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## Dynamics of Gender Inequality in the Health Care of Assam

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### Abstract:

*Gender equity is an essential and inevitable factor for the socio-economic prosperity of any society. However, despite this importance there is no level playing field for different genders in our country; be in households, work place, health care and the like. Nonetheless, it is essential that fair rules are provided for all irrespective of any gender in any given political and social set-up which will facilitate in the socio-economic development of the state. Keeping this in view this paper tries to delineate the prevailing gender inequality (inequity) in the state of Assam with the inherent objective of utility for the different stake holders of the society for timely and pragmatic policy formulations.*

### Objectives-

- To investigate the gender equity in the health care arena of Assam
- To look into the trend in gender equity in maternal and child health care of Assam

### Data and Methods-

*The study is a quantitative study and it basically used the secondary data from District Level Household and Facility Surveys (DLHS-2, 2002-04 and DLHS-3, 2007-08). Wherever possible the findings of the DLHS-3, 2007-08 has been compared with the findings of the DLHS-2, 2002-04 in order to look into the improvement in the gender equality in health care system. The data on death rate and infant mortality rate (IMR) are taken from Registrar General of India (RGI), 2011. The variables that are used to capture the gender equity are death rate, IMR, preferred sex (male or female) for additional child, gender wise vaccination of children and gender wise vitamin A and IFA supplementation for children.*

**Keywords:** Gender Inequality, Infant mortality Rate, Vaccinations, Socio-Economic Development

### 1. Introduction

Despite all the social hurdles, many Indian women have become successful in different fields. These successful women have shown to the world the power of women with their diligence work hard, competence and will power. Women are the very backbones of any society and to build a healthy and robust social set-up women have to be taken care off. Swami Vivekananda once said that it was impossible to think about the welfare of the world unless the condition of women was improved. Women being respected and held high esteem in ancient India got manifested in the Manusmriti, where woman was considered as a precious being. In the early Vedic age, girls were looked after with care. However, in contemporary India, in many areas of life, Indian women (female) are discriminated. For instance, many studies (Murthi, Anne and Dreze, 1995; Gupta and Bhat, 1997; Bhat and Zavier, 2003; Mishra., Roy and Rutherford, 2004 etc.) have found gender differences in infant and child mortality in terms of gender differences indifferent fronts like health status, preventive and curative treatments and the like. Indian women have high mortality rates, particularly during childhood and in their productive years (Mehrotra & Chand, 2012). This could be because women receive less attention in health care than man and perhaps girls receive less support than boys due to which the mortality rates of females often exceeds those of males. A cursory observation on the contemporary Indian society gives us the picture of Indian women being discriminated in many walks of life; be it in the family, work place, medical care and the like albeit women are worshipped as goddesses in the Indian society since time immemorial. This deteriorating phenomenon of the status of women could be the arrival of the practice of polygamy (Sonaimuthu, (n.d.)), dowry system etc. Indian women have to go a long way to achieve equal rights and position because traditions are deep rooted in Indian society. This is hypocrisy and this double standard will continue until we give due place to the female counterpart from the cradle to the grave. It will be a catastrophic accomplishment on the part of the Indian society to deprive the half of the million populations (women) of our country. Traditional bases of social stratification such as caste and class reproduce themselves in women's lived experiences as also do rural-urban and regional disparities. Talking about women's health and access to healthcare in such a complex social setup thus poses a challenge (Mishra, 2006). For instance, in the report released by United Nations Development Programme, 2010, India ranks 122 among 138 countries for which the gender inequality measure has been calculated. This statement highlights the fact that gender discrimination is rampant in our society and health care is no exception. Right to the highest attainable standard in health is encapsulated in Article 12 of the International Covenant on Economic, Social and Cultural Rights. It encompasses the preconditions essential for health and the provisions of medical care. However, it is pertinent to look into the health care system to

understand the hidden truth about the gender equity in our health care arena; the sector which is so significant and inevitable for the gross development of any society. Therefore, this paper tries to investigate the health care equity from gender perspective and tries to delineate the problems face by the female counterpart within the economic and political set up of Assam.

This paper is arranged as follows: section 2 broadly states the objectives of the present study; section 3 shows the data and methodology of the study; section 4 elaborates the results of the study and which is followed by the conclusion.

