

Appendix 7: Time-Series Regression Results for each Health System Level

Table A7.1. Hospitals: Time-series regression results with the association of 76% three-dose PCV13 coverage on pneumonia outcomes highlighted

Model and covariate ^a	All clinical pneumonia ^a IRR (95%CI); p-value
<i>3dose</i> (B ₁)	1.154 (0.608, 2.192); p=0.661
<i>L1.dres</i> (B ₂)	1.022 (1.009, 1.035); p=0.001
constant (B ₀)	441.9 (267.8, 729.1); p<0.0001

Model and covariate ^a	Fast breathing pneumonia ^a IRR (95%CI); p-value	Chest indrawing pneumonia ^a IRR (95%CI); p-value	Danger sign pneumonia ^a IRR (95%CI); p-value	Hypoxemic pneumonia ^a IRR (95%CI); p-value	Mortality ^a IRR (95%CI); p-value	Proportion danger sign ^a OR (95%CI); p-value
<i>3dose</i> (B ₁)	2.833 (1.387, 5.785); p=0.004	1.504 (0.759, 2.978); p=0.242	0.611 (0.294, 1.269); p=0.186	0.641 (0.347, 1.186); p=0.156	0.640 (0.412, 0.993); p=0.046	0.360 (0.256, 0.505); p<0.0001
<i>L1.dres</i> (B ₂)	1.084 (1.015, 1.157); p=0.016	1.027 (1.009, 1.046); p=0.004	1.045 (1.027, 1.062); p<0.0001	1.074 (1.034, 1.117); p<0.0001	1.020 (0.924, 1.127); p=0.692	1.090 (1.072, 1.109); p<0.0001
constant (B ₀)	14.71 (8.16, 26.53); p<0.0001	214.7 (124.7, 369.6); p<0.0001	231.8 (135.1, 397.7); p<0.0001	67.39 (42.64, 106.51); p<0.0001	21.42 (15.41, 29.77); p<0.0001	1.061 (0.822, 1.369); p=0.651

IRR = Incidence Rate Ratio OR = Odds Ratio

^a Observations = 29; these are the 30 calendar months in time (January 2012 to June 2014) minus one due to the inclusion of the one-month lagged residual term *L1.dres*

Table A7.2. Health Centres: Time-series regression results with the association of 76% three-dose PCV13 coverage on pneumonia outcomes highlighted

Model and covariate ^a	All clinical pneumonia ^a IRR (95%CI); p-value
<i>3dose</i> (B ₁)	1.366 (0.667, 2.799); p=0.394
<i>L1.dres</i> (B ₂)	1.005 (0.977, 1.034); p=0.727
constant (B ₀)	172.7 (98.0, 304.3); p<0.0001

Model and covariate ^a	Fast breathing pneumonia ^a IRR (95%CI); p-value	Chest indrawing pneumonia ^a IRR (95%CI); p-value	Danger sign pneumonia ^a IRR (95%CI); p-value	Hypoxemic pneumonia ^a IRR (95%CI); p-value	Proportion danger sign ^a OR (95%CI); p-value
<i>3dose</i> (B ₁)	1.664 (0.706, 3.921); p=0.244	0.781 (0.409, 1.491); p=0.453	0.840 (0.376, 1.874); p=0.670	0.360 (0.160, 0.811); p=0.014	0.671 (0.363, 1.242); p=0.204
<i>L1.dres</i> (B ₂)	1.009 (0.977, 1.042); p=0.598	1.044 (0.982, 1.109); p=0.172	1.085 (1.002, 1.175); p=0.045	1.020 (0.928, 1.121); p=0.681	1.133 (1.052, 1.220); p=0.001
constant (B ₀)	111.3 (56.1, 220.9); p<0.0001	43.65 (26.67, 71.44); p<0.0001	20.33 (11.02, 37.52); p<0.0001	41.50 (23.29, 73.94); p<0.0001	0.121 (0.075, 0.195); p<0.0001

IRR = Incidence Rate Ratio OR = Odds Ratio

^a Observations = 29; these are the 30 calendar months in time (January 2012 to June 2014) minus one due to the inclusion of the one-month lagged residual term *L1.dres*

Table A7.3. Community Health Worker clinics: Time-series regression results with the association of 76% three-dose PCV13 coverage on pneumonia outcomes highlighted

