The Clinical Effectiveness Group

"A quality improvement organisation led by clinicians to support primary care in east London."

https://www.qmul.ac.uk/blizard/ceg/

Primary Care coded clinical data from 165 practices (1.3 million people) across east London

Clinical Effectiveness Group

Data entry templates, Audit, QI programmes and Facilitation for practices

- 165 practices, 4+ CCGs

Data reports for CCGs, Public Health, NHSE

- 4 public health units
- NHSE

Other uses of practice coded data

- Quality Improvement projects
- Service Evaluation
- Research for patient benefit

Examples of working with GP practices to improve Quality of Care

1. Using data to improve practice performance.

2. Practice networks: achieving improved clinical quality across practice clusters.

3. Working across primary and secondary care.

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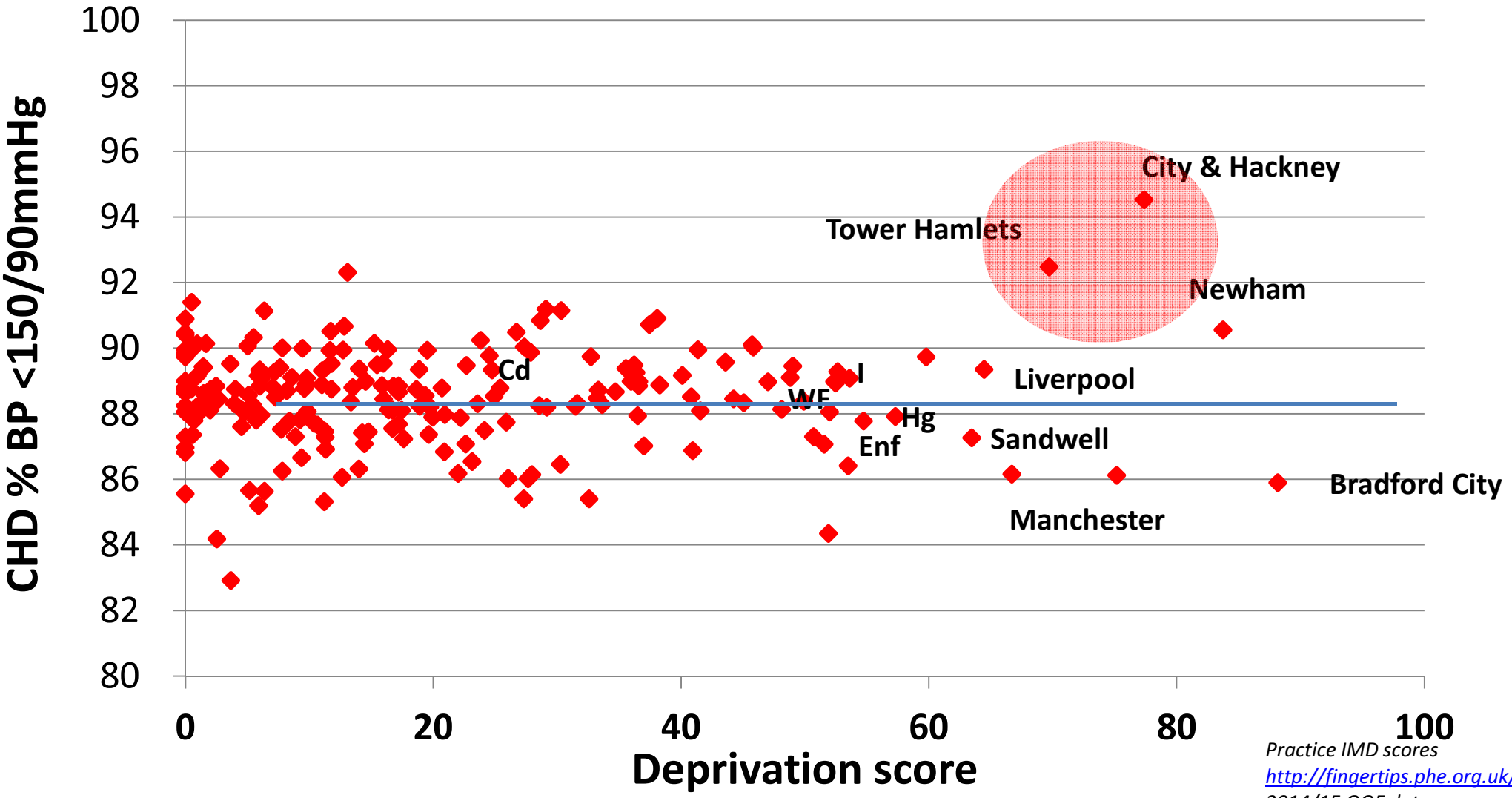
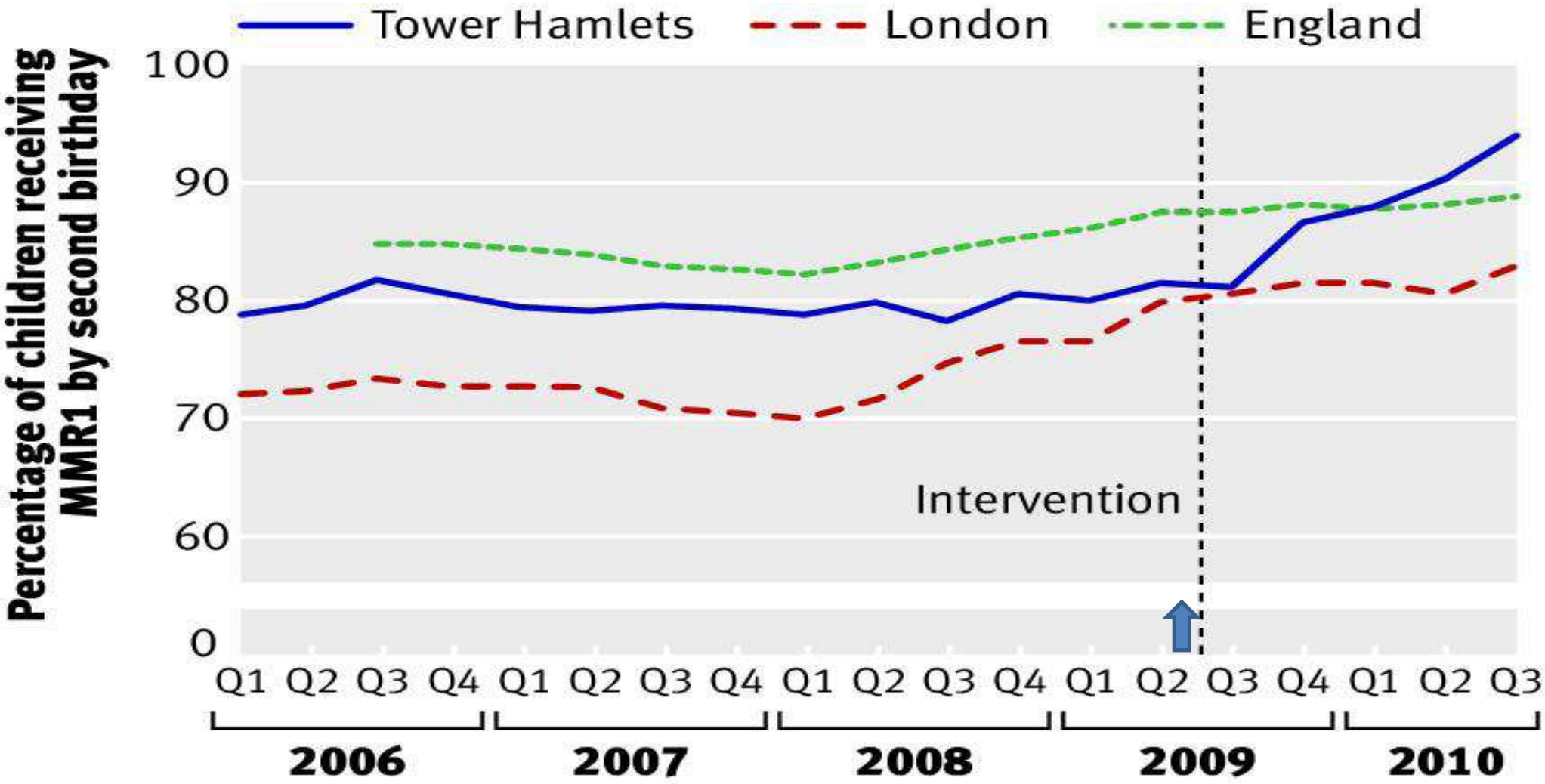
Improving Blood Pressure management
East London practice are the best in England



Practice IMD scores
http://fingertips.phe.org.uk/profile/gene
2014/15 QOF data

MMR1 Immunisation 2006-10



Improving MMR vaccination rates: herd immunity is a realistic goal
Cockman P, Dawson L, Mathur R, Hull S, *BMJ2011;343doi: 10.1136/bmj.d5703*

The NHS Long Term Plan January 2019

4. Digitally-enabled primary and outpatient care will go mainstrea across the NHS

CASE STUDY:

Tower Hamlets Chronic Kidney Disease e-Clinics

Tower Hamlets CCG, working with City and Hackney and Newham CCGs, established e-Clinics to improve management of Chronic Kidney Disease and reduce End Stage Renal Disease. The new service supports timely provision of advice from the hospital specialist to the GP, to enable better management of the patient either in the community or with more specialist care where needed. A single pathway from primary to secondary care with rapid access to specialist advice provided by consultant led e-clinics have transformed the way the outpatient service is delivered. Since the e-Clinic began in December 2015, 50% of referrals are managed without the need for a hospital appointment. The average waiting time for a renal clinic appointment has fallen to five days, from 64 days in 2015.

