



## Elevating frontline epidemiology

Open-source analytics:  
Tools, training, and support

A nonprofit organization

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# WHO WE ARE

## ELEVATING FRONTLINE EPIDEMIOLOGY

Applied Epi is a nonprofit organization helping the frontline public health workforce achieve advanced, versatile, and cost-effective analytics capabilities.

Our **Epidemiologist R Handbook** has helped 175,000 people learn R (including 40,000 in low- and middle-income countries).

## FRONTLINE PRACTITIONERS AND R EXPERTS

Our team has 150 practitioner experts in 35 countries around the world. We know the challenges of ground-level public health practice, and can help you learn R.

## HARNESSING THE POWER OF R

- Free to use
- Open-source and customizable
- Brilliant data visualization
- Reproducible analysis and collaboration
- Dashboards and automated reports
- Advances equity in public health

*"With R I can do anything.  
What took 10 hours in Excel,  
I do in less than 1 hour."*

- Haitian epidemiologist using  
our Epi R Handbook

# WHAT WE OFFER

## A COMPREHENSIVE SUITE OF SERVICES



### OPEN SOURCE TOOLS

- The Epidemiologist R Handbook
- R packages for public health
- Situation report templates



### R TRAINING

- Live courses
- Self-paced tutorials
- Train-the-trainer

*"An absolutely fantastic course, tailored to the needs  
of epidemiologists, with inspirational instructors.  
I cannot recommend highly enough."*

- UK health agency epidemiologist



### SUSTAINED SUPPORT

- Post-training follow-up / R help desk
- Community Q&A forum
- Mentorship program

# INTRODUCTION TO R FOR APPLIED EPIDEMIOLOGY

## COURSE OVERVIEW

**Target audience:** Public health practitioners, applied and field epidemiologists, data managers, researchers, and healthcare workers

**Objectives:** Participants learn to use R for applied epidemiology using outbreak investigation case studies

**Duration:** 35 hours (5 days)\* of live instruction



**Topics:** Data import and cleaning, transforming and joining data, data visualization, epidemic curves, basic statistics, descriptive summary tables, GIS demonstration, reproducible automated reports (see curriculum details on page 5)

**Activities:** Live coding demonstration, facilitated coding exercises, lecture, case studies

### Format:

- Remote and in-person options available
- Courses for organizations, or open to the public (individual seats)
- Delivered as
  - Condensed: 5 consecutive, full days OR
  - Part-time: 10 half days over 5-10 weeks, with support available between sessions

*\*Cohorts with experience using other code-based statistical software (e.g. SAS or Stata) may be eligible for a 4-day course at reduced price*

**Sustained support (for organizations):** Included in the price are 3 group follow-up sessions (1.5 hours each) after the classroom instruction to help the organization apply R in their work context

**Online community:** Participants register on our Applied Epi Community website, which is a venue for Q&A during the course, and provides a supportive network afterwards

*"I have been trying to teach myself R for years now... this Applied Epi course put me lightyears ahead in only 5 days!"*

- Epidemiologist at a global NGO

# INTRODUCTION TO R FOR APPLIED EPIDEMIOLOGY

## PRICING

We are a nonprofit organization committed to expanding access to high-quality training worldwide. If these prices are unaffordable for you, contact us to discuss eligibility for reduced prices. Listed prices are for remote courses, are in USD, and are not inclusive of local applicable tax.

### Courses for organizations (priced by cohort size)

- Course dates/times that align with your team's schedule
- 35 hours\* of live classroom instruction, either as 5 consecutive, full days (condensed), or as 10 half-days (part-time)
- 3 follow-up sessions (1.5 hours each)

Cohort size	1-6	7-12	13-18	19-24	25-30	31-36
<b>Total price for condensed format</b> <i>(\$990 per-person at cohort maximum)</i>	\$5940	\$11880	\$17820	\$23760	\$29700	\$35640
<b>Total additional price for part-time format</b>	\$675	\$1200	\$1725	\$2250	\$2775	\$3300

