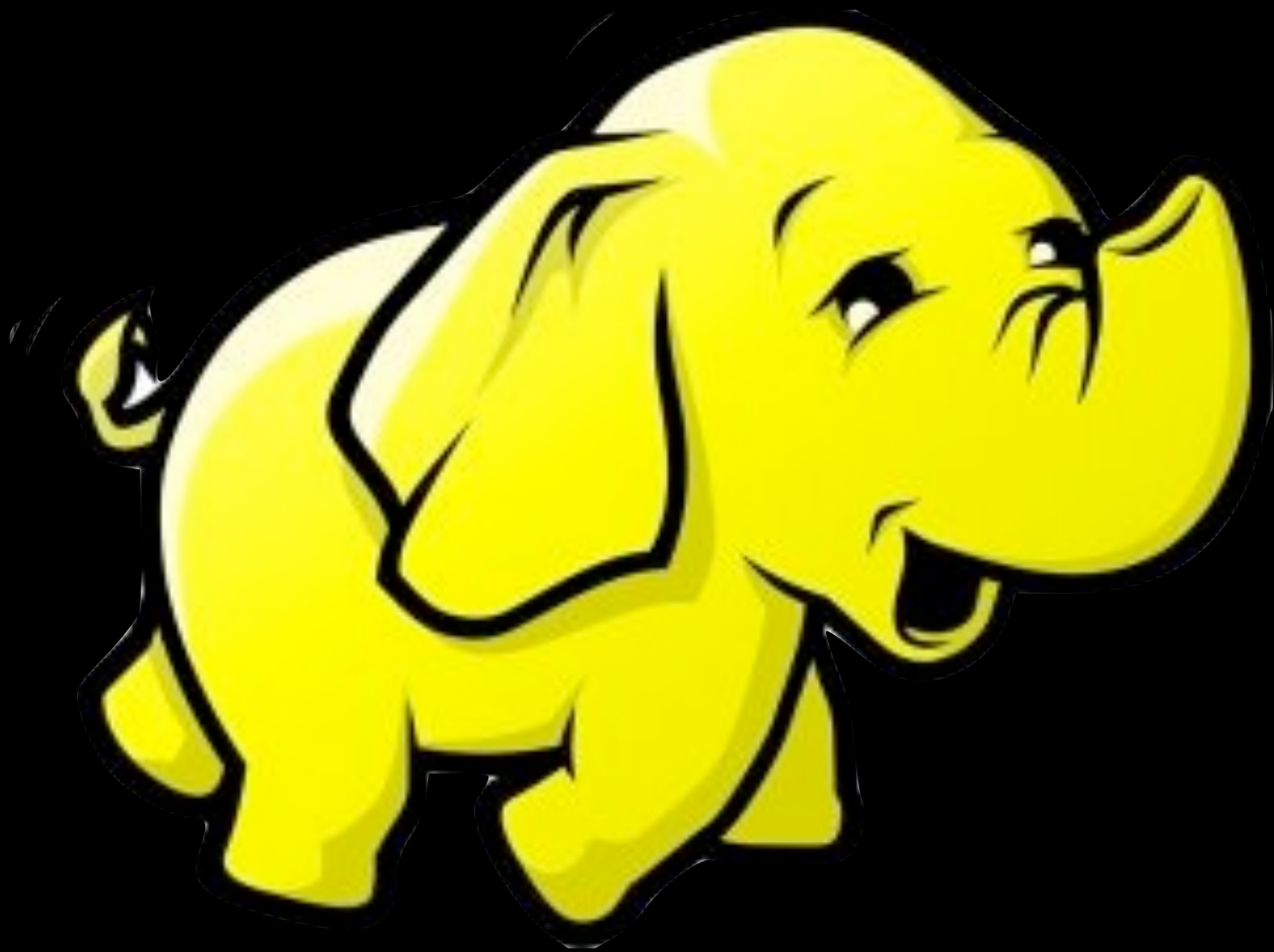


# **Big Data comes to the NHS**

**Mastodon C**

**@MastodonC @fhr**

**Francine Bennett**

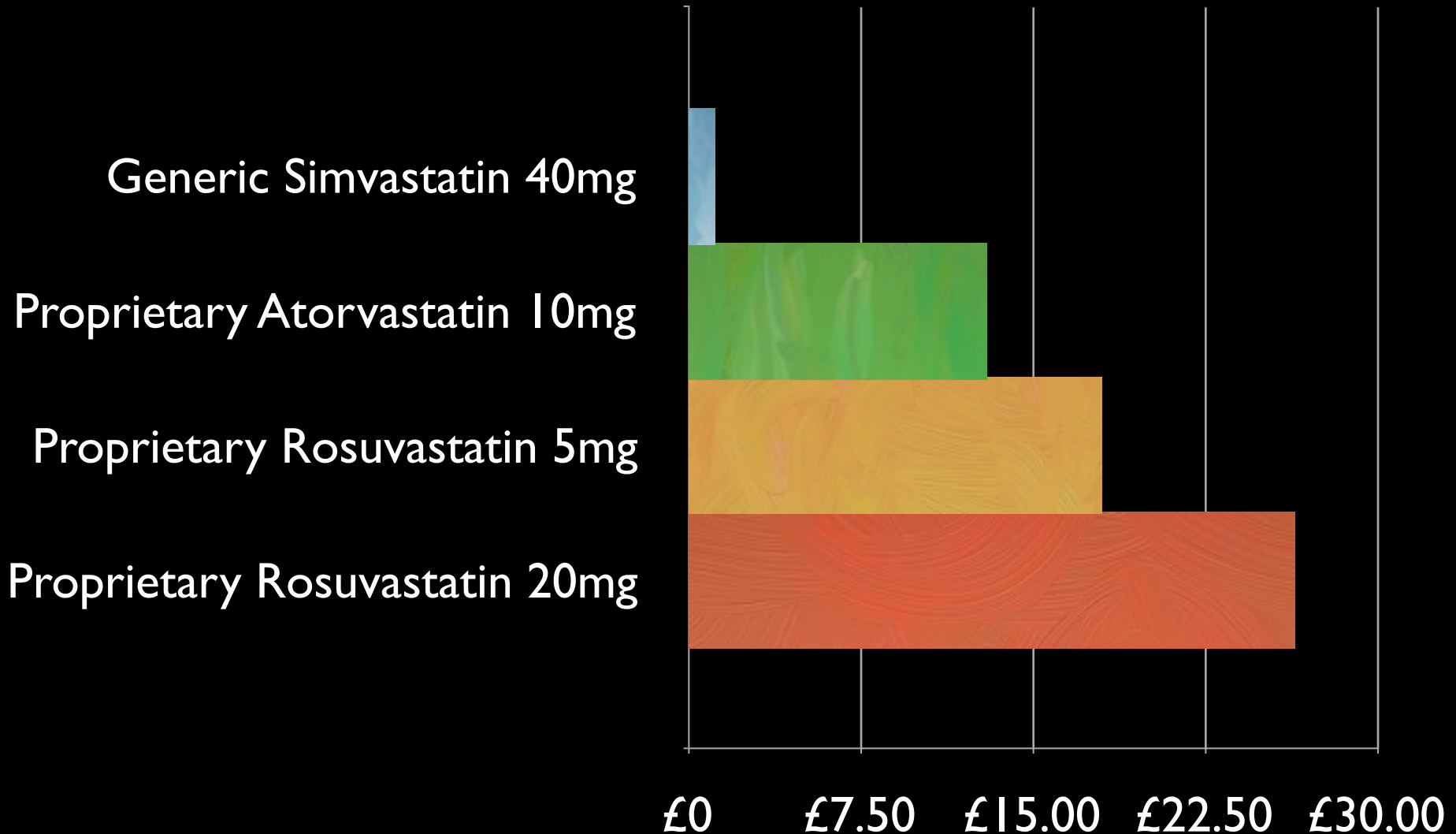


SHA	PCT	PRACTICE	BNF CODE	BNF NAME	ITEMS	NIC	ACT COST	QUANTITY	PERIOD
Q30	5D7	A86003	0101010N0AAAAAA	Antacid/Oxetacaine_Oral Susp S/F	1	97.42	89.77	300	201206
Q30	5D7	A86003	0101010R0AAABAB	Simeticone_Susp 40mg/ml S/F	2	4.9	4.58	100	201206
