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#### HOME BIRTH IN THE ISLAMIC REPUBLIC OF PAKISTAN

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**Summary.** Despite the pregnancy complications associated with home births, 30% of births still remain at home as the main place of birth in the Islamic Republic of Pakistan.

Purpose of the study. To study the factors that determine the choice of place of birth in the Balochistan, a province of the Islamic Republic of Pakistan.

Materials and methods. At the first stage of the work, a questionnaire was developed - a basic set of questions that allows assessing the obstetric anamnesis and parity of childbirth of the respondents, the place of birth (maternity hospital/ home), the cause of birth at home, methods of preventing postpartum hemorrhage (PPH) in case of home birth, complications of the postpartum period. At the second stage, within 2 days, on January 6 and 7, 2023, at the same time, by the method of continuous survey using Google forms, a survey was conducted of 144 women of reproductive age (15-49 years old) permanently residing in the Balochistan, a province of the Islamic Republic of Pakistan. The data obtained were statistically processed using MS Excel, and r-Pearson correlation analysis was carried out.

Results. 25% of those living in Balochistan gave birth at home. More than half of the respondents (55.6%) cited the high cost of delivering in a maternity hospital as the reason they gave birth at home. 33.3% of respondents did not consider it necessary to give birth in a medical institution, due to sociocultural beliefs, despite the possibility to pay for childbirth in medical institutions. 44.5% of the respondents indicated the remoteness of the location of the medical institution and the lack of transport. The frequency of postpartum hemorrhage during home birth was 8%. Only 63.8% of the respondents had access to misoprostol in the postpartum period.

Conclusion. The percentage of women who have access to a birth in a health facility in the Islamic Republic of Pakistan, especially in geographically remote and poor provinces, is still low. Antenatal distribution of misoprostol to pregnant women remains one of the reserves for reducing the incidence of postpartum hemorrhage during home births.

**Key words:** home birth, postpartum hemorrhage, Balochistan province, misoprostol, quality of medical care, accessibility of medical care.

# ДОМАШНИЕ РОДЫ В ИСЛАМСКОЙ РЕСПУБЛИКЕ ПАКИСТАН

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**Резюме.** Несмотря на осложнения беременности, связанные с домашними родами, в 30% случаев дом остается основным местом родов в Исламской Республике Пакистан.

Цель исследования. Изучить факторы, определяющие выбор места родов в провинции Белуджистан Исламской Республике Пакистан.

Материалы и методы. На первом этапе работы была разработана анкета — базовый набор вопросов, позволяющий оценить акушерский анамнез и паритет родов респонденток, место родов (родильный стационар, дом), причину родов на дому, методы профилактики послеродовых кровотечений (ПРК) в случае домашних родов, осложнения послеродового периода. На втором этапе, в течение 2 дней, 6 и 7 января 2023 года, одномоментно, методом

сплошного опроса при помощи Гугл-форм, было проведено анкетирование 144 женщин репродуктивного возраста (15-49 лет), постоянно проживающих в провинции Белуджистан Исламской Республики Пакистан. Полученные данные были статистически обработаны при помощи MS Excel, проведен корреляционный анализ r — Пирсона.

Результаты. 25 % женщин, проживающих в Белуджистане, рожали дома. Более половины респонденток (55,6%) указали на высокие расходы на роды в лечебном учреждении, как причину, по которой они рожали дома. 33,3% опрошенных не считали необходимым рожать в медицинском учреждении, в силу социокультурных убеждений, не смотря на возможность оплатить роды. 44,5% респонденток указали на отдаленность расположения медицинского учреждения и отсутствие транспорта. Частота послеродовых кровотечений при домашних родах составила 8%. Лишь 63,8% респонденток имели доступ к мизопростолу в послеродовом периоде.

