

Table of contents

Supplementary Appendix 1 Regional Online Interest Values and Percentage English speakers per country	1
Supplementary Appendix 2 ProQuest search string.....	1
Supplementary Appendix 3 Natural Language Processing themes for ‘semaglutide’ topic (/g/11dyzd5sn) per country	2
Supplementary Appendix 4 Heat map of Quarterly variation in query priority across all countries with Ozempic/semaglutide (quarters with no data omitted)	11
Supplementary Appendix 5 Heat map of Quarterly variation in query priority across all countries without Ozempic/semaglutide (quarters with no data omitted)	34
Supplementary Appendix 6 Impact of specific social media events across all countries.....	57
References	70

List of Tables

Table 1	List of Regional Online Interest Values for countries with a median ROI (across samples) ≥ 201
Table 2	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Australia.....2
Table 3	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Belgium.....2
Table 4	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Brazil3
Table 5	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Bulgaria.....3
Table 6	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Canada.....3
Table 7	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Chile4
Table 8	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Denmark4
Table 9	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Finland4
Table 10	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Germany5
Table 11	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Ireland.....5
Table 12	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Israel5
Table 13	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Lebanon6
Table 14	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Netherlands.....6
Table 15	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Norway6
Table 16	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Poland.....7
Table 17	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Portugal7
Table 18	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Puerto Rico7
Table 19	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Romania.....8
Table 20	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Saudi Arabia.....8
Table 21	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Serbia.....8
Table 22	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for South Africa8
Table 23	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Spain9
Table 24	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Sweden9
Table 25	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Switzerland9
Table 26	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for United Arab Emirates10
Table 27	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for United Kingdom of Great Britain and Northern Ireland10
Table 28	Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for United States of America.....10

List of Figures

Figure 1	Quarterly variation in query priority for Australia.....	11
Figure 2	Quarterly variation in query priority for Belgium.....	12
Figure 3	Quarterly variation in query priority for Brazil.....	12
Figure 4	Quarterly variation in query priority for Bulgaria.....	14
Figure 5	Quarterly variation in query priority for Canada.....	14
Figure 6	Quarterly variation in query priority for Chile.....	16
Figure 7	Quarterly variation in query priority for Denmark.....	16
Figure 8	Quarterly variation in query priority for Finland.....	17
Figure 9	Quarterly variation in query priority for Germany.....	18
Figure 10	Quarterly variation in query priority for Ireland.....	20
Figure 11	Quarterly variation in query priority for Israel.....	20
Figure 12	Quarterly variation in query priority for Lebanon.....	20
Figure 13	Quarterly variation in query priority for Netherlands.....	21
Figure 14	Quarterly variation in query priority for Norway.....	22
Figure 15	Quarterly variation in query priority for Poland.....	22
Figure 16	Quarterly variation in query priority for Portugal.....	23
Figure 17	Quarterly variation in query priority for Puerto Rico.....	24
Figure 18	Quarterly variation in query priority for Romania.....	25
Figure 19	Quarterly variation in query priority for Saudi Arabia.....	25
Figure 20	Quarterly variation in query priority for Serbia.....	26
Figure 21	Quarterly variation in query priority for South Africa.....	27
Figure 22	Quarterly variation in query priority for Spain.....	28
Figure 23	Quarterly variation in query priority for Sweden.....	29
Figure 24	Quarterly variation in query priority for Switzerland.....	30
Figure 25	Quarterly variation in query priority for United Arab Emirates.....	31
Figure 26	Quarterly variation in query priority for United Kingdom of Great Britain and Northern Ireland.....	32
Figure 27	Quarterly variation in query priority for United States of America.....	33
Figure 28	Quarterly variation in query priority for Australia without Ozempic/semaglutide.....	34
Figure 29	Quarterly variation in query priority for Belgium without Ozempic/semaglutide.....	35
Figure 30	Quarterly variation in query priority for Brazil without Ozempic/semaglutide.....	35
Figure 31	Quarterly variation in query priority for Bulgaria without Ozempic/semaglutide.....	37
Figure 32	Quarterly variation in query priority for Canada without Ozempic/semaglutide.....	37
Figure 33	Quarterly variation in query priority for Chile without Ozempic/semaglutide.....	39
Figure 34	Quarterly variation in query priority for Denmark without Ozempic/semaglutide.....	39
Figure 35	Quarterly variation in query priority for Finland without Ozempic/semaglutide.....	40
Figure 36	Quarterly variation in query priority for Germany without Ozempic/semaglutide.....	41
Figure 37	Quarterly variation in query priority for Ireland without Ozempic/semaglutide.....	42
Figure 38	Quarterly variation in query priority for Israel without Ozempic/semaglutide.....	43
Figure 39	Quarterly variation in query priority for Lebanon without Ozempic/semaglutide.....	43
Figure 40	Quarterly variation in query priority for Netherlands without Ozempic/semaglutide.....	44
Figure 41	Quarterly variation in query priority for Norway without Ozempic/semaglutide.....	45
Figure 42	Quarterly variation in query priority for Poland without Ozempic/semaglutide.....	45
Figure 43	Quarterly variation in query priority for Portugal without Ozempic/semaglutide.....	46
Figure 44	Quarterly variation in query priority for Puerto Rico without Ozempic/semaglutide.....	47
Figure 45	Quarterly variation in query priority for Romania without Ozempic/semaglutide.....	48
Figure 46	Quarterly variation in query priority for Saudi Arabia without Ozempic/semaglutide.....	48
Figure 47	Quarterly variation in query priority for Serbia without Ozempic/semaglutide.....	49
Figure 48	Quarterly variation in query priority for South Africa without Ozempic/semaglutide.....	50

Figure 49	Quarterly variation in query priority for Spain without Ozempic/semaglutide	51
Figure 50	Quarterly variation in query priority for Sweden without Ozempic/semaglutide	52
Figure 51	Quarterly variation in query priority for Switzerland without Ozempic/semaglutide	53
Figure 52	Quarterly variation in query priority for United Arab Emirates without Ozempic/semaglutide	54
Figure 53	Quarterly variation in query priority for United Kingdom of Great Britain and Northern Ireland without Ozempic/semaglutide	55
Figure 54	Quarterly variation in query priority for United States of America without Ozempic/semaglutide.....	56
Figure 55	Social media events and semaglutide searches in Australia	57
Figure 56	Social media events and semaglutide searches in Belgium	57
Figure 57	Social media events and semaglutide searches in Brazil.....	57
Figure 58	Social media events and semaglutide searches in Bulgaria	58
Figure 59	Social media events and semaglutide searches in Canada.....	58
Figure 60	Social media events and semaglutide searches in Chile.....	59
Figure 61	Social media events and semaglutide searches in Denmark.....	59
Figure 62	Social media events and semaglutide searches in Finland.....	60
Figure 63	Social media events and semaglutide searches in Germany.....	60
Figure 64	Social media events and semaglutide searches in Ireland	61
Figure 65	Social media events and semaglutide searches in Israel.....	61
Figure 66	Social media events and semaglutide searches in Lebanon.....	62
Figure 67	Social media events and semaglutide searches in Netherlands.....	62
Figure 68	Social media events and semaglutide searches in Norway	63
Figure 69	Social media events and semaglutide searches in Poland	63
Figure 70	Social media events and semaglutide searches in Portugal.....	64
Figure 71	Social media events and semaglutide searches in Puerto Rico.....	64
Figure 72	Social media events and semaglutide searches in Romania	65
Figure 73	Social media events and semaglutide searches in Saudi Arabia	65
Figure 74	Social media events and semaglutide searches in Serbia	66
Figure 75	Social media events and semaglutide searches in South Africa.....	66
Figure 76	Social media events and semaglutide searches in Spain.....	67
Figure 77	Social media events and semaglutide searches in Sweden.....	67
Figure 78	Social media events and semaglutide searches in Switzerland.....	68
Figure 79	Social media events and semaglutide searches in United Arab Emirates.....	68
Figure 80	Social media events and semaglutide searches in United Kingdom of Great Britain and Northern Ireland	69
Figure 81	Social media events and semaglutide searches in United States of America	69

Supplementary Appendix 1
Regional Online Interest Values and Percentage English speakers per country

Table 1 **List of Regional Online Interest Values for countries with a median ROI (across samples) ≥ 20**

Country	ISO3166	Samples						$\bar{X}$	% English speakers ¹⁻⁵
		1	2	3	4	5	6		
Canada	CA	100	100	100	100	100	100	100	83.1
United States	US	82	79	79	81	80	89	80.5	95.5
Brazil	BR	77	75	80	79	77	75	77	5.0
Australia	AU	75	73	75	76	76	76	75.5	92.8
Puerto Rico	PR	75	65	63	63	66	91	65.5	48.6
Finland	FI	58	59	60	59	59	48	59	75.0
Norway	NO	55	54	54	54	57	48	54	90.0
Ireland	IE	54	55	56	54	57	53	54.5	98.4
Belgium	BE	51	51	53	50	53	46	51	60.0
Denmark	DK	49	49	50	48	50	39	49	86.0
Lebanon	LB	45	44	45	45	46	46	45	40.0
Poland	PL	40	40	40	40	40	33	40	49.1
Switzerland	CH	34	33	34	33	34	32	33.5	61.3
Bulgaria	BG	33	31	31	32	33	23	31.5	25.0
Chile	CL	32	30	31	31	30	32	31	9.5
Sweden	SE	29	32	30	29	30	25	29.5	89.0
United Kingdom	GB	29	28	28	28	28	28	28	98.3
United Arab Emirates	AE	28	28	28	28	28	32	28	67.0
Portugal	PT	25	26	25	25	26	25	25	27.0
Romania	RO	25	24	24	24	25	17	24	31.0
Israel	IL	23	21	21	22	21	23	21.5	85.0
South Africa	ZA	23	22	22	23	23	19	22.5	31.0
Germany	DE	22	20	20	20	22	19	20	56.0
Netherlands	NL	20	20	20	20	20	16	20	90.9
Saudi Arabia	SA	20	21	22	20	22	23	21.5	98.7
Serbia	RS	20	20	21	20	21	17	20	unknown
Spain	ES	20	20	20	19	21	23	20	22.0

Supplementary Appendix 2
ProQuest search string

((noft(semaglutide) OR noft(ozempic) OR noft(wegovy) OR noft(rybelsus)) AND
 stype.exact("Magazines" OR "Other Sources" OR "Newspapers" OR "Blogs, Podcasts, & Websites"))
 AND stype.exact("Magazines" OR "Other Sources" OR "Newspapers" OR "Blogs, Podcasts, &
 Websites")) AND stype.exact("Magazines" OR "Other Sources" OR "Newspapers" OR "Blogs, Podcasts,
 & Websites"))

Supplementary Appendix 3

Natural Language Processing themes for ‘semaglutide’ topic (/g/11dyzd5sn) per country

Table 2 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Australia

Cutoff		
#	score	Included search queries
1	0.172	weight, loss, ozempic weight loss, weight loss, ozempic weight loss australia
2	0.160	+effect, side, +side effect, effects ozempic, ozempic chemist, warehouse, ozempic chemist warehouse, chemist warehouse ozempic, ozempic
3	0.162	cost, ozempic cost, ozempic cost australia, ozempic australia cost, australia injection, ozempic injection, weight loss injection, semaglutide injection, weight loss injection ozempic
4	0.165	australia, ozempic australia, price, online, ozempic price
5	0.167	ozempic pen, pen, ozempic, semaglutide, ozempic weight loss semaglutide, semaglutide australia, semaglutide weight loss, australia, semaglutide injection
6	0.178	buy, buy ozempic, ozempic buy, ozempic, ozempic pen
7	0.156	ozempic work, work, +do, ozempic, semaglutide
8	0.169	saxenda, saxenda australia, australia, buy, ozempic weight loss australia
9	0.162	
10	0.159	
11	0.166	

Table 3 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Belgium

Cutoff		
#	score	Included search queries
1	0.164	perte, ozempic perte de poids, poids, de, ozempic
2	0.172	kopen, ozempic kopen, semaglutide kopen, semaglutide, ozempic kopen belgie
3	0.163	ozempic effets secondaires, effets, secondaires, ozempic, ozempic avis
4	0.173	bestellen, online, online bestellen, ozempic bestellen, ozempic kopen
5	0.162	ozempic bijsluit, bijsluit, ozempic, ozempic avis, avis
6	0.164	ozempic pour maigrir, maigrir, pour, ozempic, ozempic avis
7	0.168	afvallen, ozempic afvallen, semaglutide, semaglutide afvallen, semaglutide kopen
8	0.184	prijs, ozempic prijs, bijwerkingen, vermageren, ozempic vermageren
9	0.169	vermageren, ozempic vermageren, ozempic bijsluit, bijsluit, afvallen

Table 4 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Brazil

Cutoff		
#	score	Included search queries
1	0.139	serve, que, para, ozempic para que serve, para que serve ozempic
2	0.136	efeitos, colaterais, ozempic efeitos colaterais, efeitos colaterais ozempic, ozempic
3	0.136	como, usar, ozempic como usar, como usar ozempic, aplicar
4	0.145	preço, semaglutida, semaglutida preço, ozempic preço, preço ozempic
5	0.141	saxenda, ou, saxenda ou ozempic, ozempic ou saxenda, saxenda preço
6	0.138	emagrecer, ozempic para emagrecer, para, semaglutida para emagrecer, semaglutida
7	0.142	cadastro, ozempic cadastro, cadastro ozempic, novo, dia
8	0.140	bula, ozempic bula, bula ozempic, semaglutida bula, semaglutida
9	0.141	mg, 1 mg, preço ozempic, preço, ozempic
10	0.140	valor, ozempic valor, valor ozempic, semaglutida, ozempic
11	0.137	emagrece, ozempic emagrece, semaglutida, ozempic, semaglutida preço
12	0.154	comprar, injeção, caneta, ozempic comprar, injeção ozempic
13	0.138	injeção, injeção ozempic, ozempic injeção, emagrece, ozempic emagrece
14	0.141	caneta, caneta ozempic, ozempic caneta, remedio, remedio ozempic

Table 5 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Bulgaria

Cutoff		
#	score	Included search queries
1	0.663	1 mg, mg, ozempic, semaglutide, wegovy
2	0.647	semaglutide, ozempic, wegovy, 1 mg, mg

Table 6 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Canada

Cutoff		
#	score	Included search queries
1	0.162	weight, loss, weight loss, ozempic weight loss, weight loss canada
2	0.155	+effect, side, +side effect, effects ozempic, ozempic
3	0.158	poids, perte, ozempic perte de poids, de, ozempic perte poids
4	0.163	cost, ozempic cost, ozempic cost canada, canada, ozempic injection
5	0.159	injection, semaglutide, ozempic injection, semaglutide injection, semaglutide canada
6	0.157	ozempic work, work, +do, ozempic, semaglutide canada
7	0.174	+ozempic review, +review, ozempic dose, dose, cost
8	0.166	canada, semaglutide, ozempic canada, semaglutide canada, ozempic cost canada
9	0.162	ozempic dose, dose, semaglutide canada, semaglutide, +effect
10	0.160	secondaire, effet, ozempic effet secondaire, semaglutide canada, semaglutide

Table 7 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Chile

Cutoff		
#	score	Included search queries
1	0.181	bajar, peso, de, ozempic para bajar de peso, para
2	0.180	verde, cruz, ozempic cruz verde, cruz verde, ozempic precio cruz verde
3	0.188	chile, semaglutida, semaglutida chile, ozempic precio chile, precio
4	0.182	adelgazar, ozempic para adelgazar, para, ozempic para adelgazar testimonios, testimonios
5	0.174	ozempic efectos secundarios, secundarios, efectos, ozempic, ozempic precio
6	0.182	que, sirve, ozempic para que sirve, para, es
7	0.178	ahumada, ozempic ahumada, farmacia, ozempic farmacia ahumada, ozempic
8	0.179	mg, 2 mg, 4 mg, 1 mg, ozempic
9	0.188	barato, más, precio, ozempic precio más barato, ozempic precio
10	0.182	salcobrand, ozempic salcobrand, ozempic, valor, ozempic valor

Table 8 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Denmark

Cutoff		
#	score	Included search queries
1	0.235	ozempic pris, pris, ozempic, semaglutid pris, wegovy pris
2	0.238	vægttab, ozempic vægttab, ozempic til vægttab, til, ozempic
3	0.229	nordisk, novo, ozempic novo nordisk, slankemiddel, semaglutide
4	0.222	bivirkninger, ozempic bivirkninger, ozempic, wegovy, face
5	0.226	uden, ozempic uden recept, recept, ozempic, køb
6	0.238	semaglutid, semaglutid pris, semaglutid vægttab, vægttab, pris
7	0.226	wegovy, wegovy pris, pris, danmark, tilskud
8	0.225	1 mg, mg, ozempic, face, ozempic face
9	0.236	tilskud, ozempic tilskud, danmark, ozempic, ozempic face

Table 9 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Finland

Cutoff		
#	score	Included search queries
1	0.219	1 mg, mg, saatavuus, ozempic, apteekki
2	0.225	hinta, ozempic hinta, saxenda, saxenda hinta, ozempic
3	0.217	kokemuksia, ozempic kokemuksia, ozempic, saxenda, semaglutidi
4	0.233	apteekki, saatavuus, ozempic saatavuus apteekki, lääkehaku, ozempic saatavuus
5	0.213	laihdutus, ozempic laihdutus, ozempic, alkoholi, ozempic hinta
6	0.213	ozempic haittavaikutukset, haittavaikutukset, ozempic, alkoholi, ozempic hinta
7	0.217	lihavuus, ozempic lihavuus, semaglutidi, ozempic, alkoholi
8	0.214	korvattavuus, ozempic korvattavuus, ozempic, ozempic hinta, alkoholi
9	0.218	laihdutuslääke, ozempic laihdutuslääke, laihdutuslääke ozempic, ozempic, ozempic hinta
10	0.221	tabletti, ozempic tabletti, semaglutidi, ozempic, hinta
11	0.232	yliopiston apteekki, yliopiston, apteekki, lääkehaku apteekki, saxenda

Table 10 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Germany

Cutoff		
#	score	Included search queries
		abnehmen, zum, ozempic zum abnehmen, semaglutid zum abnehmen, ozempic abnehmen
1	0.163	
2	0.162	kaufen, semaglutid kaufen, ozempic kaufen, semaglutid, ozempic kaufen ohne rezept
3	0.161	rezept, ohne, ozempic ohne rezept, ozempic kaufen ohne rezept, ozempic rezept
4	0.157	mg, 1 mg, 25 mg, ozempic, 5 mg
		nebenwirkungen, ozempic nebenwirkungen, semaglutid nebenwirkungen,
5	0.159	nebenwirkungen ozempic, semaglutid
6	0.155	preis, ozempic preis, semaglutid preis, ozempic, semaglutid
7	0.153	erfahrungen, ozempic erfahrungen, ozempic, semaglutid, semaglutid handelsname
8	0.159	spritze, ozempic spritze, semaglutid spritze, semaglutid, ozempic
9	0.154	ozempic pen, pen, ozempic, tabletten, semaglutid tabletten
10	0.162	tabletten, semaglutid tabletten, semaglutid, zum, ozempic zum abnehmen
11	0.155	ozempic wirkung, wirkung, ozempic, semaglutid kaufen, ozempic abnehmen
12	0.155	ozempic dosierung, dosierung, ozempic, diabetes, kosten
13	0.157	nebenwirkung, ozempic nebenwirkung, ozempic, tabletten, semaglutid tabletten
14	0.175	semaglutid, semaglutid abnehmen, abnehmen, semaglutid kaufen, ozempic abnehmen
15	0.172	apotheke, ozempic apotheke, ozempic, nebenwirkung, ozempic nebenwirkung

Table 11 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Ireland

Cutoff		
#	score	Included search queries
1	0.222	+side effect, +effect, side, ozempic, semaglutide
2	0.234	weight, loss, ozempic weight loss, semaglutide weight loss, weight loss
3	0.232	online, buy, buy ozempic, online ireland, ireland
4	0.215	ozempic spc, spc, ozempic, ozempic weight loss, ozempic injection
5	0.242	ireland, semaglutide, semaglutide ireland, cost, ozempic cost ireland
6	0.230	+injection, ozempic injection, +weight loss injection, weight, loss
7	0.215	ozempic pen, pen, ozempic, ozempic injection, ozempic cost ireland
8	0.234	price, ozempic price ireland, ozempic price, ireland, ozempic

Table 12 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Israel

Cutoff		
#	score	Included search queries
1	0.393	+side effect, +effect, side, ozempic, wegovy
2	0.396	weight, loss, ozempic weight loss, ozempic, semaglutide
3	0.399	ozempic face, face, 1 mg, mg, ozempic

Table 13 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Lebanon

Cutoff		
#	score	Included search queries
1	0.43	ozempic weight loss, weight, loss, ozempic, mg
2	0.43	+side effect, +effect, side, ozempic, mg

Table 14 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Netherlands

Cutoff		
#	score	Included search queries
1	0.198	kopen, semaglutide kopen, semaglutide, saxenda, ozempic kopen bijwerkingen, ozempic bijwerkingen, bijwerkingen ozempic, ozempic, ozempic weight
2	0.185	loss
3	0.183	ozempic weight loss, weight, loss, ozempic, ozempic afvallen
4	0.189	afvallen, ozempic afvallen, semaglutide afvallen, semaglutide, semaglutide kopen
5	0.183	zn, zn formulier ozempic, formulier, ozempic, ozempic afvallen
6	0.180	ozempic injectie, injectie, ozempic, ozempic afvallen, afvallen
7	0.177	bmi, bmi berekenen, berekenen, ozempic ervaringen, ervaringen
8	0.181	fk, ozempic fk, ozempic, ozempic afvallen, afvallen
9	0.183	ozempic ervaringen, ervaringen, ozempic, ozempic afvallen, afvallen
10	0.184	vergoeding, ozempic vergoeding, ozempic, semaglutide, semaglutide kopen
11	0.194	ozempic kopen zonder recept, zonder, recept, kopen, ozempic afvallen

Table 15 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Norway

Cutoff		
#	score	Included search queries
1	0.189	bmi, bmi kalkulator, kalkulator, bivirkninger, ozempic bivirkninger
2	0.190	sprøyte, slanke, slanke sprøyte, ozempic, ozempic injeksjon
3	0.196	resept, ozempic blå resept, blå, ozempic, ozempic injeksjon
4	0.200	bivirkninger, ozempic bivirkninger, bivirkninger ozempic, ozempic, slanke
5	0.208	pris, ozempic pris, saxenda, saxenda pris, wegovy pris
6	0.196	vektreduksjon, ozempic vektreduksjon, ozempic, ozempic norge, fedme
7	0.197	ozempic erfaringer, erfaringer, ozempic, norge, ozempic norge
8	0.201	norge, wegovy, wegovy norge, ozempic norge, semaglutide
9	0.214	overvekt, ozempic overvekt, erfaring, ozempic erfaring, ozempic
10	0.198	erfaring, ozempic erfaring, ozempic, pris, ozempic pris

Table 16 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Poland

Cutoff		
#	score	Included search queries
1	0.174	po, gdzie, lek, gdzie po lek, gdzie po lek ozempic
2	0.172	kto, ma, lek, kto ma lek, kto ma lek ozempic
3	0.163	uboczne, skutki, ozempic skutki uboczne, skutki uboczne ozempic, ozempic
4	0.170	cena, saxenda, saxenda cena, ozempic cena, semaglutyd cena
5	0.183	zastrzyki, ozempic zastrzyki, forum, odchudzanie, zastrzyki ozempic
6	0.173	kupi, gdzie kupić ozempic, ozempic gdzie kupi, gdzie, ozempic kto ma lek
7	0.164	opinie, ozempic opinie, ozempic, semaglutyd, saxenda
8	0.165	forum, ozempic forum, ozempic, uboczne, skutki
9	0.165	odchudzanie, ozempic odchudzanie, ozempic, lek, ozempic lek
10	0.176	mg, 1 mg, dost, pno, kupi
11	0.166	semaglutyd, semaglutyd cena, cena, zastrzyki, ozempic cena

Table 17 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Portugal

Cutoff		
#	score	Included search queries
1	0.225	ozempic emagrece quantos quilos por semana, quantos, semana, quilos, por
2	0.222	comprar, online, ozempic portugal comprar, ozempic comprar, portugal
3	0.215	emagrecer, para, ozempic para emagrecer, medicamento, ozempic
4	0.224	preço, ozempic portugal preço, ozempic preço, portugal, ozempic preço portugal
5	0.209	infarmed, ozempic infarmed, ozempic, ozempic portugal, ozempic emagrece
6	0.210	bula, ozempic bula, ozempic, ozempic portugal, semaglutida
7	0.215	semaglutida, semaglutida portugal, portugal, preço, bula
8	0.211	1 mg, mg, ozempic, ozempic portugal, ozempic emagrece
9	0.230	ozempic portugal, portugal, semaglutide, ozempic portugal comprar, ozempic

Table 18 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Puerto Rico

Cutoff		
#	score	Included search queries
1	0.274	bajar, peso, de, para, ozempic para bajar de peso
2	0.267	+side effect, +effect, side, semaglutide, ozempic secundarios, efectos, semaglutide efectos secundarios, ozempic efectos secundarios,
3	0.272	semaglutide
4	0.272	weight, loss, ozempic weight loss, semaglutide, ozempic

Table 19 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Romania

Cutoff		
#	score	Included search queries
1	0.218	cat slabesti cu ozempic, slabesti, cat, cu, ozempic
2	0.215	slabit, pentru, ozempic pentru slabit, ozempic, pret
3	0.227	pastile, semaglutida, semaglutida pastile, semaglutida pastile pret, ozempic pastile
4	0.218	farmacia, tei, ozempic pret farmacia tei, pret, ozempic
5	0.210	prospect, ozempic prospect, ozempic, trulicity, saxenda
6	0.214	1 mg, mg, pret, ozempic, ozempic pastile pret
7	0.208	ozempic pareri, pareri, ozempic, ozempic pret, ozempic pastile
8	0.209	ozempic slabire, slabire, ozempic, ozempic pret, ozempic pastile
9	0.233	pret, ozempic pret, ozempic pret catena, catena, saxenda

Table 20 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Saudi Arabia

Cutoff		
#	score	Included search queries
1	0.292	weight, loss, ozempic weight loss, weight loss, ozempic
2	0.288	+side effect, +effect, side, ozempic, injection
3	0.295	injection, semaglutide, semaglutide injection, ozempic injection, +semaglutide tablet
4	0.293	mg, 0.25 mg, 1 mg, 0.5 mg, ozempic

Table 21 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Serbia

Cutoff		
#	score	Included search queries
1	0.287	u, srbiji, ozempic cena u srbiji, cena, ozempic
2	0.287	gde, kupiti, ozempic gde kupiti, semaglutide, lek
3	0.298	tablete, cena, lek, semaglutid, ozempic tablete cena
4	0.272	ozempic iskustva, iskustva, ozempic, ozempic lek, lek
5	0.282	mg, 1 mg, cena, ozempic, ozempic cena

Table 22 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for South Africa

Cutoff		
#	score	Included search queries
1	0.242	wegovy, wegovy south africa, south, africa, ozempic south africa
2	0.238	weight, loss, ozempic weight loss, weight loss, semaglutide weight loss
3	0.225	+side effect, side, +effect, ozempic, price
4	0.233	dischem, ozempic price dischem, price, wegovy, wegovy south africa
5	0.230	+injection, ozempic injection, saxenda, saxenda injection, ozempic
6	0.242	ozempic price, south africa, price, south, africa
7	0.241	semaglutide, semaglutide south africa, semaglutide weight loss, south, africa
8	0.238	ozempic dosage, ozempic face, face, dosage, ozempic

Table 23 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Spain

#	Cutoff score	Included search queries
1	0.170	adelgazar, para, ozempic para adelgazar, semaglutida para adelgazar, ozempic para adelgazar precio
2	0.155	tecnic, ficha, ozempic ficha tecnica, ozempic, semaglutida
3	0.157	secundarios, efectos, ozempic efectos secundarios, efectos secundarios ozempic, ozempic
4	0.167	receta, sin, ozempic sin receta, ozempic comprar sin receta, ozempic precio sin receta
5	0.165	mg, 1 mg, precio, precio ozempic, ozempic
6	0.164	que, es, ozempic para que sirve, sirve, que es ozempic
7	0.169	comprar, ozempic comprar, online, comprar ozempic, semaglutida
8	0.177	semaglutida, precio, semaglutida precio, ozempic precio, pastillas
9	0.168	opiniones, ozempic opiniones, ozempic para adelgazar opiniones, ozempic, obesidad
10	0.163	obesidad, ozempic obesidad, semaglutide, ozempic, precio

Table 24 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Sweden

#	Cutoff score	Included search queries
1	0.188	biverkningar, ozempic biverkningar, ozempic, flashback, ozempic flashback
2	0.192	fass, ozempic fass, fass ozempic, ozempic, semaglutide
3	0.193	weight, loss, ozempic weight loss, ozempic, lager
4	0.189	viktmedgång, ozempic viktmedgång, ozempic, apotek, hjärtat
5	0.188	pris, ozempic pris, ozempic, lager, i
6	0.195	ozempic i lager, i, lager, ozempic, viktmedgång
7	0.196	hjärtat, apoteket, apoteket hjärtat, apotek, ozempic apotek
8	0.194	viktminskning, ozempic viktminskning, semaglutid, ozempic, tablett
9	0.195	sverige, ozempic sverige, semaglutide, wegovy, ozempic
10	0.191	mg, 1 mg, ozempic, ozempic flashback, flashback
11	0.203	receptfritt, ozempic receptfritt, semaglutid, ozempic, köpa

Table 25 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for Switzerland

#	Cutoff score	Included search queries
1	0.196	dual dose, dual, dose, ozempic, abnehmen
2	0.194	ozempic perte de poids, poids, perte, de, ozempic
3	0.193	ozempic weight loss, weight, loss, ozempic, suisse
4	0.198	schweiz, semaglutid, semaglutid schweiz, kaufen, ozempic kaufen schweiz
5	0.191	compendium, ozempic compendium, ozempic, semaglutide, suisse
6	0.197	abnehmen, ozempic abnehmen, spritze, ozempic spritze, ozempic
7	0.190	ozempic preis, preis, ozempic, suisse, ozempic switzerland
8	0.190	ozempic nebenwirkungen, nebenwirkungen, ozempic, suisse, ozempic switzerland
9	0.193	ozempic fixdose, fixdose, ozempic, ozempic switzerland, switzerland
10	0.210	ozempic erfahrungen, erfahrungen, ozempic, ozempic fixdose, fixdose

Table 26 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for United Arab Emirates

Cutoff		
#	score	Included search queries
1	0.237	+side effect, +effect, side, ozempic, ozempic injection
2	0.241	uae, ozempic price, price, ozempic uae, ozempic
3	0.242	weight, loss, ozempic weight loss, ozempic, semaglutide
4	0.247	mg, pen, 1 mg, ozempic pen, 0.25 mg
5	0.243	+semaglutide tablet, +tablet, semaglutide, semaglutide injection, injection
6	0.250	injection, ozempic injection, mounjaro, mounjaro injection, semaglutide injection
7	0.231	ozempic dubai, dubai, ozempic, ozempic injection, ozempic weight loss

Table 27 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for United Kingdom of Great Britain and Northern Ireland

