

Changing trends in facility based deliveries at basic health units after People Primary Healthcare Initiative in Taluka Sinjhor, District Sanghar: A descriptive study.

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ABSTRACT:

The maternal morbidity and mortality and neonatal morbidity and mortality are important health indicators for assessing the health status of a country. Pakistan is having a high maternal mortality and child mortality rate and our country is unlikely to achieve Millennium Development Goals (MDGs) 4 and 5, which are linked with child health and maternal health respectively. **Rationale:** This study will generate evidence regarding benefits of involving the private sector in provision of health services at very first Primary Health Care level and how facility based deliveries will be an effective way of decreasing the maternal and neonatal morbidity and mortality. **Aim:** is to improve overall health status of child bearing women of Taluka Sinjhor. **Objectives** i) To determine the trends of facility based deliveries before and after PPHI ii) To do the secondary data analysis of the BHUs in terms of facility based deliveries. **Study variables:** i) Type of delivery ii) age of delivering women frequency of deliveries, iii) Status of human resource available in BHU's regarding facility based deliveries, iv) referral system. **Results:** There is an increase in the number of facility based deliveries at BHUs after charge over by PPHI. 20% females were under 18, 52% were between 19-24, 23% were between 25-30 and 5% were above 30 years. Rukan Buriro. 61% of women were presenting for first time at BHU Rukan Buriro while 39% women were presenting for second time. **Conclusion:** The study yielded a lot of valuable information and gave a picture of the existing situation. It was found that the Peoples Primary Health Initiative had a very positive impact on the facility based deliveries at these basic health units and the involvement of PPHI has created a positive trend not only at the basic health units but also in the minds of the local community and it has changed their past concepts regarding the facility based deliveries.

Key words: basic health units, Sanghar, Primary Healthcare, maternal morbidity, neonatal morbidity, health indicators.

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INTRODUCTION

The maternal morbidity and mortality and the neonatal morbidity and mortality are important health indicators for assessing the health status of a country. All these are

closely related to each other. Pakistan is having a high maternal mortality and child mortality rate and our country is unlikely to achieve Millennium Development Goals (MDGs) 4 and 5, which are linked with the child health and maternal health

respectively. Facility based deliveries are the deliveries carried out in a health facility. These deliveries in a health facility help in reducing maternal and perinatal morbidity and mortality¹. The Pakistan Demographic and Health Survey (PDHS) of 2005-2006 shows that the facility based deliveries were 34%, these rose to 48% in the 2012-13 PDHS survey². In this way, a positive pattern can be seen towards the office based conveyances in Pakistan. It has been seen that in some low-salary settings where there is a high weight of maternal passings, just a couple of ladies use offices for birth, and they pick a higher-chance birth at home, frequently without gifted and proficient clinical assistance³. As 80 percent of maternal passings could be kept away from with accessible mediations, numerous creators have asked nations to make a move and execute strategies to encourage progressively fair access to administrations¹⁶. This clarifies why human rights associations have joined this discussion^{17, 18}.

The use of maternity care gave via prepared experts during and after conveyance is alarmingly low, essentially because of absence of information and cash²³. Some low-center pay nations have concentrated on improving access to nature of obstetric consideration, as a major aspect of advancing an office based intra-partum care system to decrease maternal mortality¹⁹. Albeit regenerative wellbeing administrations have been extended in provincial networks over the most recent quite a while, no orderly endeavor has been made to survey their commitment to advance safe conveyance²². There are a few hindrances for pregnant ladies to convey in a social insurance

office and in light of the troublesome landscape and transportation issue in rustic territories, intercessions that make maternity administration truly open during antenatal period are expected to expand the usage of wellbeing office for labor²⁴. There is master accord that conveyance at a wellbeing office generously lessens the danger of maternal passing²⁵. "Progress in the decay of maternal mortality has been disappointingly delayed in Pakistan. The lacking status of existing open division offices in Pakistan, with poor administration and the low quality and accessibility of items and administrations has added to low assistance usage rates²⁷".