Model and covariate ^a	All clinical pneumonia ^a IRR (95%CI); p-value
<i>3dose</i> (B ₁)	2.991 (1.676, 5.337); p<0.0001
<i>L1.dres</i> (B ₂)	1.034 (1.011, 1.057); p=0.004
constant (B ₀)	97.75 (60.77, 157.2); p<0.0001

Model and covariate ^a	Fast breathing pneumonia ^a IRR (95%CI); p-value	Chest indrawing pneumonia ^a IRR (95%CI); p-value	Danger sign pneumonia ^a IRR (95%CI); p-value	Hypoxemic pneumonia ^a IRR (95%CI); p-value	Proportion danger sign ^a OR (95%CI); p-value
<i>3dose</i> (B ₁)	2.969 (1.656, 5.324); p<0.0001	2.849 (0.747, 10.86); p=0.125	931.6 (6.844, 126788.2); p=0.006	0.437 (0.138, 1.381); p=0.158	769.7 (0.866, 683687.2); p=0.055
<i>L1.dres</i> (B ₂)	1.033 (1.010, 1.057); p=0.004	1.164 (0.929, 1.459); p=0.187	1.332 (0.915, 1.938); p=0.134	0.995 (0.801, 1.238); p=0.967	1.309 (0.893, 1.920); p=0.167
constant (B ₀)	97.09 (60.13, 156.8); p<0.0001	1.043 (0.350, 3.112); p=0.940	0.0018 (0.00002, 0.157); p=0.006	4.657 (2.012, 10.782); p<0.0001	8.0e-6 (1.7e-8, 0.004); p<0.0001

IRR = Incidence Rate Ratio OR = Odds Ratio

^a Observations = 29; these are the 30 calendar months in time (January 2012 to June 2014) minus one due to the inclusion of the one-month lagged residual term *L1.dres*