Cutoff		
#	score	Included search queries
1	0.172	weight, loss, ozempic weight loss, weight loss, semaglutide weight loss
2	0.160	+effect, side, +side effect, ozempic, semaglutide
3	0.170	buy, buy ozempic, online, online uk, ozempic
4	0.162	+injection, +ozempic injection, semaglutide injection, +weight loss injection, ozempic
5	0.156	pen, ozempic pen, ozempic, +be, ozempic uk
6	0.163	bnf, semaglutide bnf, ozempic bnf, semaglutide, ozempic
7	0.178	uk, ozempic uk, semaglutide uk, ozempic weight loss uk, ozempic uk weight loss
8	0.163	nhs, semaglutide nhs, ozempic nhs, semaglutide, ozempic
9	0.161	+semaglutide tablet, +tablet, semaglutide, cost, ozempic cost
10	0.159	saxenda, saxenda uk, uk, online, +ozempic review
11	0.158	+ozempic review, +review, ozempic, ozempic uk, spc
12	0.162	+boot, boots ozempic, +ozempic boot, ozempic, cost
13	0.179	semaglutide, semaglutide weight loss, semaglutide uk, spc, semaglutide injection

Table 28 Top NLP themes found in ‘semaglutide’ topic (/g/11dyzd5sn) for United States of America

Cutoff		
#	score	Included search queries
1	0.172	weight, loss, weight loss, ozempic weight loss, weight loss ozempic
2	0.166	+effect, side, +side effect, effects ozempic, ozempic
3	0.170	semaglutide, oral, semaglutide oral, oral semaglutide, semaglutide weight loss
4	0.184	ozempic insulin, insulin, cost, ozempic cost, diabetes
5	0.166	ozempic coupon, coupon, ozempic, oral, semaglutide oral
6	0.166	ozempic pen, pen, injection, ozempic injection, ozempic
7	0.167	ozempic dose, dose, ozempic, oral, semaglutide oral
8	0.169	+ozempic saving, +saving, card, injection, ozempic injection
9	0.173	injection, ozempic injection, ozempic dose, dose, ozempic coupon
10	0.170	ozempic insulin, insulin, +be, ozempic medication, medication
11	0.171	diabetes, ozempic diabetes, ozempic medication, medication, oral

Supplementary Appendix 4

Heat map of Quarterly variation in query priority across all countries with Ozempic/semaglutide (quarters with no data omitted)