## 2. Objectives

The broad objective of this study is to delineate the gender inequity in the health care arena in Assam so that a proper planning and pragmatic policies could be executed in milieu of the existing political, economic and social set up. This broad objective has been planned to materialize through the following two segmented objectives:

- To investigate the gender equity in the health care arena of Assam
- To look into the trend in gender equity in maternal and child health care of Assam

## 3. Data and Methodology

The study is a quantitative study and it basically used the secondary data from District Level Household and Facility Surveys (DLHS-2 and DLHS-3). Wherever possible the findings of the DLHS-3, 2007-08 has been compared with the findings of the DLHS-2, 2002-04 in order to look into the improvement in the gender equality in health care system. The data on death rate and infant mortality rate (IMR) are taken from Registrar General of India (RGI), 2011. The variables that are used to capture the gender equity are death rate, IMR, preferred sex (male or female) for additional child, gender wise vaccination of children and gender wise vitamin A and IFA supplementation for children.

### 3.1. Sampling design of the DLHS-2, 2002-04

A systematic, multi-stage stratified sampling design was adopted. In each district, 40 Primary Sampling Units (PSUs) were selected with probability proportional to size (PPS) using the 1991 Census data. All the villages were stratified according to population size, and female literacy was used for implicit arrangement within each strata. The number of PSUs in rural and urban areas was decided on the basis of percent of urban population in the district. However, a minimum of 12 urban PSUs was selected in each district in case the percent urban was low. The target sample size in each district was set at 1,000 complete residential households from 40 selected PSUs. In the second stage, within each PSU, 28 residential households were selected with Circular Systematic Random Sampling (CSRS) procedure after house listing. In order to take care of non-response due to various reasons, the sample was inflated by 10 percent (i.e. 1,100 households). For selecting the urban sample, list of the Urban Frame Size blocks in the district of the National Sample Survey Organization (NSSO) was used (DLHS-2, Assam, 2002-04).

### 3.2. Sampling Design of the DLHS-3, 2007-08

A multi-stage stratified systematic sampling design was adopted for DLHS-3. In each district, 50 primary sampling units (PSUs) which were census villages in rural areas and census enumeration blocks (CEBs) in urban areas. In rural areas, villages were selected by probability proportional to size (PPS) systematic sampling and in the second stage households were selected by systematic sampling. For urban areas first wards were selected by PPS systematic sampling, in the second stage CEBs by PPS sampling and households in the third stage by systematic sampling. The Census of India, 2001 was the sampling frame for DLHS-3 (DLHS-3, 2007-08, Assam).

## 4. Results and Discussions

### 4.1. Death Rate, Infant Mortality Rate (IMR)

Death rate which represents the average number of death per thousand of population and IMR which is the average number of death per 1000 of children born within their age of one year are important demographic statistics. The death rate of Assam according to 2011 registrar General of India's special bulletin is much higher than the All India average death rate with 8.2 and 7.2 respectively. According to gender wise distribution of death rate in Assam, female has lesser death rate with 7.2 than their male counterpart which was 8.7. This phenomenon (female death rate less than male death rate) exists both in rural and urban areas as well, which has been shown in the table given (table no. 1) and it is clear from the bar diagram shown in figure no. 1. This could be due to liquor and tobacco and tobacco products consumption habits of men prevailing in Assam. According to Global Adult Tobacco Survey, Assam has about 39 percent of tobacco users, which includes the consumers of cigarettes, bidis and raw tobacco (The Sentinel, October 13, 2014) and as per the Registrar General of India (RGI) findings Assam figures 23.8 per cent in alcohol consumption which is one of the highest in the country.

In the early period the IMR of India was as high as 200 per thousand compared to UK's and Sweden's IMR of 65 and 51 per thousand respectively. Malnutrition, pneumonia, infectious parasitic and the like are cited as the responsible factors for high IMR in India (Dhar, 2013). The infant mortality in India has been declining since 1978. For instance, the infant mortality which was 218 per thousand in 1916-20 came down drastically to 125 per thousand in 1978 and to 74 and again it declined to 44 per thousand in 2011 (Dhar, 2013, p. 172). However, albeit the general decline in the IMR of India the IMR of Assam has been always higher than the all India average and more so in the case of female IMR. For example, looking at the IMR data from the table (table no.1) it is clear that female IMR is higher than the male IMR in Assam. Out of total infant mortality rate of 58 per 1000 live births the female IMR was 60 per 1000 live births whereas it was 56 for the male counterpart in Assam.