Заключение. Процент женщин, имеющих доступ к родам в медицинском учреждении в Исламской Республике Пакистан, особенно в географически отдаленных и бедных провинциях, все еще низок. Дородовая раздача мизопростола беременным женщинам остается одним из резервов снижения случаев послеродовых кровотечений при домашних родах.

**Ключевые слова:** домашние роды, послеродовое кровотечение, провинция Белуджистан, мизопростол, качество медицинской помощи, доступность медицинской помощи.

# ПАКИСТАН ИСЛАМ РЕСПУБЛИКАСЫНДА ҮЙДӨ ТӨРӨЛҮҮ

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**Корутунду.** Үйдө төрөткө байланыштуу кош бойлуулуктун кыйынчылыктарына карабастан, Пакистан Ислам Республикасында төрөлгөндөрдүн 30%ы үйдө калууда.

Изилдөөнүн максаты. Пакистан Ислам Республикасынын Белужистан провинциясында туулган жерди тандоону аныктоочу факторлорду изилдөө.

Материалдар жана ыкмалар. Иштин биринчи этабында анкета иштелип чыккан — респонденттердин төрөт боюнча анамнезине жана паритетине, туулган жерине (төрөт үйүндө, үйүндө), үйдө төрөттүн себебине баа берүүгө мүмкүндүк берген суроолордун негизги топтому, үйдө төрөт, төрөттөн кийинки мезгилдин татаалдашкан учурда төрөттөн кийинки кан жоготуу (ТККЖ) алдын алуу ыкмалары. Экинчи этапта, 2 күндүн ичинде, 2023-жылдын 6 жана 7-январында, ошол эле учурда, Google формаларын колдонуу менен үзгүлтүксүз сурамжылоо ыкмасы менен туруктуу репродуктивдүү курактагы (15-49 жаш) 144 аялдан сурамжылоо жүргүзүлгөн. Пакистан Ислам Республикасынын Баложистан провинциясында жашаган. Алынган маалыматтар MS Excel программасы аркылуу статистикалык жактан иштетилип, г-Реагson корреляциялык анализи жүргүзүлгөн.

Жыйынтыктар. Белужистанда жашаган аялдардын 25%ы үйдө төрөгөн. Респонденттердин жарымынан көбү (55,6%) үйдө төрөшүнүн себеби катары медициналык мекемеде төрөттүн кымбаттыгын айтышкан. Респонденттердин 33,3%ы төрөттү төлөө мүмкүнчүлүгүнө карабастан, социалдык-маданий ишенимдеринен улам медициналык мекемеде төрөт берүүнүн зарылчылыгы жок деп эсептешсе, респонденттердин 44,5%ы медициналык мекеменин жайгашкан жеринин алыстыгын жана анын жоктугун белгилешкен. транспорт. Үйдө төрөт учурунда төрөттөн кийинки кан агуунун жыштыгы болгон 8%. Төрөттөн кийинки мезгилде респонденттердин 63,8% гана мисопростолду колдонуу мүмкүнчүлүгүнө ээ болгон.

Корутунду. Пакистан Ислам Республикасындагы, өзгөчө географиялык жактан алыскы жана жакыр провинциялардагы медициналык мекемеде төрөткө мүмкүнчүлүгү бар аялдардын пайызы дагы эле төмөн. Кош бойлуу аялдарга мисопростолды антенаталдык бөлүштүрүү үйдө төрөт учурунда төрөттөн кийинки кан агууну азайтуунун резервинин бири бойдон калууда.

**Негизги сөздөр:** үйдө төрөт, төрөттөн кийинки кан, Белужистан провинциясы, misoprostol, медициналык жардамдын сапаты, медициналык жардамдын жеткиликтүүлүгү.