Figure 1 **Quarterly variation in query priority for Australia**



Figure 2 Quarterly variation in query priority for Belgium

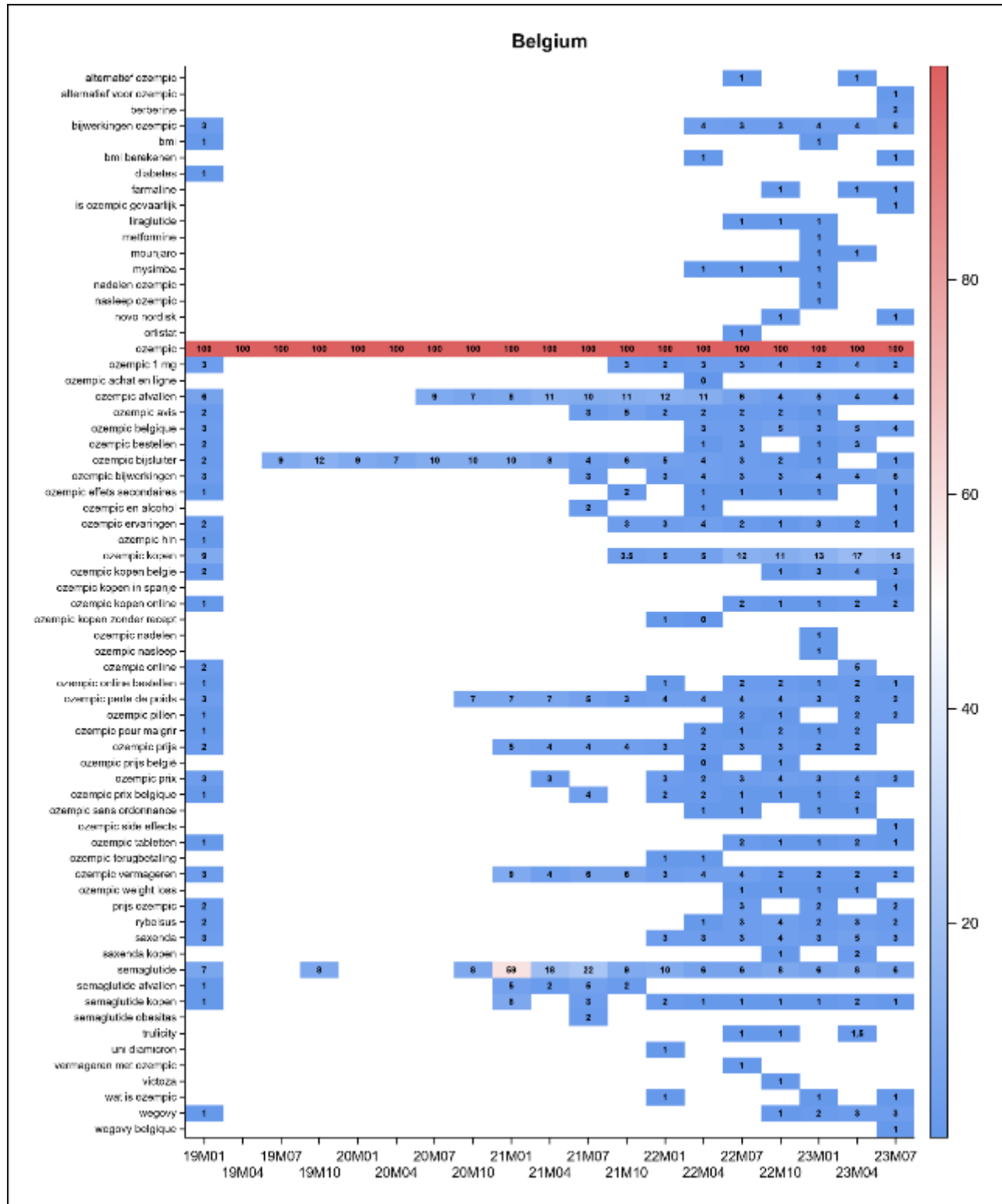


Figure 3 Quarterly variation in query priority for Brazil



Figure 4 Quarterly variation in query priority for Bulgaria

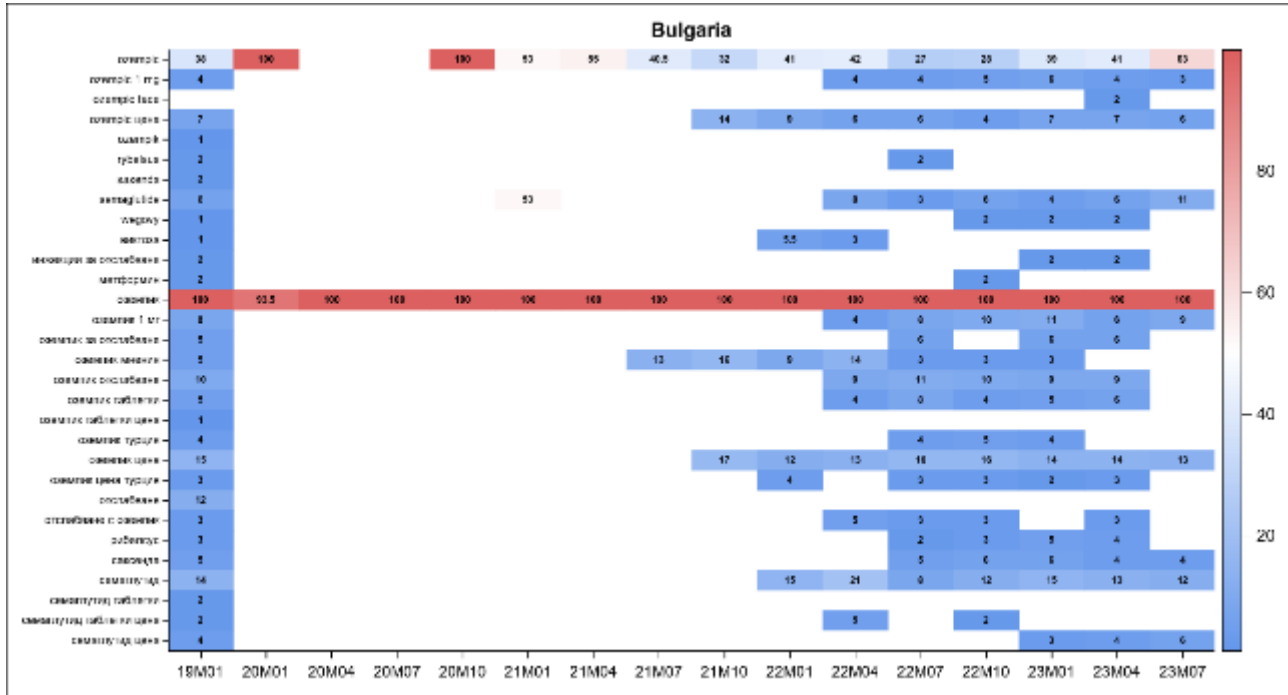


Figure 5 Quarterly variation in query priority for Canada

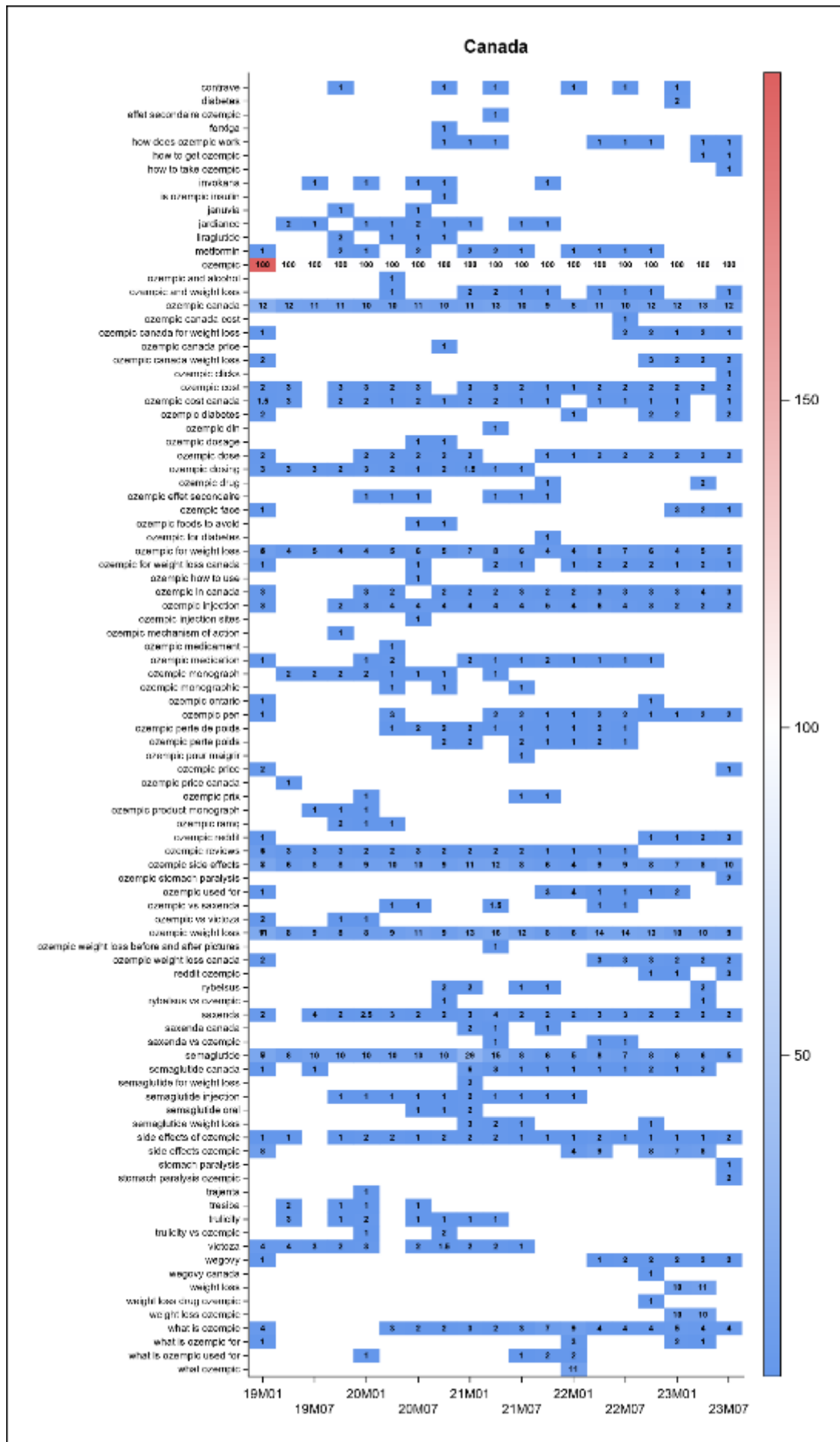


Figure 6 Quarterly variation in query priority for Chile

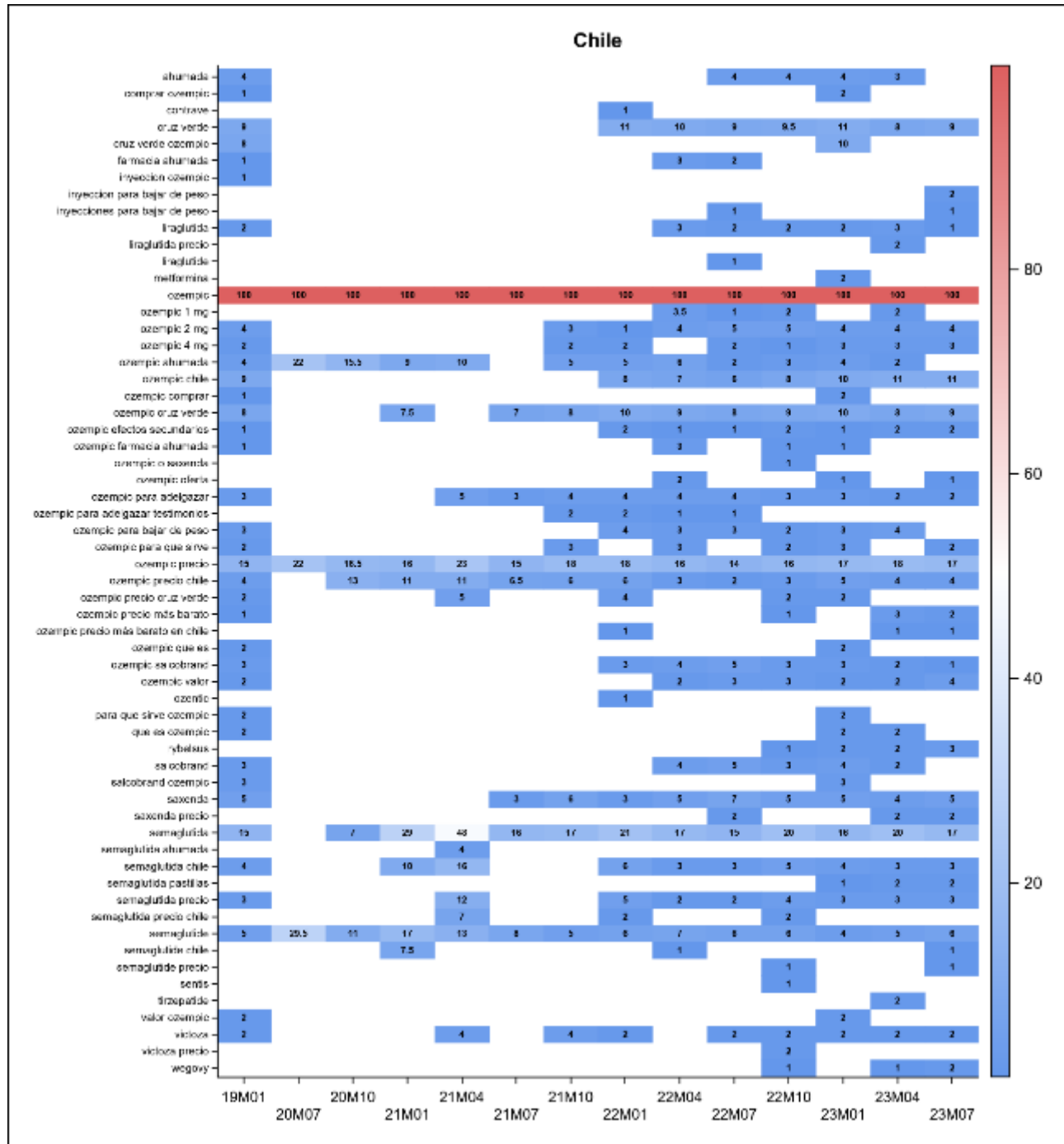


Figure 7 Quarterly variation in query priority for Denmark

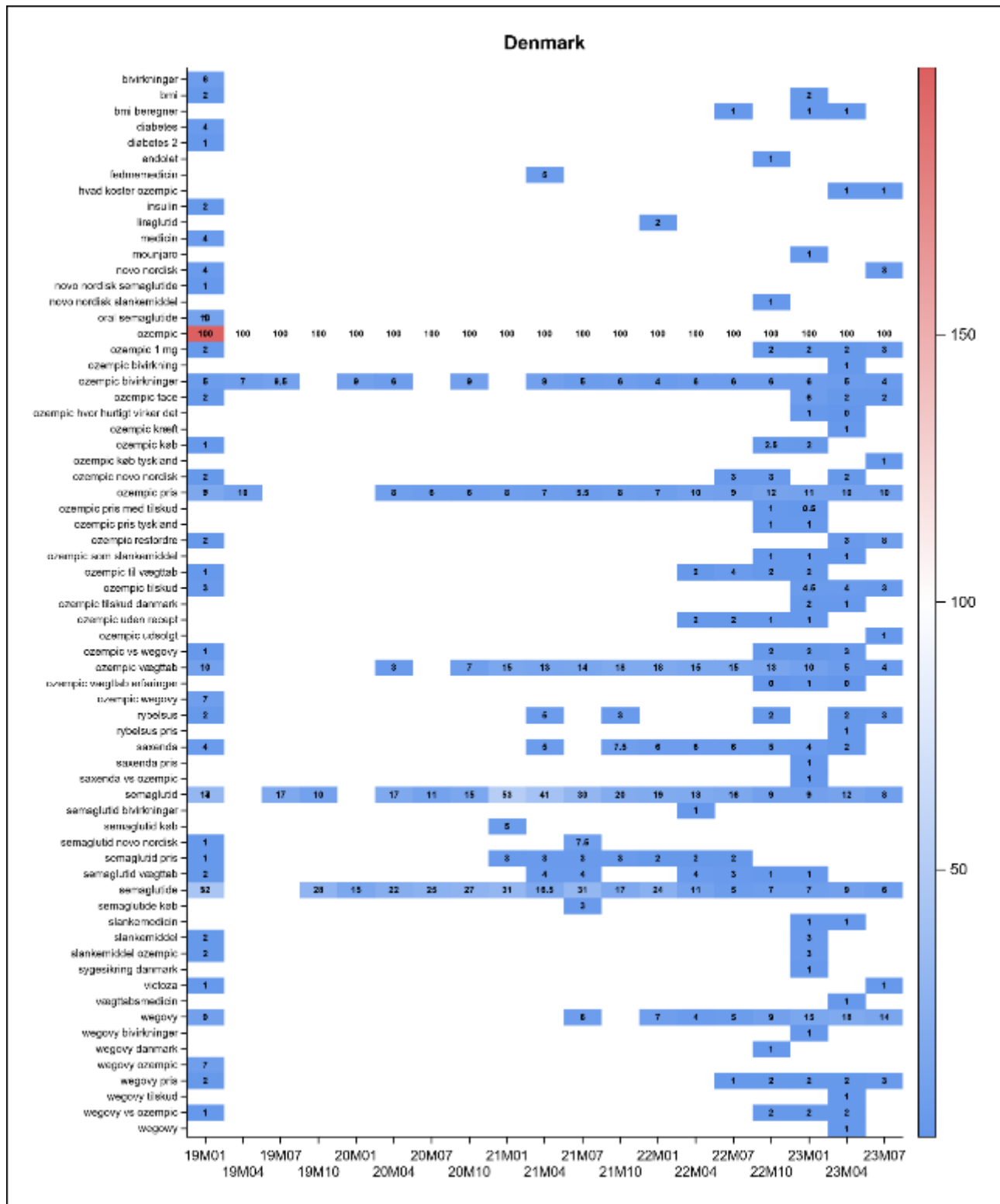


Figure 8 Quarterly variation in query priority for Finland

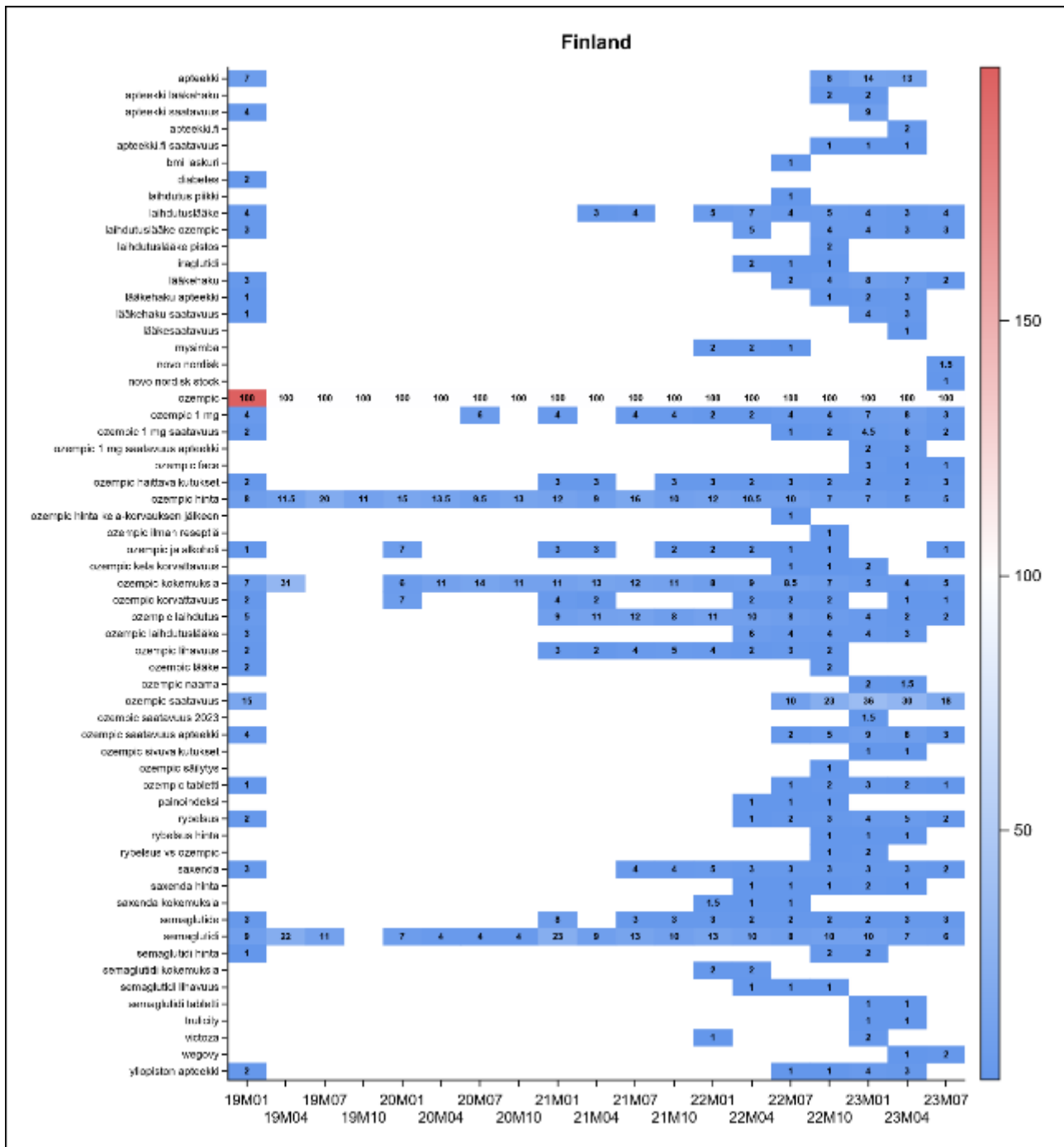


Figure 9 **Quarterly variation in query priority for Germany**

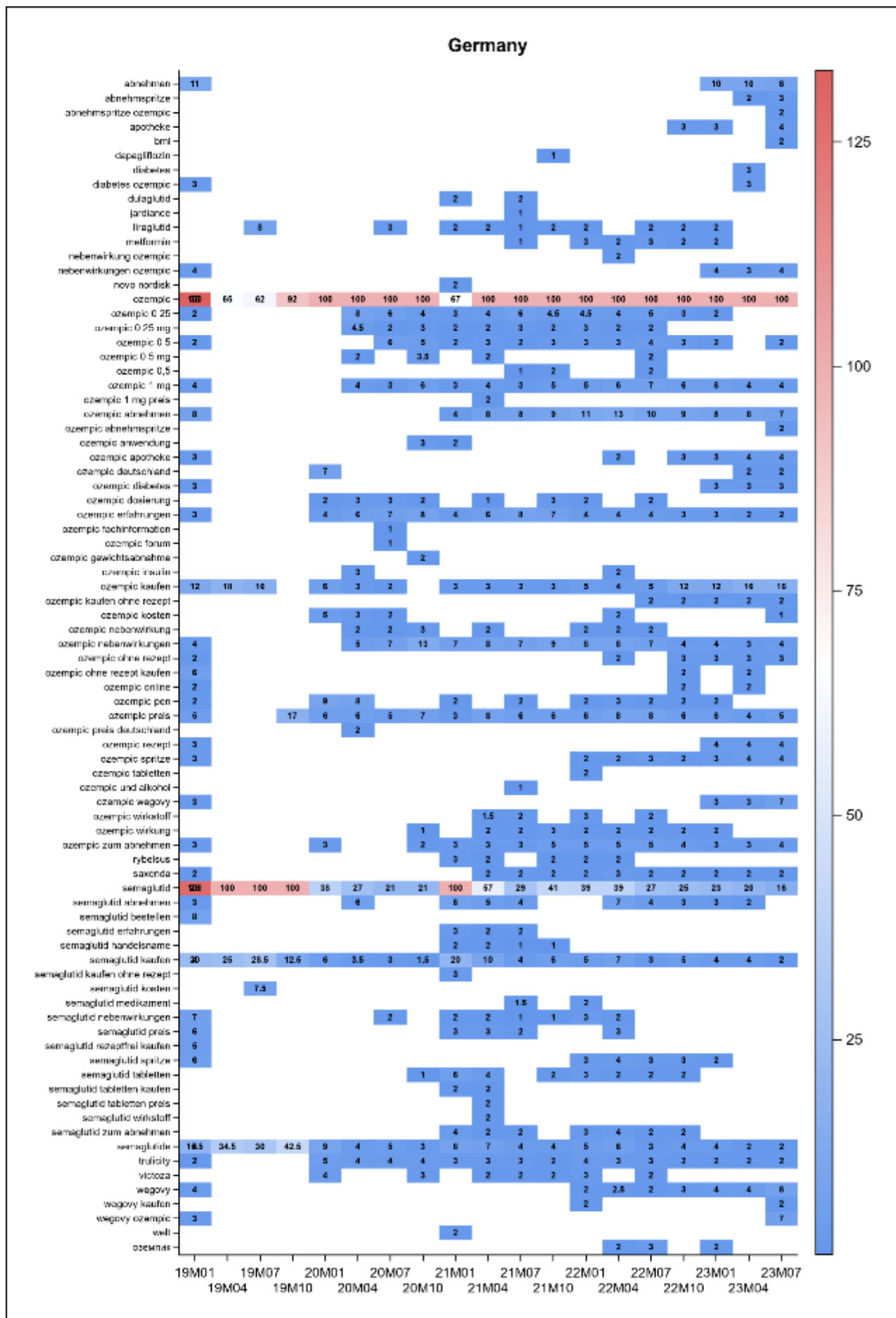


Figure 10 Quarterly variation in query priority for Ireland

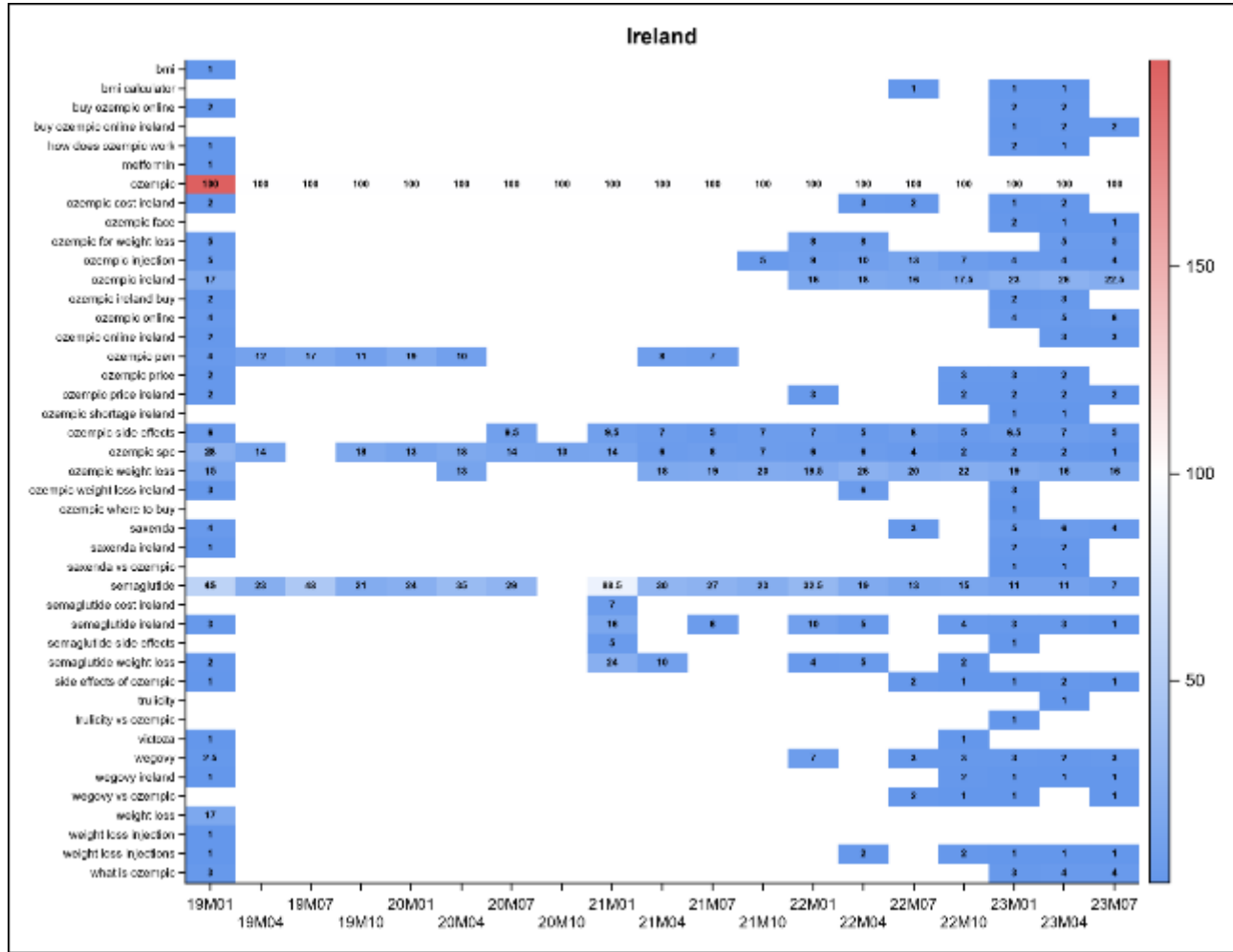


Figure 11 Quarterly variation in query priority for Israel

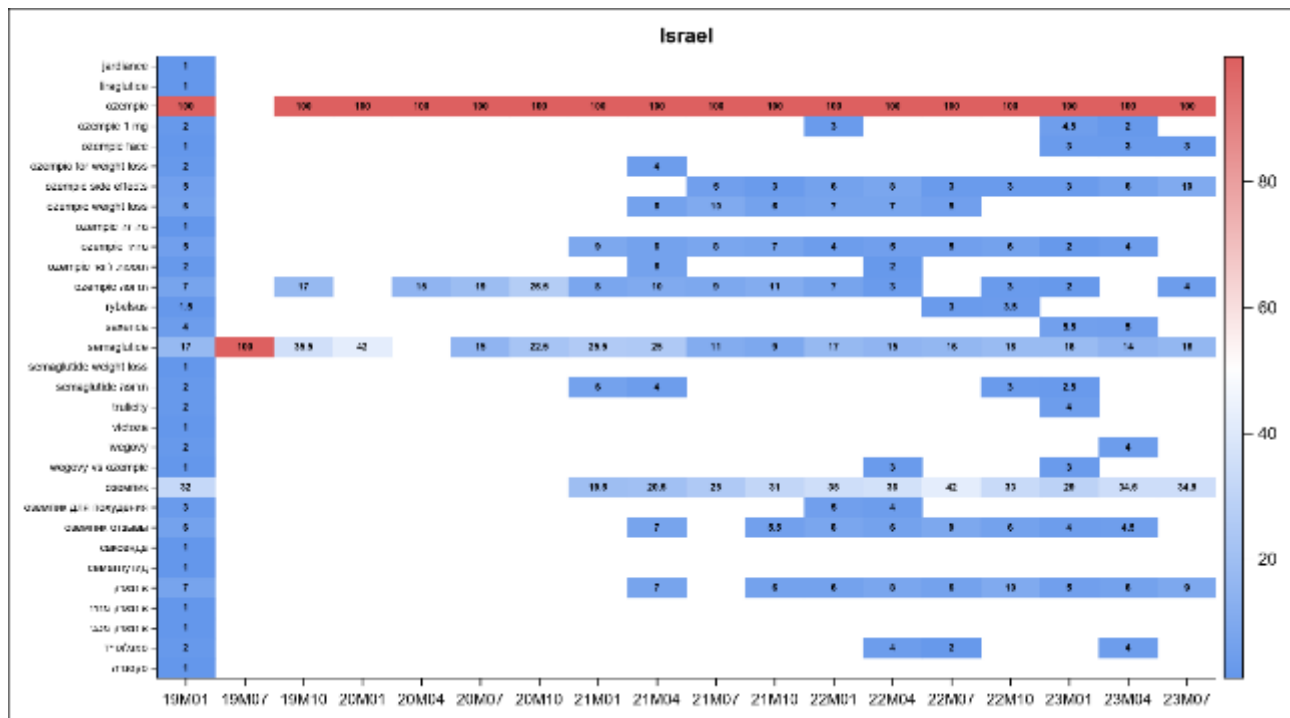


Figure 12 Quarterly variation in query priority for Lebanon

Figure 14 **Quarterly variation in query priority for Norway**

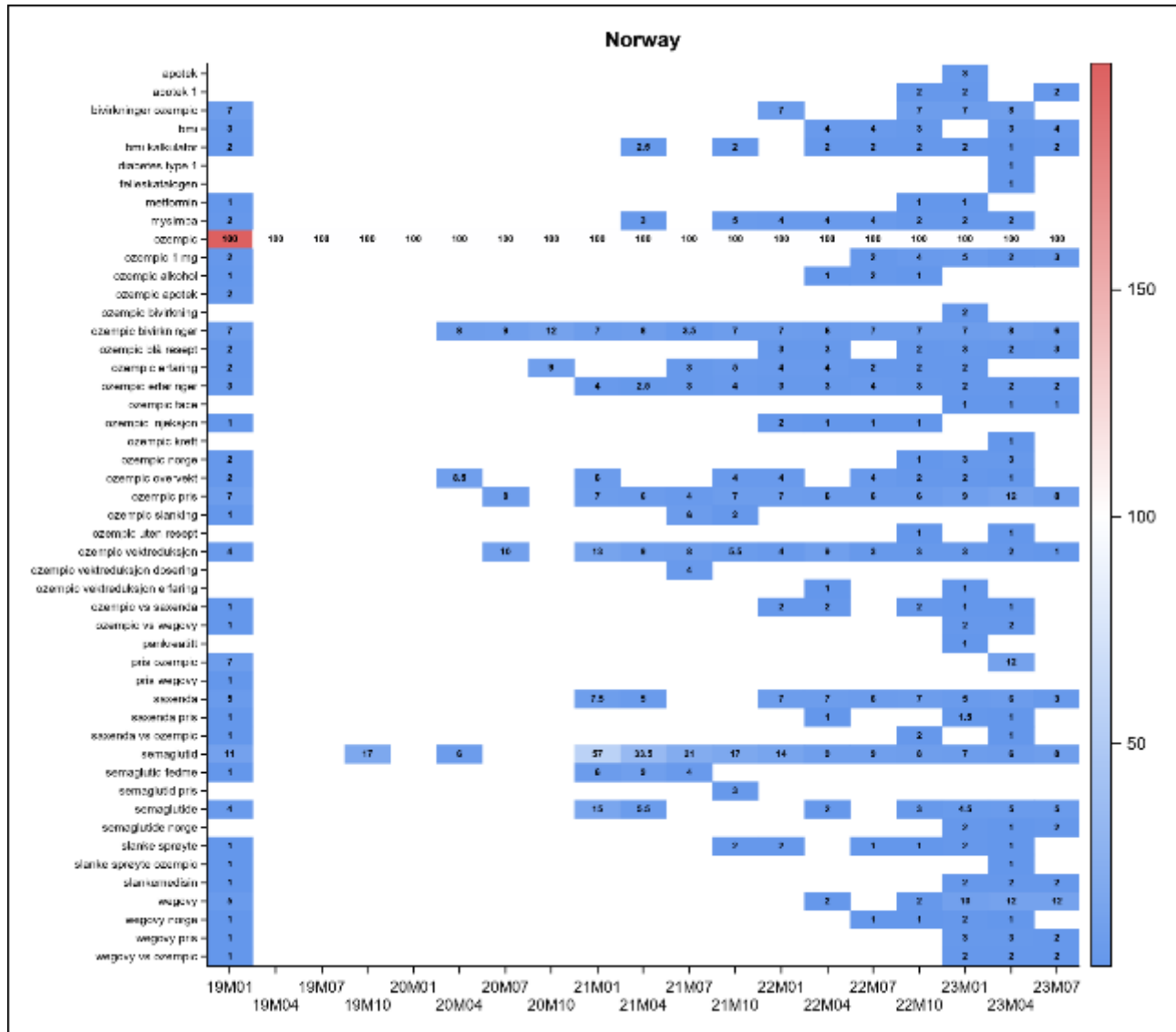


Figure 15 **Quarterly variation in query priority for Poland**

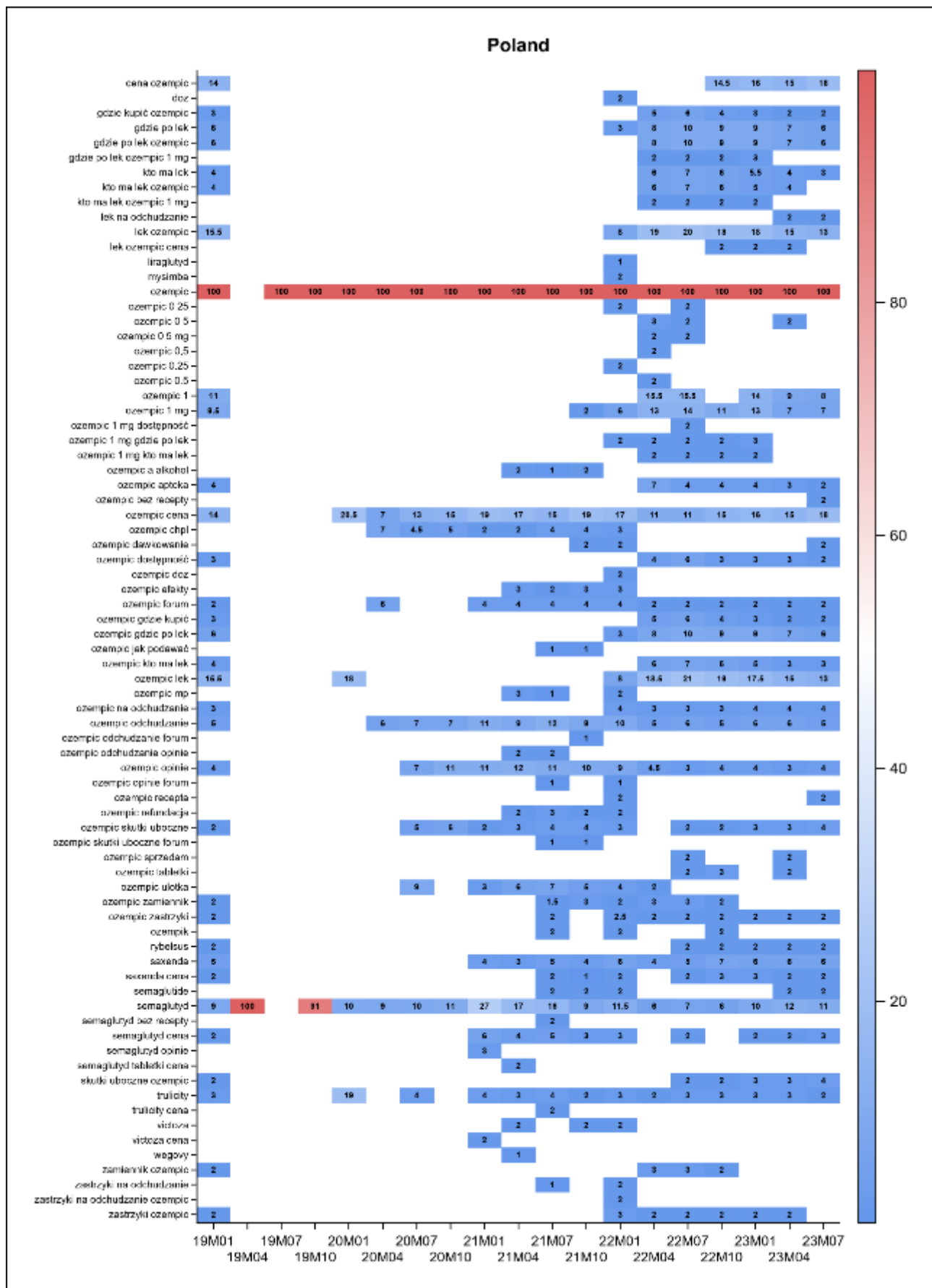


Figure 16 Quarterly variation in query priority for Portugal



Figure 17 **Quarterly variation in query priority for Puerto Rico**

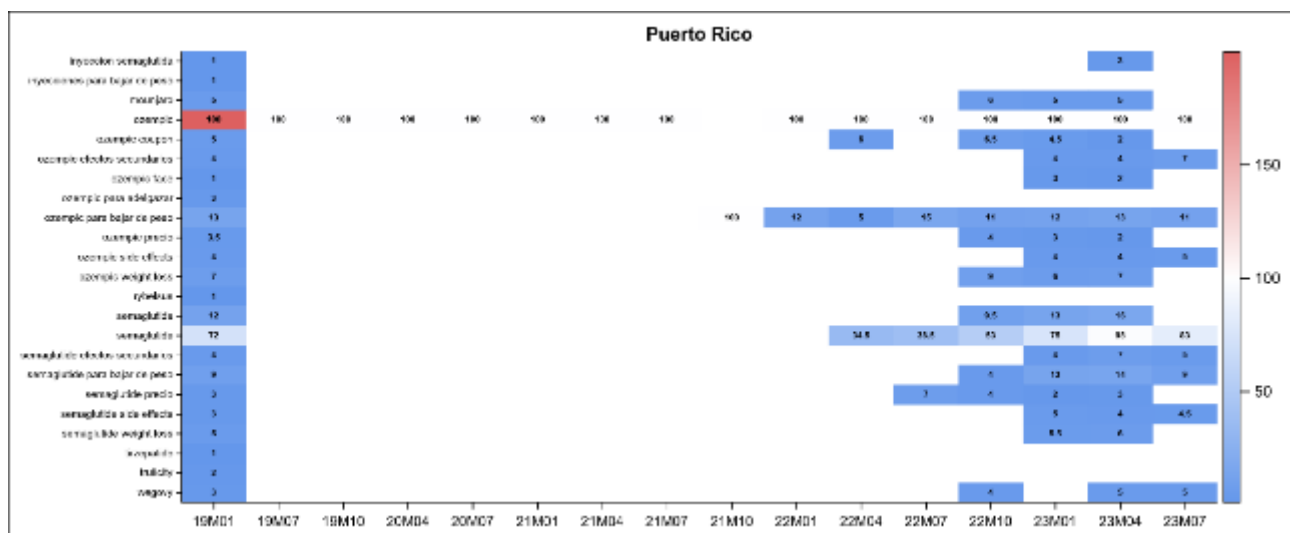


Figure 18 Quarterly variation in query priority for Romania

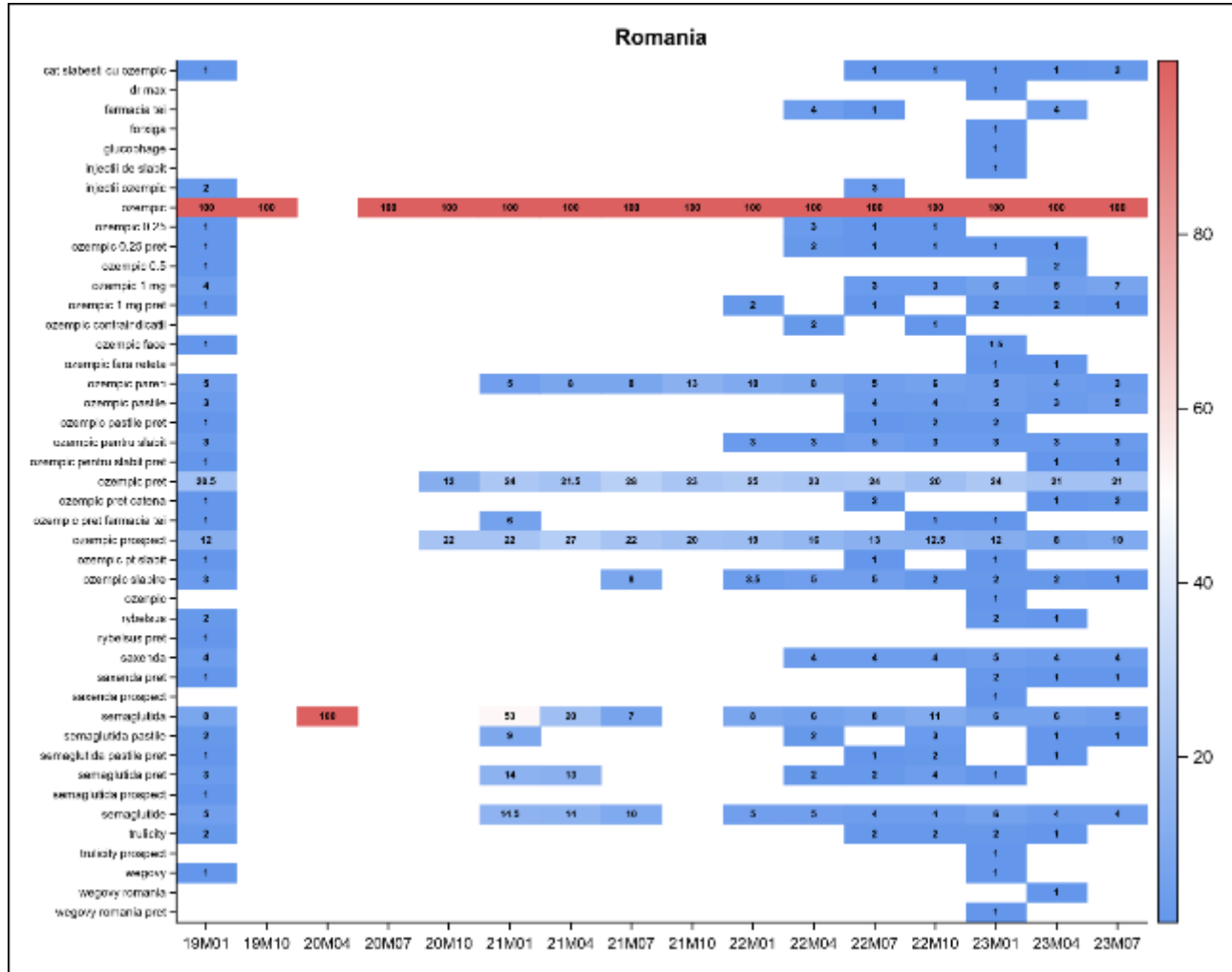


Figure 19 Quarterly variation in query priority for Saudi Arabia

Figure 20 **Quarterly variation in query priority for Serbia**

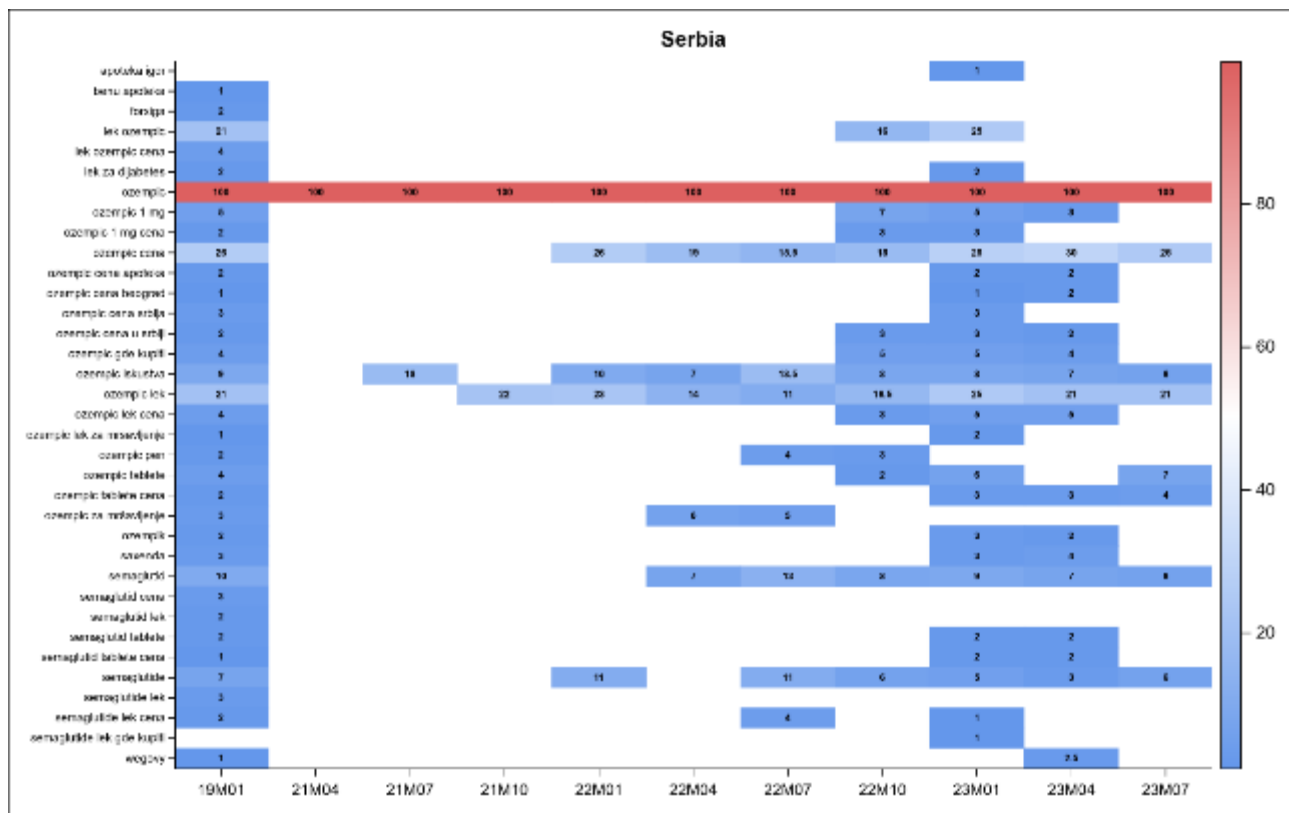


Figure 21 **Quarterly variation in query priority for South Africa**



Figure 22 Quarterly variation in query priority for Spain



Figure 23 Quarterly variation in query priority for Sweden

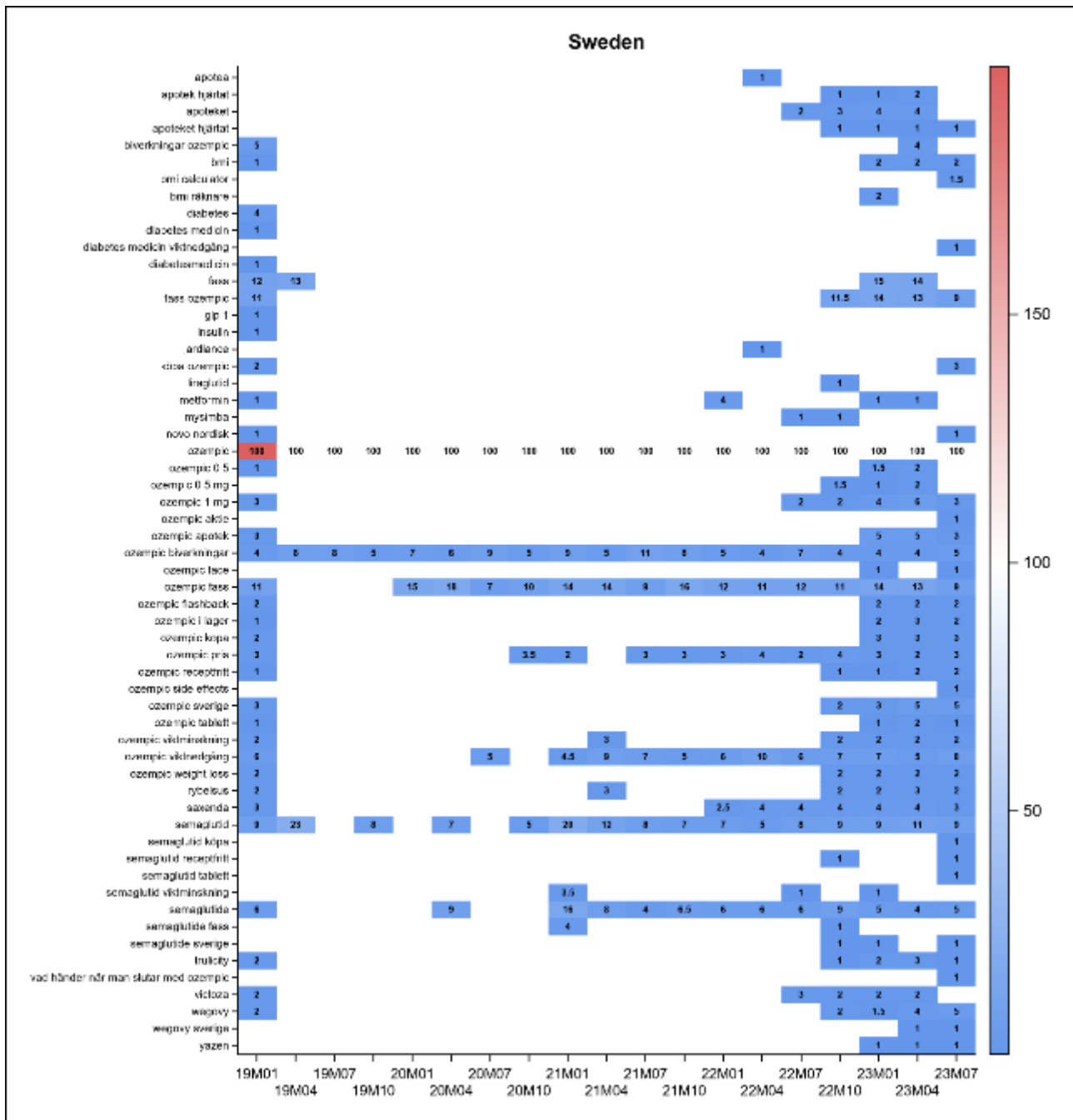


Figure 24 Quarterly variation in query priority for Switzerland

[illegible]

Figure 26 **Quarterly variation in query priority for United Kingdom of Great Britain and Northern Ireland**

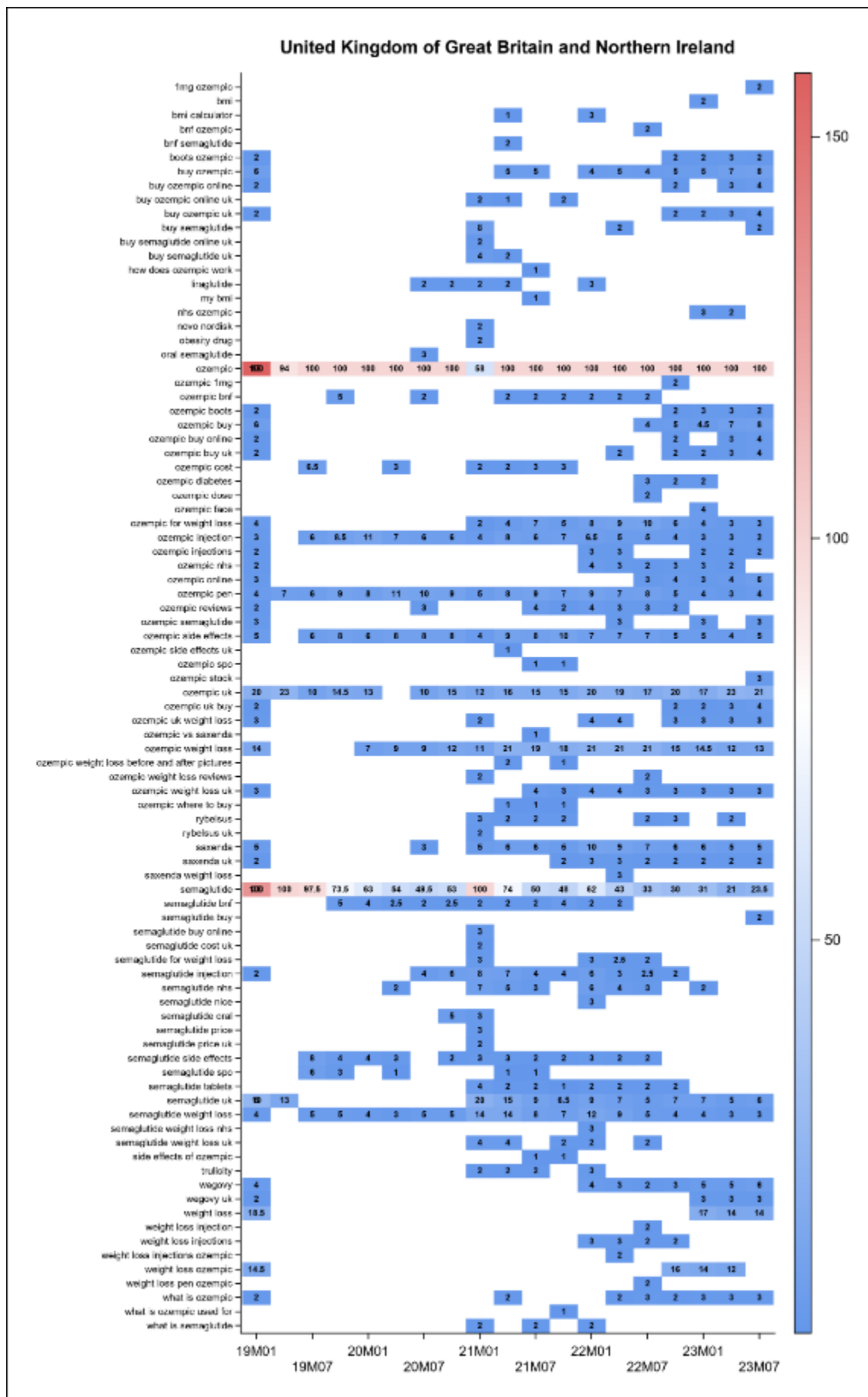
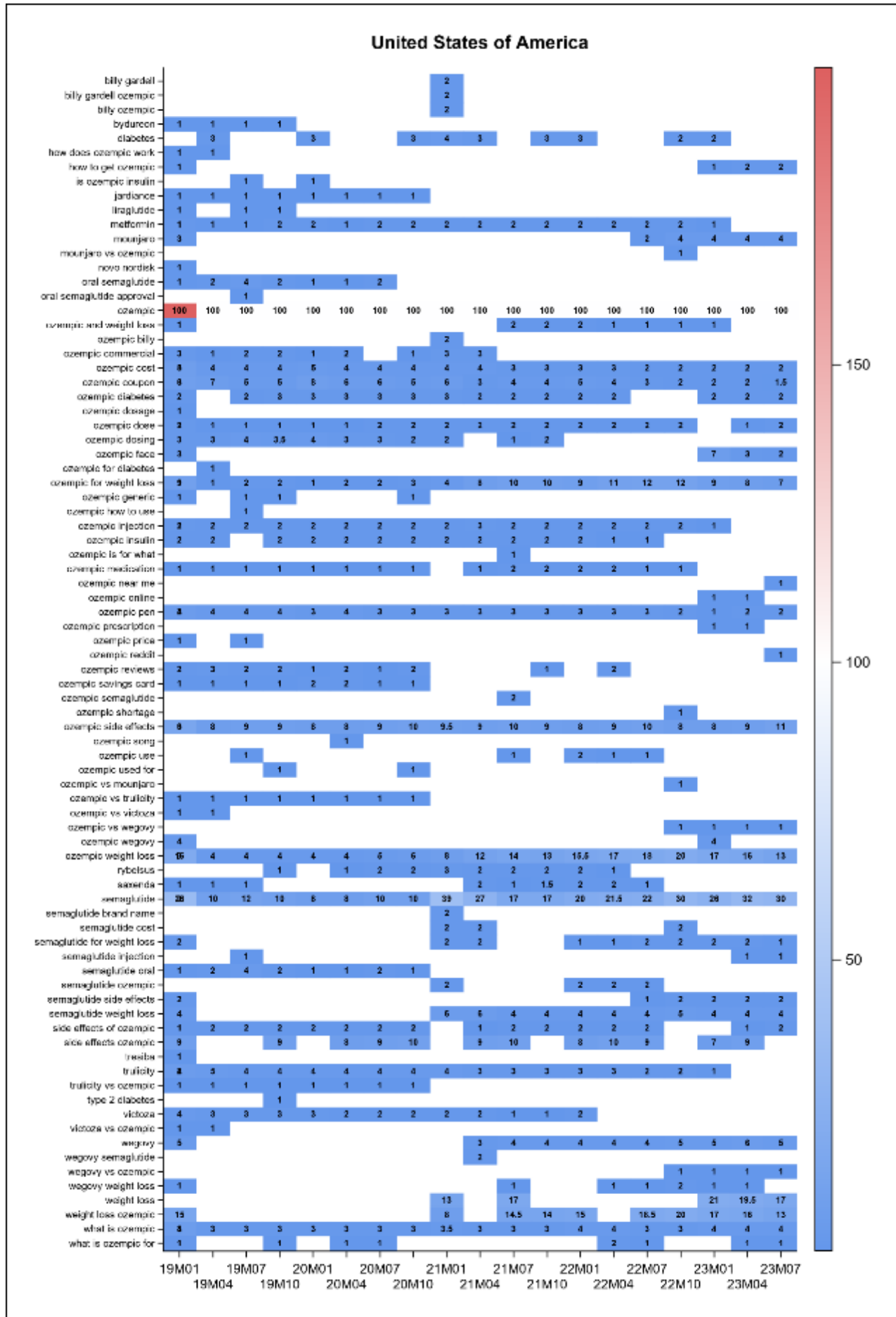