Death Rate (2010) By sex and residence	Residence		Assam	India
	Infant Mortality Rate (2010) By sex and residence	Rural	Male	9.1
Female			8.1	7.2
Total			8.6	7.7
Urban		Male	6.5	6.2
		Female	5.0	5.3
		Total	5.8	5.8
Total		Male	8.7	7.7
		Female	7.7	6.7
		Total	8.2	7.2
Death Rate (2010) By sex and residence	Rural	Male	59	50
		Female	62	53
		Total	60	51
	Urban	Male	35	30
		Female	38	33
		Total	36	31
	Total	Male	56	46
		Female	60	49
		Total	58	47

Table 1: Death rate and IMR of Assam and India by Sex and Residence

Source: Special bulletin on maternal mortality, office of the Registrar General, India, June, 2011

Moreover, there is also a difference between urban and rural IMR. In the rural areas, out of total 60 IMR 62 is female and 59 male. The same scenario is seen in the urban areas as well. The movement of the IMR in rural, urban and Assam in general has been shown in the line diagram shown in figure 1. In the diagram it is clear that the points of female IMR (with data level) are continuously above the male and even above the total IMR of Assam. The reasons for more female infant mortality rate could be insufficient attention and care to the female children after birth as couples preferring for male children is quite high in the state (see table no.2). However, it is a matter to investigate why such a gap is occurring in the IMR between male and female, otherwise there will be a disproportionate and screwed sex ratio in the state.

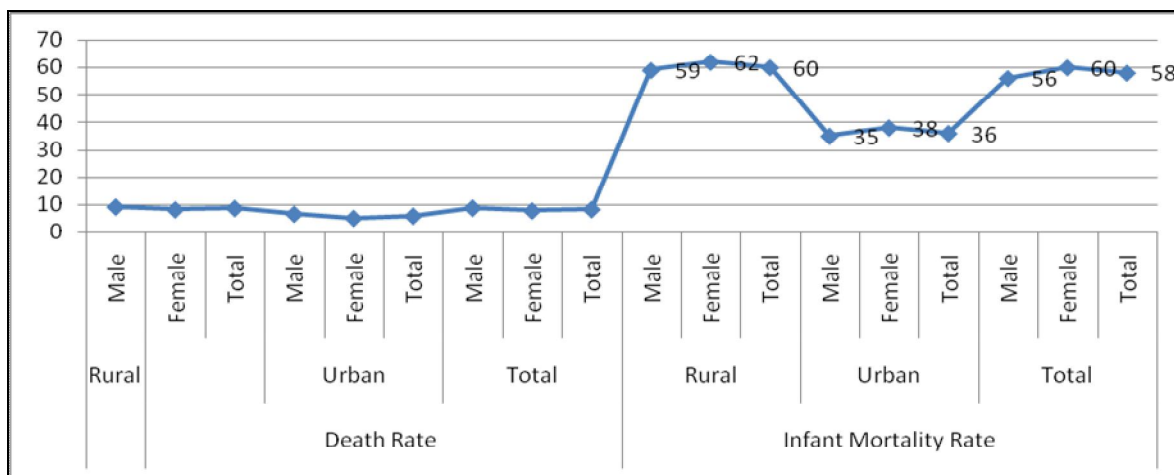


Figure 1: Death Rate and Infant Mortality Rate in Assam by Sex and Residence

Source: Based on table no. 1

#### 4.2. Child Preference by Sex

It is an observed fact that the Western Hemisphere are in favour of feminine population whereas the Asians and more so the Indians favour masculine population. The situation is explicit in Sex preference (male or female) of parents. This perhaps must be due to various misconceptions that male children perform better in building the economy of the family. Moreover, many social evils like dowry has also contributed substantially to the parents' sex determination. Though sex-determination tests in India have been legally banned under Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, still many couples and doctors perform this test tacitly (Times of India, February 24, 2013). Not only this, even though couples do not do this medically there are many who prefer or long to have male children as has been depicted by the data shown in table no.2.

