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RESEARCH ARTICLE

THE SOCIO-LEGAL FACETS OF REPRODUCTIVE AND CHILD HEALTH FOR TRIPURA: A MULTIDIMENSIONAL ANALYSIS USING NFHS-V

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ABSTRACT

As a signatory to the ICPD in 1994, India initiated the Reproductive and Child Health (RCH) Programme in 1997 to fulfil the objectives established by the conference. In 2005, India further enhanced the program to RCH-II, which adopted an 'all-in-one' framework addressing reproductive, maternal, and child health, encompassing both demand and supply aspects. Loaded with so much significance, it is imperative to study the health of the women (15-49 years) and child (0-5years) for a state like Tripura which is not a very homogeneous territory for easily providing standard health care services round-the-clock to all due to geographic location, hilly and difficult terrain having large number of ethnic groups.The present study attempts to estimate the status of Reproductive and Child Health deprivations in Tripura using the multidimensional counting approach of Alkire and Foster (2011). The study covers a wide range of variables on reproductive, maternal and child health for the statedeals with intra-state (rural-urban) as well as socio-economic disparity in RCH deprivations using household level information from NFHS-5. The study finds huge variations in RCH status within states where Reproductive Health appears to be a crucial dimension of deprivation.

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INTRODUCTION

Reproductive and Child Health is a crucial indicator for assessing an economy's status. Access to and utilization of reproductive health services yield numerous advantages for economic development and population health (Global Leaders Council for Reproductive, 2011). Women's health significantly influences human well-being, economic growth, and familial welfare (Bansal, 2017).The reproductive health of women or mothers is directly linked with the adequate health and development of their children (Bloom et. al., 2015) and healthier women are more able to participate efficiently in the labour market. It implies that better health of women improves development through the direct intergenerational transmission of human capital (Bhalotra and Rawlings 2011). Reproductive health is a universal treatment for every slowing economy (Adinma and Adinma, 2011). Thus, Reproductive and Child Health (RCH) is regarded to play a crucial role in human capital production, development, and the level of life of the populace in an economy. India began the world's first national family planning program in 1952 to reduce the birth rate and stabilize the population to meet economic needs. India, a 1994 ICPD signatory, developed the Reproductive and Child Health (RCH) Programme in 1997 to meet the conference's goals. India upgraded to RCH-II in 2005. Programme implementation and evaluation are the responsibility of National Health Mission. RCH is a 'all in one' program that covers reproductive, maternal, and child health, demand, and supply. Periodically improving the program and integrating many other programs into it emphasizes the RCH program and its components. At a landmark UN Summit in September 2015, reproductive and child health were again highlighted as 2030 Sustainable Development Goals. So, if making generations and communities that are healthy is the key to making societies that are healthy (Pillai and Maleku, 2015), then reproductive and child health is the key to making those societies. It is important to study the health of women (15–49 years) and children (0–5 years) in the North Eastern Region of India because it is not a very homogeneous area. It is hard to provide standard health care services to all of the region's residents around the clock because of its geographic location, difficult terrain, high rainfall, vast hilly region, large forest areas, and a large number of ethnic groups. In addition, Devi, Das, and Singh (2022) said that mother and child health conditions in North East India have generally been better over the previous few decades. Most of the NE states still have very low rates of general vaccination, institutional births, prenatal care, fertility, and financial aid under JSY, whether in the rural or urban sectors. This is different from neighbouring states on mainland India that are close by.

Key legal aspects of RCH: The legal facets of reproductive and child health are vital to warrant the protection of human rights, access to healthcare, and the overall well-being of women and children. These laws and policies are enacted to promote safe reproductive practices, protect maternal and child rights, and regulate healthcare services. Legal frameworks thus play a vital role in safeguarding reproductive and child health. Ensuring their effective implementation, raising awareness, and addressing social determinants are key to achieving long-term health outcomes for women and children.
Some key legal aspects of RCH are as follows:

Constitutional Provisions

Right to Life and Personal Liberty (Article 21 of the Indian Constitution): Interpreted to include the right to health and access to safe motherhood and child care. Right to Equality (Article 14): Prohibits discrimination based on gender, supporting equitable access to health services. Right to Education (Article 21A): Important for awareness on reproductive health, especially among adolescents.