Figure A7.1 Sensitivity Analysis for All clinical pneumonia models - Hospitals

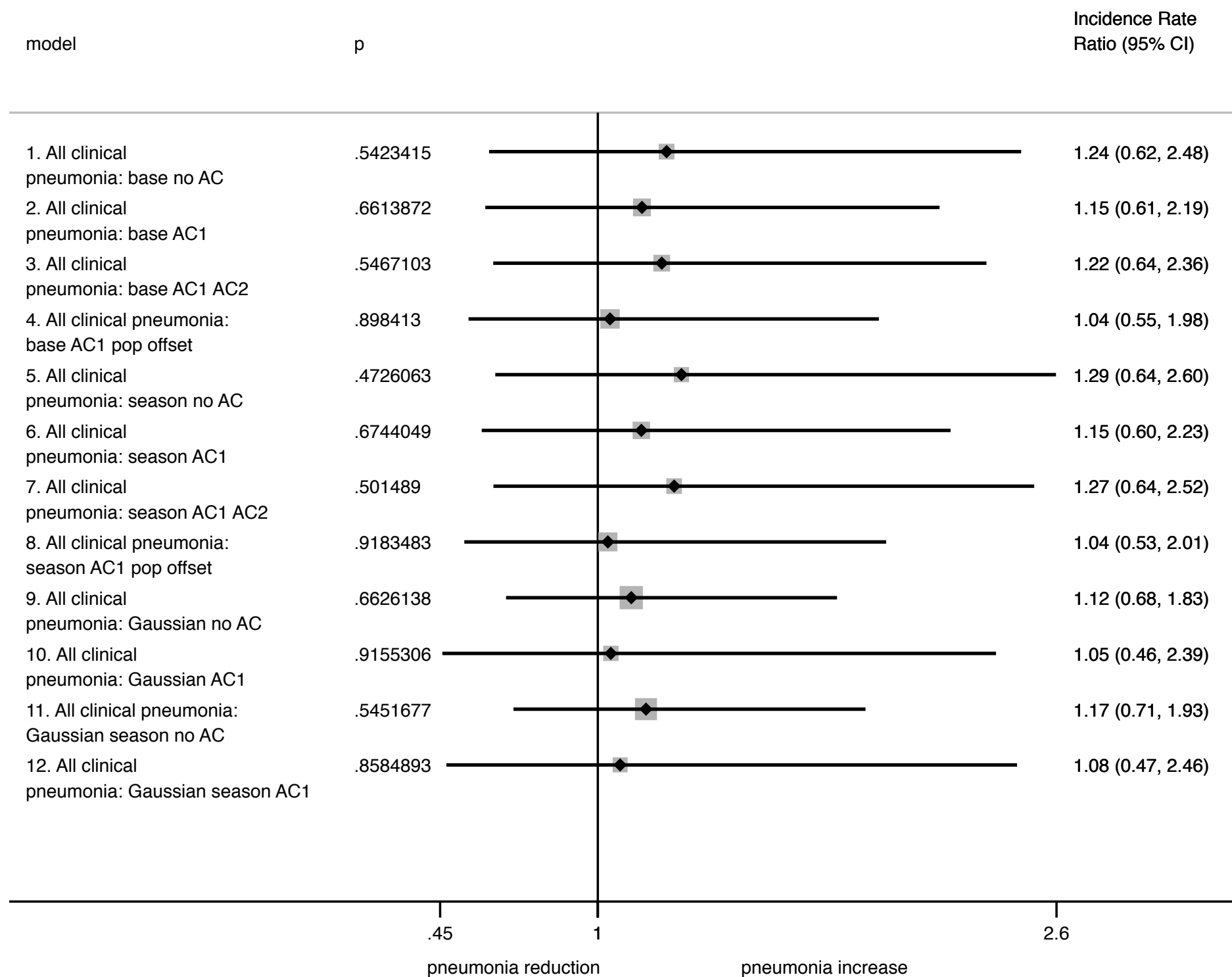


Figure A7.2 Sensitivity Analysis for Fast