

Workshop on Mathematical Modelling of Infectious Diseases focusing on Tuberculosis

Background

This mathematical modelling workshop is to provide technical knowledge to help researchers to learn new skills and to apply to their research work. This will also help to provide an evidence based approach to predict the prevalence, incidence of disease, and to assess the effectiveness of preventive and curative interventions. The need for this modelling approach has become more important in the context of infectious disease to estimate demand for healthcare services. During the Covid-19 pandemic mathematical models have been used to guide public health.

Objective

The objective of this workshop is to provide technical support on application of mathematical modelling of Infectious Diseases focusing on tuberculosis in health research by using R software.

Topics covered

- ❖ An Introduction to Infectious Disease Modelling and its Applications.
- ❖ Introduction to R, R-Graphic and solution to Ordinary Differential Equation
- ❖ Basic principles of compartmental model and Modelling competing hazards
- ❖ Introduction to the force of infection and modelling dynamic forces of infection
- ❖ Modelling TB diagnosis, treatment and vaccination

Participants to work as a small groups and prepare research proposals to apply their knowledge on mathematical modelling

Date

14th-16th November 2022

Time

09.00 AM – 05.30 PM

Venue

SPT Conference Hall
ICMR-National Institute for Research in Tuberculosis
No.1, Mayor Sathyamoorthy Road, Chetpet, Chennai-31

Intended Participants

The participants for this workshop would be researcher working on tuberculosis and related infectious diseases

Contact Person

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