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uspected COVID-19 in primary care: how GP cords contribute to understanding differences in revalence by ethnicity.

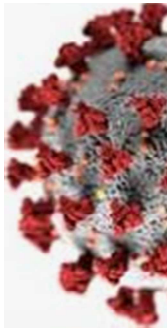
lly Hull, Crystal Williams, Chris Carvalho, Mark Ashworth, mbiz Boomla

ne 2020

Study Objectives

- To document the numbers and time-course of suspected COVID-19 presenting to east London general practice during the London epidemic up to the end of April 2020.

- To report disease prevalence by ethnic group, and explore whether observed differences can be explained by health data recorded in the GP record



Methods

Cross sectional study, comparing characteristics of adults with and without COVID-19 codes in the GP record.

Based in 4 CCGs (165 practices) in east London, adult population of 1.2 Million

Data was extracted from GP computer systems after 30 April

Methods: what data did we extract from GP records?

Demographics: Age in years, sex, ethnicity, social deprivation, CCG, practice identifier

Co-morbidities: 15 conditions in the Quality and Outcomes Framework

Asthma, Chronic Obstructive Pulmonary Disease, Atrial Fibrillation, Cardio Vascular Disease, Heart Failure, Hypertension, Peripheral Arterial Disease, Stroke/Transient Ischaemic Attack , Diabetes, Chronic Kidney Disease, Depression, Severe mental illness, Epilepsy, Dementia, Cancer

Other Clinical Measures: Body Mass Index, Current smoking status,

g. 1. Comparing test-positive cases in all of London, with those in the east London study area. ney occur at the same time, suggesting east London is representative of London as a whole.

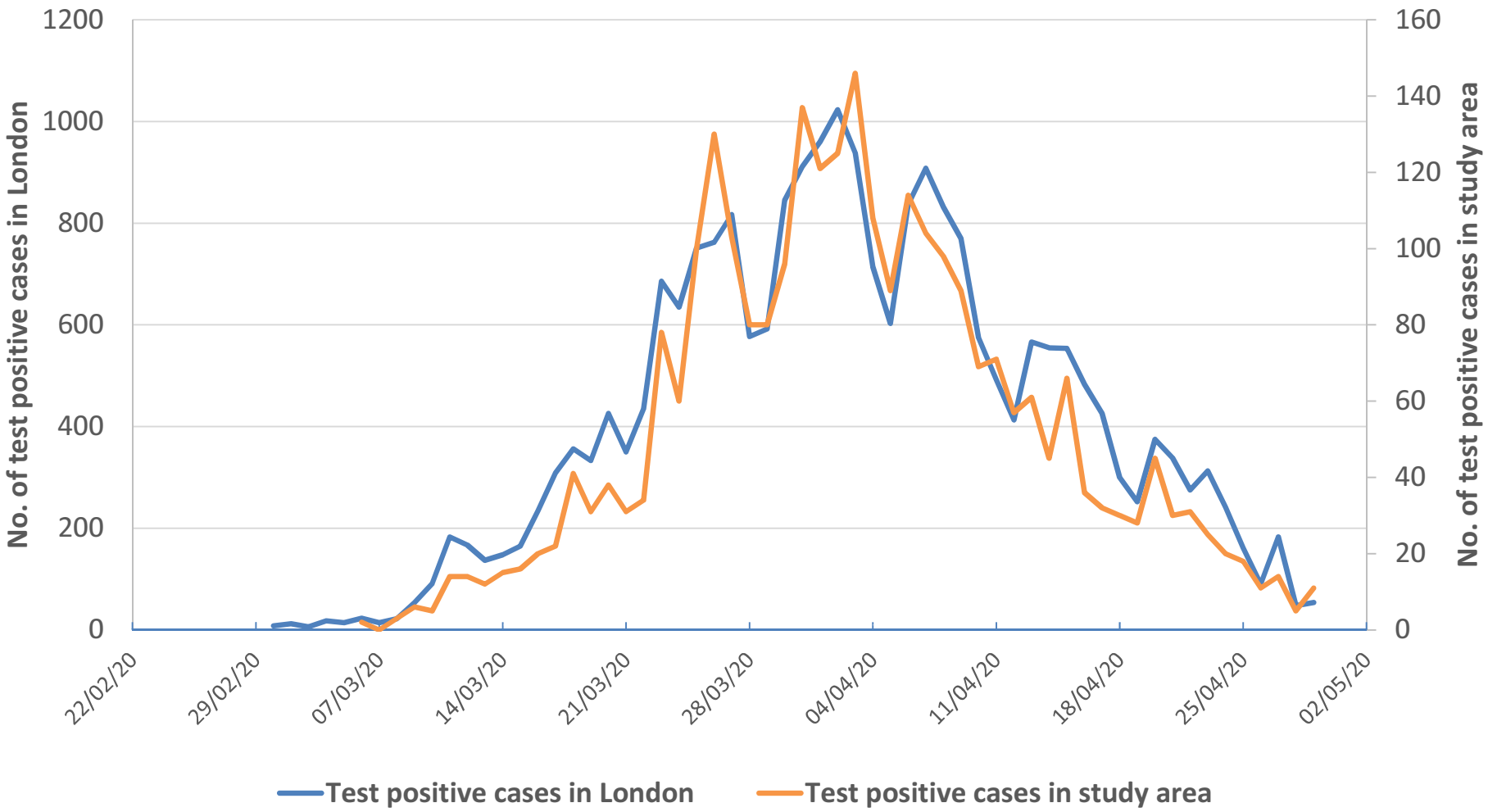


Figure 2. Comparing study area test-positive cases with GP coded suspected COVID cases
These have a similar distribution,
This suggests that GPs have good discrimination for COVID presentations.

