

SPECIAL COMMUNICATION

STILLBIRTHS: WHAT CAN BE DONE TO CONFRONT AN INVISIBLE PUBLIC HEALTH PROBLEM IN PAKISTAN?

Babar Tasneem Shaikh, Assad Hafeez, Saima Hamid

Health Services Academy, Islamabad-Pakistan

Pakistan has been ranked highest and appears worst in stillbirths' rate according to the recent global estimates. Reasons could be manifold; socio-cultural, health system related country specific, and some of these of course déjà vu, i.e., the biomedical causes. Yet, a fresh stocktaking is necessary to understand the complex phenomenon in a country, awfully affected by this menace. Maternal, neonatal and child health program needs to be informed and geared up toward addressing the actual reasons behind this heavy toll of stillbirths in Pakistan. Maternal health indicators would never be improved, if the issue of stillbirths is not stalled at the earliest. Besides known medical reasons, this account attempts to document the health systems related factors, and more so the social determinants behind the whole scenario, so that appropriate and customized interventions could be suggested, developed and implemented. This paper will be a piece of evidence for policy corridors, program managers, development partners, non-governmental organizations, public health institutions, students, and researchers to enhance their understanding of a major public health problem, and to recognize the strengths and opportunities in the health system of Pakistan to cope with this challenge.

Keywords: Stillbirths; Health system; Social determinants; MNCH; Pakistan

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INTRODUCTION

Stillbirth rate in any health care system is one of the markers of quality and level of care provided during the pregnancy and childbirth. Realizing the rising toll of this unfortunate event, WHO advocated the skilled attendance at birth and presumptive treatment for all possible causes that a mother might suffer.¹ Recent compilation of statistics on stillbirths has presented an alarming toll of 2.6 million fatalities annually; amongst which 98% are occurring in the developing countries.² Half of these deaths occur during the delivery. The average rate of stillbirths globally is 18.4 deaths/ 1000 total births, with Pakistan having the highest rate in the world. Stillbirth rates for women of south Asian and African origin giving birth in Europe or Australia are 2-3 times higher than white women.³ This trend is not new, and therefore WHO included stillbirths as one of its 100 core health indicators, many years back.⁴ There are direct causes (medical and biological) and indirect contributing factors to the high rates of stillbirths. However, the notion of stillbirths becomes even more intensified, when compounded by the folk beliefs such as evil eye, and disenfranchising women from her reproductive rights.⁵ Even today, in many parts of the world, stillbirths are attributed to taboos and evil spirits, and the woman is cursed for the unfortunate event. As a consequence, the woman who experiences a stillbirth additionally suffers medical consequences and associated humiliation. Amidst strong social and cultural influence on health beliefs, stillbirth has emerged as a serious stigma in the

society.⁶ The phenomenon has gained world's attention in the recent times, with eye-opening data and fact sheet, therefore global community must articulate and assert for a specific target to reduce stillbirths in the Sustainable Development Goal 3.⁷

Stillbirths: Pakistan context

Incidence of stillbirths was found to be 47/1000 live births in 2011⁸; and since then decline in this rate has been negligible. Latest data shows Pakistan categorized as having the highest rate in the world (43/1000 live births) in the recent global estimates.³ In the public health domain, this issue still remains under researched, under-estimated and perhaps under-intervened in Pakistan. At the appraisal of government's vision 2025, it is reassuring to see the commitment of the government to scale up lady health workers program and introduce family planning services at all the primary health care outlets.⁹ Millions of women of reproductive age face challenge of accessing care for themselves and for their children. The overarching poverty, low literacy levels, gender discrimination, and societal norms are some of the impediments identified in literature review.¹⁰ There is also a great deal of influence of culture and the social milieu on the attitudes, beliefs and practices of the communities and the health providers. Literature and local evidence has shown the casual attitude of women and families toward appropriate health seeking behaviours and timely health care seeking for a safer motherhood.^{11,12} Majority of stillbirths that occurred in the third trimester of pregnancy were preventable with a better

obstetrical care, and therefore community midwives need to grossly improve their skill set. Nevertheless, complex pathways of gender inequalities leading to deplorable health outcomes such as high rates maternal and child morbidities and mortalities have neither been clearly understood, nor fully operationalized in health interventions.

