

**Table S.1: Primary care presentation rate (per 100 person-months) from CPRD-linked registrations in intracranial tumour patients aged 0 to 24 years, England, 1989–2006: by tumour location and time from diagnosis.**

Time from diagnosis (months)	Supratentorial		Midline		Cerebellum		Brainstem	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
<b>Before diagnosis</b>								
12+ months	6.7	5.9 – 7.6	1.6	1.1 – 2.2	1.9	1.3 – 2.7	1.0	0.5 – 1.9
6–12	12.3	8.7 – 17.5	10.5	6.5 – 16.9	4.2	1.9 – 9.3	4.2	1.3 – 12.9
3–6	29.9	21.8 – 40.9	18.5	11.2 – 30.7	0.0	not estimated	5.2	1.3 – 20.9
1–3	28.9	19.7 – 42.4	43.6	29.2 – 65.1	14.0	6.7 – 29.4	18.8	7.8 – 45.1
0–1 month	109.4	83.2 – 144.0	167.1	125.5 – 222.4	156.0	114.0 – 213.5	193.6	133.7 – 280.4
<b>After diagnosis</b>								
0–1 month	125.0	97.1 – 161.0	125.0	89.7 – 174.1	112.0	77.3 – 162.2	100.0	61.3 – 163.2
1–3	50.9	38.3 – 67.5	57.1	40.4 – 80.8	46.9	30.9 – 71.3	64.2	40.4 – 101.9
3–6	39.1	29.8 – 51.1	41.8	30.0 – 58.3	55.1	40.1 – 75.7	50.0	31.5 – 79.4
6–12	26.9	21.3 – 34.0	18.5	12.8 – 26.8	38.3	29.1 – 50.4	41.9	28.8 – 61.1
12+ months	22.3	20.5 – 24.3	16.2	14.7 – 17.9	15.6	13.7 – 17.6	14.7	11.5 – 18.9

Time from diagnosis (months)	Ventricles		Meninges		Cranial nerves		Other	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
<b>Before diagnosis</b>								
12+ months	4.1	1.5 – 10.9	1.2	0.6 – 2.4	2.7	1.5 – 4.8	2.2	1.8 – 2.7
6–12	8.3	1.2 – 59.2	0.0	not estimated	25.0	13.0 – 48.0	5.6	3.4 – 9.3
3–6	0.0	not estimated	0.0	not estimated	16.7	5.4 – 51.7	11.9	7.3 – 19.3
1–3	50.0	12.5 – 199.9	30.0	9.7 – 93.0	7.5	1.1 – 53.1	25.1	16.7 – 37.7
0–1 month	150.0	48.4 – 465.1	100.0	41.6 – 240.3	71.4	29.7 – 171.6	176.3	142.2 – 218.7
<b>After diagnosis</b>								
0–1 month	100.0	25.0 – 399.8	60.0	19.4 – 186.0	28.6	7.1 – 114.2	122.7	94.0 – 160.2
1–3	25.0	3.5 – 177.5	10.0	1.4 – 71.0	35.7	14.9 – 85.8	39.5	27.9 – 55.8
3–6	0.0	not estimated	13.3	3.3 – 53.3	4.8	0.7 – 33.8	42.3	31.9 – 55.9
6–12	0.0	not estimated	20.0	9.0 – 44.5	2.4	0.3 – 16.9	28.5	22.2 – 36.5
12+ months	13.9	9.9 – 19.6	10.0	7.5 – 13.2	20.1	17.1 – 23.5	17.7	16.4 – 19.2

CPRD = Clinical Practice Research Datalink.

