

National Vascular Registry UK Update of NVR & Covid-19 results

ICVR May 2022

Arun Pherwani MS MPhil FRCS

Consultant Vascular Surgeon

Chair Audit & Quality Improvement Committee VSGBI

Clinical Lead for the NVR

NVR Team

- **Staff at Clinical Effectiveness Unit,
Royal College of Surgeons of England**

- Sam Waton, NVR Manager
- Amundeeep Johal, Senior statistician
- Qiuju Li, Research Fellow in Medical Statistics
- Panagiota Birmbili, NVR Clinical Fellow
- Ellie Atkins, NVR Clinical Fellow
- David Cromwell, CEU Director
- Jonothan Boyle (previous chair)

- **Clinical leads**

- Arun Pherwani, Consultant Vascular Surgeon
- Robin Williams Consultant Interventional Radiologists

- **Partner organisations**

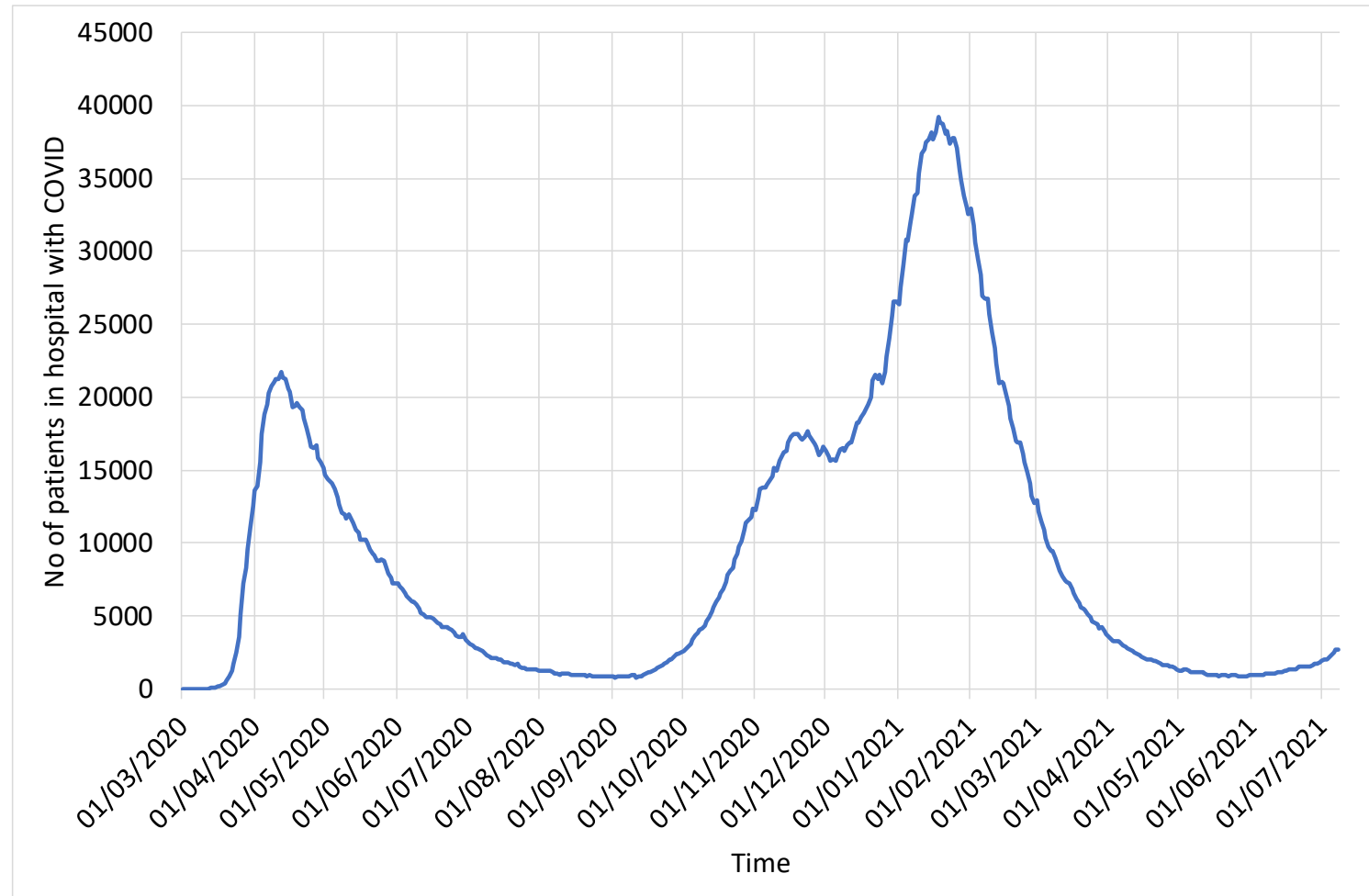
- Vascular Society for Great Britain & Ireland
- British Society of Interventional Radiology
- Vascular Anaesthesia Society of Great Britain & Ireland