breathing pneumonia models - Hospitals

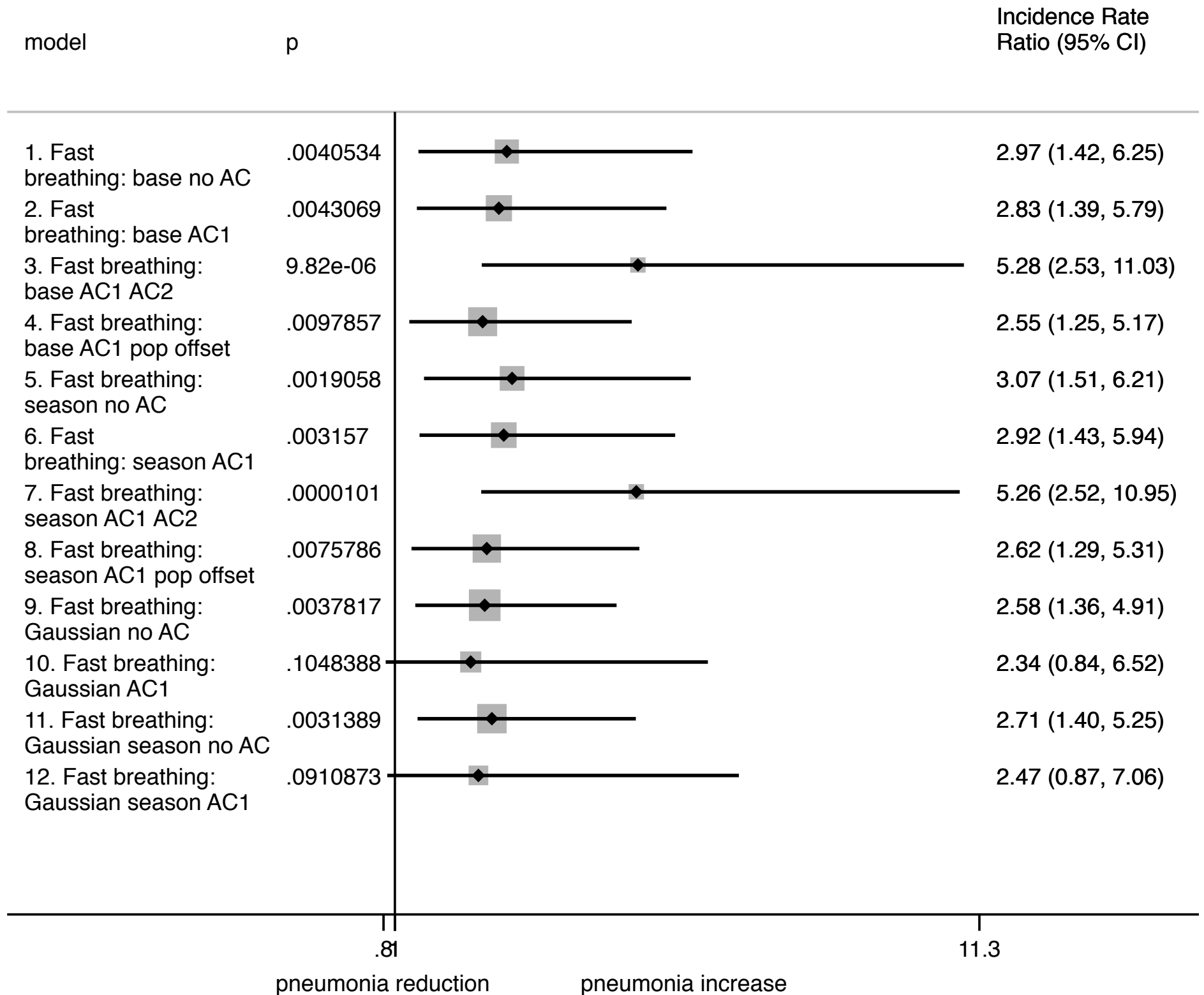


Figure A7.3 Sensitivity Analysis for Chest indrawing pneumonia models - Hospitals

