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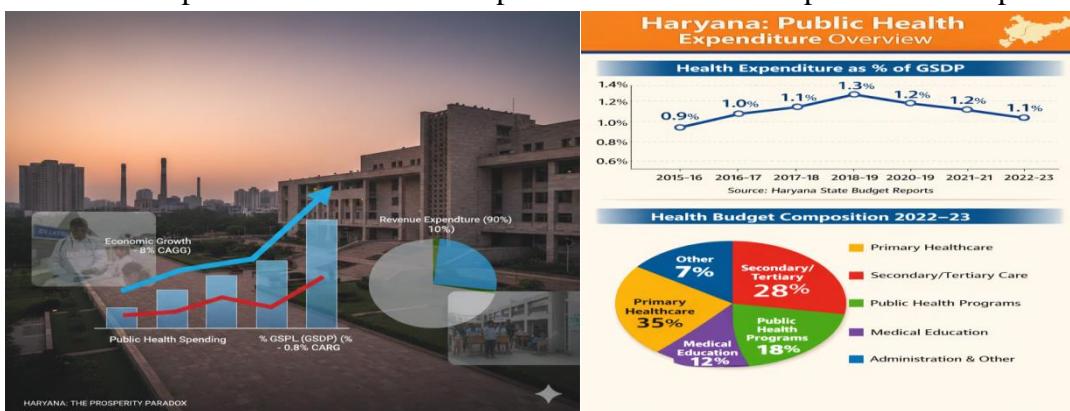
Trends and Composition of Public Health Expenditure in Haryana

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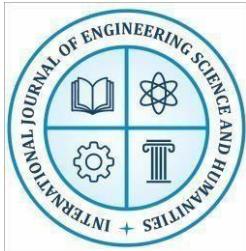
Abstract

Background: Public health expenditure is a critical determinant of human capital development and long-term economic sustainability. In the context of the Indian federal structure, states bear the primary responsibility for health service delivery. Haryana, despite being one of India's economically wealthiest states with a high per capita income, presents a complex landscape of health outcomes and fiscal priorities.

Objective: This study examines the trends, growth, and structural composition of public health expenditure in Haryana over the period [Insert Years, e.g., 2001–2022]. It seeks to evaluate whether the state's fiscal allocation toward the health sector has kept pace with its economic growth and to identify shifts between revenue and capital spending.

Methodology: The study utilizes secondary data sourced from the Statistical Abstract of Haryana, Annual Financial Statements (Budget Documents), and RBI Reports on State Finances. Analytical tools, including Compound Annual Growth Rates (CAGR), trend analysis, and ratio analysis (Health Expenditure as a % of GSDP and Total Budget), are employed to assess fiscal commitment and allocated efficiency.

Findings: Preliminary analysis reveals a steady absolute increase in health spending; however, as a proportion of State Gross Domestic Product (SGDP), the allocation remains below the National Health Policy target of 2.5%. The composition of expenditure is heavily skewed toward Revenue Expenditure (salaries, administrative costs, and recurring operational expenses), often exceeding 90% of the total health budget. Conversely, Capital Expenditure essential for infrastructure expansion shows a volatile and relatively stagnant trend. Furthermore, a significant portion of the budget is concentrated in tertiary care and administrative regulation, potentially at the expense of primary healthcare and research.



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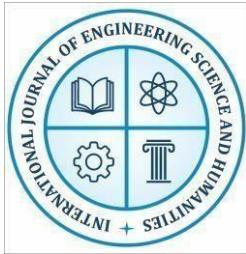
Conclusion: The study highlights a "fiscal-health gap" in Haryana, where economic prosperity has not proportionately translated into robust public health investment. The findings suggest a need for a strategic shift in the composition of spending, emphasizing increased capital outlay and rural health infrastructure. Policy interventions should focus on improving the quality of revenue spending and ensuring that fiscal allocations are aligned with the state's evolving demographic and epidemiological transition.

Keywords: Public Health Expenditure, Haryana Economy, Revenue vs. Capital Expenditure, Human Capital, Fiscal Policy, Health Outcome.

1.1 Introduction

Various financing sources are used to support the health sector in India. They include the central government, state government, local government, and household, as well as businesses, NGOs, and external funding sources. The public expenditures are those made by the federal, state, and local governments. Public spending is divided into two major categories in the budget. Revenue Account and Capital Account, One is the Revenue Expenditure Account. Revenue expenditure includes the expenditure required for normal operations. It neither creates assets nor reduces liabilities, and the second is the Capital Expenditure Account, which reduces liabilities or creates assets through capital expenditure. Transactions related to the health sector in India are reported under the two primary accounts' Medical & Public Health and Family Welfare headings. The objective is to examine the trends and composition with regard to government expenditure on health in Haryana during the period of 2001–02 to 2021–22. The study focuses on the costs paid by the Haryana State Government for the health sector. It covers the period from 2001–02 to 2021–22. The "Annual Financial Statements" of State Budgets from various years, which are accessible on the Ministry of Finance website, the Economic Survey of Haryana, Budget of Haryana, Statistical Handbook of Haryana, and Sample Registration System (SRS) Bulletin for the study's analysis of government expenditures on the health sector in Haryana. The present chapter examines the trends and composition of public expenditure in Haryana. The study period is from 2001–02 to 2021–22. The public expenditure data have been used in the chapter to understand the trend in revenue and capital expenditure in Haryana.

Haryana, one of the economically advanced states in India, presents an interesting case for analyzing public health expenditure. While the state has experienced rapid economic growth and urbanization, it continues to face significant health challenges related to demographic change, lifestyle diseases, and regional disparities in access to healthcare. An examination of the trends and composition of public expenditure on health in Haryana is therefore essential to understand how budgetary priorities have evolved over time and how resources are distributed between revenue and capital components, preventive and curative services, and administrative and infrastructural spending. Such an analysis provides valuable insights into the effectiveness of public spending patterns and helps identify policy gaps that may hinder the achievement of better health outcomes and sustainable development in the state.



