Stillbirth is fetus death at any time after the 28th week of pregnancy. It is also referred to as intrauterine fetal death (IUFD). This is a serious and neglected maternal health problem in developing countries. Our study aimed to identify risk factors associated with stillbirth in ever-pregnant women in Nepal. Using data from the 2011 Nepal Demographic and Health Survey (a cross sectional survey conducted every 5 years) we found that 8,918 of the 12,674 interviewed women aged 15-49 had experienced at least one pregnancy outcome. Results showed that stillbirth among ever pregnant women in Nepal is significantly associated with age and education of mother, urban/rural place of residence, and geographical sub-region.
Statement of the problem

✓ Out of 2.6 million annual stillbirths worldwide, more than 8,200 deaths occur per day. Among them 98% evident in low- and middle-income countries, with the highest burden in developing countries (WHO, 2009).
✓ Stillbirth is strongly correlated with maternal mortality (Lawn et al., 2010).
✓ India has the highest number of stillbirths in the world, the rate ranges from 20 to 66 per 1000 births in different states (Bhati, 2013).

In Nepal,
✓ The estimated stillbirth rate is 23 per 1000 births (Cousens et al., 2009).
✓ Lack of appropriate reporting system.
✓ Null parity, history of prior to child loss, maternal age above 30 year, Madhesi ethnicity and socioeconomic disadvantage are the main contributing factors for stillbirth (Lee, 2011).
✓ Study on stillbirth and associated risk factors in the context of Nepalese population is lacking till date.
Objectives

✓ To find out the distribution of stillbirth in ever pregnant women in Nepal.
✓ To investigate the risk factors associated with stillbirth in women who experienced at least one pregnancy outcome.

Materials and Methods

✓ Data were obtained from Nepal Demographic and Health Survey, 2011 which is a cross-sectional household survey.

Total women aged 15-49 years n=12,674

- Women never pregnant n=3,756
- Ever-pregnant women n=8,918
  - Women never had stillbirth n=8,430
  - Stillbirth n=488
Determinants

Demographic factors:
Mother’s age, education and religion

House hold:
wealth index

Geographical factors:
sub-region, place of residence and region

Stillbirth

Outcome
For univariate analysis, **Pearson’s chi-square test** was used to identify the association of between independent variables and outcome variable.

Those variables which were significant in univariate analysis were further analyzed by using **logistic regression** as follows.

\[
\text{logit}(P) = \log(P) - \log(1-P) = \text{constant} + \text{factor(mother’s age)} + \text{factor(resident)} + \text{factor(mother’s education)} + \text{factor(sub-region)}
\]
Model results

The figure shows the percent of stillbirth among women in the 15-49 age group and their corresponding 95% confidence intervals. The determinants considered here were the mother’s age, education, place of residence and sub-region.

P-value for ANOVA test:  $<0.0001$  $<0.0914$  $<0.0001$  $<0.0001$
Conclusions

✓ The percentage of stillbirth in women who experienced at least one pregnancy outcome was 5.47%.
✓ The percentage risk of stillbirth increases as the mother’s age increases.
✓ Mothers in urban area had lower percentage of stillbirth than those in the rural areas.
✓ Mothers who had higher education had lower stillbirth rates.
✓ Mid-western hill and mid-western terai had significantly higher chance of stillbirth compare to overall mean. rather than eastern mountain and western mountain found to be highly significant with still birth.
References


4. Lawn et al., 2010. Global report on preterm birth and stillbirth (1 of 7): definition, description of the burden and opportunities to improve data.

5. Lee et al.: Community-based stillbirth rates and risk factors in rural Sarlahi, Nepal.