Other legal corners Related to Reproductive Health

- **Medical Termination of Pregnancy (MTP) Act (India, amended in 2021):** Legalizes abortion under specific conditions to ensure safe and regulated procedures. Extends the gestation period for abortion under certain circumstances. Protects the confidentiality of women seeking abortion.

- **The Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994:** Prohibits sex selection before or after conception. Aims to prevent female feticide by regulating diagnostic techniques.

- **Assisted Reproductive Technology (Regulation) Act, 2021**

Regulates clinics and banks offering ART services (e.g., IVF). Protects rights of donors, surrogate mothers, and intended parents. Prevents exploitation and unethical practices.

- **Surrogacy (Regulation) Act, 2021:** Allows only altruistic surrogacy under specific conditions. Bans commercial surrogacy to protect women from exploitation.

- **National Population Policy:** Promotes family planning and reproductive health services. Advocates voluntary and informed choices in family planning methods.

Laws Related to Maternal Health

- **Maternity Benefit Act, 1961 (amended in 2017):** Ensures paid maternity leave (26 weeks for the first two children). Provides for nursing breaks and crèche facilities.

- **Janani Suraksha Yojana (JSY):** Government scheme under the National Health Mission to promote institutional deliveries through financial assistance.

Laws Related to Child Health and Protection

- **The Protection of Children from Sexual Offences (POCSO) Act, 2012:** Provides legal protection to children against sexual abuse and exploitation.

- **Right to Free and Compulsory Education Act, 2009:** Ensures education for children aged 6–14, impacting their health and well-being indirectly.

- **Juvenile Justice (Care and Protection of Children) Act, 2015:** Protects children in need of care and ensures rehabilitation and reintegration.

- **Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992:** Promotes breastfeeding by regulating marketing of infant milk substitutes.

International Legal Frameworks: Convention on the Rights of the Child (CRC). Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). International Conference on Population and Development (ICPD). Sustainable Development Goals (SDGs), especially Goal 3 (Good Health and Well-being) and Goal 5 (Gender Equality)

Challenges in Implementation: Lack of awareness among the public about their rights. Weak enforcement mechanisms. Inadequate healthcare infrastructure in rural/remote areas. Cultural and social barriers to accessing reproductive services.

Justification for Comprehensive Assessments of RCH Deprivation: Since the 1990s, there has been a shift in measuring development and deprivations from a uni-dimensional to a multidimensional paradigm, focusing on economic prosperity,

competence, and social inclusion. The UNDP introduced 'human poverty indices', which include factors like longevity, knowledge, living standards, and social inclusion. Wagle (2005) developed a multidimensional framework that includes economic well-being, capability, and social inclusion as facets of poverty. This approach expands the discourse of poverty, revealing issues of insufficient human well-being. Both 'capability' and 'functioning' are crucial for individuals to function effectively in society and are fundamental aspects of well-being (Alkire, 2002; Sen, 1992, 1993, 2000). The emergence of multidimensional poverty concept has a clear departure from income poverty, strengthening the concept of poverty measurements (Bourguignon and Chakravarty, 2003; Fusco, 2003). The present study aims to construct a multidimensional RCH deprivation index, comprising three major components: reproductive health, maternal health, and child health. Mapping RCH deprivations with this composite index is expected to help policy planners develop target-based long-term development policies. A multidimensional assessment of RCH deprivation would facilitate the comprehension of interstate and intrastate variability among social groups and religions, including various socioeconomic and health attributes. Furthermore, it is important to acknowledge the scarcity of research on the NER in this domain; specifically, household-level studies on RCH employing a multidimensional counting approach are notably limited in the region. Alkire and Seth (2013) utilized data from NFHS II and III to assess poverty reduction in Indian states, encompassing those in the North Eastern Region. The current study aims to make a substantial contribution to the existing literature by incorporating the counting approach and the most recent data from NFHS 5.