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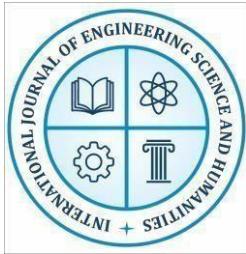
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The chapter has made an attempt to explore the trends and composition of public health expenditure in Haryana during the period from 2000-01 to 2022-23. The chapter has been divided into three sections: Section (1) provides an overview of the trends and composition of public health expenditure, offering key insights into changes in the level and structure of spending. Section (2) presents a graphical analysis of public health expenditure to illustrate trends and compositional shifts over time. Section (3) has conclusion and policy recommendation. The concludes the chapter by summarizing the major findings and offering aimed at improving the efficiency and effectiveness of public health spending in Haryana.

1.2 Review of Literature Trends and Composition of Public Health Expenditure

Public health expenditure has been widely recognized as a crucial determinant of population health outcomes and economic development. A substantial body of literature has examined the trends, growth patterns, and compositional changes in public health spending across countries, states, and regions, highlighting its role in improving health infrastructure, service delivery, and overall well-being. Early studies emphasize the importance of government intervention in the health sector due to market failures, information asymmetry, and the public good nature of healthcare services. Musgrave (1959) and Arrow (1963) argue that public spending on health is essential to ensure equity and access, particularly for vulnerable sections of society. These foundational works provide the theoretical basis for analyzing public health expenditure trends. Several international studies have analyzed long-term trends in public health expenditure. Wagner's Law suggests that as economies grow, public expenditure, including health spending, tends to increase both in absolute terms and as a share of national income. Empirical studies by Hitiris and Posnett (1992) and Newhouse (1992) confirm that income growth, demographic transition, and technological advancement significantly influence rising health expenditure. These studies find that health spending tends to grow faster than GDP, especially in developing economies undergoing epidemiological transitions. In the Indian context, research highlights chronically low levels of public health expenditure relative to global standards. Gupta and Bagchi (2007) observe that India's public health spending has remained below 2 percent of GDP for most periods, leading to heavy reliance on private healthcare and high out-of-pocket expenditure. Baru et al. (2010) argue that insufficient public funding has resulted in regional disparities in health infrastructure and service availability. A growing strand of literature focuses on the composition of public health expenditure, distinguishing between revenue and capital expenditure. Studies by Mahal et al. (2010) and Rao and Choudhury (2012) reveal that a dominant share of health spending in India is devoted to revenue expenditure, such as salaries, medicines, and maintenance, while capital expenditure on infrastructure and equipment remains relatively low. This imbalance is argued to constrain long-term capacity building in the health sector. State-level analyses provide further insights into inter-regional variations. Studies on Indian states by Berman et al. (2010) and Devadasan et al. (2014) show that richer states tend to allocate higher per capita health expenditure, while poorer states struggle with inadequate funding and inefficient spending patterns. These studies also note that expenditure

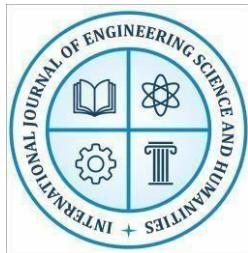


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composition varies significantly across states, with some prioritizing curative services over preventive and promoted care. Recent literature has examined the impact of health sector reforms and national programmes on expenditure trends. Hooda (2015) and MoHFW (2019) document a noticeable increase in public health spending following the introduction of the National Rural Health Mission (NRHM) and later the National Health Mission (NHM). These programmes shifted spending priorities towards primary healthcare, maternal and child health, and disease control, altering the composition of health expenditure in favor of preventive and promoted services. Studies focusing on the post-2015 period highlight renewed policy attention to health, particularly after the adoption of the Sustainable Development Goals (SDGs). Chakraborty (2020) notes that although public health expenditure has increased in absolute terms, it remains inadequate relative to population needs and rising healthcare costs. Moreover, the COVID-19 pandemic led to a temporary surge in health spending, primarily on emergency response and public health infrastructure, as observed by Reddy et al. (2021). Despite these increases, several scholars point out persistent challenges related to efficiency and equity. Prinja et al. (2018) argue that higher spending does not automatically translate into better health outcomes unless accompanied by effective governance and appropriate expenditure composition. Similarly, Sen et al. (2022) emphasize the need to rebalance health expenditure towards primary healthcare and preventive services to ensure sustainable health improvements. In summary, the literature reveals that while public health expenditure has shown an increasing trend over time, its composition remains skewed towards revenue and curative spending, with relatively limited allocation to capital formation and preventive care. The relationship between public health expenditure and health system performance has been a central theme in health economics and public finance literature. Beyond the level of spending, scholars increasingly emphasize the structure and composition of health expenditure as a decisive factor influencing health outcomes, equity, and system efficiency (WHO, 2010). Cross-country analyses reveal that countries with higher public health spending tend to achieve better health outcomes, including lower infant and maternal mortality and higher life expectancy (Reinhardt et al., 2004). However, recent studies argue that how health resources are allocated across preventive, promotive, and curative services matters more than the absolute volume of expenditure (OECD, 2019). Excessive focus on curative care has been shown to increase costs without proportionate improvements in population health. Theoretical contributions rooted in public finance theory suggest that health expenditure should be treated as an investment in human capital rather than consumption Grossman (1972). Grossman's health demand model highlights the long-term productivity gains from preventive and primary healthcare spending. Empirical evidence by Bloom, Canning, and Sevilla (2004) supports this argument, demonstrating that improved population health contributes significantly to economic growth, particularly in developing countries. In developing economies, public health expenditure trends often reflect fiscal constraints and competing budgetary priorities. Studies by Heller (2006) and Wagstaff (2010) study that limited fiscal space results in underinvestment in health, forcing



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households to rely on private healthcare. This pattern is particularly evident in India, where public health expenditure has historically remained low, leading to high out-of-pocket expenditure and increased vulnerability to catastrophic health spending Berman et al (2010).

