Supplementary material for Yasseen A. S. 2015. Antiviral medication use in a cohort of pregnant women during the 2009–2010 influenza pandemic. Journal of Obstetrics and Gynaecology, 35;551–554.

Supplementary digital content

Assessing selection bias

We conducted a sensitivity analysis to assess the degree of selection bias present within the study dataset. We ranked hospital sites by the proportion of missing outcome information they contributed to the total. We then excluded the first 8 hospitals (~50% of missing outcome information) and then the first 21 hospitals (~75% of missing outcome information), and computed

the frequencies and percentages of maternal characteristics. We then calculated the absolute percentage difference with respect to the total population (see table AI), which gives an indication of a potential change in the distribution of those maternal characteristics as records with missing outcome information were excluded. Any maternal characteristic with an absolute change in proportion > 1% (highlighted in bold text) was considered as a potential source of selection bias and reported as such in the manuscript.

Supplementary Table I. Characteristics of women with complete and missing information on the use of AV medication within the cohort, across the study period. Highlighted in bold are those factors with greater than 1% absolute difference from the total.

	0% missing excluded (n = 133,731)	50% missing excluded (n = 107,875)*	75% missing excluded (n = 79,575)†	Absolute % difference from total	
				50% excluded	75% excluded
Maternal age	30.05 ± 5.56	29.78 ± 5.61	29.56 ± 5.61	–	–
Nuliparous	47,507 (35.76)	37,838 (35.36)	28,140 (35.63)	0.40	0.13
Smoking during pregnancy	14,568 (11.48)	13,489 (13.09)	11,002 (14.15)	1.61	2.67
Had influenza during pregnancy	2,927 (2.46)	2,566 (2.56)	1,976 (2.62)	0.10	0.16
Influenza vaccination	35,978 (30.36)	30,888 (31.03)	22,402 (29.78)	0.67	0.58
Multiple gestation	2,511 (1.88)	1,952 (1.81)	1,333 (1.68)	0.07	0.20
First visit in first trimester	13,710 (12.88)	10,478 (12.04)	9,273 (13.39)	0.84	0.51
Any co-morbidities	37,134 (28.72)	31,653 (30.49)	20,030 (26.25)	1.77	2.47
Asthma	5,570 (4.31)	5,017 (4.83)	3,639 (4.77)	0.52	0.46
Chronic hypertension	1,028 (0.80)	847 (0.82)	654 (0.86)	0.02	0.06
Insulin dependent diabetes	1,317 (1.02)	1,005 (0.97)	778 (1.02)	0.05	0.00
Non insulin dependent diabetes	1,012 (0.78)	748 (0.72)	534 (0.70)	0.06	0.08
Heart disease	618 (0.48)	542 (0.52)	343 (0.45)	0.04	0.03
Month of birth					
Nov 2009	10,307 (7.71)	8,316 (7.71)	6,146 (7.72)	0.00	0.01
Dec 2009	10,514 (7.86)	8,402 (7.79)	6,263 (7.87)	0.07	0.01
Jan 2010	10,880 (8.14)	8,720 (8.08)	6,421 (8.07)	0.06	0.07
Feb 2010	9,923 (7.42)	7,968 (7.39)	5,940 (7.46)	0.03	0.04
Mar 2010	11,430 (8.55)	9,303 (8.62)	6,897 (8.67)	0.07	0.12
Apr 2010	11,035 (8.25)	8,970 (8.32)	6,549 (8.23)	0.07	0.02
May 2010	11,468 (8.58)	9,263 (8.59)	6,791 (8.53)	0.01	0.05
Jun 2010	11,319 (8.46)	9,196 (8.52)	6,793 (8.54)	0.06	0.08
Jul 2010	11,452 (8.56)	9,242 (8.57)	6,788 (8.53)	0.01	0.03
Aug 2010	11,874 (8.88)	9,558 (8.86)	7,037 (8.84)	0.02	0.04
Sep 2010	11,799 (8.82)	9,566 (8.87)	7,063 (8.88)	0.05	0.06
Oct 2010	11,732 (8.77)	9,373 (8.69)	6,888 (8.66)	0.08	0.11
Type of antenatal care provider					
None	515 (0.40)	430 (0.41)	254 (0.32)	0.01	0.08
Family physician	35,589 (27.52)	33,121 (31.38)	24,614 (31.34)	3.86	3.82
Midwife	10,051 (7.77)	8,699 (8.24)	6,333 (8.06)	0.47	0.29
Nurse practitioner	782 (0.60)	766 (0.73)	495 (0.63)	0.13	0.03
Obstetrician	81,340 (62.90)	61,544 (58.30)	46,104 (58.71)	4.60	4.19
Other	1,047 (0.81)	1,004 (0.95)	729 (0.93)	0.14	0.12
Rural area of residence	16,421 (12.28)	15,870 (14.71)	13,341 (16.77)	2.43	4.49

*Records excluding 8 large hospitals, which account for approximately 50% of records with missing information on AV medication use.

†Records excluding 21 large hospitals, which account for approximately 75% of records with missing information on AV medication use.

Supplementary digital content

Assessing the presence of co-linearity

In order to rule out the likelihood of the presence of co-linearity between variables used within our study, we computed the vari-

ance inflation factor parameter estimates of the models used in the primary analysis. Supplementary Appendix Table II gives these estimates, and show a maximum value of 1.7, which indicates that variable co-linearity is not likely to affect the adjusted models.

Supplementary Table II. Variance inflation factors for assessing the presence of co-linearity between variables included in the adjusted risk ratio models.

Maternal characteristics	Variance inflation factor
Maternal age	1.26762
Parity	1.12308
Smoking	1.11317
Had influenza	1.00506
Vaccinated for influenza	1.02723
Multiple gestation	1.00454
No first visit in first trimester	1.03060
Any co-morbidities*	1.02617
Asthma	1.01325
Chronic hypertension	1.00543
Insulin dependent diabetes	1.00509
Non insulin dependent diabetes	1.00285
Heart diseases	1.00095
Education quartiles	1.70186
Immigration quartiles	1.64026
Income quartiles	1.30102
Antenatal care provider	1.07277
Rural area of residence	1.19673

*Adjusting for all factors listed excluding asthma, chronic hypertension, insulin dependent, and non-insulin dependent diabetes.