

[課程－ 2 ]

## 審査の結果の要旨

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High-quality care is key to improving newborn and perinatal deaths. This study was conducted 1) to measure the district-level care quality, 2) to assess the extent to which women's characteristics can explain these quality differences and 3) to examine the association between the care quality and newborn and perinatal deaths in Nepal.

This study incorporated secondary data from Nepal Service Provision Assessments (SPA) 2015 and Demographic and Health Surveys (DHS) 2016. In this study, maternal and newborn care quality was measured by three dimensions: 1) care provision, 2) women's care experience and 3) human and physical resources. Binary logistic regression analysis was used to examine the association between the quality and newborn and perinatal deaths.

This study first described the quality of care that women and newborns receive in Nepal by three dimensions: care provision, women's care experience, and human and physical resources. This study then explained the characteristics of vulnerable districts in Nepal by three dimensions. Moreover, this study systematically examined the association between the quality of care and newborn and perinatal deaths in Nepal by these dimensions. By linking two nationally representative data from health facilities (SPA) and women (DHS), the district-level quality of the health system was investigated.

The health facility-level quality score extensively varied in all dimensions throughout Nepal. This study also showed the gap in the quality scores by the type of health facilities. The quality scores in dimension 1) were likely to be high at government hospitals and NGO/private (not-for-profit)/mission-based health facilities than other types of health facilities. The median quality score in dimension 2) was slightly higher at private hospitals and NGO/private (not-for-profit)/mission-based health facilities than other types of health facilities. The quality scores in dimension 3) were likely to be high at government hospitals, private hospitals and NGO/private (not-for-profit)/mission-based health facilities than other types of health facilities. The quality scores were different among health facility types.

The quality scores in all dimensions were likely low in districts with more women living in rural

areas, with lower socio-economic status and with lower educational attainment. Moreover, the result showed outliers among the same type of health facilities and the same characteristics of districts. The levels of the quality were different by the characteristics of the districts, but some districts had extreme quality scores.

This study showed that a higher district-level quality score in dimension 1) (care provision) was significantly associated with a lower number of newborn deaths, but the quality score in dimension 2) (the experience of care) and dimension 3) (human and physical resources) were not significantly associated with newborn deaths. In dimension 1), a higher mean quality score had a significant association with a lower number of newborn deaths in all delivery cases and the sub-sample analysis of facility delivery cases only. Nonetheless, the score did not have a significant association in the sub-sample analysis of non-facility delivery cases only. A higher maximum quality score had a significant association with a lower number of newborn deaths only in all delivery cases. In the subsample analysis, the score did not show a significant association in both facility and non-facility delivery cases only. The association was marginally but not significant in non-facility delivery cases only. The quality scores in dimensions 2) and 3) had no significant association with newborn deaths. The unadjusted model in dimension 1) showed that a higher maximum quality score was associated with a lower number of perinatal deaths in all delivery cases and sub-sample analysis of non-facility delivery cases. However, all dimensions of the quality scores had no significant association with perinatal deaths after being adjusted for covariates.

Therefore, the findings of this study added evidence that enhancing the quality of care provision at its average and highest levels in each district may reduce newborn deaths but no perinatal deaths. Moreover, this study described the situation of the quality of care that women and newborns received by three dimensions. This study may contribute to improving maternal and newborn care quality in Nepal and other low- and middle-income countries with similar settings.

よって本論文は博士（保健学）の学位請求論文として合格と認められる。