

SHORT ARTICLE

TRENDS OF TEENAGE PREGNANCY IN TAMIL NADU
(2019-2024)Vijaykumar R ⁽¹⁾, Nirmalson J ⁽¹⁾⁽¹⁾ Directorate of Public Health and Preventive Medicine**ABSTRACT**

INTRODUCTION : Teenage pregnancy is a global social and public health challenge that affects millions of girls worldwide. It has detrimental effects on the physical, emotional, and social well-being of adolescents, as well as on their educational and economic prospects. This paper aims to examine the trends in teenage pregnancy in Tamil Nadu from 2019 to 2024, and the distribution of teenage pregnancies across districts in Tamil Nadu.

METHODS : A descriptive cross-sectional study design was employed to analyze the trends in teenage pregnancy. The study utilized data from the HMIS portal. A total of 49,93,093 records of antenatal mothers in the HMIS portal from April 2019 to March 2024 were included in the analysis. Data analysis involved descriptive analysis using Microsoft Excel to determine the prevalence of teenage pregnancies and their distribution across different districts in Tamil Nadu.

RESULTS : The study identified 62,870 teenagers with a cumulative teenage pregnancy rate of 1.3%. The rates of teenage pregnancy over the years are 2019-20 at 1.1%, 2020-21 at 1.3%, 2021-22 at 1.3%, 1.1% in 2022-23 and 2023-24 at 1.5%. Among the districts, Nagapattinam is at 3.3%, followed by Theni at 2.4% and Perambalur at 2.3%. Kancheepuram, Virudhunagar, Nagercoil, and Chennai have the lowest teenage pregnancy rates, ranging from 0.4% to 0.7%.

CONCLUSION : The findings reveal that teenage pregnancy remains a significant concern across districts in Tamil Nadu. It is important to recognize that the challenge of teenage pregnancy requires a holistic approach. While the existing interventions have made significant strides, there is a need for greater emphasis on school-based sex education, behavioural change communication, and community participation. Encouraging active involvement from communities, parents, and other stakeholders will foster a more comprehensive and sustainable approach.

KEYWORDS : Teenage, Pregnancy, HMIS, Adolescent Health, Sex education

INTRODUCTION

UNICEF defines “teenage pregnancy” as conceiving between the ages of 13–19 years old. However, in everyday speech the term teenage pregnancy is often used to describe young women who become pregnant when they have not yet reached legal adulthood, the age of which varies across the world.¹ UNICEF definition of teenage pregnancy will be used for this article. Teenage pregnancy is one of the most critical social and public health problems both in developed and developing countries.

Worldwide, around 16 million girls between the ages of 15 and 19 years, and two million girls under age 15 years become pregnant every year. Globally in 2022, an estimated 13 per cent of adolescent girls and young women give birth before age 18.²

One in four Indian women 26.8% is married before 18 years, and 7.8% of women aged 15 to 19 years are pregnant or mothers, according to the latest available 2015-16 National Family Health Survey (NFHS)-4 data.⁴

The National Family Health Survey (NFHS-3) (2005-06)³ for Tamil Nadu recorded a teenage pregnancy rate of 8% in the state, which decreased to 5% in NFHS-4 (2015-

16)⁴ and slightly increased to 6.3% in NFHS-5 (2019-20).⁵ In comparison, national teenage pregnancy rates declined from 16% in NFHS-3 to 7.9% in NFHS-4 and further to 6.8% in NFHS-5.

The most common causes of teenage pregnancy in India are early marriage, community and social pressure to marry, sexual abuse, violence, lack of information about sexual and reproductive health and rights, lack of education or school drop-out, and low Socioeconomic status.⁶

Early childbearing, or pregnancy and delivery during adolescence, can derail girls’ otherwise healthy development into adulthood and have negative impacts on their education, livelihoods, and health.⁷

Many girls who are pregnant are pressured or forced to drop out of school, which impacts their educational and employment prospects and opportunities. Early pregnancy



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and childbearing can also have social consequences for girls, including reduced status in the home and community, stigmatization, rejection, and violence by family members, peers, and partners, and early and forced marriage.