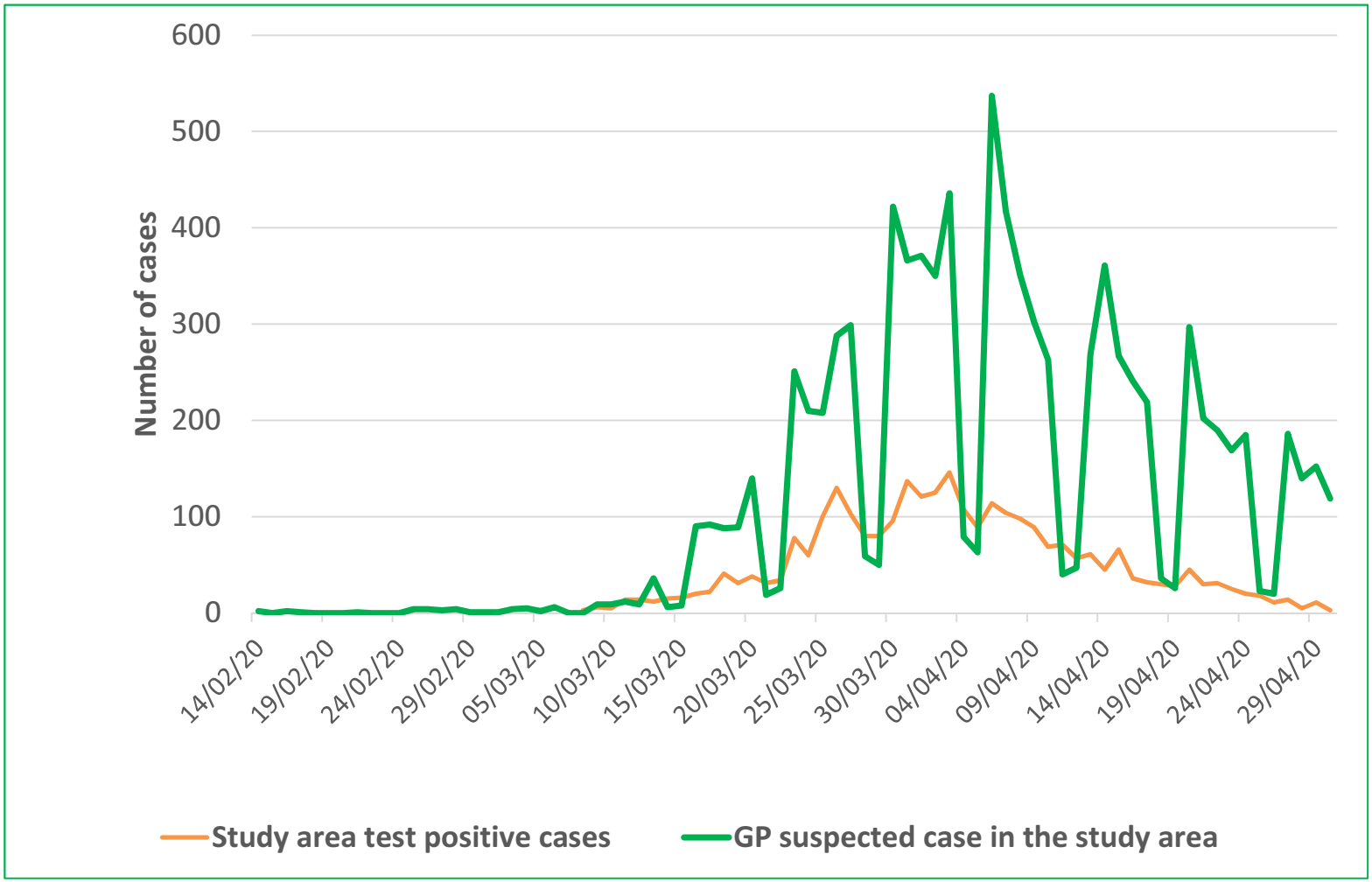
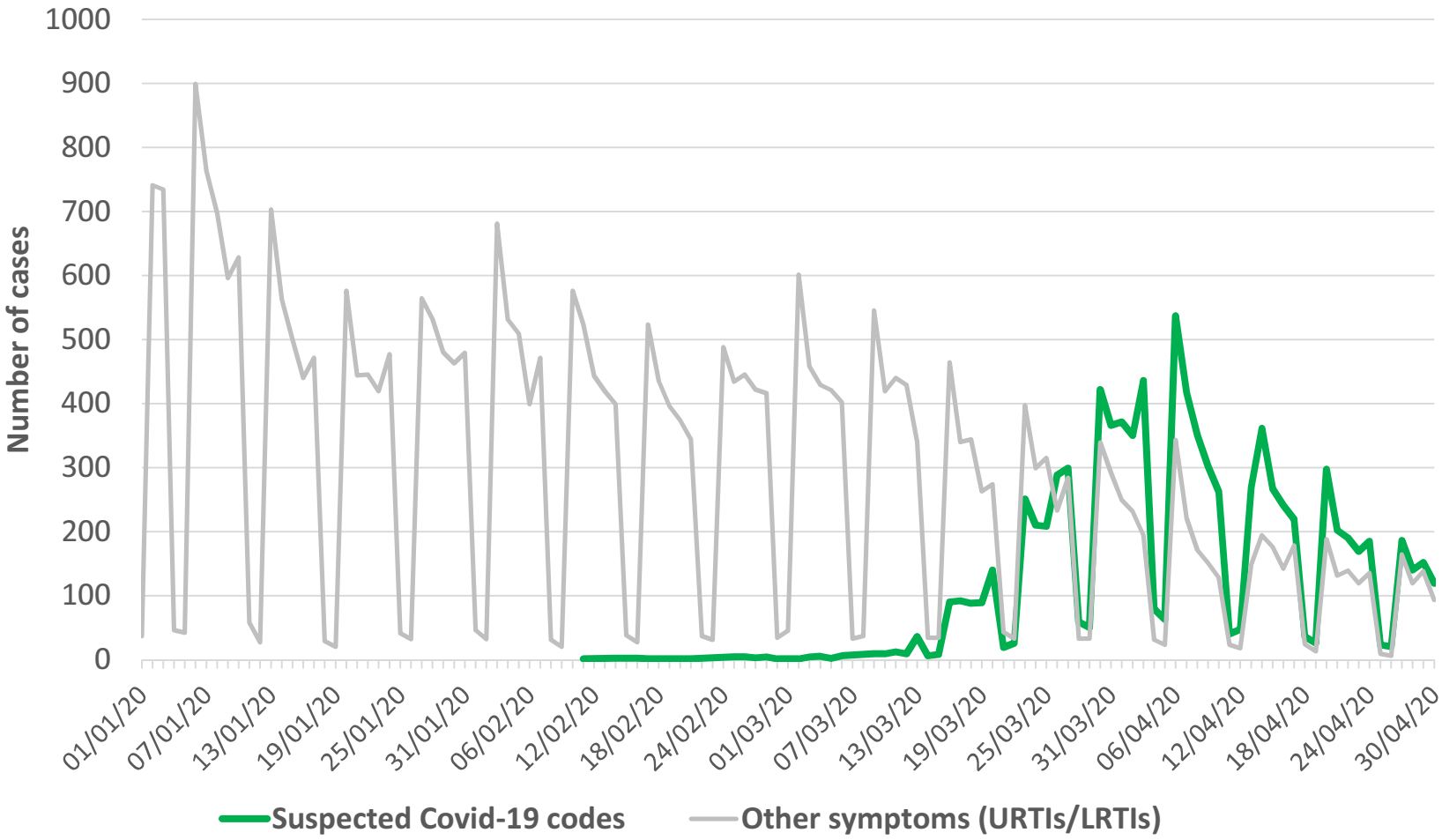


Figure 3. Comparison of GP suspected Covid-19 cases with GP recorded URTI/LRTI codes
This shows the seasonal decline in URTI, compared to the rise of COVID,
Suggests GPs are discriminating between URTI and COVID



Characteristics of those with and without suspected COVID-19 codes to the end of April 2020.

(Includes 1,257,136 patients aged ≥ 18 years from 165 practices)

	Suspected COVID-19 (%)	Without suspected COVID-19 (%)	Univariate OR (95%CI)
tal	8,985	1,248,152	
ge			
-49 (ref)	5,134 (57.1)	926,886 (74.3)	
-69	2,723 (30.3)	235,616 (18.9)	2.18 (2.08-2.29)
er 70	1,128 (12.6)	85,650 (6.9)	2.45(2.29-2.62)
x			
ale (ref)	3,982 (44.3)	632,082 (50.6)	
male	5,003 (55.7)	616,070 (49.4)	1.28 (1.22-1.33)
hnicity			
hite (ref)	2,890 (32.2)	476,302 (38.2)	
uth Asian	2,859 (31.8)	259,464 (20.8)	1.98 (1.86-2.09)
ack	1,642 (18.3)	153,240 (12.3)	1.88 (1.77-2.00)
ational IMD 2015			
intiles			
east deprived (ref)	30 (0.3)	8964 (0.7)	
	96 (1.1)	24029 (1.9)	1.35 (0.88-2.06)
	485 (5.4)	99395 (8.0)	1.22 (0.83-1.79)
	3557 (39.6)	541773 (43.4)	1.53 (1.05-2.23)
most deprived	4807 (53.5)	560245 (44.9)	1.88 (1.29-2.74)

QOF long term conditions	Suspected COVID-19 (%)	Without suspected COVID-19 (%)	Univariate OR (95%CI)
0 (ref)	3,740 (41.6)	881,460 (70.6)	
1	2,461 (27.4)	226,961 (18.2)	2.41 (2.29-2.54)
2	1,350 (15.0)	81,093 (6.6)	3.75 (3.52-3.99)
3	690 (7.7)	33,497 (2.7)	4.6 (4.25-5.02)
4+	744 (8.3)	25,141 (2.0)	6.5 (6.00-7.05)
Current smoker	1,047 (11.7)	217,396 (17.4)	0.60 (0.56-0.63)
Asthma	1,512 (16.8)	111,641 (8.9)	1.92 (1.81-2.03)
Atrial Fibrillation	248 (2.8)	10,299 (0.8)	3.16 (2.78-3.59)
Cancer	429 (4.8)	22,989 (1.8)	2.50 (2.26-2.75)
Coronary heart disease	504 (5.6)	23,114 (1.9)	2.98 (2.72 -3.26)
Chronic kidney disease (3-5)	716 (8.0)	32,203 (2.6)	3.11 (2.88-3.37)
COPD	331 (3.7)	14,467 (1.2)	2.92 (2.61-3.26)
Dementia	258 (2.9)	4,442 (0.36)	7.37 (6.48-8.39)
Depression	1,811 (20.2)	121,290 (9.7)	2.15 (2.04-2.27)
Diabetes	1,696 (18.9)	79,445 (6.4)	3.31 (3.13-3.49)
Epilepsy	157 (1.8)	10,321 (0.8)	2.00 (1.70 - 2.34)
Heart Failure	234 (0.7)	8,039 (0.6)	3.75 (3.28-4.28)
Hypertension	2,290 (25.5)	131,318 (10.5)	2.85 (2.71-2.99)
Learning disability	70 (0.8)	4,660 (0.4)	1.89 (1.49-2.40)
Severe Mental Illness	250 (2.8)	17,322 (1.4)	1.88 (1.65-2.13)
Peripheral arterial disease	87 (1.0)	3,608 (0.3)	3.00 (2.41-3.71)
Stroke TIA	284 (3.2)	11,514 (0.9)	3.24 (2.87-3.65)

ultivariate model for predictors of COVID-19 for adults aged ≥ 18 years (*n*=1,257,137 cases contributing to the m