The preference for a boy child is one of the most evident manifestations of the female discrimination in India. It has indeed distorted the sex ratio to such a level in some of the regions that cases of bride kidnapping and bride purchasing has become a common feature. The spatial sex ratio in rural and urban areas in Assam (according to 2011 census) is 956 per 1000 live births in rural areas and 937 per 1000 live births in urban areas. Though the figures are better than the all India averages of 947 in rural

areas and 926 in urban areas, it is not in a comfort zone as the trend in male child preference of the couples are moving upward. The table no.2 depicts child preference by sex in Assam by the couples according to number of living children. In both the rounds of DLHS (rounds 2 and 3) the preference for the boy child dominates and this is clear by the two lines shown in the line diagram (figure no. 2). In figure no. 2 it is obvious that the line for boy preference is continuously above the line for girl preference in both the rounds of DLHS (DLHS 2 and DLHS-3) and in all the number of living children of the couples. Therefore, there is a high probability that this son preference plays an important role in discrimination against daughters through sex-selective abortion, neglect of girl child and high mortality among young girls, and lack of parental motivation to educate girls. This shows how the girl child is given less importance relative to the boy child.

Preferred Sex for Additional Children	Number of living children											
	0		1		2		3		4+		Total	
	DLH S-2	DLH S-3	DLH S-2	DLH S-3	DLH S-2	DLH S-3	DLH S-2	DLHS -3	DLH S-2	DLHS -3	DLHS-2	DLHS-3
												DLHS-2
Boy	8.9	18.4	30.8	38.3	34.0	52.7	34.0	66.4	23.8	53.9	24.1	34.4
Girl	1.5	3.5	18.2	28.7	14.0	22.1	11.1	16.9	6.5	15.2	10.8	18.1
Number of Women	970	2,525	1,122	3,173	495	922	247	274	212	112	3,046	7,006

Table 2: Percent distribution of currently married women by desire for children, according to number of living children, Assam, 2002-04 and 2007-08 (preferred sex of additional children)  
 Source: District Level Household and Facility Survey (DLHS-2 and DLHS-3)

The statement is corroborated by the percentage of children receiving vaccinations in Assam; where the male children usually receive more vaccines than their female counterpart (shown in table no. 2). This is because when the parents wanted a female child and unfortunately they received female child, thus their enthusiasm to care for the child will be lesser than what could have been in case of male child. The same is true in receiving vitamin and Iron Folic Acid (IFA) supplementation (explained in table no.2).It is a matter of complex and urgent problem and needs to be addressed with utmost priority given the fact that the declining child sex ratio has become alarming as has been shown by the 2011 census data (940 girls per 1000 boys for India and 954 girls per 1000 boys for Assam).The practice of male child preference also will add to the increase in birth rate because as long as the couples do not get enough male children they would prefer to go for more and more births.