**Table S.2: Hospital presentation rate (per 100 person-months) from HES-linked registrations in intracranial tumour patients aged 0 to 24 years, England, 1997–2006: by tumour location and time from diagnosis.**

Time from diagnosis (months)	Supratentorial		Midline		Cerebellum		Brainstem	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
<b>Before diagnosis</b>								
12+ months	0.6	0.5 – 0.7	0.3	0.2 – 0.3	0.1	0.1 – 0.2	0.2	0.1 – 0.3
6–12	2.4	2.0 – 2.8	1.4	1.0 – 2.0	0.5	0.3 – 0.9	0.2	0.1 – 0.5
3–6	3.8	3.2 – 4.6	2.8	2.0 – 4.0	1.0	0.6 – 1.6	1.0	0.6 – 1.9
1–3	7.4	6.3 – 8.7	10.3	8.3 – 12.8	2.1	1.4 – 3.1	6.4	4.8 – 8.6
0–1 month	132.1	125.2 – 139.4	114.1	104.2 – 125.0	151.8	142.1 – 162.1	137.6	126.0 – 150.3
<b>After diagnosis</b>								
0–1 month	102.4	96.3 – 108.9	84.6	76.1 – 94.1	118.4	109.9 – 127.6	159.1	146.4 – 173.0
1–3	92.7	88.6 – 97.1	81.2	75.2 – 87.6	183.8	176.1 – 191.9	129.2	120.7 – 138.2
3–6	62.3	59.4 – 65.2	53.7	49.7 – 58.0	125.4	120.1 – 130.9	66.5	61.4 – 72.1
6–12	46.3	44.5 – 48.1	28.5	26.4 – 30.7	91.3	88.1 – 94.7	59.4	55.5 – 63.5
12+ months	16.1	15.7 – 16.5	5.9	5.5 – 6.2	14.2	13.8 – 14.7	17.0	16.1 – 18.0

Time from diagnosis (months)	Ventricles		Meninges		Cranial nerves		Other	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
<b>Before diagnosis</b>								
12+ months	1.5	1.1 – 2.0	0.3	0.2 – 0.5	0.2	0.1 – 0.3	0.4	0.3 – 0.4
6–12	1.0	0.4 – 2.5	1.3	0.7 – 2.7	0.8	0.4 – 1.8	1.0	0.8 – 1.3
3–6	2.6	1.3 – 5.6	2.3	1.1 – 4.8	1.8	0.9 – 3.8	2.4	1.9 – 2.9
1–3	10.4	6.7 – 16.4	4.4	2.3 – 8.4	4.9	2.9 – 8.5	6.2	5.3 – 7.3
0–1 month	160.6	136.8 – 188.5	123.3	103.6 – 146.7	82.1	68.1 – 99.0	137.0	130.7 – 143.7
<b>After diagnosis</b>								
0–1 month	90.6	73.0 – 112.5	31.2	22.0 – 44.1	23.3	16.4 – 33.2	95.1	89.8 – 100.8
1–3	135.0	119.0 – 153.1	16.2	11.5 – 22.8	15.2	11.1 – 20.7	105.3	101.2 – 109.5
3–6	90.0	79.2 – 102.3	16.0	12.1 – 21.2	9.1	6.6 – 12.6	73.8	71.0 – 76.7
6–12	68.6	61.6 – 76.3	12.2	9.7 – 15.3	7.5	5.8 – 9.6	60.7	58.8 – 62.6
12+ months	18.8	17.6 – 20.1	4.2	3.6 – 4.8	3.0	2.7 – 3.5	15.6	15.2 – 15.9

HES = Hospital Episode Statistics.

**Table S.3: Emergency presentation rate (per 100 person-months) from HES-linked registrations in intracranial tumour patients aged 0 to 24 years, England, 1997–2006: by tumour location and time from diagnosis.**