\*Cohorts with experience using other code-based statistical software (e.g. SAS or Stata) may be eligible for a 4-day course at reduced price

### Public courses (priced per person)

- See schedule of upcoming courses on our website
- 35 hours (condensed or part-time) of live synchronous classroom instruction

Public courses	Price per person
<b>Total price</b>	\$990

*"I have tried a few online courses and had help from colleagues, but this course was really tailored exactly to what we require for our work."*  
- Field Epidemiologist

### Compare us to others

Our courses are more affordable, taught by frontline practitioners, and equip participants for practice

	<b>Applied Epi</b> (organizational course with 12 participants)	UCL	LSHTM	Jumping Rivers (for profit)	Imperial Univ.	ThinkR (for profit)
<b>Daily cost per person*</b>	\$176	\$202	\$325	\$340	\$481	\$681
<b>Principal Audience</b>	Public health practitioners and applied epidemiologists	Research	Public health	General audiences	General audiences	General audiences

\*7 hour days. Sourced from institution websites as of 01/2022. Contact institutions directly for official quotes.

# INTRODUCTION TO R FOR APPLIED EPIDEMIOLOGY

## CURRICULUM DETAILS

Participants learn R within outbreak investigation case studies. Modules are 3.5 hours. Contact us to discuss content customization. Curriculum below is subject to change.

<b>Pre-course</b>	Installation of R, RStudio, and R packages
<b>Module 1</b>	About R, RStudio projects, scripts, and basic R coding syntax
<b>Module 2</b>	File management, importing data, and exploratory analysis
<b>Module 3</b>	Tidy data in public health, core "tidyverse" R functions, and "piping" data
<b>Module 4</b>	Data cleaning (deduplication, filtering rows, selecting and creating new columns, handling dates)
<b>Module 5</b>	Grouping data, producing summary statistics, and making report-ready tables
<b>Module 6</b>	Data visualization, building plots with ggplot2 "grammar of graphics" syntax, histograms, scatter/bar/line/box plots, and dynamic plot labels
<b>Module 7</b>	Transforming data with pivots and joins, ordinal factors
<b>Module 8</b>	Public health data visualization: epidemic curves, heat plots, demographic pyramids; learning to "tinker" and read R documentation; GIS demonstration
<b>Module 9</b>	Automated reports with R markdown, incorporating routinely-updated data, finding your R user community, getting help
<b>Module 10</b>	Knowledge synthesis in new case study, R markdown, peer code review
<b>Sustained support (for organizations)</b>	3 follow-up sessions (1.5 hours each) to help the organization apply R in their specific work context



# ADVANCED R WORKSHOPS

## OVERVIEW

These 1-day workshops on advanced R techniques are currently offered only to organizations.

An advanced beginner or intermediate competency in R is a prerequisite. Most students who successfully complete our "Introduction to R for Applied Epidemiology" course are prepared to enroll in these workshops.

The following topics are available and are covered in one 7-hour day:

- GIS mapping with R
- Collaboration and version control with R, Git, and GitHub
- Dashboards with R Markdown or with R Shiny
- R and databases
- Survey analysis with R
- Advanced data visualization with the ggplot2 package
- Advanced statistics and regression modeling in R
- Advanced automated reports with R Markdown
- Advanced data management and task iteration with R

*"Full workflow integration, including maps. I couldn't have done this in SAS."*

- US CDC epidemiologist

Other topics can be considered upon request.

## Price by size of cohort (USD)

Cohort size	1-6	7-12	13-18	19-24	25-30	31-36
<b>Total price for cohort</b> <i>(\$450 per-person at cohort maximum)</i>	\$2700	\$5400	\$8100	\$10800	\$13500	\$16200


## Compare us to others

Our courses are more affordable, taught by frontline practitioners, and equip participants for practice

	Applied Epi (12 participants)	LSHTM	Jumping Rivers (for profit)	RITME (for profit)
<b>Daily price per person*</b>	\$450	\$455	\$455	\$625


\*7 hour day. Prices sourced from institution websites as of 01/2022. Contact institutions directly for official quotes.

## CONTACT US:

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