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Supplementary appendix

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Supplementary material

This web appendix has been provided by the authors to give readers additional information about their work.

Supplement to Caesarean section surgical techniques and long term outcomes: follow-up of the CORONIS trial

The CORONIS Trial Collaborative Group

Contents

Defining the main comparisons of interest	3
Table S1 Comparisons of interest	4
Table S2 Settings	5
Table S3 Deaths by cause	6
Table S4 Characteristics of women assessed	7
Table S5 Comparability of women included with those not included	9
Table S6 Abdominal entry	10
Table S7 Closure of uterus	11
Table S8 Uterine repair sutures	12
Table S9 - Table S13 Secondary comparisons of interest	13
Table S14 All outcomes by sub-continent and overall	23
Table S15 Incidence of all outcomes by region and overall	25

Defining the main comparisons of interest

A 2x2x2x2x2 fractional factorial design is efficient because it can answer a range of questions with a smaller overall sample size then would be necessary if the questions were addressed individually. However, there are concerns about the number of comparisons undertaken when each intervention pair may have different outcomes of interest. For the main trial there was one overall primary outcome for all the intervention pairs. For the follow up study, there were likely to be differences in the impact of the different intervention pairs on a range of long term outcomes. For example, those intervention pairs which were concerned with the uterine scar incision, i.e. single versus double layer closure, or use of chromic catgut versus polyglactin-910, will most likely impact on outcomes associated with integrity of the uterine scar, such as uterine rupture or abnormal placentation. Whereas intervention pair such as closure versus non closure of the peritoneum may be more likely to impact on outcomes associated with intraperitoneal adhesions, such as pelvic pain, dyspareunia and infertility.

All potential outcomes associated with all the different techniques were initially enumerated. At a meeting of the CORONIS follow up study investigators in October 2010, an extensive exercise was undertaken to define which outcomes were most likely to be affected by the five intervention pairs based on the biological plausibility of seeing an impact. It was recognised that there were specific outcomes which were of major interest in evaluating the long term impact of specific intervention pairs, and these were labelled as main comparisons of interest, (M) in table S1. In addition there were outcomes which were still of interest, and these were labelled as secondary comparisons of interest, (s) in table S1. And there were outcomes which were felt to be irrelevant to specific intervention pairs and these are the empty cells in table S1.

The process by which these comparisons were agreed was one of consensus development over a two day meeting between the clinicians amongst the co-investigator group. Alongside this exercise, a further exercise was undertaken once there was final agreement on the main comparisons of interest, to explore where there may be biologically plausible two-way interactions between intervention pairs focusing exclusively on the main comparisons of interest. It was initially agreed, as it was for the main trial, that no interactions would be explored unless there was evidence of a main effect. However, if there was evidence of a main effect, then biologically plausible interactions would be explored in the analysis.

Table S1 **Comparisons of interest**

Outcome reference number	Outcome	Blunt vs. Sharp	Exterior vs. Intra-abdominal	Single vs. Double	Closure vs. Non-Closure	Catgut vs. PG910
Women's health ar	nd mortality					
1 i)	Pelvic pain	S	S	S	M ^a	s ^b
ii)	Dysmenorrhoea	S	s	S	S	S
iii)	Deep dyspareunia	S	S	S	М	S
iv)	Urinary symptoms	S	s	S	S	S
2	Diagnostic laparoscopy or diagnostic laparotomy - not related to pregnancy	S	S	S	М	S
3	Hysterectomy or tubal/ovarian surgery - not related to pregnancy	S	S	S	М	S
4	Bladder or bowel damage – not related to pregnancy	S	S	S	М	s
5 i)	Abdominal hernias	М			S	
ii)	Bowel obstruction	S	S	S	М	S
6	Woman's death		S	Μ	S	Μ
Reproductive statu	s					
7 i)	Women with no subsequent pregnancy – voluntary	S			S	
ii)	Women with no subsequent pregnancy – involuntary	S	М	S	М	s
8	Fertility treatments	S	М	S	М	S
Subsequent pregna	incies					
9	Any subsequent pregnancy	S	S	S	S	S
i)	Interpregnancy interval	S	S	S	S	S
ii)	Miscarriage		S	S		S
iii)	Ectopic pregnancy		М	S	М	S
iv)	Gestation		S	S		S
v)	Stillbirth		S	Μ		Μ
vi)	Neonatal death		S	М		Μ
vii)	Mode of delivery		S	Μ		Μ
viii)	Other pregnancy complications (composite of a-i)		S	Μ		Μ
a	Uterine rupture		S	Μ		Μ
b	Uterine scar dehiscence		S	Μ		Μ
С	Placenta praevia		S	Μ		Μ
d	Morbidly adherent placenta		S	Μ		Μ
e	Abruption		S	Μ		Μ
f	Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells		S	М		М
g	Severe infection within 6 weeks postpartum		S	Μ		М
h	Hysterectomy up to 6 weeks postpartum		S	Μ		М
i	Manual removal of placenta		S	Μ		Μ
ix)	Bladder or bowel damage – at the time of subsequent Caesarean section	S	S	S	S	S
CORONIS children	n – morbidity and mortality					
10	Death or serious morbidity of child	М	1		1	

^aM = Main comparison ^bS = Secondary comparison

Settings

The CORONIS Trial and Follow-up Study was conducted in seven countries (8 regions) in 19 sites. The sites were a mixture of public and private hospitals, small and large and took both emergency and elective admissions. The numbers of women eligible to be assessed, and the number assessed are shown in Table S2.

Table S2Settings

Regional Trial Offices	Eligible for follow-up ^{ab}	HAQs ^c received	Deaths ^d	Total	%
Argentina			r		
Hospital Dr Jose Maria Cullen	200	166		166	83
Hospital Interzonal General de Agudos Dr Jose Penna	505	390	1	391	77
Hospital J.B. Iturraspe	237	179	1	180	76
Hospital Nacional Profesor Alejandro Posadas	431	323	2	325	75
Hospital Regional Dr Ramon Carillo	243	213	1	214	88
Total for Argentina	1616	1271	5	1276	79
Chile					
Pontificia Universidad Católica de Chile Hospital	505	486	0	486	96
Sotero Del Rio Hospital	700	648	3	651	93
Total for Chile	1205	1134	3	1137	94
Ghana					
Komfo Anokye Teaching Hospital	1260	1041	3	1044	83
India -Delhi					
All India Institute of Medical Sciences (AIIMS)	565	478	6	484	86
Lady Hardinge Medical College & Sucheta Kriplani Hospital	1062	819	5	824	78
Maulana Azad Medical College & Lok Nayak Hospital	1027	729	6	735	72
University College of Medical Sciences & GTB Hospital	1100	836	8	844	77
Total for Delhi	3754	2862	25	2887	77
Kenya					
Kenyatta National Hospital	1653	1446	14	1461	88
Pakistan					
Countess of Dufferin Hospital	1493	1191	4	1195	80
Fatima Bai Hospital	468	371	3	374	80
Liaquat National Hospital	563	476	1	477	85
Total for Pakistan	2524	2038	8	2046	81
Sudan					
Omdurman Maternity Hospital	1056	780	4	784	74
Soba University Hospital	537	518	2	520	97
Total for Sudan	1593	1298	6	1304	82
India - Vellore					
Christian Medical College Hospital	2101	2063	9	2072	99
Overall	15706	13153	73	13227	84

^a Excludes women known to be dead at six weeks, women randomised in error, women who withdrew consent from main trial, baseline data not received, vaginal deliveries at the time of recruitment to CORONIS.

^b Includes women eligible to be contacted for follow-up and assessment

^c HAQ = Health Assessment Questionnaire

^d Deaths reported during the follow-up study

Table S3 Deaths by cause

This table includes all known deaths of women participating in CORONIS from the time of recruitment into the trial until the time that follow-up was achieved.