Time from diagnosis (months)	Supratentorial		Midline		Cerebellum		Brainstem	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
<b>Before diagnosis</b>								
12+ months	0.2	0.2 – 0.2	0.1	0.1 – 0.2	0.1	0.1 – 0.1	0.1	0.0 – 0.1
6–12	1.0	0.7 – 1.3	0.6	0.4 – 1.1	0.4	0.3 – 0.7	0.1	0.0 – 0.4
3–6	1.9	1.5 – 2.5	0.9	0.5 – 1.7	0.9	0.5 – 1.5	0.9	0.4 – 1.6
1–3	4.3	3.4 – 5.3	4.2	3.0 – 5.8	1.2	0.7 – 2.0	2.9	1.9 – 4.5
0–1 month	66.8	62.0 – 72.1	54.8	48.0 – 62.4	96.3	88.7 – 104.6	86.2	77.1 – 96.3
<b>After diagnosis</b>								
0–1 month	21.9	19.1 – 25.0	22.4	18.2 – 27.5	38.5	33.7 – 43.9	41.1	34.9 – 48.4
1–3	15.2	13.5 – 17.0	14.2	11.8 – 17.0	26.8	24.0 – 30.0	19.7	16.6 – 23.4
3–6	10.5	9.4 – 11.8	11.1	9.4 – 13.2	16.5	14.6 – 18.5	13.8	11.6 – 16.5
6–12	8.2	7.4 – 9.0	4.8	4.0 – 5.8	11.8	10.7 – 13.1	11.2	9.6 – 13.1
12+ months	3.0	2.8 – 3.2	1.3	1.2 – 1.5	2.0	1.9 – 2.2	2.9	2.6 – 3.3

Time from diagnosis (months)	Ventricles		Meninges		Cranial nerves		Other	
	Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
<b>Before diagnosis</b>								
12+ months	0.5	0.3 – 0.8	0.2	0.1 – 0.3	0.1	0.0 – 0.2	0.1	0.1 – 0.2
6–12	0.2	0.0 – 1.5	0.8	0.4 – 2.0	0.3	0.1 – 1.1	0.5	0.3 – 0.7
3–6	1.1	0.4 – 3.5	1.6	0.7 – 3.9	1.0	0.4 – 2.7	1.3	1.0 – 1.8
1–3	2.2	0.8 – 5.9	1.9	0.7 – 5.2	2.7	1.3 – 5.6	3.7	3.0 – 4.5
0–1 month	88.4	71.2 – 109.7	49.5	37.6 – 65.2	19.4	13.2 – 28.5	75.9	71.2 – 80.9
<b>After diagnosis</b>								
0–1 month	24.3	16.0 – 36.9	11.7	6.6 – 20.6	9.8	5.7 – 16.9	28.6	25.7 – 31.8
1–3	21.1	15.4 – 29.0	5.9	3.3 – 10.4	3.0	1.5 – 6.1	18.7	17.0 – 20.5
3–6	16.9	12.6 – 22.7	4.3	2.5 – 7.3	1.5	0.7 – 3.4	13.3	12.2 – 14.6
6–12	10.7	8.2 – 14.1	3.3	2.1 – 5.1	1.3	0.7 – 2.3	10.4	9.6 – 11.2
12+ months	3.6	3.1 – 4.2	2.0	1.6 – 2.4	0.5	0.3 – 0.7	2.9	2.7 – 3.0

HES = Hospital Episode Statistics.

# Supplementary materials

## Figures

- Figures represent temporal change in presentation rate in children and young adults with intracranial tumour, by anatomical location, before and after diagnosis (time = 0 at brain tumour diagnosis) in England.
- Left column: primary care presentations (1989–2006)
  - grey dots: observed rates
  - black line: predicted rates after locally weighted regression (LOESS) smoothing
- Right column: hospital presentations (1997–2006)
  - black dots: observed rates of all admissions
  - red dots: observed rates of emergency admissions only
  - black line: predicted rates of all admissions after LOESS smoothing
  - red line: predicted rates of emergency admissions after LOESS smoothing

