

## **INSTITUTIONAL DELIVERY IN PUBLIC AND PRIVATE SECTORS IN THE URBAN SLUMS OF TAMIL NADU**

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### **Abstract**

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Government of India have launched various health programs like Reproductive health services, National Rural Health Mission, National Urban Health Mission and now National Health Mission to improve the health status of women and children and to improve institutional delivery. Two municipal corporations Dindigul and Madurai in Tamil Nadu were selected for the study, 460 women aged 15-49 years were interviewed by trained investigators and the collected data was analyzed with chi square and logistic regression analysis using SPSS 16. A higher proportion of women in urban slums (68.4 per cent) delivered at government health facilities, 25.6 per cent of women delivered at private health facilities and the remaining 6 per cent of women delivered at home. Seventy five per cent of deliveries are normal and the remaining 25 per cent of deliveries are Cesarean/ assisted deliveries. Women whose age at marriage is between 18–21 years, higher gravida women, women whose delivery is normal are more likely to prefer government health facilities compared with their counterparts. Though government

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have taken various steps by improving infrastructure, specialty care services, maternity benefit schemes etc., a significant proportion of urban poor women still prefer private health facilities for their delivery. Awareness creation among women, Mass media exposure on institutional delivery at government health facilities, filling up gynecologist posts and ensure availability of female medical officers at the government health facilities, will help women to prefer public health facilities and avail health services at free of cost.

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## 1. Introduction:

Globally, two-thirds of deliveries are conducted in a public or private health facility. However, according to UN, 2015, 85 % of maternal deaths occurred in sub-Saharan Africa and South Asia - only half of deliveries are institutional. Government of India have launched *Janani Suraksha Yojana* (JSY) in 2005, a cash assistance given to women of lower socio economic condition to improve institutional delivery. [Lim SS, et.al., 2010]. Also government have launched National Rural Health Mission (NRHM) and introduced Accredited Social Health Activist (ASHA) program and JSSK to promote institutional delivery in rural areas. ASHAs are trained community health volunteers helping pregnant women to access health facilities [Lim SS, et.al., 2010; MoHFW, 2011]. But still there exist inter district variations, rural urban differentials in utilizing government health facilities, a significant proportion of urban poor women living in urban slums still prefer private health facilities for delivery. This paper will highlight the utilization of institutional delivery services in the urban slums of Tamil Nadu. **Review of**

**Literature:** According to a research study conducted by Jat TR, socio-demographic position of women are important predictors of institutional delivery in addition to availability, distance and cost and quality of services [Jat TR, 2010]. Recent studies highlighted associations between institutional delivery with women's economic status, educational status, age, and parity [Abeje G, 2014]. The proportion of institutional delivery increased with increase in economic and educational status. According to Annual Health Survey (2012) findings, private hospitals opt for Cesarean deliveries over normal deliveries. Due to non availability of equipments, gynecologists, women prefer private hospitals for their delivery. Based on the above review of

literature, the present paper highlights the present situation of institutional delivery service utilization of women in urban slums in Tamil Nadu.

## 2. Research Method:

Dindigul and Madurai municipal corporation areas, out of 12 municipal corporations were selected for the study based on percentage of urbanization in Tamil Nadu and the study adopted an analytical study design. Women aged 15-49 years, who are living in urban slums were selected as sampling units and the sample size was calculated as 460 and adopted Probability proportional to size sampling method. The trained investigators were used for data collection and data analysis like tabular, Percentage, Chi square and Logistic regression analysis was carried out using SPSS 16. Women who delivered at institutions (public and private) is considered as dependent variable and the socio economic, demographic and other variables like Religion, Caste, Education of wife, Occupation of wife, type of family, standard of living index, age of mother, age at marriage, Gravida, type of delivery, pregnancy complications, delivery complications, post delivery complications, empowerment of women, mass media exposure and health seeking behavior of women for their reproductive health problems are considered as independent variables. **Objective:** The objective of this paper is to determine the factors associated with utilization of institutional delivery services of women in urban slums in Tamil Nadu.

