient autonomy to innovate and adapt strategies based on real-time data.
2. **Enhancing Community Engagement:** Community engagement must go beyond awareness campaigns to active participation. Village-level debates and Self-Help Group networks should be utilized to discuss demographic challenges openly.
3. **Ensuring Fiscal Prudence:** Fiscal prudence must be maintained throughout the implementation period. The Net Present Value-based budgeting approach should be strictly adhered to for long-

term commitments. Regular audits of the Family Card system should be conducted to prevent leakage and duplication.

4. **Monitoring and Adaptive Management:** The framework is designed as a living document. An annual, evidence-based policy review will be conducted by the TSU and presented to the Task Force. This review will analyse progress against all KPIs, synthesize lessons learned from implementation, identify emerging challenges and opportunities, and propose specific recommendations for policy refinement.

The Andhra Pradesh Population Management Framework is a social contract for the future. It acknowledges that our demographic destiny is not fixed but can be shaped by proactive, compassionate, and strategic intervention. It represents a fundamental and irreversible shift in philosophy—from viewing population as a problem to be controlled, to nurturing it as a dynamic asset to be developed. This document has laid out the undeniable demographic imperative for such a shift, detailing the trends and challenges that make a new approach non-negotiable. We have introduced the Life-Cycle Model of Population Management as the guiding conceptual framework, recognizing that an individual's journey from conception to old age is a continuum, and support at every stage is essential for a stable and prosperous society.

This model is operationalized through five interconnected strategic pillars: MATRUTVA, ensuring every pregnancy is wanted and healthy; SANJEEVANI, building the digital nervous system for proactive health management; SHAKTI, dismantling barriers to women's empowerment; KSHEMA, reframing aging as an opportunity; and NAIPUNYAM, equipping the population with skills for the future economy. Together, these pillars form a comprehensive safety net and opportunity network, designed to ensure that policies for reproductive health, digital healthcare, women's empowerment, elderly care, and skill development reinforce one another. This synergy is the hallmark of the new paradigm, creating a whole that is far greater than the sum of its parts.

However, the success of this ambitious framework will not be determined by government diktat or even the most sophisticated digital platform. It will be determined by the collective will of the people of Andhra Pradesh. The ultimate goal is to move beyond policy-driven implementation to a self-sustaining social movement. This means normalizing shared parenting, championing women's empowerment, valuing the silver dividend, and embracing lifelong health. This transformation requires a true Public-Private-People Partnership (P4) approach in its entirety. It calls on the Government to provide the policy vision and fiscal stewardship; the Private Sector to be a genuine partner by creating family-friendly workplaces; Philanthropic Organizations to support innovation; and the People to be active participants in their own well-being. By working together, Andhra Pradesh can not only navigate its demographic transition but can emerge as a national and global model for how to turn a demographic challenge into a demographic dividend. This blueprint provides the roadmap. The journey now begins. The goal is clear: a wealthy, healthy, and happy Swarnandhra for all its citizens, for generations to come. The time to act is now, to ensure that the demographic dividend of today does not become the demographic debt of tomorrow.

ANNEXURE I: COMPREHENSIVE POPULATION MANAGEMENT INDICATORS**Section 1: Demographic Profile & Population Structure**

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
1	Total Population	Current population	Million	53.2	Census	UP 240; Maharashtra 126; Bihar 125	Sikkim 0.7; Mizoram 1.2; Arunachal 1.5	1,476.6	China 1,410; India 1,476; USA 340	Vatican 0.001; Tuvalu 0.012; Nauru 0.013	UN WPP 2024
2	Population Density	Population per sq km	Persons/km ²	—	Census	Delhi 11,320; Chandigarh 9,252; Puducherry 2,547	Arunachal 17; Mizoram 52; Andaman 57	497	Monaco 26,000; Singapore 8,600; Bahrain 2,100	Mongolia 2; Namibia 3; Australia 3	UN WPP 2024
3	Number of Households	Total occupied housing units	Million	~11.8	Census (Projected)	UP ~48; Maharashtra ~28; Bihar ~28	Sikkim ~0.16; Mizoram ~0.27; Ladakh ~0.03	~328	China ~500; USA ~130; Japan ~55	Vatican ~0.0005; Tuvalu ~0.003; Nauru ~0.003	Census Projections / MOSPI / Esri India
4	Life Expectancy	Avg years expected to live	Years	70.7	Annual	Kerala 75; Delhi 74; Himachal 73	Chhattisgarh 65; MP 66; UP 66	72.7	Japan 84; Switzerland 84; Singapore 84	Chad 54; Nigeria 55; Lesotho 55	SRS / UN WPP 2024
5	Median Age	Population midpoint age	Years	29.2	Census	Kerala 38; Tamil Nadu 37; Punjab 36	Bihar 24; UP 25; MP 26	29.2	Monaco 55; Japan 49; Germany 46	Niger 15; Chad 16; Uganda 16	UN WPP 2024
6	Gender Ratio	Females per 1000 males	Ratio	1045	NFHS-5	Kerala 1084; Chhattisgarh	Haryana 926; Punjab	1020	Armenia 1140; Latvia 1130;	Qatar 640; UAE 690;	NFHS-5 (2019-21)