Figure 27 Quarterly variation in query priority for United States of America



Supplementary Appendix 5

Heat map of Quarterly variation in query priority across all countries without Ozempic/semaglutide (quarters with no data omitted)

Figure 28 **Quarterly variation in query priority for Australia without Ozempic/semaglutide**

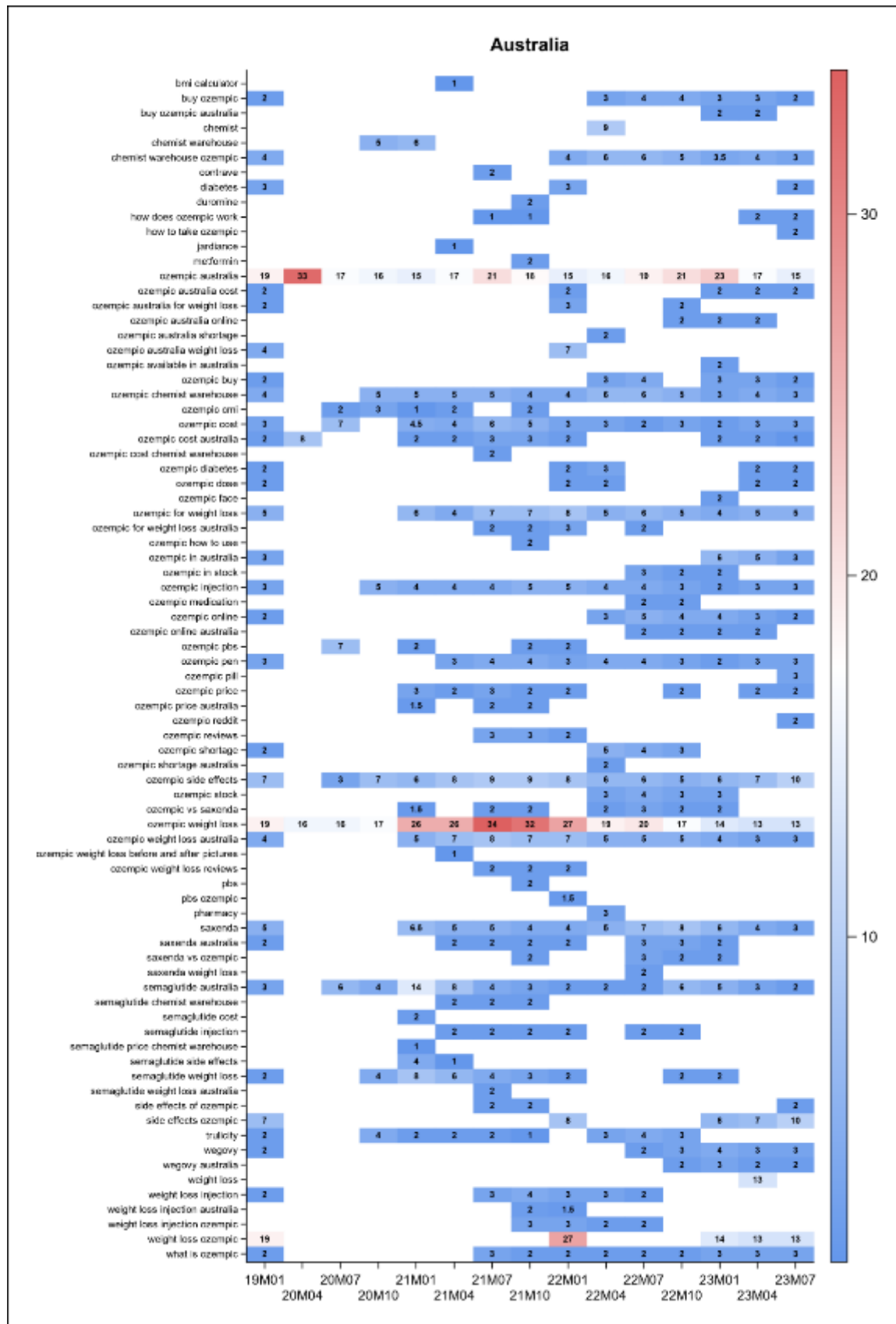


Figure 29 Quarterly variation in query priority for Belgium without Ozempic/semaglutide



Figure 30 Quarterly variation in query priority for Brazil without Ozempic/semaglutide



Figure 31 **Quarterly variation in query priority for Bulgaria without Ozempic/semaglutide**

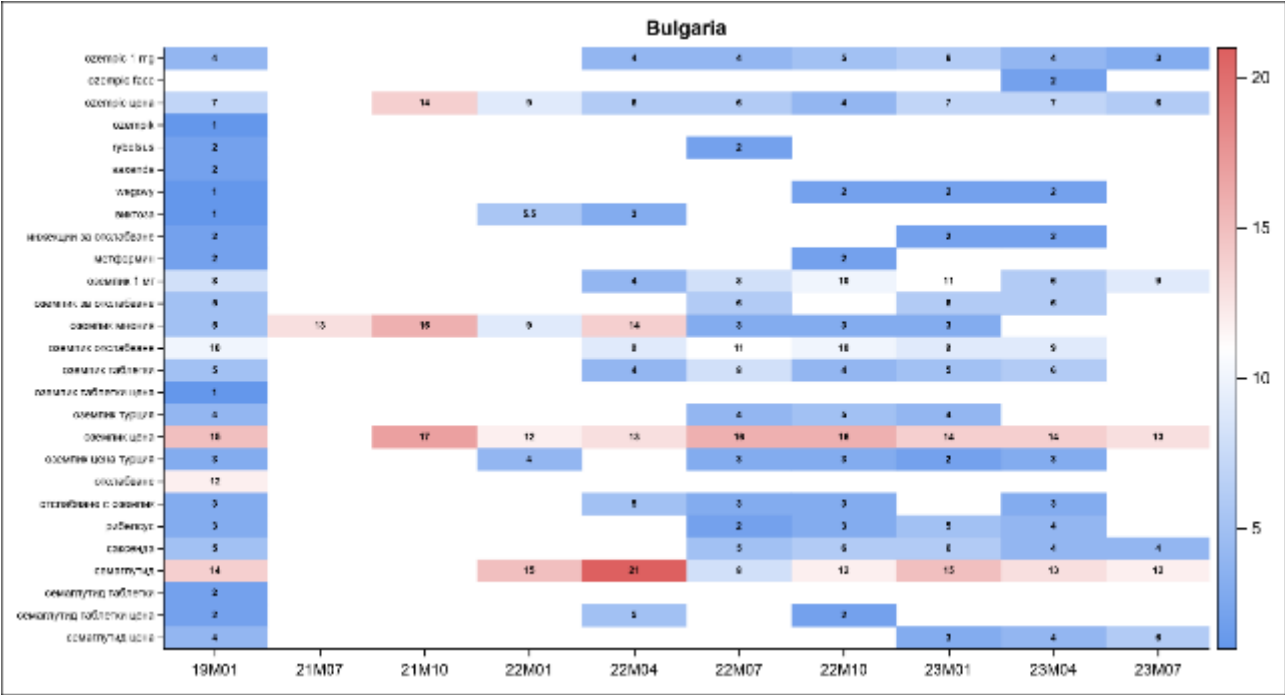


Figure 32 **Quarterly variation in query priority for Canada without Ozempic/semaglutide**

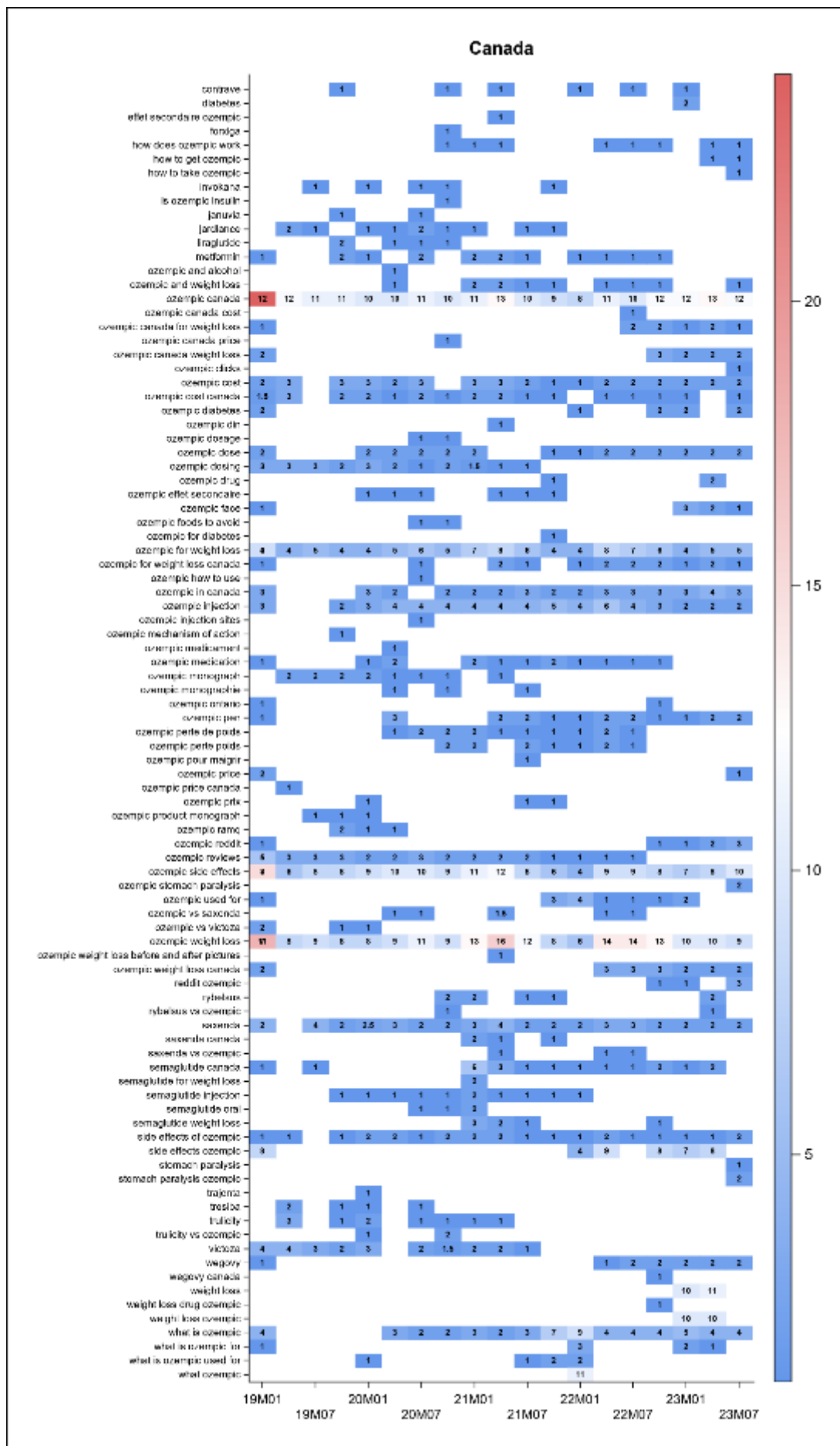


Figure 33 Quarterly variation in query priority for Chile without Ozempic/semaglutide

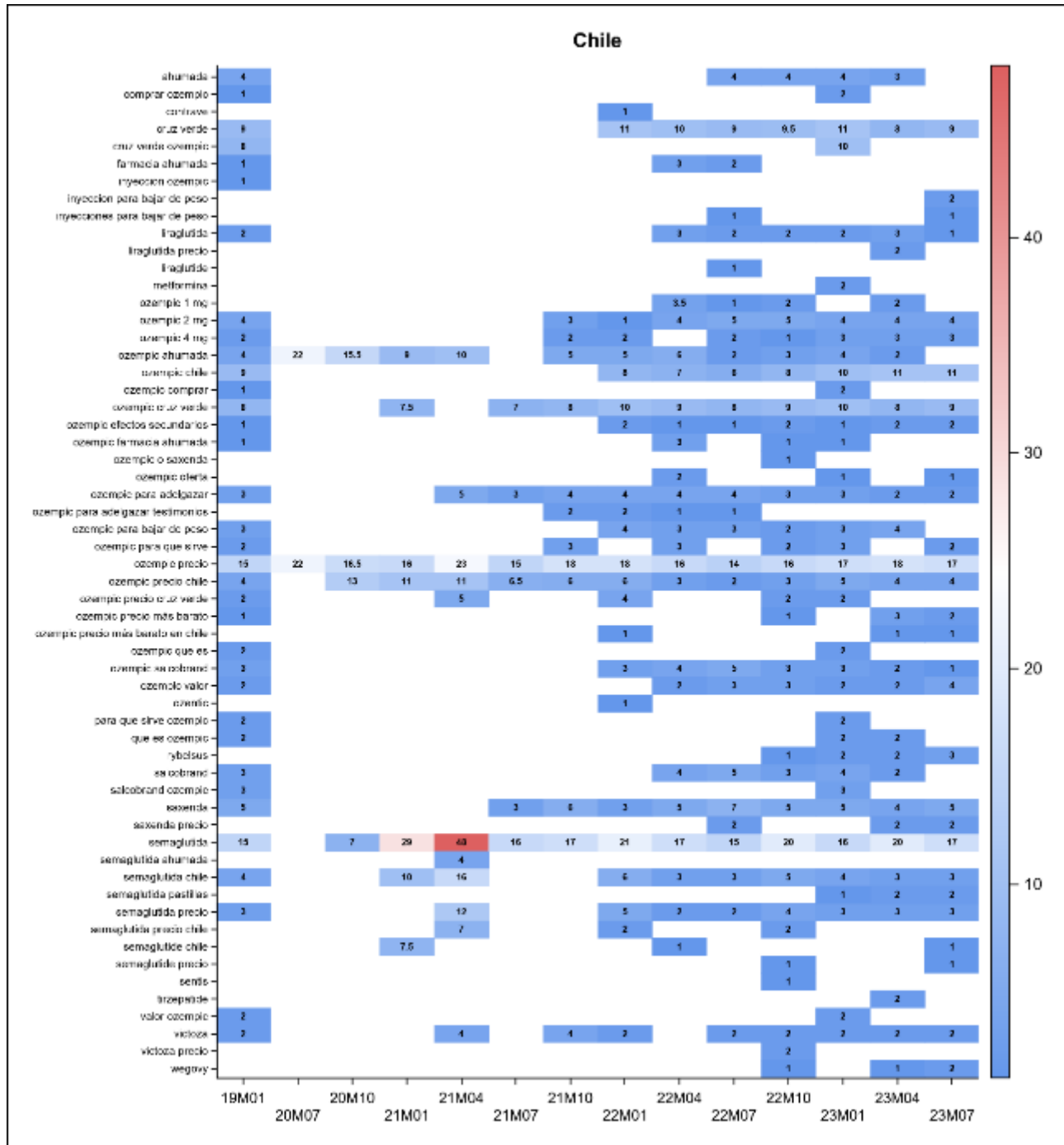


Figure 34 Quarterly variation in query priority for Denmark without Ozempic/semaglutide

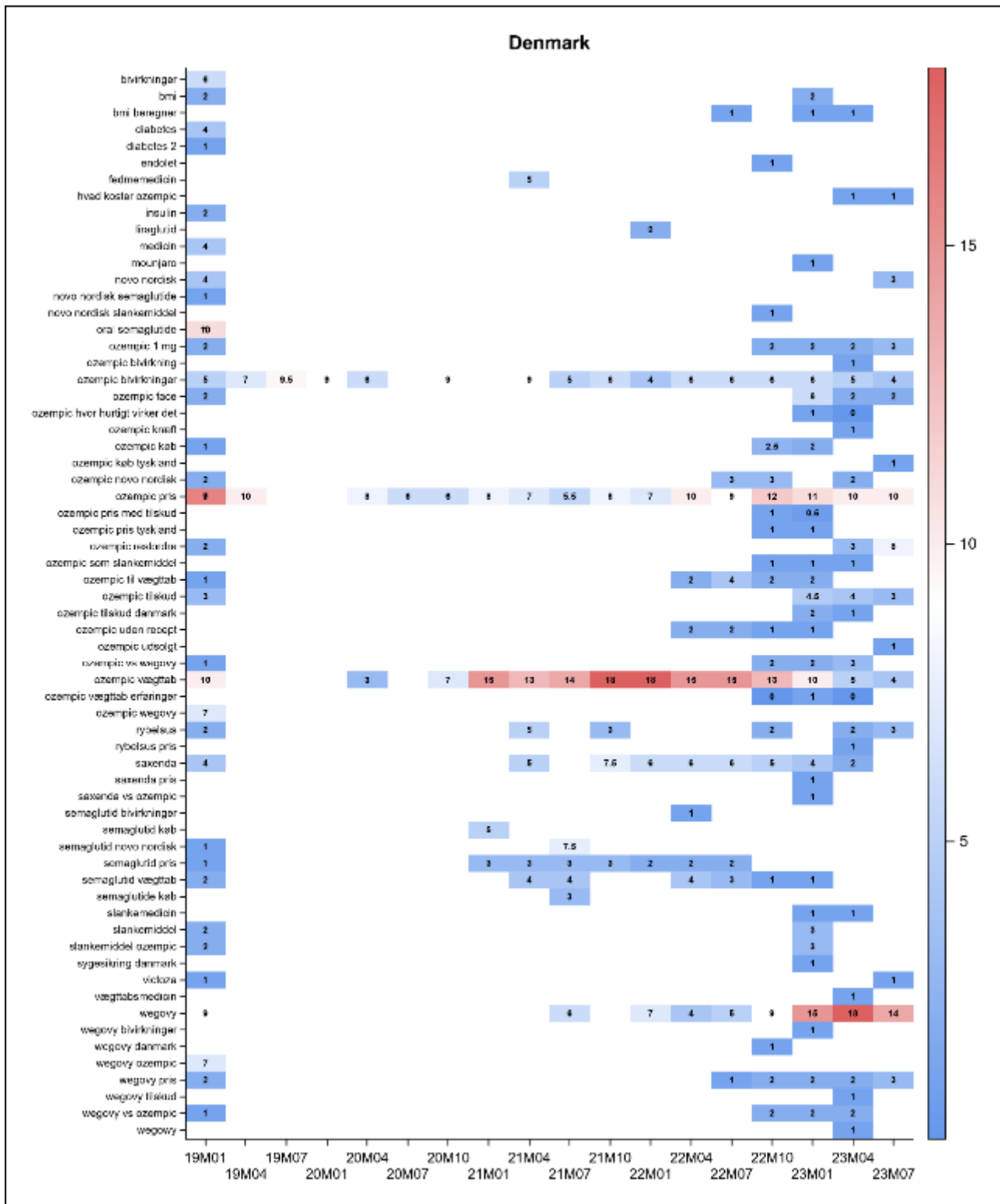


Figure 35 Quarterly variation in query priority for Finland without Ozempic/semaglutide

[illegible]

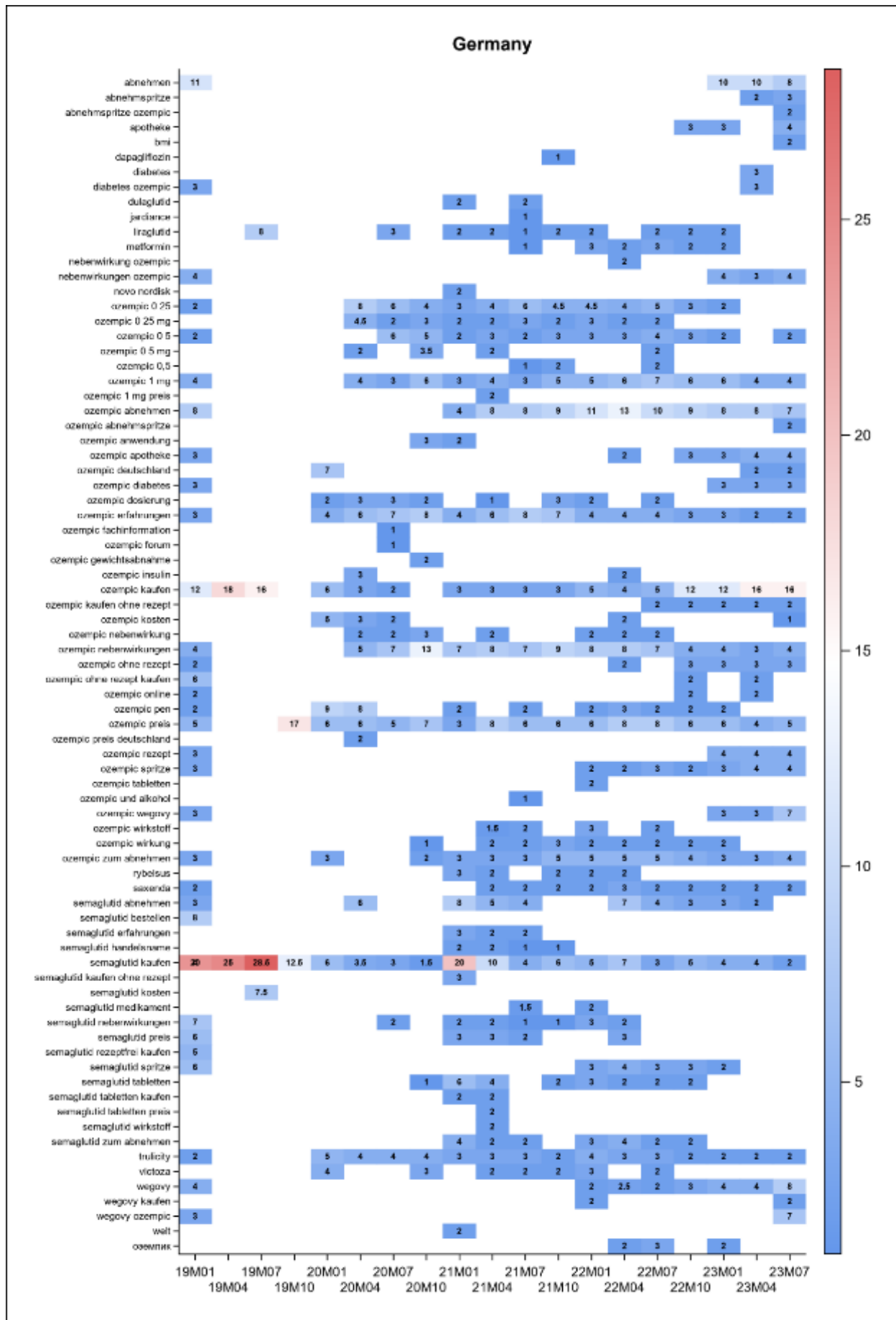


Figure 37 Quarterly variation in query priority for Ireland without Ozempic/semaglutide

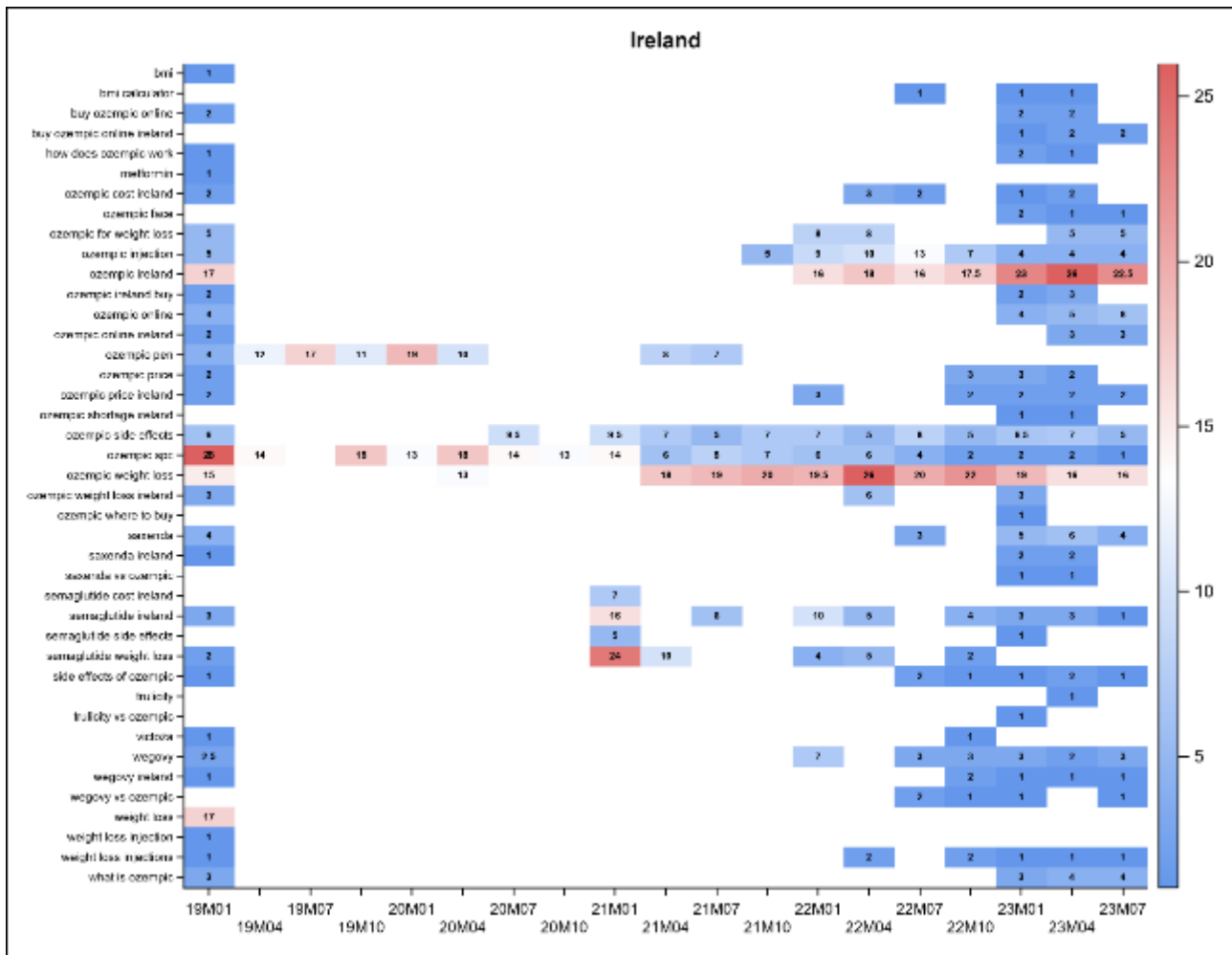


Figure 38 Quarterly variation in query priority for Israel without Ozempic/semaglutide

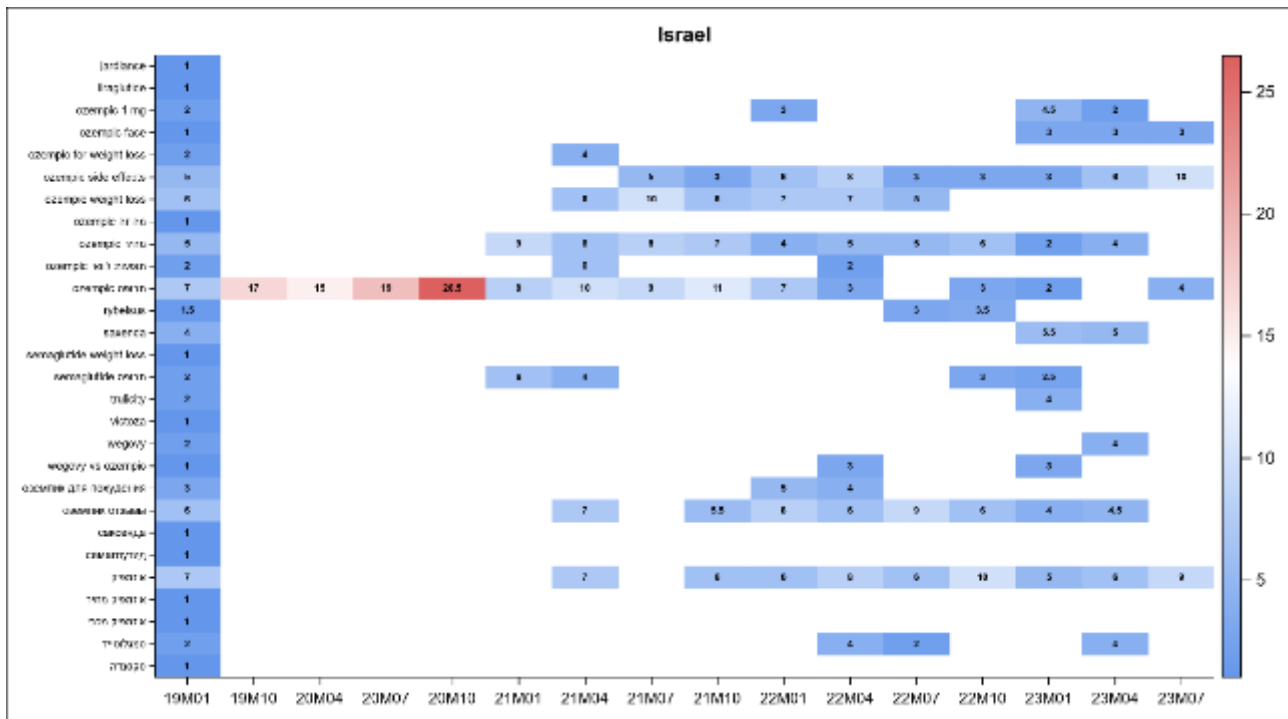


Figure 39 Quarterly variation in query priority for Lebanon without Ozempic/semaglutide

Figure 41 Quarterly variation in query priority for Norway without Ozempic/semaglutide

