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# Classical Yogic Etiology as a Preventive Health-Economic Model for Non-Communicable Diseases in India

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***Abstract*— India faces an escalating macroeconomic burden from non-communicable diseases (NCDs), driven by out-of-pocket household spending on lifelong pharmacotherapy and tertiary hospitalization. While contemporary health economics treats chronic illness after clinical onset, classical yogic literature conceptualizes disease (Vyadhi) as a sequential breakdown of behavioural, neuro-cognitive, autonomic, and structural self-regulation. This paper synthesizes the Bhagavad Gita, Patanjali's Yoga Sutras, Hatha Yoga Pradipika, and Gheranda Samhita into a four-tier preventive health-economic model shifting public healthcare demand toward zero-marginal-cost primary prevention under India's integrative AYUSH policy framework.**

***Keywords*— Bhagavad Gita, Gheranda Samhita, Hatha Yoga Pradipika, health economics, non-communicable diseases, Patanjali's Yoga Sutras**

## I. Introduction

Non-communicable diseases account for 61.8% of mortality, 55.4% of disability-adjusted life years (DALYs), and 5%–10% of gross domestic product (GDP) losses in India [1]. Because conventional health systems intervene after clinical manifestation, households face severe financial vulnerability: mean annual direct outpatient costs reach ₹30,000 for diabetes and ₹48,000 for cardiovascular disease, while direct inpatient hospitalization averages ₹90,000 for cardiovascular events, with lifelong medication and diagnostics driving catastrophic healthcare expenditure [1]. Although the National Health Policy (NHP) 2017 proposes raising public health spending from 1.15% to 2.5% of GDP and prioritizes medical pluralism across AYUSH and biomedical systems, expanding tertiary insurance coverage cannot contain costs if pre-clinical incidence remains unaddressed [2,3]. Consequently, this paper addresses a central theoretical question: How can a four-stage etiological model synthesized from the Bhagavad Gita, Patanjali's Yoga Sutras, the Hatha Yoga Pradipika, and the Gheranda Samhita restructure India's health-sector economics from catastrophic tertiary expenditure toward zero-marginal-cost primary prevention of NCDs?

## I. Four-Stage Etiological Synthesis From Classical Yogic Literature

Classical yogic texts conceptualize chronic pathology (Vyadhi) as the cumulative exhaustion of internal homeostasis. Synthesizing four canonical scriptures yields a sequential preventive architecture intercepting NCD pathogenesis across four physiological stages prior to clinical onset.

### *A. Behavioural Stage*

First, at the behavioural stage, the Bhagavad Gita (6.16–17, 2.48, and 2.63) formulates Yukta-ahara-vihara (regulated nutrition, exertion, and sleep-wake cycles) alongside Samatvam (affective equanimity) [4]. By restraining sensory compulsion and preventing stress-induced cognitive derangement (Smritibhramsha), this discipline blunts counter-regulatory hormone surges and glycemic distress in pre-diabetic and hypertensive populations [4,5].

### *B. Neuro-Cognitive Stage*

Second, at the neuro-cognitive stage, Patanjali's Yoga Sutras (1.30 and 2.3–4) identifies Vyadhi as a psychosomatic obstacle (Antaraya) sustained by cognitive afflictions (Kleshas) and autonomic volatility [2]. Practicing Ashtanga Yoga—moving from socio-ethical restraints (Yama, Niyama) and sensory withdrawal (Pratyahara) to meditation (Dhyana)—downregulates hypothalamic-pituitary-adrenal (HPA) axis hyperreactivity, modulates the ghrelin axis in metabolic syndrome, and normalizes neuro-immune inflammatory biomarkers [2].

### *C. Autonomic-Metabolic Stage*

Third, at the autonomic-metabolic stage, Swatmarama's Hatha Yoga Pradipika (2.21–22) mandates the six Shatkarma cleansing procedures (Dhauti, Basti, Neti, Trataka, Nauli, Kapalabhati) prior to Pranayama whenever excess Medas (adiposity) and Kapha obstruct physiological channels [6]. Empirical studies confirm that Kapalabhati and Dhauti promote metabolic oxidation, enhance pulmonary vital capacity, and counter central obesity without pharmacological dependency [6].

*D. Structural-Physiological Stage*

Fourth, at the structural-physiological stage, Maharshi Gheranda's Gheranda Samhita (1.9–12) codifies Saptanga Ghatastha Yoga—conditioning the bodily vessel through Shatkarma, Asana, Mudra, Pratyahara, Pranayama, Dhyana, and Samadhi—to elevate vagal tone, cardiorespiratory endurance, and neuro-endocrine resilience [2,6].

## II. Integrative Healthcare Policy And Health-Economic Resolution

Answering the research question requires translating this four-text hierarchy into public health finance. Unlike chronic pharmacotherapy, which imposes recurring marginal costs per patient-day, Yukta-ahara-vihara, Ashtanga self-regulation, and Ghatastha practices are non-pharmacological skills whose marginal cost of daily replication approaches zero once acquired [5,6]. Embedding this standardized four-tier protocol into India's Primary Health Centers and Ayushman Bharat Health and Wellness Centres under the National AYUSH Mission operationalizes the NHP 2017 mandate for integrative preventive healthcare [3,5].

## II. Conclusion

Mainstreaming a four-stage classical yogic preventive protocol within primary healthcare substitutes low-cost community instruction for capital-intensive tertiary hospitalization, compressing out-of-pocket household morbidity costs while preserving national labour productivity [1,3,5].

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