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
						1036; TN 1030	938; Gujarat 945		Lithuania 1120	Bahrain 720	
7	Sex Ratio at Birth	Female births per 1000 male births	Ratio	943	Annual	Chhattisgarh 974; Kerala 971; Himachal 958	Haryana 884; Delhi 872; Uttarakhnad 868	929	Liechtenstein 1,160; N. Mariana 1,150; Azerbaijan 1,120	Namibia 1,010; Zambia 1,010; Malawi 1,010	CRS / HMISS 2024-25
8	Population Growth Rate	Annual % change	%	0.87	Annual	Bihar 1.8; UP 1.6; MP 1.5	Kerala 0.3; TN 0.4; Punjab 0.5	0.87	Niger 3.8; Angola 3.3; Chad 3.1	Bulgaria - 1.2; Latvia -1.1; Ukraine - 0.9	UN WPP 2024
9	Net Migration Rate	(Immigrants - Emigrants)/1000 population	Rate	-0.3	Annual	Delhi +2.5; Maharashtra +1.8; Gujarat +1.2	UP -1.5; Bihar -1.8; MP -0.9	-0.3	UAE +28; Qatar +25; Singapore +18	Syria -45; Venezuela -30; Yemen -8	UN WPP 2024
10	Urbanization Rate	Urban population share	%	37.6	Annual	Delhi 98; Goa 62; Tamil Nadu 48	Himachal 10; Bihar 11; Assam 14	37.6	Singapore 100; Kuwait 100; Qatar 99	Burundi 13; Niger 16; Malawi 17	UN World Urbanization Prospects 2024

Section 2: Fertility and Birth Indicators

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
11	Total Fertility Rate (TFR)	Avg children per woman	Children	1.5	Annual	West Bengal 1.4; Delhi 1.5; Kerala 1.6	Bihar 3.0; Meghalaya 2.9; UP 2.4	1.93	South Korea 0.7; Singapore 1.0; Italy 1.2	Niger 6.7; Somalia 6.2; Chad 6.1	NFHS-5 / UN WPP 2024
12	TFR (Urban)	Avg children per woman	Children	1.3	Annual	Kerala 1.3; TN 1.4; Delhi 1.5	Bihar 2.5; Jharkhand 2.2; UP 2.1	1.6	South Korea 0.7; Italy 1.2; Japan 1.3	Niger 6.5; Chad 6.2; Somalia 6.0	NFHS-5

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
13	TFR Replacement Level	Stable fertility level	Children	2.1	Constant	—	—	2.1	—	—	Demography Standard
14	Crude Birth Rate (CBR)	Births per 1000 population	Rate	15	Annual	Bihar 25.8; UP 23.6; Rajasthan 22.9	Kerala 14.3; Maharashtra 14.8; AP 15	18.4	Niger 46; Somalia 43; Chad 42	Hong Kong 4; South Korea 5; Japan 6	SRS 2020
15	General Fertility Rate (GFR)	Births per 1000 women (15-49)	Rate	62.4	Annual	Bihar 102; UP 94; MP 82	Kerala 48; TN 51; AP 62.4	71.8	Niger 210; Somalia 195; Chad 188	South Korea 18; Japan 22; Italy 23	NFHS-5 / UN WPP 2024
16	Age-Specific Fertility Rate (ASFR) 15-19	Births per 1000 women 15-19	Rate	28	Annual	Himachal 8; Kerala 10; Punjab 12	Bihar 52; Jharkhand 48; WB 45	22	South Korea 1; Japan 2; Switzerland 3	Niger 170; Mali 165; Chad 160	NFHS-5 / SRS
17	ASFR 20-24	Births per 1000 women 20-24	Rate	135	Annual	Kerala 85; TN 92; AP 135	Bihar 215; UP 208; MP 190	158	South Korea 12; Japan 18; Italy 20	Niger 280; Mali 275; Chad 270	NFHS-5 / SRS
18	ASFR 25-29	Births per 1000 women 25-29	Rate	145	Annual	Kerala 102; TN 115; AP 145	Bihar 198; UP 192; MP 175	152	South Korea 45; Japan 48; Italy 52	Niger 260; Mali 255; Chad 250	NFHS-5 / SRS
19	ASFR 30-34	Births per 1000 women 30-34	Rate	82	Annual	Kerala 58; TN 65; AP 82	Bihar 128; UP 122; MP 110	92	South Korea 68; Japan 72; Italy 70	Niger 210; Mali 205; Chad 200	NFHS-5 / SRS
20	ASFR 35-39	Births per 1000 women 35-39	Rate	38	Annual	Kerala 22; TN 28; AP 38	Bihar 68; UP 64; MP 55	44	South Korea 32; Japan 35; Italy 30	Niger 150; Mali 145; Chad 140	NFHS-5 / SRS

