



RESPIRE Data Management Plan (DMP): Template (adapted from the University of Edinburgh)

Name:	Dr. Md. Nazim Uzzaman
Project Title:	Blended learning for primary care physicians on chronic obstructive pulmonary disease (COPD): A feasibility study in Bangladesh
Institute:	icddr,b
Start Date:	01 May 2019
End Date:	30 April 2020
DMP version number and date:	Version:1; date: 10 th December 2020
<p><u>Responsibilities & Resources (applicable across the sections below)</u></p> <p><i>Who will be involved in the data management of this research?</i></p> <p>Dr. Md. Nazim Uzzaman (MNU), principal investigator of this research project was involved in collecting and storing the data at source, and the multidisciplinary supervisory team from the University of Edinburgh was involved in overall data management.</p>	



1. Data Capture

What data will be generated or reused in this research?

Quantitative data collection

The study participants were general practitioners (GPs) providing public and private primary healthcare services in Bangladesh. We administered the chronic obstructive pulmonary disease-physician's practice assessment questionnaire (COPD-PPAQ) to the participants prior to the start of training and one month following completion of the training. We collected socio-demographic information such as age and gender, GP experience, workload, number of patients consulted per day, and previous experience of online training. At the end of course we collected knowledge and skills examination scores of participants.

Qualitative data collection

All participants who completed the blended learning training were invited to participate in one of three focus groups with 18 participants facilitated by MNU and supported by a note-taker. The number of participants from urban, semi-rural and rural areas were nine, five and four respectively. Discussion addressed participants' perceptions of blended learning, preferences compared to previous experiences of face-to-face or online learning, advantages/disadvantages of the blended learning. The three course trainers were interviewed individually to explore their views and opinions about the practicalities of delivering training using this approach. All discussions were digitally recorded and transcribed verbatim in the spoken language (Bengali). The emotional context such as pauses, laughter, emphasis and non-verbal communication were included as notes in the transcripts to aid analysis. Transcripts were translated (by MNU who led the focus groups) from Bengali to English for analysis.

How much data will be generated?

0-50 GB

2. Data Management

How will the data be documented to ensure it can be understood?

All discussions were digitally recorded and transcribed verbatim in the spoken language (Bengali). The emotional context such as pauses, laughter, emphasis and non-verbal communication were included as notes in the transcripts to aid analysis. Transcripts were translated from Bengali to English for analysis.

Where will the data be stored and backed-up?

The quantitative data, the qualitative transcripts, consent forms or personal data identifying the participants (in paper copies) were stored in locked cabinets at Dhaka office of icddr,b. After transferring the data into electronic copies/soft copies, encrypted data were stored in a password protected computer and backed up in a protected hard drive kept in a secured place. Once the transcripts of FGDs/interviews were completed and checked by the researchers for accuracy, the audio recordings were erased.

Data will be stored in SQL Database hosted by icddr'b server. A data backup system will be scheduled with SQL Database that will automatically back up the databases every day.

3. Integrity

How will you quality assure your data?

Since the number of participants was small, the principal investigator collected data by himself, double checked for ensuring accuracy and consistency of data, transferred into soft copies and rechecked for quality assurance. Involvement of a multidisciplinary supervisory team from the University of Edinburgh unconnected with icddr,b or the course helped ensure a balanced interpretation of the data.

4. Confidentiality

How will you manage any ethical and Intellectual Property Rights issues?

Written informed consent was obtained from all participants. The oral explanation to the participants was performed by the Principal Investigator that covered all the elements specified in the Participant Information Sheet and Consent Form. We guarded the privacy of any information linked to study participants and kept data confidential in a secure storage area (paper copies were stored in cabinets at Dhaka office of icddr,b and electronic copies/soft copies were encrypted and stored in a password protected computer and backed up in a protected hard drive kept in a secured place). Only the research team and regulatory authorities have access to the anonymised data. Published results did not contain any personal data that could allow identification of individual participants.

5. Retention and Preservation

Which data do you plan to keep and for how long?

Anonymised quantitative and qualitative data will be retained for 5 years.

How will the data be preserved?

Anonymised quantitative (post-course examination scores) and qualitative data (transcripts of focus groups and interviews) will be stored in servers of icddr,b and in the UoE closed repository, 'DataVault'.

6. Sharing and Publication

Which data will be shared and how?

The manuscript resulting from this study is published in BMC Family Practice journal (DOI: <https://doi.org/10.1186/s12875-020-01270-2>). The summary of learning approaches, socio-demographics of study participants, themes of qualitative analysis, programme outline, focus group and interview topic guide are available in the paper.

Metadata will be freely available, but researchers wishing to use the anonymised data (post-course examination scores, and full transcripts of focus group and interview) stored in servers of icddr,b and 'DataVault' of UoE have to apply for permission.

Are any restrictions on data sharing required?

Although data will be stored anonymously, the small number of participants may risk their identity so permission will be at the PI's discretion.