Cause	Number of deaths								
	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Total		
Pregnancy related ^a	8	1	1	0	0	1	11		
Infection ^b	8	2	2	2	2	2	18		
Cancer	4	1	0	1	1	0	7		
Other medical ^c	6	7	7	6	4	0	30		
Suicide/Accident ^d	2	3	2	2	1	0	10		
Unknown	5	2	2	3	0	1	13		
	33	16	14	14	8	4	89		

^a Includes hypertensive disease, Mendelson's syndrome, haemorrhage, PIH, DIC

^b Includes HIV/AIDS, Hepatitis C, tuberculosis, H1N1 influenza
 ^c Includes epilepsy, stroke, liver failure, diabetes, heart disease, renal failure, Crohns disease, heart disease
 ^d Suicide has been included with accidental death, as this is how these deaths are reported in some of these settings

	Abdominal entry		Repair of	of uterus	Closure o	of uterus	Closure of	peritoneum	Uterine rep	air sutures	Total
	Blunt	Sharp	Exterior	Intra-ab	Single	Double	Closure	Non-closure	Catgut	PG-910	
	N = 3878	N = 3873	N = 4092	N = 4136	N = 3709	N = 3702	N = 4036	N = 4087	N = 3974	N = 3972	N = 13153
Region											
8	625 (16)	626 (16)	629 (15)	642 (16)	N/A ^a	N/A ^a	642 (16)	629 (15)	N/A ^a	N/A ^a	1271 (1
Argentina	635 (16)	636 (16)	()								(
Chile	N/A ^a	N/A ^a	567 (14)	567 (14)	325 (9)	323 (9)	561 (14)	573 (14)	246 (6)	240 (6)	1134
Ghana	516 (13)	525 (14)	N/A ^a	N/A ^a	510 (14)	531 (14)	N/A ^a	N/A ^a	531 (13)	510 (13)	1041
India – Delhi	1016 (26)	1010 (26)	825 (20)	830 (20)	1436 (39)	1426 (39)	1010 (25)	1033 (25)	N/A ^a	N/A ^a	2862 (2
India – Vellore ^b	772 (20)	769 (20)	261 (6)	261 (6)	N/A ^a	N/A ^a	1028 (25)	1035 (25)	1033 (26)	1030 (26)	2063 (
Kenya	728 (19)	718 (19)	726 (18)	720 (17)	N/A ^a	N/A ^a	N/A ^a	N/A ^a	724 (18)	722 (18)	1446 (
Pakistan ^b	211 (5)	215 (6)	439 (11)	463 (11)	777 (21)	785 (21)	795 (20)	817 (20)	807 (20)	805 (20)	2038 (
Sudan	N/A ^a	N/A ^a	645 (16)	653 (16)	661 (18)	637 (17)	N/A ^a	N/A ^a	633 (16)	665 (17)	1298 (
Maternal characteristics	1										
Mother's age - mean [SD]	26.7 [5.2]	26.9 [5.3]	27.3 [5.7]	27.4 [5.7]	27.1 [5.4]	27.0 [5.4]	26.6 [5.2]	26.7 [5.3]	28.1 [5.3]	28.1 [5.4]	27.2 [5
Nulliparous ^c	1991 (51)	1947 (50)	1832 (45)	1875 (45)	1733 (47)	1780 (48)	1911(47)	1955 (48)	1735 (44)	1733 (44)	6164 (4
Previous CS											
None	2776 (72)	2781 (72)	2689 (66)	2708 (65)	2524 (68)	2496 (67)	2567 (64)	2589 (63)	2517 (63)	2489 (63)	8712 (
	. ,	. ,		· · ·	. ,	. ,	· · ·	. ,			
One	1102 (28)	1092 (28)	1403 (34)	1428 (35)	1185 (32)	1206 (33)	1469 (36)	1498 (37)	1457 (37)	1483 (37)	4441 (
Previous CS incision											
Abdominal transverse	1051 (95)	1041 (95)	1364 (97)	1403 (98)	1155 (97)	1176 (98)	1413 (96)	1440 (96)	1401 (96)	1426 (96)	4290 (
Uterine transverse	1035 (94)	1029 (94)	1246 (89)	1261 (88)	1030 (87)	1052 (87)	1340 (91)	1365 (91)	1384 (95)	1417 (96)	4053 (
Uterine unknown	62 (6)	60 (5)	151 (11)	160 (11)	150 (13)	149 (12)	125 (9)	126 (8)	69 (5)	61 (4)	371
HIV status											
Known positive	124 (3)	124 (3)	104 (3)	110 (3)	31 (1)	22 (1)	14 (<1)	20 (<1)	115 (3)	107 (3)	257
Known negative	2825 (73)	2847 (74)	2495 (61)	2503 (61)	1463 (39)	1451 (39)	2867 (71)	2871 (70)	2046 (51)	2026 (51)	7798 (
Status unknown	929 (24)	902 (23)	1493 (36)	1523 (37)	2215 (60)	2229 (60)	1155 (29)	1196 (29)	1813 (46)	1839 (46)	
Status ulknowli	929 (24)	902 (23)	1495 (50)	1525 (57)	2213 (00)	2229 (00)	1155 (29)	1190 (29)	1813 (40)	1839 (40)	5098 (
Fetal heart beat heard	3850 (99)	3848 (99)	4075 (99)	4114 (99)	3694 (99)	3688 (99)	4027 (99)	4084 (99)	3943 (99)	3947 (99)	13090 (
Planned VBAC ^d	142/110 (13)	179/1092 (16)	147/1403 (11)	149/1428 (10)	109/1185 (9)	131/1206 (11)	175/1469 (12)	184/1498 (12)	149/1457 (10)	141/1483 (10)	502/4441 (
Ruptured membranes before delivery	1444 (37)	1422 (37)	1146 (28)	1138 (28)	1036 (28)	1027 (28)	1239 (31)	1297 (32)	1193 (30)	1178 (30)	4040 (
Labour prior to CS	1966 (51)	1957 (51)	1659 (41)	1665 (40)	1599 (43)	1572 (42)	1769 (44)	1795 (44)	1547 (39)	1556 (39)	5695
Duration of labour	()	()		(•)					. ()		
< 6 hours	651 (33)	663 (34)	556 (34)	548 (33)	574 (36)	555 (35)	705 (40)	695 (39)	434 (28)	412 (26)	1931
6-12 hours	792 (40)	743 (38)	724 (44)	741 (45)	617 (39)	602 (38)	727 (41)	769 (43)	608 (39)	637 (41)	2320
> 12 hours	298 (15)	325 (17)	288 (17)	256 (15)	206 (13)	216 (14)	305 (17)	302 (17)	296 (19)	289 (19)	927
Duration unknown	225 (13)	226 (12)	91 (5)	120 (13)	200 (13)	199 (13)	32(2)	29(2)	209 (14)	218 (14)	517

Intrapartum fever $\ge 38^{\circ}$ C any time during labour ^e											
Unknown	39 (2) 40 (2)	41 (2) 39 (2)	30 (2) 10 (1)	23 (1) 10 (1)	28 (2) 34 (2)	35 (2) 43 (3)	40 (2) 3 (<1)	36 (2) 4 (<1)	42 (3) 45 (3)	37 (2) 36 (2)	117 (2) 88 (2)
CS undertaken before start of labour	1912 (49)	1916 (49)	2433 (59)	2471 (60)	2110 (57)	2130 (58)	2267 (56)	2292 (56)	2427 (61)	2416 (61)	7458 (57)
after start of labour	1912 (49) 1966 (51)	1910 (49) 1957 (51)	1659 (41)	1665 (40)	1599 (43)	1572 (42)	1769 (44)	1795 (44)	1547 (39)	1556 (39)	5695 (43)
Main indication for CS Fetal compromise	973 (25)	954 (25)	799 (20)	817 (20)	796 (21)	799 (22)	905 (22)	917 (22)	778 (20)	725 (18)	2821 (21)
Failure to progress	842 (22)	828 (21)	841 (21)	802 (19)	896 (24)	855 (23)	911 (23)	898 (22)	877 (22)	884 (22)	2878 (22)
Obst. complications Maternal request	1287 (33) 188 (5)	1301 (34) 166 (4)	1317 (32) 220 (5)	1384 (33) 171 (4)	1321 (36) 84 (2)	1322 (36) 89 (2)	1215 (30) 247 (6)	1246 (30) 260 (6)	1217 (31) 278 (7)	1245 (31) 298 (8)	4285 (33) 667 (5)
Previous C-section	256 (7)	278 (7)	405 (10)	419 (10)	194 (5)	225 (6)	459 (11)	445 (11)	258 (6)	256 (6)	1065 (8)
Other	332 (9)	346 (9)	510 (12)	543 (13)	418 (11)	412 (11)	299 (7)	321 (8)	566 (14)	564 (14)	1437 (11)
Anaesthetic used for CS Regional											
General	3364 (87)	3371 (87)	3695 (90)	3745 (91)	3490 (94)	3466 (94)	3881 (96)	3930 (96)	3417 (86)	3434 (86)	11931 (91)
	514 (13)	502 (13)	397 (10)	391 (9)	219 (6)	236 (6)	155 (4)	157 (4)	557 (14)	538 (14)	1222 (9)
Gestational age at birth ^f <32											
32-36	57 (1)	53 (1)	42 (1)	46 (1)	29 (1)	37 (1)	49 (1)	47 (1)	36 (1)	51 (1)	149 (1)
37-41 > 41	514 (13) 3198 (82)	548 (14) 3172 (82)	452 (11) 3544 (87)	443 (11) 3568 (86)	571 (15) 3014	540 (15) 3020 (82)	608 (15) 3357 (83)	628 (15) 3378 (83)	442 (11) 3395 (85)	471 (12) 3342 (84)	1739 (13) 10996 (84)
	89 (2)	90 (2)	49 (1)	67 (2)	81 (2)	92 (2)	21 (1)	32 (1)	87 (2)	94 (2)	234 (2)
Associated information	1										
Time from trial entry to surgery (mins)-Med {IQR}	29 {17-54}	29 {17-51}	33 {18-74}	32 {17-74}	28 {14-59}	28 {14-58}	29 {16-59}	29 {16-61}	28 {15-55}	28 {16-56}	29 {16-60}
$> 4 \text{ hours}^{g}$	152 (4)	112 (3)	235 (6)	243 (6)	185 (5)	195 (5)	29 (10-39) 208 (5)	29 (10-01) 207 (5)	106 (3)	133 (3)	592 (5)
Surgeon's experience (yrs) -											
Median {IQR) <5	5 {4-8} 1493 (39)	5 {4-8} 1491 (39)	7 {4-13} 1255 (31)	7 {4-13} 1273 (31)	8 {5-14} 814 (22)	8 {5-14} 819 (22)	6 {4-12} 1331 (33)	6 {4-12} 1362 (33)	7 {4-13} 1072 (27)	7 {4-13} 1072 (27)	6 {4-12} 3994 (30)
5 to 10	1676 (43)	1652 (43)	1349 (33)	1391 (34)	1290 (35)	1304 (35)	1430 (35)	1426 (35)	1384 (35)	1363 (34)	4755 (36)
>10	691 (18)	703 (18)	1468 (36)	1454 (35)	1580 (43)	1559 (42)	1273 (32)	1294 (32)	1518 (38)	1537 (39)	4359 (33)