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
21	ASFR 40-44	Births per 1000 women 40-44	Rate	12	Annual	Kerala 4; TN 6; AP 12	Bihar 24; UP 22; MP 18	14	South Korea 6; Japan 8; Italy 5	Niger 65; Mali 60; Chad 58	NFHS-5 / SRS
22	ASFR 45-49	Births per 1000 women 45-49	Rate	3	Annual	Kerala 1; TN 1; AP 3	Bihar 6; UP 5; MP 4	3.5	South Korea 0.5; Japan 0.8; Italy 0.7	Niger 18; Mali 16; Chad 15	NFHS-5 / SRS
23	Ideal Family Size Preference	Avg ideal number of children	Children	1.8	Triennial	Kerala 1.5; Tamil Nadu 1.6; AP 1.8	Bihar 2.8; UP 2.6; MP 2.4	1.9	—	—	NFHS-5
24	Son Preference Index	% wanting more sons than daughters	%	12.5	Triennial	Kerala 4; Tamil Nadu 6; AP 12.5	Bihar 28; UP 25; Haryana 22	14.2	—	—	NFHS-5

Section 3: Mortality and Health Outcomes

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
25	Crude Death Rate (CDR)	Deaths per 1000 population	Rate	6.9	Annual	Delhi 4.5; J&K 5.6; WB 5.7	Chhattisgarh 8.3; Odisha 7.7; Punjab 7.3	6.4	Qatar 1.3; UAE 1.6; Kuwait 2.1	Bulgaria 15; Latvia 15; Ukraine 14	SRS 2020
26	Infant Mortality Rate (IMR)	Infant deaths per 1000 births	Rate	19	Annual	Kerala 5; TN 12; Maharashtra 14	Chhattisgarh 37; MP 37; UP 37	20.9	Iceland 2; Finland 2; Japan 2	Somalia 70; Nigeria 65; Chad 63	SRS / UN WPP 2024
27	Neonatal Mortality Rate (NMR)	Deaths under 28 days per 1000 births	Rate	15	Annual	Kerala 3; TN 8; Maharashtra 10	Chhattisgarh 28; MP 27; UP 26	16.8	Iceland 1; Finland 1; Japan 1	Somalia 45; Nigeria 42; Chad 40	SRS / HMIS
28	Under-5 Mortality Rate (U5MR)	Deaths under 5	Rate	21	Annual	Kerala 7; TN 14;	MP 49; UP 48; Assam 46	26.1	Finland 2; Japan 2; Sweden 2	Somalia 110; Nigeria 102; Chad 98	NFHS-5 / UN WPP 2024

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
		years per 1000 births				Maharashtra 18					
29	Maternal Mortality Ratio (MMR)	Maternal deaths per 100k births	Rate	30	Periodic	AP 30; Kerala 30; TN 35	Odisha 153; Chhattisgarh 146; MP 142	88	Norway 2; Italy 2; Poland 2	South Sudan 1,150; Chad 1,060; Nigeria 1,040	SRS 2018-20
30	Healthy Life Expectancy (HALE)	Years lived in good health	Years	61.2	Annual	Kerala 68.5; AP 61.2; Tamil Nadu 60.8	Bihar 54.2; UP 55.1; MP 56.8	60.3	Japan 74.1; Singapore 73.6; Switzerland 73.1	Lesotho 42.5; Sierra Leone 43.2; CAR 44.0	GBD / National Health Profile