Objectives of the Study: The aforementioned evidence indicates that, despite inter- and intra-regional inequalities in RCH status, RCH may be pivotal for future growth. Consequently, it is essential to examine the RCH condition of an underdeveloped region such as Tripura in light of the region's prospective development. Measuring reproductive and child health status and the associated inequities across various regions and populations within the state has significant policy consequences. Therefore, the prime objective of the present study is to measure and compare the status of Reproductive and Child Health (RCH) for the households in Tripura across the districts as well as socio-economic classes.

Data Sources and Methodologies

Description of Data: The research utilizes household-level data from the fifth round of the National Family Health Survey (NFHS-5), conducted between 2019 and 2021, employing a multistage, stratified random sampling methodology for sample collection. This study utilizes unit-level data from 2,074 homes in Tripura (out of 7,209 sample households in NFHS-5), selected based on the criterion of having at least one woman of reproductive age who gave birth during the last five years. The specific households with missing values for any selected indicators of RCH deprivation were excluded from the sample.

Construction of Multidimensional RCH Deprivation Index (RCHDI): The counting approach of Alkire and Foster (2011) has been applied to estimate the Adjusted Head Count Ratio (AHCR) owing to its advantages of dual cut-off, joint distribution, and decomposability. This study focuses on the general form of social indicators with their ordinal interpretation.

The Alkire-Foster Method: A two-stage cut-off viz. deprivation cut-off and poverty cut-off are used to identify the poor in accordance with the Alkire-Foster method. Prior to applying these cut-offs, a set of ten indicators (I_j) were chosen based on their general recognition as measures of human well-being. The indicators were then grouped into three broad dimensions (D) with equal weight. When the indicator specific weights are determined on the basis of dimension weights, such that weight for indicator j, with $j = (1, 2, \ldots, d)$ would be $w_j^d = \frac{1}{D}.\frac{1}{I}$.

The first stage cut-off is used to identify the individual household if poor in a particular indicator and pertaining to the deprivation cut-off for each of the ten indicators. A household i to be identified as non-deprived should achieve a minimum level of the j^{th} indicator. Table 1 represents the deprivation cut-off for all the ten indicators, by a vector $Z_j = (z_1, z_2, \ldots, z_d)$. So, the household i is considered to be deprived in j^{th} indicator if its attainment is less than the cut-off Z_j, and replaced by $X_{ij} = \rho_j(X_{ij}, Z_j) = 1$ if$X_{ij} < Z_j$, otherwise$X_{ij} = \rho_j(X_{ij}, Z_j) = 0$, where $X = [X_{ij}]$is the $n \times d$ order achievement matrix.

The second stage cut-off is pertaining to identification of the households as to define whether multidimensionally poor. The poverty cut-off (k) generally lies within the range of $1 \leq k \leq d$, implying that poverty is neither defined as being deprived in just one indicator, $k = 1$ (known as union approach) nor as being deprived in all indicators, $k = d$ (referred as intersection approach). Thus, the value of k is normatively determined, with reference to previous studies or based on reasons deemed fit to the concerned society. Alternatively, k can be chosen in alliance with objectives of the state or government's policy guidelines. In the present study, k *is set at* 0.33 for identification of the multidimensionally poor households. Thus, a household is considered to be multidimensionally poor, if deprived in at least one-third of the total weighted indicators, referred to as the deprivation score. A household's derivation score is represented by the vector $C_{ij} = \sum_{j=1}^{d} w_j^d \rho_j(X_{ij}, Z_j)$ which sums the weighted number of deprivations. The deprivation score of a household is the sum of the weighted number of deprivations, represented by the vector $C_{ij} = \sum_{j=1}^{d} w_j^d \rho_j(X_{ij}, Z_j)$. If $C_{ij} \geq k$ then the household i is classified as multidimensionally poor, with the number of such households expressed as $q(k) = \sum_{1}^{d} w_j^d \rho_k(X_{ij}; Z)$; $C_{ij} \geq k$, where q represents the count of multidimensionally poor households. Then the Multidimensional Head Count Ratio (also referred as incidence of poverty) is estimated as $H = \left(\frac{q}{n}\right)$, where n is the total number of households. The intensity of poverty, defined as $A = \left[\sum_{i}^{q} C_{ij}^{*}(k) \Big/ q\right]$, where vector $C_{ij}^{*}(k)$represents the