Q30	5D7	A86003	0101021B0AAAHAH	Gppe Liq_Gaviscon S/F	2	4.45	4.17	1000	201206
Q30	5D7	A86003	0101021B0AAALAL	Sod Algin/Pot Bicarb_Susp (Aniseed) S/F	3	11.8	10.97	1300	201206
Q30	5D7	A86003	0101021B0BCAAAC	Gastrocote_Tab	2	14.04	13	400	201206
Q30	5D7	A86003	0101021B0BEADAJ	Gaviscon Infant_Sach 2g (Dual Pack) S/F	6	65.78	60.79	330	201206
Q30	5D7	A86003	0101021B0BEAIAL	Gaviscon Advance_Liq (Aniseed) S/F	14	85.8	79.49	9450	201206
Q30	5D7	A86003	0101021B0BEAKAQ	Gaviscon Advance_Liq (Peppermint) S/F	11	55.76	51.71	5850	201206
Q30	5D7	A86003	0101021B0BEAQAP	Gaviscon Advance_Tab Chble 500mg Mint	4	21.76	20.17	480	201206

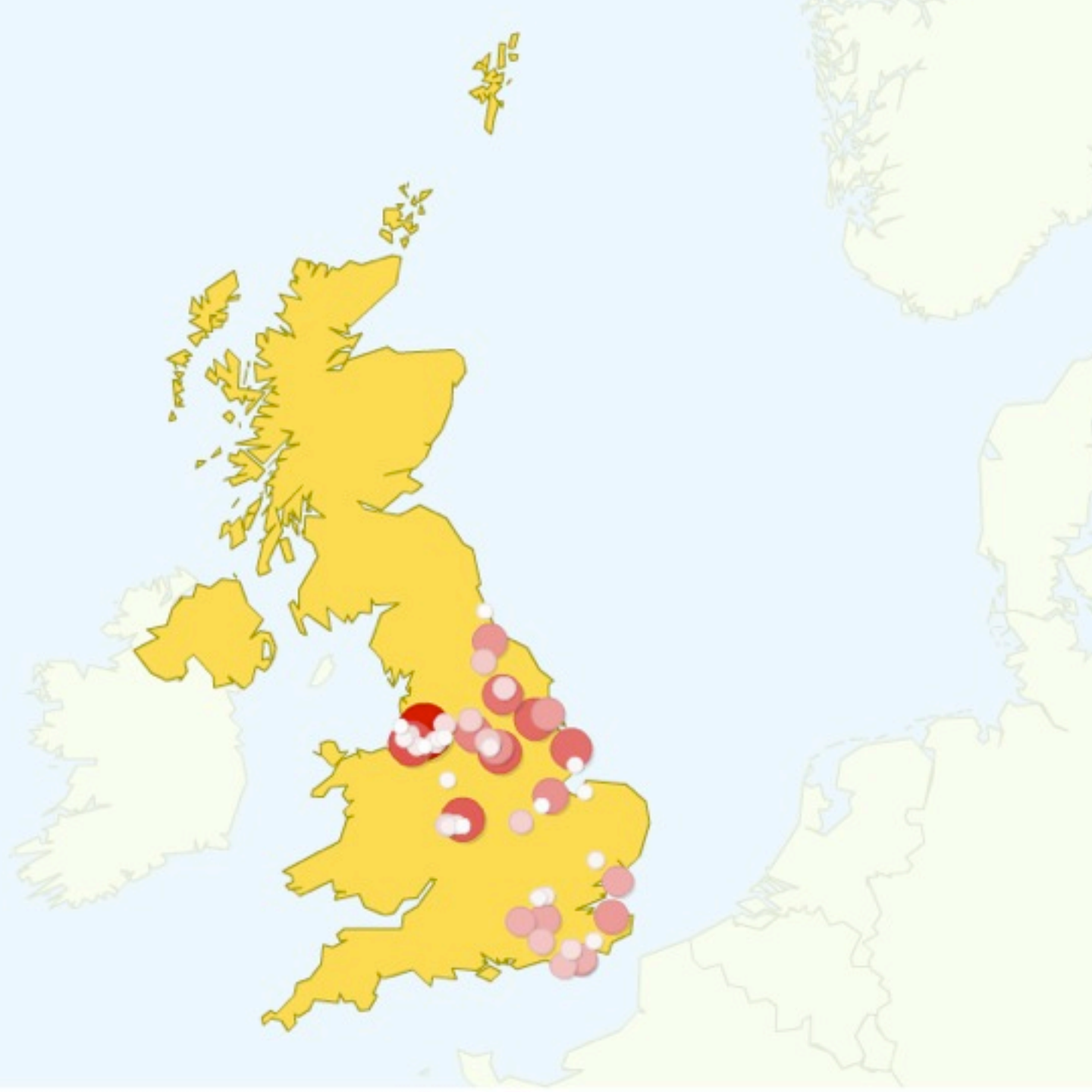
# British Medical Journal, Jan 2011 - £1.4bn identified