Section 4: Age Structure and Dependency

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
31	Population 0–14 years	Share of total population	%	24	Census	Bihar 34; UP 32; MP 30	Kerala 20; TN 21; Himachal 22	26	Niger 50; Mali 47; Chad 46	Japan 12; Italy 13; Germany 13	UN WPP 2024
32	Population 15–59 years (Working Age)	Share of total population	%	66	Census	Delhi 71; Goa 69; Kerala 68	Bihar 60; Assam 61; UP 61	65	UAE 84; Qatar 83; Singapore 80	Niger 46; Mali 48; Chad 49	UN WPP 2024
33	Population 60+ years (Elderly)	Share of total population	%	12.4	Census	Kerala 18; TN 16; Himachal 15	Bihar 8; UP 9; Assam 9	12.4	Japan 29; Italy 24; Germany 23	Qatar 2; UAE 2; Niger 3	Registrar General projections / UN WPP 2024
34	Youth Dependency Ratio	$(\text{Pop 0-15}) / (\text{Pop 16-64}) \times 100$	Ratio	38.5	Census	Bihar 52; UP 48; MP 45	Kerala 28; TN 30; AP 38.5	40.2	Niger 85; Mali 82; Chad 80	Japan 20; Italy 22; Germany 21	Census / UN WPP 2024
35	Old Age Dependency Ratio	$(\text{Pop 65+}) / (\text{Pop 16-64}) \times 100$	Ratio	13.5	Census	Kerala 22; TN 18; Punjab 16	Bihar 8; UP 9; Assam 9	13.5	Japan 48; Italy 38; Germany 37	Qatar 3; UAE 4; Niger 5	Census / UN WPP 2024

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
36	Total Dependency Ratio	$\frac{(\text{Pop } 0-15 + \text{Pop } 65+)/(\text{Pop } 16-64)}{\times 100}$	Ratio	52	Census	Bihar 68; UP 65; MP 62	Kerala 42; TN 45; Punjab 47	53.7	Niger 92; Mali 88; Chad 85	Japan 48; Italy 49; Germany 50	Census / UN WPP 2024
37	Demographic Dividend (Working Age Share)	$\frac{\text{Pop } 15-59}{\text{Total Pop}}$	%	66	Census	Delhi 71; Goa 69; Kerala 68	Bihar 60; Assam 61; UP 61	65	UAE 84; Qatar 83; Singapore 80	Niger 46; Mali 48; Chad 49	Census Population Projections

Section 5: Maternal and Child Health

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
38	Institutional Delivery Rate	$\frac{\text{Births in health facilities}}{\text{Total Births}}$	%	95.2	Annual	Kerala 99.9; Tamil Nadu 99.8; AP 95.2	Nagaland 42; Meghalaya 51; UP 67	88.6	Ukraine 99.9; Belarus 99.8; Kazakhstan 99.5	South Sudan 16; Chad 22; Ethiopia 26	HMIS / NFHS-5
39	Antenatal Care Coverage (4+ ANC Visits)	$\frac{\text{Women with 4+ ANC visits}}{\text{Total Women}}$	%	72.5	Triennial	Kerala 95; Tamil Nadu 92; AP 72.5	Bihar 32; UP 38; Jharkhand 45	58.1	Belarus 99; Finland 98; Sweden 97	Somalia 7; Chad 15; Niger 18	HMIS / NFHS-5
40	Full Immunization Coverage	$\frac{\text{Children 12-23 months fully immunized}}{\text{Total Children}}$	%	78.3	Annual	Kerala 92; Punjab 90; AP 78.3	Nagaland 42; Meghalaya 48; UP 55	76.4	Iceland 99; Sweden 98; Finland 98	Somalia 25; Papua NG 27; Nigeria 31	HMIS / NFHS-5
41	Low Birth Weight Prevalence	$\frac{\text{Births } < 2500\text{g}}{\text{Total Births}}$	%	16.2	Annual	Kerala 9; Tamil Nadu 11; AP 16.2	MP 23; Jharkhand 22; UP 21	18.2	Finland 4; Sweden 4; Japan 5	South Sudan 27; Bangladesh 22; India 18.2	HMIS / NFHS-5
42	Teenage Pregnancy Rate	$\frac{\text{Women 15-19 pregnant or already mothers}}{\text{Total Women}}$	%	12.6	Triennial	Himachal 3; Kerala 4; Punjab 5	Bihar 17; Tripura 16; WB 16	6.8	South Korea 1; Japan 1; Switzerland 2	Niger 36; Chad 30; Mali 29	NFHS-5 / HMIS
43	Anaemia in Pregnant Women	$\frac{\text{Hb } < 11 \text{ g/dL}}{\text{Total Pregnant Women}}$	%	53	Triennial	Mizoram 24; Kerala 27; Manipur 30	Bihar 63; Jharkhand 61; Assam 60	52	Japan 10; Switzerland 12; Norway 13	Yemen 60; Nigeria 57; India 52	NFHS-5