Figure S.1

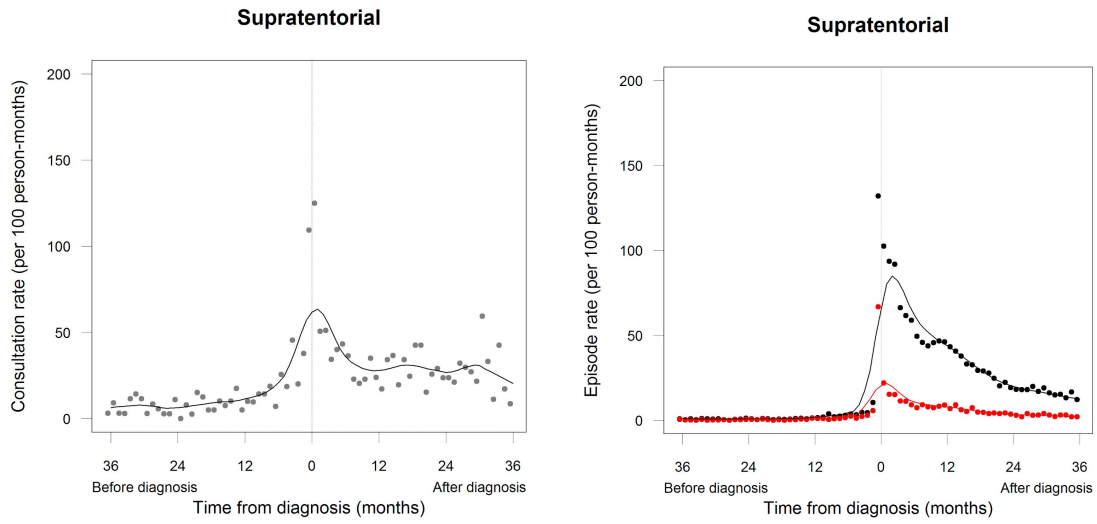
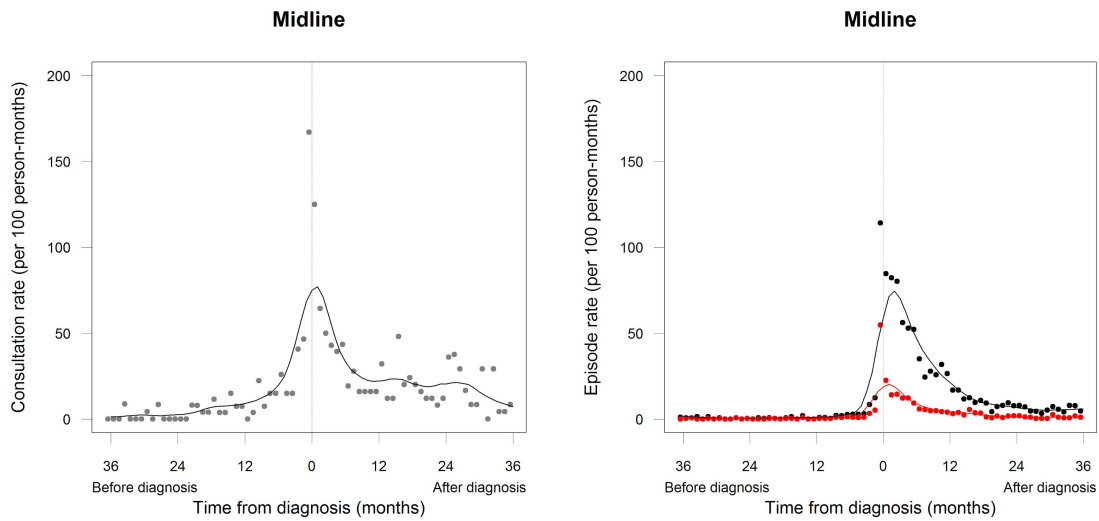


Figure S.2



Chu TPC, Shah A, Walker D, Coleman MP. Where are the opportunities for an earlier diagnosis of primary intracranial tumours in children and young adults? *Eur J Paediatr Neurol* 2016.