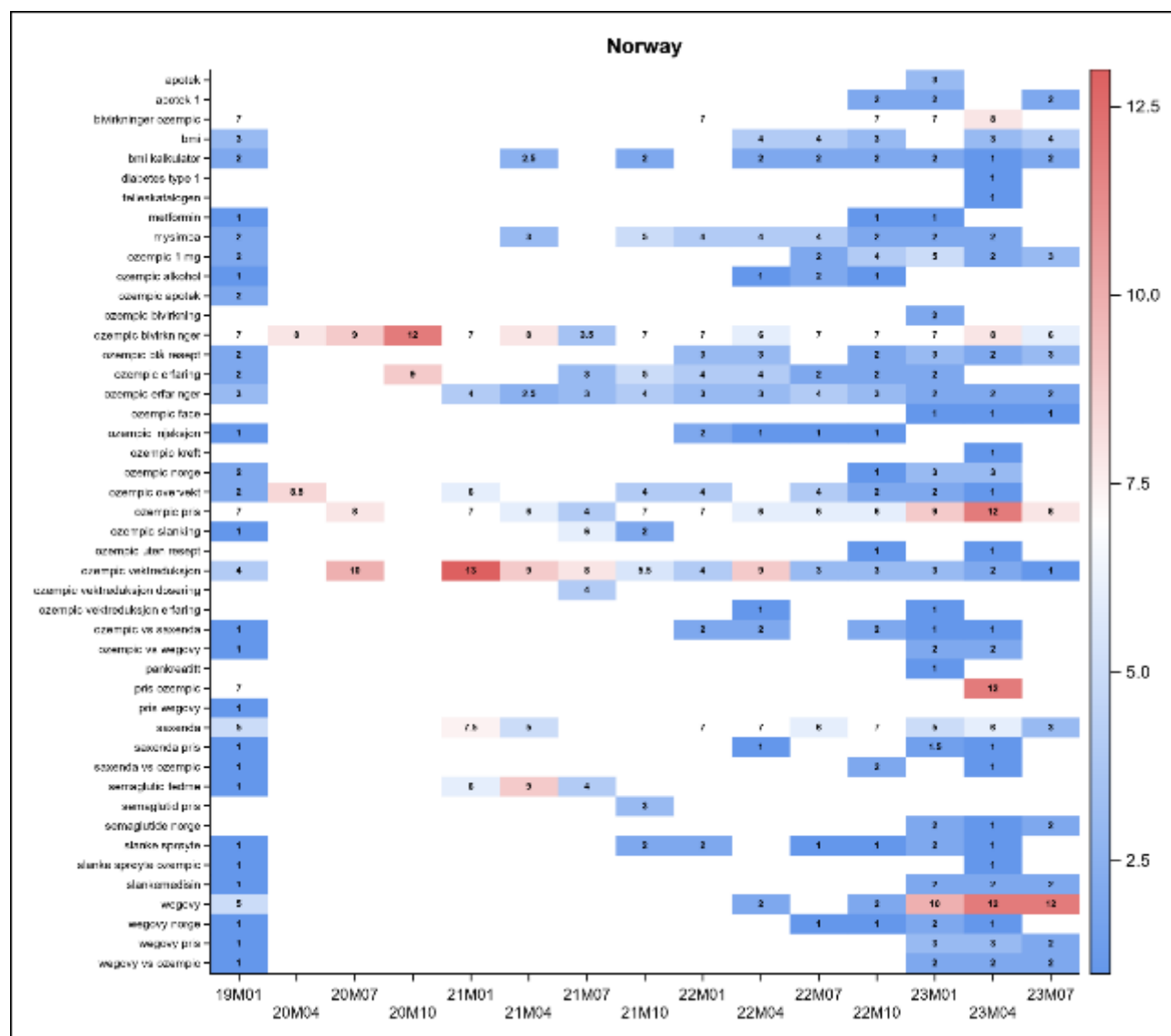


Figure 42 Quarterly variation in query priority for Poland without Ozempic/semaglutide

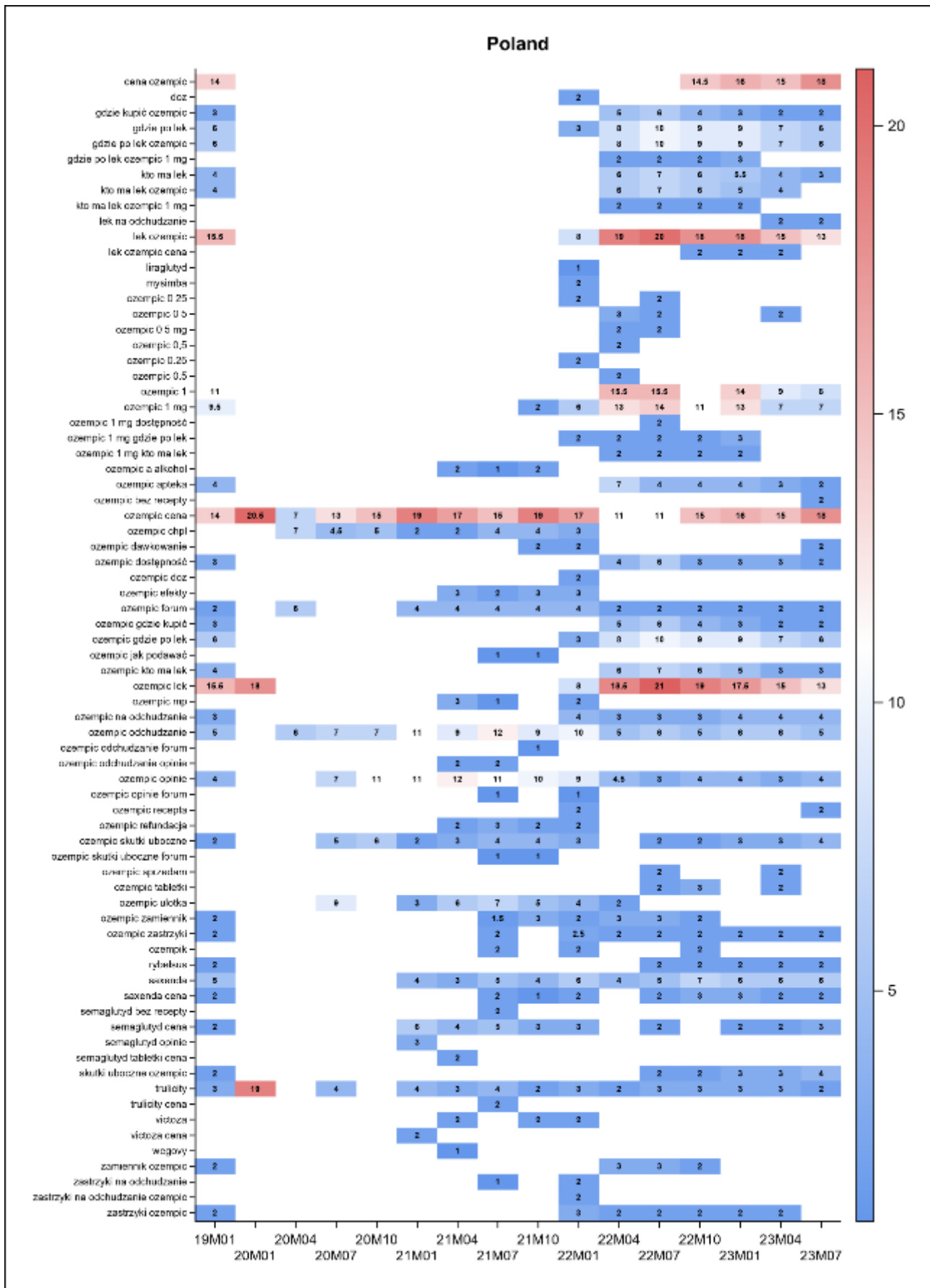


Figure 43 Quarterly variation in query priority for Portugal without Ozempic/semaglutide



Figure 44 Quarterly variation in query priority for Puerto Rico without Ozempic/semaglutide

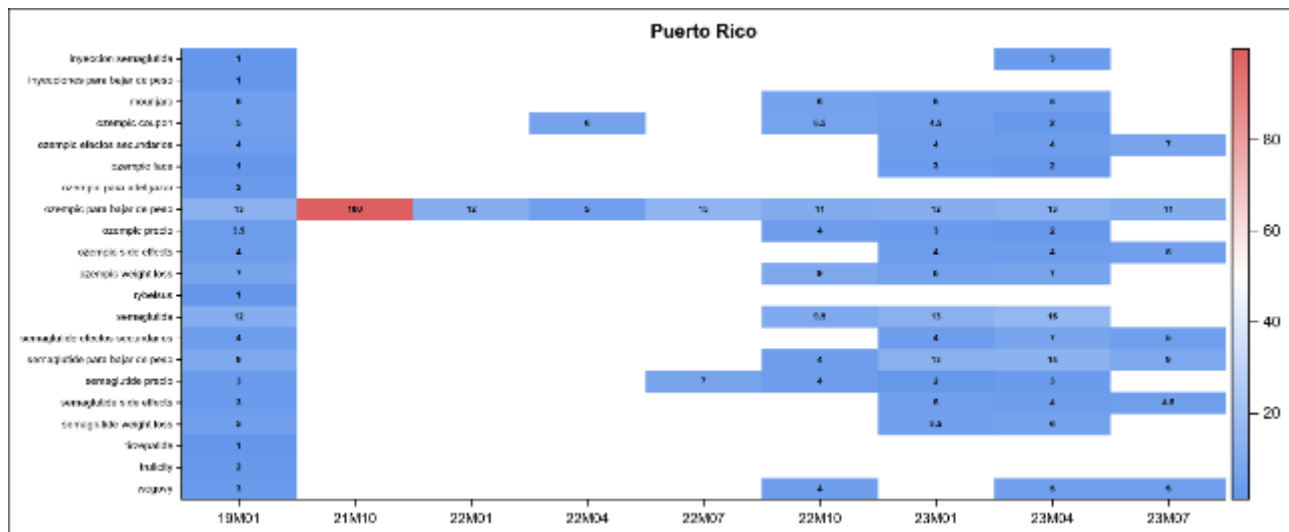


Figure 45 Quarterly variation in query priority for Romania without Ozempic/semaglutide

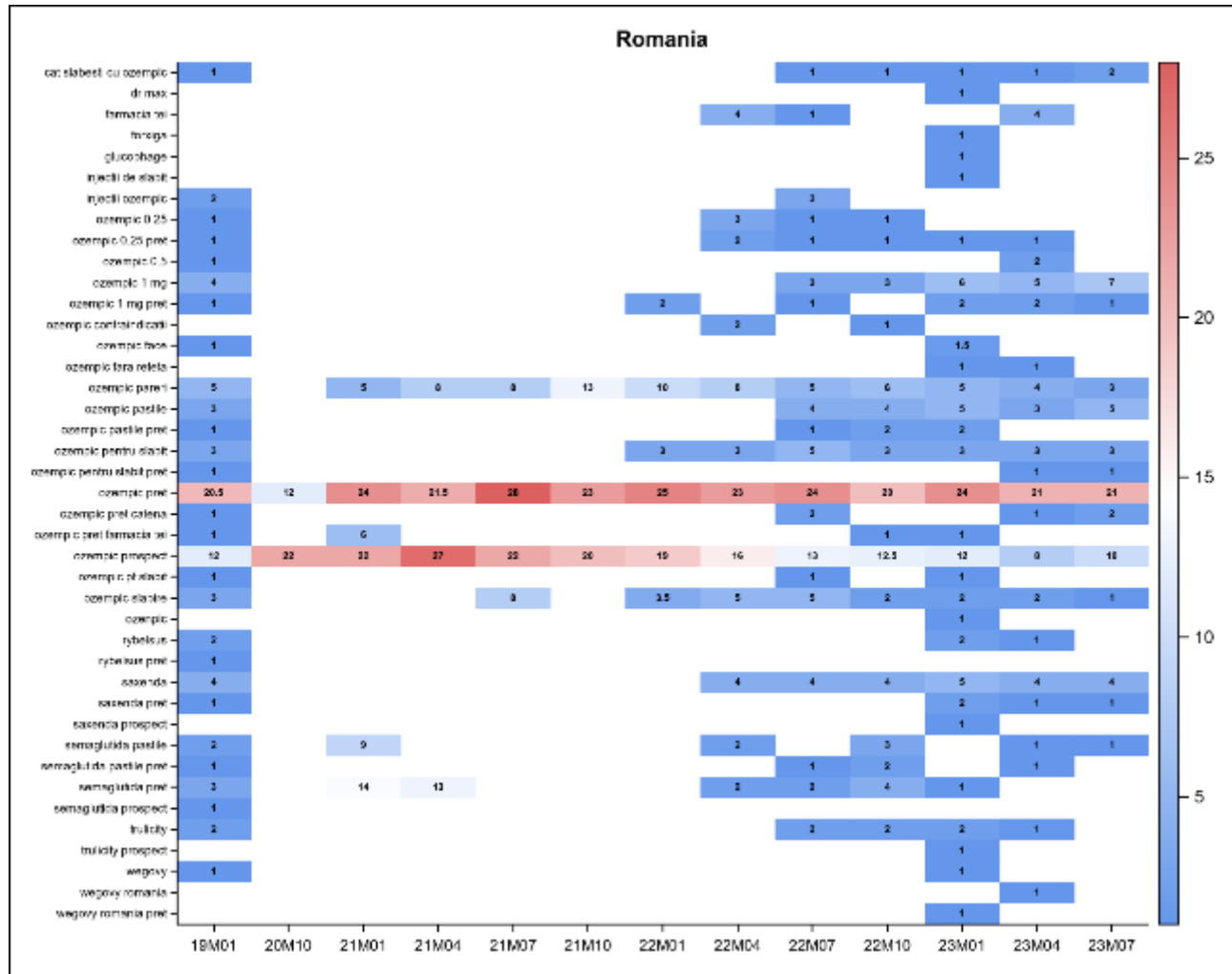


Figure 46 Quarterly variation in query priority for Saudi Arabia without Ozempic/semaglutide

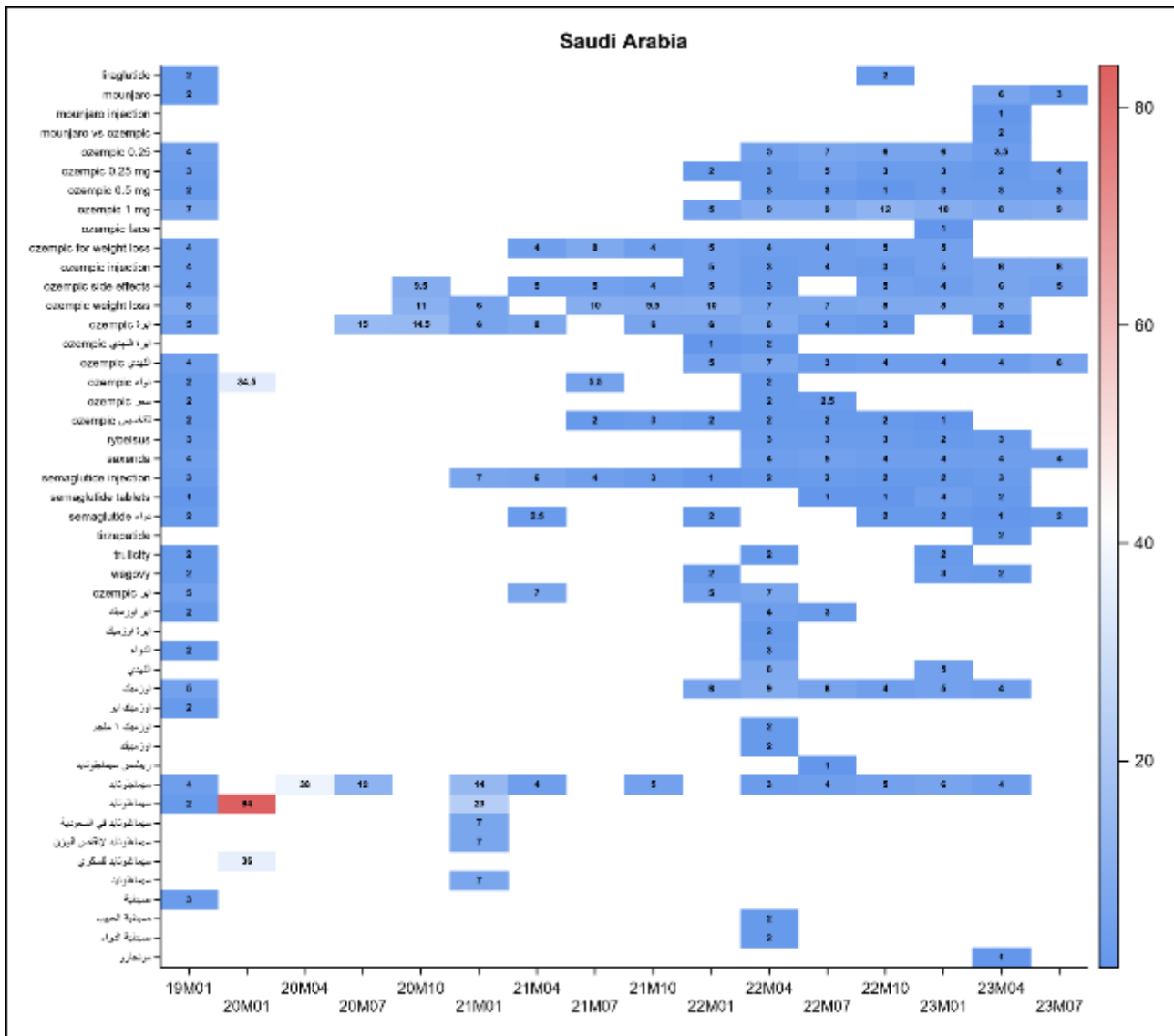


Figure 47 Quarterly variation in query priority for Serbia without Ozempic/semaglutide

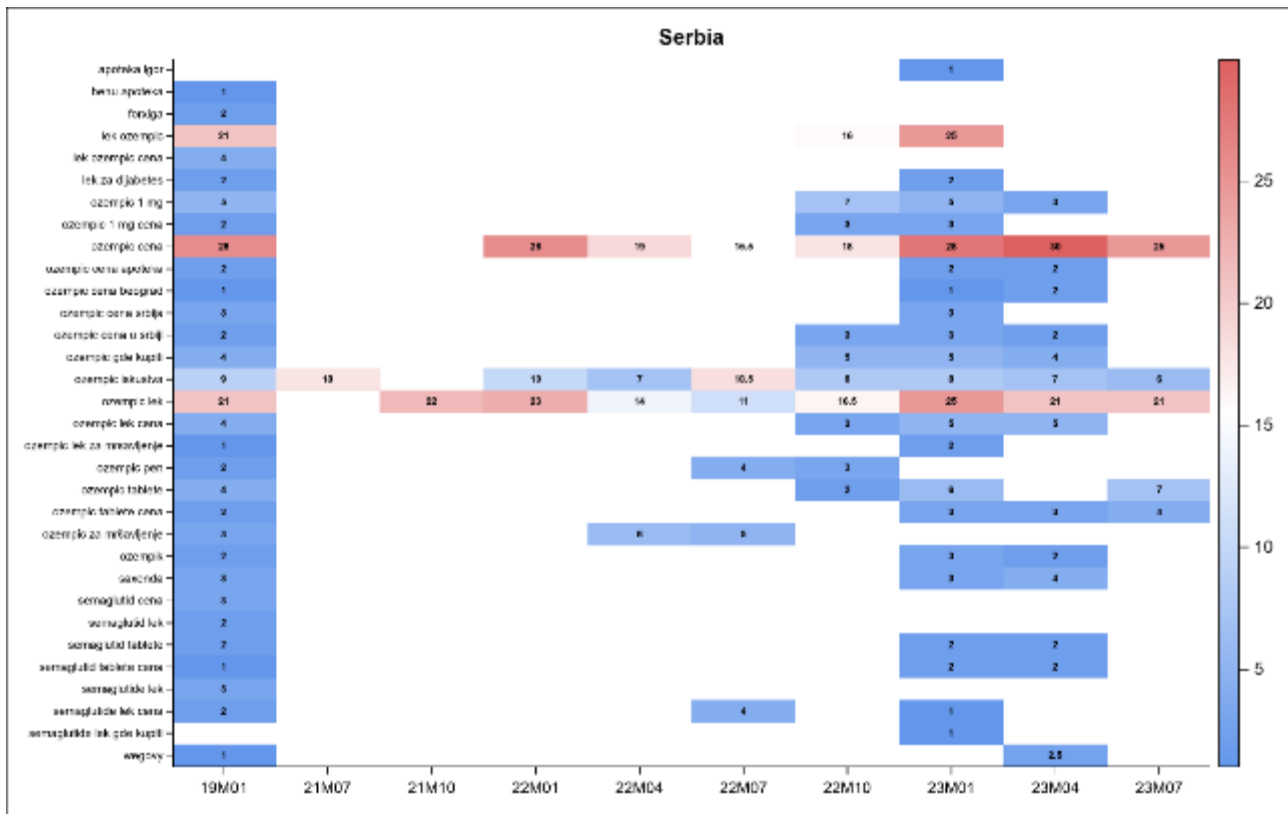


Figure 48 Quarterly variation in query priority for South Africa without Ozempic/semaglutide



Figure 49 Quarterly variation in query priority for Spain without Ozempic/semaglutide

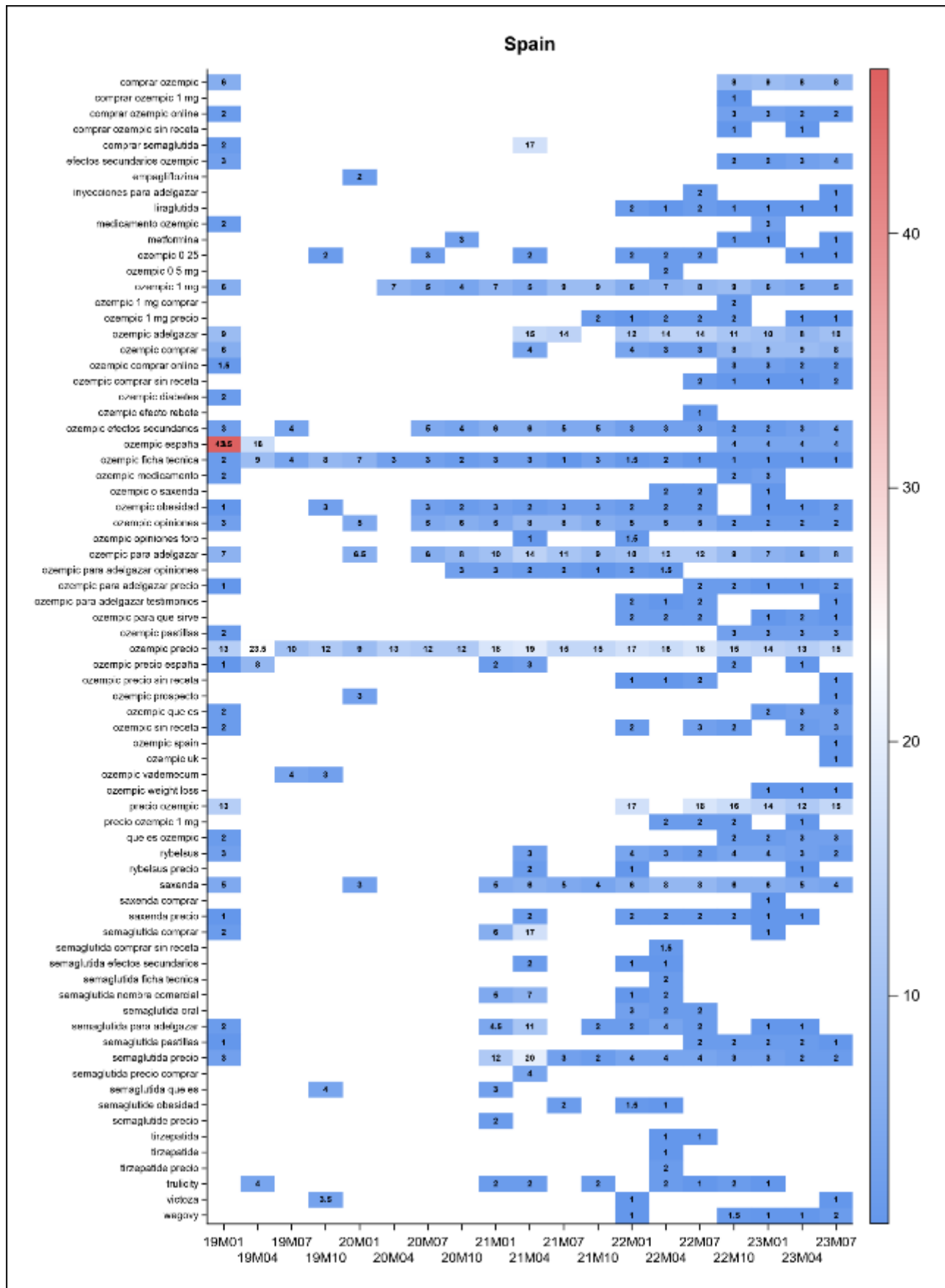


Figure 50 Quarterly variation in query priority for Sweden without Ozempic/semaglutide

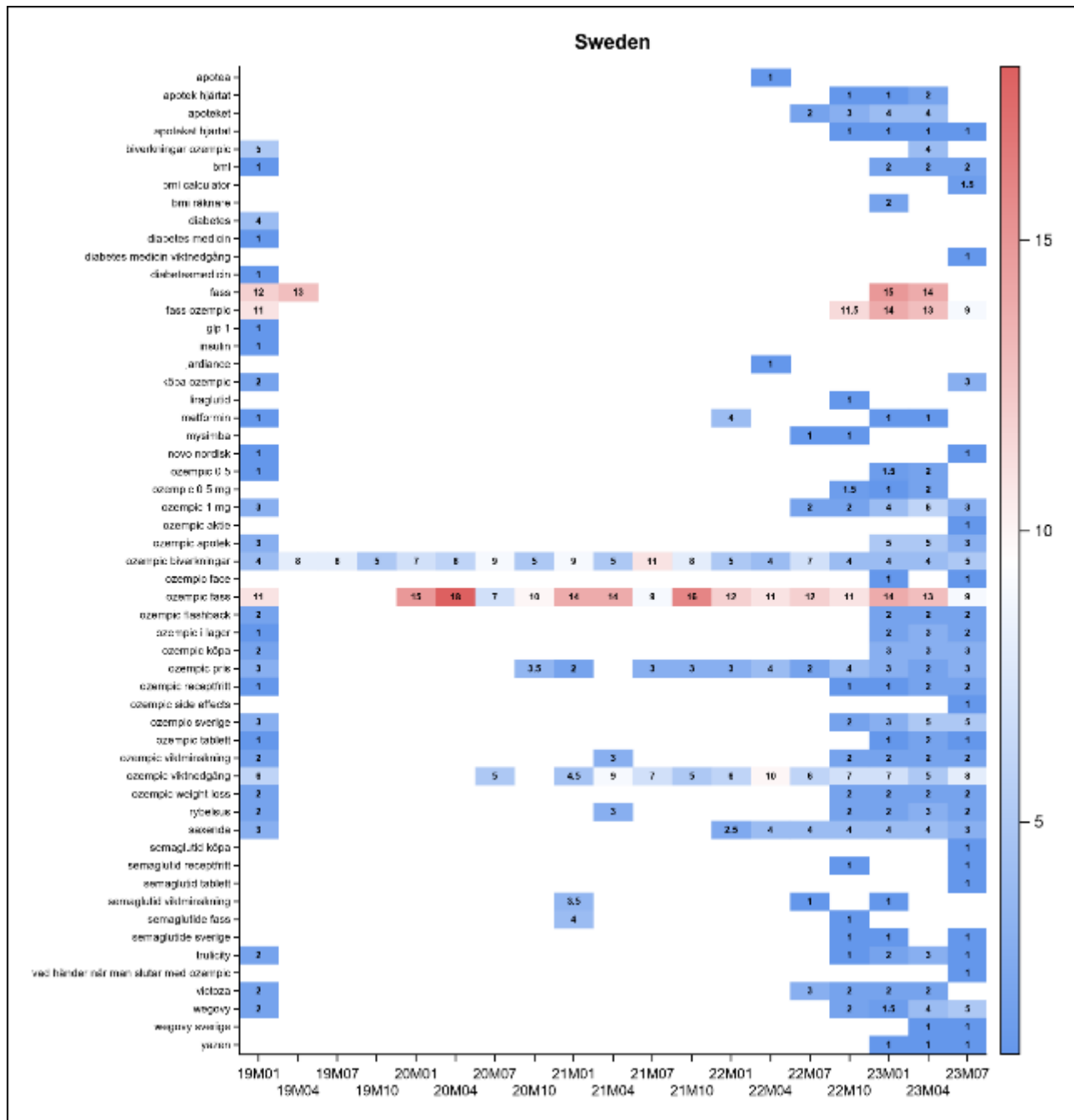


Figure 51 Quarterly variation in query priority for Switzerland without Ozempic/semaglutide

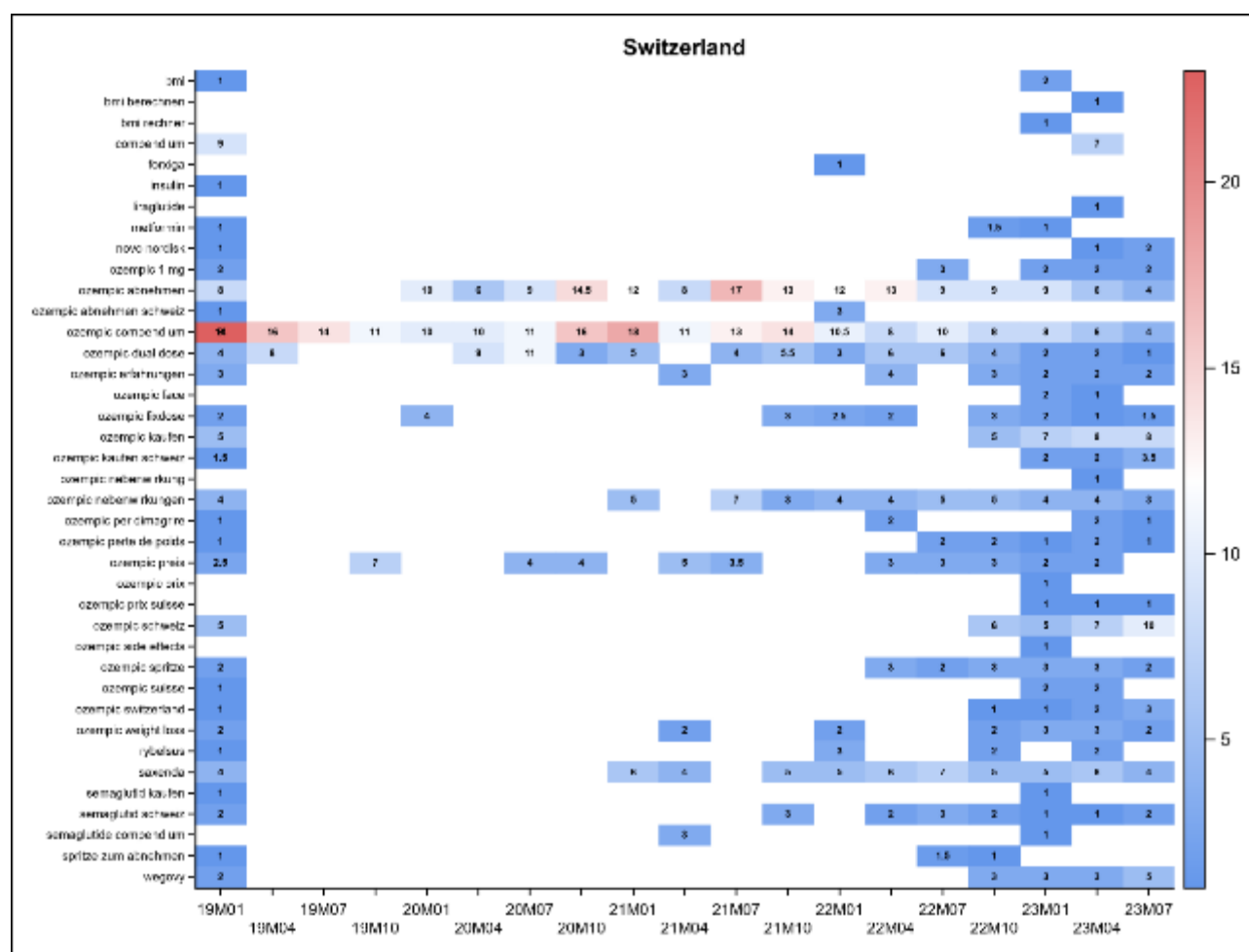


Figure 52 Quarterly variation in query priority for United Arab Emirates without Ozempic/semaglutide