Examples of high spend drug classes and potential savings				
Drug class	Cost (£m)	Possible intervention*	Potential saving (£m)	Examples
Respiratory drugs†	592	1,2,4,5	354	Seretide and Symbicort to individual generic salbutamol/formoterol/ beclometasone/budesonide
Lipid regulating drugs‡	566	1,2 3	214 72 after 2012	Low dose atorvastatin to simvastatin Rosuvastatin and ezetimibe to high dose atorvastatin
Angiotensin receptor blockers§	277	2,5	207	Candesartan to losartan
Antipsychotic drugs¶	264	1,2	231	Branded atypicals such as aripiprazole to risperidone
Antiplatelet drugs	197	1	118	Plavix to clopidogrel
Proton pump inhibitors	188	1,2,4	63	Pantoprazole and esomeprazole to omeprazole/lansoprazole
Calcium channel blockers**	153	2,4,5	62	Nifedipine modified release to amlodipine
Opioids	238	2	50	Oxycodone+buprenorphine to morphine sulphate
Antimuscarinic bronchodilators	130	2	84	Tiotropium to ipratropium
Antidepressants	71	1	24	Escitalopram to citalopram
Total	3047		1418	

# Prices differ significantly



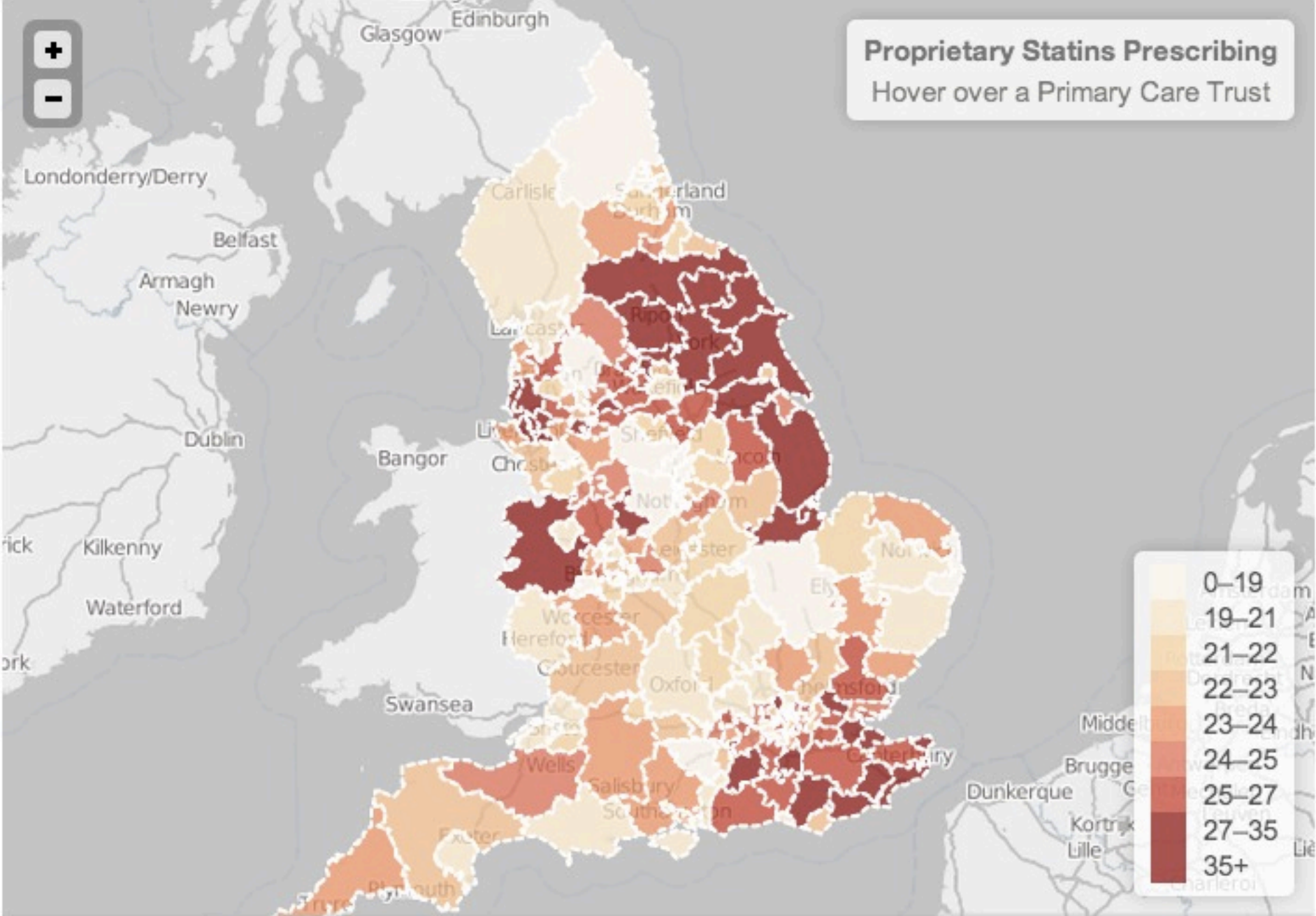
- Sharable code
- Data size
- Visualisations