censored deprivation score of the multidimensionally poor households and the average deprivation score of the poor households. Finally, the formula for estimating the Adjusted Head Count Ratio or MPI is:

$$M_0 = \frac{1}{n.d}\left[\sum_{i=1}^{n}\sum_{j=1}^{d} C_{ij}^{*}(k)\right]; \text{ (Adjusted Head Count Ratio)}$$

$$= \frac{1}{n}\sum_{i=1}^{n}\underbrace{\left[\frac{1}{d}\sum_{j=1}^{d} C_{ij}^{*}(k)\right]}_{\text{Individual Poverty}};$$

$$= \frac{1}{d}\sum_{j=1}^{d}\underbrace{\left[\frac{1}{n}\sum_{j=1}^{n} C_{ij}^{*}(k)\right]}_{\text{Censored Deprivation}};$$

$$= \left[\frac{1}{n}q(k)\right].\left[\frac{1}{q}\sum_{i}^{q} C_{ij}^{*}(k)\right]; \quad \text{(Product of } H \text{ and } A\text{)}$$

Decomposition: Adjusted Headcount Ratio is decomposable by demographic subgroups because it may be expressed as the weighted sum of individual poverty. Therefore, the whole poverty can be represented as follows:

$$M_0 = \sum_{s=1}^{l} \frac{n_s}{n} M_0^s$$

and contribution of the population subgroup, *s* to the overall poverty M_0 is

$$C_s = \frac{n_s}{n} \times \frac{M_o^s}{M_0} \text{for } s = 1, 2, 3, \ldots, l$$

Where$\left(\frac{n_s}{n}\right)$and $\left(\frac{M_o^s}{M_0}\right)$are the population share and the Adjusted head count ratio of subgroup *s,* respectively. Similarly, the Adjusted Head Count Ratio is decomposable by indicators, as expressible as the weighted sum of the censored deprivations by indicators. So, the overall poverty to be represented as:

$$M_0 = \sum_{j=1}^{d} \left(\frac{w_j}{d}\right) h_j(k)$$

and the contribution of an indicator ***j*** to the overall poverty M_0 is

$$C_j = \frac{w_j}{d} \times \frac{h_j(k)}{M_0} \text{for } j = 1, 2, 3, \ldots, d$$

Where$h_j(k)$ is the censored head count ratio of indicator ***j***.

Dimensions and Indicators: The indicators with diverse proportions are integral components of the MPI and, depending on the targeted measurement, they assess deprivation in functionings that define poverty or ascertain if a household is multidimensionally deprived. Following Alkire (2007), Alkire & Foster (2011), the present study has adopted three (3) dimensions (D) of Reproductive and Child Health viz. Reproductive Health, Maternal Health and Child Health. These dimensions are further categorized into 11 indicators (*d*) asdiscussedin Table 1along with their respective cut-offs. This compilation of indicators and thresholds for each indication is derived from the WHO's standards/guidelines and other pertinent research (Mother-Baby Package by WHO, 1994). The WHO's Mother-Baby Package is referred to as the "four pillars" of healthy motherhood: Family Planning, Antenatal Care, Clean/healthy Delivery, and Essential Obstetric Care.

Table 1. Dimensions, Indicators, Deprivation Cut-offs, and Weights for the RCHDI

Dimensions (Weight)	*Indicators (Weight)*	*Deprived if…*
Reproductive Health (1/3)	Use of modern contraceptive methods (1/9)	The women of reproductive age who are not using (or whose partner is not using) a modern contraceptive method
	Knowledge of HIV (1/9)	Women who did not heard about HIV
	Decision making in pregnancy (1/9)	Women who do not wanted the last child
Maternal Health (1/3)	Antenatal care coverage - at least four visit (1/12)	The married women aged 15-49 with a live birth in a given time period have not received antenatal care at least
	Births attended by skilled health personnel (1/12)	The births not attended by skilled health personnel.
	Postnatal care for mothers within two days of birth (1/12)	Women who have not received postnatal care within two days of childbirth (regardless of place of delivery)
	Malnutrition (BMI) (1/12)	If BMI below 18.5 and above 25.0 as par WHO standard
Child Health (1/3)	Malnutrition (1/12)	If BMI for age is less than -2 standard deviations of the WHO Child Growth Standards median
	Immunization (1/12)	If any infant or child (0-5 yrs) have not received scheduled vaccine at their respective age during survey
	Colostrum (1/12)	It the infant do not breastfeed within 1 hr of birth
	Prevalence of low birth weight (1/12)	If live born babies who weigh less than 2500 g.