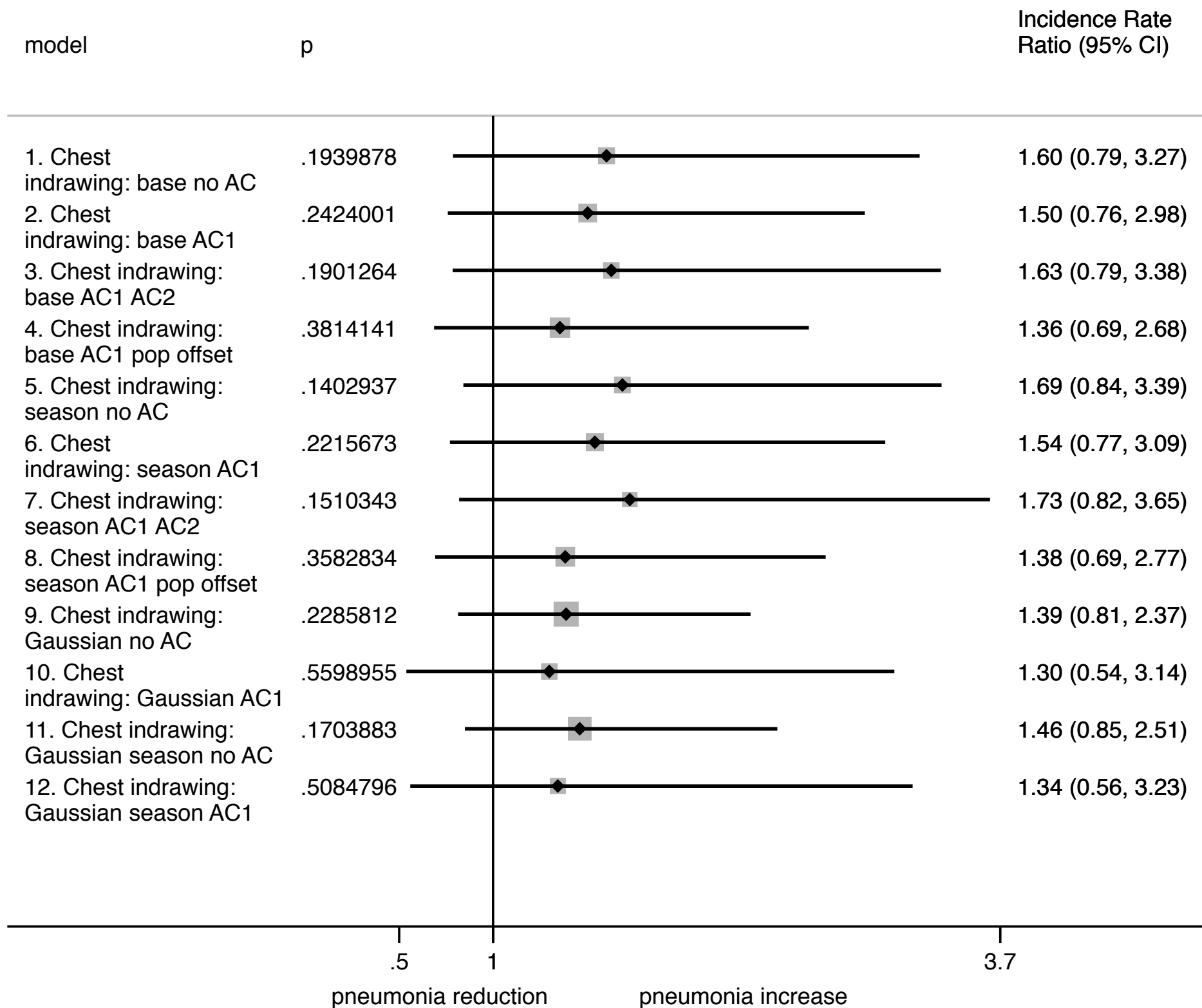


Figure A7.4 Sensitivity Analysis for Danger sign(s) pneumonia models - Hospitals

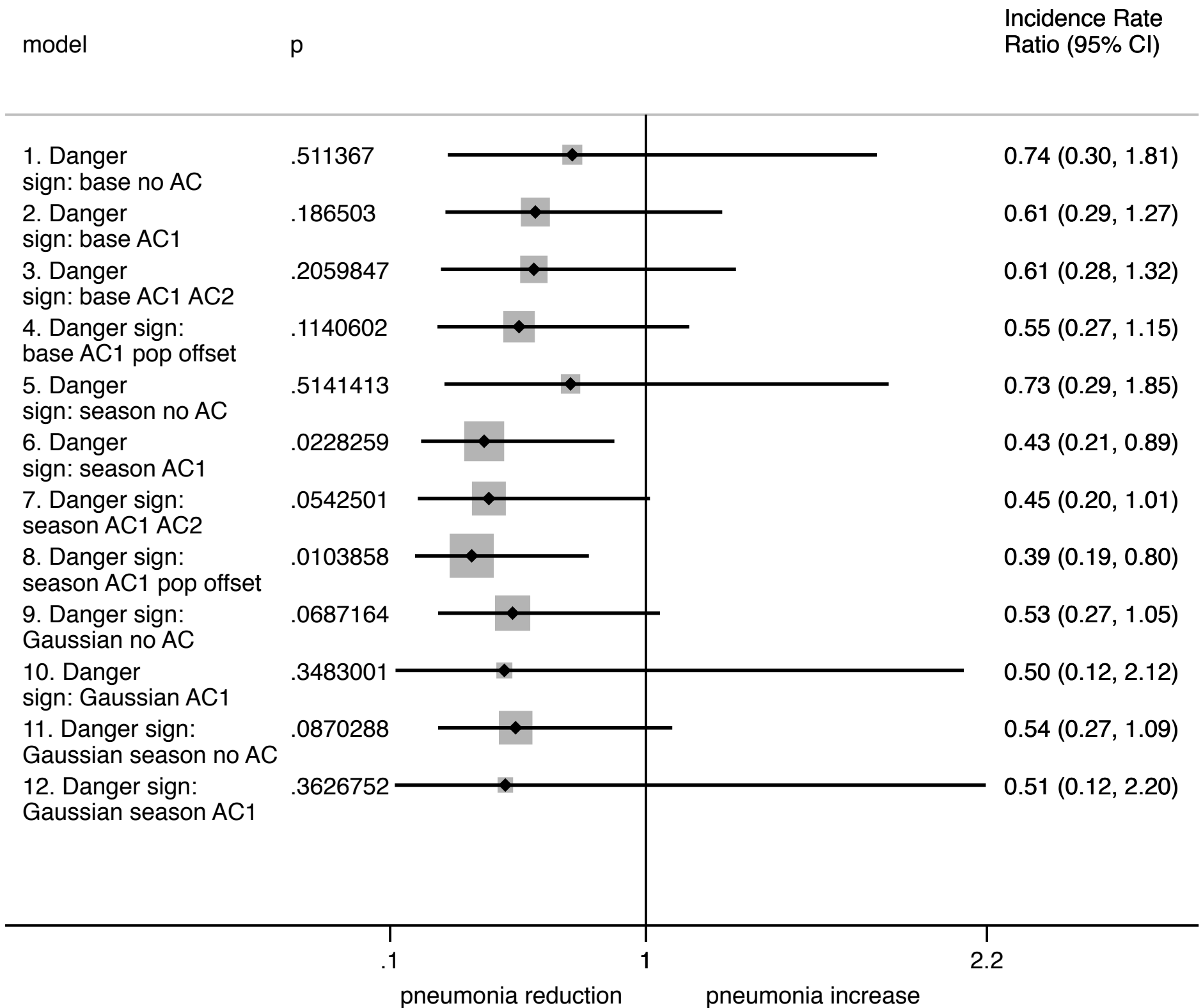


