

Establishing an NHS-R community to exploit the power of R for the NHS

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On behalf of the NHS-R Team

The NHS-R Core Team

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On behalf of and in partnership with the NHS-R Community

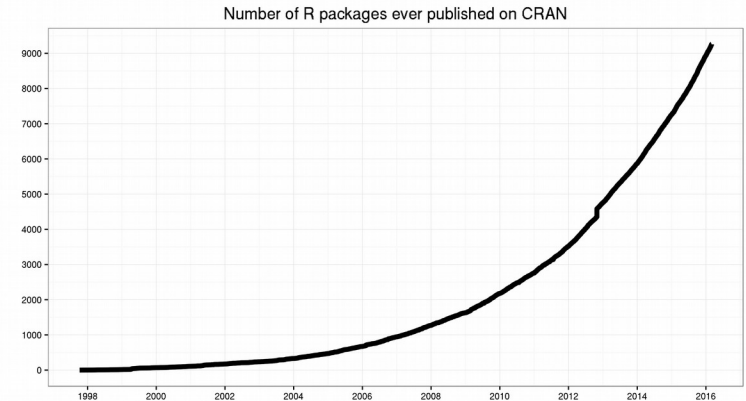


R Timeline

- **1993:** Research project in Auckland, NZ
- **1995:** R Released as open-source software
- **1997:** R core group formed
- **2000:** R 1.0.0 released (February 29)
- **2003:** R Foundation founded
- **2004:** First international user conference
- **2015:** R Consortium founded
- **2018:** NHS-R community founded

The case for using R in the NHS

- Powerful
 - Continually improving
- Popular (ranked 6th)
- Free/low cost
 - Wealth of online resources
- Widely supported
- Corporatisation (Microsoft, Google, Facebook)
- Challenges



<https://www.r-bloggers.com/over-16-years-of-r-project-history/>

Our approach

- Workshops
- Conference
- Community Website
- Twitter
- Partnership
- Networking
- ...

Four 3 day Workshops

- Workshops:
 - Introduction to R
 - Understanding & reporting hospital mortality statistics
 - Forecasting and Demand and Capacity
 - Retrospective matched controlled studies
- Mixture of needs (from novice to advanced users)
- 20 delegates
- Positive feedback



ATTENDING

119 delegates from England, Wales, Scotland and Denmark

1000 km—longest distance our delegates travelled

36 NHS Organisations across UK



LEARNING

840 minutes of workshops **11** Workshop facilitators

Workshops:

- Visualising Patient Flow
- SPC charts using QlCharts package
- Using the Shiny R Package to build a dashboard

> 10 packages explored including Gganimate, Shiny, Tidyverse, ggplot2



LISTENING

Plenary sessions:

5 sessions

7 key speakers

90 minutes of talks



NETWORKING

105

minutes of insightful conversations



EVALUATING



Delegates rated us 4.3 out of 5



We need support and training for the hidden side of the NHS – its data people.



It was great to be in a room full of analysts passionate about R and the NHS.



The mood of the conference was good. It felt congenial.

NHS-R website



NHS meets R

By NHS-R Community on 19th March 2018

News

Welcome to the NHS-R Community – born March 2018.

Hello and welcome to our nascent NHS-R Community; a community dedicated to promoting the learning, application and utilisation of R in the National Health Service (NHS) in the United Kingdom. Like any community, NHS-R relies on the vibrancy of its participants to be relevant and productive – and fun.

So why get involved?

The NHS is one of the best healthcare systems in the world[1]. It was launched in 1948 with the guiding principle of being free at the point of delivery – a kind of crowd funded open-source freeware equivalent of healthcare. More than half (52%) of the public say the NHS is what makes them most proud to be British, placing it above the armed forces (47%), the Royal Family (33%), Team GB (26%) and the BBC (22%)l.

The NHS in England deals with about 1 million people every 36 hours[2] and is continually generating vast amounts of data about the health and care of people[3]. This data is one of the most precious, yet under tapped, resources in the NHS. "Data is the new oil of the digital economy"[4] and drilling and mining NHS data could improve the NHS[5]. But mining these mountains of data is a colossal task.

This is where R comes in. R was conceived in 1992[6] as a free open-source statistical programming environment, which is now widely used in industry[7] (Google, Microsoft, Airbnb, New York Times, Lloyds of London, etc) and academia, and is now ranked amongst the most popular (sixth as of 2017) programming languages[8]. But its use in the NHS is almost non-existent. Whilst there are several reasons for this, the absence of R at scale in the NHS, means that the NHS is unable to take advantage of the huge benefits of R, including cutting-edge

Categories

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- [Improvement Academy](#) >

NHS-R website

Introduction to Funnel Plots

By Chris Mainey on 22nd May 2019

[Funnel Plots](#) [Learn R](#)

Funnel plots Funnel plots are a common tool for comparing organisations or units using proportions or standardised rates. A common [...]

rforhealthcare.org – A free online resource for all your R related healthcare needs

By Sean Manzi on 18th April 2019

[Learn R](#) [R tips](#)

Down in the South West of England we at the PenCHORD team of the NIHR CLAHRC South West Peninsula have [...]

Moving on with the plan...And using R to do it! My personal experience...

By Vicki Cruze on 11th April 2019

[Conference](#) [NHS](#)

When Mohammed asked if I would be interested in doing a blog on how "we", Information and Analytics in NHS [...]

Format ONS spreadsheet

By Zoe Turner on 15th March 2019

[Datasets](#) [Learn R](#) [R tips](#)

Background A Public Health consultant colleague Ian Bowns (@lantheBee) created a report to monitor mortality within the Trust and he [...]

Using R to track NHS winter pressures

By Fiona Grimm on 14th March 2019

[Learn R](#) [NHS](#) [R tips](#)

Every Thursday during winter, roughly from December to March, NHS Digital releases a week's worth of hospital performance data, known as [...]

Animating a Graph Over Time in Shiny

By Dan Mohamed on 1st March 2019

[Learn R](#) [R tips](#)

I was interested in creating an animated graph [...]

Some issues...

- Huge Potential
 - Needs managing
- Sustainability
 - Local teams
- Learning curve & ongoing learning/working together
 - Hacks
- Installation
- Peer review
- IT Support

NHS-R conference 2019

- 4th – 5th November 2019
- Birmingham, Edgbaston Park Hotel
- Panel discussion, lightening talks, workshops and NHS-R solutions
- Call for abstract – contact us!

Let's keep in touch



<https://nhsrcommunity.com/>



<https://twitter.com/nhsrcommunity>



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