MATERIAL AND METHODS

Although both 2011 and 2016 still births series of papers in the Lancet have comprehensively painted the landscape of stillbirths globally, yet this body of literature is not accessible for many health professionals, policy makers and other stakeholders. Realizing the dearth of locally available and accessible evidence and reference material on stillbirths, this paper endeavoured to synthesize both 2011 and 2016 Lancet series on stillbirths, and critically reviewed other literature available in the region and locally to suggest a way forward, and for developing a national action plan to address the burden of stillbirths in Pakistan.

For the literature search of this commentary, MeSH words used were: Stillbirths; Health system; Social determinants; MNCH; Developing countries; and Pakistan. Google scholar was used for online search. Moreover, peer reviewed papers available on PubMed, WHO library and the reports of Government of Pakistan were reviewed.

Review findings

According to WHO, stillbirth is the birth of a baby with a birth weight of 500 g or more, 22 or more completed weeks of gestation, or a body length of 25 cm or more, who died before or during labour and birth.¹³ In spite of the heavy toll of stillbirths worldwide, with the developing countries being affected the most, it is only recently recognized that stillbirths were not included in the millennium goals for tracking the countries' progress on this important public health problem.¹⁴ Why are stillbirths gaining attention since the last decade? There is a growing cognizance of the fact that in many societies and cultures, stillbirths had adverse effects on the mother who could not deliver a healthy alive baby. She is blamed, cursed, stigmatized and marginalized.¹⁵ Hence, besides contemplating a framework for averting stillbirths, it is utmost important to think of practical interventions for protecting the maternal physical, mental and social well-being.

A stocktaking of the main causes of stillbirths present a picture déjà vu. Maternal age of more than 35 years, and primi-gravida has often been associated with stillbirths in Pakistan.^{16,17} Other causes documented in research body included asphyxia owing to obstructed labour, placental abruption, pre-eclampsia or eclampsia, infections,

especially chorioamnionitis, and umbilical cord complications.¹⁸ In 2011, some of the causes found for stillbirths in developed economies were obesity, diabetes mellitus and hypertension.¹⁹ Now, the latest series of stillbirths in Lancet has once again pointed to the non-communicable diseases, a growing burden of disease in developing nations too, and which helps in building a thesis for Pakistan as well. Other probable causes added recently include malaria, sexually transmitted infections and fistula.²⁰ Insufficient number of skilled birth attendants in the health care system and strong traditions of home based delivery even contribute to the problem. Pakistan is no exception in this regard, where almost half of the deliveries still occur at home.¹⁶ Needless to point out as there has been ample amount of evidence available for years now, showing the compromised nutrition status of the women of reproductive age, suffering from iron deficiency anaemia.^{21,22} Antenatal visits and screening of anaemia, malnutrition and any other medical complication are the most cost effective interventions for averting many still births.²³ Of course, then health system ought to be responsive enough to offer quality basic emergency obstetric care and comprehensive emergency obstetric care. Nonetheless, a continuum of care is the key to safe motherhood and neonate's survival, and it would need a multi-pronged approach: improving quality as well as coverage, and improving access at the same time.²⁴

Other contributing factors documented in the national surveys in Pakistan show that poverty, illiteracy, and rural residence are some of the major contributors to the rising toll of stillbirths. Off shooting from this background is the issue of multiparity, especially in the quest for a male child.¹⁶ Son preference has its origin from the culture, customs and conventions of our society, resulting in a perilous pressure on the woman to have a pregnancy every year in spite of her compromised nutrition status and a fragile physical and psychological bearing capacity.²⁵

What can be done for stalling the stillbirths in Pakistan?