Figure A7.5

Sensitivity Analysis for Hypoxemic pneumonia models - Hospitals

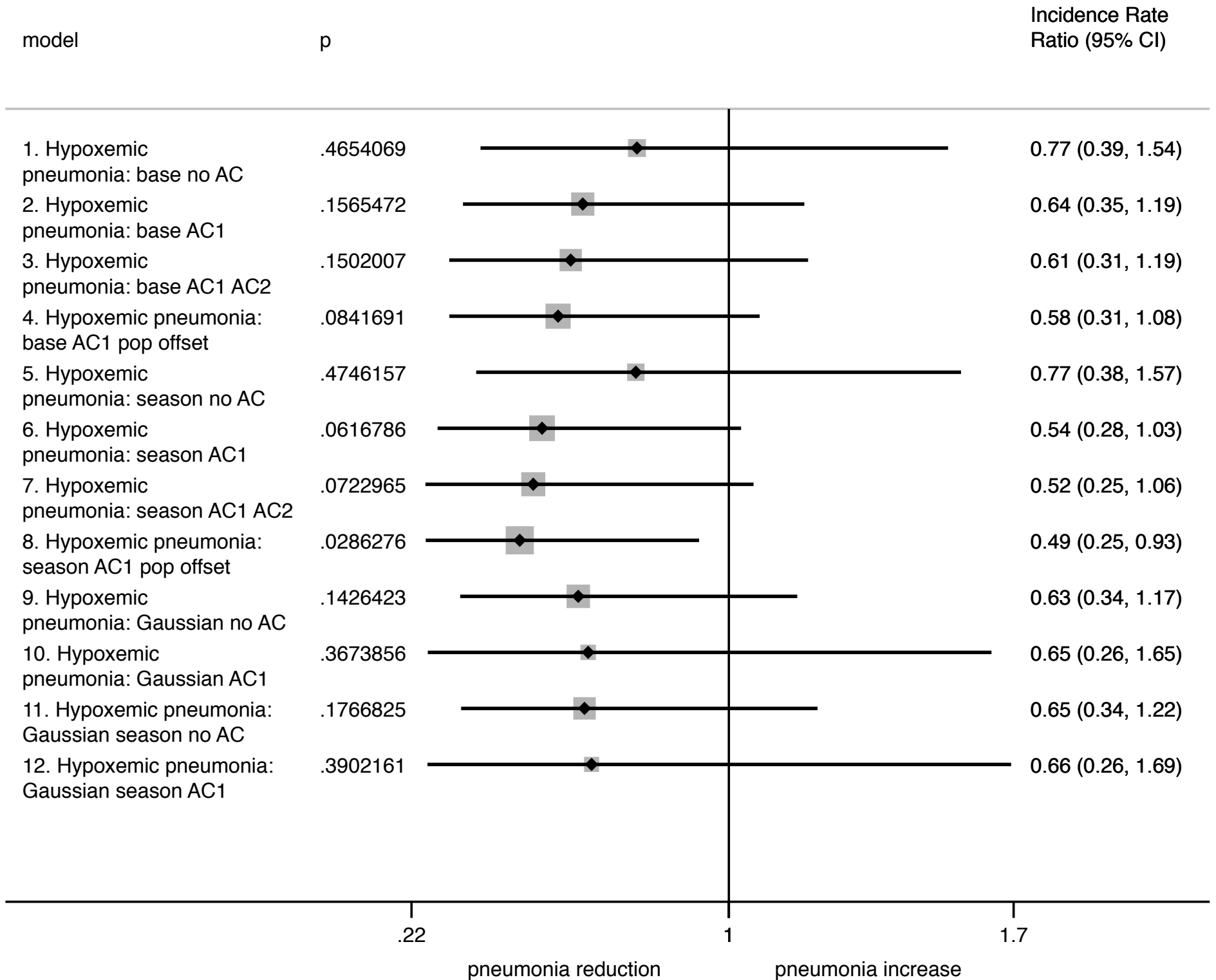


Figure A7.6