The formula for Reproductive and Child Health Deprivation Index (RCHDI) is given by

$$RCHDI\ (M_0) = Incidence\ (H) \times Intensity(A)$$

Where, *Incidence* represents the proportion of households out of the total sample households which are multidimensionally RCH poor and *Intensity* indicates the average deprivation among deprived households.

RESULTS AND DISCUSSION

This section describes the status of households of Tripura in terms of their deprivation in reproductive and child health status as well as the state and depth of their deprivation, the major contributors to the deprivation.

RCH Status for Tripura: Even though there is a wealth of literature on reproductive and child health programmes, service use, and socioeconomic factors, relatively few studies have attempted to determine the situation of reproductive and child health deprivation for the states of Tripura. Therefore, the primary goal of this section is to determine the status of household of Tripura with regard to reproductive, maternal and child health as well as the deprivations. Based on the methodologies outlined in Table 1, the Reproductive and Child Health (RCH) status of the household of Tripura in terms of the Reproductive and Child Health Deprivation Index (RCHDI) is presented in Table 2 below:

Table 2. RCH Deprivation Status of Tripura by Region

Components	NFHS-5 (2019-21)		
	Rural	*Urban*	*Aggregate*
Incidence (H)	25.9	12.91	19.37
Intensity (A)	40.82	39.05	40.11
M_0	0.106	0.05	0.078

Source: Researcher's estimates based on 5thRound of NFHS Survey Data, 2019-21

Now, from the NFHS survey 5th rounds, this is observed that the headcount ratio, also known as the incidence of poverty, H (the proportion of multidimensionally poor to the total population), is 25.90 percent for NFHS-5 for rural Tripura (Table 2). However, at the aggregate level (taking rural-urban together), the incidence of poverty (H) is 19.37 percent for the state of Tripura. For urban Tripura, 20.14 percent of households of Tripura were multidimensionally deprived in reproductive and child health. Thus, there has been a huge rural-urban gap in the proportion of RCH deprived households in Tripura as evidenced from the NFHS surveys reported in Table 2 below. Again, the value of M_0 (RCHDI), which is the product of incidence and intensity of deprivation, comes out to be 0.106 and 0.050 for the rural and urban Tripura respectively. At aggregate level the value is 0.078. Further, the intensity of reproductive and child health deprivation (A) appears to be 40.82 per cent for the rural Tripura more than urban area (39.05 per cent).Article 21 secures the right to life, which has been interpreted by the judiciary to encompass the right to health. The greater deprivation in rural Tripura of higher RCH is a failure to provide equal health rights, perhaps a constitutional failure.

Decomposition of Reproductive and Child Health Deprivation Index: From policy perspectives, it is important to investigate the relative contributions of the individual indicators and dimensions to the overall RCH deprivation across regions (say, by rural, urban and districts) and social groups of a state. The dimension wise contributions are reported in Table 3. As per the table, the maternal health is the highest contributing dimension to the deprivation followed by child health and then reproductive health. If we see indicator wise, use of contraceptive methods is the highest contributor to M_0 followed by colostrum, antenatal care coverage of at least four visits. Thus, reproductive health's significant contribution to the deprivation highlights gaps in contraceptive access among the women of Tripura. Thus, the aforementioned table and discussion draw the importance of policy attention in these critical areas.