One vital way to deal with increment the utilization of proper maternal medicinal services administrations is to support the development of the job of the private segment. Notwithstanding, pundits of such a methodology contend, that expanding the job of the private segment will prompt expanded disparity in the utilization of maternal medicinal services administrations²⁶. More than 65% of the population of Pakistan lives in the rural areas and same is the situation with the Sindh province. Taluka Sinjhor is located in the District Sanghar, of the Sindh Province. The population of Taluka Sinjhor in 2010 was 2, 72,275⁴. Management of BHUs of taluka Sinjhor is under control of PPHI which is running all the BHUs of District Sanghar. Before handing over to PPHI, performance of these facilities was very poor which now has been improved. PPHI was launched to overcome the failure of many First Level Care Facilities in Pakistan to deliver Primary Health Care (PHC) services through health facilities that were

understaffed, poorly resourced and ineffectively managed. It is quite clear that in the districts where PPHI has been operating for the longest time (approximately 7 years since mid or end 2007 until 2015) PPHI has achieved significant improvements in staffing, availability of drugs and equipment and physical condition of facilities, including rehabilitation of BHUs⁵.

LITERATURE REVIEW

Following literature review generates the evidence of the importance and effectiveness of the facility based deliveries and the impact of Public Private Partnership (PPP) on the facility based deliveries. A study in China on the facility based deliveries it was found that “by the facility based deliveries the neonatal mortality decreased by 62% between 1996 and 2008”. Also, the rate of neonatal mortality which was much lower for health facility based births than for home births in all the regions⁶. A study in Rural Northern Ghana on the health center based deliveries identified that the “region of Ghana is undergoing a pronounced transition from traditional to contemporary birth-related practices; and the local community has realized about the benefits of health center based deliveries”⁷. A study in Nairobi conducted on facility based deliveries showed that “increases in facility based deliveries can be achieved through output-based finance models that target subsidies to underserved populations”⁸. Another study in Rural China on health-care facility based deliveries reported the “percentage of women who gave birth outside a health-care facility declined rapidly from 45% (535/1181) in 1998 to 10% (148/1481) in

2007”⁹. A population based study conducted in Rural Burkina Faso in “2007 a policy was introduced in Burkina Faso which offered women 80% subsidy on facility based deliveries and in result of implementing this policy over the 5 years the facility based deliveries increased from 49 to 84 %”¹⁰. A study in Gujrat India, which focused on an Indian state-led public private partnership where the state pays accredited private obstetricians to perform deliveries for poor/tribal women, in this study it was found that there is increase in institutional based deliveries from 40-89%¹⁹. However, a different study also conducted in Gujrat, India found that “this programmed was not associated with changes in the probability of institutional delivery”²⁰.

An examination concentrating on the behavior change correspondence activity in Bangladesh utilized pictorial cards to caution of pregnancy risk signs during routine antenatal visits. Information on these risk signs was found to increment from 8.9% to 34.2% and ladies with this information were assessed to be 1.13 occasions bound to have institutional conveyances²¹. A study was led in Rural Jhang on the institutional based deliveries of Pakistan. It demonstrated that “the expansion in institutional conveyance among poor ladies comparative with non-poor ladies was altogether more noteworthy”¹¹. Another study led on the hugeness of institutional based conveyances in Dera Ghazi Khan City, indicated that a voucher intercession actualized for a year was related with a significant increment in institutional conveyances and a considerable scale-up of maternal wellbeing vouchers that concentrated on institutional conveyances

is probably going to carry Pakistan closer to accomplishing its 2015 objective for institutional conveyances¹². Another study directed on institutional based deliveries in Rural Jhang, Pakistan demonstrated that "ladies were generously less inclined to convey at a wellbeing office after their first labor and ladies with essential or advanced education were substantially more liable to have an institutional conveyance"¹³.