**Introduction.** The principle of "health for all" cannot be realized until all patients, including mothers and newborns, have access to the highest quality and safest care. Today, a number of countries are placing particular emphasis on eliminating unfair disparities in the quality of, and access to, maternity care, and on achieving universal health coverage [1]. In the United Sustainable Development **Nations** reproductive health is mentioned in Goal 3.1, which aims to increase the number of births in the presence of a skilled health worker, because timely assistance can save the life of both the mother and the child [2]. The ongoing activities have led to some progress. So, for the period from 2000 to 2020, the number of births attended by qualified medical personnel increased from 64% to 81% [3]. However, along with the above, the world community is concerned about the continuing inequitable access to medical services in a number of countries, one of the indicators of which is the number of home births. Recognizing that reducing the rate of home births is a lengthy process beyond the control of the health worker to prevent postpartum hemorrhage (PPH) in settings where women give birth outside a health facility and in the absence of trained health personnel, WHO recommends a self-administration strategy for antenatal distribution of misoprostol to pregnant women. This recommendation aims to improve health equity for women in more remote or underserved areas WHO [4].

The Islamic Republic of Pakistan is the fifth most populous country in the world with a population of 232,833,249 as of 2022. The birth rate in the Republic is, on average, 18,593 children per day (774.70 per hour). The maternal mortality rate is in the range of 251 cases per 100,000 live births [5,6,7]. The proportion of performed in medical institutions increased from 13% in 1990 to 71% in 2019 [6]. Thus, today in the country about 30% of the total number of births occur at home. Most home births are observed in the province of Balochistan (61.8%),while the maternal mortality rate is 345 cases per 100,000 live births [6, 8]. Balochistan is one of the largest provinces of Pakistan with an area of 347,190 km<sup>2</sup>, which

is about 44% of the total area of the country. However, [9]. An examination of the current situation of home births in Balochistan province will identify key gaps that need attention and areas of health services that can be strengthened in the context of reducing the frequency of home births.

**Purpose of the study.** To study the factors determining the choice of the place of birth in the Baluchistan province of the Islamic Republic of Pakistan.

Materials and methods. At the first stage of the work, a questionnaire was developed - a basic set of questions that allows assessing the obstetric history and parity of childbirth of the respondents, the place of birth (maternity hospital, home), the cause of birth at home, methods of preventing PPH in case of home birth, complications of the postpartum period sociocultural factors allowed us to find out their influence on the woman's choice of the place of birth. Women's educational attainment was divided into three categories: no education, primary to secondary, and upper secondary. The mother's current age was divided into 15-24, 25-34 and 35-49 years, purposefully showing three different periods of reproductive age. The employment of the respondents was divided into three main categories, including unemployment, self-employed, permanent agriculture employment in a public institution.

At the second stage, within 2 days, on January 6 and 7, 2023, at the same time, by the method of continuous survey using Google forms, a survey was conducted of 144 women of reproductive age (15-49 years old) permanently residing in the Balochistan province of the Islamic Republic of Pakistan.

The obtained data were statistically processed using MS Excel, and correlation analysis was carried out - Pearson.

**Results.** The average age of the respondents was  $34\pm1.5$  years and was in the range of 25-42 years. Most of the women were aged 25-34 years (50.7%), 24.2% were 15-24 years old and 25% were 35 years of age or older. The number of respondents without education was 10.5%, from primary to secondary - 79.2% and above secondary - 10.3%. About a quarter (25%) of

women were unemployed, 25% of the respondents had a permanent job. 50% of respondents are hired for temporary/seasonal work.

All respondents were giving birth, most of them had births through the natural birth canal - 97.9% (141), 2.1% (3) of women were delivered by caesarean section. The median number of births was 5 and ranged from 2 to 9 births.

According to the survey data, 36 (25.0%) women had a history of home births, including 28 (77.8%) respondents who gave birth to all their children at home, i.e. in general, no child was born in a maternity hospital, 12 (22.2%) of the respondents gave birth to at least one child in a maternity hospital. The median number of home births was 4 and varied from 3 to 9 births. In 36 respondents, the total number of home births was 163, including 63 (38.7%) births were premature. 13 (8%) cases of home birth were complicated by postpartum hemorrhage. In the Islamic Republic of Pakistan, according to WHO recommendations, there is a practice of routine use of misoprostol in the postpartum period to prevent PPH during home birth. In our study, only 104 (63.8%) of 163 home births were reported to have used misoprostol in the postpartum period.