The existing studies underscore the importance of not only increasing the quantum of health spending but also improving its composition to achieve equitable and efficient health outcomes. However, there remains a gap in district-level analyses that simultaneously examine trends and compositional changes over an extended period, particularly in the context of Indian states such as Haryana. Addressing this gap forms the basis of the present study.

1.2.1 Research Gap

The review of existing literature reveals several important gaps that justify the need for the present study. Most studies concentrate on the aggregate level of public health expenditure, emphasizing total spending or expenditure as a percentage of GDP or GSDP. However, limited attention has been paid to the composition of health expenditure, especially the relative shares of revenue and capital expenditure and their implications for long-term health system strengthening. Consequently, the existing literature does not adequately explain how changes in expenditure composition influence health infrastructure development and service delivery. Some research explores the relationship between public health expenditure and health outcomes, few studies integrate demographic and health indicators such as birth rate, death rate, infant mortality rate, maternal mortality ratio, and life expectancy within a unified analytical framework. As a result, the linkage between expenditure trends, expenditure composition, and demographic-health outcomes remains underexplored at the state level. There is limited evidence focusing on Haryana specifically, despite its relatively high economic growth and persistent health disparities across districts. So find the following research gap: -

- Few studies on the Haryana public health expenditure trends.
- Studies do not include various health indicators as DR, BR, IMR, MMR and LE.
- Studies do not show the trends of revenue expenditure and capital expenditure on health.
- Studies do not show the trends of health infrastructure in Haryana.
- Studies do not show the trends of the health workforce in health sectors

1.3 Main Objective of the Study

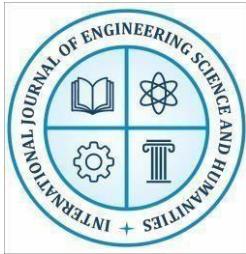
The proposed study is an attempt at public health expenditure in the Haryana state. The main objective of the study is to examine the trends and composition of public health expenditure in Haryana over the period 2001–2022: -

- Examine the trend of health indicators as BR, DR, IMR, MMR and LE.
- Examine the trend of healthcare infrastructure.
- Examine the trend of healthcare workforce.

1.4 Data and Techniques

Data Sources

The present study is based entirely on secondary data collected from various official and published sources. The analysis uses a dataset for Haryana covering the period 2001–2022.



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Data on public health expenditure (revenue and capital expenditure) were collected from the *Finance Accounts of the Government of Haryana*, published by the Comptroller and Auditor General (CAG) of India, and the *Statistical Abstracts of Haryana* issued by the Department of Economic and Statistical Analysis, Government of Haryana. Information on demographic and health indicators, namely Birth Rate (BR), Death Rate (DR), Infant Mortality Rate (IMR), Maternal Mortality Ratio (MMR), and Life Expectancy (LE), was obtained from the *Sample Registration System (SRS)* reports published by the Registrar General of India (RGI), *National Family Health Survey (NFHS)* reports, and publications of the Ministry of Health and Family Welfare. Population data required for computing rates were sourced from the *Census of India* (2001 and 2011) and inter census population projections.

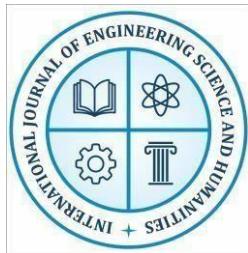
Techniques of Analysis

To achieve the objectives of the study, the following statistical and econometric techniques were employed:

- **Descriptive Analysis:** Simple statistical measures such as percentages, averages, growth rates, and ratios were used to analyze the trend and composition of public health expenditure.
- **Graphical Analysis:** Line graphs and bar diagram were used to depict trends in public health expenditure and changes in its composition over time.
- **Growth Rate Analysis** Compound Annual Growth Rate (CAGR) was calculated to examine the growth pattern of public health expenditure.

Table-1: List of Variables Used in the Study

Variable	Symbol	Measurement
Birth Rate	BR	Number Of Live Births Per 1,000 Population
Death Rate	DR	Number Of Deaths Per 1,000 Population
Infant Mortality Rate	IMR	Infant Deaths Per 1,000 Live Births
Maternal Mortality Ratio	MMR	Maternal Deaths Per 100,000 Live Births
Life Expectancy at Birth	LE	Years
Revenue Expenditure on health	REH	Lakh
Capital expenditure on health	CEH	Lakh
Total Public expenditure on health	TPEH	Lakh
Doctors, Nurses	Doc. Nur.	Numbers
Community Health Centres	CHC	Numbers
Civil Hospital	CH	Numbers
Primary Health Centres	PHCs	Numbers



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Dispensaries	Dis.	Numbers
Sub-Health Centre	Sub. HC	Numbers

Sources: The Authors

1.5 Trends of Percentage of Public Health Expenditure to the Total Public Expenditure in Haryana

Chart-1 provides the percentage of public expenditure on health in Haryana by revenue expenditure on health, capital expenditure on health, and total public expenditure on health.

Chart-1: Trends of Percentage of Public Health Expenditure to the Total Public Expenditure in Haryana