		Model includes Demographic and Clinical factors		
		OR[a]	95% CI	P Value
	Male (ref)	1.00		
	female	1.17	(1.12 to 1.22)	<0.001
bands rs)	18-49 (ref)	1.00		
	50-69	1.30	(1.23 to 1.37)	<0.001
	>=69	1.25	(1.16 to 1.35)	<0.001
icity[c]	White (ref)	1.00		
	South Asian	1.93	(1.83 to 2.04)	<0.001
	Black	1.47	(1.38 to 1.57)	<0.001
rnal 2015 tiles[c]	1 least deprived (ref)	1.00		
	2	1.18	(1.09 to 1.28)	<0.001
	3	1.16	(1.07 to 1.25)	<0.001
	4	1.21	(1.17 to 1.37)	<0.001
	5 most deprived	1.26	(1.17 to 1.37)	<0.001

		Model (cont)		
		OR[a]	95% CI	P Val
Long term conditions	0 (ref)	1.00		
	1	1.77	(1.67 to 1.87)	<0.00
	2	2.28	(2.13 to 2.45)	<0.00
	3	2.60	(2.37 to 2.85)	<0.00
	>=4	3.67	(3.33 to 4.03)	<0.00
BMI, Kg/m^2	Normal weight (ref)	1.00		
	Underweight	0.84	(0.73 to 0.97)	0.02
	Overweight	1.31	(1.24 to 1.38)	<0.00
	Obese	1.73	(1.63 to 1.84)	<0.00
	Morbidly Obese	2.20	(2.01 to 2.47)	<0.00

Discussion

. The report demonstrates practice activity during the pandemic.
Daily GP records of suspected cases can be used to detect new outbreaks
n the future.

. Our data is at the early stage of disease trajectory.
We see the same differences in risk of disease by ethnicity as the studies
which look at death rates.

. Clinical factors (comorbidities) contribute only a small part of the
ifference in risk of COVID by ethnicity. Further understanding needs
ousehold composition, occupational and other risk factors.

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ower Hamlets General Practice
OVID-19 Situation Report

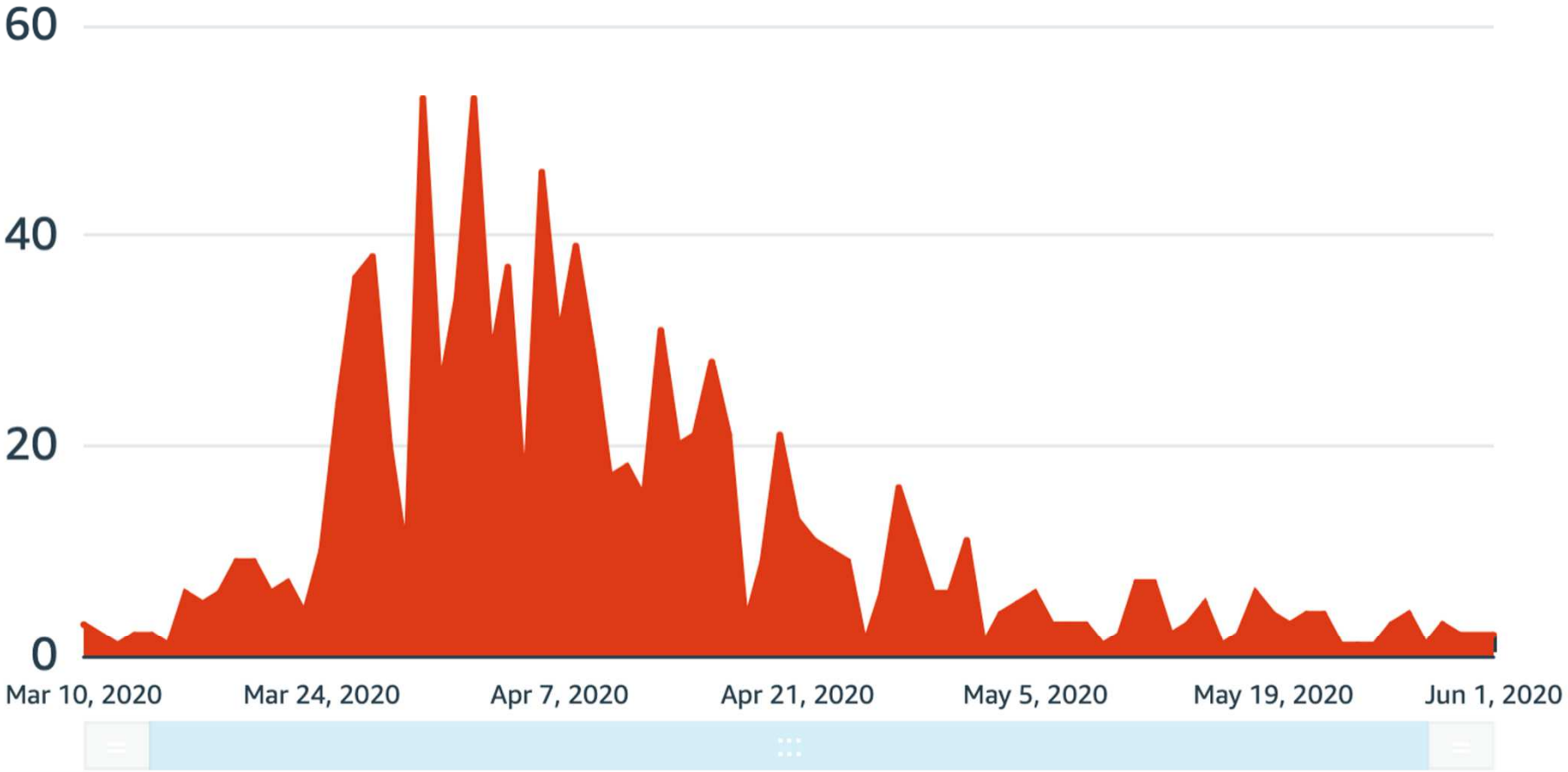
ata obtained from Barts Health and GP practices through
e Discovery Data Service
rst wave data till 2nd June 2020