^a Intervention pairs not assigned in these regions.
 ^b Some sites within these regions switched intervention pairs.
 ^c Nulliparous women are women with no previous births. A previous birth is a live or stillbirth of estimated gestational age > 24 weeks (or > 28 weeks depending on country-specific definitions) regardless of previous mode of delivery or multiple pregnancy (multiple pregnancy counts as one birth).
 ^dVBAC - Vaginal Birth After Caesarean section, described in the main trial as 'trial of scar'.

^e Denominator is women with labour diagnosed before CS.

^f Completed weeks.

^g In some sites planned elective CS were randomised the evening before surgery.

Table S5 Comparability of women included in the analysis with those not included

	Included	Not included	p-value
Population – women assessed	13153	2570	
Mother's age – mean [sd]	27.2 [5.4]	26.0 [5.4]	<0.001
Nulliparous	6164 / 13153 (46·9%)	1220 / 2570 (47.5%)	0.57
1 previous caesarean section	4441 / 13153 (33.8%)	722 / 2570 (28·1)	<0.001
Caesarean section before start of labour	7458 / 13153 (56·7%)	1281 / 2570 (49.8)	<0.001
Short-term primary outcome ^a	1227 / 13153 (9·3%)	240 / 2568 (9·3%)	0.98
Still birth or death of CORONIS baby by 6 weeks of age	412 / 13053 (3·2%)	115 / 2389 (4.8%)	<0.001

^a A woman may have more than one component but is included only once in the primary outcome. Primary outcome defined as death or maternal infectious morbidity or further operative procedures or blood transfusion (>1 unit of whole blood or packed cells).

Table S6Abdominal entry

Secondary analysis, including stillbirths with death or serious morbidity (see Table 2 in main paper)

Outcome	Blunt	Sharp	Adjusted RR (95% CI)
CORONIS child(ren) Denominator –children of women eligible to be assessed	4779	4817	
Known stillbirths, deaths or serious morbidity of CORONIS child(ren) ^a	298 / 4779 (6·2%)	294 / 4817 (6·1%)	02 (0·87 to 1·19)

^a Includes stillbirths

Table S7 **Closure of uterus**

Secondary analysis where the denominator is all women assessed, not only those with a subsequent viable pregnancy (see Table 4 in main paper).

	Single	Double	Adjusted risk ratio (95% CI)
Subsequent pregnancies			
Denominator – babies of women assessed	3728	3724	
Stillbirth ^a	34 / 3712 (0.9%)	28 / 3709 (0.8%)	1·21 (0·74 to 2·00)
Neonatal death ^{ab}	32 / 3677 (0.9%)	34 / 3679 (0.9%)	0.94 (0.58 to 1.53)
Mode of delivery ^a All caesarean sections	1312 / 3712 (35·3%)	1353 / 3709 (36-5%)	0.97 (0.91 to 1.03)
Denominator – women assessed	3709	3702	
Other pregnancy complications – composite ^{ac}	38 / 3691(1.0%)	32 / 3686 (0.9%)	1·19 (0·74 to 1·89)
Uterine rupture ^a	1 / 3692 (0.03%)	2 / 3687 (0.05%)	0.50 (0.04 to 5.46)
Uterine scar dehiscence ^a	4 / 3691 (0.11%)	2 / 3687 (0.05%)	1.99 (0.37 to 10.88)
Placenta praevia ^a	5 / 3691 (0.1%)	4 / 3687 (0.1%)	1.25 (0.34 to 4.65)
Morbidly adherent placenta ^a	0 / 3691 (0.00%)	2 / 3687 (0.05%)	-
Abruption ^a	6 / 3692 (0.2%)	4 / 3687 (0.1%)	1.49 (0.42 to 5.27)
Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells ^a	8 / 3692 (0.2%)	7 / 3687 (0·2%)	1·14 (0·41 to 3·15)
Severe infection within 6 weeks postpartum ^a	14 / 3692 (0.4%)	15 / 3686 (0.4%)	0.93 (0.45 to 1.93)
Hysterectomy up to 6 weeks postpartum ^a	1 / 3692 (0.03%)	1 / 3687 (0.03%)	1.00 (0.06 to 16.04)
Manual removal of placenta ^a	4 / 3692 (0.1%)	0 / 3687 (0.0%)	-

 ^a For the birth following the CORONIS birth.
 ^b Excludes stillbirths.
 ^c Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Table S8 Uterine repair sutures

Secondary analysis where the denominator is all women assessed, not only those with a subsequent viable pregnancy (see Table 6 in main paper)

Outcome	Catgut	PG-910	Adjusted risk ratio (95% CI)
Subsequent pregnancies			
Denominator – babies of women assessed	3999	3994	
Stillbirth ^a	43 / 3982 (1.1%)	33 / 3985 (0.8%)	1.30 (0.83 to 2.04)
Neonatal death ^{ab}	27 / 3939 (0.7%)	28 / 3949 (0.7%)	0.97 (0.57 to 1.64)
Mode of delivery ^a All caesarean sections	1472 / 3981 (37·0%)	1448 / 3985 (36·3%)	1.01 (0.96 to 1.08)
Denominator – women assessed	3974	3972	
Other pregnancy complications – composite ^{ac}	42 / 3956 (1.1%)	35 / 3961 (0.9%)	1.20 (0.77 to 1.88)
Uterine rupture ^a	3 / 3956 (0.08%)	1 / 3962 (0.03%)	3.01 (0.31 to 28.96)
Uterine scar dehiscence ^a	2 / 3956 (0.05%)	3 / 3961 (0.08%)	0.67 (0.11 to 4.01)
Placenta praevia ^a	8 / 3956 (0·2%)	8 / 3961 (0·2%)	1.01 (0.38 to 2.68)
Morbidly adherent placenta ^a	2 / 3956 (0.05%)	3 / 3961 (0.08%)	0.67 (0.11 to 4.01)
Abruption ^a	6 / 3956 (0·2%)	2 / 3962 (0.1%)	2.99 (0.60 to 14.80)
Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells ^a	8 / 3956 (0·2%)	7 / 3962 (0·2%)	1.14 (0.42 to 3.16)
Severe infection within 6 weeks postpartum ^a	16 / 3956 (0·4%)	9/3962 (0.2%)	1.77 (0.78 to 4.00)
Hysterectomy up to 6 weeks postpartum ^a	1 / 3957 (0.03%)	2 / 3962 (0.05%)	0.50 (0.05 to 5.56)
Manual removal of placenta ^a	5 / 3957 (0·1%)	7 / 3962 (0·2%)	0·71 (0·23 to 2·24)

^a For the birth following the CORONIS birth.
^b Excludes stillbirths.
^c Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Tables S9 to S12 Secondary comparisons of interest by allocation