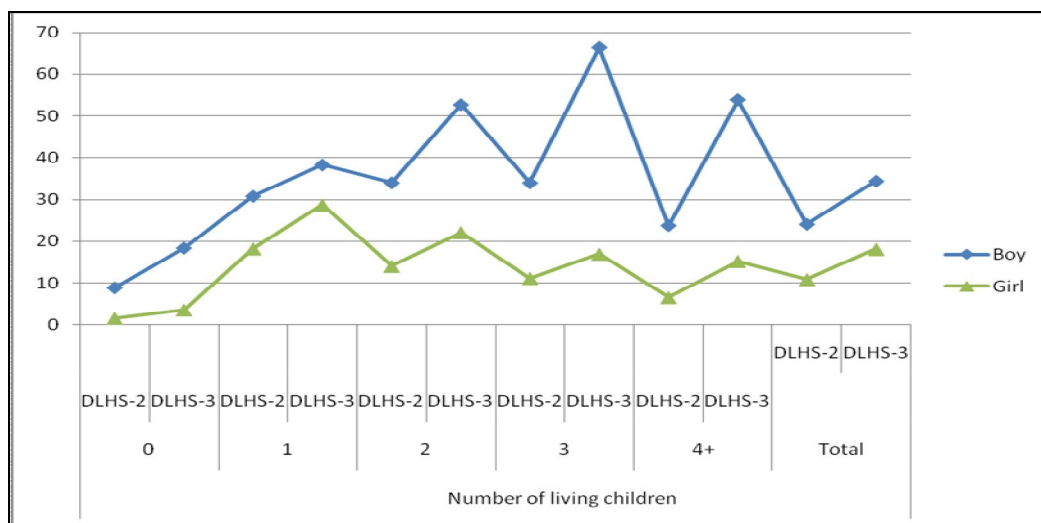


Figure 2: Child preference by Sex (%)  
 Source: Based on table no. 2

## 4.3. Vaccinations and Vitamin A and IFA (Iron Folic Acid) Supplementation (%)

Vaccination			Sex of the Child	
			Male	Female
BCG	DLHS-2		65.6	61.7
	DLHS-3		83.8	83.8
DPT	DLHS-2	1	66.0	61.7
		2	56.8	52.1
		3	40.0	37.2
	DLHS-3	1	78.6	78.7
		2	72.7	72.5
		3	61.3	59.3
Polio	DLHS-2	1	63.3	54.4
		2	52.4	44.7
		3	30.0	27.8
	DLHS-3	1	85.3	85.0
		2	80.1	79.3
		3	65.4	64.2
Measles	DLHS-2		38.2	33.2
	DLHS-3		64.7	63.6
Full <sup>1</sup> Vaccination	DLHS-2		17.8	16.4
	DLHS-3		51.0	50.3
No Vaccination	DLHS-2		20.2	25.9
	DLHS-3		10.9	11.8
Number of Children	DLHS-2		1,029	897
	DLHS-3		1,481	1,350
<sup>1</sup> BCG, three injection of DPT, three doses of Polio (excluding Polio 0) and measles				

Table 3: Vaccination of children

Percentage of children age 12-23 months who received vaccination according to gender, Assam, 2002-04 and 2007-08

Source: District Level Household and Facility Survey (DLHS-2 and DLHS-3)

Prevention is better than cure is an old adage, however in this contemporary world where the price of drugs for treatment of diseases have sky-rocketed and also more drug-resistant viruses have emerged, it will be better to say that prevention is the best practice. Vaccines are preventive medicines for primary health care and are a significant constituent of a country's health security. Therefore, vaccination to prevent diseases is inevitable especially in the underdeveloped and developing countries like India where several diseases like tuberculosis, Acute Placid Paralysis (APP) etc. are still prevalent substantially. In India a national tuberculosis (TB) control programme was launched in 1962 with BCG (Bacillus Calmette Guerin) as the main intervening drug although later DOTS (directly observed treatment, short course) became more popular.

Approximately 5% of people who develop diphtheria (500 out of every 10,000) die from the disease and many more suffer permanent damage (National Network for Immunization Information, 2011). Diphtheria is a disease that causes airway obstruction, heart failure, paralysis of the muscles used for swallowing and pneumonia.

