# Public Health Training Camp 2020 (Autumn Session)

### Workshop on

## "Systematic Review and Meta-analysis"

## **慢 Facilitators**

**Erika Ota,** Professor, St. Luke's International University, Japan

**Shahjahan Khan,** Professor, University of Southern Queensland, Australia

**Mizanur Rahman**, Assistant Professor, The University of Tokyo, Japan

**Ashraful Alam,** Assistant Professor, The University of Tokyo, Japan

**Jenny Jung,** Research Fellow (Senior Research Scientist), Global Public Health Research Foundation

Host: Global Public Health Research Foundation, Bangladesh

Teaching mode: Online [Zoom]

**Duration:** 3 days (29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> October 2020) Registration deadline: September 25, 2020

Online registration form: https://forms.gle/QYcAs8XEjvYnRmMr9

## Contents

Date & Time	Content	Facilitators
Day 1	Overview and Search	
29 <sup>th</sup> October, 2020 (1) 10:00 -12:00 (2) 14:00 -16:00 GMT+6 time	<ol> <li>Introduction to systematic review [EO]</li> <li>Search strategy and database search [MR]</li> <li>Screening using Endnote/ Rayyan [JJ]</li> <li>Practical-I: PubMed search [MR/AA]</li> </ol>	Erika Ota [EO]; Mizanur Rahman [MR]; Ashraful Alam [AA]; Jenny Jung [JJ]
Day 2	Introduction to Meta-analysis	
30 <sup>th</sup> October, 2020 (1) 10:00-12:00 (2) 14:00-16:00 GMT+6 time	<ol> <li>Meta-analysis [MR]</li> <li>Heterogeneity [MR]</li> <li>Publication bias [MR]</li> <li>Practical-II: Meta-analysis using Stata/R [MR/AA]</li> </ol>	Mizanur Rahman [MR]; Ashraful Alam [AA]
Day 3	Meta-analysis Models and Methods	
31st October, 2020 (1) 10:00-12:00 (2) 14:00-16:00 GMT+6 time	<ol> <li>Statistical models for meta-analysis [SK]         <ul> <li>Fixed effect model</li> <li>Random effects model</li> </ul> </li> <li>Subgroup analysis and meta-regression [SK]</li> <li>Practical-III: Meta-analysis using Stata/R [MR/AA]</li> </ol>	Shahjhan Khan [SK]; Mizanur Rahman [MR]; Ashraful Alam [AA]

NB: Participants are required to install Stata version 11 or more/ R 3.6.3 software and R studio.



### Description

Due to the exponentially growing quantity of scientific literature, it is critical to synthesize reliable research for evidencebased decision making. Systematic reviews play a vital role in providing updated and reliable synthesis of established evidence. This three-day course covers systematic review, from a fundamental understanding to step-by-step guidance on how to independently conduct a systematic review and meta-analysis. The course covers key topics including: developing a focused question; literature search and screening; data management and extraction; quality assessment of studies; assessment of bias; and handling heterogeneity. The course also presents basic statistical methods such as selection of models for qualitative and quantitative meta-analysis, fixed and random-effects models, subgroup analysis, source of bias, and meta-regression. Participants will have the opportunity to gain practical experience by conducting practical tasks and by the end of the course, they will gain necessary skills to conduct their own high-quality systematic review and metaanalysis.



Course fee: Bangladesh: BDT 1000 for students and BDT2000 for professionals.

**International:** \$60 for both students and professionals.





### **Global Public Health Research Foundation**

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