Table S9Abdominal entry

Outcome	Blunt	Sharp	Adjusted risk ratio (99% CI)
Women's health			
Denominator – women assessed	3878	3873	
Pelvic pain ^a	156 / 3878 (4.0%)	136 / 3873 (3.5%)	1.14 (0.85 to 1.54)
Dysmenorrhoea ^a	179 / 3878 (4.6%)	176 / 3873 (4.5%)	1.02 (0.78 to 1.33)
Deep dyspareunia ^a	118 / 3878 (3.0%)	112 / 3873 (2.9%)	1.05 (0.75 to 1.47)
Urinary symptoms ^{a-b}	39 / 3878 (1.0%)	35 / 3873 (1.0%)	1.11 (0.61 to 2.02)
Diagnostic laparoscopy/laparotomy ^c	0 / 3878 (0.0%)	3 / 3871 (0.08%)	-
Hysterectomy or tubal/ovarian surgery ^c	9 / 3878 (0·2%)	10 / 3873 (0·3%)	0.91 (0.28 to 2.97)
Bladder or bowel damage following surgery ^{ed}	0 / 75 (0.0%)	1 / 64 (1.6%)	-
Bowel obstruction ^e	0 / 3878 (0.0%)	3 / 3873 (0.08%)	-
Reproductive status			
Denominator - Women with no subsequent pregnancy	2266	2236	
Voluntary infertility	2144 / 2266 (94.6%)	2099 / 2236 (94.0%)	1.00 (0.99 to 1.03)
Denominator – women assessed	3878	3873	
Voluntary infertility	2144 / 3878 (55·3%)	2099 / 3873 (54·2%)	1.02 (0.97 to 1.07)
Involuntary infertility	98 / 3878 (2.5%)	116 / 3873 (3.0%)	0.86 (0.10 to 1.21)
Use of fertility treatments	12 / 3877 (0·3%)	14 / 3873 (0·4%)	0.86 (0.31 to 2.35)

Table S9 continued

Outcome	Blunt	Sharp	Adjusted risk ratio or hazards ratio (HR) (99% CI)
Subsequent pregnancies			
Denominator – women assessed	3878	3873	
Any subsequent pregnancy	1612 / 3878 (41.6%)	1637 / 3873 (42·3%)	0.99 (0.92 to 1.05)
Denominator – women with a subsequent pregnancy	1612	1637	
Interpregnancy interval (months) ^f			
Mean [sd]	30.2 [12.88]	30.5 [12.46]	HR
Median {IQR}	28.7 {20.5 to 38.0}	29.5 {21.3 to 38.3}	1.00 (0.92 to 1.10)
Denominator - women with a subsequent viable pregnancy	1367	1396	
Bladder or bowel damage ⁱ	1 / 1105 (0.1%)	1 / 1132 (0.1%)	1.02 (0.03 to 39.07)
Denominator - women assessed	3878	3873	
Bladder or bowel damage ⁱ	1 / 3595 (0.03%)	1 / 3592 (0.03%)	1.00 (0.03 to 38.15)

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening.

^b Urinary symptoms of poor stream and/or frequency which did not respond to antibiotics.

^c Not related to pregnancy.

^d In those women who have had surgery excluding diagnostic laparoscopy and diagnostic laparotomy.

^e Following the CORONIS birth any new onset.

^f From the CORONIS birth to the end of the subsequent pregnancy (regardless of loss or birth)

^g Of the first viable pregnancy (gestational age > 24 or > 28 weeks depending on country specific definition.

^h For the birth following the CORONIS birth.

ⁱ Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Table S10Repair of uterus

Outcome	Exterior	Intra-ab	Adjusted risk ratio or hazards ratio (HR) (99% CI)
Women's health			
Denominator – women assessed	4092	4136	
Pelvic pain ^a	223 / 4092 (5.5%)	234 / 4136 (5.7%)	0·97 (0·76 to 1·22)
Dysmenorrhoea ^a	246 / 4092 (6.0%)	274 / 4136 (6.6%)	0.91 (0.73 to 1.13)
Deep dyspareunia ^a	156 / 4092 (3.8%)	173 / 4136 (4·2%)	0.91 (0.69 to 1.20)
Urinary symptoms ^{a-b}	42 / 4092 (1.0%)	55 / 4136 (1·3%)	0·77 (0·46 to 1·30)
Diagnostic laparoscopy/laparotomy ^c	1 / 4092 (0.02%)	6 / 4136 (0·15%)	0·17 (0·01 to 2·73)
Hysterectomy or tubal/ovarian surgery ^e	7 / 4092 (0.2%)	13/ 4136 (0·3%)	0.54 (0.16 to 1.82)
Bladder or bowel damage ^{cd}	0 / 89 (0.0%)	1 / 98 (1.02%)	-
Bowel obstruction ^e	3 / 4092 (0.07%)	2 / 4136 (0.05%)	1.51 (0.14 to 15.88)
Denominator – women eligible to be assessed	4867	4862	
Woman's death	26 / 4867 (0.5%)	23 / 4862 (0.5%)	1.13 (0.54 to 2.36)
Subsequent pregnancies			
Denominator – women assessed	4092	4136	
Any subsequent pregnancy	1653 / 4092 (40·4%)	1656 / 4136 (40.0%)	1.00 (0.94 to 1.08)
Denominator – women with a subsequent pregnancy	1653	1656	
Interpregnancy interval (months) ^f			
Mean [sd] Median {IQR}	29·3 [11·8] 28·2 {20·5 to 36·4}	29.6 [12.0] 28.8 {20.6 to 37.1}	HR 1.04 (0.95 to 1.13)
Miscarriage	205 / 1627 (12.6%)	204 / 1632 (12.5%)	1.00 (0.80 to 1.28)

Table S10 continued

Outcome	Exterior	Intra-ab	Adjusted risk ratio or mean difference (MD) (99% CI)
Denominator - women with a subsequent viable	1407	1413	
pregnancy Gestation at delivery (completed wks) ^g			MD
Mean [sd]	38.3 [1.5]	38.3 [1.6]	-0.06 (-0.21 to 0.09)
Median {IQR}	38.6 {38.0 to 38.6}	38.6 {38.0 to 39.0}	
Denominator – babies of women with a subsequent viable pregnancy	1423	1425	
Stillbirth ^h	23 / 1423 (1.6%)	20 / 1425 (1·4%)	1.15 (0.52 to 2.50)
Neonatal death ⁱ	25 / 1400 (1.8%)	23 / 1405 (1.6%)	1.10 (0.52 to 2.30)
Mode of delivery ^h			
Non-instrumental vaginal	212/1423 (14.9%)	206/1425 (14.5%)	
Instrumental vaginal	6/1423 (0.4%)	6/1425 (0·4%)	
Pre-labour caesarean section	941/1423 (66·2%)	957/1425 (67·2%)	
In labour caesarean section	263/1423 (18.5%)	256/1425 (17.9%)	
All caesarean sections	1204 / 1422 (84.7%)	1213 / 1425 (85.1%)	0.99 (0.95 to 1.03)
Denominator - women with a subsequent viable pregnancy	1407	1413	
Other pregnancy complications – composite ^{hi}	38 / 1407 (2.7%)	50 / 1410 (3.5%)	0.80 (0.44 to 1.32)
Uterine rupture ^h	1 / 1407 (0.07%)	1 / 1412 (0.07%)	0·97 (0·03 to 36·8)
Uterine scar dehiscence ^h	4 / 1407 (0·3%)	10 / 1412 (0.7%)	1.01 (0.20 to 6.22)
Placenta praevia ^h	4/ 1407 (0.3%)	10 / 1412 (0.7%)	0·40 (0·09 to 1·84)
Morbidly adherent placenta ^h	0 / 1407(0.0%)	4 / 1412 (0·3%)	-
Abruption ^h	5 / 1407 (0.4%)	4 / 1412 (0·3%)	1.25 (0.22 to 7.00)
Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells ^h	7 / 1407 (0.5%)	9 / 1412 (0.6%)	0.75 (0.20 to 2.73)
Severe infection within 6 weeks postpartum ^h	17 / 1407 (1·2%)	14 / 1410 (1.0%)	1.21 (0.50 to 3.06)