Discovery Data Service NHS

Barts and The London
School of Medicine and Dentistry

www.smd.qmul.ac

Day trend of Confirmed Covid 19



Confirmed Covid 19

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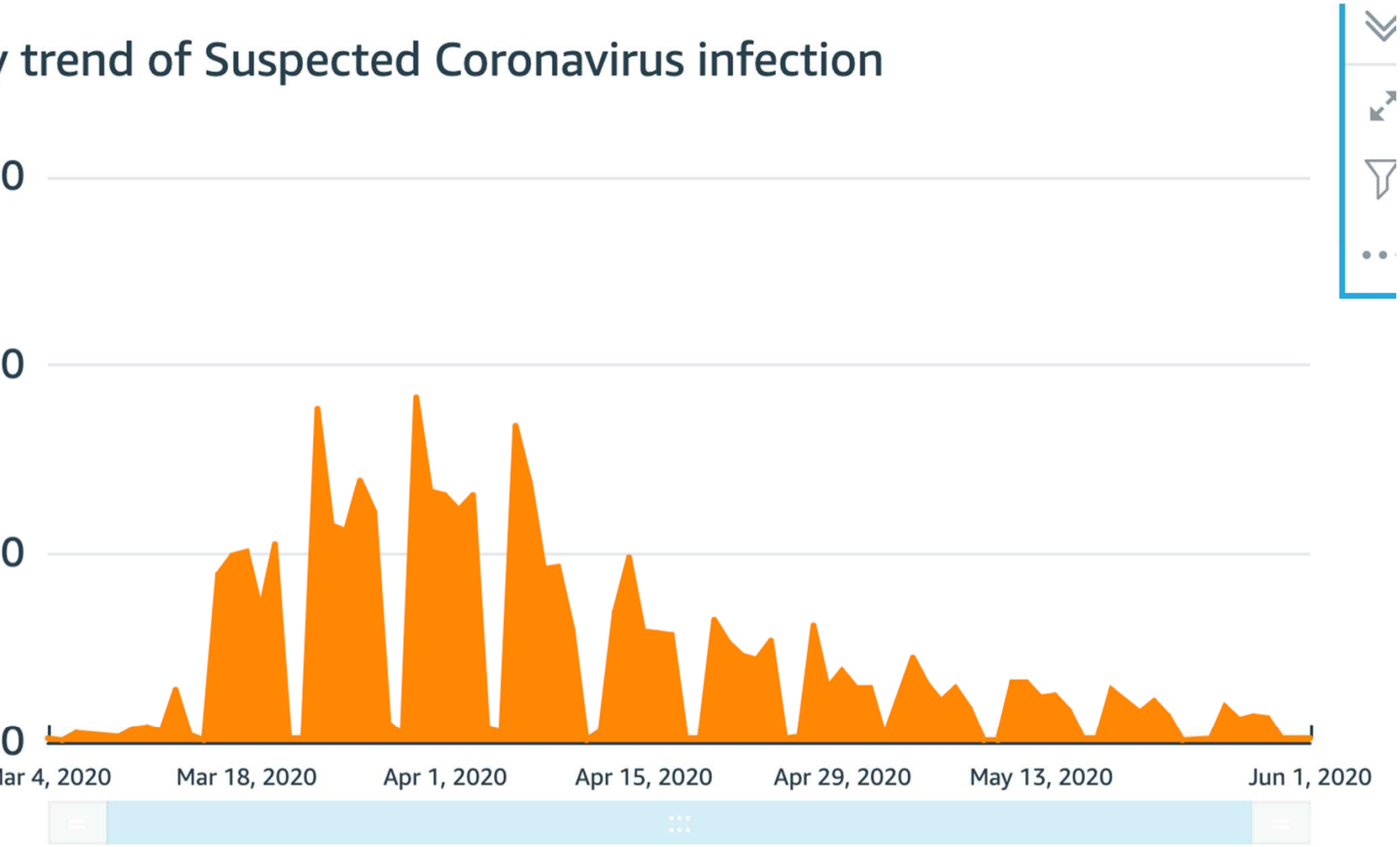

uspected coronavirus infection

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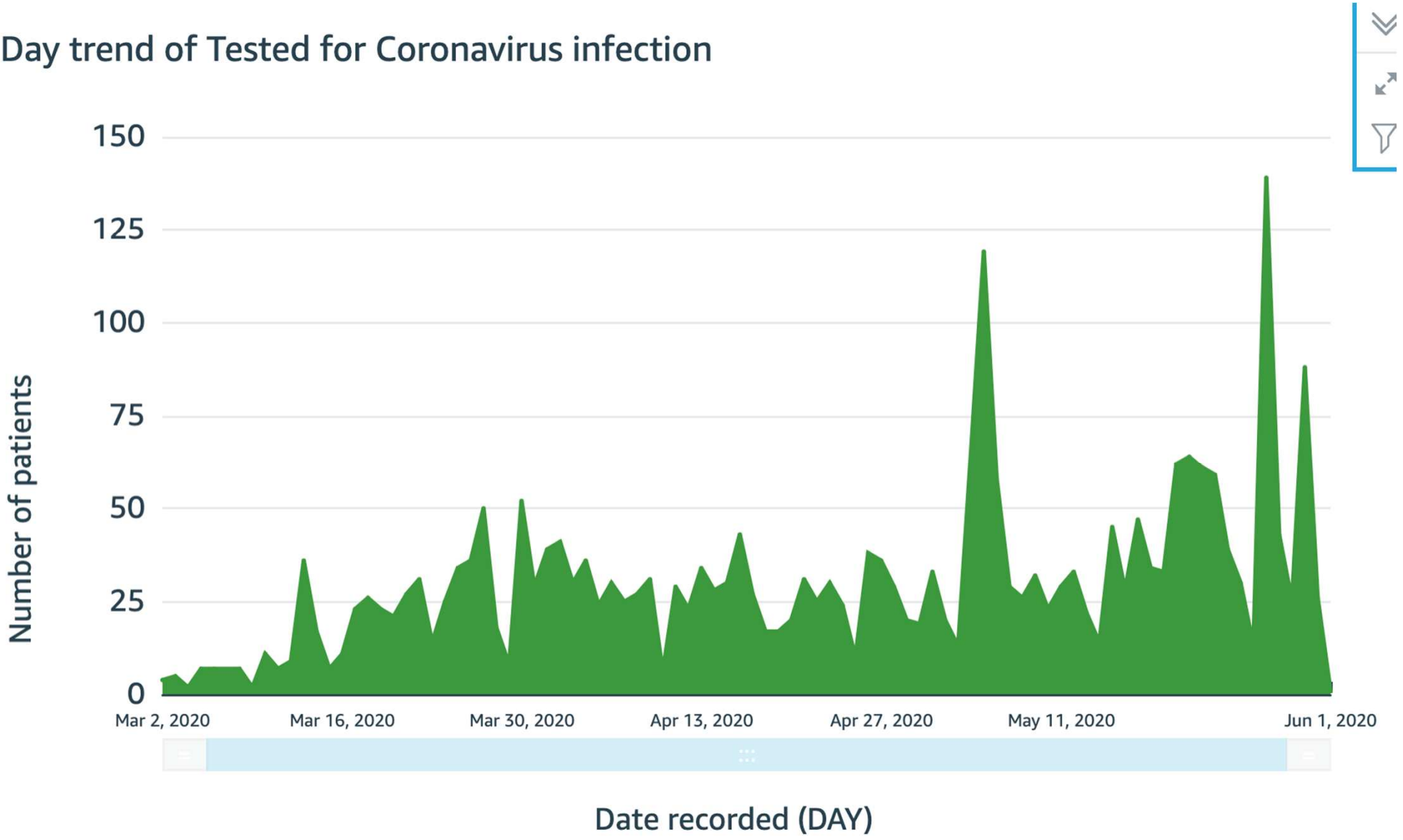
Day trend of Tested for Coronavirus infection



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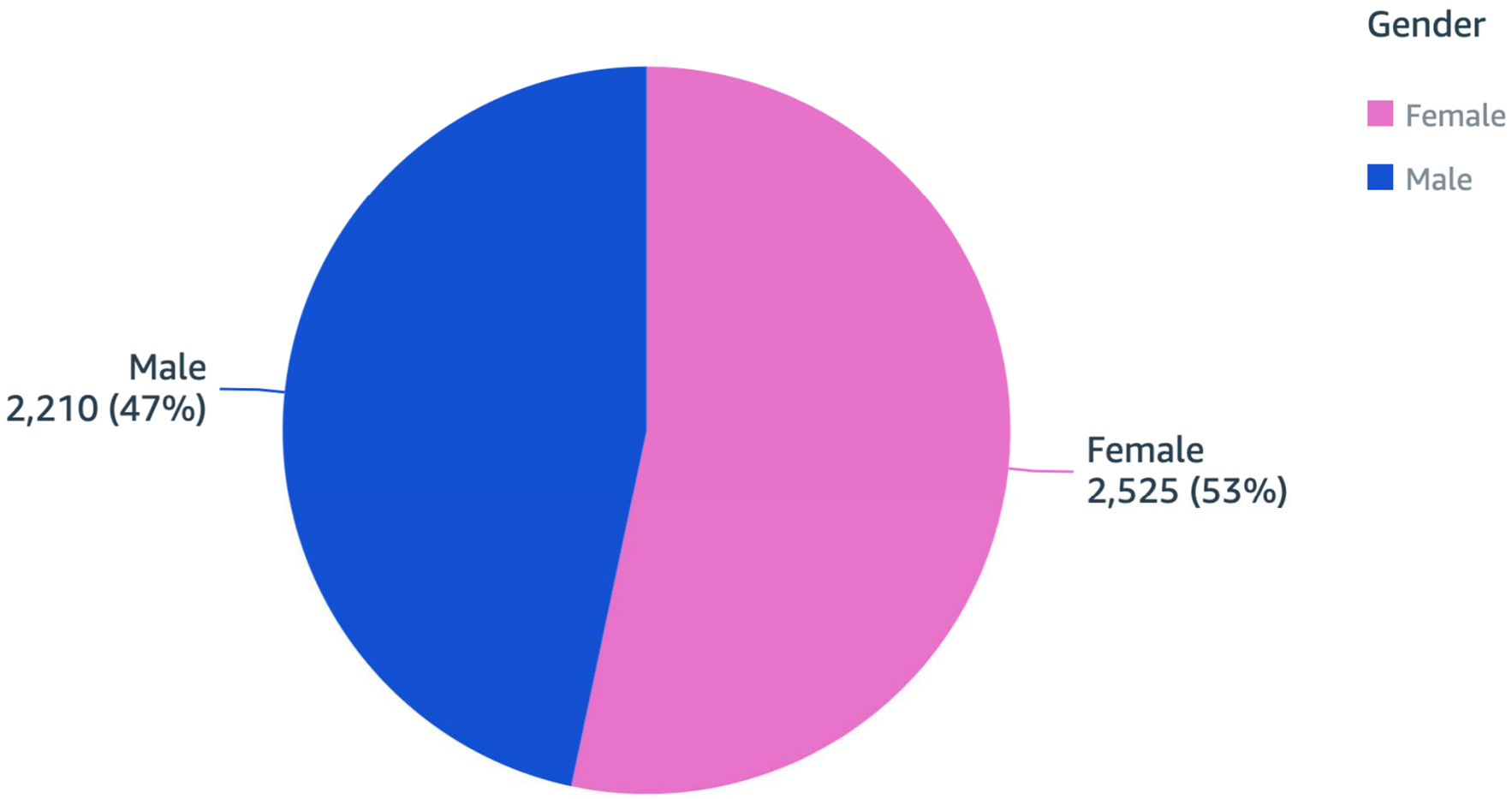
Gender split of Confirmed or Suspected COVID-19