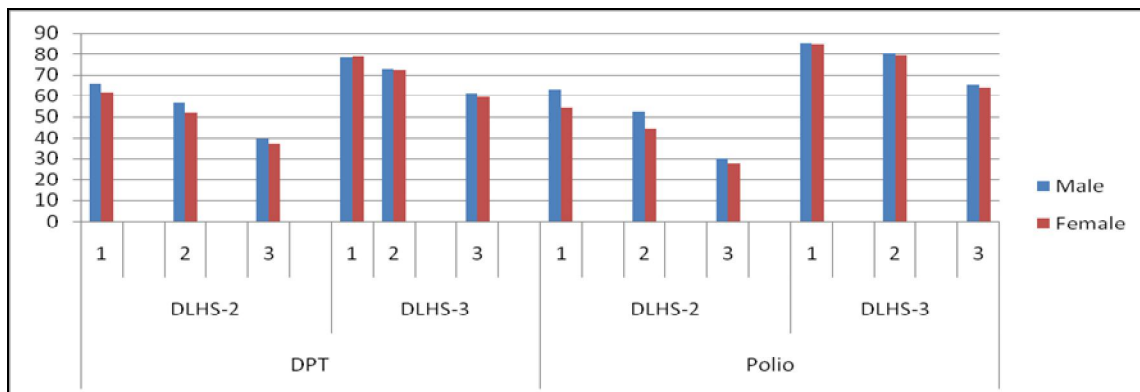


Figure 3: Vaccination of DPT and Polio by sex (%)  
Source: Based on table no. 3

The WHO's (World Health Organization) policy recommended universal immunization of all children to reduce child mortality under its Expanded Programme of Immunization (EPI). In line with Health for All by 2000, in 1978 India introduced six childhood vaccines (Bacillus Calmette-Guerin, TT, DPT, DT, polio, and typhoid) in its EPI. However, looking at the data on vaccination (Assam) from the table given no.3 it is startling to see that the female vaccination is lower than the vaccination of boys. For instance, the DLHS-2 survey data shows (table 3) that DPT vaccination of boys is 66 per cent in 1<sup>st</sup> stage, 56.8 per cent in 2<sup>nd</sup> stage and 40 per cent in the 3<sup>rd</sup> stage, whereas, the percentage of girls who received vaccination in all the three stages are 61.7 per cent, 52.1 per cent and 37.2 per cent respectively. The situation improved by 2007-08 as has been shown by DLHS-3 survey (table 3). It is arguable that the coverage of children vaccination by sex improved from DLHS-2, 2002-04 to DLHS-3, 2007-08. Regarding the girls and boys who did not receive vaccination the difference was very much high in 2002-04 (DLHS-2) with 25.9 per cent of girls with no vaccination against 20.2 per cent of boys without vaccination. However, by 2007-08 (DLHS-3), the percentage difference reduced to 0.9 between boys and girls with no vaccination. This shows that in case of vaccination of children there is no much gender discrimination though it cannot be totally ignored.

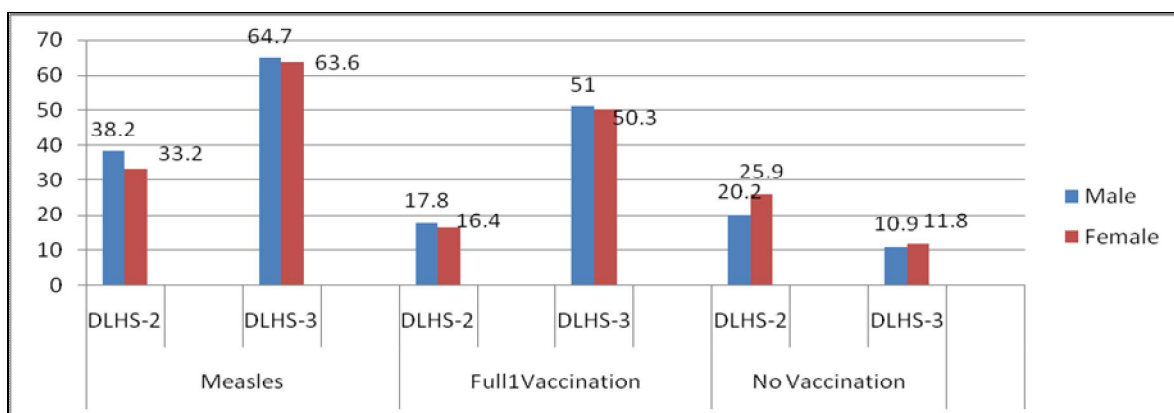


Figure 4: Vaccination of Measles, Full vaccination and No Vaccination by Sex (%)  
Source: Based on table no. 3

Vitamin A is required for normal growth of human body and especially it is very significant in the growth period of the children and the functioning of the light-sensitive rods and cones of the retina. It is estimated that of the 15 million people suffering from blindness in the world, one-fifth have become blind due to vitamin A deficiency and more so 30,000 to 40,000 children lose their eye sight because of vitamin A deficiency (Chronicle, July 2012). However, a study by the National Institute of Nutrition, Hyderabad on eight states of India has found that coverage of the Vitamin A supplementation programme was poor. According to the findings of WHO, the clinical and sub-clinical deficiency of Vitamin A in India is the highest in the world, though a universal programme has been in place for the past three decades. In general vitamin A and IFA supplementation are necessary for the optimum child health. Despite this, there has been tremendous failure in administering these (vitamin and IFA) supplementation in our country and the failure is more by sex wise (male and female) administration as has been shown in table no.4. In 2002-04 (DLHS-2) survey out of 3,026 children only 19.9 per cent of boys received at least one dose of vitamin A and 16.5 per cent of girls received at least one dose of vitamin A. The difference of boys and girls who received vitamin A stands 3.4 per cent. The

percentage of children who received at least one dose of vitamin A increased substantially in 2007-08 (DLHS-3). However, the gender gap grew larger to 4.6 per cent with 52 per cent for boys and only 47.4 per cent of female child receiving at least one dose of vitamin A.