In Pakistan, open segment regularly needs ability to successfully and evenhandedly deal with the social insurance administrations. It drove the legislature to redistribute the organization of PHC administrations to a semi-self-governing government element for example PPHI¹⁴. Advantages of Public Private Partnership incorporate cost reserve funds as far as account. It incorporates the breakdown and appropriation of dangers so no single accomplice faces whole misfortune. It incorporates better help levels or keeping up existing degrees of administration. It includes increment in the pay and the common monetary advantages. Potential dangers of Public Private Partnership remember loss of control of the administration for region, increment in costs, increment in political dangers and untrustworthy assistance. It likewise includes powerlessness to profit by rivalry and low quality or adequacy of administrations. It additionally includes predisposition in the determination process and labor issues¹⁵. The recent Pakistan Demographic and Health Survey found that "59% of women in Sindh Province of Pakistan delivered in a health facility. Among the 10 focus districts, the institutional delivery rate was 52%, with the rate being lowest in Tharparkar District

(15%). Births in public sector type health facilities may be lower than in the private sector due to a lack of 24/7 services and a shortage of female health providers²⁸.

RATIONALE

This study was designed to determine the changing trends which Peoples Primary Healthcare Initiative created after taking over the charge of BHUs with regards to facility based deliveries. This study will generate evidence regarding the benefits of involving the private sector in provision of health services at the very first Primary Health Care level and how the facility based deliveries will be an effective way of decreasing the maternal and neonatal morbidity and mortality in Taluka Sinjhoru.

AIM: Aim is to improve the overall health status of child bearing women of Taluka Sinjhoru. **OBJECTIVES:** The following were the objectives i) To determine the trends of facility based deliveries before and after PPHI ii) To do the secondary data analysis of the BHUs in terms of facility based deliveries. **STUDY SITE:** This Study was conducted in Taluka Sinjhoru. Taluka Sinjhoru is located in the District Sanghar of the Sindh Province. The population of Taluka Sinjhoru in 2010 was 2,72,275. This site gave a comprehensive picture of the health care situation in rural areas. **STUDY DURATION:** Three months (April 2015-June 2015). **STUDY DESIGN:** Descriptive study based on secondary data analysis. **SAMPLING TECHNIQUE:** Universal Sampling. **SAMPLE SIZE:** 5 BHUs of Taluka Sinjhoru. **INCLUSION CRITERIA:** All facility based deliveries in the 5 BHUs of Taluka Sinjhoru from

2001-2014. **STUDY VARIABLES:** The following variables were studied: i) Type of delivery ii) age of delivering women frequency of deliveries, iii) Status of human resource available in BHU's regarding facility based deliveries, iv) referral system

DATA COLLECTION METHODS

Secondary data was collected from the DHIS.

Obstetric registers were also checked. Data of previous 14 years was collected, 7 years before the coming of PPHI and 7 years after PPHI i.e. from 2001 to 2014. **DATA ANALYSIS PLAN:** The data was collected manually. Then it was entered in the computer in software. The Statistical Package for Social Sciences i.e. the SPSS software version 20 was used to analyze the data. Tables, graphs were also used to analyze the data. **ETHICAL CONSIDERATION:** Ethical approval was taken from Internal Review Board (IRB) of the Health Services Academy, Islamabad, Pakistan prior to start of the study. Informed consent from Peoples Primary Healthcare Initiative Authorities

and from the Executive District Officer Health of the District Sanghar was also taken.

RESULTS: Data was collected and analysis of all the study variables for each and every BHU was done separately, so as to have a comprehensive overview of the situation of the whole study area. **Status of Facility Based deliveries before PPHI:** It must be noted that during period from 2001-2007, when BHUs were under Government Supervision, there was no proper infrastructure and staff available for facility based deliveries at these BHUs. So, the facility based deliveries and study variables during this period were nil. There is an increase in number of facility based deliveries at BHUs after charge over by PPHI. At BHU Jiabad out of all facility based deliveries coming, 90% were normal vaginal deliveries while remaining 10% were others deliveries. BHU 22 Jamrao out of all facility based deliveries coming, 82% were normal vaginal deliveries while remaining 18% were others deliveries. BHU Pretamabad out of all facility based deliveries coming, 87% were normal vaginal deliveries while remaining 13% were others deliveries.