1. Health care system interventions

Some of the very pertinent and established facts found in the recent literature advocate that stillbirths can be curtailed significantly with these interventions in place.

- a) Community mobilization with respectful care of norms and community participation in supporting the interventions is important. Family's involvement in birth preparedness, as well as in arranging money and transport can be very encouraging for the expecting mother to save a substantial cost.²⁶ Moreover, in case of an

untoward event, when the family is socially isolated, the community has a definite role in providing the social and bereavement support to the mother with a stillbirth, and in de-stigmatizing the stillbirth.^{27,28}

- b) At the community level, screening for the complications during pregnancy and administering folic acid, iron and calcium can be helpful.²⁹ In this regard, role of all cadres of community health workers, i.e., lady health workers, community midwives and even the traditional birth attendants become extremely crucial, in picking up any danger signs, leading to a potential stillbirth.³⁰
- c) As regards the facility based ante natal care seeking, it is still low in Pakistan. Cultural embargoes on the women to be socially mobile herself play a significant role. Hence, a culturally appropriate ambiance and gender sensitive services at the health centres could promote the use of antenatal services.³¹ This increased utilization in turn will have the greater likelihood of the pregnancy complications being picked up on time.
- d) Increasing ratio of women delivered with the assistance of a skilled birth attendant has a promising outcome for both mothers as well as new-borns. Community midwives in Pakistan are in a position to make this difference.³²
- e) Increasing facility based deliveries would necessitate 24/7 availability of caesarean section services.^{33,34} More accessible emergency obstetric care facilities at the basic health units and rural health centres would be another opportunity to address the menace of stillbirths.
- f) Provinces will have to work to strengthen district level referral system to complement the other proposed interventions for ensuring the new-born survival.
- g) Partnership with private sector would be crucial to improve access to quality emergency obstetric care as well as for calling assistance for home based deliveries.²³ In a country, where private sector is widely used for first level care seeking, this looks obligatory now to consider a meaningful engagement with non-statal entities.³⁵
- h) A longer term yet a direct intervention would be to increased family planning coverage by not advocating limiting the family size; but promoting the concept of health timing and spacing of pregnancies. This will help in reducing the number of unwanted and untimely pregnancies; and has the potential of reducing premature, low weight and stillbirths significantly.³⁶

2. Health system level interventions

- a) A greater focus is needed on 'task-shifting' to other groups of health workers such as nurses, midwives and auxiliary staff with improved in-service training, supervision and incentive of career progression.³⁷ This can help address main caveats of human resource shortage, service accessibility, and quality of essential emergency obstetric care.³⁸
- b) An increased investment for integrated service delivery programs around perinatal period would be another requisite.²³ In this context, integrated MNCH and nutrition programs at provincial level are showing a positive sign to improve the health outcomes, as well as programmatic efficiency.
- c) Civil birth registry system could provide authentic data and evidence to support decision making when it comes to deciding on priorities and resource allocation.¹⁸ Therefore, a credible nationwide data will harness the requisite political priority, and will inform the health sector roadmap to include stillbirths as an important issue to be addressed.^{39,40}
- d) More robust and mix methods research on stillbirths will not only help in better monitoring but also in developing better understanding of the causal pathways of stillbirths.⁴¹ Under-reporting or no reporting makes it difficult to estimate the burden of the problem, as well as to bring it in the line of priority for the targeted health system interventions.⁴² Therefore, perinatal mortality audit ought to be instituted in all health facilities, offering basic and comprehensive emergency obstetric care.⁴³
- e) Depression, anxiety, and post-traumatic stress are the common manifestations. By developing careful understanding of the local cultures and societal norms, and with community sensitization on the tragic toll of stillbirths, stigma and suffering of the women can be relieved to a greater extent.⁴⁴ Community based health care providers can mitigate some of the long-term negative mental outcomes of stillborn mothers by spending extra time with grief-stricken mothers, facilitating bonding, and corroborating their emotional expressions.⁴⁵ With a deeper understanding of peoples' behaviours, choices, practices, and preferences, a wide-ranging social marketing campaigns could also bring about a change.⁴⁶
- f) Girls' education remains too low with mean years of schooling around 3 years only, lower than India and Bangladesh.⁴⁷ Whereas, it is a known fact now that maternal education can help reduce risk factors and improve maternal and

new-born health outcomes.⁴⁸ Investing in girls' education is another longer-term system intervention which is needed.