Sensitivity Analysis for Died pneumonia models - Hospitals

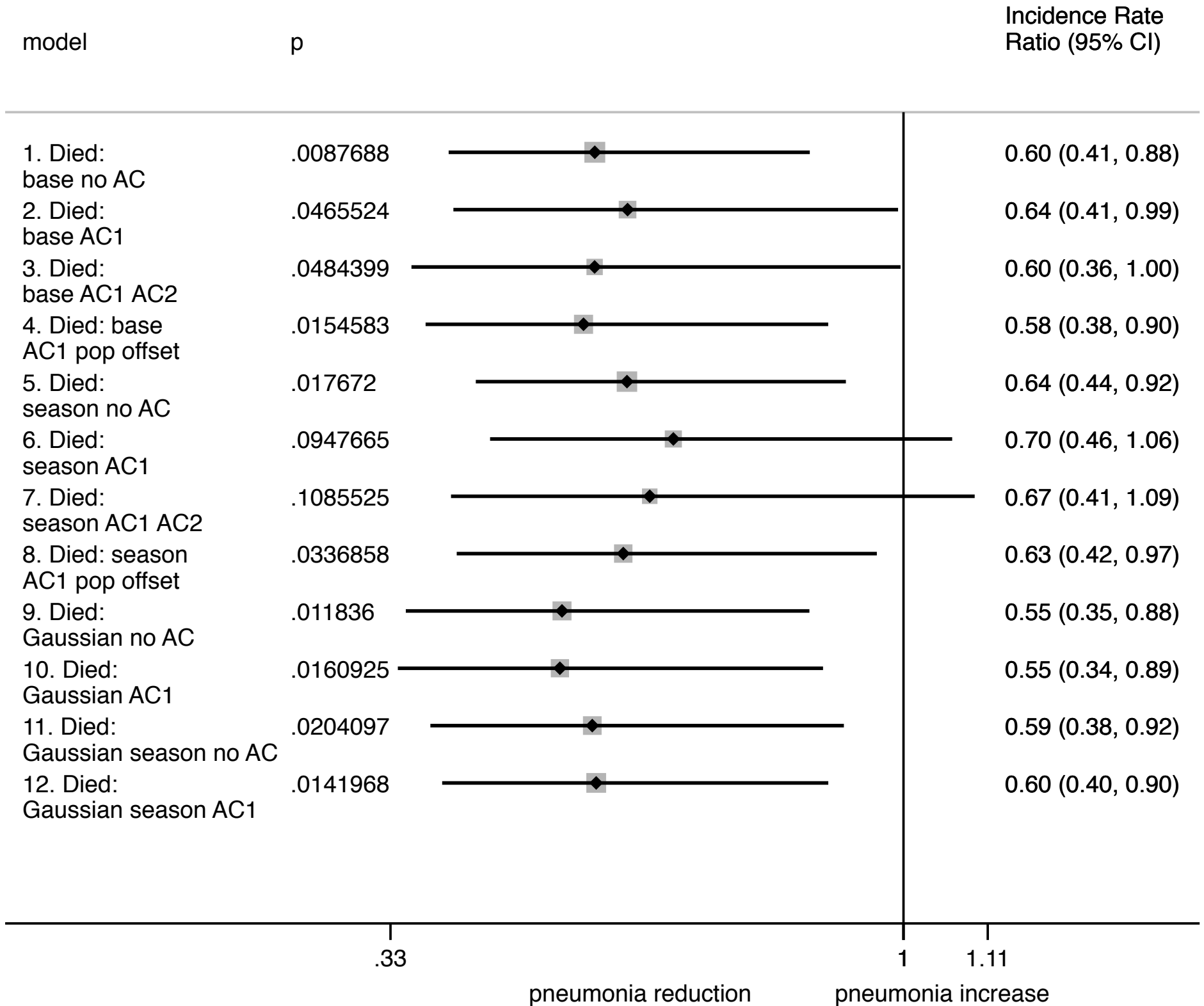


Figure A7.7

Sensitivity Analysis for proportion danger sign