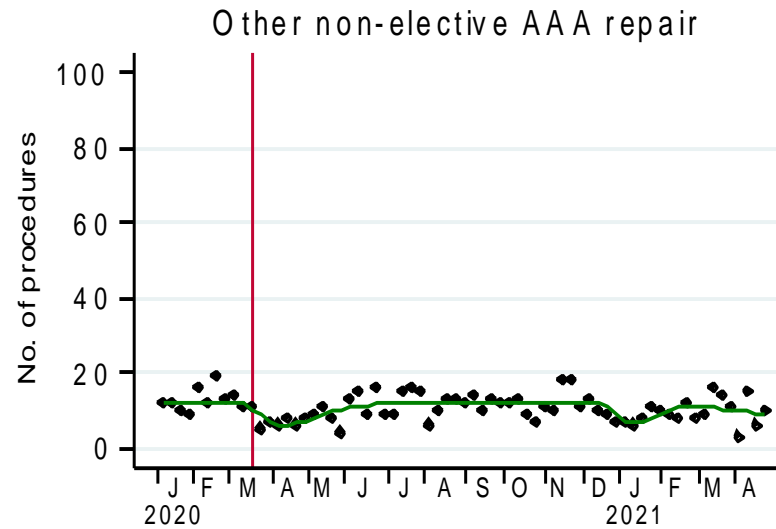
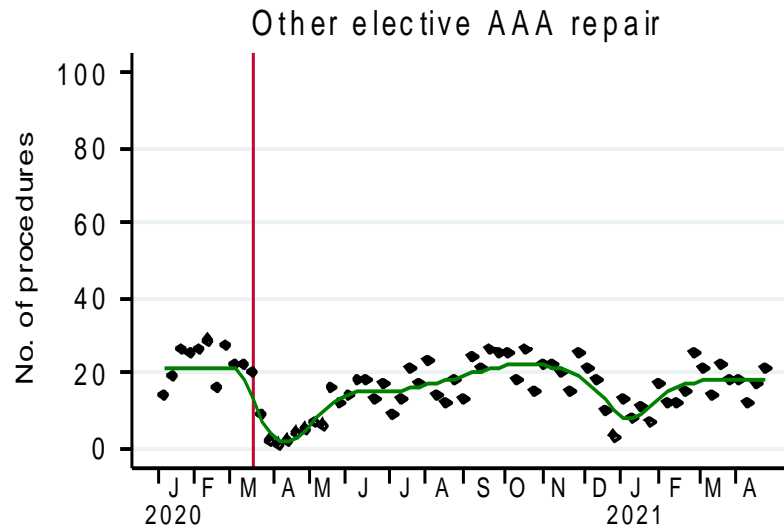
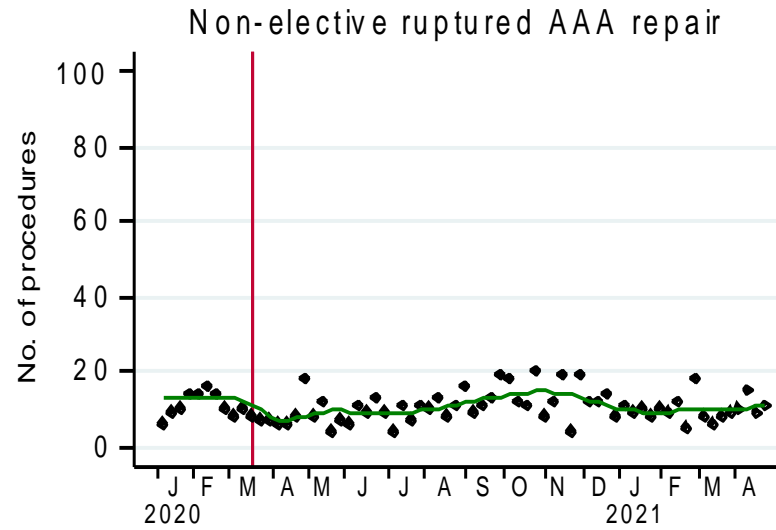
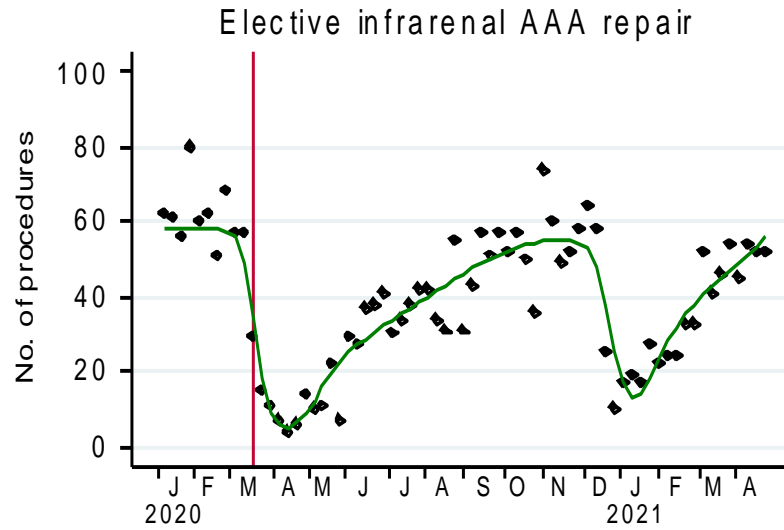


NVR COVID-19 Report Update

- NVR datasets adapted in May 2020 to collect data on impact of COVID-19
 - Symptomatic COVID-19 or positive test before procedure
 - Timing of procedure affected
 - Different procedure performed
 - Positive test after procedure
 - Respiratory complications
 - Updated to add vaccination status / previous COVID infection
- COVID-19 short report published in November 2020.
- Updated in early 2021 to cover another 3-months (Aug-Oct 2020).
- Updated again in November 2021 to include data up to April 2021
- Further update due November 2022