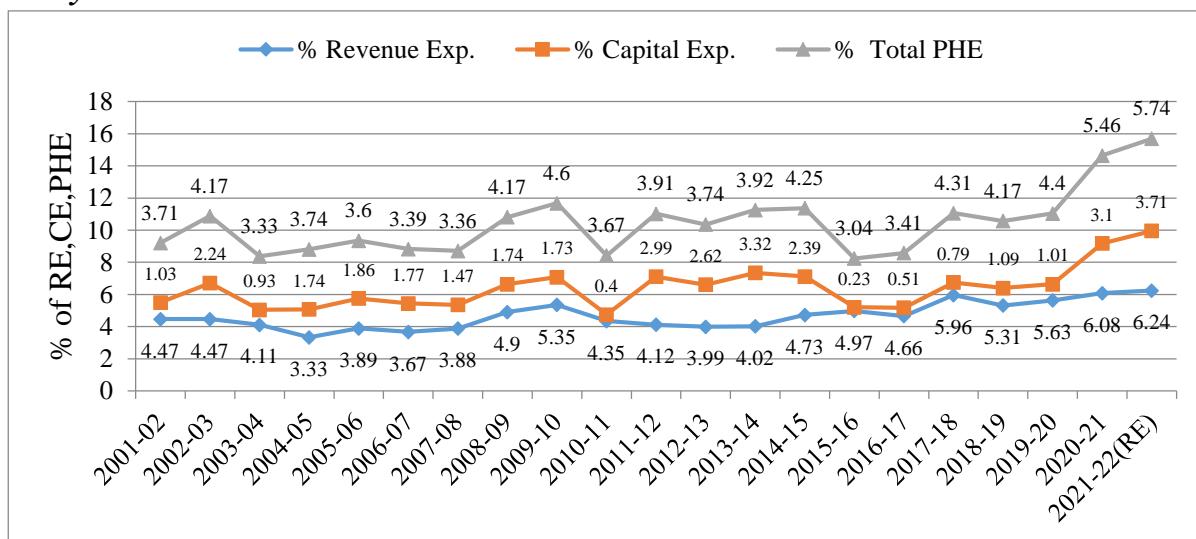
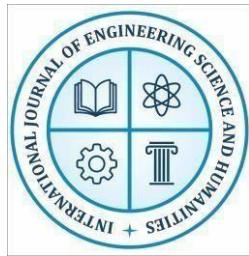


Chart-1 shows trends in the Share of Public Health Expenditure in Revenue, Capital and Total Expenditure in Haryana: The figure illustrates the trend in the percentage share of public health expenditure in revenue expenditure (RE), capital expenditure (CE), and total public expenditure of Haryana during the period 2001–02 to 2021–22 (RE). The revenue expenditure share of public health shows a gradual upward trend over the study period. In the early years (2001–02 to 2007–08), it remained relatively stable at around 3.3–4.5 per cent, indicating limited prioritization of health within revenue spending. From 2008–09 onwards, the share increased steadily, reaching above 5 per cent in several years. A notable rise is observed after 2017–18, culminating at 6.24 per cent in 2021–22 (RE), reflecting increased spending on salaries, medicines, and health services, particularly during the COVID-19 period. In contrast, the capital expenditure share of public health is marked by high volatility throughout the period. Although it peaked in 2013–14 (around 3.3 per cent) and again rose sharply in 2020–21 and 2021–22 (RE), it remained below 2 per cent in most years, with sharp declines during 2010–11 and 2015–16. This pattern indicates irregular and project-based investment in health infrastructure rather than sustained capital formation. The share of total public health expenditure exhibits an overall upward trend, though with significant fluctuations. It increased from about 3.7 per cent in 2001–02 to above 4.5 per cent in 2009–10, followed by a decline



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during 2010–11 to 2015–16, reaching a low of around 3.0 per cent. Thereafter, a strong recovery is evident, particularly after 2017–18, with the share rising sharply to 5.74 per cent in 2021–22 (RE). This sharp increase reflects heightened public health priorities, emergency health spending, and infrastructure expansion during the pandemic years.

1.6 Public Health Expenditure and Health Indicators

The composition of public health expenditure plays a crucial role in determining the performance of health systems and the outcomes reflected in key health indicators. Public health expenditure is generally divided into revenue expenditure, which supports the provision and maintenance of ongoing health services, and capital expenditure, which focuses on the creation and upgradation of health infrastructure. The balance between these components influences the accessibility, quality, and sustainability of healthcare services and, in turn, affects health indicators such as infant mortality rate, maternal mortality ratio, life expectancy, and disease prevalence.

Chart-2: Trends of Birth Rate, Death Rate and Life expectancy in Haryana

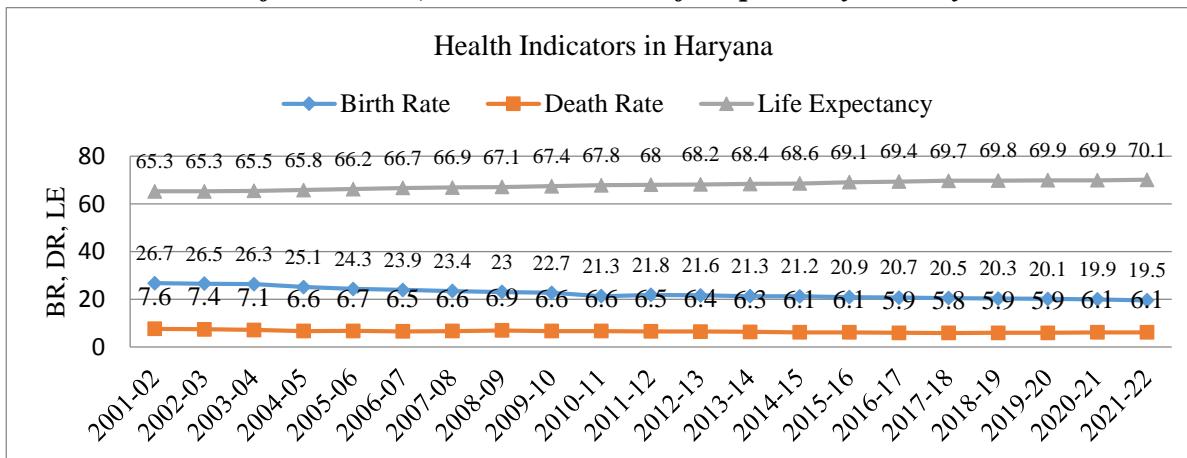
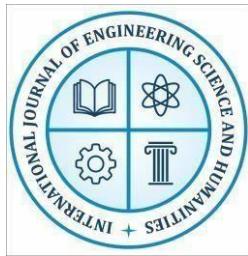


