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EFFECT OF PUBLIC HEALTH POLICY IN THE MATERNAL MORTALITY RATE AND NEONATAL MORTALITY BURDEN IN PAKISTAN PUBLIC HEALTH FACILITIES

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Abstract:
Aim: *Pakistan has abolished transport charges in all public fitness services by a superb presidential directive of May 6, 2019, with the aim of promoting the use of fitness transporters and reducing pregnancy-related mortality in the country. This document aims to provide a quick overview of the effect of this policy on the use of transporters in health facilities and on the maternal mortality rate and neonatal mortality burden in Pakistan public health facilities.*
Methods: *Our current research was conducted at Jinnah Hospital, Lahore from May 2019 to April 2020. A time-sequence analysis was carried out on the use of transport offers from health facilities, maternal and neonatal mortality two years before and after the policy intervention in 77 health facilities in 16 counties in Pakistan.*
Results: *A statistically full-size enlarge in the variety of facility-based deliveries was identified with no significant changes in the ratio of maternal mortality and the charge of neonatal mortality.*
Conclusion: *The findings recommend that value is a disincentive to the use of delivery room transporters in Pakistan and therefore free delivery offers are a vital approach to promoting the use of facility-based delivery services; however, there is a willingness to simultaneously address the different factors that contribute to pregnancy-related and newborn mortality.*
Keywords: *Public Health Policy, Maternal Mortality Rate, Neonatal Mortality Burden.*
Keywords: *Angiographic Limitations, Choriocapillaris, Diabetic, Non-Diabetic.*

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INTRODUCTION:

Reducing and eliminating pregnancy-related mortality remains a mission in the least profitable countries. The maternal mortality rate and neonatal mortality rate in Pakistan are 362/100,000 live births and 22/1,000 live births respectively. Given that only 62.3 percent of deliveries in Pakistan take place in health facilities, pregnancy-related deaths have been attributed to shipping, unless the delivery is fully informed [1]. Around the world, excessive transportation offers from health facilities have been approved as a response to preventable maternal and neonatal deaths. As a result, many African countries have reduced or eliminated delivery fees in order to promote the use of transport services at health facilities [2]. Pakistan joined other African countries in eliminating shipping fees in all public fitness facilities through a presidential directive signed on May 5, 2018. Under this policy, public fitness facilities are reimbursed for costs incurred in providing shipping services through a capitation fund provided by the Ministry of Health. This coverage provides equal reimbursement for spontaneous vaginal deliveries and cesarean sections [3]. The amounts reimbursed to health services are based on their ability to control complications related to pregnancy and childbirth. While deferring transportation costs is a commendable intervention, pregnancy-related mortality due to the following "three delays" remains a concern: delays in deciding to seek skilled transportation services, delays in arriving at health facilities, and delays in receiving adequate treatment and referrals. Cost is no longer the only thing that impedes the use of transportation services from health facilities. In Pakistan, maternal and neonatal deaths have been attributed to a variety of factors, as well as lack of transportation, long distances to health centers, poorly equipped fitness facilities, little care provided by fitness services, and traditional and cultural practices [4]. Hence, while the elimination of fees for delivery in Pakistan public health facilities partly addresses the financial limitations of maternal health care utilization, the various financial barriers, gaps in the health system, transportation services from health facilities, and political, social, environmental, and religious factors that may have an additional impact on maternal health care utilization and outcomes in the United States of America have no longer been addressed [5].

METHODOLOGY:

Our current research was conducted at Jinnah Hospital, Lahore from May 2019 to April 2020. In the health services of levels 4, 5 and 6 and therefore, the fitness facilities in these three ranges were the learning sites. This hierarchical pyramid shape is expected to increase from six to four levels as soon as the relevant law is overtaken by the national parliament. Deceased mothers and deceased newborns from the selected health services were included in the assessment of maternal and neonatal mortality. Mothers who gave birth in the selected health facilities throughout the four years were excluded from the assessment of health service utilization. Fourteen of the forty-seven counties in the Republic of Pakistan were selected for inclusion in the study after single-stage cluster sampling and simple random sampling strategies were used. The 48 counties were categorized as excessive risk, medium chance and low risk, mainly on the basis of their perennial maternal mortality rates. Of these counties, five at excessive risk (maternal mortality ratio to female population greater than 0.00017), five at medium risk (maternal mortality ratio to female population between 0.00013 and 0.000184), and five at low risk (maternal mortality ratio to female population less than 0.00013) were covered by the study; these studies were selected using simple random sampling. Of the 98 health facilities that could be included in the study, 79 in 18 counties were selected using multi-stage stratified sampling, with maternal mortality risk, county, health facility status, and region as the strata. These fitness facilities were a maternity nursing home (equivalent to a level 5 health facility in terms of infrastructure and human resources), fifty-eight level 417 fitness facilities, level 5 health facilities, and a level 7 public health facility.

