

Stillbirth issues and challenges in India

D. Kumar^{1,*}, TB Singh²

¹Scientist D, Dept. of Statistics/ Biostatistics, ICMR-National Institute for Research in Tribal Health, Jabalpur, Madhya Pradesh,

²Professor, Division of Bio-Statistics, Dept. of Community Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh

***Corresponding Author:**

Email: dk2508@rediffmail.com

Abstract

Stillbirth is one of undesirable outcomes of pregnancy and considerable marker in determining the disease burden for mother and child. The vital registration statistics on stillbirth is inadequate in India due to many reasons understudied, unreported, etc. The causes of stillbirth may be various medical, social and psychological factors contributing to occurrence. It can be reducing by improving counting & reporting of stillbirths at all levels along with by appropriate strategy prior to events for identifying, monitoring and treatments.

Keywords: Stillbirth, Risk of Pregnancy, Preterm Birth, India

Introduction

Rational: The stillbirth is more familiar than lots of people think about. Actually, the stillbirth is a baby born dead after 24 completed weeks of pregnancy. If the baby dies before 24 completed weeks, known as a miscarriage or late foetal loss.⁽¹⁾ By other definition, a baby born with no signs of life at or after completion of 28 weeks gestation of pregnancy defined a stillbirth and that baby who born between 28 to 32 weeks of gestation known as preterm birth.⁽²⁾ Further, stillbirth is one of the most common adverse outcomes of pregnancy and significant indicator in determining the disease burden for mother and child. In this aspects, the vital registration data on prenatal deaths especially stillbirth is inadequate in India. So many reasons behind that understudied, unreported and rarely have been considered in attempts to improve this adverse pregnancy outcomes. Moreover, the risk factors of stillbirth after 32 weeks of gestation increases with gestational age, and half of these late fetal deaths occur at term.⁽¹⁾ The term stillbirth theoretically can be avoided by the judicious use of labor induction, and its prevention lies at the heart of many of the accepted indications for labor induction. While, once the child is born, faces new mortality risks, often risks that may be determined partially by gestational age at birth. Regardless of this reporting of stillbirths which leads major challenges and contributing for poor health is unfortunate and cause of stillbirth remains largely unidentified in India. By exact counting and reporting of all the preterm births particularly stillbirths in the health system at all level may be manage for prevention of fetus.

Existing Situations: Worldwide, over of 2.6 million still births occurred and 98% of these occurs in low and middle-income countries.⁽³⁾ In this regard, India has highest number of stillbirths in the world, the rates range from 20 to 66 in different states.^(4,5) This also

found higher in Madhya Pradesh than country⁽⁶⁾ as per census 2011. Causes of high rate of stillbirth in India may be various medical and non medical factors contributing to event.⁽⁷⁾ Approximately, a half of all stillbirths are link to placental complications. this means the organ that links the baby's blood supply to the mother's and nourishes the baby in the womb is not functioning properly.⁽⁸⁾ About 10% of stillborn babies have some kind of birth defect that contributed to their death. A small percentage of stillbirths are caused by problems with the mother's health for example pre-eclampsia, or other problems, including cord accidents and infections. It's rare for a stillborn baby to be delivered by caesarean section. Finding out why a stillbirth has happened can be helpful with the grieving process and provide information for precaution in future. Stillbirth and late miscarriage can be devastating for the baby's parents, and they can also affect wider family members, including children and friends.⁽⁸⁾ Moreover, a heavy burden of psychosocial and economic cost on families and nations; as stillbirth affects women, families, caregivers, communities, society and parents experience various psychological symptoms.⁽⁹⁾ In favor of non anomalous infants born at term, the majority of common causes of death are asphyxia, infection, and sudden infant death syndrome (SIDS). The rates of illness/infection and SIDS decrease with increasing gestational age at term, with the highest rates at 37 weeks.⁽¹⁰⁾ The risk of both situations, neonatal and infant death has been revealed in multiple studies to decrease with gestational age at term but then increase again at 41 weeks of gestation.⁽¹⁰⁻¹³⁾ Neonatal health care is concerned with the condition of the newborn from birth to four weeks (28 days) of age and the maternal factors contribute neonatal mortality have their origin before the baby born.⁽¹⁵⁾ Thus the early neonatal deaths and stillbirths usually have obstetric causes and largely preventable if

good quality obstetric care is made available making time lived. Element of the relationship between gestational age and infant death is driven by the fact that SIDS deaths decrease with gestational age until 40–41 weeks, after which they begin to increase again; SIDS is the leading cause of post neonatal death in non-anomalous infants.^(12,15,16) The socioeconomic status, female literacy and poor antenatal care also influencing to adverse pregnancy outcomes. Families which have exposed to still birth never try to disclosed and proper reporting generally.