Indicators/Dimensions	**NFHS-V (2019-21)**
Use of modern contraceptive methods	19.8
Knowledge of HIV	3.3
Decision making in pregnancy	3.63
Reproductive Health	**26.73**
Antenatal care coverage - at least four visits	15.74
Births attended by skilled health personnel	7.1
Postnatal care for mothers within two days of birth	11.43
Malnutrition (BMI)	8.79
Maternal Health	**43.06**
Malnutrition	2.75
Immunization	2.05
Colostrum	17.61
Prevalence of low birth weight	7.8
Child Health	**30.21**

Source: Researcher's estimates based on 5thRound of NFHS Survey Data, 2019-21

These findings indicate a breach of Article 21 of the Indian Constitution, which ensures the right to life and, by extension, the right to health, particularly for women and children. The data demonstrates the state's failure to adhere to Directive Principles outlined in Articles 39(e), 42, and 47, which require the safeguarding of maternal health, equitable working conditions, and enhancement of public health. The deficiencies compromise adherence to national legislation, including the Maternity Benefit Act (2017), and policies such as the National Health Mission and the RMNCH+A strategy, alongside India's obligations to Sustainable

Development Goals (SDGs) 3 and 5, highlighting the pressing necessity for rights-based and legally accountable health interventions in Tripura.

Table 4. Level of insufficiency across the Districts of Rural Tripura

District		Value	Confidence Interval
Dhalai	**M0**	0.076(.015)	(.045, .107)
	H	0.199(.425)	(.115, .283)
	A	0.382(.004)	(.375, .391)
Gomati	**M0**	0.098(.017)	(.064, .132)
	H	0.243(.042)	(.159, .327)
	A	0.406(.004)	(.399, .415)
Khowai	**M0**	0.099(.013)	(.072, .126)
	H	0.261(.034)	(.192, .329)
	A	0.379(.004)	(.373, .387)
North Tripura	**M0**	0.055(.011)	(.033, .076)
	H	0.137(.028)	(.082, .192)
	A	0.399(.005)	(.389, .408)
Sepahijala	**M0**	0.066(.014)	(.037, .094)
	H	0.162(.034)	(.094, .230)
	A	0.405(.005)	(.397, .417)
South Tripura	**M0**	0.127(.019)	(.089, .165)
	H	0.307(.043)	(.420, .590)
	A	0.417(.005)	(,409, .426)
Unakoti	**M0**	0.215(.019)	(.177, .253)
	H	0.505(.043)	(.420, .590)
	A	0.425(.004)	(.417, .433)
West Tripura	**M0**	0.043(.008)	(.026, .060)
	H	0.111(.219)	(.068, .155)
	A	0.388(.005)	(.379, .398)

Source: Researcher's estimates based on5th Round of NFHS Survey Data
Note: Values in parenthesis represents SE

Performance across the Subgroups by Districts: Now, coming to the district level, the present section has gone for comparing the districts of Tripura in terms of RCH deprivation (M_0), incidence (H) and intensity of deprivation (A) for the NFHS data. According to Table 4, the largest proportion of weighted deprivation in terms of RCH status (M_0) is in Unokoti, followed by South Tripura, Khowai, Gomati, Dhalai, Sepahijala, North Tripura and West Tripura. However, the districts in terms of incidence of RCH deprivation are ranked as Unokoti, followed by South Tripura, Khowai, Gomati, Dhalai, Sepahijala, North Tripura and West Tripura in descending order and exactly the same as the rank in M_0. In case of intensity of RCH deprivation, Unokoti happens to be the highest deprive districts, followed by South Tripura, Gomati, Sepahijala, North Tripura, West Tripura, Dhalai and Khowai.

Performance across Social and Religious Groups: Besides area wise analysis of RCH deprivation or RCH performance, this is also vital to study the deprivation across the socio-economic communities, having important policy bearing. The present section is an attempt to that direction consisting of the classifications into religion, caste and economic criteria (reported in Table 5 using NFHS 5).

Table 5. Status of RCH Deprivation across Population Sub-Groups in Tripura

	2019-21: (NFHS 5)			
	Pop. Share*	M0	H	A
Rural	74.1	0.11	0.26	0.41
Urban	25.9	0.05	0.13	0.39
Religion				
Hindu	80.4	0.08	0.22	0.4
Muslim	12.5	0.14	0.32	0.42
Christian	4.2	0.13	0.33	0.39
Others	2.9	0.14	0.33	0.41
Caste				
SC	26.8	0.08	0.22	0.4
ST	32.7	0.1	0.25	0.4
OBC	22.3	0.71	0.17	0.41
Gen	18.1	0.79	0.19	0.39
Economic Status				
APL	44.7	0.1	0.26	0.41
BPL	55.3	0.09	0.22	0.41