Teenage pregnancy has numerous health consequences for adolescents and their newborns. Complications during pregnancy and childbirth represent the leading cause of death among girls aged 15–19 years worldwide due to greater risks of abortion, eclampsia, puerperal endometritis, systemic infections, and prematurity. Furthermore, social and economic consequences, such as rejection, violence, and interruption of studies, compromise their future.⁸

Stillbirths and newborn deaths are 50% higher among infants born to adolescent mothers than among those born to mothers aged 20–29 years. Infants of Teenage mothers are also more likely to have low birth weight, which can have a long-term impact on their health and development.⁹ Hence, this study aims to identify the trends in teenage pregnancy in Tamil Nadu from 2019 to 2024 and the distribution of teenage pregnancies across districts in Tamil Nadu.

METHODS

A descriptive cross-sectional study was conducted to examine the trends in teenage pregnancy in Tamil Nadu. The study utilized data from the Health Management Information System (HMIS) portal, a reliable and comprehensive source of information.

A total of 49,93,093 records of antenatal mothers in the HMIS portal were retrieved for analysis from April 2019 to March 2024, allowing for a comprehensive examination of trends over the past five years. The collected data were entered into Microsoft Excel. Descriptive analysis was performed to determine the proportion of teenage pregnancies and, the distribution of teenage pregnancies across different districts in Tamil Nadu.

RESULTS

The study analyzed data from the HMIS portal, covering a large cohort of 49,93,093 antenatal mothers between April 2019 and March 2024, and identified 62,870 teenagers with the Cumulative teenage pregnancy rate of 1.3%. The rate of teenage pregnancy over the years are 2019-20 at 1.1%, 2020-21 at 1.3%, 2021-22 at 1.3%, 1.1% in 2022-23 and 2023-24 at 1.5% (Table 1, Figure 1).

Table 1. Distribution of frequency in Teenage pregnancy as per HMIS in Tamil Nadu during 2019-2024

	2019-20	2020-21	2021-22	2022-23	2023-24
Total No. Of Pregnant Mothers	1025851	1000683	1009521	1002096	954942
No. of Teenage Pregnancies	11772	12606	13447	10685	14360
%	1.1	1.3	1.3	1.1	1.5

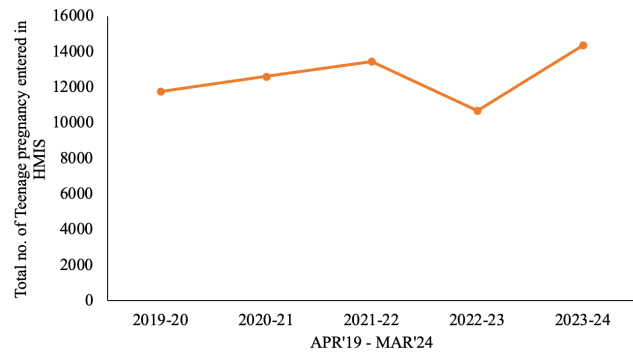


Figure 1. Trend in teenage pregnancy in Tamil Nadu during 2019-2024

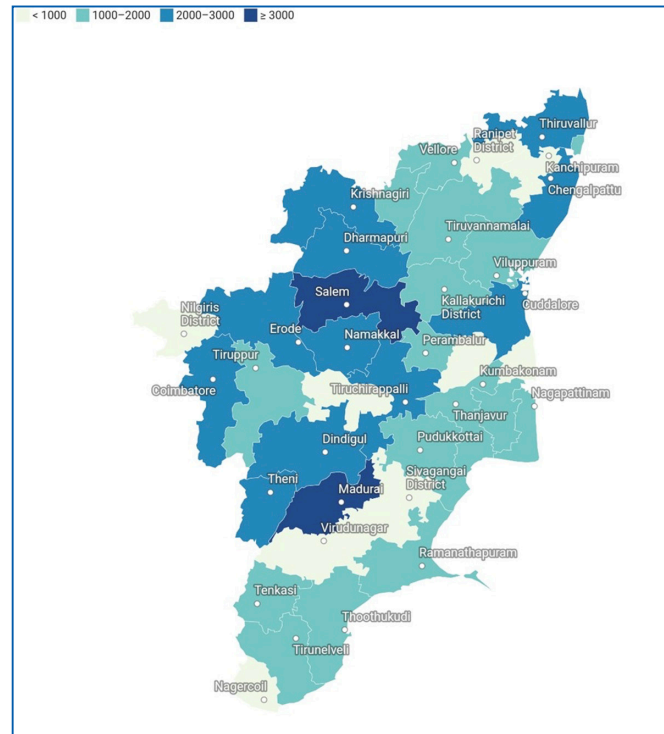


Figure 2: Distribution of frequency of Teenage pregnancy across districts in Tamil Nadu during 2019-2024

Figure 2 presents the analysis of teenage pregnancy rates across various districts in Tamil Nadu. Salem and Madurai have a teenage pregnancy prevalence of over

3,000, while districts such as Kancheepuram, Sivagangai, Virudhunagar, Nagercoil, and Chennai report a prevalence of less than 1,000.