The high cost of in-hospital births has been the main and most important reason for Pakistani women to opt for home births. More than half of the respondents (20 - 55.6%) cited the high cost of childbirth in a maternity hospital as the reason why they did not use the services of a hospital. However, an equally important group identified by us during the survey were respondents who, due to socio-cultural practices, did not consider it necessary to give birth in a medical institution. This group consisted of 33.3% (12) of the respondents, while 55% of them were women with a higher birth order (5+) and, despite the fact that the family had the opportunity to pay for childbirth in medical institutions, they traditionally preferred childbirth on home (p < 0.35).

44.5% (16) of the respondents indicated that the medical facility is too far from their place of residence and transport is not available to get there.

When comparing groups of women, depending on education and job availability, as expected, 75.3% of respondents were from the

group without formal education (p  $\leq 0.0085$ ), 82.2% were from the group who did not have a permanent job ( $p \le 0.009$ ). Pearson's correlation coefficient was r = 0.467. (95 percent confidence interval: 0.394 - 0.534), i.e. the lower a woman's education, the less likely she is to give birth in a health facility. Pearson's correlation coefficient, the context of female respondents' in employment, was 0.703(95 percent confidence interval: 0.6543961 - 0.7456953), which indicated a direct relationship between the availability of work and the choice of a woman's place of birth.

**Discussion.** In most cases, maternal death can be prevented by proper management of pregnancy, childbirth and the postpartum period by qualified medical personnel. Home births are a special category as a potential risk of maternal death. The statistics of home births in different countries varies greatly. In particular, in the Netherlands every third woman gives birth at home, while in the USA - only one in two hundred. But in all these countries, a very important condition is met - the presence of a qualified medical worker and the "step-by-step" accessibility of a medical institution. In the Islamic Republic of Pakistan, a lot of work is being done to reduce the frequency of home births, precisely in the context of the availability of qualified medical care. However, despite pregnancy complications associated with home births, the home continues to be the country's primary birthing site. Understanding the reasons for not giving birth in a health facility is one of the first steps in reducing the rate of home births. In our study, the rate of home births in Baluchistan province was 25%. Our data is significantly lower than the official data for this province, when the proportion of births at home was 61.8%. The latter is probably due to the fact that our study included respondents with a more prosperous social status. At the same time, such indicators as the availability of work and the level of education had a direct impact on the woman's choice of the place of birth. Those. among Pakistani women, the trend of home births is seen in the poorer segments of the population, when the high cost of in-hospital birth was the main and most important reason for opting for home birth. Thus, inequitable access to maternal and child health services persists in the country. In addition to the above, in the Islamic Republic of Pakistan, traditions remain very strong, which determine the preference for childbirth at home, especially among older women with multiple births.

One of the significant reserves to reduce the frequency of postpartum hemorrhage, in the context of home birth, is the issuance of misoprostol to pregnant women for self-administration in case of home birth. In our study, in only 63.8% of home births, respondents used misoprostol in the postpartum period. Because misoprostol is distributed at the antenatal care level, it can be assumed that 36.2% of women who did not use the drug did not have access to antenatal care. The percentage of women with access to antenatal care is still

low and this represents a significant reserve in reducing postpartum haemorrhage during home births.

Conclusion. Reproductive health care for women in the Islamic Republic of Pakistan continues to be a major challenge. The percentage of women who have access to a birth in a health facility, especially in geographically remote provinces, is still low. Antenatal distribution of misoprostol to pregnant women remains one of the reserves for reducing the incidence of postpartum haemorrhage during home births. However, this should not replace the work of the state on the socio-economic factors that affect the proportion of childbirth outside a medical institution.

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