Table S10 continued

Outcome	Exterior	Intra-ab	Adjusted risk ratio or mean difference (MD) (99% CI)
Hysterectomy up to 6 weeks postpartum ^h	1 / 1407 (0.1%)	3 / 1413 (0·2%)	0·34 (0·02 to 6·60)
Manual removal of placenta ^h	3 / 1407 (0.2%)	11 / 1413 (0.8%)	0·28 (0·05 to 1·5)
Bladder or bowel damage ⁱ	0 / 1190 (0.0%)	1 / 1203 (0.1%)	-
Denominator – babies of women assessed	4082	4124	
Stillbirth ^h	23 / 4082 (0.6%)	20 / 4124 (0.5%)	1·16 (0·53 to 2·55)
Neonatal death ⁱ	25 / 4059 (0.6%)	23 / 4104 (0.6%)	1·10 (0·52 to 2·31)
Mode of delivery ^h All caesarean sections	1204 /4081 (29.5%)	1213 / 4124 (29·4%)	1.00 (0.92 to 1.10)
Denominator - women assessed	4092	4136	
Other pregnancy complications - composite ^{hi}	38 / 4066 (0.9%)	50 / 4109 (1.2%)	0·77 (0·44 to 1·33)
Uterine rupture ^h	1 / 4066 (0·02%)	1 / 4111(0.02%)	1.01 (0.03 to 38.73)
Uterine scar dehiscence ^h	4 / 4066 (0.1%)	4 / 4111 (0.1%)	1.01 (0.16 to 6.24)
Placenta praevia ^h	4 / 4066 (0.1%)	10/ 4111 (0·2%)	0·40 (0·10 to 1·86)
Morbidly adherent placenta ^h	0 / 4066 (0.0%)	4 / 4111(0.1%)	-
Abruption ^h	5 / 4066 (0.1%)	4 / 4111 (0.1%)	1·3 (0·22 to 7·10)
Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells ^h	7 / 4066 (0.02%)	9 / 4111 (0·02%)	0.80 (0.22 to 2.90)
Severe infection within 6 weeks postpartum ^h	17 / 4066 (0:4%)	14 / 4109 (0.3%)	1.22 (0.50 to 3.10)
Hysterectomy up to 6 weeks postpartum ^h	1 / 4066 (0·02%)	3 /4112 (0.07%)	0·34 (0·02 to 6·60)
Manual removal of placenta ^h	3 / 4066 (0.1%)	11 / 4111 (0·3%)	0·30 (0·51 to 1·50)
Bladder or bowel damage ⁱ	0 / 3849 (0.00%)	1 / 3902 (0.03%)	-

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening.

^b Urinary symptoms of poor stream and/or frequency which did not respond to antibiotics.

^c Not related to pregnancy.

^d In those women who have had surgery excluding diagnostic laparoscopy and diagnostic laparotomy.

^e Following the CORONIS birth any new onset.

^f From the CORONIS birth to the end of the subsequent pregnancy (regardless of loss or birth·)

^g Of the first viable pregnancy (gestational age > 24 or > 28 weeks depending on country specific definition.

^h For the birth following the CORONIS birth.

ⁱ Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Table S11

Outcome	Single	Double	Adjusted risk ratio, mean difference (MD) or hazards ratio (HR) (99% CI)
Women's health			
Denominator – women assessed	3709	3702	
Pelvic pain ^a	211 / 3709 (5.7%)	176 / 3702 (4.8%)	1·20 (0·93 to 1·55)
Dysmenorrhoeaª	208 / 3709 (5.6%)	171 / 3702 (4.6%)	1.22 (0.94 to 1.57)
Deep dyspareunia ^a	110 / 3709 (3.0%)	93 / 3702 (2.5%)	1.19 (0.83 to 1.69)
Urinary symptoms ^{a b}	35 / 3709 (1.0%)	27 / 3702 (1.0%)	1.30 (0.67 to 2.51)
Diagnostic laparoscopy/laparotomy ^e	1 / 3707 (0.03%)	1 / 3702 (0.03%)	1.01 (0.03 to 38.31)
Hysterectomy or tubal/ovarian surgery ^e	4 / 3709 (0.1%)	4 / 3702 (0.1%)	1.00 (0.16 to 6.15)
Bladder or bowel damage ^{ed}	0 / 3709 (0.0%)	0 /3702 (0.0%)	-
Bowel obstruction ^e	1 / 3709 (0.03%)	1 / 3702 (0.03%)	1.00 (0.26 to 38.05)
Reproductive status			
Denominator – women assessed	3709	3702	
Involuntary infertility	133 / 3709 (3.6%)	132 / 3702 (3.6%)	1.01 (0.74 to 1.37)
Use of fertility treatments	20 / 3709 (0.5%)	10 / 3701 (0.3%)	1.98 (0.73 to 5.38)
Subsequent pregnancies			
Denominator – women assessed	3709	3702	
Any subsequent pregnancy	1889 / 3709 (51.0%)	1904 / 3702 (51·4%)	0.9 (0.93 to 1.05)
Denominator – women with a subsequent pregnancy Interpregnancy interval (months) ^f	1889	1904	
Mean [sd] Median {IQR}	29.0 [11.6] 27.9 {20.6 to 36.1}	29·1 [11·7] 28·2 {20·5 to 36·5}	HR 1·01 (0·93 to 1·10)
Miscarriage	234 / 1873 (12.5%)	251 /1889 (13·3%)	0·94 (0·76 to 1·17)
Ectopic pregnancy	6 / 1873 (0·3%)	4 /1889 (0.2%)	1.51 (0.29 to 7.94)
Denominator - women with a subsequent viable pregnancy	1889	1904	
Gestation at delivery (completed wks) ^g Mean [sd] Median {IQR}	38·2 [1·3] 38·6 {38·0 to 38·6}	38·1 [1·3] 38·6 {38·0 to 38·6}	MD 0·04 (-0·07 to 0·16)
Bladder or bowel damage ⁱ	1 / 1298 (0.08%)	0 / 1332 (0.00%)	-
Denominator - women assessed	3709	3702	
Bladder or bowel damage ⁱ	1 / 3709 (0.03%)	0 /3702 (0.00%)	_

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening. ^b Urinary symptoms of poor stream and/or frequency which did not respond to antibiotics.

^c Not related to pregnancy.

^d In those women who have had surgery excluding diagnostic laparoscopy and diagnostic laparotomy.

^e Following the CORONIS birth any new onset.

^f From the CORONIS birth to the end of the subsequent pregnancy (regardless of loss or birth)

^g Of the first viable pregnancy (gestational age > 24 or >28 weeks depending on country specific definition.

^h For the birth following the CORONIS birth.

ⁱ Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Table S12 Closure of peritoneum

Outcome	Closure	Non-Closure	Adjusted risk ratio or hazards ratio (HR) (99% CI)
Women's health and mortality			
Denominator – women assessed	4036	4087	
Dysmenorrhoea ^a	255 / 4306 (6·3%)	235 / 4087 (5.7%)	1.10 (0.88 to 1.38)
Urinary symptoms ^{a-b}	39 / 4036 (1.0%)	51 / 4087 (1·2%)	0.77 (0.45 to 1.33)
Abdominal hernias ^e	39 / 4036 (1.0%)	43 / 4087 (1.0%)	0.92 (0.52 to 1.62)
Denominator –women eligible to be assessed	4783	4816	
Woman's death	24 / 4773 (0.5%)	25 / 4805 (0.5%)	0.96 (0.50 to 2.00)
Reproductive status			
Denominator - Women with no subsequent pregnancy	2350	2382	
Voluntary infertility	2238 / 2350 (95·2%)	2262 / 2382 (95.0%)	1.00 (0.99 to 1.02)
Denominator – women assessed	4036	4087	
Voluntary infertility	2238 / 4036 (55.5%)	2622 / 4087 (64·2%)	1.00 (0.95 to 1.05)
Subsequent pregnancies			
Denominator – women assessed	4036	4087	
Any subsequent pregnancy	1686 / 4036 (42.0%)	1705 / 4087 (42.0%)	1.00 (0.94 to 1.07)
Denominator – women with a subsequent pregnancy	1686	1705	
Interpregnancy interval (months) ^f Mean [sd] Median {IQR}	28·7 [11·6] 27·8 {19.9 to 35·9}	28.3 [12.1] 27.0 {18.9 to 36.3}	HR 1·00 (0·91 to 1·09)
Denominator - women with a subsequent viable pregnancy	1411	1438	
Bladder or bowel damage ⁱ	1 / 1208 (0.08%)	1 / 1209 (0.08%)	1.00 (0.02 to 38.17)
Denominator - women assessed	4036	4087	
Bladder or bowel damage ⁱ	1 / 3816 (0.03%)	1 / 3828(0.03%)	1.00 (0.03 to 38.30)

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening.

^b Urinary symptoms of poor stream and/or frequency which did not respond to antibiotics.

^c Not related to pregnancy.

^d In those women who have had surgery excluding diagnostic laparoscopy and diagnostic laparotomy.

^e Following the CORONIS birth any new onset.

^f From the CORONIS birth to the end of the subsequent pregnancy (regardless of loss or birth)

^g Of the first viable pregnancy (gestational age > 24 or > 28 weeks depending on country specific definition.

^h For the birth following the CORONIS birth.