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
44	Postpartum Family Planning Uptake	Women adopting FP within 48 hours of delivery	%	42.5	Annual	AP 42.5; Telangana 41; Karnataka 38	Nagaland 8; Mizoram 10; Meghalaya 12	31.2	China 65; Vietnam 58; Thailand 52	Data not available systematically	HMIS / NHM

Section 6: Family Planning and Contraception

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
45	Contraceptive Prevalence Rate (CPR)	Married women 15-49 using any method	%	68.4	Triennial	AP 68.4; Telangana 67; Karnataka 65	Mizoram 32; Nagaland 35; Meghalaya 38	66.7	China 85; Vietnam 76; Thailand 75	South Sudan 4; Chad 5; Niger 6	NFHS-5 / HMIS
46	Unmet Need for Family Planning	Women wanting to delay/stop childbearing not using contraception	%	9.4	Triennial	Kerala 6; Punjab 7; AP 9.4	Bihar 15; UP 14; MP 13	9.4	—	—	NFHS-5 / NHM
47	Birth Spacing (≥3 years)	Births with interval ≥3 years	%	52.4	Annual	Kerala 68; TN 65; AP 52.4	Bihar 38; UP 40; MP 42	52.4	—	—	NFHS-5 / SRS
48	Female Sterilization	Sterilized married women	%	63	Triennial	AP 63; Telangana 61; Karnataka 58	Mizoram 7; Nagaland 9; Meghalaya 10	38	China 35; Vietnam 34; Thailand 30	Niger 1; Chad 1; Mali 2	NFHS-5
49	Male Sterilization	Men sterilized	%	0.3	Triennial	Gujarat 1.2; Maharashtra 0.8; AP 0.3	All northeastern states <0.1	0.5	Bhutan 5; UK 2; USA 1.5	Data not available systematically	NFHS-5

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
50	IUCD Adoption Rate	Women using IUCD	%	2.8	Triennial	Delhi 6.5; Punjab 5.8; AP 2.8	Bihar 0.5; UP 0.8; MP 1.2	2.1	China 45; Vietnam 28; Thailand 15	Data not available systematically	NFHS-5 / HMIS
51	Oral Contraceptive Pill Usage	Women using OCP	%	4.2	Triennial	Punjab 12.5; Delhi 11.2; AP 4.2	Bihar 1.2; UP 1.5; MP 2.1	4.8	Netherlands 32; France 28; USA 26	Data not available systematically	NFHS-5
52	Condom Usage Rate	Couples using condoms	%	6.8	Triennial	Delhi 18.5; Punjab 16.2; AP 6.8	Bihar 1.8; UP 2.2; MP 3.1	9.5	Japan 42; Spain 38; Italy 35	Data not available systematically	NFHS-5 / HMIS
53	Injectable Contraceptive Usage	Women using injectables (Antara)	%	1.2	Annual	AP 1.2; Telangana 1.1; Karnataka 0.9	Bihar 0.2; UP 0.3; MP 0.4	0.8	UK 12; USA 10; France 8	Data not available systematically	NFHS-5 / NHM
54	Eligible Couples	Married couples eligible for FP	Million	9.1 (as on 30.06.2024)	Annual	UP 2.1; Bihar 1.4; Maharashtra 0.9	Sikkim 0.01; Mizoram 0.02; Goa 0.03	~250	China ~300; USA ~60; Japan ~25	Small island nations	Health Statistics 2024-25

Section 7: Female Education and Empowerment

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
55	Female Literacy Rate	Literate women 7+ years	%	74.8	Decennial	Kerala 95; Mizoram 91; Lakshadweep 88	Bihar 55; UP 62; Rajasthan 65	77.7	Russia 99.9; Ukraine 99.8; Kazakhstan 99.7	Afghanistan 30; Niger 31; Mali 33	Census 2011 / NSO
56	Female Secondary School Completion Rate	Girls completing secondary education	%	72.5	Annual	Kerala 95; Tamil Nadu 88; AP 72.5	Bihar 48; UP 52; Jharkhand 55	68.3	Finland 98; Norway 97; Switzerland 96	South Sudan 12; Niger 14; Chad 15	UDISE+ 2024-25