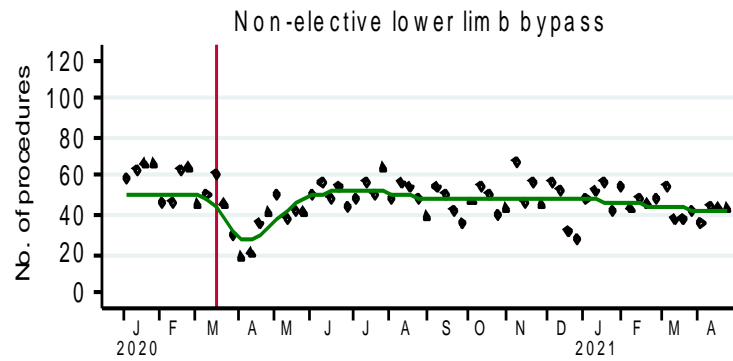
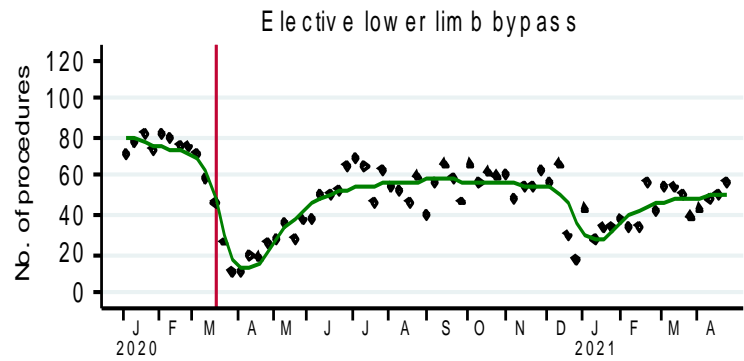
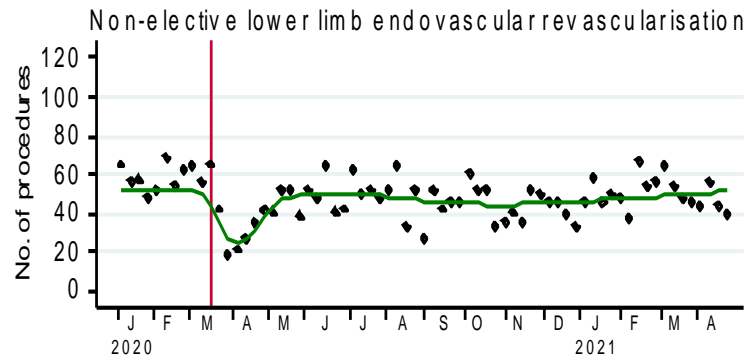
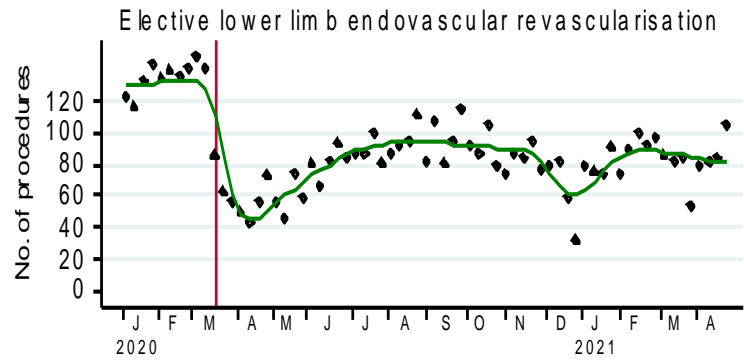
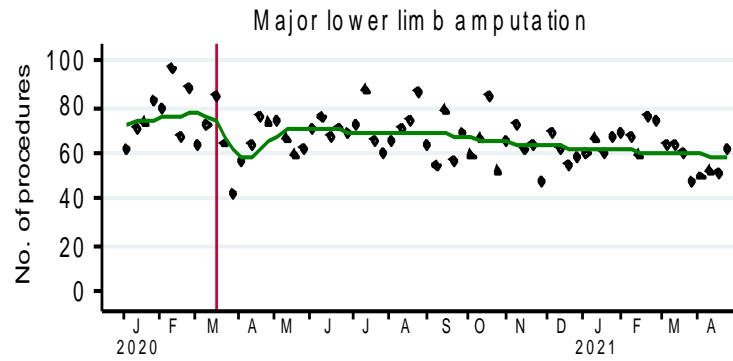
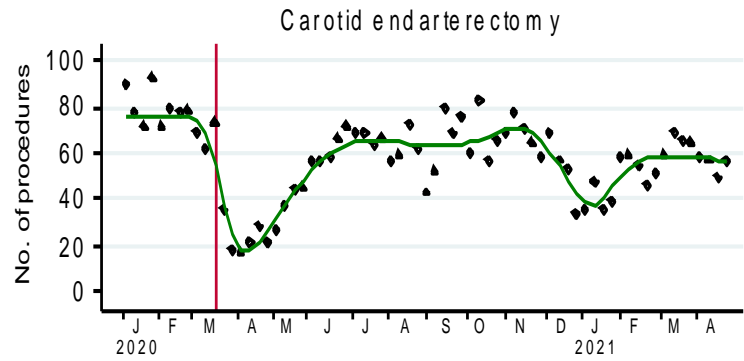
COVID-19 infections in the UK