ⁱ Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Outcome	Catgut	PG-910	Adjusted risk ratio, mean difference (MD) or hazards ratio (HR) (99% CI)
Women's health and mortality			
Denominator – women assessed	3974	3972	
Pelvic pain ^a	202 / 3974(5·1%)	218 / 3972 (5.5%)	0.93 (0.73 to 1.18)
Dysmenorrhoeaª	191 / 3974 (4.8%)	207 / 3972 (5·2%)	0.92 (0.72 to 1.19)
Deep dyspareunia ^a	116 / 3974 (2.9%)	133 / 3972 (3·4%)	0.87 (0.63 to 1.20)
Urinary symptoms ^{a·b}	43 / 3974 (1.1%)	45 / 3972 (1.1%)	0.95 (0.55 to 1.65)
Diagnostic laparoscopy/laparotomy ^c	2 / 3974 (0.05%)	2 / 3972 (0.05%)	1.00 (0.76 to 13.15)
Hysterectomy or tubal/ovarian surgery ^e	11 / 3974 (0·3%)	10 / 3972 (0.3%)	1.09 (0.37 to 3.37)
Bladder or bowel damage ^{ed}	1 / 72 (1·4%)	0 / 74 (0.0%)	-
Bowel obstruction ^e	2 /3974 (0.05%)	0 / 3972 (0.00%)	-
Reproductive status			
Denominator – women assessed	3974	3972	
Involuntary infertility	162 / 3974 (4·1%)	182 / 3972 (4.6%)	0.88 (0.68 to 1.16)
Use of fertility treatments	20 / 3972 (0.5%)	16 / 3971 (0.4%)	1.24 (0.53 to 2.94)
Subsequent pregnancies			
Denominator – women assessed	3974	3972	
Any subsequent pregnancy	1861 / 3974 (46.8%)	1842 / 3972 (46·4%)	1.00 (0.95 to 1.07)
Denominator – women with a subsequent pregnancy Interpregnancy interval (months) ^f	1861	1842	
Mean [sd] Median {IQR}	28·9 [11·8] 27·5 {20·2 to 36·4}	29.6 [11.5] 28.7 {20.7 to 36.9}	HR 1·04 (0·95 to 1·13)
Miscarriage	236 / 1844 (13.0%)	210 / 1833 (11.5%)	1.11 (0.89 to 1.40)
Ectopic pregnancy	4 / 1844 (0·2%)	4 / 1833 (0·2%)	1.00 (0.16 to 6.15)
Denominator - women with a subsequent viable pregnancy	1661	1648	
Gestation at delivery (completed wks) ^g Mean [sd] Median {IQR}	38·1 [1·4] 38·6 {38·0 to 38·6}	38·2 [1·3] 38·6 {38·0 to 38·6}	MD -0·07 (-0·19 to 0·06)
Bladder or bowel damage ^j	1 / 1449 (0.07%)	2 / 1429 (0.14%)	0·49 (0·02 to 11.54)
Denominator - women assessed Bladder or bowel damage ⁱ	3974 1 / 3745 (0·03%)	3972 2 / 3744 (0·05%)	0.50 (0.02 to 11.71)

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening.

^b Urinary symptoms of poor stream and/or frequency which did not respond to antibiotics.

^c Not related to pregnancy.

^d In those women who have had surgery excluding diagnostic laparoscopy and diagnostic laparotomy.

^e Following the CORONIS birth any new onset.

^f From the CORONIS birth to the end of the subsequent pregnancy (regardless of loss or birth)

^g Of the first viable pregnancy (gestational age > 24 or > 28 weeks depending on country specific definition.

^h For the birth following the CORONIS birth.

ⁱ Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion, severe infection within 6 weeks, postpartum hysterectomy up to 6 weeks postpartum, manual removal of placenta.

Table S14

All outcomes by sub-continent and overall

	South America	East and West Africa	South Asia	Totals
Women's health and mortality				
Denominator – women assessed	2405	3785	6963	13153
Pelvic pain ^a	138 / 2405 (5.7%)	180 / 3785 (4.8%)	346 / 6963 (5.0%)	664 / 13153 (5.0%)
Dysmenorrhoea ^a	252 / 2405 (10.5%)	191 / 3785 (5.0%)	271 / 6963 (3.9%)	714 / 13153 (5·4%)
Deep dyspareunia ^a	150 / 2405 (6·2%)	128 / 3785 (3·4%)	152 / 6963 (2·2%)	430 / 13153 (3·3%)
Urinary symptoms ^{ab}	43 / 2405 (1.8%)	40 / 3785 (1.1%)	54 / 6963 (0.8%)	137 / 13153 (1.0%)
Diagnostic laparoscopy/laparotomy ^b	5 / 2405 (0·2%)	2 / 3783 (0.1%)	0 / 6963 (0.0%)	7 / 13151 (0.1%)
Hysterectomy or tubal/ovarian surgery ^b	11 / 2405 (0.5%)	8 / 3785 (0.2%)	11 / 6963 (0·2%)	30 / 13153 (0.2%)
Bladder or bowel damage ^{bc}	0 / 115 (0.0%)	1 / 36 (2.8%)	0 / 113 (0.0%)	1 / 264 (0.4%)
Abdominal hernias ^d	37 / 2405 (1.5%)	18 / 3785 (0.5%)	47 / 6963 (0.7%)	102 / 13153 (0.8%)
Bowel obstruction ^d	1 / 2405 (0.04%)	2/3785 (0.05%)	2 / 6963 (0.03%)	5 / 13153 (0.04%)
Denominator – women eligible to be assessed Woman's death	2782 9 / 2782 (0·3%)	4504 32 / 4504 (0·7%)	8347 48 / 8347 (0·6%)	15633 89 / 15633 (0·6%)
Reproductive status				
Denominator - women with no subsequent pregnancy Voluntary infertility	1800 1773 / 1800 (98·5%)	2028 1773 / 2028 (87·4%)	3510 3276 / 3510 (93·3%)	7338 6822 / 7338 (93·0%)
Denominator – women assessed	2405	3785	6963	13153
Involuntary infertility	23 / 2405 (1.0%)	201 / 3785 (5·3%)	191 / 6963 (2·7%)	415 / 13153 (3·2%)
Use of fertility treatments	0 / 2403 (0.0%)	19 / 3784 (0.5%)	27 / 6963 (0·4%)	46 / 13150 (0·3%)
Subsequent pregnancies				
Denominator – women assessed	2405	3785	6963	13153
Any subsequent pregnancy	605 / 2405 (25·2%)	1757 / 3785 (46·4%)	3453 / 6963 (49.6%)	5815 / 13153 (44·2%)
Denominator – women with a subsequent pregnancy	605	1757	3453	5815
Interpregnancy interval (months) ^e Mean [sd]	31.9 [12.9]	31.6 [11.9]	27.7 [11.5]	29.3 [11.9]
Median {IQR}	31.5 {21.6 to 39.1}	30.4 {22.6 to 39.3}	26·7 {19·0 to 35·0}	28.3 {20.3 to 36.8}
Miscarriage (excludes women pregnant at the time of assessment)	52 / 584 (8·9%)	201 / 1752 (11.5%)	453 / 3415 (13·3%)	706 / 5751 (12·3%)
Ectopic pregnancy (excludes women pregnant at the time of assessment)	4 / 584 (0.7%)	4 / 1752 (0·2%)	8 / 3415 (0·2%)	16 / 5751 (0·3%)

Table S14 continued	South America	uth America East and West South Africa		Totals
Denominator - women with a subsequent viable pregnancy $^{\rm f}$	536	1604	2852	4992
Gestation at delivery (completed wks)				
Mean [sd]	38.4 [1.9]	38.4 [1.3]	38.0 [1.4]	38.2 [1.5]
Median {IQR}	38.6 {38.0 to 39.0}	38.6 {38.0 to 38.6}	38.0 {38.0 to 38.6}	38.6 {38.0 to 38.6}
Stillbirth ^e	3 / 541 (0.6%)	45 / 1630 (2.8%)	44 / 2879 (1.5%)	92 / 5050 (1.8%)
Neonatal death ^e	6 / 538 (1·1%)	27 / 1582 (1.7%)	54 / 2835 (1.9%)	87 / 4955 (1.8%)
Mode of delivery ^e				
Non-instrumental vaginal	65 / 541 (12.0%)	265 / 1629 (16·3%)	428 / 2879 (14·9%)	758 / 5049 (15.0%)
Instrumental vaginal	1 / 541 (0.2%)	3 / 1629 (0.2%)	53 / 2879 (1.8%)	57 / 5049 (1.1%)
Pre-labour caesarean section In labour caesarean section	424 / 541 (78.4%)	1089 / 1629 (66.9%)	1815 / 2879 (63·0%)	3328 / 5049 (65.9%)
in labour caesarean section	51 / 541 (9·4%)	272 / 1629 (16·7%)	583 / 2879 (20·3%)	906 / 5049 (17·9%)
All caesarean sections ^e	475 / 541 (87.8%)	1361 / 1629 (83.5%)	2398 / 2879 (83·3%)	4234 / 5049 (83.9%)
Denominator - women with a subsequent viable pregnancy ^f	536	1604	2852	4992
Other pregnancy complications – composite ^{eg}	29 / 535 (5·4%)	44 / 1601 (2.7%)	56 / 2851 (2.0%)	129 / 4987 (2.6%)
Uterine rupture ^e	0 / 536 (0.00%)	1 / 1602 (0.06%)	4 / 2852 (0.14%)	5 / 4990 (0.10%)
Uterine scar dehiscence ^e	2 / 536 (0.4%)	3 / 1601 (0.2%)	5 / 2852 (0.2%)	10 / 4989 (0.2%)
Placenta praevia ^e	3 / 536 (0.6%)	9 / 1601 (0.6%)	9 / 2852 (0·3%)	21 / 4989 (0.4%)
Morbidly adherent placenta ^e	1 / 536 (0.19%)	1 / 1601 (0.06%)	5 / 2852 (0.18%)	7 / 4989 (0·14%)
Abruption ^e	1 / 536 (0·2%)	5 / 1602 (0·3%)	8 / 2852 (0·3%)	14 / 4990 (0·3%)
Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells ^e	3 / 536 (0.6%)	9 / 1602 (0.6%)	10 / 2852 (0.4%)	22 / 4990 (0·4%)
Severe infection within 6 weeks postpartum ^e	14 / 535 (2.6%)	10 / 1602 (0.6%)	25 / 2851 (0.9%)	49 / 4988 (1.0%)
Hysterectomy up to 6 weeks postpartum ^e	1 / 536 (0.19%)	2 / 1603 (0.12%)	2 / 2852 (0.07%)	5 / 4991 (0.10%)
Manual removal of placenta ^e	6 / 536 (1.1%)	9 / 1603 (0.6%)	3 / 2852 (0.1%)	18 / 4991 (0.4%)
Bladder or bowel damage ^h	0 / 471 (0.0%)	1 / 1339 (0.07%)	2 / 2375 (0:08%)	3 / 4185 (0.07%)
CORONIS child(ren)				
Denominator – live born children of	2866	4658	8574	16098
women eligible to be assessed Known deaths or serious morbidity of	113 / 2866 (3.9%)	288 / 4658 (6·2%)	351 / 8574 (4·1%)	752 / 16098 (4·7%)
CORONIS child(ren)				