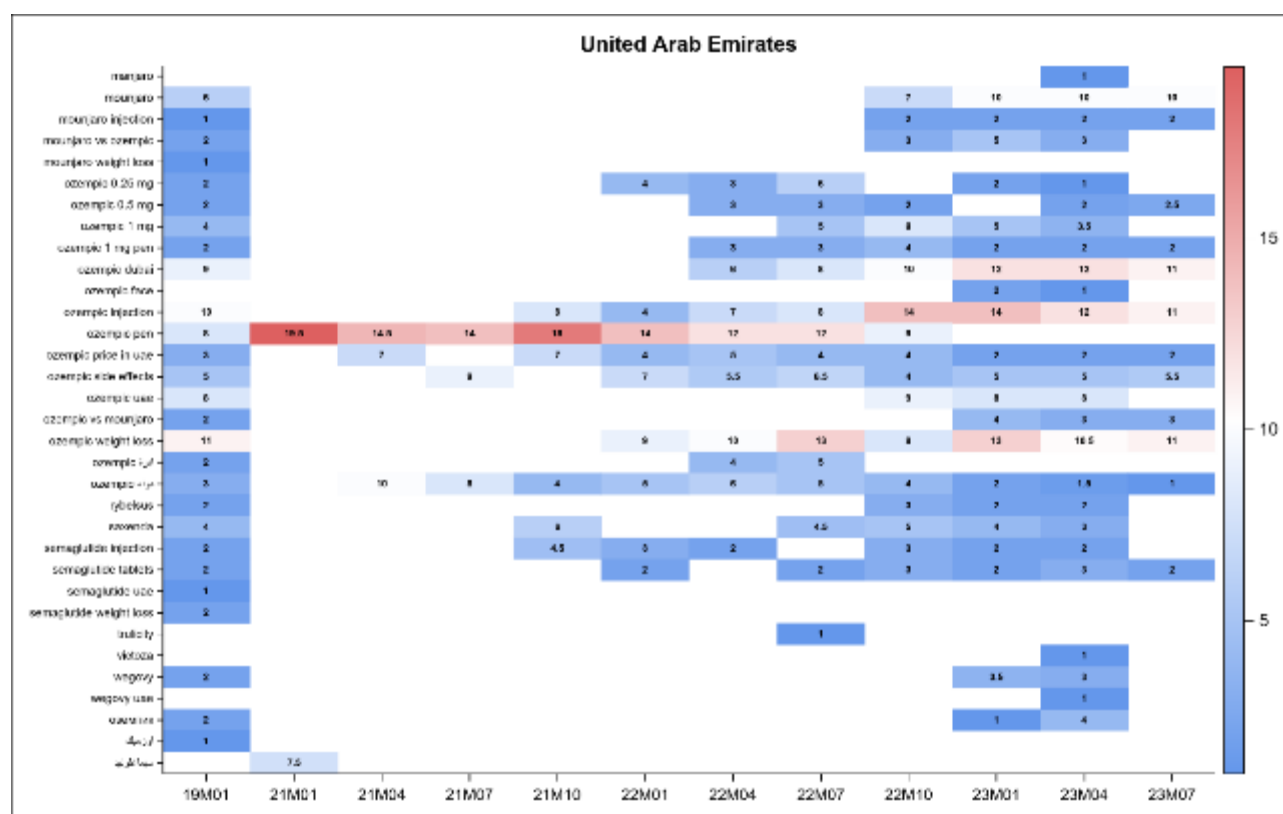


Figure 53 Quarterly variation in query priority for United Kingdom of Great Britain and Northern Ireland without Ozempic/semaglutide

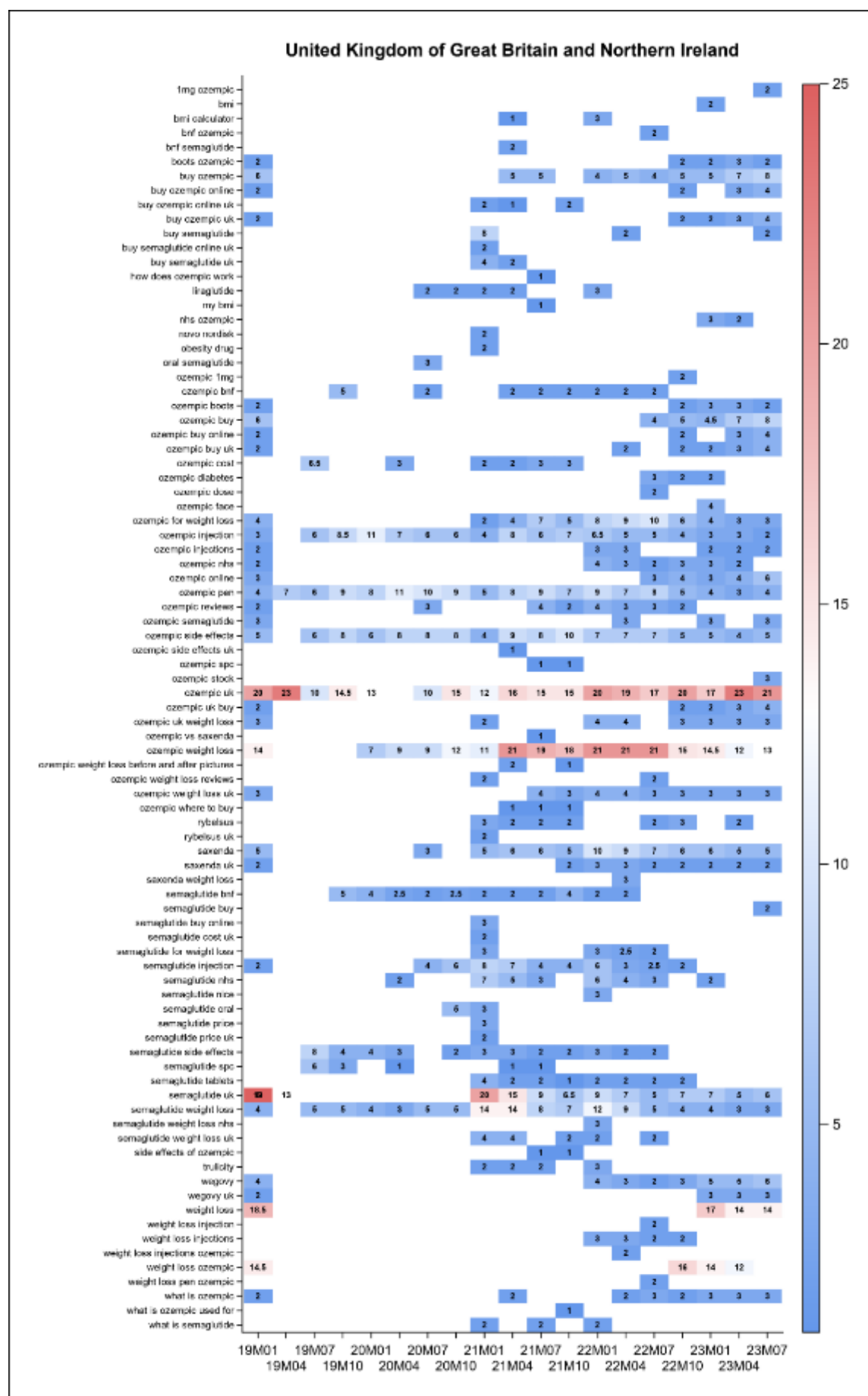


Figure 54 Quarterly variation in query priority for United States of America without Ozempic/semaglutide



Supplementary Appendix 6
Impact of specific social media events across all countries