Weekly activity
from 5 Jan 2020 to
1 May 2021

Red lines delineate week 11
15-21 March



Weekly activity
from 5 Jan 2020 to
1 May 2021

Red lines delineate week 11
15-21 March

AAA repair activity

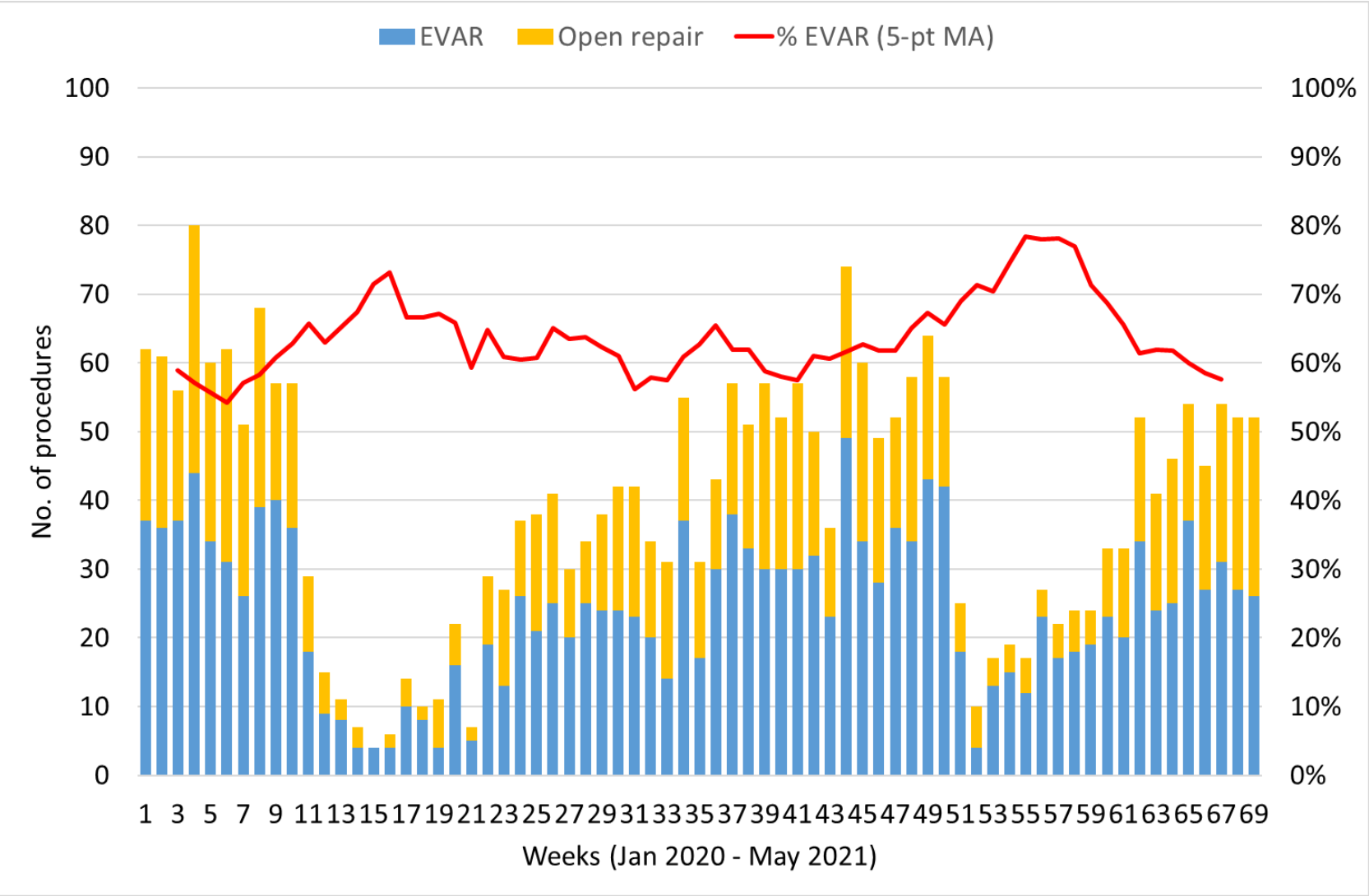
	Jan 2019 -Feb 2020	Mar-Jun 2020	Jul-Oct 2020	Nov 2020 -Feb 2021	Mar-Apr 2021
No. of procedures					
Infrarenal AAA: elective repair	3,705	422	740	666	396
Other elective AAA repair	1,251	208	320	276	143
Repair of ruptured AAA	865	157	204	200	76
Other emergy AAA repair	753	171	199	186	84
Procedures per week					
Infrarenal AAA: elective repair	61.8	23.4	43.5	37.0	49.5
Other elective AAA repair	20.9	11.6	18.8	15.3	17.9
Repair of ruptured AAA	14.4	8.7	12.0	11.1	9.5
Other emergy AAA repair	12.6	9.5	11.7	10.3	10.5

AAA repair activity

	Jan 2019 -Feb 2020	Mar-Jun 2020	Jul-Oct 2020	Nov 2020 -Feb 2021	Mar-Apr 2021
Procedures per week					
Infrarenal AAA: elective repair	61.8	23.4	43.5	37.0	49.5
Other elective AAA repair	20.9	11.6	18.8	15.3	17.9
Repair of ruptured AAA	14.4	8.7	12.0	11.1	9.5
Other emergency AAA repair	12.6	9.5	11.7	10.3	10.5
Weekly activity cf pre-pandemic					
Infrarenal AAA: elective repair		38%	70%	60%	80%
Other elective AAA repair		55%	90%	74%	86%
Repair of ruptured AAA		61%	83%	77%	66%
Other emergency AAA repair		75%	93%	82%	84%