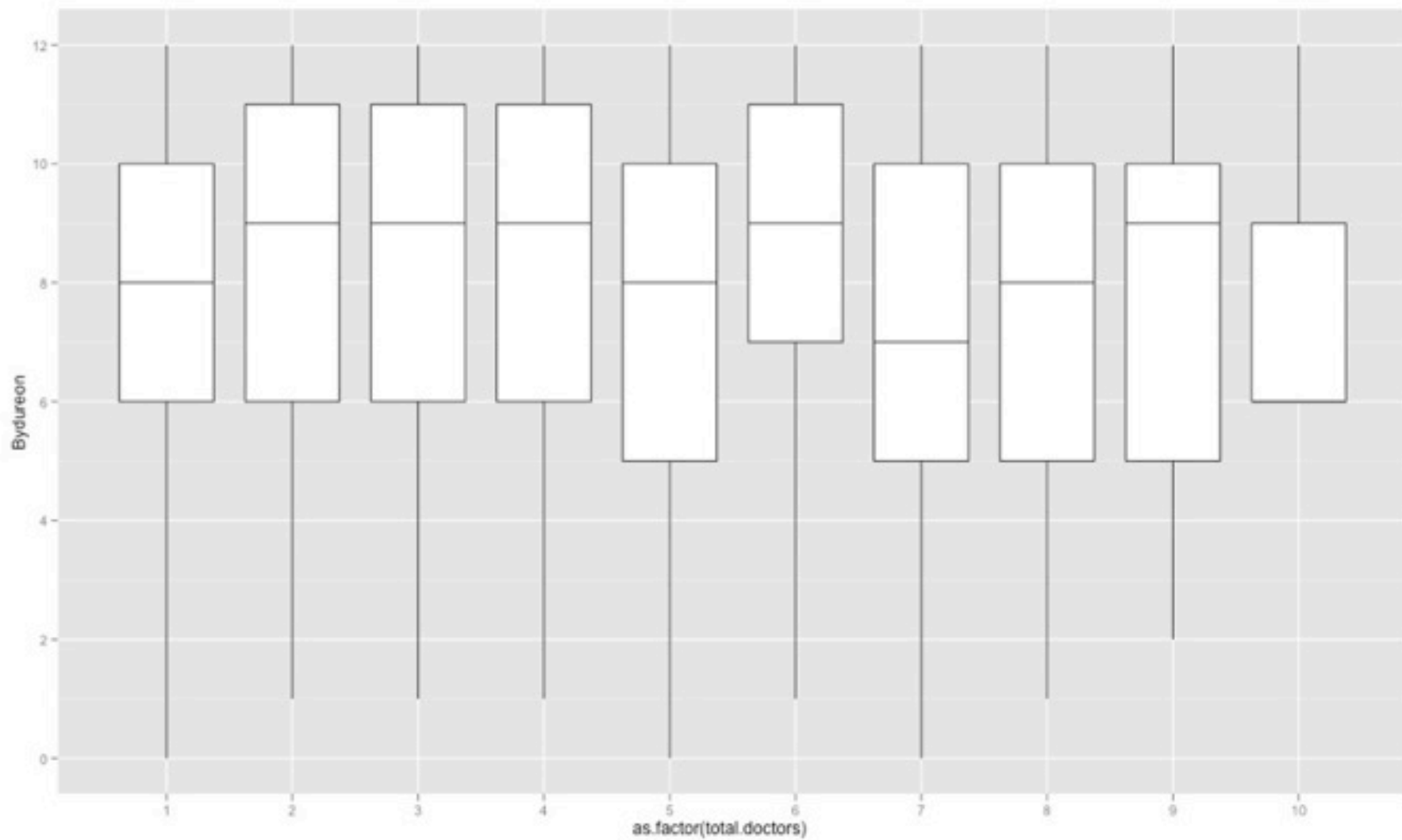


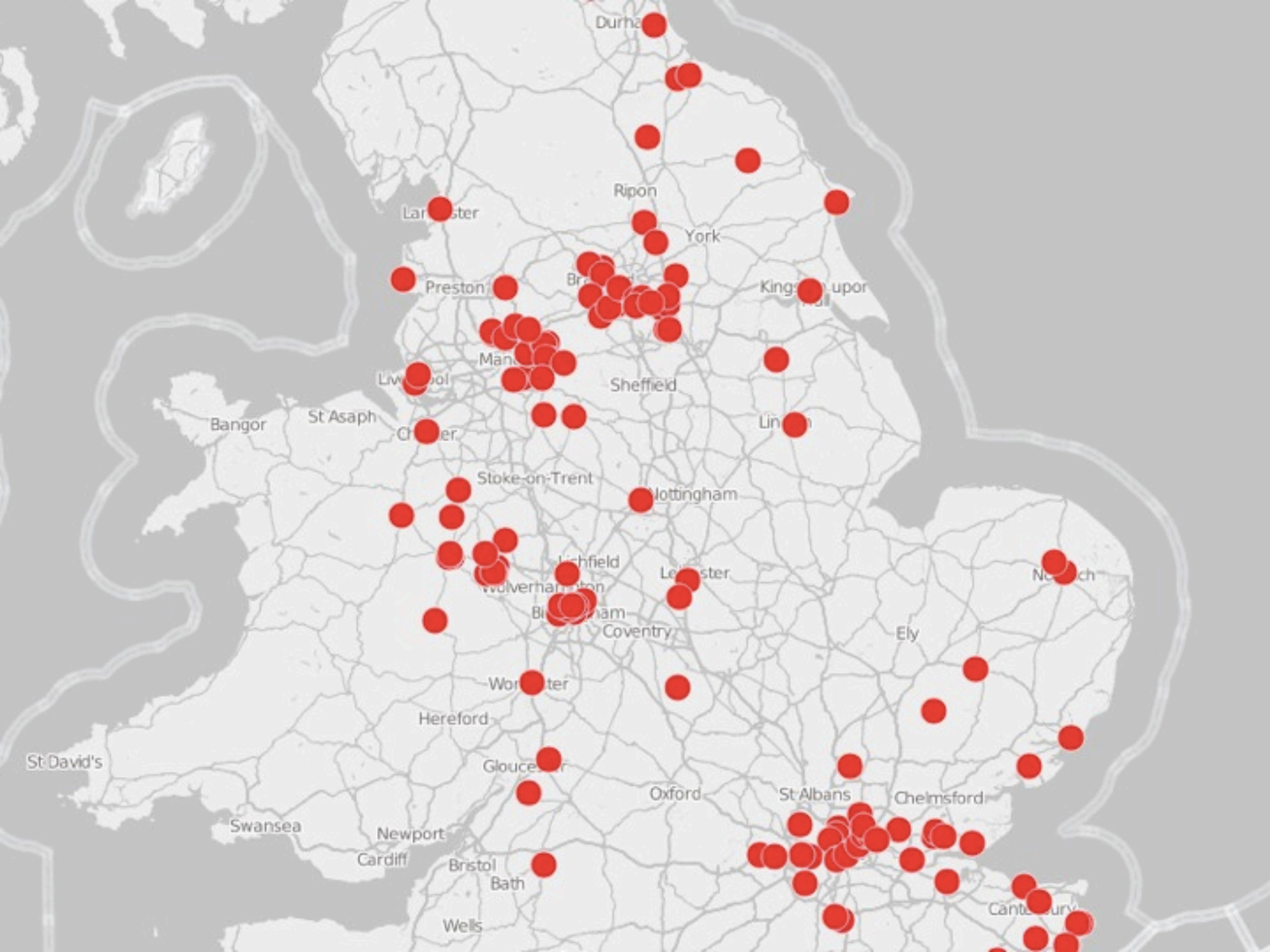
# Proprietary Statins