Source: Researcher's estimates based on 5thRound of NFHS Survey Data; Note: *with respect to total population of Tripura

Table 5 reveals that the deprivation in RCH status is greater in the rural areas than that of the urban areas. Regarding religious groups, the RCHDI value (M_0) is same for both Others and Muslim followed by Christians. Again, poverty incidence (H) is same for both Others and Christians followed by Muslim. In comparison to other religious groups during the study period, Hindus were in a superior situation with lesser RCH deprivation. Regarding Caste, looking at the deprivation incidence (H) it can be said that STs are more suffering groups, followed by SC, then General. OBCs were performing better among all the caste groups. Again, in Economic Status, APL group is lagged behind BPL in terms of RCH deprivations. The trends indicated by the findings are towards

gross violations of Articles 14 and 15, which prohibit discrimination on grounds of caste, religion, or economic status and require equal treatment of all citizens. In addition, health has been accorded the status of a right under Article 21. The findings also raise questions about the efficacy of social justice interventions and legislative measures for countering health inequalities, e.g., the National Health Mission and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act. The persistent high levels of deprivation among vulnerable communities require a rights-based, intersectional approach to health governance and more rigorous legislative enforcement of equitable access to reproductive and child health services.

Indicator wise Deprivation across Social and Religious Groups: Based on the comparable indicators, the present section focuses on the changes of overall situation of the RCH deprived for different social and religious groups in Tripura. From Table 6, It is observed that Christians are relatively more deprived in 'use of modern contraceptive methods', followed by Muslims. Again, Muslim shasless' Knowledge of HIV'. The table also indicate that 66.45 per cent of women belongs to Hindus household are deprived in 'antenatal care coverage-at least four visits', followed by Christian. In terms of colostrum, children who belong to Others category are the most deprived, followed by Hindus.

Table 6. Percentage of Deprivation in Various Indicators across Religious Groups

Indicators	2019-21: (NFHS 5)			
	Hindu	Muslim	Christian	Others
Use of modern contraceptive methods	46.04	51.15	57.41	49.35
Knowledge of HIV	13.26	14.81	12.7	10.65
Decision making in pregnancy	5.65	7.73	3.97	10.65
Antenatal care coverage - at least four visits	44.39	50.87	62.36	66.45
Births attended by skilled health personnel	8.08	28.15	12.96	23.23
Postnatal care for mothers within two days of birth	21.82	26.31	27.25	34.19
Malnutrition(BMI of mother)	18.57	24.66	13.76	10
Malnutrition(BMI of Child)	6.27	6.35	6.88	5.48
Immunization	2.62	2.76	1.85	9.03
Colostrum	58.67	56.49	56.88	79.03
Prevalence of low birth weight	19.06	14.9	11.64	10.32

Source: Researcher's estimates based on 5th Round of NFHS Survey Data, 2019-21

These differences in the above Table 6 shows that there are systemic barriers to accessing health information, services, and personal freedom, especially for religious minorities. From a legal standpoint, these unjust health outcomes may contravene Articles 14 and 15 of the Indian Constitution, which uphold the principles of legal equality and prohibit religious discrimination, as well as Article 21, which recognizes the right to health as a fundamental aspect of the right to life. Moreover, the empirical evidence reveals a deficiency in achieving the health equity objectives delineated in the National Health Policy (2017) as well as India's commitments under Sustainable Development Goals 3 and 5, which advocate for universal and inclusive healthcare systems. The enduring character of these disparities highlights the imperative for a rights-based, non-discriminatory paradigm in the execution of health policy, ensuring that religious minorities are not systematically marginalized in their access to vital maternal and child health services.

Now coming to the social groups (Table 7),it is seen that STs and SCs are comparatively more vulnerable across all the indicators compared to other social groups. Also, discrepancy has been found in the uncensored headcount ratio for all the indicators across the social groups. In case of 'use of modern contraceptive methods', 'Postnatal Care', Antenatal Coverage' and 'Births attended by skilled health personnel', the STs are the most vulnerable group. For 'Knowledge of HIV' and 'Decision making in pregnancy', General are more vulnerable (General also includes the Muslims) compared to other social groups. For 'Malnutrition of Mother (BMI)', OBCs and SCs are the relative vulnerable groups. For 'Malnutrition of children (BMI), there is no such remarkable difference among the social groups. For 'Immunisation', STs are the vulnerable groups. In case of 'Prevalence of low birth weight', OBCs are the vulnerable group. On the whole, the STs are the most vulnerable social group in RCH deprivation taking into account majority of the indicators and call for serious policy attention.