Chart-2 shows Health Outcome Indicators in Haryana: The table presents trends in major demographic and health outcome indicators in Haryana during the period 2001–02 to 2021–22, including Birth Rate (BR), Death Rate (DR), Infant Mortality Rate (IMR), Maternal Mortality Ratio (MMR), and Life Expectancy at Birth. These indicators collectively reflect the overall health status and effectiveness of the public health system. The birth rate shows a consistent declining trend over the study period, falling from 26.7 per thousand populations in 2001–02 to 19.5 in 2021–22. This decline reflects increased female literacy, improved access to family planning services, delayed marriages, and greater awareness of reproductive health, indicating progress in demographic transition. Similarly, the death rate declined from 7.6 in 2001–02 to around 5.8–6.1 in the later years, signifying improvements in healthcare access, disease control, and living conditions. Minor fluctuations in recent years, particularly during 2020–21 and 2021–22, attributed to the COVID-19 pandemic. A significant improvement is observed in the Infant Mortality Rate (IMR), which declined sharply from 65 per 1,000 live births in 2001–02 to 27 in 2019–20. Although IMR marginally increased to 28 during 2020–21 and 2021–22, the overall



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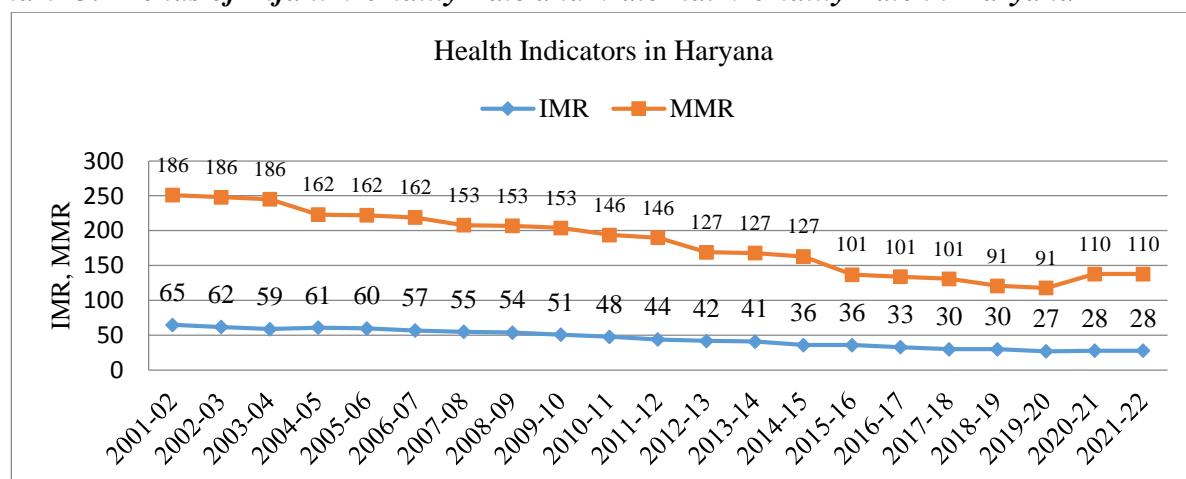
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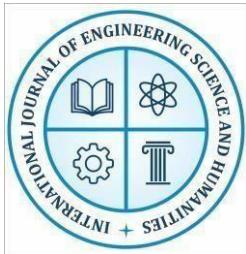
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long-term trend remains strongly downward, reflecting enhanced maternal and child health services, immunization coverage, and institutional deliveries. The Maternal Mortality Ratio (MMR) also shows a substantial decline, falling from 186 per 100,000 live births in the early 2000s to 91 by 2018–19, indicating notable improvements in antenatal care, emergency obstetric services, and skilled birth attendance. The increase to 110 during 2020–21 and 2021–22 suggests pandemic-related disruptions in maternal health services. Life expectancy at birth exhibits a steady upward trend, increasing from 65.3 years in 2001–02 to 70.1 years in 2021–22. This improvement reflects cumulative gains in nutrition, healthcare delivery, disease management, and public health interventions. The table clearly indicates that Haryana has experienced significant improvements in health outcomes over the past two decades, particularly in terms of reduced fertility, lower infant and maternal mortality, and increased life expectancy. These improvements broadly coincide with the gradual increase in public health expenditure, especially in the post-2010 period. However, the temporary reversals observed during the pandemic years highlight the need for sustained and resilient investment in public health infrastructure and services.

Reasons: trends in major health indicators in Haryana during 2001–02 to 2021–22 highlights significant demographic and health advancements over the last two decades. The birth rate in Haryana exhibits a continuous and marked decline during this period. Based on Sample Registration System (SRS) data, the combined birth rate fell from around 26.8 per thousand populations in the early 2000s to approximately 19.9 per thousand by 2020, indicating substantial progress in fertility reduction and demographic transition. This downward trend reflects improvements in access to family planning services, increased female education and labour force participation, urbanization, and heightened community awareness of reproductive health. Similarly, the death rate shows a long-term decreasing trend over most of the study period. Nonetheless, the overall decline underscores improvements in healthcare access, disease prevention and control, and overall living conditions. In contrast to the declining birth and death rates, life expectancy at birth in Haryana has shown a consistent upward trajectory over the past two decades.

Chart -3: Trends of Infant Mortality Rate and Maternal Mortality Rate in Haryana





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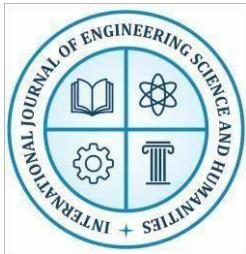
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Chart-3 shows Trends in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) in Haryana: The figure illustrates the trends in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) in Haryana over the period 2001–02 to 2021–22, reflecting the state's progress in maternal and child health outcomes. The Infant Mortality Rate (IMR) shows a marked and sustained decline throughout the study period. IMR decreased from 65 deaths per 1,000 live births in 2001–02 to 30 by 2017–18, and further to 27 in 2019–20. This substantial reduction highlights the effectiveness of expanded immunization coverage, improved antenatal and postnatal care, increased institutional deliveries, and better neonatal healthcare services. A slight increase to 28 is observed during 2020–21 and 2021–22, which can be attributed to pandemic-related disruptions in maternal and child health services, though the long-term declining trend remains intact. Similarly, the Maternal Mortality Ratio (MMR) exhibits a significant downward trend, falling from 186 maternal deaths per 100,000 live births in the early 2000s to 101 during 2015–16 to 2017–18, and further to 91 in 2018–19 and 2019–20. This decline reflects improvements in skilled birth attendance, emergency obstetric care, and access to health facilities. However, the figure shows a temporary reversal in 2020–21 and 2021–22, with MMR rising to 110, likely due to health system stress and reduced access to maternal services during the COVID-19 pandemic. The figure clearly demonstrates that Haryana has achieved considerable improvements in maternal and child health over the past two decades, with sharp reductions in both IMR and MMR. These improvements broadly coincide with increased public health expenditure and expanded health infrastructure.