Health system and policy implications

Why stillbirths should matter? There is a multitude of adverse concerns embedded in this phenomenon. There are psycho-social consequences for the family, pushing into a social isolation; and there are economic impacts comprising direct and indirect costs incurred on the untoward event management. Therefore, stillbirths have to be seen from a political economy aspect, where poverty alleviation strategies and woman's empowerment initiatives must eventually consider enhancing a better reproductive control of her life by herself. Women's decision-making power has a significant positive correlation with reproductive health services uptake.⁴⁹ Stillbirths have been absent from global MNCH agenda for a long time^{Error! Bookmark not defined.} Stillbirths need to be reported and documented as a matter of human right, which is not the case thus far, and that is why perhaps it remained a neglected priority in the health system of Pakistan for ages. Nevertheless, a foremost step would be to enhance the funding and allocation for MNCH over the next 5 years by all the provinces, the primary stewards of health system now in post devolution scenario.⁵⁰ It is, however, encouraging to note that state has recognized it as an unfinished agenda of the MDGs, and has realized that without addressing the issue of stillbirths, neonatal and U5 mortality would not be reduced.⁵¹ Fortunately, the health system of Pakistan has all the potential, programs and pre-requisites which are needed to do so, if the program implementation is done in its true spirit.

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REFERENCES

1. WHO. Making pregnancy safer. Executive Board meeting 107th Session. Geneva: 2000.
2. World Health Organization. Stillbirths: Maternal, newborn, child and adolescent health. [Internet]. [cited 2016 April 22]. Available from: http://www.who.int/maternal_child_adolescent/epidemiology/stillbirth/en/
3. Blencowe H, Cousens S, Jassir FB, Say L, Chou D, Mathers C, *et al.* National, regional, and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis. *Lancet Glob Health* 2016;4(2):e98–108.
4. WHO. Global reference list of 100 core health indicators. Geneva; 2015.
5. Aminu M, Unkels R, Mdegela M, Utz B, Adaji S, van den Broek N. Causes of and factors associated with stillbirth in low- and middle-income countries: a systematic literature review. *BJOG* 2014;121(Suppl 4):141–53.
6. Murphy S. Reclaiming a moral identity: stillbirth, stigma and 'moral mothers'. *Midwifery* 2012;28(4):476–80.
7. United Nations. Transforming our world: The 2030 agenda for sustainable development. New York: 2015.
8. Cousens S, Blencowe H, Stanton C, Chou D, Ahmed S, Steinhardt L, *et al.* National, regional, and worldwide estimates of stillbirth rates in 2009 with trends since 1995: a systematic analysis. *Lancet* 2011;377(9774):1319–30.
9. Planning Commission. Pakistan 2025-One nation-One vision. Ministry of Planning, Development & Reform, Government of Pakistan. Islamabad: 2015.