Prescribing

Hover over a Primary Care Trust

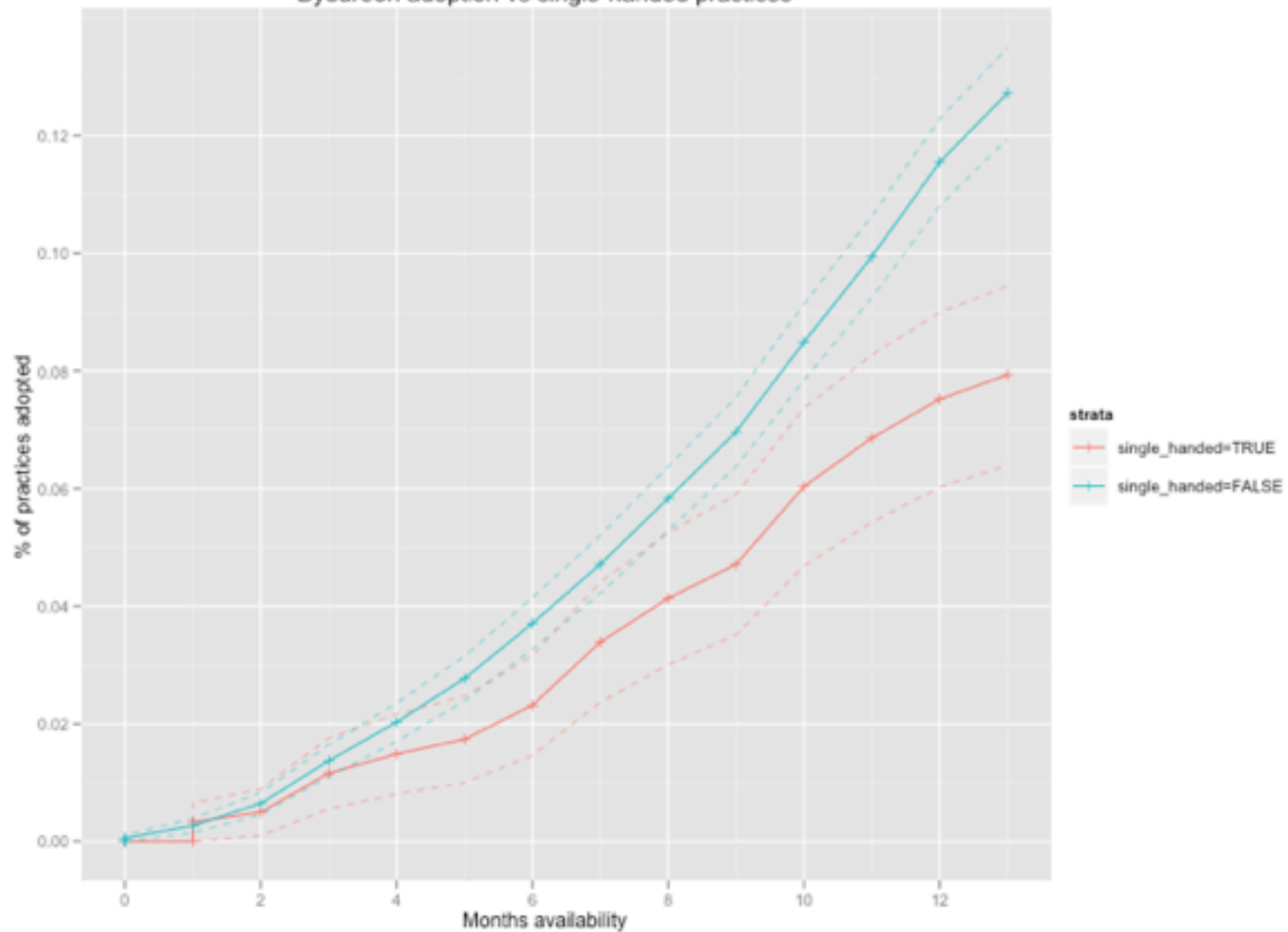




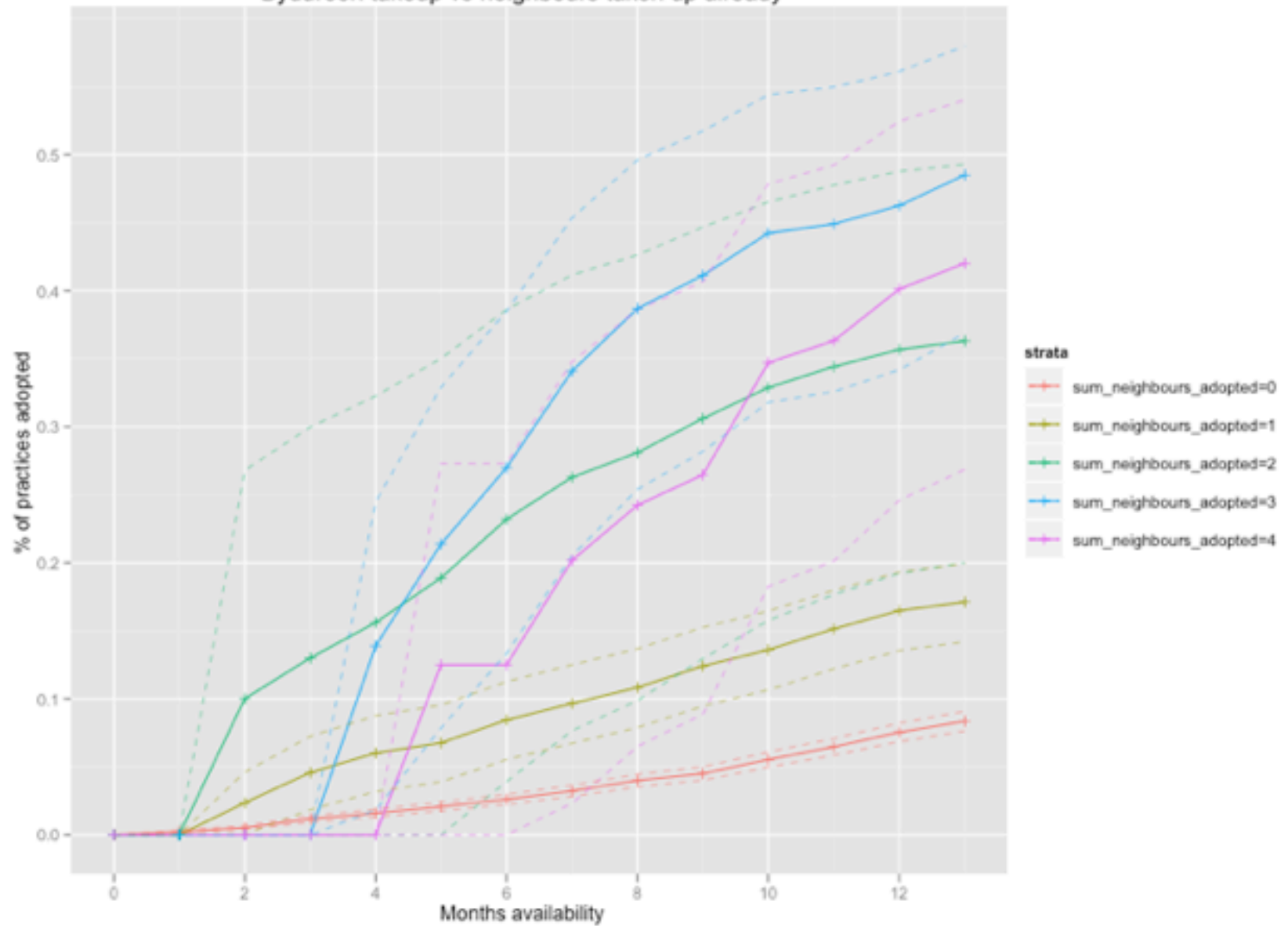




Bydureon adoption vs single-handed practices



Bydureon takeup vs neighbours taken up already



Test-driven analysis?

# Mastodon C

**Big Data Done Better**

@MastodonC @fhr

Francine Bennett