# Evolution of the Demographic and Health Survey questionnaire for collecting data on stillbirths and neonatal deaths

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## **Background**

Annually, approximately 2.6 million stillbirths and 2.6 million neonatal deaths occur globally, 98% of them in low resource settings. Two-thirds occur in Sub-Saharan Africa and South East Asia where Civil and Vital Registration systems are often weak or non-existent. Many countries rely on household surveys like the Demographic and Health Surveys (DHS) to gather retrospective data on stillbirths and neonatal deaths through maternity histories. We reviewed how the DHS survey questionnaire has evolved to improve collection of data on stillbirths and neonatal deaths.

#### Methods

We did a literature and programme review of the DHS surveys, protocols, methodological reports and questionnaires, focusing on collection of data on stillbirths and neonatal deaths.

#### **Results**

The DHS programme is in its 7th phase with over 320 surveys conducted in 90 countries since 1984. Two types of maternity history are used, the Full Pregnancy History (FPH) and the Full Birth History (FBH). FBH collects information on all pregnancies that resulted in a live birth, the vital status of the child and if dead, the age at death. FBH is the default module implemented in most surveys. In phase-7 it has additional questions about stillbirths and pregnancy losses. FPH collects information on all pregnancies including those resulting in live births, miscarriages, abortions, stillbirths and neonatal deaths. FPH has been implemented by only 17 countries in the DHS programme.

Over the years, different procedures such as backward and forward, back-truncated and the calendaryear approaches have been used to try to improve recall of maternity histories. However, there has been limited evaluation of these different approaches. Major changes, including addition of new questions, happened in phases V-VII.

## Conclusion

Although the FBH has seen changes over the years, there is limited evidence concerning which is the best method to obtain accurate data on stillbirths and neonatal deaths.

Words [295]

### **Ethical statement**

This study did not require ethical approval.

Keywords: Stillbirths, Neonatal deaths, Demographic and Health Surveys, Questionnaires