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening.

^b Not related to pregnancy.

^c Excluding diagnostic laparoscopy and diagnostic laparotomy.

^d Following the CORONIS birth, any new onset.

^e For the birth following the CORONIS birth

^f Viability could not be assessed if gestational age was not recorded

^g Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion,

severe infection within 6 weeks postpartum, hysterectomy up to 6 weeks postpartum, manual removal of placenta.

^h at the time of subsequent Caesarean section.

Missing data are <1% unless otherwise stated.

	Argentina	Chile	Ghana	India – Delhi	India – Vellore	Kenya	Pakistan	Sudan	Totals
Women's health and mortality									
Denominator – women assessed	1271	1134	1041	2862	2063	1446	2038	1298	13153
Pelvic pain ^a	84 / 1271	54 / 1134	41 / 1041	84 / 2862	35 / 2063	54 / 1446	227 / 2038	85 / 1298	664 / 13153
	(6.6%)	(4.8%)	(3.9%)	(2.9%)	(1.7%)	(3.7%)	(11.1%)	(6.5%)	(5.0%)
Dysmenorrhoeaª	159 / 1271	93 / 1134	43 / 1041	71 / 2862	42 / 2063	52 / 1446	158 / 2038	96 / 1298	714 / 13153
	(12.5%)	(8.2%)	(4.1%)	(2.5%)	(2.0%)	(3.6%)	(7.8%)	(7.4%)	(5.4%)
Deep dyspareunia ^a	106 / 1271	44 / 1134	37 / 1041	29 / 2862	20 / 2063	40 / 1446	103 / 2038	51 / 1298	430 / 13153
	(8.3%)	(3.9%)	(3.6%)	(1.0%)	(1.0%)	(2.8%)	(5.1%)	(3.9%)	(3.3%)
Urinary symptoms ^{ab}	25 / 1271	18 / 1134	18 / 1041	7 / 2862	9 / 2063	13 / 1446	38 / 2038	9 / 1298	137 / 13153
	(2.0%)	(1.6%)	(1.7%)	(0.2%)	(0.4%)	(0.9%)	(1.9%)	(0.7%)	(1.0%)
Diagnostic laparoscopy/laparotomy ^b	2 / 1271	3 / 1134	0 / 1039	0 / 2862	0 / 2063	1 / 1446	0 / 2038	1 / 1298	7 / 13151
	(0.2%)	(0.3%)	(0.0%)	(0.0%)	(0.0%)	(0.1%)	(0.0%)	(0.1%)	(0.1%)
Hysterectomy or tubal/ovarian surgery ^b	5 / 1271	6 / 1134	2 / 1041	2 / 2862	6 / 2063	6 / 1446	3 / 2038	0 / 1298	30 / 13153
	(0.4%)	(0.5%)	(0.2%)	(0.1%)	(0.3%)	(0.4%)	(0.1%)	(0.0%)	(0.2%)
Bladder or bowel damage ^{b,c}	0 / 52	0 / 63	0 / 5	0 / 35	0 / 48	1 / 15	0 / 30	0 / 16	1 / 264
	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(0.0%)	(6.7%)	(0.0%)	(0.0%)	(0.4%)
Abdominal hernias ^d	21 / 1271	16 / 1134	2 / 1041	8 / 2862	33 / 2063	2 / 1446	6 / 2038	14 / 1298	102 / 13153
	(1.7%)	(1.4%)	(0.2%)	(0.3%)	(1.6%)	(0.1%)	(0.3%)	(1.1%)	(0.8%)
Bowel obstruction ^d	1 / 1271	0 / 1134	0 / 1041	2 / 2862	0 / 2063	2 / 1446	0 / 2038	0 / 1298	5 / 13153
	(0.08%)	(0.0%)	(0.0%)	(0.07%)	(0.0%)	(0.14%)	(0.0%)	(0.0%)	(0.04%)
Denominator – women eligible to be assessed	1611	1171	1267	3753	2086	1644	2508	1593	15633
Woman's death	6 / 1611	3 / 1171	10 / 1267	27 / 3753	9 / 2086	16 / 1644	12 / 2508	6 / 1593	89 / 15633
	(0.4%)	(0.3%)	(0.8%)	(0.7%)	(0.4%)	(1.0%)	(0.5%)	(0.4%)	(0.6%)
Reproductive status									
Denominator - Women with no subsequent pregnancy	873	927	498	1535	1277	965	698	565	7338
Voluntary infertility	857 / 873	916 / 927	422 / 498	1483 / 1535	1180 / 1277	933 / 965	613 / 698	418 / 565	6822 / 7338
	(98.2%)	(98.8%)	(84.7%)	(96.6%)	(92.4%)	(96.7%)	(87.8%)	(74.0%)	(93.0%)

Table S15 continued									
Denominator – women assessed	1271	1134	1041	2862	2063	1446	2038	1298	13153
Involuntary infertility	13 / 1271 (1.0%)	10 / 1134 (0.9%)	63 / 1041 (6.1%)	39 / 2862 (1.4%)	86 / 2063 (4.2%)	27 / 1446 (1.9%)	66 / 2038 (3.2%)	111 / 1298 (8.6%)	415 / 13153 (3.2%)
Use of fertility treatments	0 / 1271 (0.0%)	0 / 1132 (0.0%)	5 / 1040 (0.5%)	7 / 2862 (0.2%)	9 / 2063 (0.4%)	3 / 1446 (0.2%)	11 / 2038 (0.5%)	11 / 1298 (0.9%)	46 / 13150 (0.3%)
Subsequent pregnancies									
Denominator – women assessed	1271	1134	1041	2862	2063	1446	2038	1298	13153
Any subsequent pregnancy	398 / 1271 (31.3%)	207 / 1134 (18.3%)	543 / 1041 (52.2%)	1327 / 2862 (46.4%)	786 / 2063 (38.1%)	481 / 1446 (33.3%)	1340 / 2038 (65.8%)	733 / 1298 (56.5%)	5815 / 13153 (44.2%)
Denominator – women with a subsequent pregnancy	398	207	543	1327	786	481	1340	733	5815
Interpregnancy interval (months) ^e									
Mean [sd]	33.8 [14.1]	28.2 [9.1]	32.9 [12.9]	29.3 [12.4]	27.8 [11.6]	32.1 [12.2]	26.1 [10.3]	30.3 [10.8]	29.3 [11.9]
Median {IQR}	33.1 {22.1 to 42.8}	28.8{21.0 to 35.5}	31.3 {22.7 to 41.5}	28.7 {20.1 to 37.0}	26.4 {19.1 to 35.7}	31.1 {22.9 to 39.5}	24.9 {18.3 to 32.8}	29.4 {22.2 to 37.0}	28.3 {20.3 to 36.8}
Miscarriage ^f	28 / 381	24 / 203	66 / 541	175 / 1312	73 / 782	50 / 480	205 / 1321	85 / 731	706 / 5751
Miscallage	(7.3%)	(11.8%)	(12.2%)	(13.3%)	(9.3%)	(10.4%)	(15.5%)	(11.6%)	(12.3%)
Ectopic pregnancy ^f	1 / 381 (0.3%)	3 / 203 (1.5%)	1 / 541 (0.2%)	3 / 1312 (0.2%)	2 / 782 (0.3%)	1 / 480 (0.2%)	3 / 1321 (0.2%)	2 / 731 (0.3%)	16 / 5751 (0.3%)
Denominator - women with a subsequent viable pregnancy ^g	359	177	492	986	662	438	1204	674	4992
Gestation at delivery (completed wks)									
Mean [sd]	38.5 [2.0]	38.2 [1.7]	38.3 [1.2]	38.3 [1.6]	38.2 [1.6]	38.6 [1.9]	37.8 [1.2]	38.3 [0.9]	38.2 [1.5]
Median {IQR}	38.6 {38.0 to 39.0}	38.0 {38.0 to 39.0}	38.6 {38.6 to 38.6}	38.6 {38.0 to 38.6}	38.0 {38.0 to 39.0}	38.6 {38.0 to 40.0}	38.0 {38.0 to 38.0}	38.6 {38.0 to 38.6]	38.6 {38.0 to 38.6}
Denominator – babies of women with a subsequent viable pregnancy ^g	361	180	504	992	668	443	1219	683	5050
Stillbirth ^e	2/361	1 / 180	20 / 504	12 / 992	9 / 668	12 / 443	23 / 1219	13 / 683	92 / 5050
Sunonun	(0.6%)	(0.6%)	(4.0%)	(1.2%)	(1.4%)	(2.7%)	(1.9%)	(1.9%)	(1.8%)
Neonatal death ^{e,h}	6 / 359	0 / 179	8 / 481	17 / 980	5 / 659	8 / 431	32 / 1196	11 / 670	87 / 4955
Neonatal death	(1.7%)	(0.0%)	(1.7%)	(1.7%)	(0.8%)	(1.9%)	(2.7%)	(1.6%)	(1.8%)
	•	-	-						