## 3. Results and Analysis:

The awareness about payment of JSY is 36.3 per cent, only 28 per cent of women aware about delivery related problems and 23.7 per cent of women living in urban slums aware about health problems after delivery. Nearly 41 per cent of women knew about institutional delivery only through Doctor/health workers during their visit to health facilities and knew through other media like Radio / TV / News papers are very less.

A majority of women (64.1 per cent) delivered at government hospital, UPHC/UFWC (3 per cent), Government dispensary (1.3 per cent), 25.6 per cent of women preferred private facilities for their delivery and remaining 6 per cent of women delivered at home. Doctors (57.2 per cent) conducted the delivery and 37 per cent of deliveries were conducted by ANM/Staff

nurse. Regarding type of delivery, 75 per cent of deliveries are normal, 22.6 per cent of deliveries are Cesarean deliveries and 2.4 per cent of deliveries are by instrument or assisted. Out of 460 women interviewed, 36.7 per cent of women suffered due to delivery related problems namely premature labour (24.6 per cent), prolonged labour (22.2 per cent) and excessive bleeding (20 per cent). Among women delivered at institutions, the reported reasons for not visited government health facilities are, heavy rush (73 per cent) followed by waiting time too long (58.4 per cent), non-availability of doctors/Health workers (46.5 per cent), not conveniently located (36.7 per cent), facility timing not convenient (36.3 per cent), Doctors/paramedical staff does not behave properly (35.4 per cent), poor quality of services (34.5 per cent), etc.,

Per cent distribution of women living in urban slums delivered at institutions according to socio economic, demographic and other characteristics are presented in Table 1a, 1b.

**Table 1a: Per cent distribution of Institutional delivery by Socio economic and demographic characteristics of women**

Socio Economic and Demographic	No.	Institutional delivery		Chi squar	p value
		Governme	Private		
<b>Religion</b>					
Hindu	334	74.0	26.0	1.084	0.582
Muslim	47	68.1	31.9		
Christian	52	69.2	30.8		
<b>Caste</b>					
SC	220	75.0	25.0	1.704	0.426
MBC	33	75.8	24.2		
BC	180	69.4	30.6		
<b>Education of wife</b>					
Illiterate	54	79.6	20.4	3.685	0.298
Primary	87	73.6	26.4		
High school	218	73.4	26.6		
Higher secondary and	74	64.9	35.1		
<b>Occupation of wife</b>					
House wife	318	73.0	27.0	1.106	0.575
Labourer /Sanitary work	52	76.9	23.1		
Company/Other work	63	68.3	31.7		
<b>Type of family</b>					
Nuclear family	317	71.6	28.4	0.775	0.225

Joint family	116	75.9	24.1		
<b>Standard of living Index</b>					
Low	188	74.5	25.5		
Medium	138	69.6	30.4	1.049	0.592
High	107	73.8	26.2		
<b>Age of mother (years)</b>					
<=24	75	77.3	22.7		
25-29	112	76.8	23.2		
30-34	95	67.4	32.6	4.334	0.363
35-39	88	73.9	26.1		
40+	63	66.7	33.3		
<b>Age at marriage (years)</b>					
<18	93	74.2	25.8		
18-21	218	78.0	22.0	9.834	0.007*
22+	122	62.3	37.7		
<b>Gravida</b>					
0	15	66.7	33.3		
1	87	63.2	36.8	7.121	0.043*
2	173	75.7	24.3		
3	87	79.3	20.7		
4+	71	70.4	29.6		
<b>Total</b>	<b>433</b>	<b>72.7</b>	<b>27.3</b>		

Note: \* significant at 5% level.

Chi square analysis was carried out to understand the association between delivered women at institutions with socio economic and demographic characteristics. The variables namely, age at marriage, gravida, type of delivery and delivery complications of women are significantly associated with women delivered at public or private institutions and is significant at 5 % level ( $p < 0.05$ ). All other variables namely, Religion, Caste, Education of wife, Occupation of wife, type of family, Standard of living Index, age of mother, pregnancy complications, post delivery complications, empowerment of women, mass media exposure and health seeking behavior of women for RH problems are not statistically significant ( $p > 0.05$ ).