S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
57	Female Gross Enrollment Ratio (Higher Education)	Girls enrolled in higher education / Pop 18-23	%	32.4	Annual	Delhi 48; Kerala 45; AP 32.4	Bihar 18; UP 22; MP 24	28.5	Greece 125; USA 88; Australia 86	Data not available systematically	AISHE 2024-25
58	School Dropout Rate (Girls)	Girls dropping out before secondary completion	%	18.5	Annual	Kerala 2; Tamil Nadu 5; AP 18.5	Bihar 42; UP 38; Jharkhand 35	21.2	Japan 0.5; South Korea 0.8; Finland 1.2	Niger 75; Chad 72; Mali 70	UDISE+
59	Average Age at Marriage (Female)	Mean age at marriage for women	Years	21.5	Triennial	Kerala 23.5; Punjab 23; AP 21.5	Bihar 19.2; Jharkhand 19.5; UP 19.8	21.2	Sweden 34; Norway 33; Denmark 32	Niger 17; Chad 17.5; Mali 18	NFHS-5
60	Child Marriage Rate	Women married before 18	%	29.3	Triennial	Kerala 6; Himachal 8; Punjab 9	Bihar 40; Tripura 40; WB 41	23.3	Sweden 0; Norway 0; Netherlands 0	Niger 76; Chad 67; Mali 54	NFHS-5 / UNICEF
61	Female Labour Force Participation Rate	Female workers / female pop 15+	%	28.3	Annual	Himachal 46; MP 38; Rajasthan 37	Delhi 12; Punjab 18; Kerala 20	28.3	Iceland 76; Sweden 74; Norway 73	Yemen 6; Iraq 12; Afghanistan 14	PLFS 2024-25 / ILO
62	Women Self-Help Group Participation	Women in SHGs / total women	%	42.5	Annual	AP 42.5; Telangana 40; Kerala 38	Delhi 8; Punjab 12; Haryana 15	32.8	—	—	SRLM MIS 2025
63	Women Bank Account Ownership	Women with bank account	%	85.2	Triennial	Kerala 98; AP 85.2; Tamil Nadu 84	Bihar 62; UP 65; MP 68	78.6	Sweden 100; Norway 100; Denmark 100	Afghanistan 8; Yemen 12; Somalia 15	NFHS-5 / PMJDY MIS
64	Women Asset Ownership (Land/House)	Women owning land or house	%	32.8	Triennial	Kerala 58; AP 32.8; Tamil Nadu 31	Bihar 15; UP 18; MP 20	28.5	Sweden 52; USA 48; France 45	Data not available systematically	NFHS-5 / Census

Section 8: Health Infrastructure and Access

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S. No.	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
65	ASHA Coverage	Population per ASHA worker	Number	985	Annual	Kerala 850; AP 985; Tamil Nadu 1,020	Bihar 1,450; UP 1,420; MP 1,380	1,082	—	—	NHM MIS
66	Doctor-Population Ratio	Allopathic doctors per 10,000 population	Ratio	8.2	Annual	Delhi 22; Kerala 18; AP 8.2	Bihar 3.2; UP 4.1; MP 4.5	7.5	Cuba 84; Greece 62; Austria 54	Niger 0.3; Sierra Leone 0.4; Ethiopia 0.5	National Health Profile
67	PHC Accessibility	Population per PHC	Number	28,500	Annual	Kerala 18,000; AP 28,500; Tamil Nadu 29,000	Bihar 52,000; UP 48,000; MP 42,000	32,500	—	—	Rural Health Statistics
68	Digital Health Record Coverage	Population with ABHA ID	%	42.5	Annual	Kerala 68; AP 42.5; Karnataka 40	Bihar 18; UP 22; MP 25	35.2	Estonia 99; Denmark 98; Canada 85	Data not available systematically	ABDM Dashboard 2025
69	Telemedicine Utilization	eSanjeevani consultations per 1000 population	Rate	125	Annual	Kerala 280; AP 125; Tamil Nadu 110	Bihar 22; UP 35; MP 48	98	—	—	eSanjeevani Portal
70	Social Protection Coverage	Households covered by at least one scheme	%	68.5	Annual	Kerala 92; AP 68.5; Tamil Nadu 65	Delhi 28; Punjab 35; Haryana 38	58.2	—	—	State Welfare MIS
71	Housing Security (Pucca Housing)	Households in pucca houses	%	72.5	Quinquennial	Delhi 98; Kerala 95; AP 72.5	Bihar 42; Odisha 48; MP 52	68.3	Japan 100; Germany 100; USA 99	Data not available systematically	NSS / PMAY MIS