Indicators	2019-21: (NFHS 5)			
	SC	ST	OBC	Gen
Use of modern contraceptive methods	38.11	53.92	47.04	46.89
Knowledge of HIV	13.55	10.31	14.56	18.04
Decision making in pregnancy	7.24	5.25	5.14	8.6
Antenatal care coverage - at least four visit	42.22	58.5	35.55	31.08
Births attended by skilled health personnel	7.51	14.72	3.14	10.98
Postnatal care for mothers within two days of birth	21.5	26.38	18.99	19.23
Malnutrition of mother(BMI)	19.87	11.7	21.91	18.81
Malnutrition of children (BMI)	6.42	6.57	6.71	4.51
Immunization	1.8	4.85	1.5	1.45
Colostrum	56.67	59.37	59.6	55.32
Prevalence of low birth weight	21.94	10.86	24.2	17.11

Source: *Researcher's estimates based on 5th Round of NFHS Survey Data, 2019-21*

These trends mention in the aforesaid discussion indicate that certain individuals are excluded from receiving necessary health care, contravening Article 15(4) of the Indian Constitution. This article empowers the state to implement special provisions for the advancement of socially and educationally disadvantaged groups. These findings contravene Article 21 (the right to health) and

Article 46, which stipulates the necessity of safeguarding and advancing the interests of Scheduled Castes (SCs) and Scheduled Tribes (STs). The data indicates that the Scheduled Castes Sub Plan (SCSP) and Tribal Sub Plan (TSP) under the National Health Mission are not being implemented effectively. These initiatives aim to eradicate health disparities among castes. Due to the ongoing denial of fundamental rights to marginalized individuals, healthcare provision must be legally accountable and centered on equity, aligning with constitutional principles and India's obligations under SDG-3 and SDG-10 to bridge health disparities.

CONCLUSION

The examination of RCH deprivation in Tripura utilizing NFHS-5 data uncovers entrenched disparities among geographies (rural–urban), religion and caste affiliations, and socioeconomic strata. Multidimensional deprivation (M_0) is markedly elevated in rural regions, particularly among Muslims, Christians, Scheduled Tribes (STs), Other Backward Classes (OBCs), and Below Poverty Line (BPL) demographics. Important indicators such as low contraceptive use, low comprehensive prenatal and postnatal care coverage, poor diet, low colostrum feeding coverage, and low immunization coverage are driving high deprivations in reproductive and child health. Disaggregated data analysis identifies gaps in the delivery of services and also indicates the existence of structural discrimination and socioeconomic exclusion driving health inequities. These results directly contravene the Indian Constitution, including Article 14 (equality before the law), Article 15 (prohibition of discrimination), and Article 21 (right to life and health). The data indicates inadequate execution of health-oriented social equity measures under Articles 39(e), 42, 46, and 47, alongside non-adherence to national legislation such as the Maternity Benefit Act (2017) and National Health Mission (NHM) directives.

Policy Implications: The study recommends a rights-based approach to reproductive health care in Tripura and stresses the importance of declaring health a justiciable right for marginal sections. It suggests strategic allocation of resources to vulnerable subgroups of minorities like Muslims and Christians, Scheduled Tribes and Other Backward Classes, and religious-sensitive as well as caste-sensitive health programming. The study also stresses the importance of increasing the rollout of National Health Missions (NHM) and Reproductive Health and Nutrition (RMNCH+A) schemes, increasing the coverage and quality of services, and legal awareness and reproductive choice. It also recommends legal grievance redressal mechanisms and social audits to counter systemic healthcare system discrimination. The study concludes by recommending strengthening of constitutional oversight by the judiciary and the concerned institutions. The strategy is to come up with an inclusive, equitable, and constitutionally compliant healthcare system in Tripura.

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