<https://dx.doi.org/10.1016/j.ejpn.2016.10.010>

Figure S.3

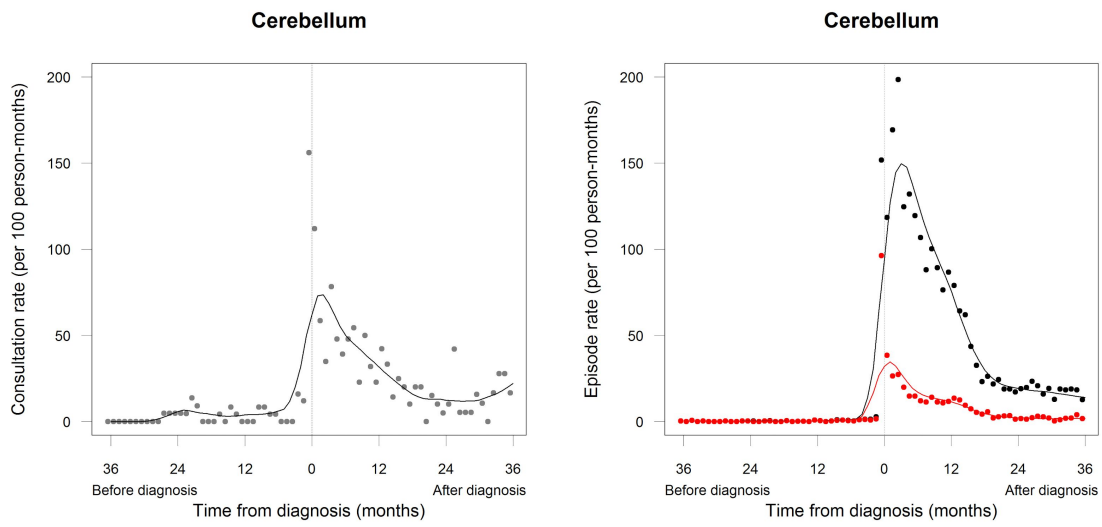


Figure S.4

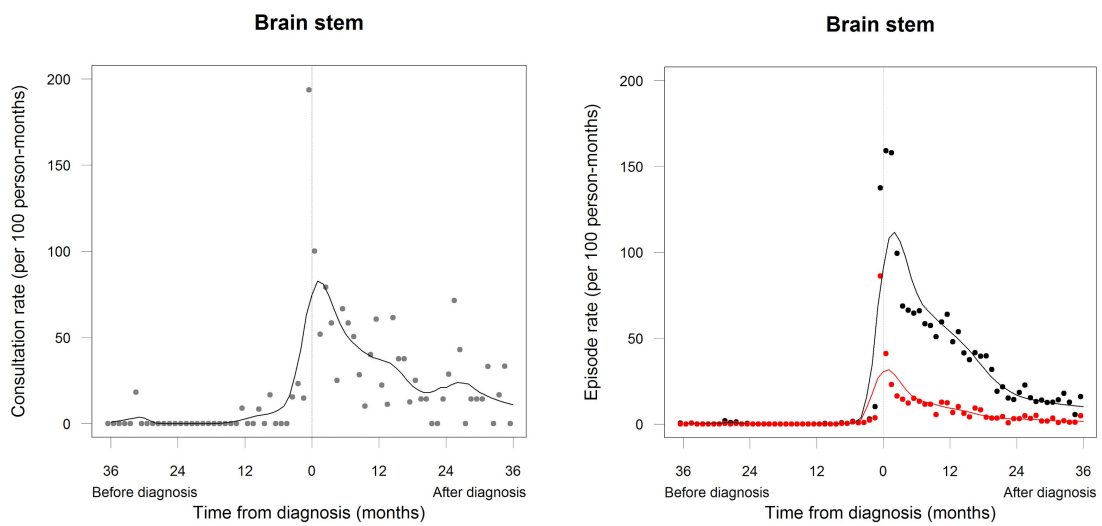


Figure S.5

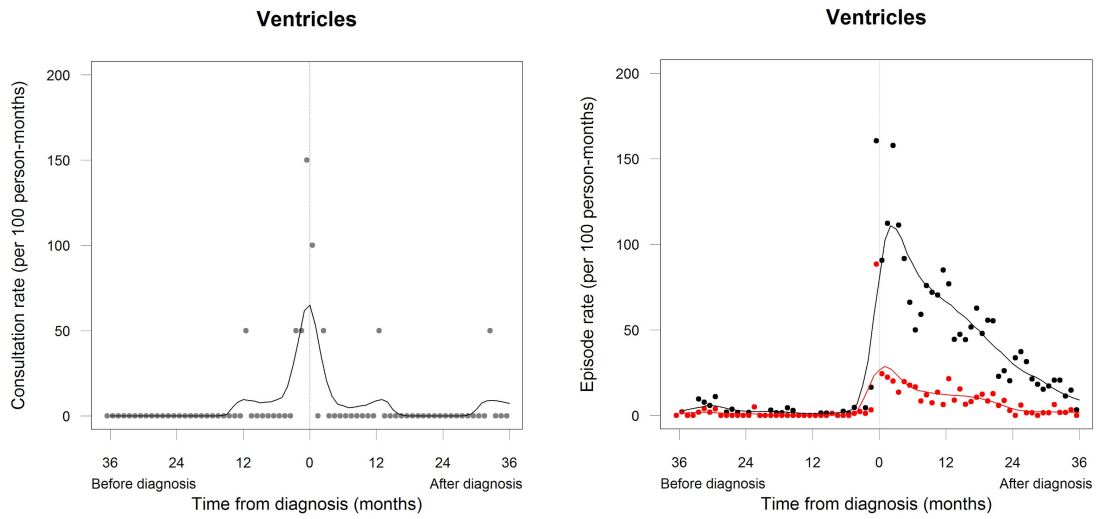