Group By: gender
patient count

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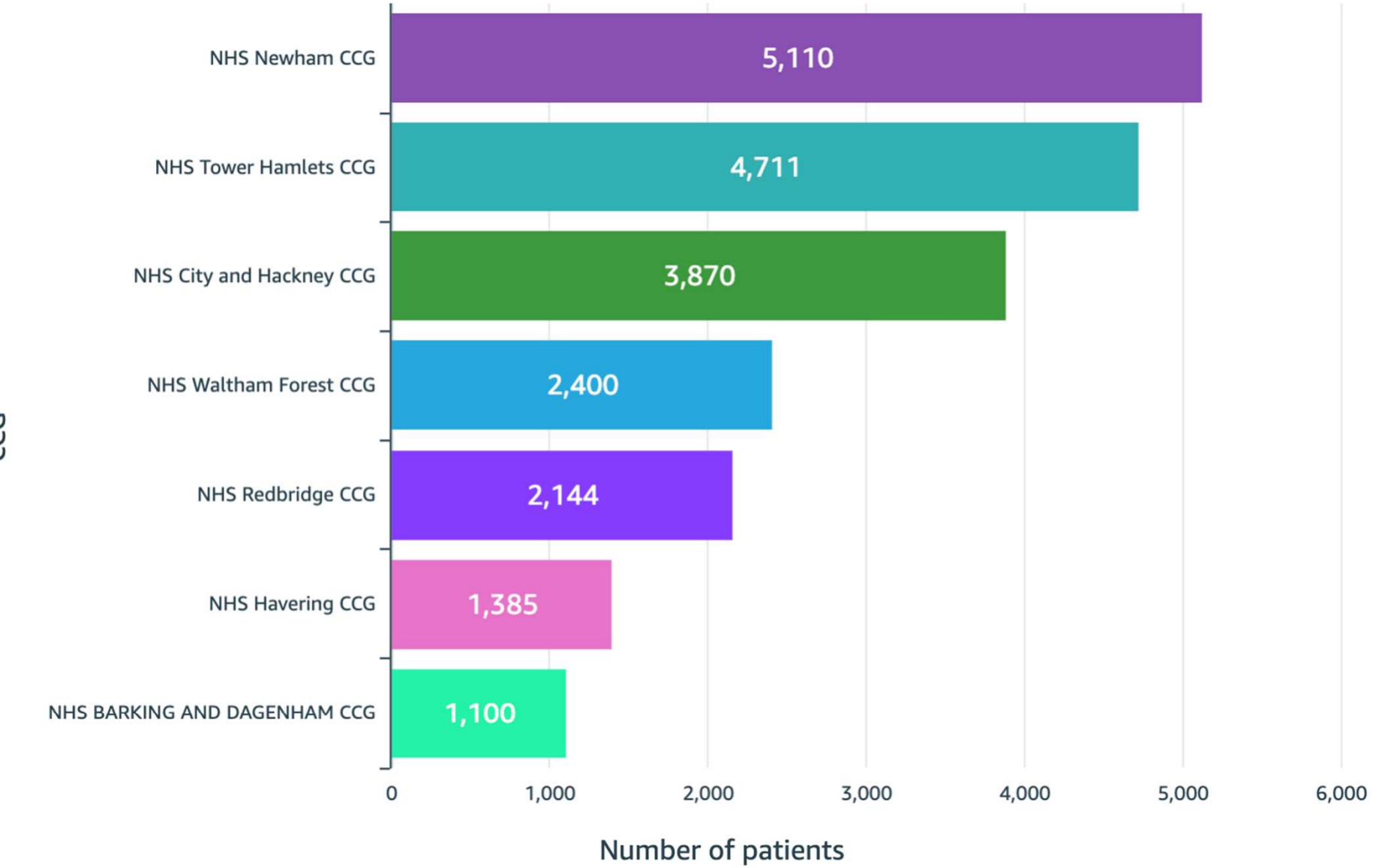
ount of patients by coronavirus category by CCG (use filters to drill down)



GP suspected and/or confirmed COVID till 29th Ma 2020

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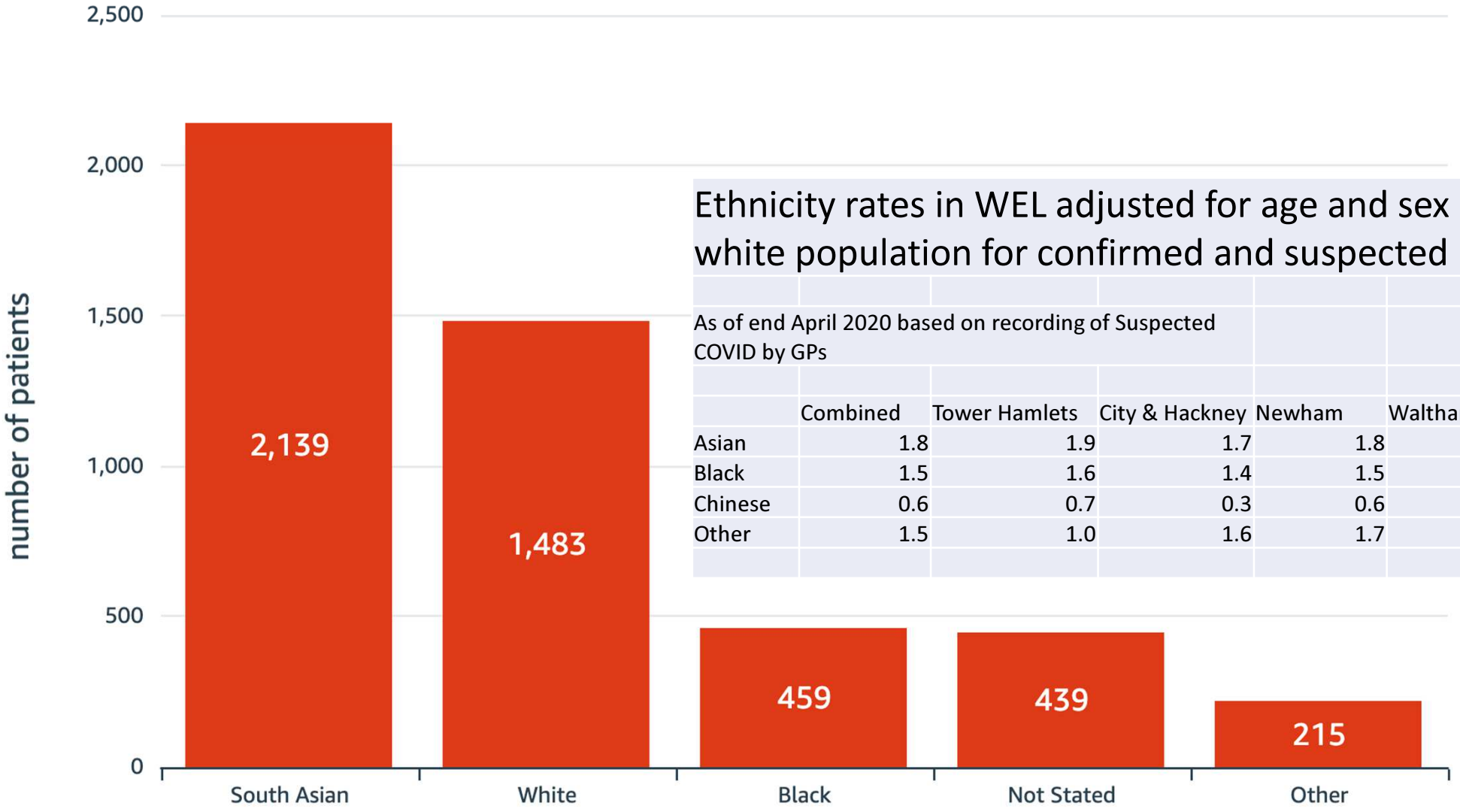
Ethnicity groups of Confirmed or Suspected COVID-19