Reasons behind the trends in IMR and MMR in Haryana: The substantial decline in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) in Haryana over the period 2001–02 to 2021–22 can be attributed to multiple interrelated factors. Expanded immunization coverage under programs such as the National Rural Health Mission (NRHM) and the Universal Immunization Programme significantly reduced preventable infant and maternal deaths (NHM, 2020). Vaccination against common childhood diseases such as measles, polio, and tuberculosis decreased the incidence of life-threatening infections in infants, contributing to the decline in IMR. Second, improvements in maternal healthcare services including increased institutional deliveries, better antenatal and postnatal care, and skilled birth attendance have played a critical role in reducing maternal deaths. The Janani Suraksha Yojana (JSY) and similar state-specific schemes provided financial incentives for institutional deliveries, ensuring that mothers had access to trained personnel and emergency obstetric care, which directly impacted MMR reduction (MoHFW, 2021).

1.7 Public Health Workforce in Public Health Sector in Haryana

The public health workforce constitutes a vital pillar of the health system, as it directly determines the availability, accessibility, and quality of healthcare services. The effectiveness of public health



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interventions depends not only on financial allocations and physical infrastructure but also on the adequacy, skill composition, and distribution of health personnel across different levels of care. Table-3 shows the numbers of human resources doctors, nurses, in the state.

Chart -4: Trends number of Doctors and Nurses in Public Health Sector in Haryana

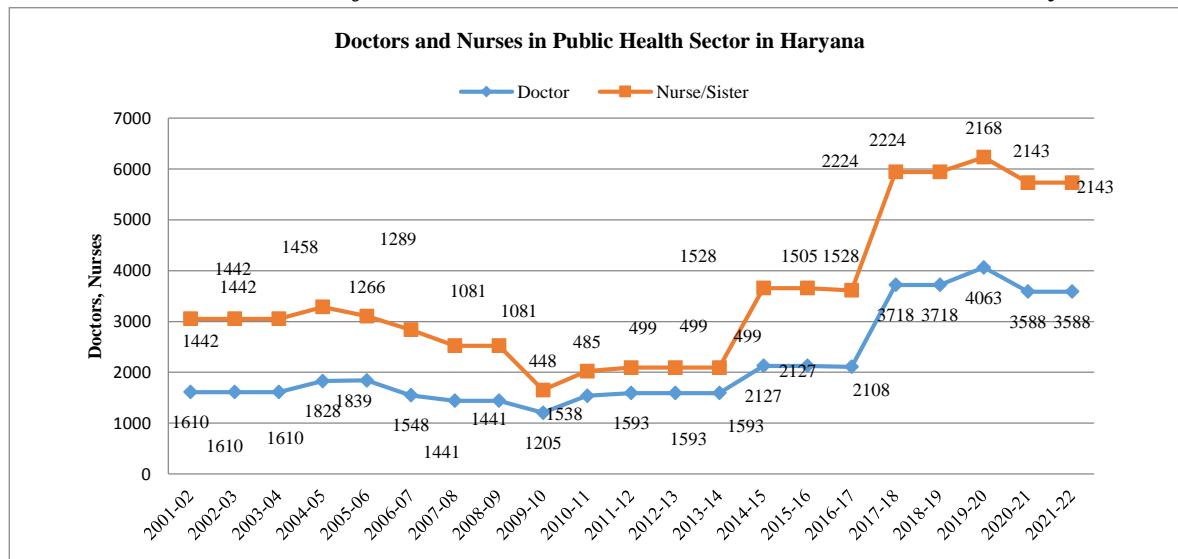
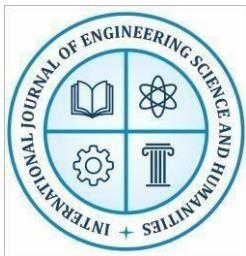


Chart-4 shows Doctors and Nurses in the Public Health Sector in Haryana: The figure depicts the trend in the availability of doctors and nurses/sisters in the public health sector of Haryana from 2001–02 to 2021–22, reflecting the state's capacity to deliver essential healthcare services. The number of doctors remained stagnant during the early 2000s, with 1,610 doctors recorded consistently from 2001–02 to 2003–04. A moderate increase was observed during 2004–05 and 2005–06, reaching 1,839 doctors, followed by a decline between 2006–07 and 2009–10, when the number fell sharply to 1,205. This contraction may be attributed to recruitment constraints, retirements, or limited expansion of public sector posts during this period. However, a steady recovery is evident after 2010–11, with a significant surge post 2016–17, culminating in a peak of 4,063 doctors in 2019–20. Although a marginal decline occurred during the COVID-19 years, the number stabilized at 3,588 doctors in 2021–22, indicating a substantial long-term improvement in medical manpower. In contrast, the trend for nurses/sisters shows greater volatility. The number remained constant at 1,442 from 2001–02 to 2003–04, followed by a gradual decline and a sharp fall to 448 in 2009–10, suggesting a severe shortage of nursing personnel during the late 2000s. This imbalance may have adversely affected service delivery, given the critical role of nurses in inpatient care and primary health services. A notable turnaround is observed from 2014–15 onwards, when the number of nurses increased sharply to 1,528, and further to over 2,200 during 2017–18 to 2019–20. Despite a slight reduction during 2020–21 and 2021–22, the nursing workforce remains significantly higher than in earlier periods.