Elective AAA repair, by type of procedure

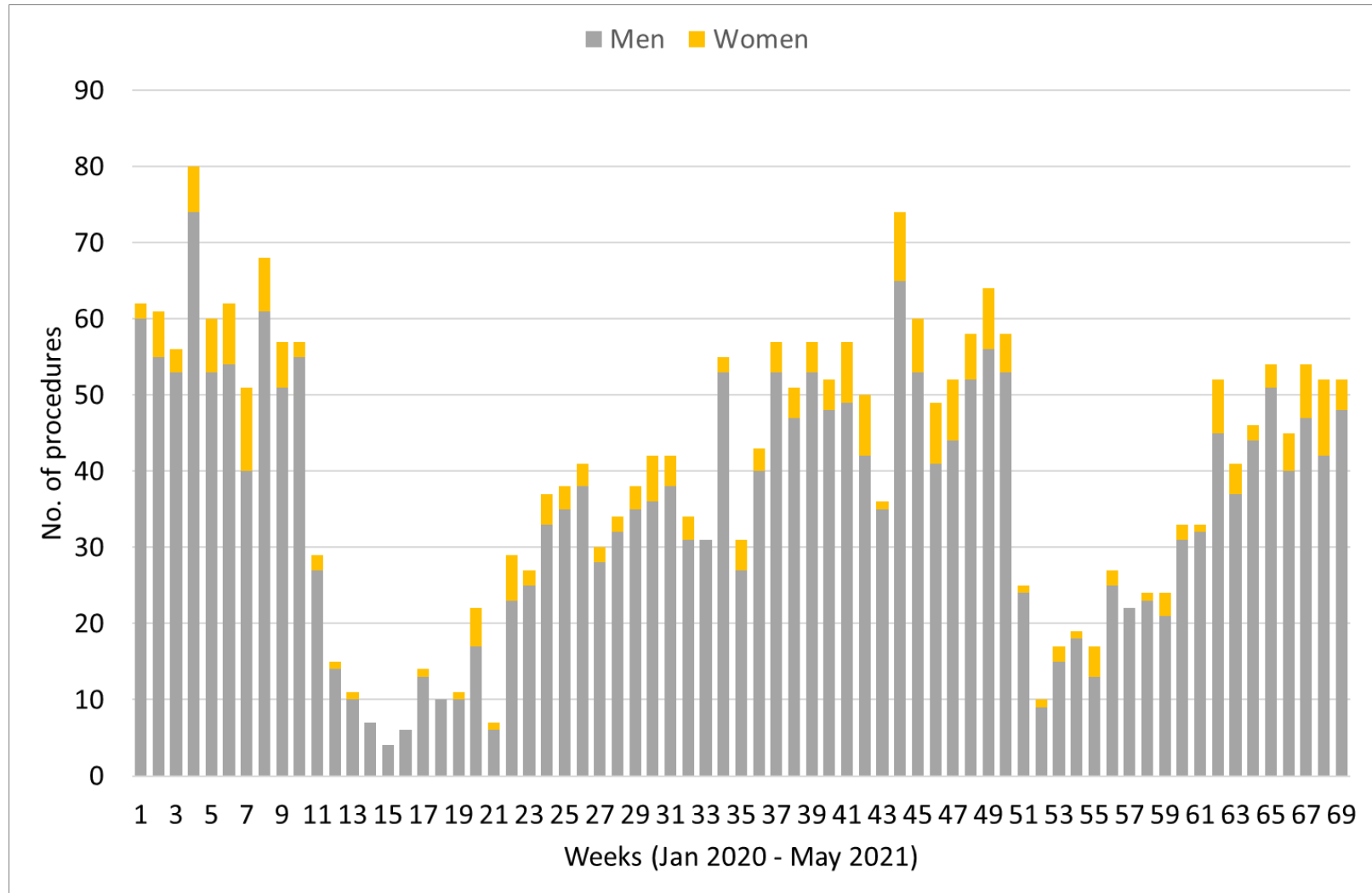
Small shifts to EVAR during COVID-19 waves