Table S15 continued Mode of delivery ^e									
Non-instrumental vaginal	50 / 361	15 / 180	146 / 504	292 / 992	28 / 668	56 / 442	108 / 1219	63 / 683	758 / 5049
	(13.9%)	(8.3%)	(29.0%)	(29.4%)	(4.2%)	(12.7%)	(8.9%)	(9.2%)	(15.0%)
Instrumental vaginal	0 / 361	1 / 180	3 / 504	10 / 992	43 / 668	0 / 442	0 / 1219	0 / 683	57 / 5049
	(0.0%)	(0.6%)	(0.6%)	(1.0%)	(6.4%)	(0.0%)	(0.0%)	(0.0%)	(1.1%)
Pre-labour caesarean section	276 / 361	148 / 180	270 / 504	287 / 992	433 / 668	262 / 442	1095 / 1219	557 / 683	3328 / 5049
	(76.5%)	(82.2%)	(53.6%)	(28.9%)	(64.8%)	(59.3%)	(89.8%)	(81.6%)	(65.9%)
In labour caesarean section	35 / 361	16 / 180	85 / 504	403 / 992	164 / 668	124 / 442	16 / 1219	63 / 683	906 / 5049
	(9.7%)	(8.9%)	(16.9%)	(40.6%)	(24.6%)	(28.1%)	(1.3%)	(9.2%)	(17.9%)
All caesarean sections ^e	311 / 361	164 / 180	355 / 504	690 / 992	597 / 668	386 / 442	1111 / 1219	620 / 683	4234 / 5049
	(86.1%)	(91.1%)	(70.4%)	(69.6%)	(89.4%)	(87.3%)	(91.1%)	(90.8%)	(83.9%)
Denominator - women with a subsequent viable pregnancy ^g	359	177	492	986	662	438	1204	674	4992
Other pregnancy complications – composite ^{c,i}	23 / 358	6 / 177	10 / 490	22 / 985	16 / 662	13 / 437	18 / 1204	21 / 674	129 / 4987
	(6.4%)	(3.4%)	(2.0%)	(2.2%)	(2.4%)	(3.0%)	(1.5%)	(3.1%)	(2.6%)
Uterine rupture ^e	0 / 359	0 / 177	1 / 491	1 / 986	1 / 662	0 / 437	2 / 1204	0 / 674	5 / 4990
	(0.0%)	(0.0%)	(0.2%)	(0.1%)	(0.2%)	(0.0%)	(0.2%)	(0.0%)	(0.1%)
Uterine scar dehiscence ^e	2 / 359	0 / 177	0 / 490	3 / 986	2 / 662	0 / 437	0 / 1204	3 / 674	10 / 4989
	(0.6%)	(0.0%)	(0.0%)	(0.3%)	(0.3%)	(0.0%)	(0.0%)	(0.4%)	(0.2%)
Placenta praevia [°]	3 / 359	0 / 177	3 / 490	2 / 986	3 / 662	3 / 437	4 / 1204	3 / 674	21 / 4989
	(0.8%)	(0.0%)	(0.6%)	(0.2%)	(0.5%)	(0.7%)	(0.3%)	(0.4%)	(0.4%)
Morbidly adherent placenta ^e	1 / 359	0 / 177	0 / 490	1 / 986	3 / 662	0 / 437	1 / 1204	1 / 674	7 / 4989
	(0.3%)	(0.0%)	(0.0%)	(0.1%)	(0.5%)	(0.0%)	(0.1%)	(0.1%)	(0.1%)
Abruption ^e	0 / 359	1 / 177	2 / 491	5 / 986	2 / 662	1 / 437	1 / 1204	2 / 674	14 / 4990
	(0.0%)	(0.6%)	(0.4%)	(0.5%)	(0.3%)	(0.2%)	(0.1%)	(0.3%)	(0.3%)
Postpartum haemorrhage requiring transfusion of >1 unit of whole blood or packed cells ^e	1 / 359 (0.3%)	2 / 177 (1.1%)	2 / 491 (0.4%)	4 / 986 (0.4%)	3 / 662 (0.5%)	1 / 437 (0.2%)	3 / 1204 (0.2%)	6 / 674 (0.9%)	22 / 4990 (0.4%)

	Argentina	Chile	Ghana	India – Delhi	India – Vellore	Kenya	Pakistan	Sudan	Totals
Severe infection within 6 weeks postpartum ^e	11 / 358	3 / 177	2 / 491	9 / 985	7 / 662	1 / 437	9 / 1204	7 / 674	49 / 4988
	(3.1%)	(1.7%)	(0.4%)	(0.9%)	(1.1%)	(0.2%)	(0.7%)	(1.0%)	(1.0%)
Hysterectomy up to 6 weeks postpartum ^e	1 / 359	0 / 177	0 / 491	1 / 986	1 / 662	1 / 438	0 / 1204	1 / 674	5 / 4991
	(0.3%)	(0.0%)	(0.0%)	(0.1%)	(0.2%)	(0.2%)	(0.0%)	(0.1%)	(0.1%)

Table S15 continued Manual removal of placenta ^e	6 / 359	0 / 177	1 / 491	0 / 986	1 / 662	7 / 438	2 / 1204	1 / 674	18 / 4991
	(1.7%)	(0.0%)	(0.2%)	(0.0%)	(0.2%)	(1.6%)	(0.2%)	(0.1%)	(0.4%)
Bladder or bowel damage ⁱ	0 / 310	0 / 161	1 / 345	0 / 687	2 / 592	0 / 382	0 / 1096	0 / 612	3 / 4185
	(0.0%)	(0.0%)	(0.3%)	(0.0%)	(0.3%)	(0.0%)	(0.0%)	(0.0%)	(0.1%)
CORONIS child(ren) Denominator – live born children of women eligible to be assessed	1656	1210	1307	3860	2178	1689	2536	1662	16098
Known deaths or serious morbidity of CORONIS child(ren)	82 / 1656	31 / 1210	104 / 1307	201 / 3860	54 / 2178	126 / 1689	96 / 2536	58 / 1662	752 / 16098
	(5.0%)	(2.6%)	(8.0%)	(5.2%)	(2.5%)	(7.5%)	(3.8%)	(3.5%)	(4.7%)

^a Following the CORONIS birth and before any subsequent pregnancy, any new onset or worsening.

^b Not related to pregnancy.

^c Excluding diagnostic laparoscopy and diagnostic laparotomy.

^d Following the CORONIS birth, any new onset.

^e For the birth following the CORONIS birth

^fExcludes women pregnant at time of assessment.

^g Viability could not be assessed if gestational age was not recorded

h Excludes stillbirths.

ⁱ Includes: uterine rupture, uterine scar dehiscence, placenta praevia, morbidly adherent placenta, abruption, postpartum haemorrhage requiring transfusion,

severe infection within 6 weeks postpartum, hysterectomy up to 6 weeks postpartum, manual removal of placenta.

^j At the time of subsequent Caesarean section.

Missing data are <1% unless otherwise stated.