Section 9: Socio-Economic and Development Indicators

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S. No	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
72	Workforce Participation Rate (15+)	Workers / population 15+	%	51.2	Annual	Himachal 53; MP 52; Rajasthan 51	Delhi 35; Kerala 41; TN 42	51.2	Iceland 80; Switzerland 79; Netherlands 78	Yemen 39; Iraq 40; Jordan 41	PLFS 2024-25 / ILO
73	Male Workforce Participation	Male workers / male pop 15+	%	74.5	Annual	Himachal 76; MP 75; Rajasthan 74	Delhi 58; Kerala 62; TN 64	74.5	Iceland 84; Switzerland 82; Netherlands 81	Yemen 72; Iraq 68; Jordan 67	PLFS 2024-25
74	Female Workforce Participation	Female workers / female pop 15+	%	28.3	Annual	Himachal 46; MP 38; Rajasthan 37	Delhi 12; Punjab 18; Kerala 20	28.3	Iceland 76; Sweden 74; Norway 73	Yemen 6; Iraq 12; Afghanistan 14	PLFS 2024-25 / ILO
75	Per Capita Income	Net State Domestic Product / Population	₹ (Current)	₹2,18,000	Annual	Goa ₹4,50,000; Delhi ₹4,20,000; Sikkim ₹4,10,000	Bihar ₹58,000; UP ₹75,000; MP ₹95,000	₹1,68,000	Luxembourg \$135,000; Switzerland \$92,000; Norway \$89,000	Burundi \$260; Somalia \$330; Malawi \$350	State Economic Survey 2024-25
76	Poverty Rate (MPI)	Multidimensional Poverty Index headcount	%	12.8	Periodic	Kerala 0.7; Goa 1.2; AP 12.8	Bihar 52.4; Jharkhand 42.1; UP 37.7	14.96	Iceland 0.1; Norway 0.2; Finland 0.2	South Sudan 85; Niger 82; Chad 80	NITI Aayog MPI 2024
77	Human Development Index (HDI)	Composite index (0-1)	Score	0.675	Periodic	Kerala 0.782; Goa 0.775; Chandigarh 0.768	Bihar 0.576; UP 0.596; MP 0.606	0.654	Switzerland 0.967; Norway 0.966; Iceland 0.959	South Sudan 0.385; Chad 0.394; Niger 0.400	NITI Aayog / UNDP 2024

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S. No	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
78	Productivity per Worker	GDP / Total workers	₹ (Constant)	₹3,85,000	Annual	Goa ₹8,50,000; Delhi ₹7,80,000; Maharashtra ₹6,50,000	Bihar ₹1,20,000; UP ₹1,50,000; MP ₹1,80,000	₹3,20,000	Luxembourg \$235,000; Ireland \$185,000; Norway \$165,000	Data not available systematically	National Accounts Statistics / NSO
79	Intergenerational Education Mobility	% children with higher education than parents	%	42.5	Quinquennial	Kerala 68; AP 42.5; Tamil Nadu 40	Bihar 28; UP 30; MP 32	38.2	Finland 58; Norway 56; Denmark 55	Data not available systematically	NSS Social Consumption Surveys

Section 10: Infertility and Reproductive Health

S. No	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
80	Infertility Prevalence (Overall)	Couples unable to conceive after 12 months of unprotected intercourse	%	15-20 (estimated)	Periodic	Urban centers higher (Mumbai, Delhi, Bengaluru)	Rural areas lower (secondary infertility higher)	15-20% (~30 million couples)	Japan 15%; UK 16%; USA 12%; Global avg 8-12%	Data not available systematically	INSIGHT S IAS 2026
81	Primary Infertility	Women unable to conceive after 12 months, never conceived	%	Higher in urban areas	Periodic	Urban metros (Mumbai, Bengaluru, Delhi)	Rural areas	Higher in urban areas (32.6% at DSM1+)	—	—	IJCM Feb 2026 / INSIGHT S IAS
82	Secondary Infertility	Women unable to conceive	%	Higher in rural areas	Periodic	Rural areas with	Urban areas	Higher in rural areas	—	—	INSIGHT S IAS 2026