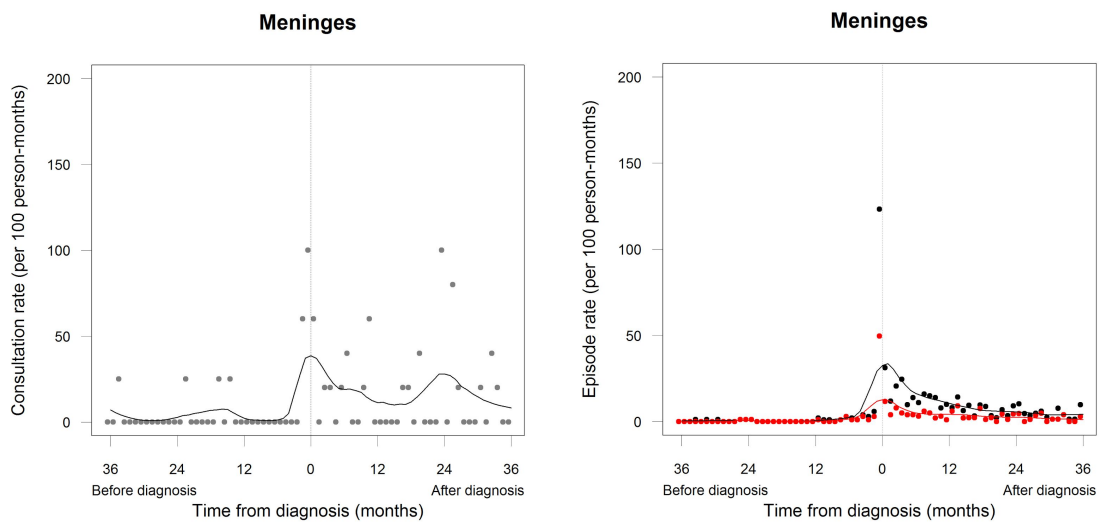


Figure S.6



Chu TPC, Shah A, Walker D, Coleman MP. Where are the opportunities for an earlier diagnosis of primary intracranial tumours in children and young adults? *Eur J Paediatr Neurol* 2016.