DISCUSSION

The study analyzed the trends of teenage pregnancy and distribution across districts in Tamil Nadu over the last five years (2019-2024), using data from the HMIS portal. The total number of AN mother entries in HMIS during this period in Tamil Nadu was 49,93,093, out of which 62,870 were classified as teenagers, resulting in a Cumulative teenage pregnancy rate of 1.3%. There was a decline in teenage pregnancies in 2022, with 10,200 reported cases. However, the overall number of AN (Antenatal) mother entries in the HMIS during the same period was also lower, at 1,002,096 pregnancies. Among the districts, Nagapattinam has the highest prevalence of teenage pregnancy, followed by Theni and Perambalur. Kancheepuram, Virudhunagar, Nagercoil, and Chennai have the lowest teenage pregnancy rates in the study period.

The increase in the teenage pregnancy rate from 1.1% to 1.5% in the most recent period of 2023-24 in Tamil Nadu raises concerns and underscores the need for continued monitoring and evidence-based policies and interventions to address it. It is crucial to understand the factors contributing to this upward trend and the need to develop effective strategies to manage and reduce teenage pregnancies in Tamil Nadu.

To address this issue comprehensively, a multi-pronged approach is required. Firstly, targeted interventions should be implemented to educate teenagers about sexual and reproductive health, contraception, and the potential consequences of early pregnancy in school/out-of-school settings. These interventions can be delivered through schools, community centers, other village youth groups and healthcare facilities. Additionally, it is necessary to provide access to affordable and reliable contraceptive methods to ensure that teenagers have the means to make informed choices and prevent unintended pregnancies.

Furthermore, comprehensive sex education programs can play a vital role in empowering teenagers with knowledge about their sexual and reproductive health rights, promoting healthy relationships, and encouraging responsible decision-making. These programs should be age-appropriate, culturally sensitive, and implemented in collaboration with parents, educators, healthcare providers, and other interlinked departments.

Support systems should also be established to

provide emotional, social, and medical support to teenage mothers. This includes ensuring parental guidance and support, access to prenatal care, safe delivery services, and postnatal support. Additionally, efforts should be made to address the underlying social and economic determinants of teenage pregnancy, such as poverty, lack of education, and gender inequality. By addressing these factors, the overall well-being and prospects of teenage mothers can be improved.

LIMITATIONS

The study relied solely on data from the HMIS, which only provides aggregate numbers of cases, and does not include individual line-list data. Additionally, since the HMIS lacks a mechanism for authenticating the details entered, there are limitations in verifying the accuracy and completeness of the information. It included antenatal mothers in the HMIS portal excluding the cases of teenage pregnancy that were not reported or did not seek antenatal care, from public health facilities leading to an underestimation of the actual prevalence. It analysed data from April 2019 to March 2024, which provides five years for assessing trends in teenage pregnancy. However, a longer timeframe could have provided a more comprehensive understanding of long-term trends and patterns. The study relied solely on quantitative data for analysis. Qualitative data could have provided additional insights into the underlying factors contributing to teenage pregnancy and potential strategies for prevention. Further studies, may explore an in-depth understanding of facilitators of teenage pregnancy would also be beneficial to strengthening adolescent health in Tamil Nadu.

CONCLUSION

The findings reveal that teenage pregnancy remains a significant concern within the region, with a teenage pregnancy rate of 1.3% among the antenatal mothers as per HMIS during the study period. The outcome of 62,870 teenage pregnancies, presents an opportunity for further study and analysis. It is important to recognize that the challenge of teenage pregnancy requires a holistic approach. While the existing interventions such as Adolescent Reproductive and Sexual Health (ARSH) Program, Kishori Shakti Yojana (KSY), Adolescent Friendly Health Clinics (AFHC) and numerous awareness campaigns have made significant strides, there is a need for greater emphasis on behavioural change communication, school-based sex education and community participation. Encouraging active involvement from communities, parents, and other stakeholders will

foster a more comprehensive and sustainable approach.

CONFLICT OF INTEREST

None

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