RATIONALE AND HYPOTHESIS:

RATIONALE:

1. This study will help to find the correlation between the foot length and birth weight of newborn babies at TUTH, Kathmandu, Nepal.

2. This study will help in finding the incidence of LBW at TUTH.

3. Foot length measurement as proxy measure of birth weight will help in identifying low birth weight babies in areas where weighing facility is not available.

HYPOTHESIS:

Since more than 90% of the babies are delivered at home by TBAs and relatives, and it is difficult to provide expensive weighing machines to community members and families in developing country like ours, it is essential to find out an alternative method for estimation of birth weight. Various anthropometric measurements have been identified as proxy measures for birth weight during the first week of life, e.g. Chest circumference, thigh circumference, mid-arm circumference. Though easier to obtain than birth weight, they still require a health worker to visit the household within the first week. Identification of low birth weight babies delivered at home can be enhanced only if the tool used for detection is simple enough to be used by the mother/caretaker. Use of foot length as proxy measure of birth weight is simple, low cost technology, easy to perform, requiring less handling and disturbance to newborns and can be done by even illiterate persons. Measurements of foot length are also valuable in preterms who are ill at birth for conventional anthropometric measurements to be made, and in whom such measurements cannot be carried out subsequently because of the encumbrance of the incubator and intensive care apparatus. Drug dosages and intravenous fluid requirements based on body weight or surface area can be indirectly calculated from a measurement of foot length.
Since no study of this kind has been done in Nepal, this study will help to find out a relationship between birth weight and foot length from which low birth weight babies could be identified reliably and managed accordingly. If strong correlation could be found between low birth weight and foot length, it may be suggested for use at national level by TBAs and other caretakers.