

Building a dashboard from scratch: my own experience with R

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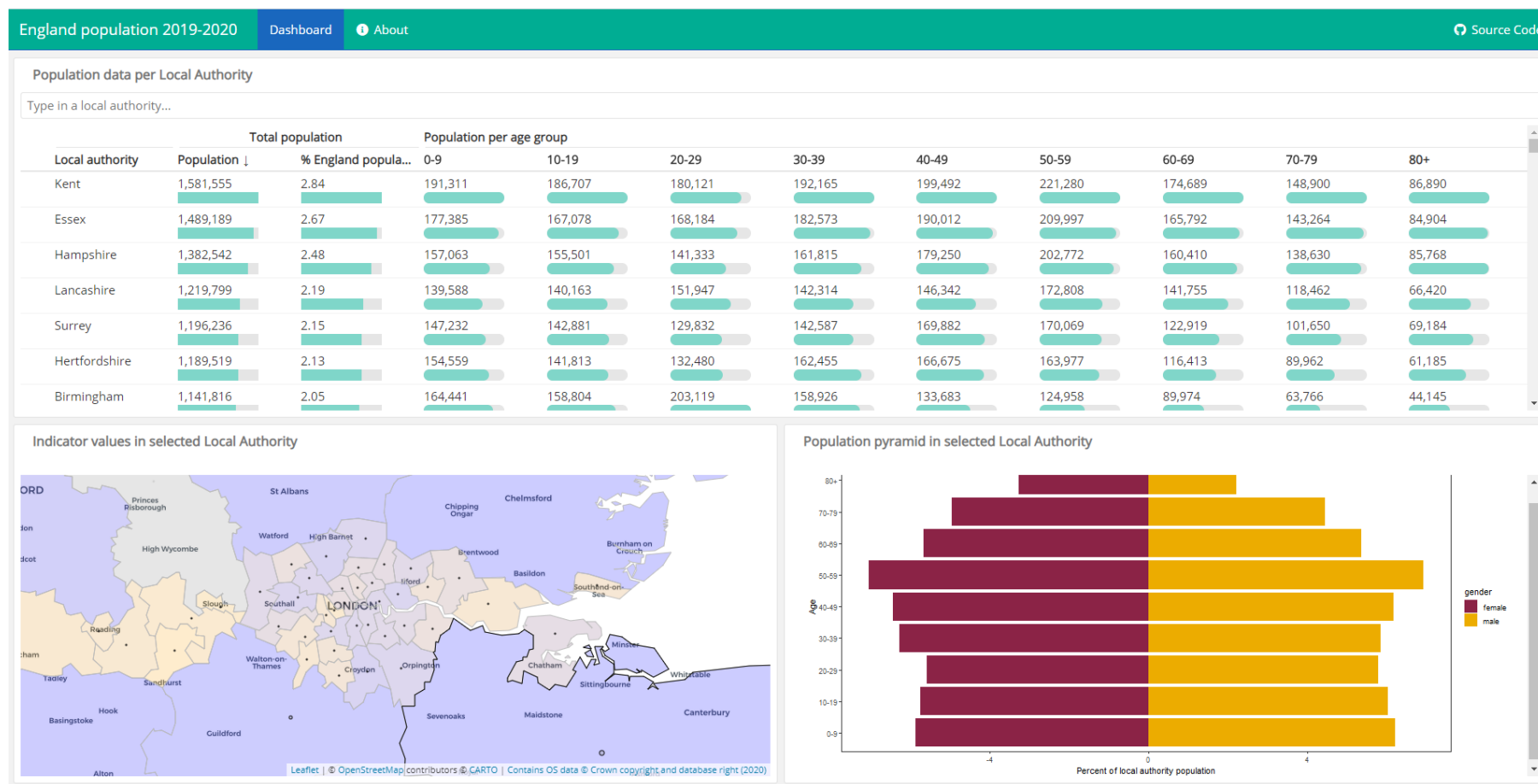
NHS Nottinghamshire Healthcare

The Covid-19 Risk Profiling Dashboard

- Work carried out at Department of Health and Social Care (DHSE)
- Analysts & Data Scientists develop a range of analytical products to respond to Covid-19 challenges
- Covid-19 Risk Profiling Dashboard is one of these products
- Dashboard is under development and I'm not involved anymore (I'm NHS staff now!)
- Data sensitivity- can't show you much (people with access can see it [here](#))!
- So what I'll do instead is show you how to...



... build a dashboard from scratch in R!



Building a dashboard from scratch in R – the building blocks

```
1 ---
2 title: "Focal Chart (Top)"
3 output:
4   flexdashboard::flex_dashboard:
5     orientation: rows
6 ---
7
8 Row {data-height=650}
9 -----
10
11 ### Chart 1
12 {{r}}
13
14
15 Row {data-height=350}
16 -----
17
18 ### Chart 2
19 {{r}}
20
21
22
23
24 ### Chart 3
25 {{r}}
26
27
28
```



reactable 0.2.2

Reference

Examples

Demos ▾

Articles ▾

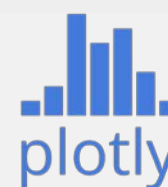
Tutorials ▾

reactable

Interactive data tables for R, based on the [React Table](#) library and made with [reactR](#).

Features

- Sorting, filtering, pagination
- Grouping and aggregation
- Built-in column formatting
- Custom rendering via R or JavaScript — use Shiny HTML tags and HTML widgets in tables
- Expandable rows and nested tables
- Conditional styling
- Works seamlessly within R Markdown documents and Shiny apps



Building a dashboard from scratch in R

– where do I start?

- I had no experience with dashboards before joining DHSC
- I was experienced with ggplot2, had elementary knowledge of Shiny and R Markdown, and no experience whatsoever with HTML and CSS
- **Open Source to the rescue!**
- [Trafford Data Lab's Covid-19 dashboard](#)
- [Kyle Cuilla's 2019 NFL Team Ratings](#)
- [Travelling Tabby's UK Coronavirus Tracker](#)

Building a dashboard from scratch in R

– how I approached it

- Familiarize yourselves with Shiny- that's where all the reactivity happens
- Learn from and build on open source code from real-life examples
 - Trivial examples tend to be too simplistic- the devil is in the customization detail
 - Full customization not possible without HTML and CSS elements. By exploring how others did it you'll "get it" without being even remotely familiar with these languages
 - Plenty of surprisingly simple yet impactful ideas for results presentation out there
 - **Extra:** Real-life dashboards often have maps- perfect opportunity to practice geocoding

Thank you!

Special thanks to the DHSC team:

John Bates

Toby Crisford

Adam Mesout

Ben Stanbury

Martine Wauben

Jennifer Woodhouse

The two dashboards

[Dummy dashboard presented today \(public\)](#)

[Covid-19 Risk Profiling Dashboard \(private\)](#)