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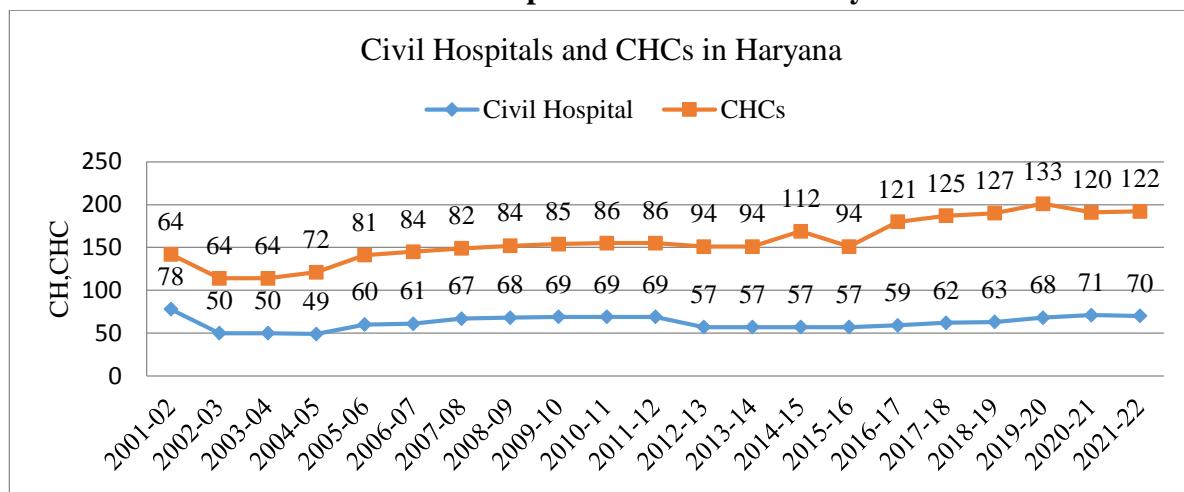
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1.8 Public Health Expenditure and Health Infrastructure in Haryana

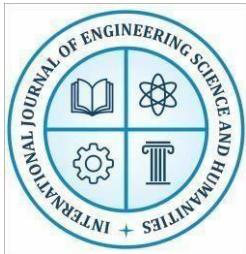
The well-structured public health infrastructure increases the health quality of the population; therefore, health infrastructure is one of the most important factors in the health sector. It comprises civil hospitals, community health centres, public health centres, primary health centres, sub-centres, and dispensaries across rural and urban areas, as well as tertiary medical care, proving the multispecialty hospitals, which are located almost exclusively in urban areas. Table-6 shows data on civil hospitals, community health centres, public health centres, primary health centres, sub-centres, and dispensaries in Haryana.

Chart -5: Trends Number of Civil Hospitals and CHCs in Haryana



Sources: The Authors

Trend Analysis of Civil Hospitals and CHCs in Haryana: The figure depicts the growth pattern of Civil Hospitals and Community Health Centres (CHCs) in Haryana over the period 2001–02 to 2021–22, highlighting the state's efforts to strengthen public health infrastructure. Civil Hospitals The figure shows the trend in the number of Civil Hospitals and Community Health Centres (CHCs) in Haryana from 2001–02 to 2021–22 and reflects the changing priorities in the state's public health infrastructure. The number of civil hospitals declined sharply in the early 2000s from 78 in 2001–02 to about 49–50 during 2002–05, possibly due to reorganisation or reclassification of health facilities. Thereafter, a gradual recovery is observed, with the number increasing to around 69 by 2011–12. This was followed by a period of stagnation and slight decline between 2012–13 and 2015–16, when the number remained around 57 hospitals. From 2016–17 onwards, civil hospitals again show a modest upward trend, reaching 70 in 2021–22. Overall, the growth of civil hospitals has been slow and uneven, indicating limited expansion at the secondary level of healthcare. In contrast, the number of CHCs shows a generally rising trend over the study period, highlighting a stronger emphasis on community-level healthcare. After some fluctuations in the



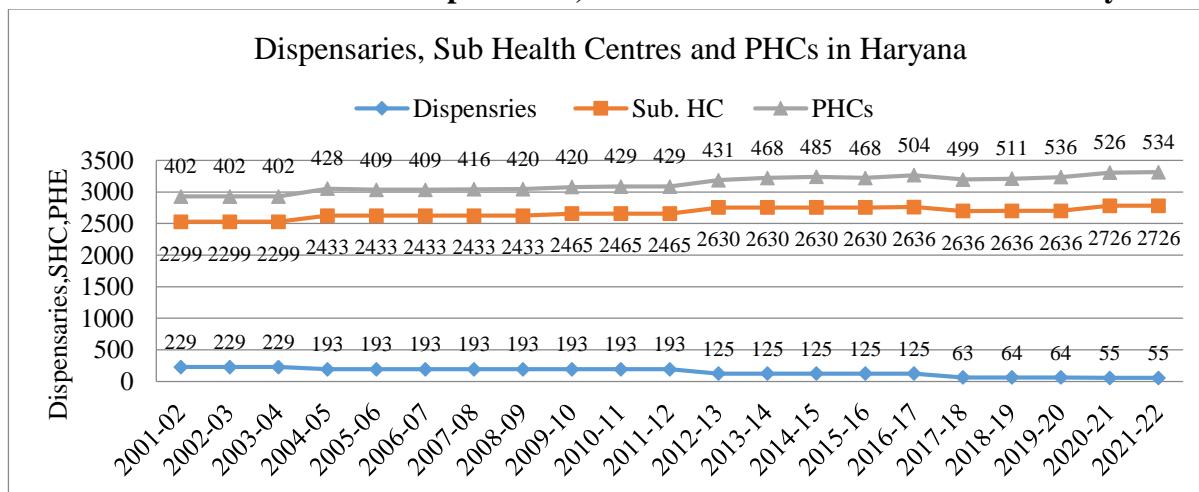
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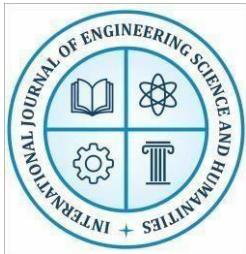
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early 2000s, CHCs increased steadily from around 140 in 2001–02 to more than 155 by 2010–11. Although there was a brief slowdown during 2012–14, a notable expansion is visible after 2014–15. The number of CHCs rose sharply in the later years, remaining above 120 up to 2021–22. Reasons behind the trends in Civil Hospitals and Community Health Centres (CHCs) in Haryana: The trend in the number of Civil Hospitals and Community Health Centres (CHCs) in Haryana from 2001–02 to 2021–22 reflects the state's evolving priorities in public health infrastructure and service delivery. The number of civil hospitals declined sharply in the early 2000s, from 78 in 2001–02 to around 49–50 during 2002–05. This decline may be attributed to reorganisation, reclassification, or consolidation of health facilities at the secondary care level, reflecting administrative adjustments rather than reduced service provision (Haryana State Health Resource Centre, 2016). The trend in the number of Civil Hospitals and Community Health Centres (CHCs) in Haryana from 2001–02 to 2021–22 reflects the state's evolving priorities in public health infrastructure and service delivery. The number of civil hospitals declined sharply in the early 2000s, from 78 in 2001–02 to around 49–50 during 2002–05. This decline may be attributed to reorganisation, reclassification, or consolidation of health facilities at the secondary care level, reflecting administrative adjustments rather than reduced service provision (Haryana State Health Resource Centre, 2016).