Elective AAA repair, by patient sex

Overall, 90% of procedures are performed for men

Proportion did not change over time



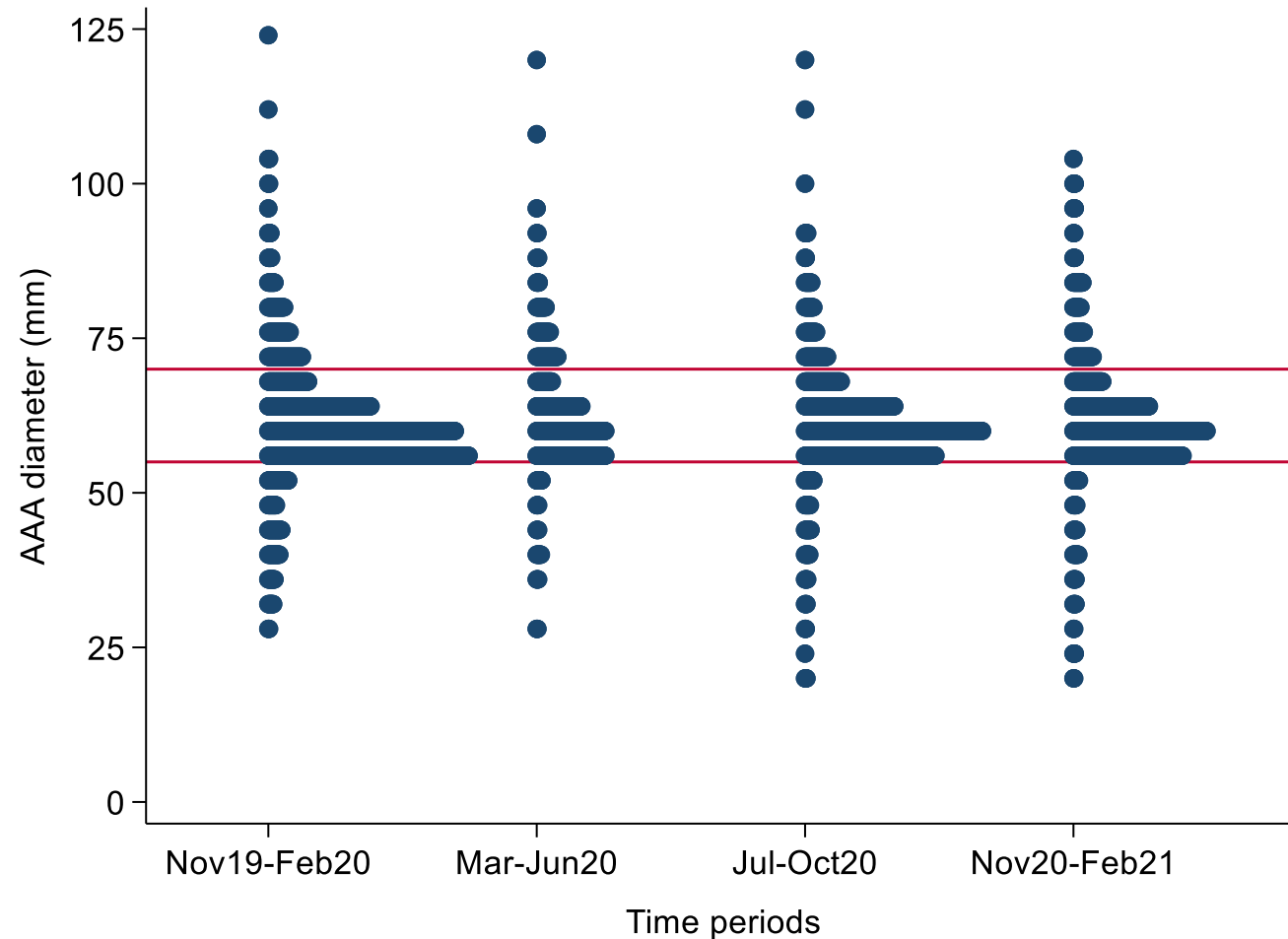
Elective AAA repair, by AAA diameter

% procedures with diameter ≥ 7 cm: 10% 15% 9% 11%

No. of procedures with diameter ≥ 7 cm changes less than the number of procedures with diameter < 7 cm fluctuates

Red lines = 55mm, 70mm

In this dot plot, the bar length indicates how many procedures were performed with this diameter.

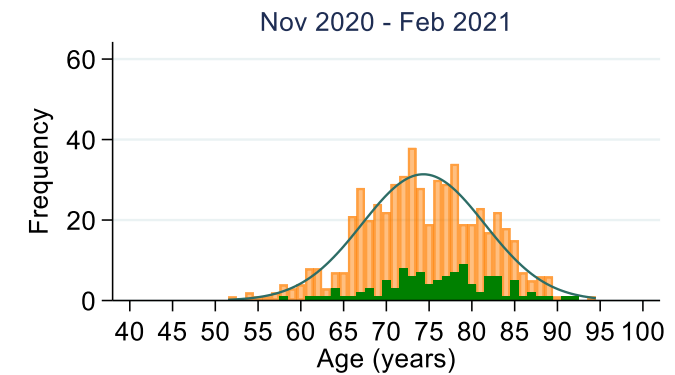
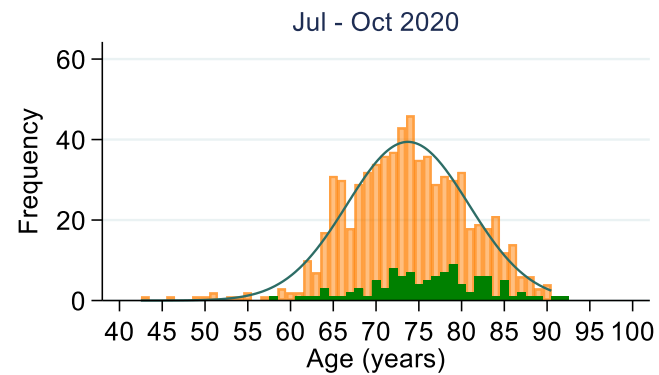
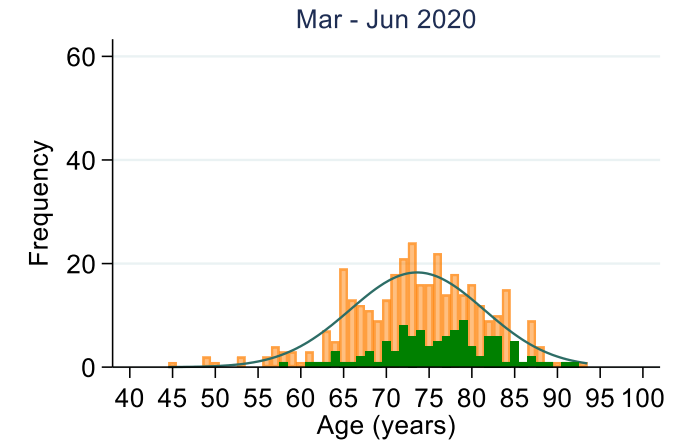
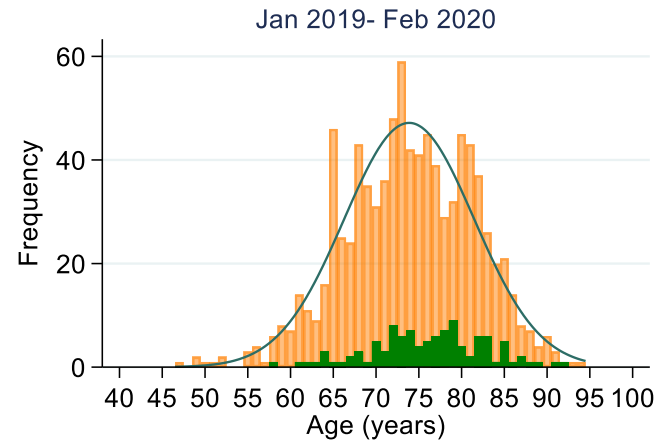