Figure 55 **Social media events and semaglutide searches in Australia**

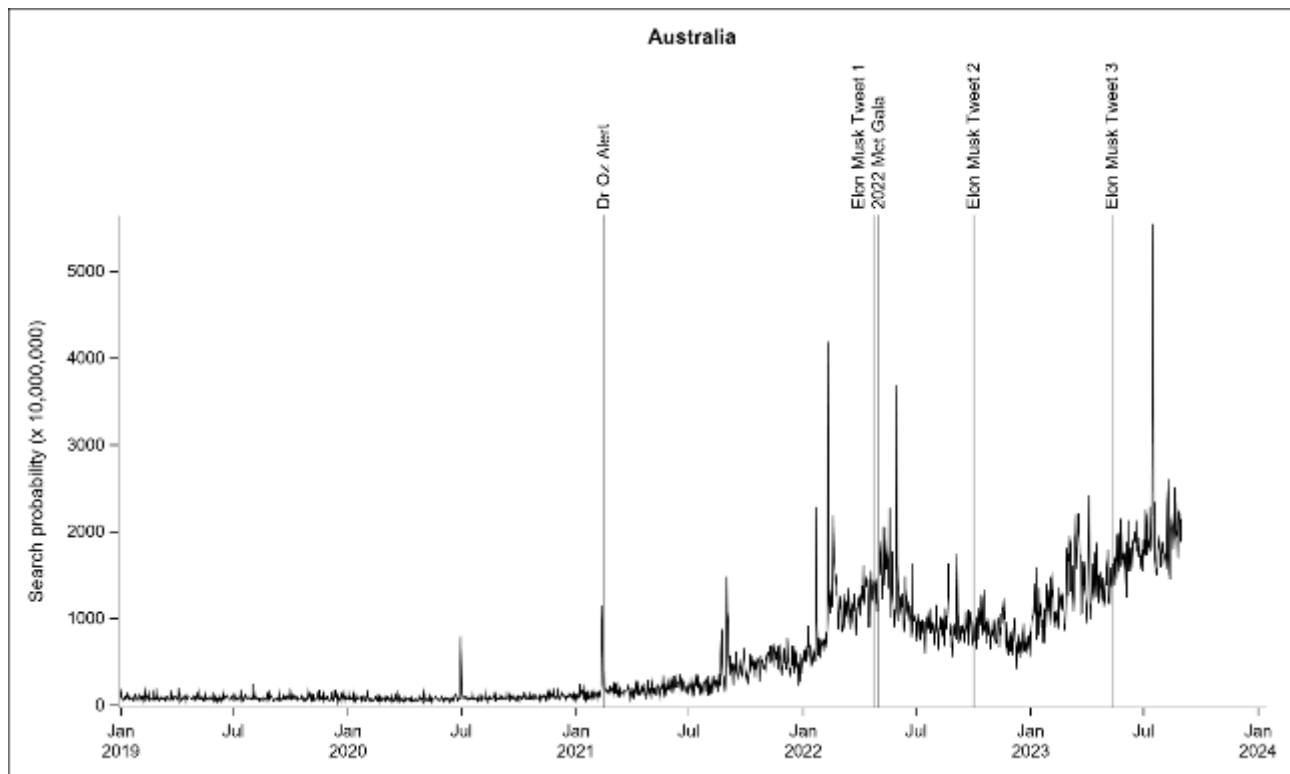


Figure 56 **Social media events and semaglutide searches in Belgium**

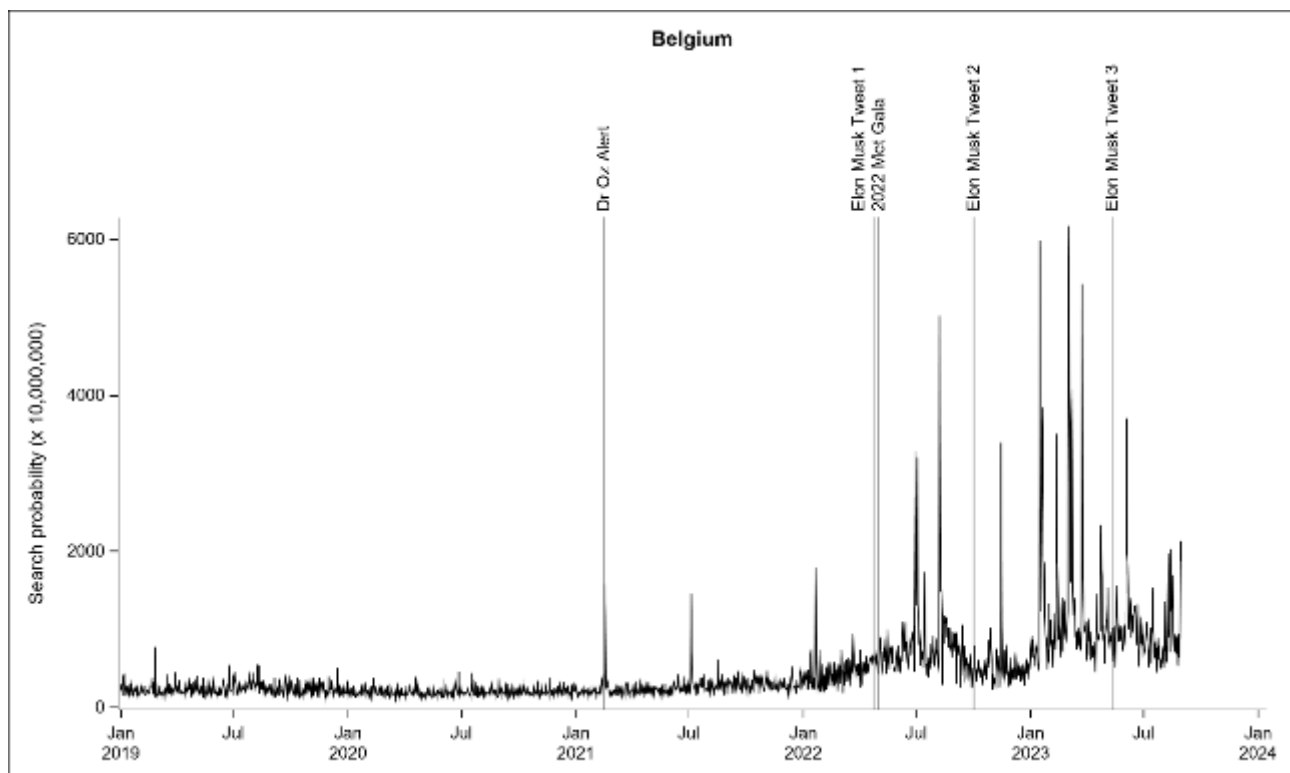


Figure 57 **Social media events and semaglutide searches in Brazil**

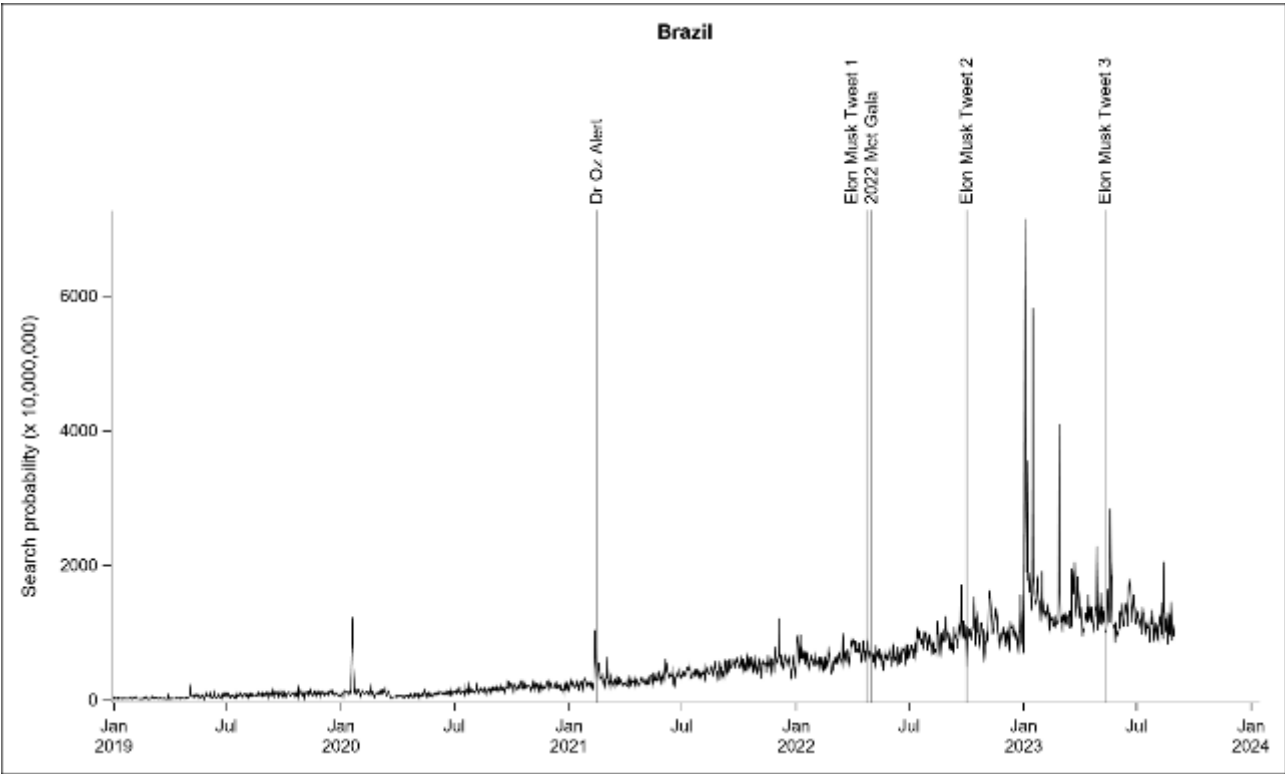


Figure 58 Social media events and semaglutide searches in Bulgaria

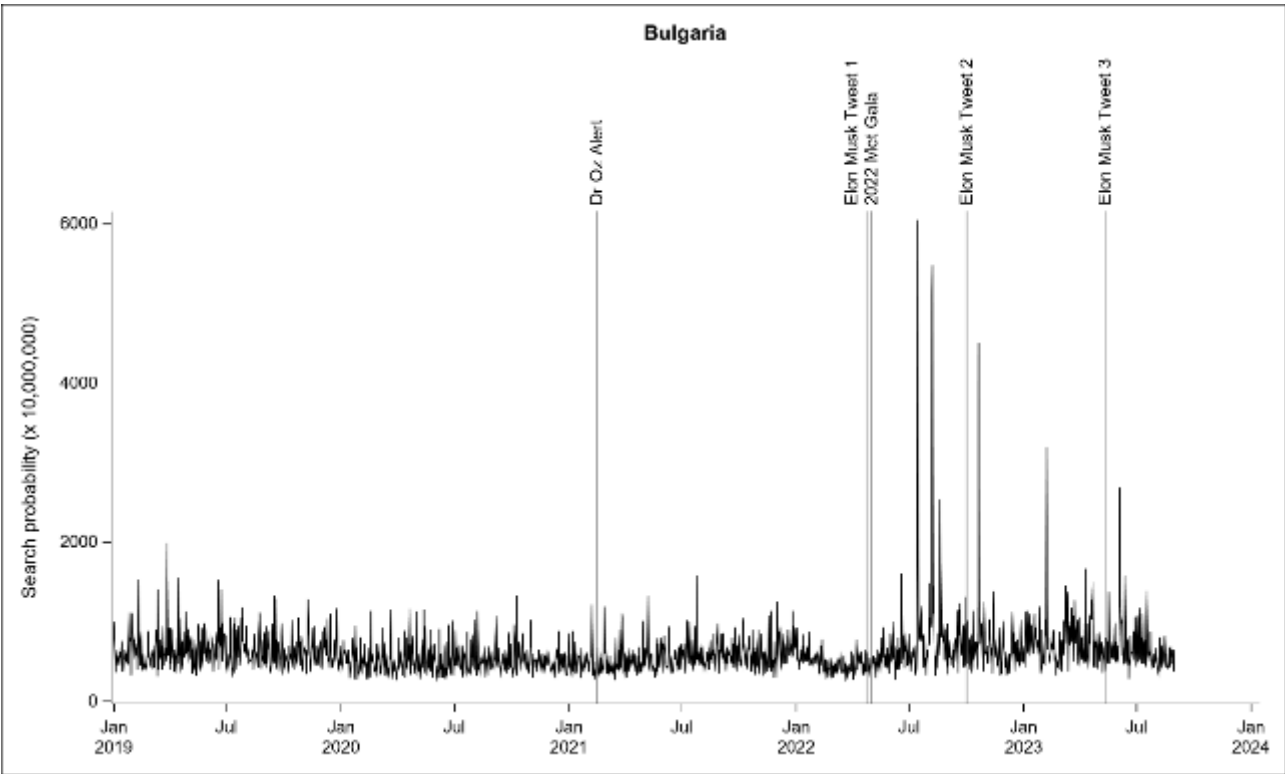


Figure 59 Social media events and semaglutide searches in Canada

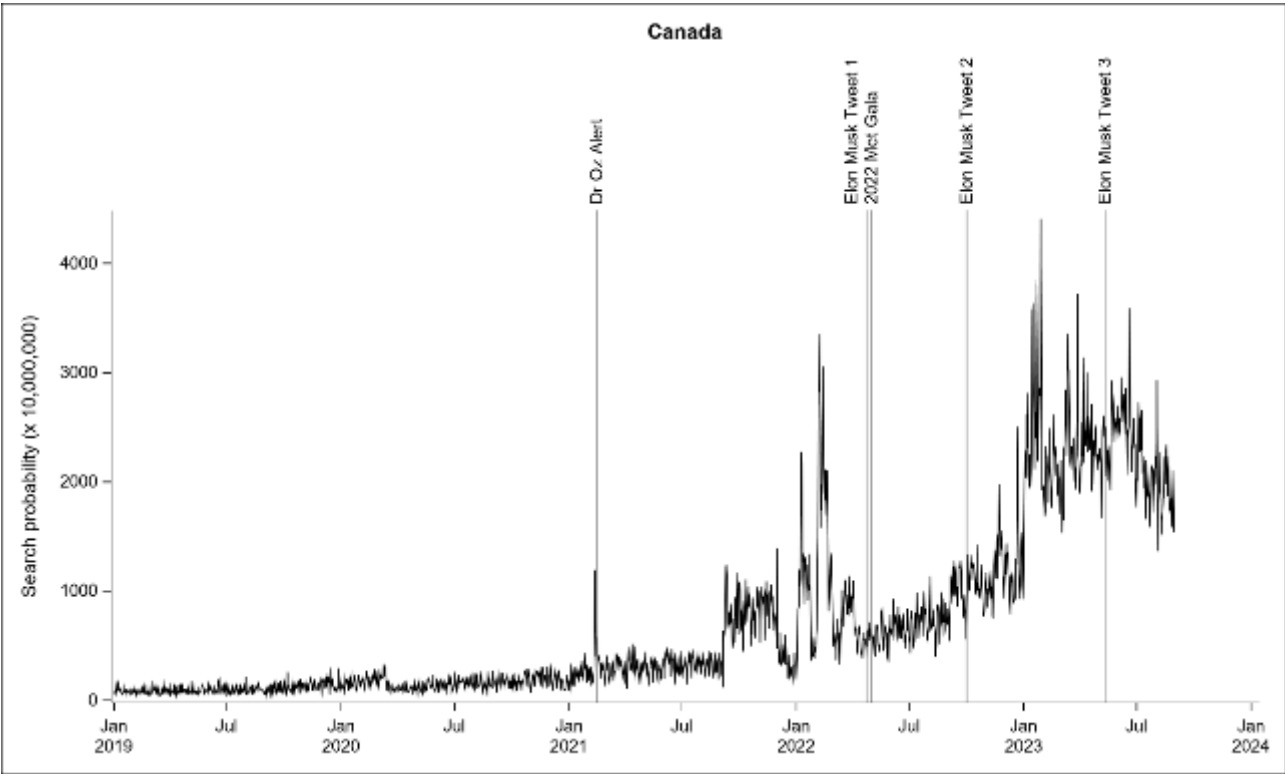


Figure 60 Social media events and semaglutide searches in Chile

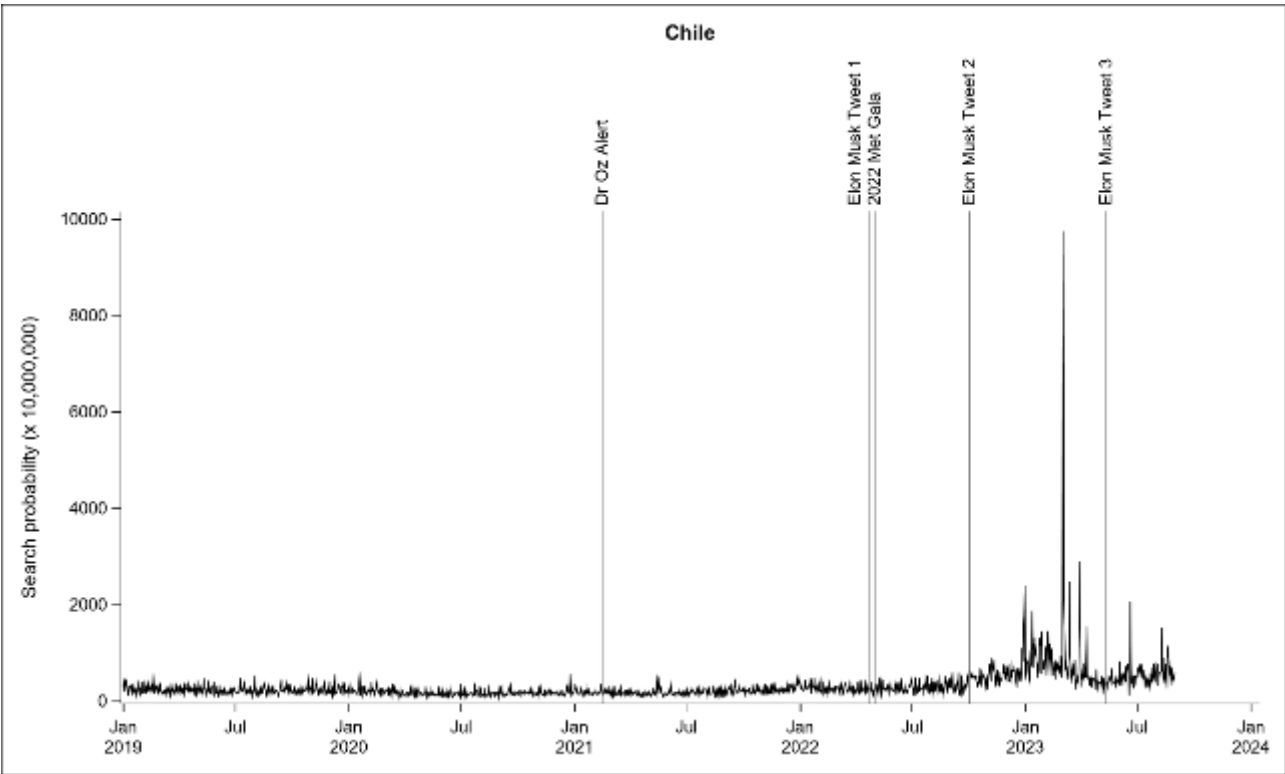


Figure 61 Social media events and semaglutide searches in Denmark

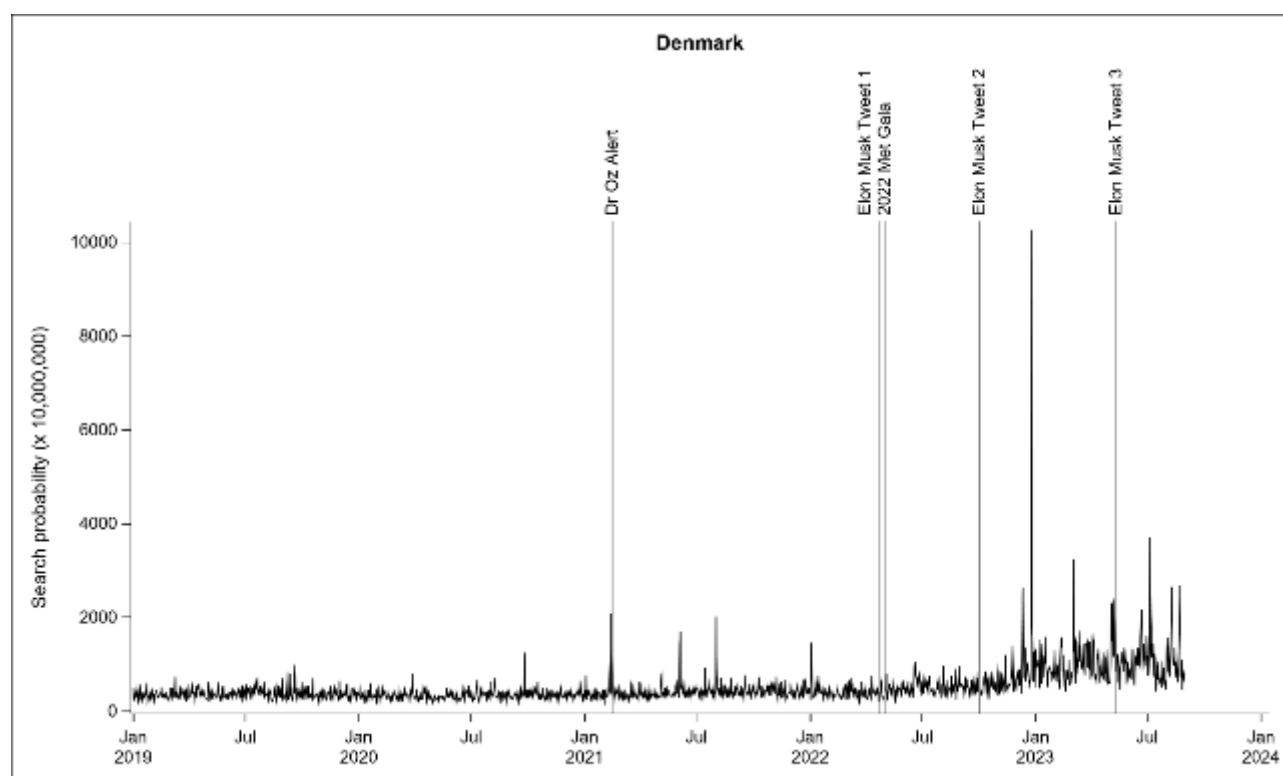


Figure 62 Social media events and semaglutide searches in Finland

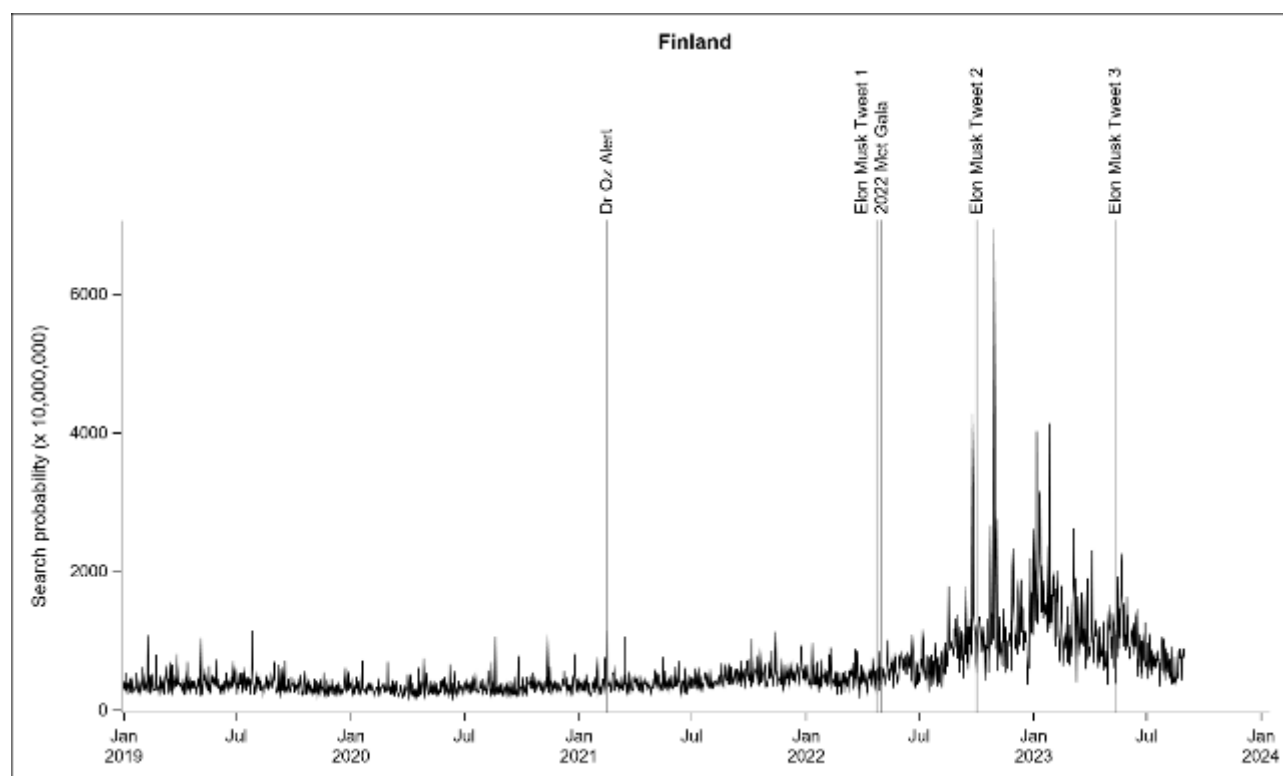


Figure 63 Social media events and semaglutide searches in Germany

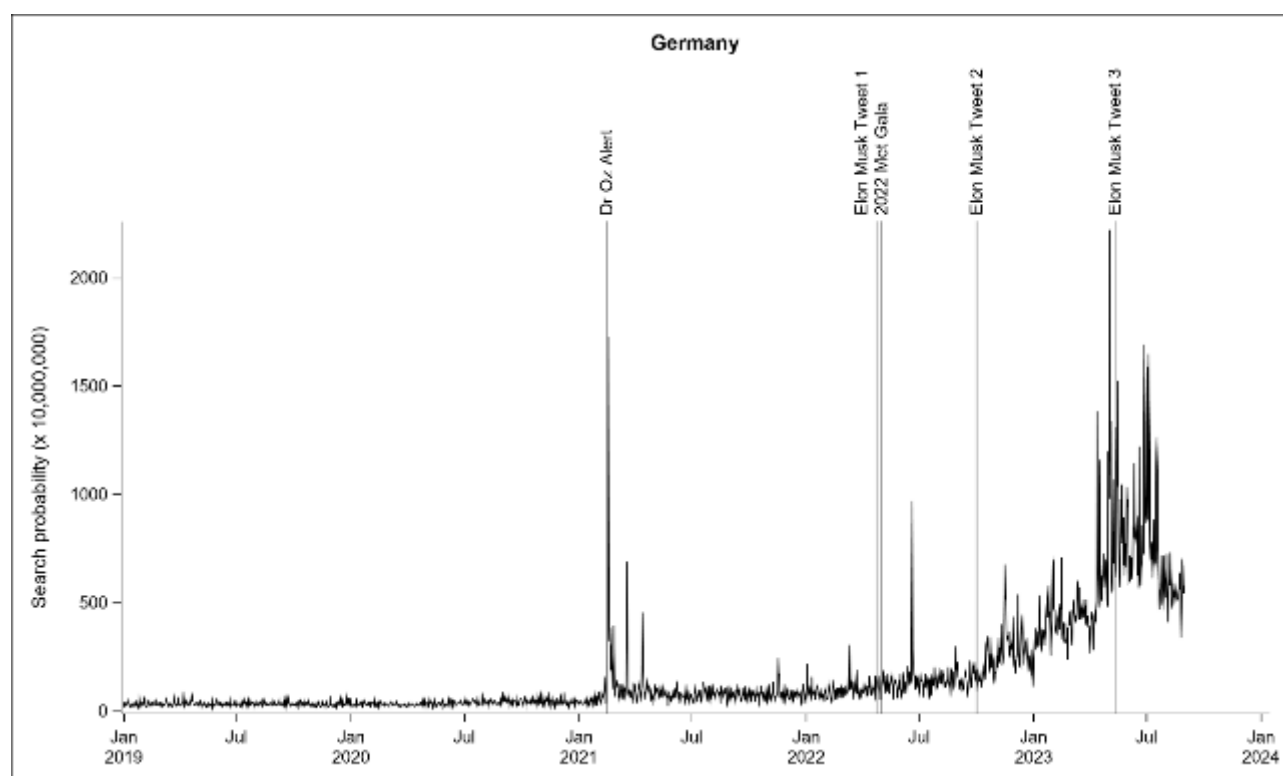


Figure 64 Social media events and semaglutide searches in Ireland

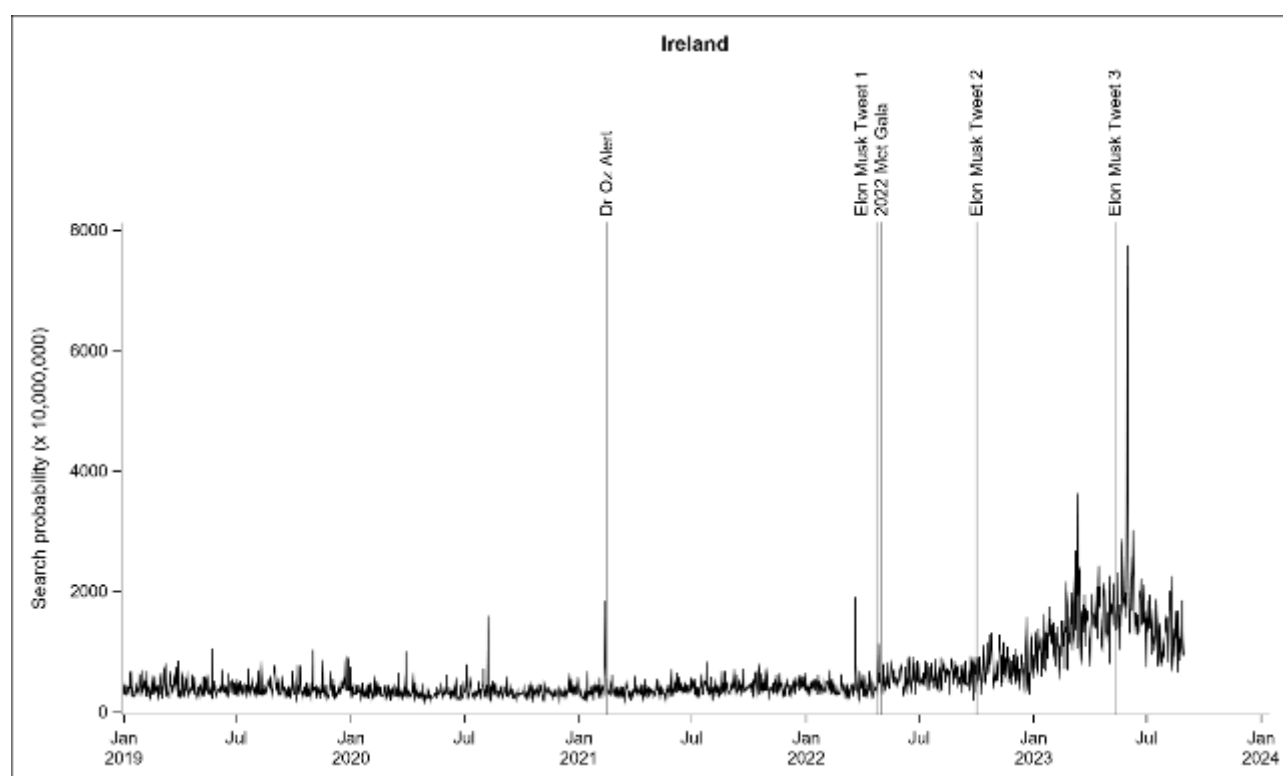


Figure 65 Social media events and semaglutide searches in Israel

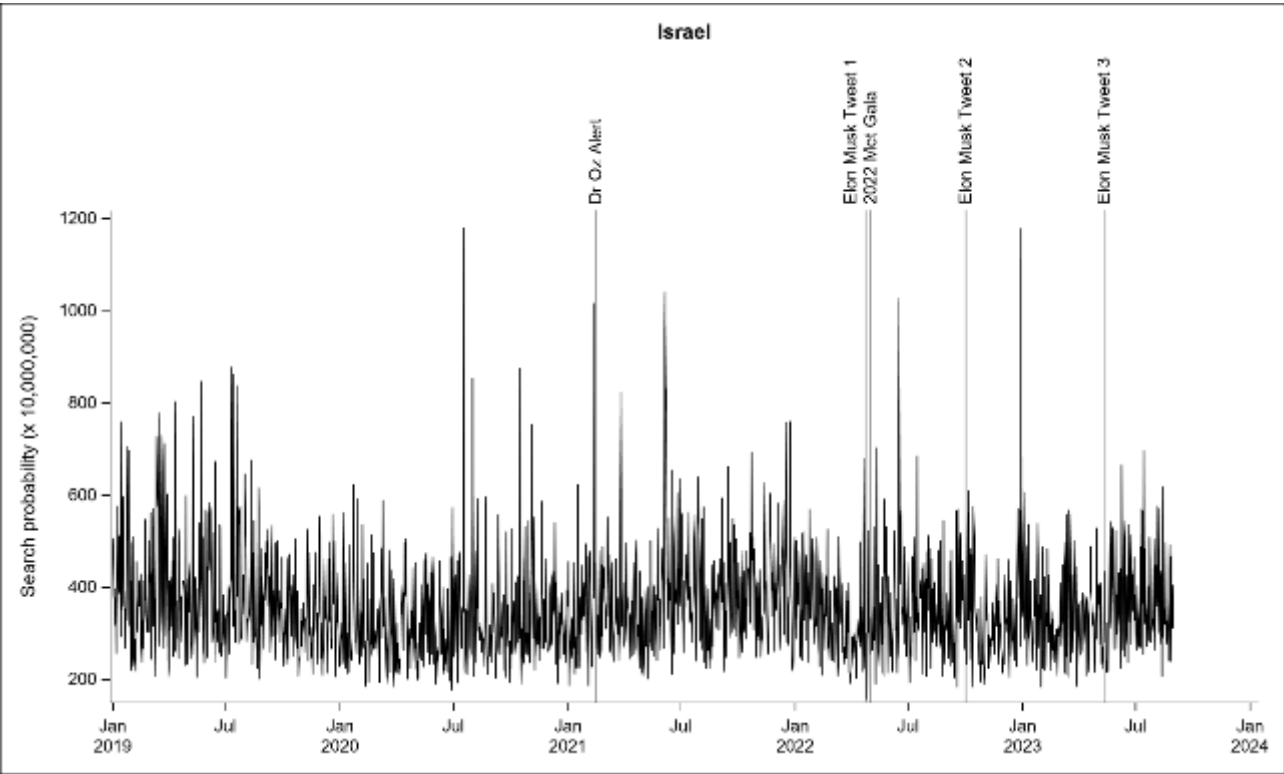


Figure 66 Social media events and semaglutide searches in Lebanon

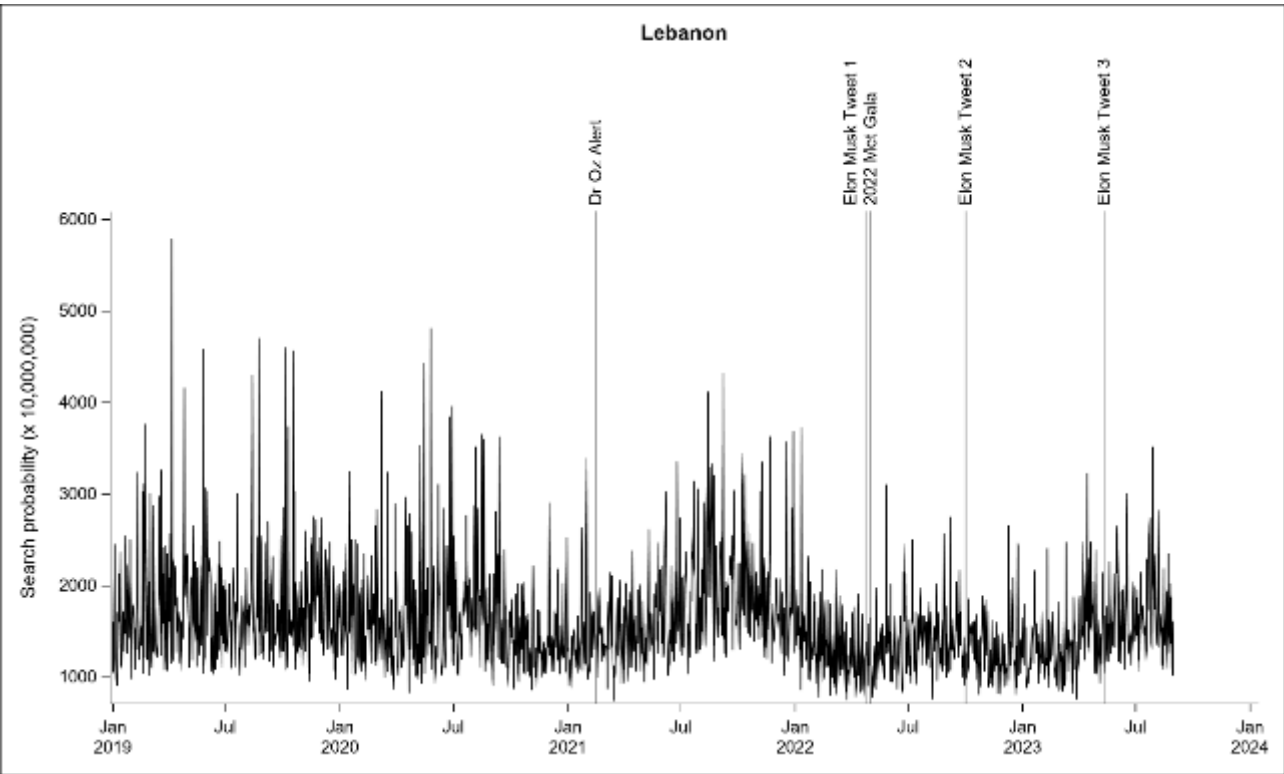


Figure 67 Social media events and semaglutide searches in Netherlands

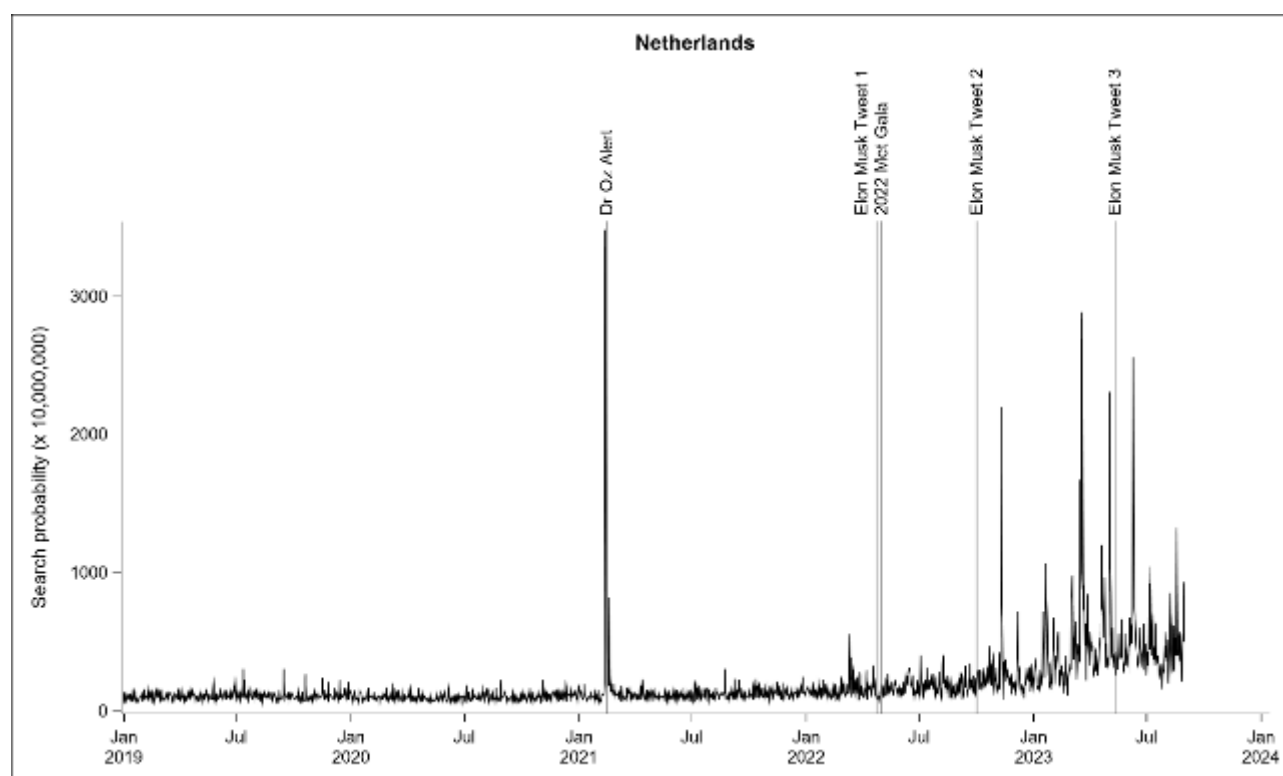


Figure 68 Social media events and semaglutide searches in Norway

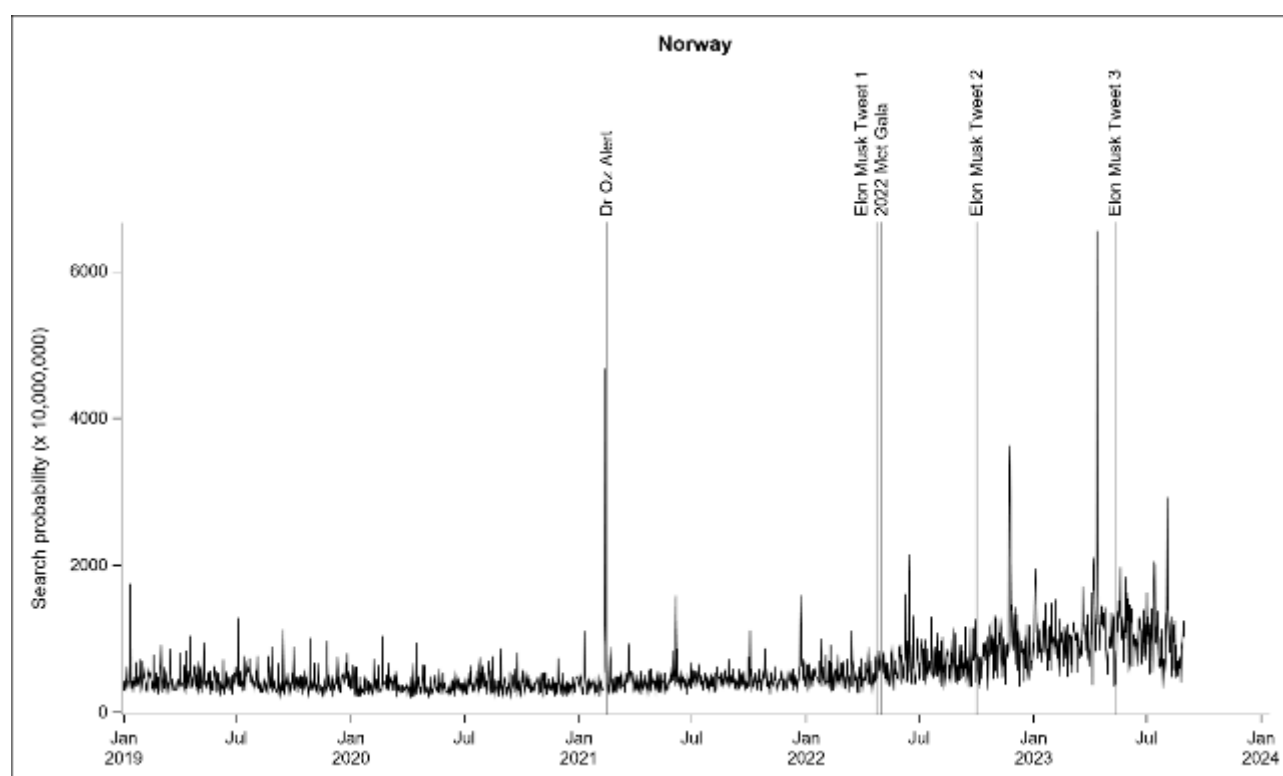