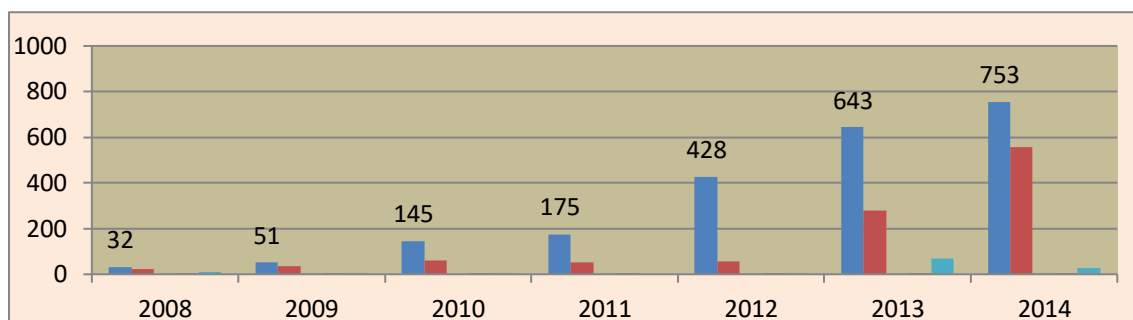


Fig:1 Facility Based Deliveries

Another variable studied wastype of deliveries coming to BHUs. These were divided into two. One was normal vaginal deliveries and other were all others(Instrumental, Obstructed).BHU Rukan Buriro out of all facility based deliveries, 82% were normal vaginal deliveries while remaining 18% were

normal vaginal deliveries while remaining 20% were others deliveries.Age of women having facility based deliveries at BHU Rukan Buriro. 20% females were under 18, 52% were between 19-24, 23% were between 25-30 and 5% were above 30 years. Age of women having facility based deliveries at BHU Khadro. 22% females were under 18, 50% were between 19-24,

Type of facility based deliveries	Normal		Other	
Rukan Buriro	82%		18%	
Khadro	80%		20%	
Jiabad	90%		10%	
22 Jamrao	82%		18%	
Pretamabad	87%		13%	
Age of Women coming for delivery:				
BHU	<18	19-24	25-30	>30
Rukan Buriro	20%	52%	23%	5%
Khadro	22%	50%	21%	7%
Jiabad	12%	60%	24%	4%
22 Jamrao	26%	51%	14%	3%
Pretamabad	16%	67%	13%	4%
Frequency				
BHU	1st		2nd	
Rukan Buriro	61%		39%	
Khadro	55%		45%	
Jiabad	52%		48%	
22 Jamrao	56%		44%	
Pretamabad	52%		48%	
Status of Human resource				
BHU	WMO		LHV	
Rukan Buriro	1		3	
Khadro	1		3	
Jiabad	1		1	
22 Jamrao	1		1	
Pretamabad	1		1	
Referral				
BHU	Proper		Improper	
Rukan Buriro	√			
Khadro	√			
Jiabad			√	
22 Jamrao			√	
Pretamabad			√	

others deliveries. BHU Khadro out of all facility based deliveries coming, 80% were

21% were between 25-30 and 7% were above 30 years. Age of women having

facility based deliveries at BHU Jiabad. 12% females were under 18, 60% were between 19-24, 24% were between 25-30 and 4% were above 30 years. Age of women having facility based deliveries at BHU Jamrao. 26% females were under 18, 57% were between 19-24, 14% were between 25-30 and 3% were above 30 years. Age of women having facility based deliveries at BHU Pretamabad. 16% females were under 18, 67% were between 19-24, 13% were between 25-30 and 4% were above 30 years.