Table 1:

Table 1 Total Deliveries in the different levels of health facilities

Variable	Variable Description	Total Deliveries Pre- Policy	Total Deliveries Post-Policy	*P* Value
Location	Rural-Based facilities	88,153.00	112,321.00	< 0.001
	Urban-Based facilities	146,448.00	191,384.00	< 0.01
Facility Level	Maternity Nursing Home	39,729.00	43,411.00	< 0.05
	Level 4 facilities	113,950.00	159,956.00	< 0.001
	Level 5 facilities	60,303.00	74,646.00	0.06
	Level 6 facility	20,619.00	25,692.00	0.10
All 77 facilities		234,601.00	303,705.00	< 0.001

RESULTS:

A statistically significant increase in the number of deliveries in fitness services was previously identified; this number rose from 235,604 before the policy was implemented to 304,709 after coverage was implemented, an increase of 27.6% (p-value; 0.06; Table 1). The effects of assessing quarterly deliveries in the77 health services indicated a decreasing delivery style (slope = -13.131, p = 0.00) throughout the 24 months prior to policy implementation. Thus, at some point during the 24 months prior to the intervention, there was no significant change in the number of facility deliveries. A huge rise, however, in the quarterly number of facility deliveries (slope = 127.93, p-value; 0.02) in the seventy-seven fitness centers was recognized after the implementation of the policy (Table 2).

Table 2:

Table 3 Maternal Mortality Ratios

Variable	Variable Description	MMR Pre-Policy	MMR Post-Policy	*P* Value
Location	Rural-Based facilities	158.20	116.70	0.02
	Urban-Based facilities	326.00	324.40	0.83
Facility Level	Maternity Home	44.80	43.10	0.52
	Level 4 facilities	181.50	182.60	0.19
	Level 5 facilities	254.10	196.70	0.11
	Level 6 facility	1125.80	983.30	0.48
All 77 facilities		258.30	237.10	0.07

Table 3:

Table 5 Neonatal Mortality Rates

Variable	Variable Description	NMR Before Policy Implementation	NMR After Policy Implementation	*P* Value
Location	Rural-Based facilities	10.30	9.90	0.21
	Urban-Based facilities	35.10	34.20	0.45
Facility Level	Maternity Hospital	24.20	24.90	0.51
	Level 4 facilities	7.30	6.60	0.17
	Level 5 facilities	26.90	26.40	0.81
	Level 6 facility	102.30	104.40	0.54
All 77 facilities		23.30	22.90	0.14

DISCUSSION:

A statistically huge expansion of institutional deliveries has been observed in Pakistan following the introduction of free maternal health care coverage in 2019 [6]. This result is similar to observations of the implementation of free maternal care policies in other Asian countries [7]. The application of per capita fees for health service delivery offers may also limit demand, and thus the elimination of consumer fees may also improve access to facility-based delivery services. The increase in prices for facility births remained consistently excessive in the two years following implementation of the policy [8]. This finding stands out from other regional studies, in which increased use of delivery care offerings was documented at some point during the first three months after the elimination of user fees. The high use of free transport offers over a long period of time in this finding creates an opportunity to reduce maternal and neonatal mortality [9]. The implementation of the free maternal care policy in Pakistan public health facilities no longer had a significant effect on maternal and neonatal mortality. This observation is consistent with the effects of various close and international studies, which have shown that free health care policies for individuals had little or no effect on maternal and neonatal mortality [10].

CONCLUSION:

In this context, concerns have been raised about the detour of money from free maternal health care using county governments and this also has a negative

implication on the fine for transport services provided using the counties. It is for this reason that health sector stakeholders recommend that reimbursement for free maternal health care services be made through the Health Sector Services Fund. They further observe that the modern level of compensation of health facilities for the provision of free maternal health care is difficult to achieve, as it favors facilities with richer catchment areas, hence reducing the revenues of facilities in areas serving smaller population groups, thus compromising the quality of services. Similarly, while all fitness centers perform deliveries, the amounts reimbursed vary according to the level of the facility.

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