Ethnicity rates in WEL adjusted for age and sex compared to white population for confirmed and suspected (not deaths)

As of end April 2020 based on recording of Suspected COVID by GPs

	Combined	Tower Hamlets	City & Hackney	Newham	Waltham Forest
Asian	1.8	1.9	1.7	1.8	2.1
Black	1.5	1.6	1.4	1.5	1.8
Chinese	0.6	0.7	0.3	0.6	0.0
Other	1.5	1.0	1.6	1.7	1.2

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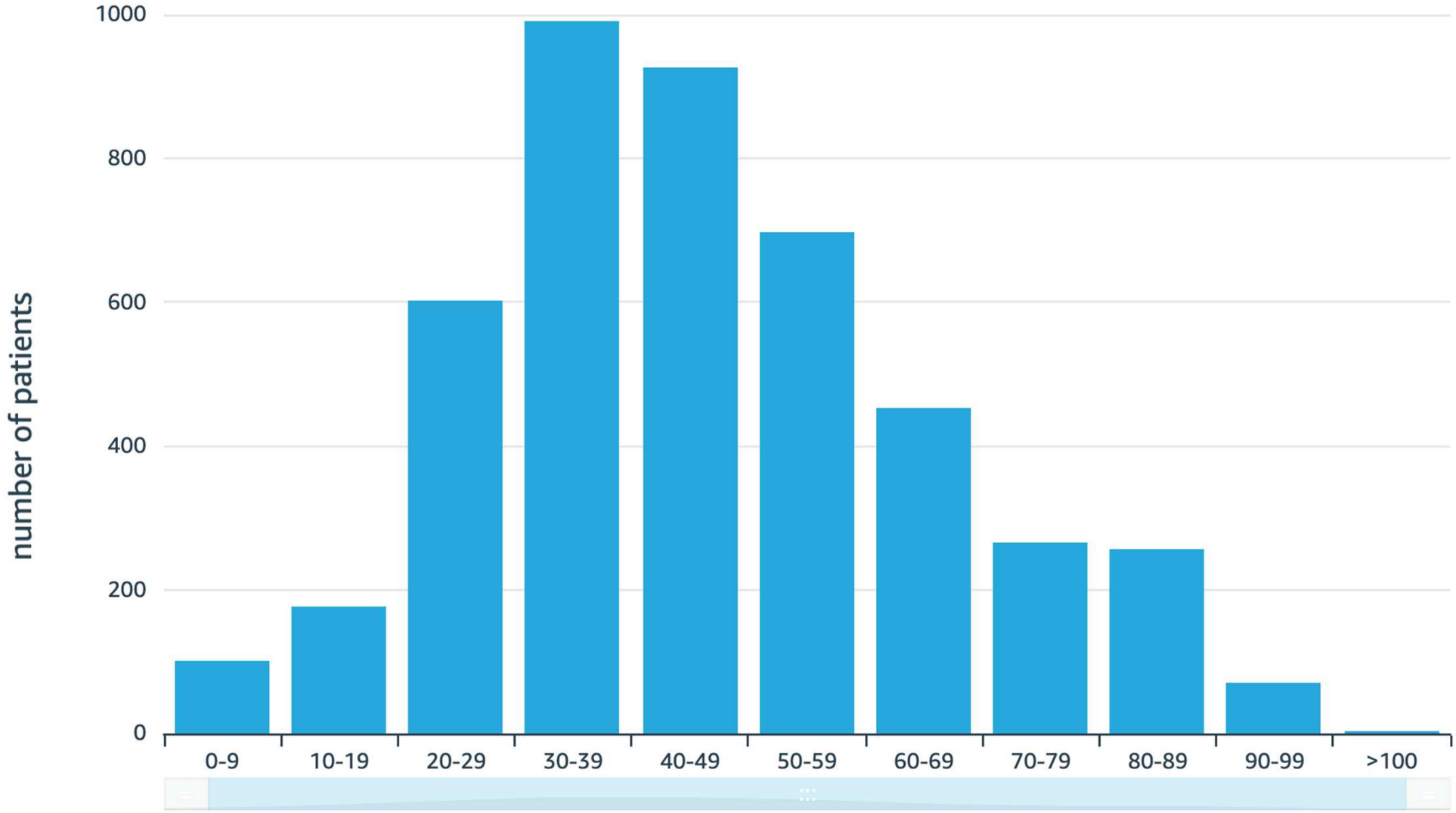
Age groups of Confirmed or Suspected COVID-19



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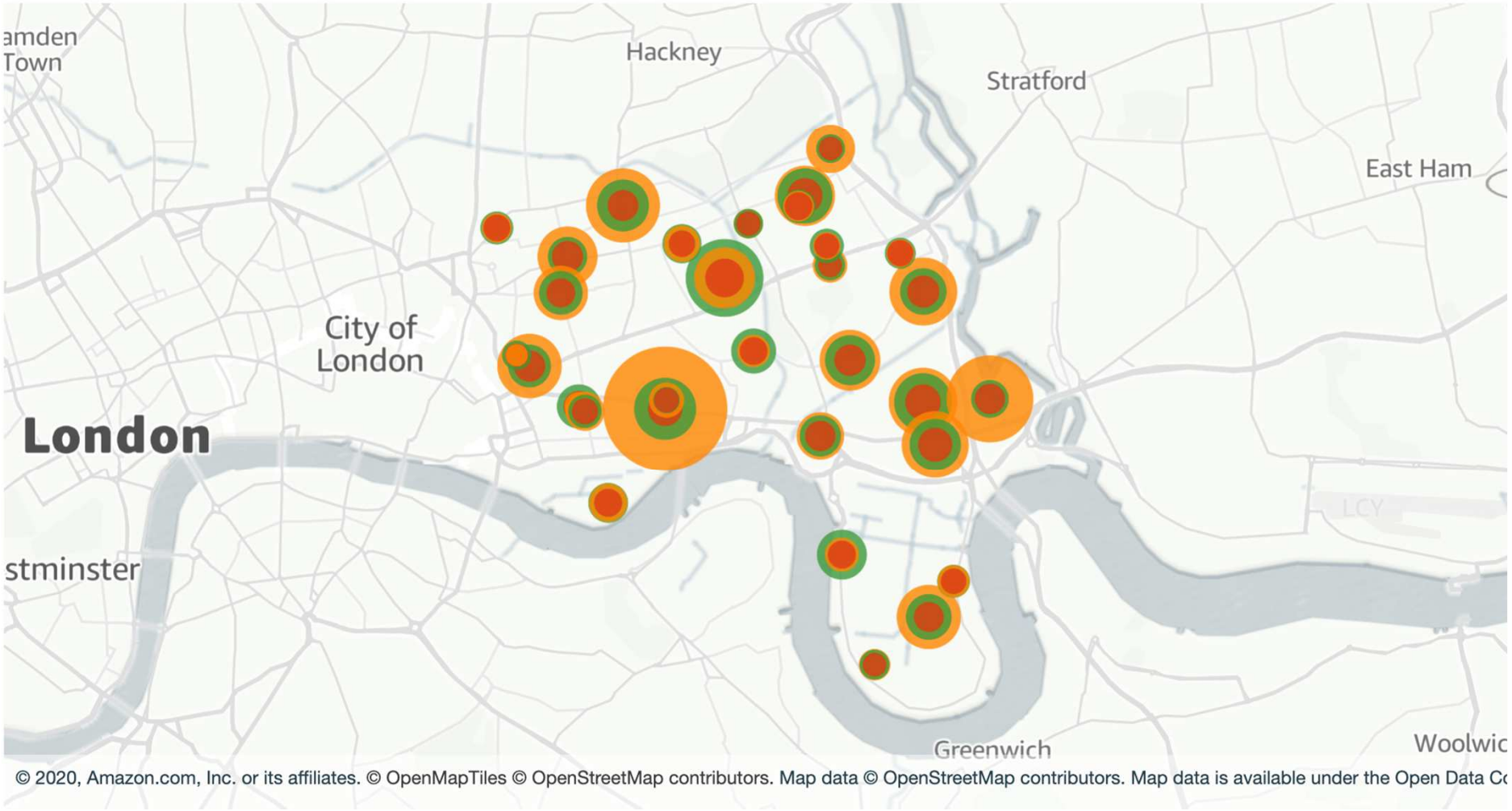
Count of patients with Confirmed, Suspected and Tested for COVID-19

SHOWING TOP 32 IN LATITUDE, LONGITUDE AND TOP 3 IN CORONA_STATUS

Confirmed Covid 19 Suspected coronavirus infection Tested for coronavirus infection