61% of women were presenting for first time at BHU Rukan Buriro while 39% women were presenting at BHU Rukan Buriro for the second time. The 55 % of women were presenting for first time at BHU Khadro while 45% women were presenting at BHU Khadro for the second time. 52 % of women were presenting for the first time at BHU Jiabad while 48% women were presenting at BHU Jiabad for the second time. 56% of the women were presenting for the first time at BHU 22 Jamrao while 44% women were presenting at the BHU 22 Jamrao for the second time. 52% of the women were presenting for the first time at the BHU Pretamabad while 48% women were presenting at the BHU Pretamabad for the second time. At BHU Rukan Buriro one WMO and three LHV were posted, at BHU Khadro one WMO and three LHV were posted, BHU Jiabad one women Medical Office and one LHV was posted. At BHU 22 Jamrao one WMO and one LHV were posted. At BHU Pretamabad, one WMO and one LHV were posted. BHU Rukan Buriro had a very efficient referral system for referral of complicated delivery cases. It had availability of ambulance with driver round the clock. BHU Khadro had referral

system for the referral of complicated delivery cases. BHU Jiabad had not very good referral system for referral of complicated delivery cases. It did not have availability of ambulance with driver. BHU 22 Jamrao had a not very good referral system for referral of complicated delivery cases. It did not have availability of ambulance with driver. BHU Pretamabad had a not very good referral system for referral of complicated delivery cases. It did not have availability of ambulance with driver.

DISCUSSION:

Number of interventions are done globally to improve maternal and child health indicators. Intervention of facility based deliveries is a very proven and effective intervention. It has improved the maternal and child health care indicators in many countries. Research taking intervention of facility based deliveries and role of public private partnership like Peoples Primary Healthcare Initiative (PPHI) and changing trend it has created on the BHUs of Taluka Sinjhoru of the district Sanghar. Sinjhoru is one of remote areas of district Sanghar and BHUs are first site where people visit. Analyzing impact which, PPHI created after taking over charge of BHUs. Study was based on the secondary data analysis of the District Health Information System. After, ethical approval by the review committee board Data was collected. Study is representative of situation of whole district because study sample was a universal sample and it included five BHUs of Taluka Sinjhoru. Analysis of findings and result for each BHU done separately. Findings shows, period from 2001-2007, BHUs were under Government

Supervision, there was no proper infrastructure and staff available for facility based deliveries at BHUs. Deliveries during that period were almost nil. Initiation of evening and night shifts and provision of 24/7 services of facility based deliveries. Concept of evening and night shifts and initiation of 24/7 services of facility based deliveries was only available at BHU Rukan Buriro and BHU Khadro which increased number of facility based deliveries to a marked level as compared to other BHUs. It is a point to ponder for our government, our policy makers and senior health professionals.

Another study variable was the type of deliveries which come to BHUs. Data was collected regarding types of facility based deliveries coming to BHUs. All other except normal vaginal deliveries were termed as others which were instrumented and obstructed or complicated. Approximately 85% of facility based deliveries were normal vaginal deliveries while remaining 15 % were others deliveries. 15% of other facility based deliveries were mostly complicated cases which were referred to higher facility level for further management. Another study variable of interest was age of women coming to health facilities. 52% to 61% of women coming to health facilities were ranging in age group between 18-29 years. It was important as it gave an overview of general childbearing ages of women residing in peripheral rural areas. Information is also useful for which low age pregnancies are likely to become complicated and are to be referred to higher facility levels. Another study variable of interest was frequency with which women were coming to health facilities for the facility based deliveries. It