A higher per cent of Hindu women (74 per cent), Most backward community women (76 per cent), Scheduled caste (75 per cent), Illiterate women (80 per cent), women working as Labourer /Sanitary work (77 per cent), women living in joint family system (76 per cent), low standard of living women (75 per cent), women aged 15-29 years old (77 per cent), women married between 18-21 years (78 per cent), 3 gravida women (79 per cent), women

with normal delivery (75 per cent), women with no pregnancy complications (75 per cent), women with delivery complications (79 per cent), women with low empowerment status (74 per cent), women with low mass media exposure (75 per cent) and women with medium level of treatment seeking behavior (77 per cent) delivered at government health facilities.

**Table 1b: Per cent distribution of Institutional delivery by other characteristics of women**

Other Characteristics	No.	Institutional delivery		Chi Square	p value
		Governme	Private		
<b>Type of delivery</b>					
Normal	324	75.3	24.7	4.256	0.039*
Cesarean/Assisted	109	65.1	34.9		
<b>Pregnancy</b>					
No	140	75.0	25.0	0.529	0.467
Yes	293	71.7	28.3		
<b>Delivery complications</b>					
No	271	69.0	31.0	5.123	0.024*
Yes	162	79.0	21.0		
<b>Post delivery</b>					
No	241	73.0	27.0	0.022	0.883
Yes	192	72.4	27.6		
<b>Empowerment of</b>					
Low	200	74.0	26.0	0.480	0.787
Medium	129	70.5	29.5		
High	104	73.1	26.9		
<b>Mass media exposure</b>					
Low	207	74.9	25.1	1.004	0.605
Medium	137	71.5	28.5		
High	89	69.7	30.3		
<b>Health seeking behavior Problems</b>					
Low	254	71.3	28.7	1.354	0.508
Medium	105	77.1	22.9		
High	74	71.6	28.4		
<b>Total</b>		<b>72.7</b>	<b>27.3</b>		

Note: \* significant at 5% level.

Regarding women delivered at private health facilities, a higher per cent of women belonging to Muslim community (32 per cent), women belonging to backward community (31 per cent), women who have completed Higher secondary and higher education (35 per cent), women working company/other work (32 per cent), women living in nuclear family system (28 per cent), medium standard of living women (30.4 per cent), women aged above 40 years (33 per cent), women married above 22 years (38 per cent), one gravida women (37 per cent), women with Cesarean/assisted delivery (35 per cent), women with pregnancy complications (28 per cent), women with no delivery complications (31 per cent), women with medium empowerment status (30 per cent), women with high mass media exposure (30 per cent) and women with low level of treatment seeking behavior (29 per cent) have visited private health facilities for their delivery.

Logistic regression analysis was carried out by taking the dependent variable as women living in urban slums who delivered at government health facilities as 1 and women who delivered at private health facilities as 0. Age at marriage, gravida, type of delivery and delivery complications are significant ( $p < 0.05$ ) and all other variables are not significant. Women married between 18-21 years are more likely to go for government health facilities for delivery than their counterparts. Higher gravida women are more likely to deliver at government health facilities compared with lower gravida women. Women whose delivery was normal prefer government health facilities and women who experienced delivery complications are more likely to go for private health facilities for their delivery.

#### **4. Conclusion**

The variables which are significantly associated with institutional delivery of women living in urban slums are age at marriage, gravida, type of delivery and delivery complications ( $p < 0.05$ ). Women whose age at marriage is between 18–21 years, higher gravida women, women whose delivery is normal are more likely to prefer government health facilities compared with their counterparts. Though government have taken various steps by improving infrastructure, specialty care services, maternity benefit schemes etc., a significant proportion of women still prefer private health facilities though most of the people living in urban slums are belonging to low standard of living. Awareness creation among women, Mass media exposure on institutional

delivery at government health facilities, filling up gynecologist posts and ensure availability of female medical officers at the government health facilities, will help women living in urban slums to avail free government services at the public health institutions at free of cost.

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