These cases have been mapped to t GP practice postcodes. We will soon mapping to Unique Prop Reference Number (UP with blurring preserve confidentiali

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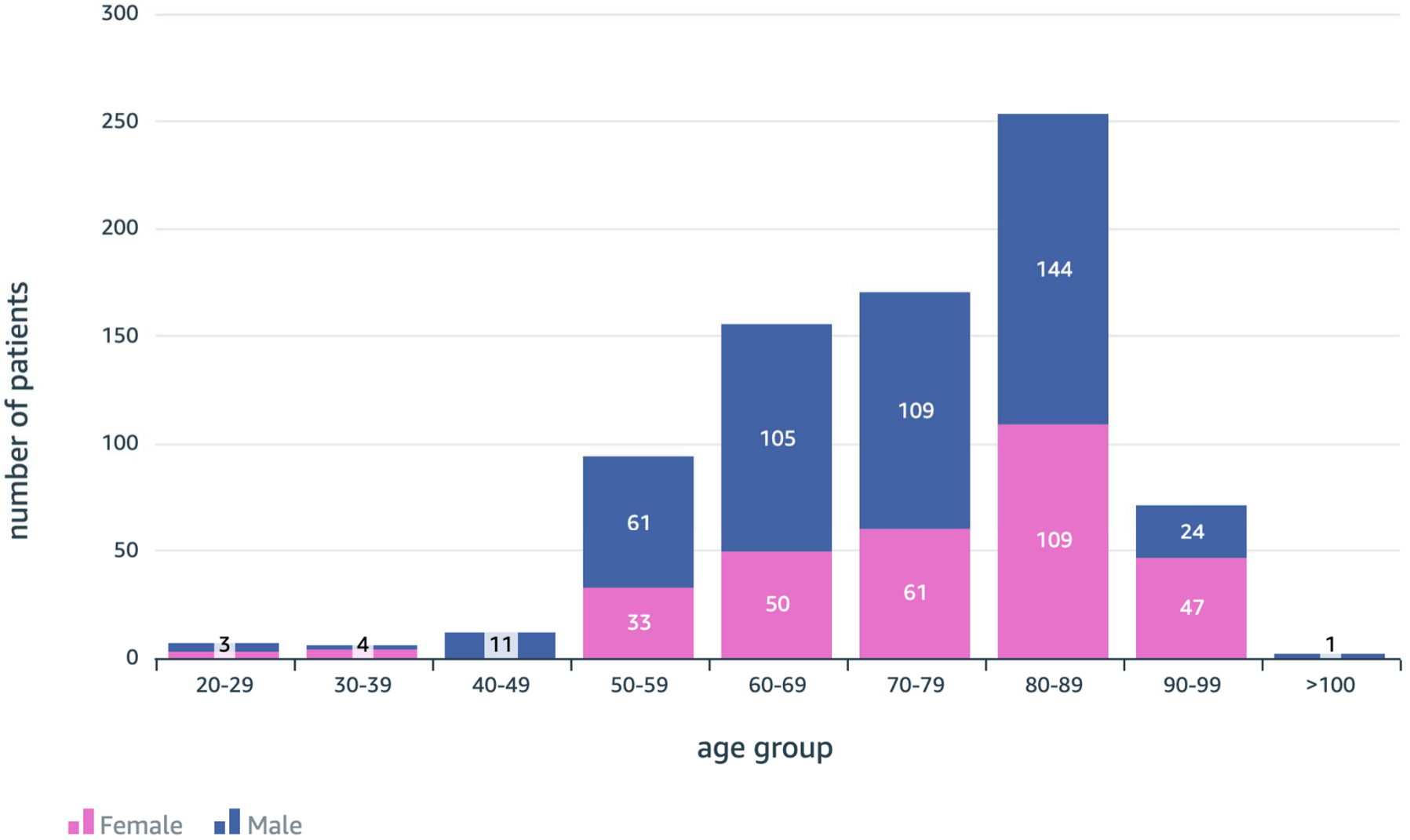
Count of deceased COVID-19 patients by age/sex (use filters to drill down)



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Count of COVID-19 patients with a recorded date of death

SHOWING TOP 32 IN LATITUDE, LONGITUDE

These cases ha
been mapped
their GP pract
postcodes.
We will soon b
mapping to
Unique Proper
Reference
Number (UPR
with blurring t
preserve
confidentiality

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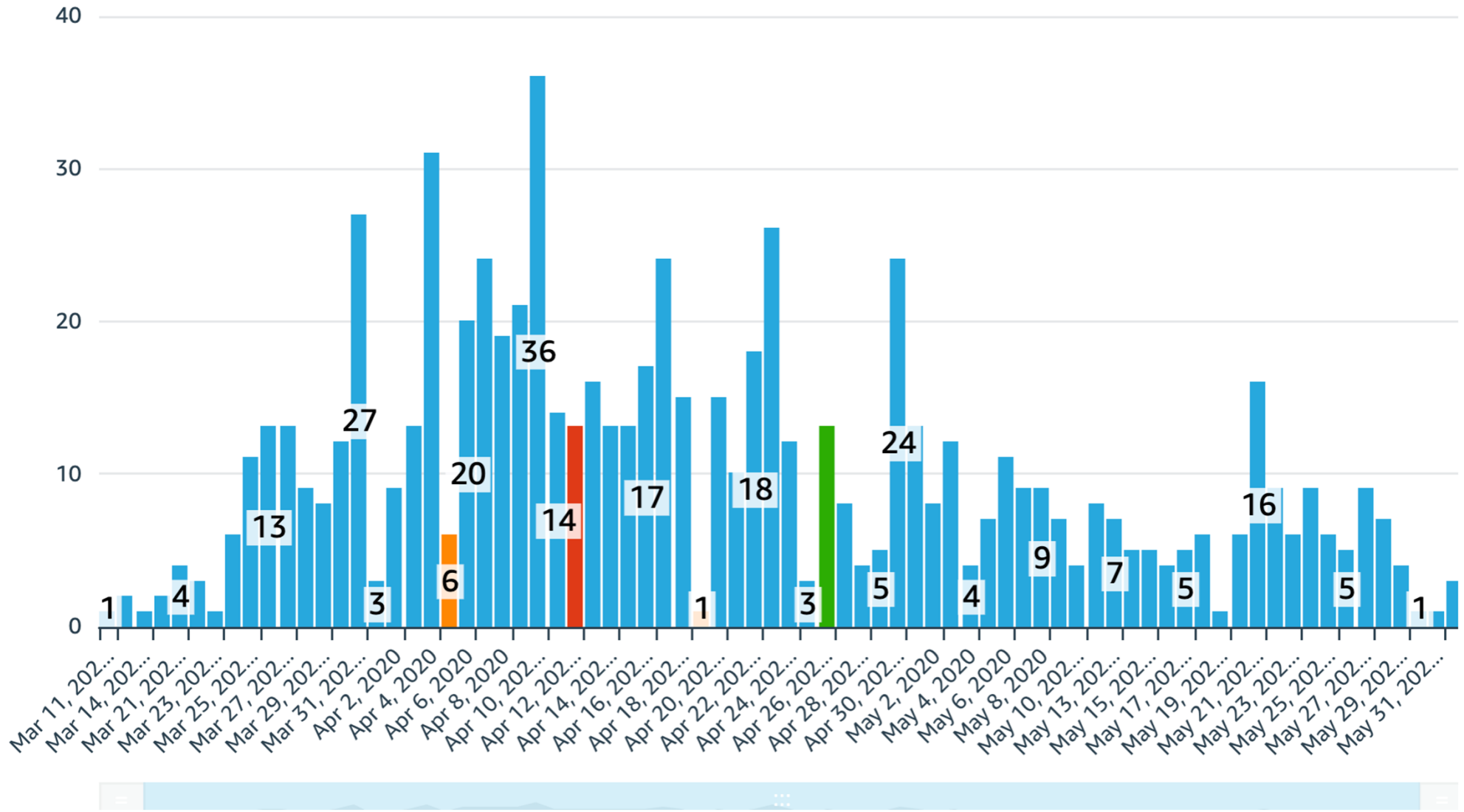
nt of deceased COVID-19 patients by day (use filters to drill down)



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Count of deceased COVID-19 patients, by most common pre-existing condition

	ethnic_name		
Pre-existing condition	White	South Asian	Black
	patient count	patient count	patient count
Essential hypertension	33	23	15
Chronic kidney disease stage 3	22	12	8
Type 2 diabetes mellitus	16	26	11
Chronic obstructive pulmonary disease	10	7	1
Atrial fibrillation	9	3	2
Heart failure	8	1	4
Asthma	7	7	2
Hypertensive disease	5	4	1
[V]Palliative care	5	4	3
Ischaemic heart disease	4	6	
Total	119	93	47