Challenges: A significant proportion of stillbirth is preventable by adequate antenatal care and delivery conducted at health Institution. Events of stillbirths counting and its associated underlying risk factors identifying needs to determine to find out the problems and its prevention. In the issues of stillbirths, essential to evaluate by investigating the pregnancy outcomes among women who have exposed of delivery and foetus loss earlier last five years since start the evaluation works. Estimation of stillbirth refers to a dead born foetus which can either occur before the onset of labour (ante-partum death) or during labour (intra-partum death) is expressed per thousand of total birth.⁽³⁾ For estimating the prevalence of stillbirth and identifying the responsible risk factors among women in any target segment of population. Design of study's methodology may considered which specially covers these two research components, cross-sectional and prospective. Cross sectional study with probability proportion to size sampling (PPS) technique may be adapt to cover the sample by household survey for determine the stillbirth events by conducting interview with ever married women in reproductive age group 15-44 years with informed written consent. For the prospective study, identified women who have pregnant over the period of 5 month for follow-up with an interval on average once a month regarding the health condition and treatment and motivation for regular care up to full-term pregnancy, delivery (pregnancy outcome) and until 60 days postpartum to identify the causes of stillbirth at each subsequent interview. Along with epidemiologic information based study may also helped to describe the multiple dimensions of risk faced by pregnant women and their health care providers when comparing the risks of stillbirth at term with the risk of infant death after birth, considering that gestational age is one of the many shared risk factors for both stillbirth and infant death.⁽¹⁷⁾ Because of stillbirths are invisible in many societies; can be deal with through sensitize the community, health program managers and policy makers for proper reporting of stillbirths at all levels and stages. Safe motherhood and child survival have always been a concern for the policy makers but prenatal mortality, especially still birth have not received due attention. Well documented estimate of stillbirth help to chart action to improve child health and survival. In addition to vulnerable

tribal populations of the country have poor health and leading the understanding the problems, proper events of still births and its probable cause may help to strengthening them by implementing the special action plan. The findings on still birth and its risk factors are very important to draw an action plan, policy implication for eliminate the contributing factors.

Conclusions

Identifying the risk of stillbirth, proper reporting and counting leads to its better prevention. Accurate pregnancy care with adequate antenatal checkups may manage and reduce the risk of stillbirths. Decisive the optimal time of delivery to minimize the risk of stillbirth necessarily must include considering the mortality risk faced by the child after birth. Different states which shares a high burden of stillbirths due to gaps in reporting and recognizing by health professional as well as health policy level. So the actual data on stillbirth need to carrying out which would be useful to draw an action plan and eliminate the contributing factors. For preventive care and action, not all stillbirths can be prevented. However, there are some things can do to reduce the risk of having a stillbirth, such as; stopping smoking, avoiding alcohol and drugs during pregnancy- these can seriously affect baby's development and increase the risk of miscarriage and stillbirth, attending all antenatal appointments so that midwives can monitor the growth and wellbeing of your baby.⁽⁸⁾ So for need to develop programmes for identifying, monitoring and reducing stillbirth rates at different levels of health care through inter-disciplinary approach.

References

1. Reddy UM, Ko CW, Willinger M. Maternal age and the risk of stillbirth throughout pregnancy in the United States. *Am J Obstet Gynecol.* 2006;195:764–770.
2. Divya K Bhati, Stillbirths: A high magnitude public health issue in India, *South East Asia Journal of Public Health* 2013;3(1):3-9
3. WHO: Neonatal and perinatal mortality, country, regional and global estimated. Department of Making Pregnancy safer. Geneva: WHO, 2004
4. Cousens S, Blencowe H, Stanton C, Chou D, Ahmed S, Steinhardt L et al. National, Regional and Worldwide estimates of stillbirths rates in 2009 with trends since 1995: a systematic analysis. *Lancet* 2011;377(9774):1319-30
5. United Nation Children's Fund (UNICEF). The states of the world children 2008. *Child Survival*. UNICEF, 2008
6. http://www.censusindia.gov.in/vital_statistics/SRS_Report/11Chap%204%20%202011.pdf access on 28 May 2015
7. Vartika Saxena1, et al: Investigating causes and factors associated with stillbirth by verbal autopsy in Uttarakhand. *Ind J Prev. Soc. Med.* Vol.42 No.1, 2011
8. <http://www.downtoearth.org.in/dte-infographics/Stillbirths.html> Access on 05/05/2017
9. <http://www.thelancet.com/pb/assets/raw/Lancet/stories/series/stillbirths2016-exec-summ.pdf> Accessed on 11 May 2017.

10. Zhang X, Kramer MS. Variations in mortality and morbidity by gestational age among infants born at term. *J Pediatr.* 2009;154:358–362. 362.e1.
11. Bruckner TA, Cheng YW, Caughey AB. Increased neonatal mortality among normal-weight births beyond 41 weeks of gestation in California. *Am J Obstet Gynecol.* 2008;199:421, e1–e7.
12. Reddy UM, Bettegowda VR, Dias T, Yamada-Kushnir T, Ko CW, Willinger M. Term pregnancy: a period of heterogeneous risk for infant mortality. *Obstet Gynecol.* 2011;117:1279–1287.
13. Donovan EF, Besl J, Paulson J, Rose B, Iams J. Ohio Perinatal Quality Collaborative. Infant death among Ohio resident infants born at 32 to 41 weeks of gestation. *Am J Obstet Gynecol.* 2010;203:58, e1–e5.
14. D Kumar, et al: Neonatal mortality in India, Rural and Remote Health, 7:833.(Online), 2007, Available from: : <http://www.rrh.org.au>
15. Smith GC, Pell JP, Dobbie R. Risk of sudden infant death syndrome and week of gestation of term birth. *Pediatrics.* 2003;111:1367–1371.
16. Halloran DR, Alexander GR. Preterm delivery and age of SIDS death. *Ann Epidemiol.* 2006; 16:600–606.
17. Spong CY, Iams J, Goldenberg R, Hauck FR, Willinger M. Disparities in perinatal medicine: preterm birth, stillbirth, and infant mortality. *Obstet Gynecol.* 2011; 117:948–955.