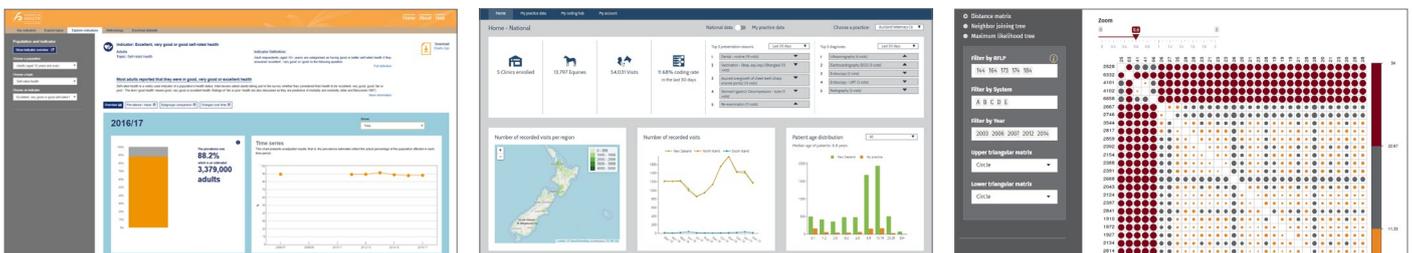# E<sup>i</sup> EPI-interactive

**WORKSHOP**

# CONNECTING DATA WITH PEOPLE

## Interactive, web-based visualisation with RStudio Shiny

**Dr Uli Muellner**, EPI-interactive, M (+64) 027 2922296, uli@epi-interactive.com

**One to three day data visualisation workshop**

**Hosted either in-house or at EPI-interactive premises**

Please email info@epi-interactive.com for further details

Date and venue can be arranged

## SUMMARY

RStudio Shiny is becoming an increasingly popular tool for web-based, interactive data visualisations. The open source framework provides a flexible way to create and output modern information dashboards while drawing on the statistical power of R in combination with commonly used web technologies.

This hands-on workshop will familiarise you with RStudio Shiny programming and will cover design approaches, coding essentials and how to publish your newly created app.

## MATERIALS

**Provided** (per download link):

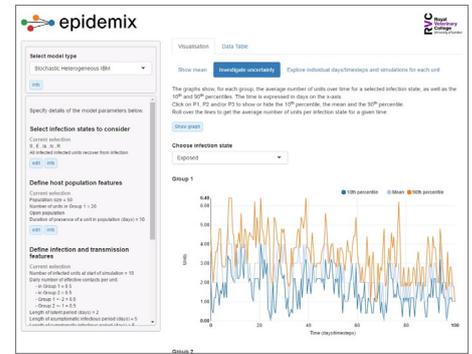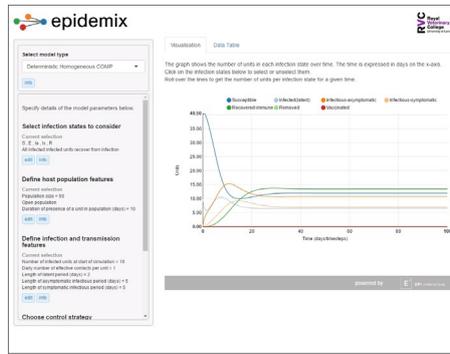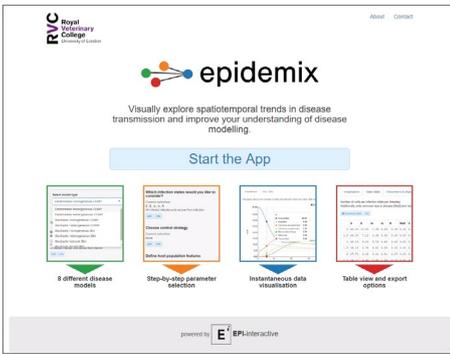- Workshop notes and instructions
- Coding examples

**Participants to bring:**

Their own laptop with R and RStudio installed:

- R version 3.3.0 or later
- RStudio 1.0.136 or later

## PREREQUISITES

- Basic R programming skills
- Some programming experience in HTML would be beneficial; however it is not mandatory
- To be discussed - this workshop may also be tailored for a more advanced audience

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## PROGRAM

Note: the program below is targeted for users with no or limited R Shiny experience; we can tailor the program for your needs, e.g. cover more advanced topics critical to your business.

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### Day 1 (Starter)

- Welcome and intro, incl. demonstrations of Shiny apps
- Getting set up and version control
- How to build a basic app
- Shiny interface layout
- Adding user interface components and reactivity
- Shiny publishing: options, pros and cons

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### Day 2 (Starter)

- Utilising different data sources
- Design approaches for effective and stunning interfaces for data visualisations
- Creating dynamic user interfaces and null-checking
- Integrating interactive, vector-based graphs: Plot.ly, Google Charts, nvD3
- Top 10 tips when working with Shiny

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### Day 3 (Advanced)

- Controlling reactivity: observe, isolate, eventReactive, observeEvent, freezeReactiveValues
- Optional: spatial visualisations with Leaflet
- Shiny debugging strategies
- Using bootstrap grid system for supporting multi-devices
- Customising the look and feel: theming
- Custom inputs

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## FACILITATOR



**Dr. Uli Muellner** is an IT professional with a background in teaching and computer science, including a PhD in media education. Uli is a director of EPI-interactive, a Wellington-based consultancy company (epi-interactive.com) where he heads the data visualisation and e-Learning portfolio.

in   **www.epi-interactive.com**

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