<https://dx.doi.org/10.1016/j.ejpn.2016.10.010>

Figure S.7

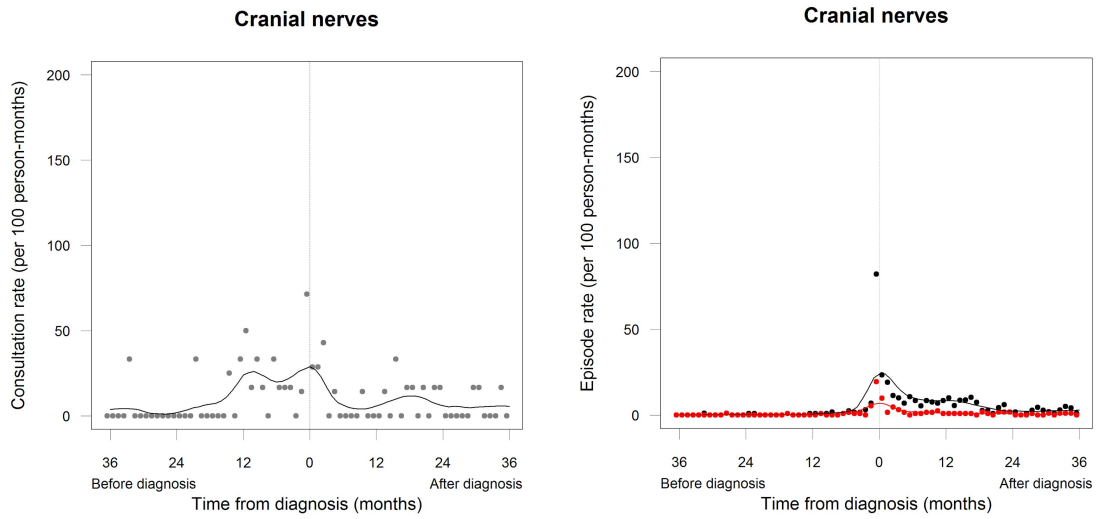
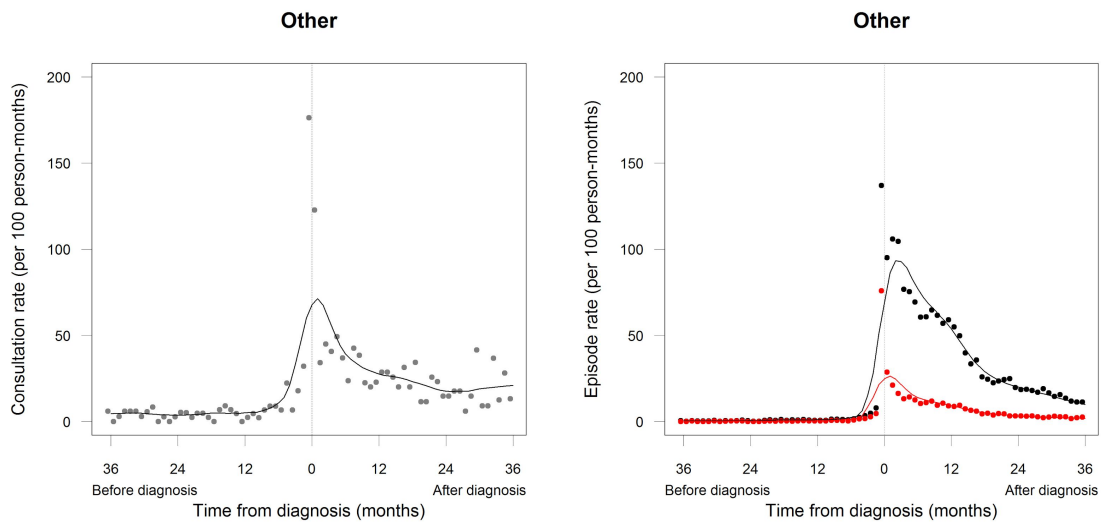


Figure S.8



Chu TPC, Shah A, Walker D, Coleman MP. Where are the opportunities for an earlier diagnosis of primary intracranial tumours in children and young adults? *Eur J Paediatr Neurol* 2016.

<https://dx.doi.org/10.1016/j.ejpn.2016.10.010>