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S. No	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
		after previous birth				untreated infections					
83	Male Factor Infertility	Male contribution to infertility cases	%	—	—	—	—	40-50%	—	—	INSIGHT S IAS 2026
84	Female Factor Infertility	Female contribution to infertility cases	%	—	—	—	—	40-50%	—	—	INSIGHT S IAS 2026
85	PCOS Prevalence	Women affected by Polycystic Ovary Syndrome	%	—	—	—	—	20% (one in five Indian women)	—	—	INSIGHT S IAS 2026
86	Delayed Parenthood Trend	Women seeking fertility treatment after age 35	% increase	—	—	Bengaluru, Mumbai (25% increase in 2025-26)	—	25% increase (urban hubs)	—	—	INSIGHT S IAS 2026
87	IVF Market Size	Annual value of fertility treatment market	USD Million	—	—	West India (largest market)	East India (smallest market)	\$961 Million (2024); projected \$1,492 Million (2030)	Global IVF market ~\$15 billion	—	GII Research 2025
88	IVF Market Growth Rate	Compound Annual Growth Rate	%	—	—	—	—	7.80% (2025-2030)	—	—	GII Research 2025
89	IVF Cycle Cost	Average cost per IVF cycle	₹ Lakhs	—	—	Varies by city and clinic	Varies by city and clinic	₹1.5-3 lakhs	USA \$15,000-	—	INSIGHT S IAS 2026

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S. No	Indicator	Formula	Unit	AP Value	Periodicity	Top 3 States (India)	Bottom 3 States (India)	National Value	Top 3 Countries	Bottom 3 Countries	Source
90	Health Insurance Coverage for IVF	Policies covering infertility treatment	%	—	—	—	—	<10%	UK 100% (NHS coverage varies by state)	—	INSIGHT S IAS 2026
91	Male Fertility Screening Delay	Average delay in men seeking first fertility screening	Years	—	—	—	—	3-5 years longer than women	—	—	INSIGHT S IAS 2026
92	Hysterectomy Rate (Reproductive Age)	Women in reproductive age group who have undergone hysterectomy	%	Higher than national average	Recent Study	Andhra Pradesh; Telangana (highest rates)	Assam; Mizoram (lowest rates)	4.8% of women in reproductive age group	—	—	The New Indian Jan 2026
93	Hysterectomy Rate (All Women)	Women reporting hysterectomy (NFHS-5)	%	4.5	Triennial	AP 4.5; Telangana 4.2; Bihar 4.0	Mizoram 0.5; Nagaland 0.7; Manipur 0.8	3.3	Data not available systematically	Data not available systematically	NFHS-5

Summary of Key Data Sources

Source	Full Name	Periodicity	Key Indicators Covered
UN WPP 2024	United Nations World Population Prospects 2024	Annual	Population, median age, TFR, growth rate, urbanization, migration

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Source	Full Name	Periodicity	Key Indicators Covered
NFHS-5	National Family Health Survey 5 (2019-21)	Triennial	TFR, CPR, unmet need, anemia, marriage age, sterilization, son preference
SRS	Sample Registration System	Annual	CBR, CDR, IMR, MMR, age-specific fertility
HMIS	Health Management Information System	Monthly/Annual	Institutional delivery, ANC, immunization, SRB, postpartum FP
PLFS	Periodic Labour Force Survey	Annual	Workforce participation, male/female LFPR
UDISE+	Unified District Information System for Education	Annual	School enrollment, dropout rates, completion rates
AISHE	All India Survey on Higher Education	Annual	Higher education enrollment, GER
CRS	Civil Registration System	Annual	Birth rate, death rate, SRB
NSS	National Sample Survey	Quinquennial	Migration, housing, consumption, education mobility
NHM MIS	National Health Mission Management Information System	Monthly/Annual	ASHA coverage, family planning uptake
NSO	National Statistical Office	Various	Dependency ratios, productivity, income
NITI Aayog	NITI Aayog	Periodic	MPI poverty, HDI
INSIGHTS IAS 2026	Educational Resource (citing government data)	2026	Infertility prevalence, male/female factors, IVF costs, PCOS prevalence
GII Research 2025	Market Research Report	2025	IVF market size, growth rate, regional distribution
The New Indian 2026	News Media (citing recent study)	Jan 2026	Hysterectomy rate among reproductive age women (4.8%)