

Appendix 2 (as supplied by the authors): Statistical model

Model and interpretation

Model

$$\log\{E(y_{ij})\} = \beta_0 + \beta_1 \text{Group}_i + \beta_2 \text{Period1}_i + \beta_3 \text{Period2}_i + \beta_4 \text{Group}_i * \text{Period1}_i + \beta_5 \text{Group}_i * \text{Period2}_i + \beta_6 t_{ij} + \beta_7 s_i + \log(\text{FTE}_{ij})$$

$$i = 1, 2, \dots, 31 \text{ and } j = 1, 2, \dots, 9$$

Where, y_{ij} = number of obesity visits for i^{th} provider at j^{th} quarter

$\text{Group}_i = 1$ if group is 2; otherwise 0

$\text{Period1}_i = 1$, if time period is intervention; otherwise 0

$\text{Period2}_i = 1$, if time period is post-intervention; otherwise 0

t_{ij} = Total activities for the i^{th} provider at j^{th} quarter

s_i = Panel size of the clinic of i^{th} provider

FTE_{ij} = Full time equivalent of i^{th} provider at j^{th} quarter

Interpretation of the parameters

Group	Time period	$\log\{E(y_{ij})/\text{FTE}_{ij}\}$
1	Baseline	$\beta_0 + \beta_6 t_{ij} + \beta_7 s_i$
	Intervention	$\beta_0 + \beta_2 + \beta_6 t_{ij} + \beta_7 s_i$
	Post-intervention	$\beta_0 + \beta_3 + \beta_6 t_{ij} + \beta_7 s_i$
2	Baseline	$\beta_0 + \beta_1 + \beta_6 t_{ij} + \beta_7 s_i$
	Intervention	$\beta_0 + \beta_1 + \beta_2 + \beta_4 + \beta_6 t_{ij} + \beta_7 s_i$
	Post-intervention	$\beta_0 + \beta_1 + \beta_3 + \beta_5 + \beta_6 t_{ij} + \beta_7 s_i$

Interpretation of the model

	$\log\{E(y_{ij})/\text{FTE}_{ij}\}$	
Baseline	*	*
Intervention	β_2	$\beta_2 + \beta_4$
Post-intervention	β_3	$\beta_3 + \beta_5$
	Group1	Group2

Hence $\beta_4 > 0$ would indicate an increase in the obesity/weight management visit rate per FTE in the intervention period comparing to baseline period in group 2.

$\beta_5 > 0$ would mean an increase in the obesity/weight management visit rate per FTE in the post-intervention period comparing to baseline period in group 2.

Note: Use of a GEE with negative binomial family and log of FTE as an offset is according to our protocol. FTE was too coarse a measure to reflect the variability in participant activity during the time periods. Total activity captures variability due to FTE, illness, vacation, secondment to administrative duties, etc. Thus we controlled for total activity by including it in the model as a covariate. We did account for clustering and did adjust for the stratification variable according to Kahan and Morris, *BMJ* 2012; 345:e5840.