10. Nasrullah M, Bhatti JA. Gender inequalities and poor health outcomes in Pakistan: A need of priority for the national health research agenda. *J Coll Physicians Surg Pak* 2012;22(5):273–4.
11. Shaikh BT, Haran D, Hatcher J. Women's social position and health-seeking behaviors: is the health care system accessible and responsive in Pakistan? *Health Care Women Int* 2008;29(8):945–59.
12. Khan A, Kinney MV, Hazir T, Hafeez A, Wall SN, Ali N, *et al.* Newborn survival in Pakistan: a decade of change and future implications. *Health Policy Plan* 2012;27(Suppl 3):iii72–87. Ref no 12&35 are same
13. WHO. ICD-10: International statistical classification of diseases and related health problems-Instruction manual. Geneva: 2004.
14. Lawn JE, Blencowe H, Pattinson R, Cousens S, Kumar R, Ibiebele I, *et al.* Stillbirths: Where? When? Why? How to make the data count? *Lancet* 2011;377(9775):1448–63.
15. Frøen JF, Cacciatore J, McClure EM, Kuti O, Jokhio AH, Islam M, *et al.* Stillbirths: why they matter. *Lancet* 2011;377(9774):1353–66.
16. National Institute of Population Studies & Macro International. Pakistan Demographic and Health Survey 2006-07. Islamabad: 2008.
17. National Institute of Population Studies & Macro International. Pakistan Demographic and Health Survey 2012-13. Islamabad: 2014.
18. Goldenberg RL, McClure EM, Bhutta ZA, Belizán JM, Reddy UM, Rubens CE, *et al.* Stillbirths: the vision for 2020. *Lancet* 2011;377(9779):1798–805.
19. Flenady V, Koopmans L, Middleton P, Frøen JF, Smith GC, Gibbons K, *et al.* Major risk factors for stillbirth in high-income countries: a systematic review and meta-analysis. *Lancet* 2011;377(9774):1331–40.
20. Lawn JE, Blencowe H, Waiswa P, Amouzou A, Mathers C, Hogan D, *et al.* Stillbirths: rates, risk factors, and acceleration towards 2030. *Lancet* 2016;387(10018):587–603.
21. Tinker A. Improving women's health in Pakistan. World Bank, Islamabad: 1998.
22. Aga Khan University, Pakistan Medical Research Council, Nutrition Wing, Cabinet Division, Government of Pakistan. National Nutrition Survey Pakistan. Islamabad: 2011.
23. Bhutta ZA, Yakoob MY, Lawn JE, Rizvi A, Friberg IK, Weissman E, *et al.* Stillbirths: what difference can we make and at what cost? *Lancet* 2011;377(9776):1523–38.
24. Pattinson R, Kerber K, Buchmann E, Friberg IK, Belizan M, Lansky S, *et al.* Stillbirths: how can health systems deliver for mothers and babies? *Lancet* 2011;377(9777):1610–23.
25. Abrejo FG, Shaikh BT, Rizvi N. And they kill me, only because I am a girl...a review of sex selective abortions in South Asia. *Eur J Contracept Reprod Health Care* 2009;14(1):10–6.
26. Heazell AE, Siassakos D, Blencowe H, Burden C, Bhutta ZA, Cacciatore J, *et al.* Stillbirths: economic and psychosocial consequences. *Lancet* 2016;387(10018):604–16.
27. Chou D, Daelmans B, Jolivet RR, Kinney M, Say L. Ending preventable maternal and newborn mortality and stillbirths. *BMJ* 2015;351:h4255.
28. WHO. Every newborn: An action plan to end preventable deaths. Geneva: 2014.