Sex of the Child	Percentage who received at least one dose of vitamin A		Percentage who received iron folic acid tablets/syrup		Number of children	
	DLHS-2	DLHS-3	DLHS-2	DLHS-3	DLHS-2	DLHS-3
Male	19.9	52.0	6.4	NA NA	2,105	3,026
Female	16.5	47.4	4.9		1,851	2,647

*Table 4: Vitamin A and IFA Supplementation for Children by sex (%)*  
*Percentage of children age 12-35 months who have received at least one dose of Vitamin A and iron folic acid tablets/syrup, according to gender, Assam, 2002-04*  
*Source: District Level Household and Facility Survey (DLHS-2 and DLHS-3)*

## 5. Conclusion

The maturity of a society could be judged by how the other half of the society is treated. Any society to develop and perhaps leverage the potential of all the individuals should ensure equality in the society so that a level playing field is created for every individual irrespective of natural differences like gender and space. The study found that there is ample gender discrimination in the health care arena of Assam. The male child is given more importance be it in child preference of couples or health seeking behavior for the children. The percentage of female children lacks behind the male children in receiving vaccinations for tuberculosis, Diphtheria etc. though the trend of discrimination has been decreasing in case of children receiving vaccinations. Therefore, there is gender bias in access to child health care in Assam. However, the trend of child preference by sex seems to be moving in favour of male child. Therefore, it will be helpful if certain steps are taken by the government of Assam through legislative policies to create gender sensitization policies in line with the Maharashtra's (Save the Girl Child) campaign and 'Hameri Beti Express' a mobile unit of Rajasthan lest there will be always poor female literacy rates in Assam compared to male literacy rates. This will go a long way in the state's and country's socio-economic development.

## 6. References

1. Assam has 39 percent tobacco consumers: Survey. (2014, October13). The Sentinel.
2. Bhat, P.N.M. & Zavier, A.J.F. (2003). Fertility decline and gender bias in Northern India. Population Association of America, 40(4), 637-657.
3. Gender sensitization (2012, June).The Chronicle, p.96-103.
4. Desai, S. (1994).Gender inequalities and demographic behavior,India. The Population Council, Inc.,37-55.
5. Dhar, P.K. (2013). Indian economy its growing dimensions. New Delhi: Kalyani Publishers.
6. District Level and Household Facility Survey. Reproductive and child health project. (2002-04). Retrieved from <http://www.rchiips.org/pdf/state/Assam.pdf>.
7. District Level and Household Facility Survey. Reproductive and child health project. (2007-08).Retrieved from <http://www.rchiips.org/pdf/rch3/report/As.pdf>.
8. Gupta, M.D., & Bhat, P.N.M. (1997). Fertility decline and increased manifestation of sex bias in India. Population Studies, 51, 307-315.
9. Hussain, Y. (2014). Gender Inequality, Azad India Foundation. <http://www.azadindia.org/social-issues/GenderInequality.html>.
10. Madhavi, Y. (2005). Vaccine Policy in India. PLoS Med, 2(5): e127. doi:10.1371/journal.pmed.0020127
11. Mehrotra, M. A. & Chand, S. (2012). An evaluation of major determinants of health care facilities for women in India. Journal of Humanities and Social Science, 2(5), 01-09.
12. Mishra, M.(2006). Gendered vulnerabilities: Women's health and access to healthcare in India. Centre for Enquiry into Health and Allied Themes. <http://www.cehat.org/humanrights/mansee.pdf>.
13. Mishra, V., Roy, T. K. & Retherford. R. D. (2004). Sex differentials in childhood feeding, health care, and nutritional status in India. Population and Development Review, 30, 269-295.
14. Murthi,M., GuioA.C.&Dreze J. (1995).Mortality, fertility, and gender bias in India: A district-level analysis. Population and Development Review, 21(4), 745-782
15. Parmar, V. (2014, June 12). Doctor caught conducting sex determination tests in Bhavnagar. The Times of India.
16. Sonaimuthu, P. (n.d.).Gender inequality in India, the significance of being born as woman.
17. [https://www.google.co.in/?gfe\\_rd=cr&ei=AbM7VLCuJuPV8geB7oD4Bg&gws\\_rd=ssl#q=SONAIMUTHU+status+of+women+in+india](https://www.google.co.in/?gfe_rd=cr&ei=AbM7VLCuJuPV8geB7oD4Bg&gws_rd=ssl#q=SONAIMUTHU+status+of+women+in+india)