Elective AAA repair, by age

Distribution of age did not change greatly during the waves.

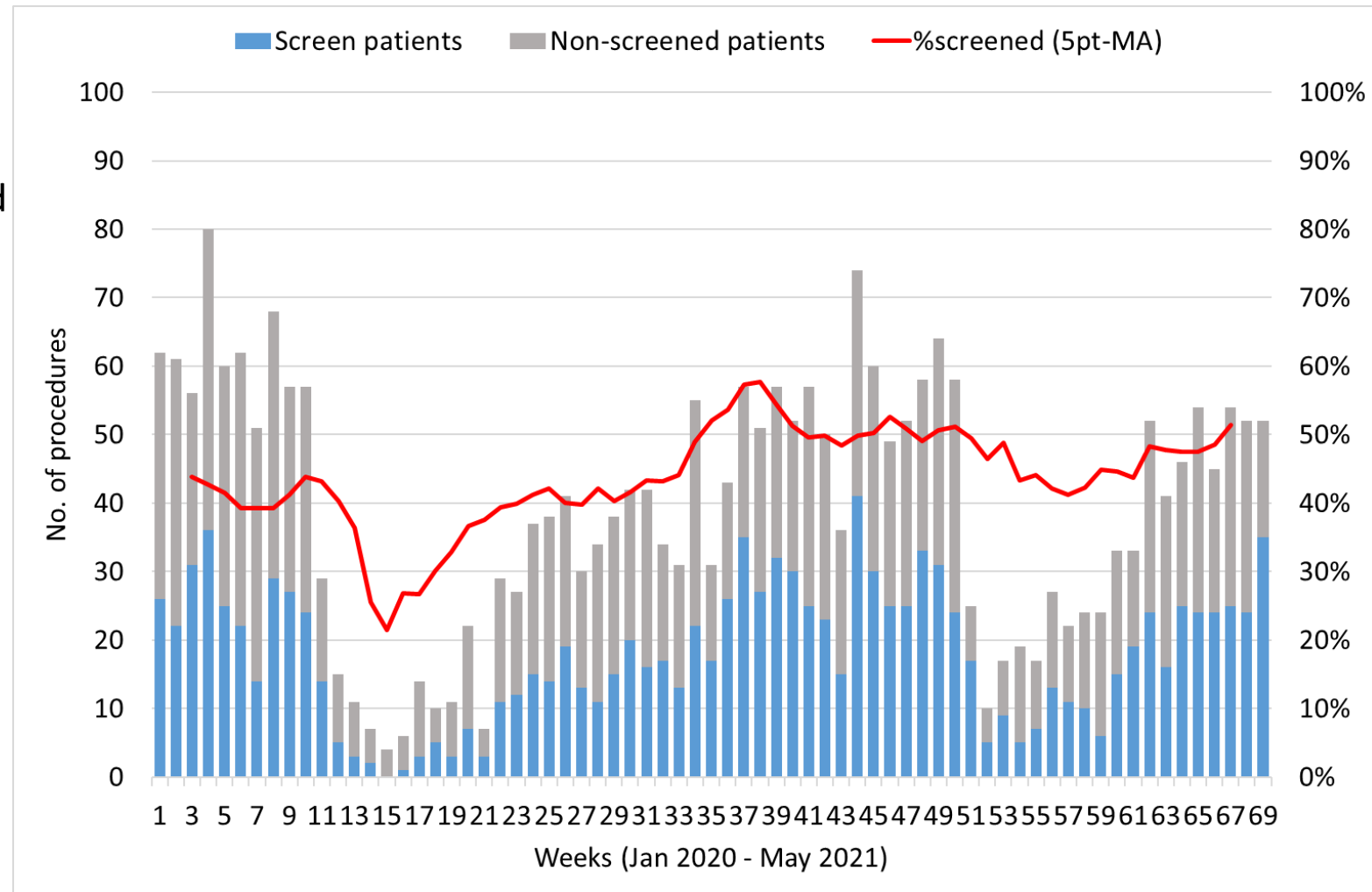
Median age between 74-75 years in each period