was important indicator as patients' satisfaction from the services provided by BHUs in terms of facility based deliveries. Another important study variable which was status of human resource for facility based deliveries available in BHUs. Human resource is an important component and building block for well-functioning of any health system globally. Observations through evidence that all five BHUs of taluka Sinjhoru have filled posts of all staff sanctioned against them, although post of WHOs are not sanctioned against all these five BHUs but PPHI authorities had posted the WMOs in morning shift for better health care provision in catchment area, but, reason behind maximum facility utilization for deliveries in two BHUs i.e. Rukan Buriro and Khadro of taluka is due to extra human resource for services 24/7 to strengthen and for increasing service utilization are provided by PPHI authorities, as BHU Rukan Buriro and BHU Khadro have trained LHV's for evening and night shifts too, which resulted in increased utilization of services in both of these health facilities significantly. It was found that BHU Rukan Buriro and BHU Khadro were having well established and well functional referral systems. BHU Rukan Buriro and BHU Khadro were having availability of ambulance systems with drivers round the clock for referring complicated deliveries to higher health facility level. Remaining three BHUs were not having well-functioning and efficient referral systems. Findings of this study were consistent with a study conducted in Rural Northern Ghana which developed a meta theme that region of Ghana is undergoing a pronounced transition from

traditional to contemporary birth-related practices; and local community has realized about the benefits of health center based deliveries⁷. Study findings were consistent with a study which focused on an Indian state-led public private partnership in which it was found increase in facility based deliveries from 40-89%¹⁹.

Findings are consistent with many other studies on facility based deliveries in world. The results and findings and analysis of data, from the information, it is evident that PPHI have a very positive impact on facility based deliveries in BHUs. It has increased and improved number of facility based deliveries to a markedly higher level. There is marked impact of introducing public private partnership in health sector, particularly at very initial PHC level. Before, handing over of Government of Sindh of BHUs to PPHI, there was improper infrastructure available for service provision of facility based deliveries at BHU level to local community. Before PPHI, communities used to rush to and travel far to urban cities for facility based deliveries. Since, PPHI has taken charge of BHUs, people now have access to services. Study will help policy makers to evaluate effects of Public private partnership in health sector, particularly in terms of facility based deliveries at PHC level.

LIMITATIONS OF THE STUDY:

One of the limitations of this study is the data obtained from the DHIS cannot be 100% accurate, efforts were taken to maximize accuracy through, cross-check of data from obstetric registers for any error. Another study limitation is that this study could not be generalized for any

other BHUs in any other Taluka of Pakistan.

CONCLUSION: From all the above study, it can be concluded that maternal and child health care are the key health issues of a country and similarly the Millennium Development Goals have been formulated. The MDGs 4 and 5 specifically writes about this issue. Pakistan is also one of those countries of the world which is signatory of the eight Millennium Development Goals and is bound to achieve the set goals and target of these MDGs by the year 2015. But, Unfortunately Pakistan is off the track in achieving the set goals and targets of these MDGs. Same is the condition of Pakistan in achieving the MDG 4 and MDG 5. Now, a new concept of Sustainable Development Goals (SDGs) is being introduced for those countries which are unlikely to achieve these MDGs. These countries have found fruitful results and are likely to achieve these by the year 2015. The study yielded a lot of valuable information and gave a picture of the existing situation. It was found that the Peoples Primary Health Initiative had a very positive impact on the facility based deliveries at these basic health units and the involvement of PPHI has created a positive trend not only at the basic health units but also in the minds of the local community and it has changed their past concepts regarding the facility based deliveries.

WAY FORWARD:

The information yielded from study can be a valuable asset and reference for the health policy makers and planners. The information is particularly useful and beneficial for maternal and child health

care policies. Study has generated evidence for senior health managers to work on the concept of facility based deliveries and the concept of involving the public private partnership in the health sector especially with reference to the facility based deliveries and at the primary health care level that is at the level of the basic health units. Further recommendation is introducing the concepts of evening and night shifts in all the BHUs. It was evident from the data that introduction of evening and night shifts in BHUs had improved both the quantity and quality of facility based deliveries at the BHU level. There is a need for the local health administration to improve the human resource situation of the BHUs to recruit staff for evening and night shifts. Decision makers should make policies for improving the referral system at BHUs.

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