Figure 69 Social media events and semaglutide searches in Poland

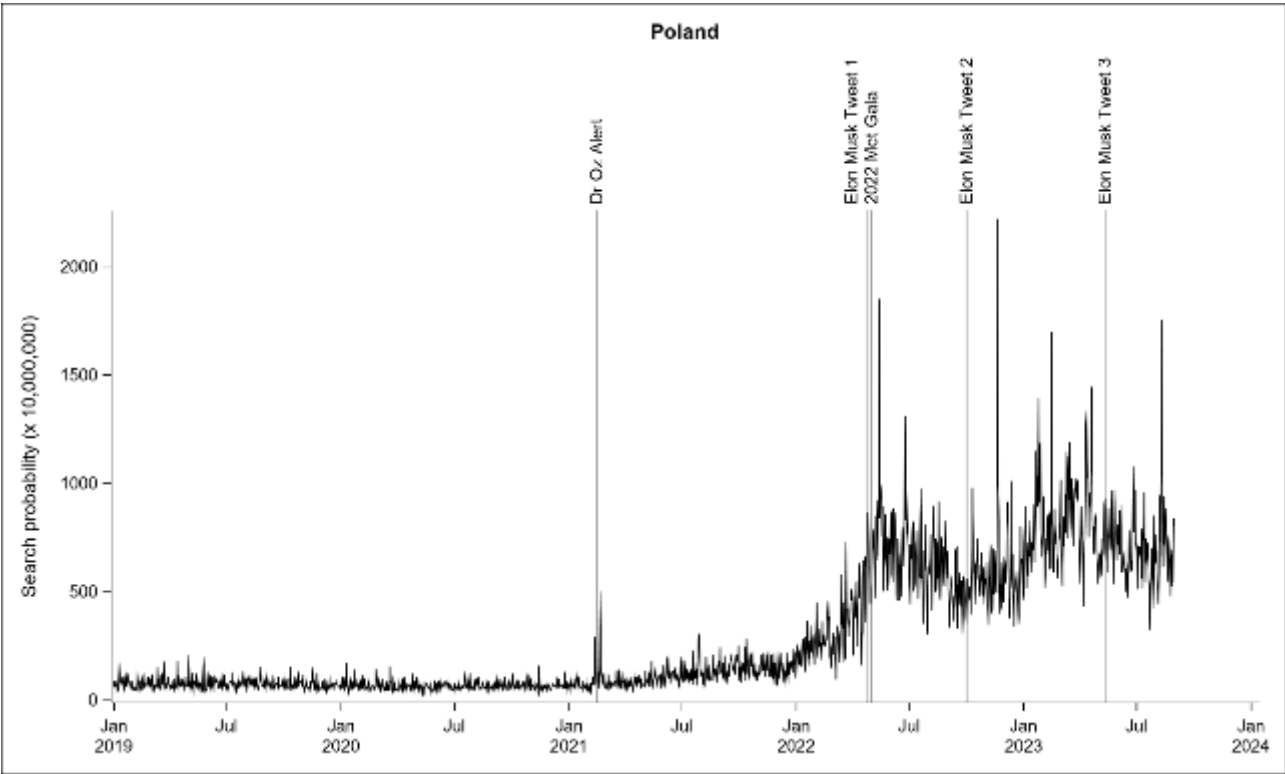


Figure 70 Social media events and semaglutide searches in Portugal

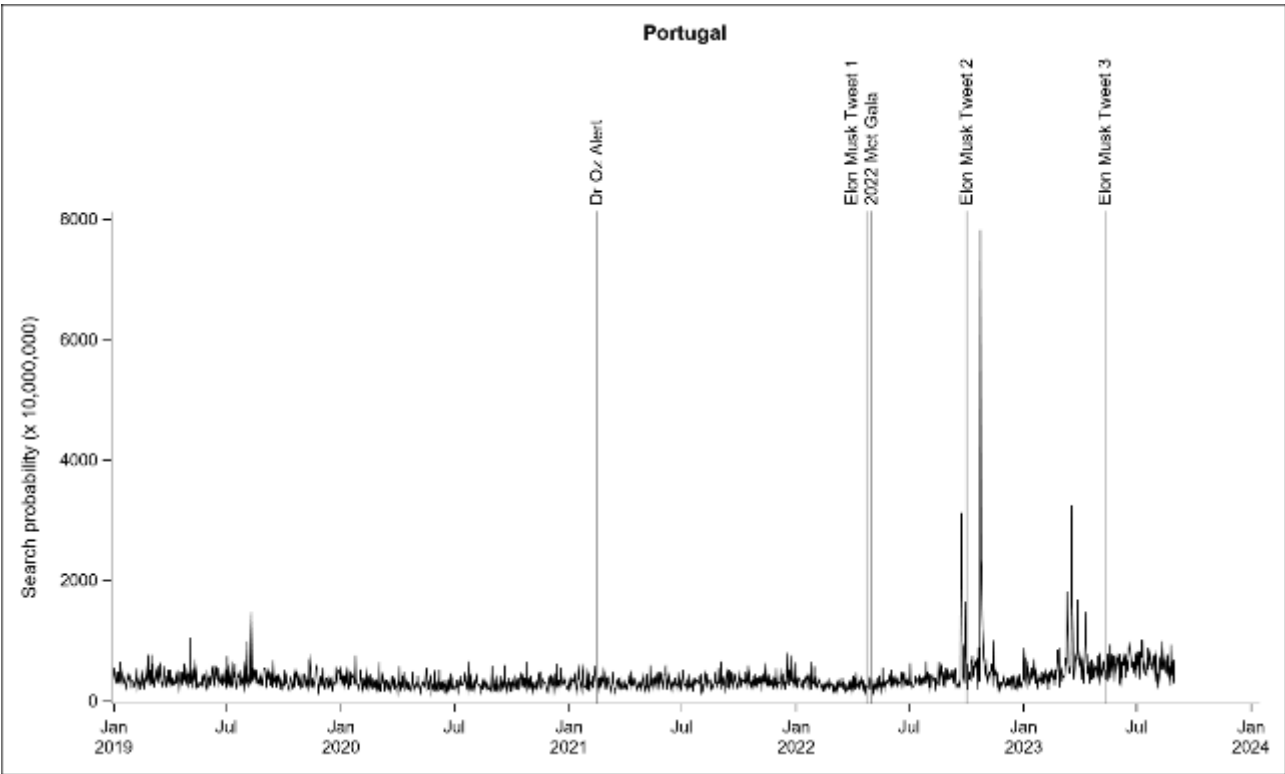


Figure 71 Social media events and semaglutide searches in Puerto Rico

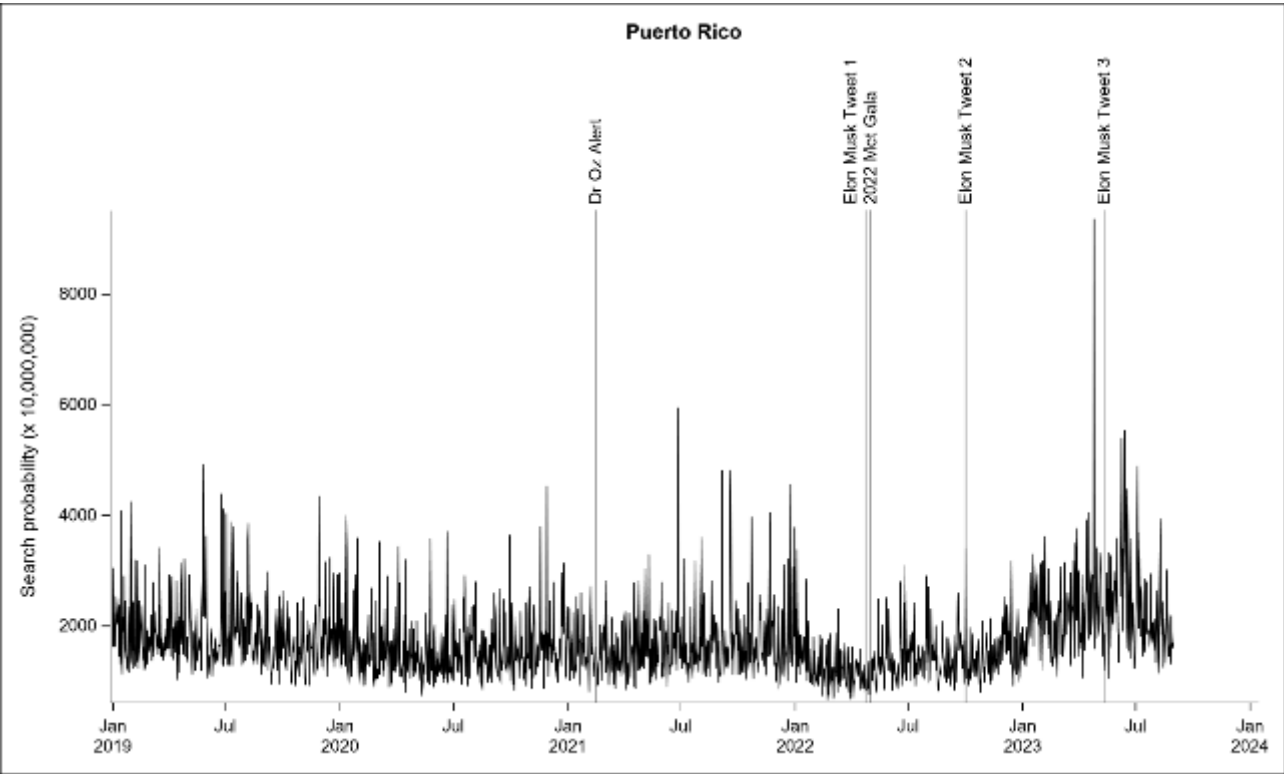


Figure 72 Social media events and semaglutide searches in Romania

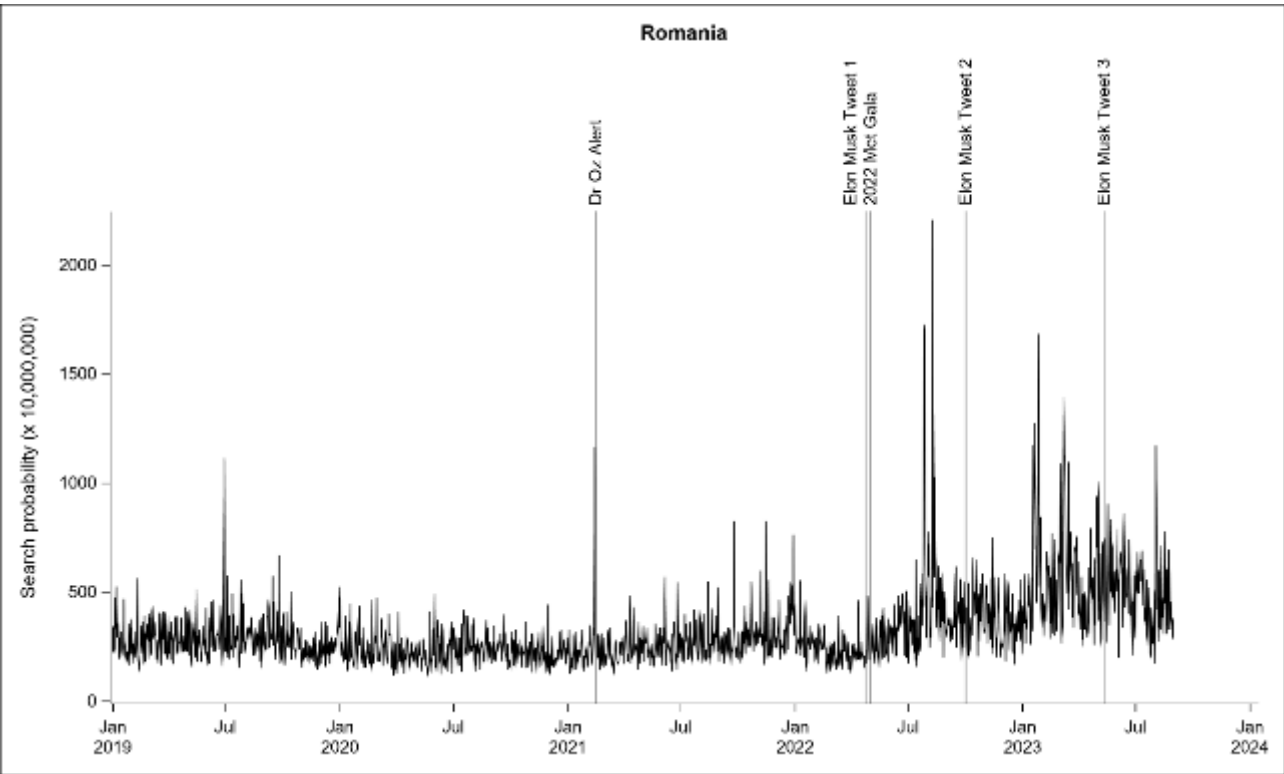


Figure 73 Social media events and semaglutide searches in Saudi Arabia

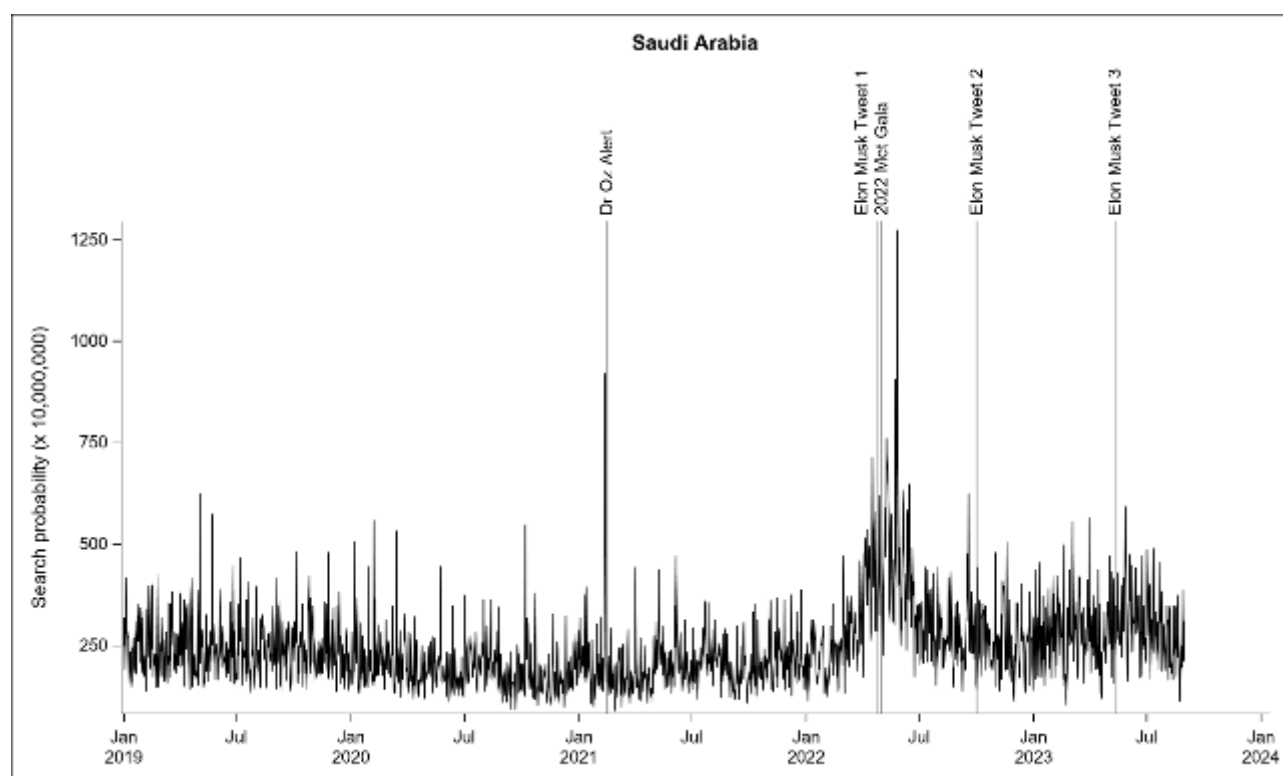


Figure 74 Social media events and semaglutide searches in Serbia

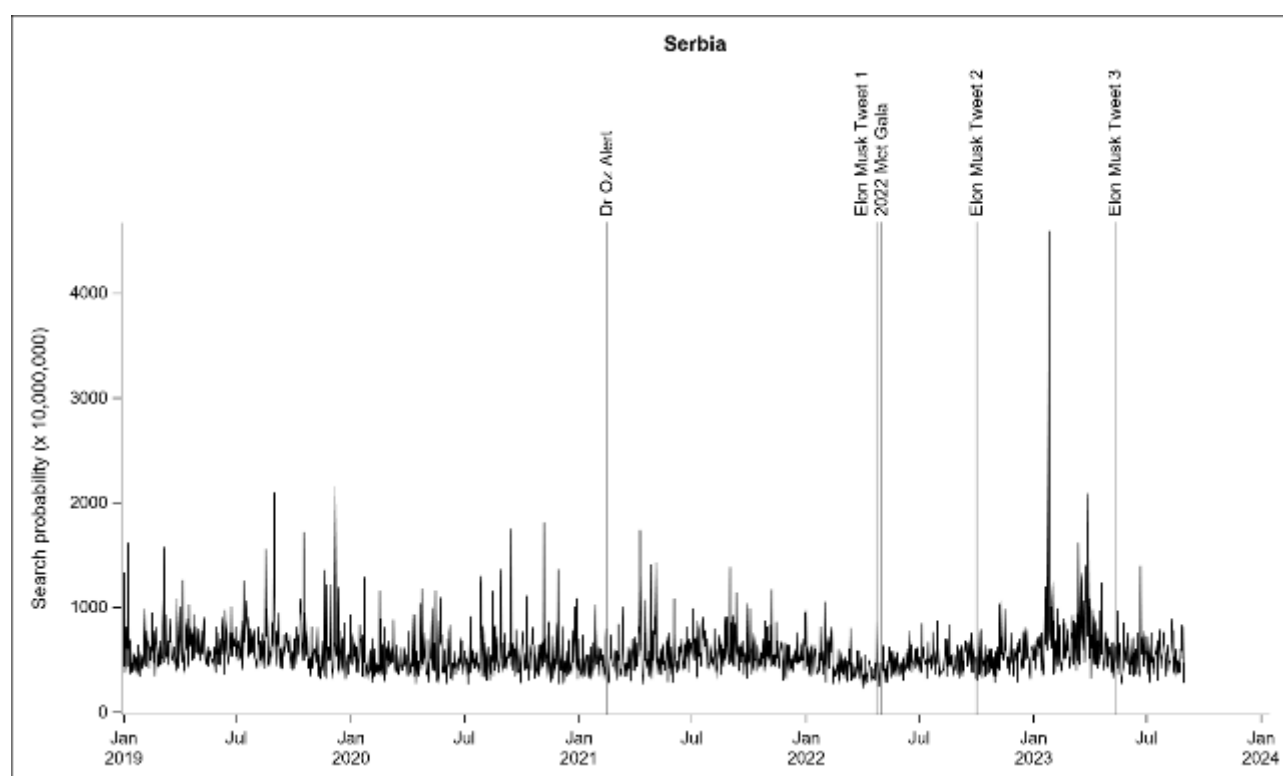


Figure 75 Social media events and semaglutide searches in South Africa

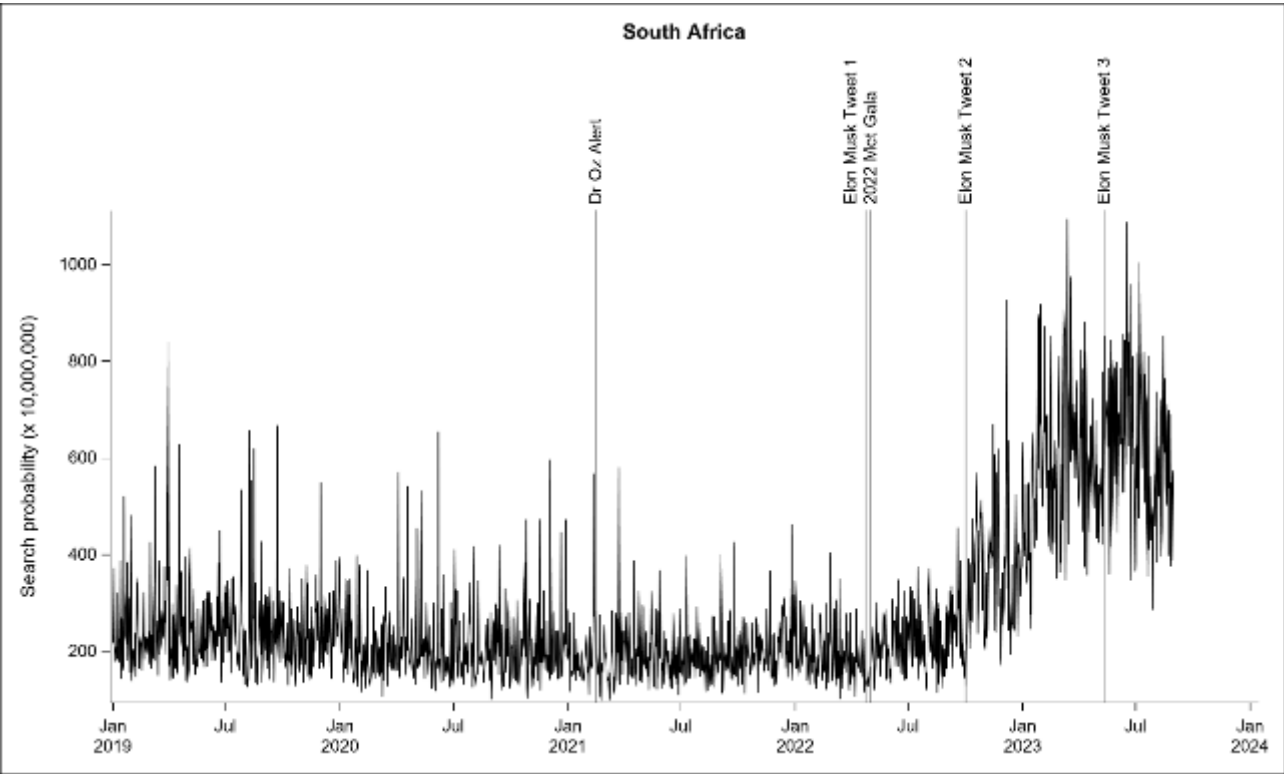


Figure 76 Social media events and semaglutide searches in Spain

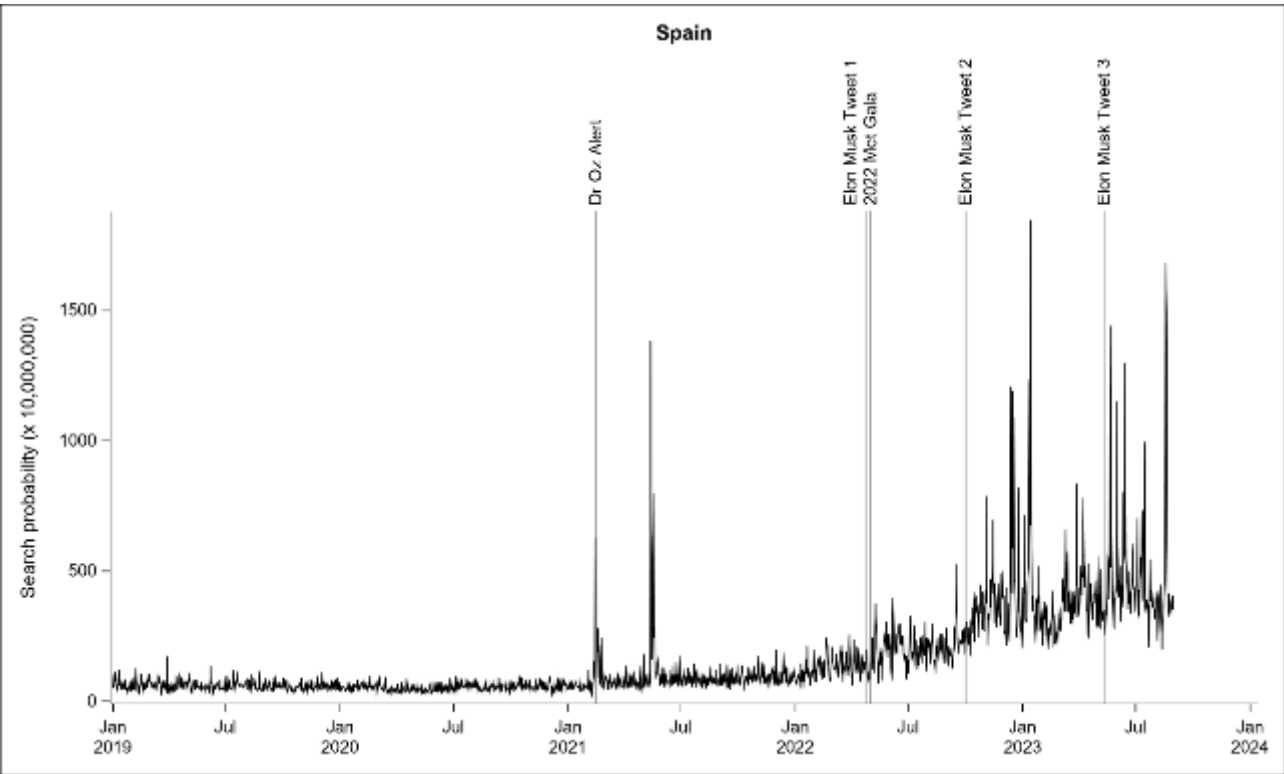


Figure 77 Social media events and semaglutide searches in Sweden

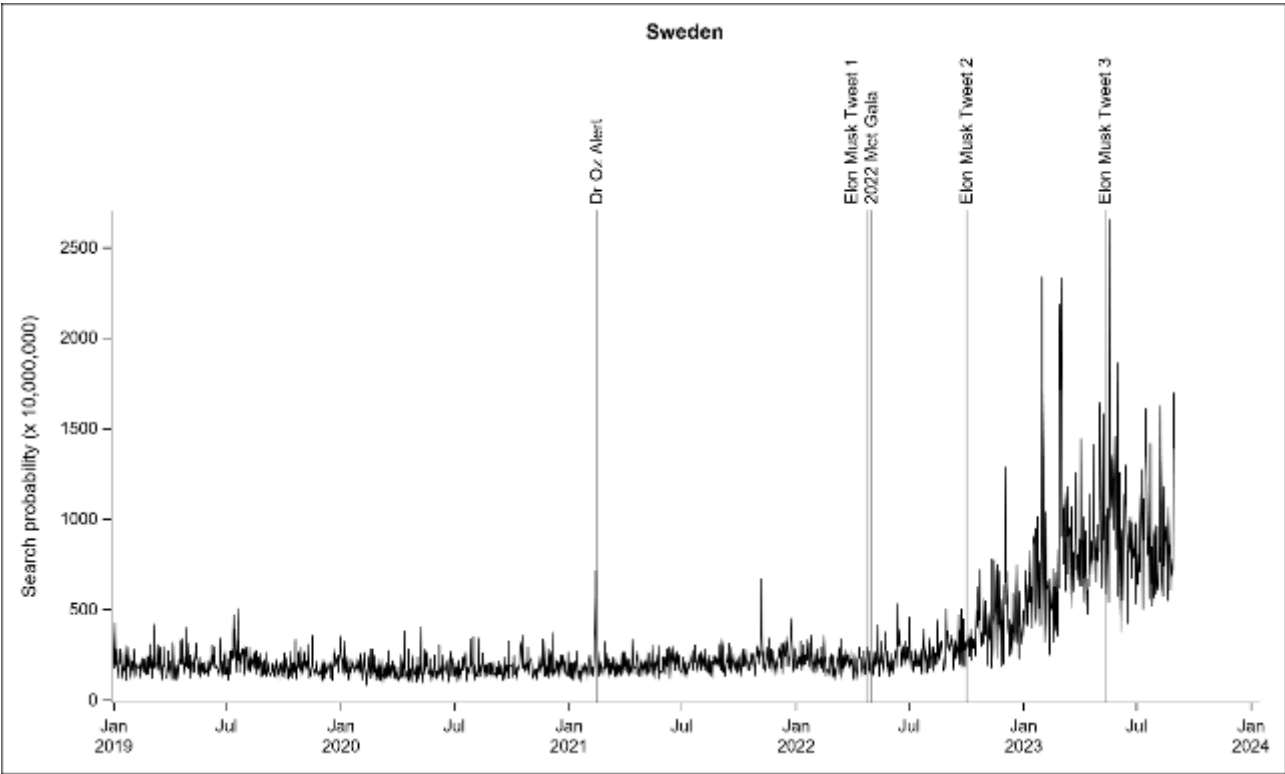


Figure 78 Social media events and semaglutide searches in Switzerland

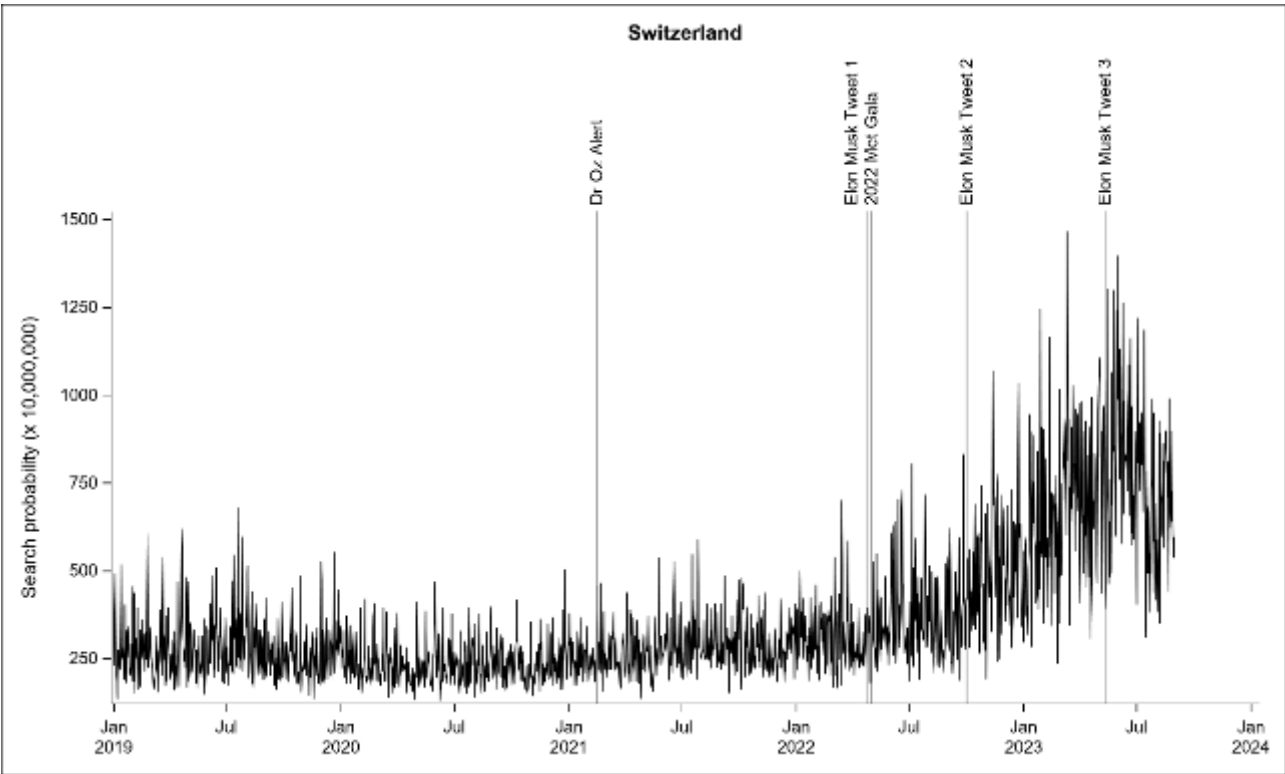


Figure 79 Social media events and semaglutide searches in United Arab Emirates

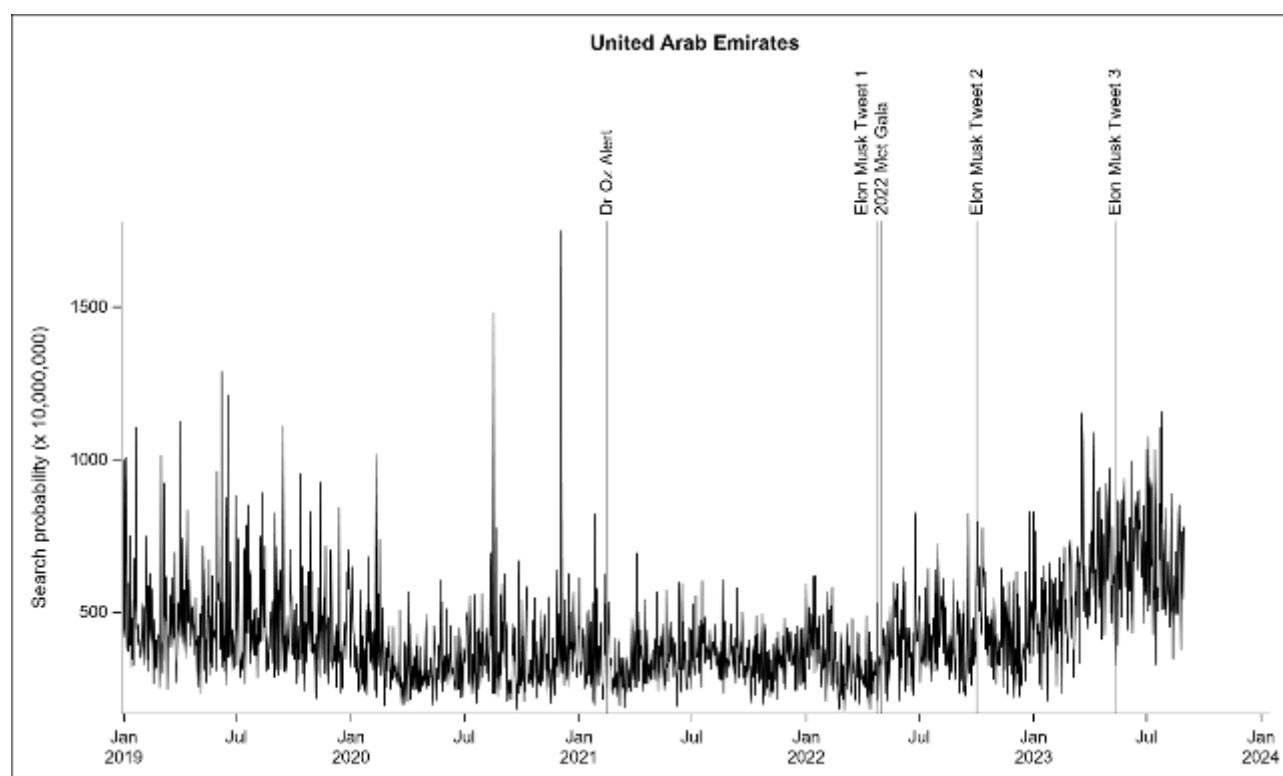


Figure 80 Social media events and semaglutide searches in United Kingdom of Great Britain and Northern Ireland

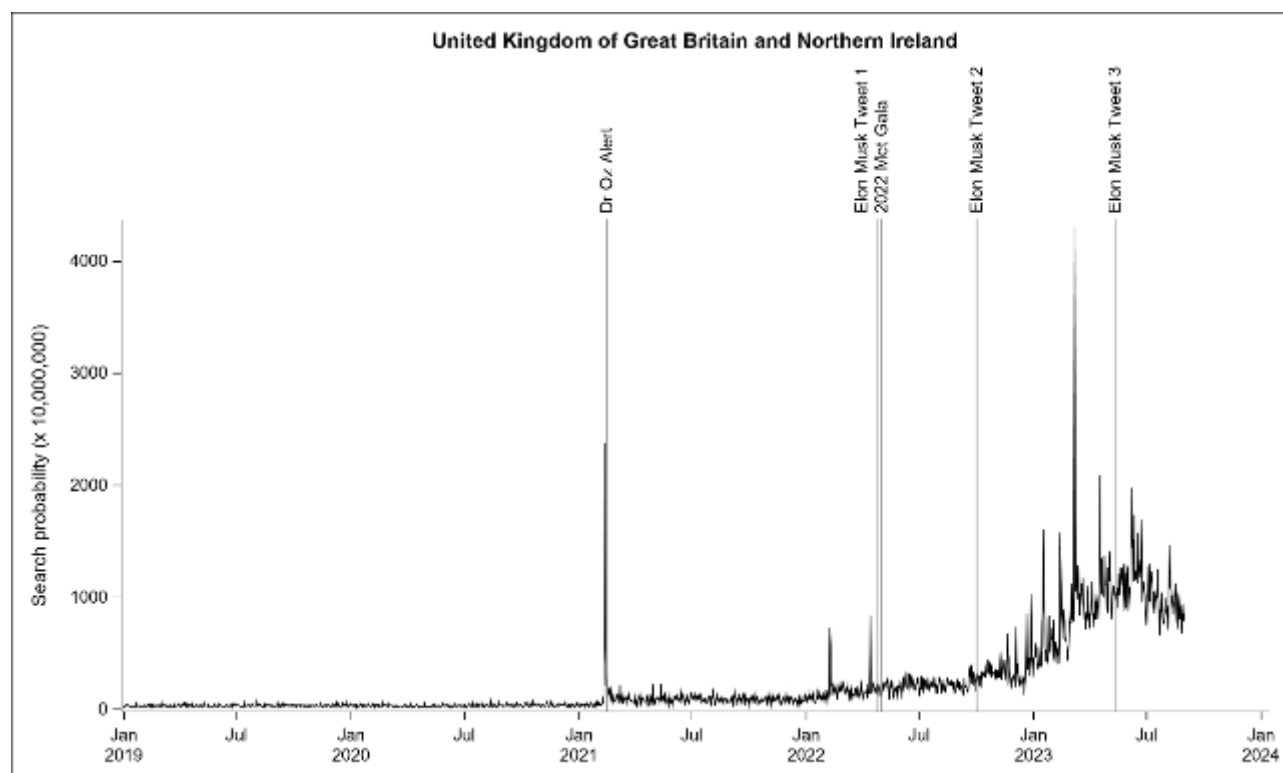
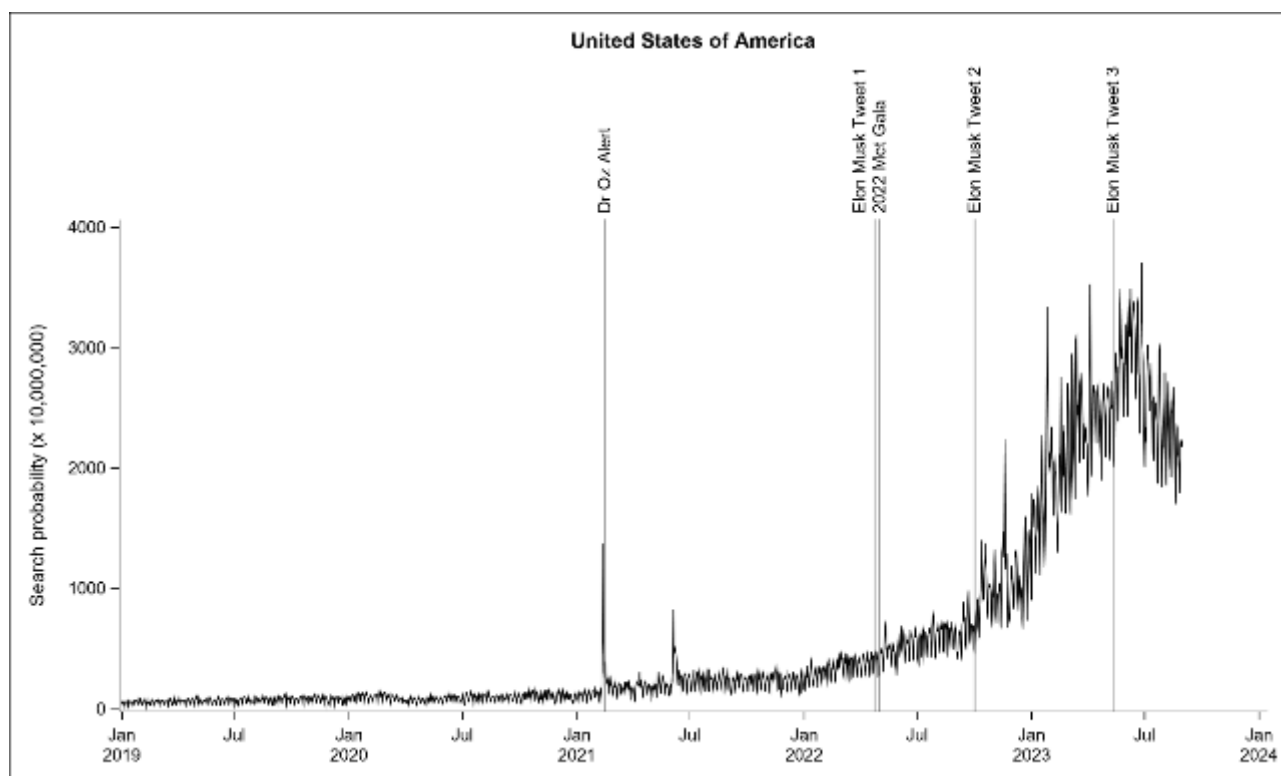


Figure 81 Social media events and semaglutide searches in United States of America



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