Key feature was drop in men coming from screening service



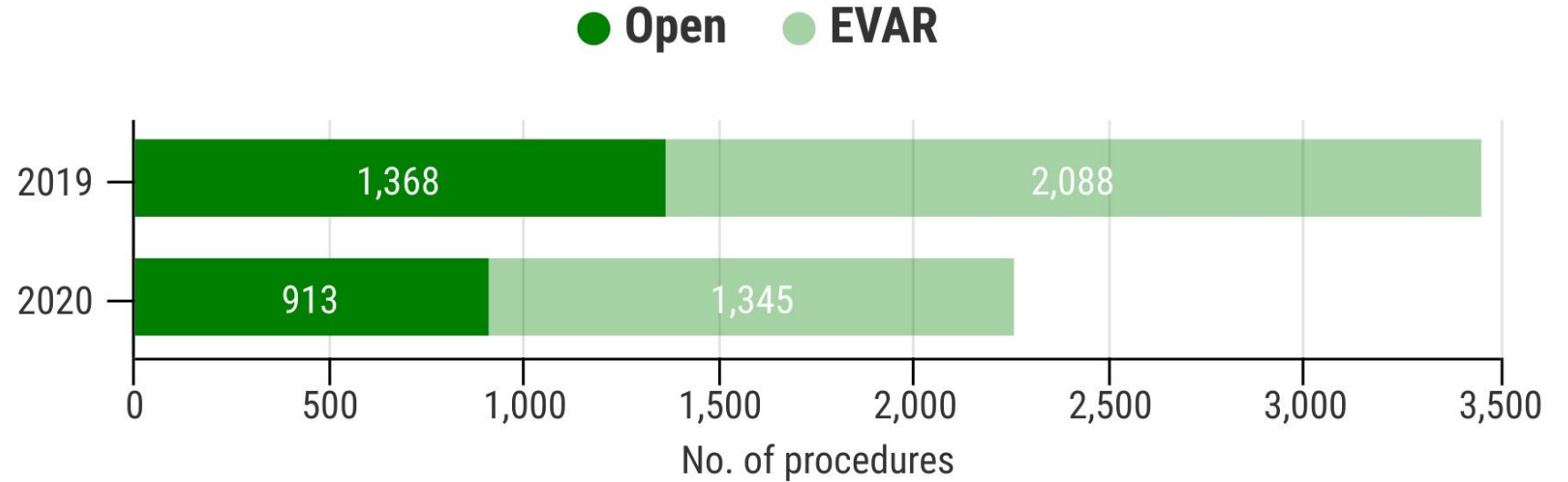
Elective AAA repair, by source of referral

Drop-off in activity of patients who were identified by screening during five wave before recovery



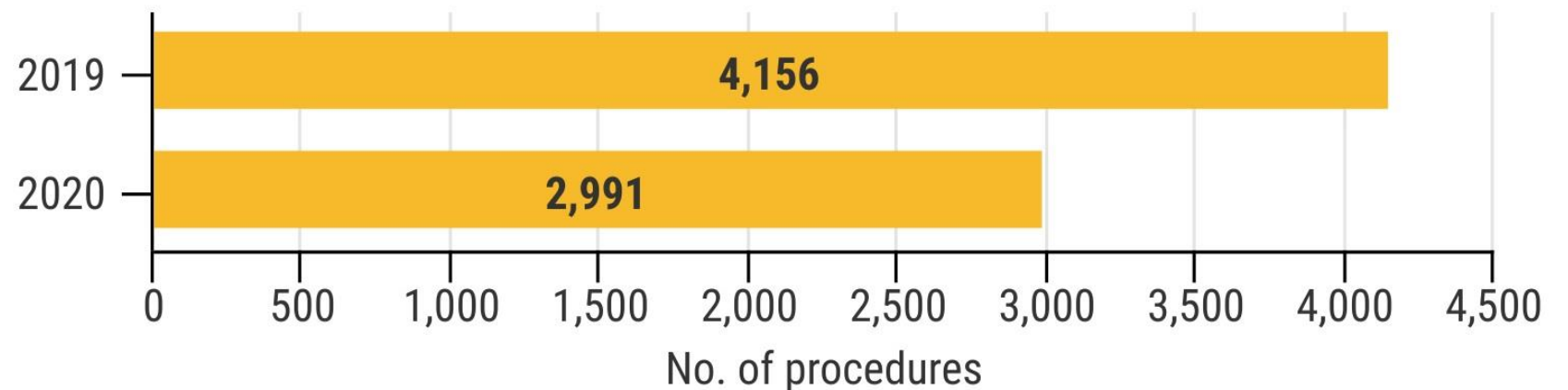
Impact of COVID-19

There were 2,258 elective infra-renal AAA repairs submitted to the NVR in 2020, which is a decrease of 35% on the 3,456 procedures in 2019.



Impact of COVID-19

There were 2,991 CEAs submitted to the NVR in 2020, which is a 28% reduction of the 4,156 in 2019.



COVID- 19 – November 2021

Cases

253M

+353K

Deaths

5.1M

+4,521

Location

Cases ↓

Deaths



United States

47M

+25,411

762K

+162



India

34.4M

+10,229

464K

+125



Brazil

22M

+4,129

611K

+61



United Kingdom

9.56M

+36,128

143K

+63



Russia

8.92M

251K

COVID- 19 May 2022

Cases

522M

+556K

Deaths

6.27M

+1,754

Location

Cases ↓

Deaths

 United States

82.6M
+148K

999K
+319

 India

43.1M
+1,569

524K
+19

 Brazil

30.7M
+13,510

665K
+66

 France

28.4M
+3,360

144K
+203

 Germany

25.8M
+86,252

138K
+215

 United Kingdom

22.3M
+23,820

178K
+158