29. Lassi ZS, Bhutta ZA. Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes. *Cochrane Database Syst Rev* 2015;3:CD007754.
30. Sibley LM, Sipe TA, Barry D. Traditional birth attendant training for improving health behaviors and pregnancy outcomes. *Cochrane Database Syst Rev* 2012;8:CD005460.
31. Akhtar N. Factors affecting utilization of antenatal and postnatal services in Punjab, Pakistan (Doctoral dissertation, University Of Agriculture, Faisalabad). 2014.
32. Noorani QA, Azam I, Shaikh BT, Ranasinghe T, Abbas S, Wali S, *et al.* Role of community based savings groups (CBSGs) enhancing the utilization of community midwives in Chitral district of Pakistan. *BMC Pregnancy Childbirth* 2013;13:185.
33. Save the Children. Stillbirths – the global picture and evidence-based solutions. An executive summary for the *BMC Pregnancy and Childbirth Supplement*. 2009.
34. Goldenberg RL, Saleem S, Pasha O, Harrison MS, McClure EM. Reducing stillbirths in low-income countries. *Acta Obstet Gynecol Scand* 2016;95(2):135–43.
35. Shaikh BT. Private sector in health care delivery: a reality and a challenge in Pakistan. *J Ayub Med Coll Abbottabad* 2015;27(2):496–8.
36. Michalow J, Chola L, McGee S, Tugendhaft A, Pattinson R, Kerber K, *et al.* Triple return on investment: the cost and impact of 13 interventions that could prevent stillbirths and save the lives of mothers and babies in South Africa. *BMC Pregnancy Childbirth* 2015;15:39.
37. Dawson AJ, Buchan J, Duffield C, Homer CS, Wijewardena K. Task shifting and sharing in maternal and reproductive health in low-income countries: a narrative synthesis of current evidence. *Health Policy Plan* 2014;29(3):396–408.
38. Black RE, Levin C, Walker N, Chou D, Liu L, Temmerman M, *et al.* Reproductive, maternal, newborn, and child health: key messages from Disease Control Priorities 3rd Edition. *Lancet* 2016;388(10061):2811–24.
39. Frøen JF, Friberg IK, Lawn JE, Bhutta ZA, Pattinson RC, Allanson ER, *et al.* Stillbirths: progress and unfinished business. *Lancet* 2016;387(10018):574–86.
40. Hamid S, Malik AU, Richard F. Stillbirth—a neglected priority: understanding its social meaning in Pakistan. *J Pak Med Assoc* 2014;64(3):331–3.
41. Mustufa MA, Kulsoom S, Sameen I, Moorani KN, Memon AA, Korejo R. Frequency of stillbirths in a tertiary care hospital, Karachi. *Pak J Med Sci* 2016;32(1):91–4.
42. Negandhi PH, Neogi SB, Chopra S, Phogat A, Sahota R, Gupta R, *et al.* Improving reporting of infant deaths, maternal deaths and stillbirths in Haryana, India. *Bull World Health Organ* 2016;94(5):370–5.
43. Kerber K. Counting every stillbirth and neonatal death: Perinatal audit tools and implementation for improving quality of care linked to maternal death surveillance and response. *Saving Newborn Lives, Save the Children*. 2015
44. WHO. Stillbirths: The Invisible Public Health Problem. Geneva: 2011.
45. Allahdadian M, Irajpour A, Kazemi A, Kheirabadi G. Strategy for Mental Health Improvement of Iranian Stillborn Mothers From Their Perspective: A Qualitative Study. *Iran Red Crescent Med J* 2016;18(1):e21081.
46. Ejaz I, Shaikh BT. Social marketing for early neonatal care: Saving newborn lives in Pakistan. *World Health Popul* 2010;11(3):17–23.
47. Jahan S, Jespersen E, Mukherjee S, Kovacevic M, Bonini A, Calderon C, *et al.* Human development report 2015: Work for human development. UNDP N Y NY USA; 2015.
48. Auger N, Delézire P, Harper S, Platt RW. Maternal education and stillbirth: estimating gestational-age-specific and cause-specific associations. *Epidemiol* 2012;23(2):247–54.
49. Ma N, Hou X. Empowering women: The effect of women’s decision making power on reproductive health services uptake: Evidence from Pakistan. *World Bank*: 2011.
50. Bhutta ZA, Hafeez A. What can Pakistan do to address maternal and child health over the next decade? *Health Res Policy Syst* 2015;13(Suppl 1):49.
51. Government of Pakistan. National vision for coordinated priority actions to address challenges of reproductive, maternal, newborn, child and adolescent health, and nutrition 2016-20125. Ministry of National Health Services, Regulation and Coordination, Islamabad: 2015.

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Address for Correspondence:

Babar Tasneem Shaikh, Health Services Academy, Islamabad-Pakistan

Email: shaikh.babar@gmail.com