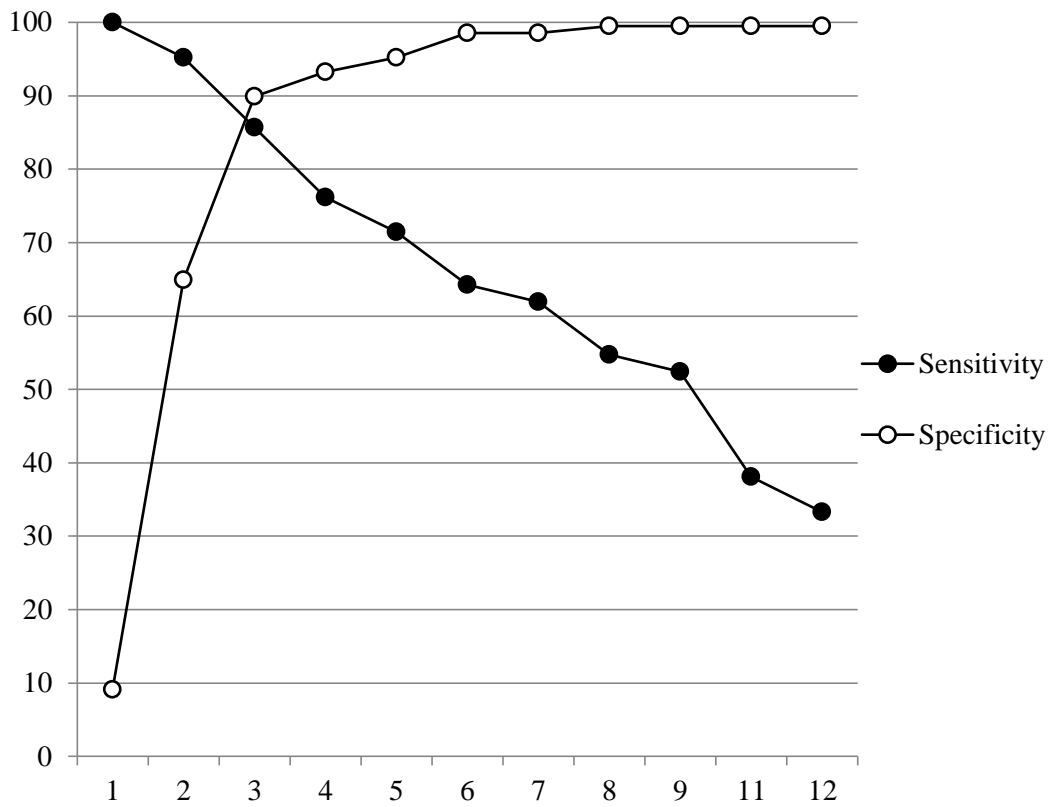ROC Curve

Diagonal segments are produced by ties.

Supplementary Figure 1

The percentage of false-positive results (100-specificity) plotted against the percentage of true-positive results (sensitivity) across the entire range of breath CO measures.

Supplementary Figure 2

Sensitivity and specificity were plotted at BCO cut-off levels from 1 to 12 ppm.
Sensitivity is the percentage of positive carbon monoxide breath tests at a specified cut-off.
Specificity is the percentage of negative carbon monoxide breath tests at a specified cut-off.

Supplementary Table 1. Sensitivity and specificity of the carbon monoxide analyser at various carbon monoxide breath test levels.

Carbon monoxide (ppm)	Sensitivity	Specificity	1-Specificity	Sensitivity + Specificity
1	1	0.09	0.91	1.09
2	0.95	0.65	0.35	1.60
3	**0.86**	**0.90**	**0.10**	**1.76**
4	0.76	0.93	0.07	1.69
5	0.71	0.95	0.05	1.67
6	0.64	0.99	0.01	1.63
7	0.62	0.99	0.01	1.60
8	0.55	1.00	0.00	1.54
9	0.52	1.00	0.00	1.52
11	0.38	1.00	0.00	1.38
12	0.33	1.00	0.00	1.33

Supplementary Table 2. Correlations between maternal carbon monoxide levels (ppm) and factors associated with carbon monoxide exposure.

	n	Correlation co-efficient (rho)	p-value
Self-reported number of cigarettes per day	250	0.61	<0.001
Time since last cigarette (hours)[a]	39	-0.51	<0.01
Partners BCO	54	0.34	<0.05
Partners BCO[b]	45	0.19	NS
Passive smoking exposure (hours)	70	0.31	<0.01
Passive smoke exposure only (hours)[b]	38	-0.06	NS

[a] missing data n=3

[b] excluded active maternal smokers from analysis

Supplementary Table 3. Changes self-reported smoking status of the study cohort.

| | Smoking status at first antenatal visit | | | |
| | Never smoked | Ex-smoker | Current smoker | Total |
Smoking status research questionnaire	% (n)	% (n)	% (n)	% (n)
Never smoked	84% (96)	9% (9)	0% (0)	42% (105)
Ex-smoker	16% (19)	85% (82)	5% (2)	41% (103)
Current smoker	0% (0)	6% (6)	95% (36)	17% (42)
Total	100% (115)	100% (97)	100% (38)	100% (250)