Chart -6: Trends number of Dispensaries, Sub Health Centres and PHCs in Haryana



Trends in Dispensaries, Sub-Health Centres and Primary Health Centres in Haryana The figure illustrates the trends in Dispensaries, Sub-Health Centres (Sub-HCs), and Primary Health Centres (PHCs) in Haryana over the period 2001–02 to 2021–22, highlighting changes in the state's primary healthcare infrastructure. The number of Primary Health Centres (PHCs) shows a clear upward trend throughout the study period. PHCs increased from 402 in 2001–02 to 534 in 2021–22, indicating sustained efforts to strengthen primary healthcare delivery. Minor fluctuations



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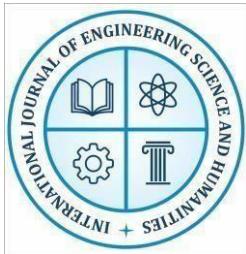
observed in certain years reflect administrative reorganization rather than a reversal in policy emphasis. The overall expansion of PHCs underscores the state's focus on improving access to basic curative, preventive, and promoted health services. The Sub-Health Centres (Sub-HCs) exhibit a steady and consistent increase, rising from 2,299 in 2001–02 to 2,726 in 2021–22. As the first point of contact between the community and the health system, the expansion of Sub-HCs reflects enhanced emphasis on grassroots-level healthcare, including maternal and child health services, immunization, and disease surveillance, particularly in rural areas. In contrast, the number of **Dispensaries** shows a continuous and sharp decline over the study period. Dispensaries decreased from 229 in 2001–02 to 55 in 2021–22. This declining trend suggests a structural shift in healthcare delivery, with dispensaries either being merged with or upgraded into more comprehensive facilities such as PHCs and CHCs, in line with evolving healthcare standards.

1.9 Conclusion

The analysis of Haryana's public health sector from 2001–02 to 2021–22 reveals significant improvements in expenditure, infrastructure, workforce, and health outcomes. Total and revenue public health expenditure increased consistently, reflecting the state government's growing prioritization of health, while capital expenditure remained uneven, highlighting the need for sustained investment in infrastructure. Expansion of primary healthcare facilities, including PHCs and Sub-HCs, alongside growth in CHCs and civil hospitals, has improved access to preventive and curative services, whereas the decline in dispensaries indicates a shift toward integrated, comprehensive healthcare delivery. The strengthening of the health workforce, particularly doctors, nurses has contributed to notable improvements in maternal and child health indicators, including reductions in IMR and MMR, and an increase in life expectancy. However, slower growth in diagnostic personnel and persistent capital investment gaps point to areas requiring policy attention to ensure balanced health system development. Overall, Haryana's experience demonstrates that strategic investment in human resources, expansion of primary healthcare infrastructure, and increased public health spending are crucial for improving population health outcomes. Continued focus on equitable workforce distribution, diagnostic capacity, and infrastructure development will be essential for sustaining health gains and enhancing the efficiency, accessibility, and resilience of the state's public health system.

1.10 Policy Recommendations

- Balanced Investment in Revenue and Capital Expenditure:** While revenue expenditure has increased steadily, capital spending remains inconsistent. The government should ensure predictable and sustained investment in health infrastructure, including hospitals, laboratories, and diagnostic facilities, to strengthen long-term service delivery.
- Strengthening Human Resources:** Expansion of doctors, nurses, and ANMs has improved health outcomes, but gaps remain in diagnostic personnel and workforce distribution. Targeted



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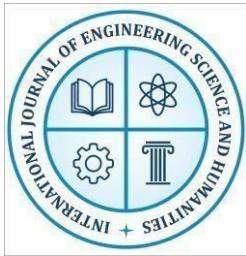
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recruitment, retention strategies, and skill development programs should be implemented to maintain an optimal doctor–nurse–lab staff ratio.

3. **Focus on Primary and Community Healthcare:** The growth of PHCs and Sub-HCs highlights the effectiveness of decentralized care. Policies should continue to strengthen primary healthcare, with emphasis on preventive services, maternal-child health, and community outreach programs.
4. **Infrastructure Modernization and Technology Integration:** Investments in digital health systems, laboratory equipment, and supply chains can enhance efficiency, reduce service gaps, and improve disease surveillance and emergency response capacity.

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