pneumonia models - Hospitals

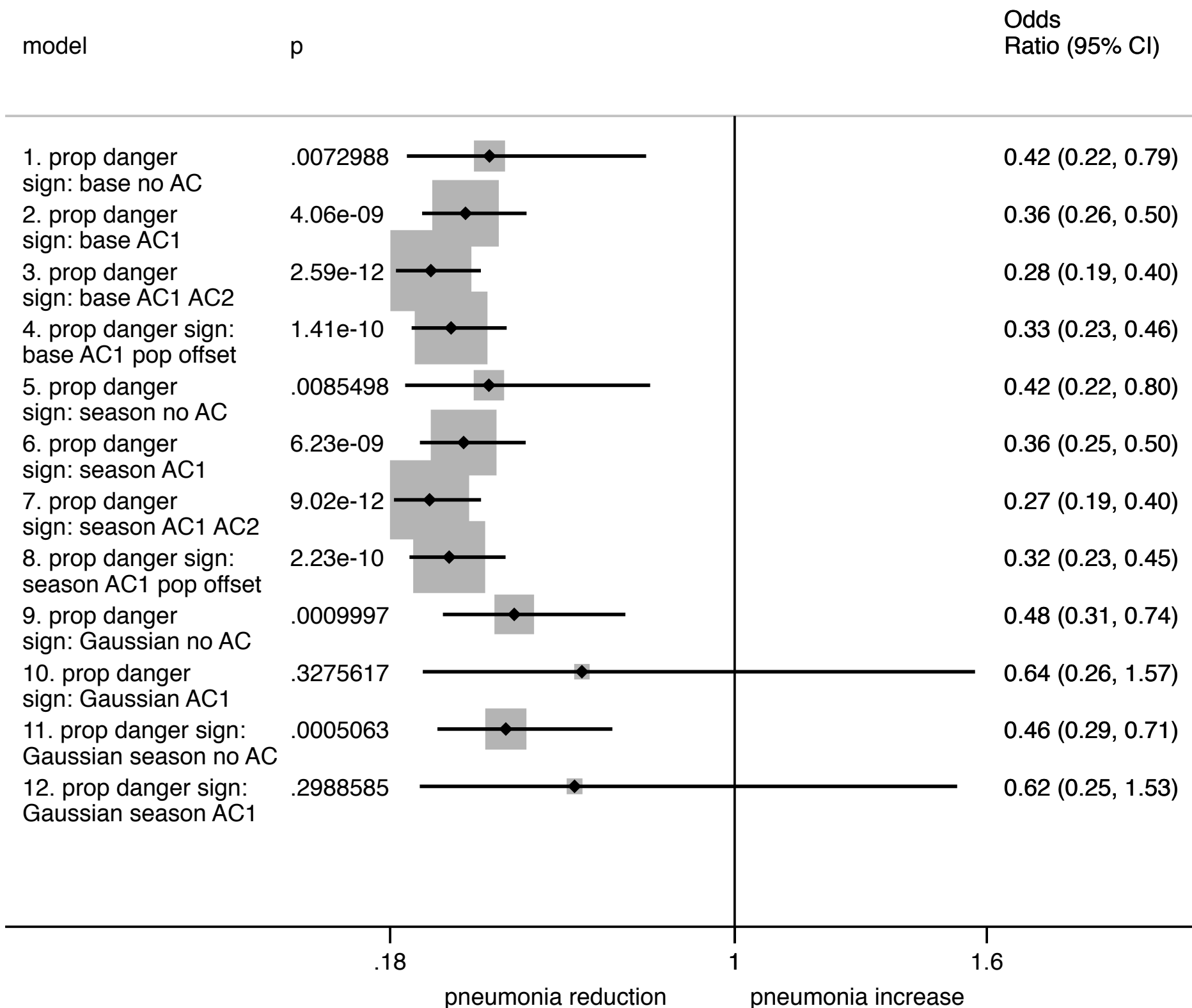


Figure A7.8 Sensitivity Analysis for All Clinical pneumonia models - Health Centres

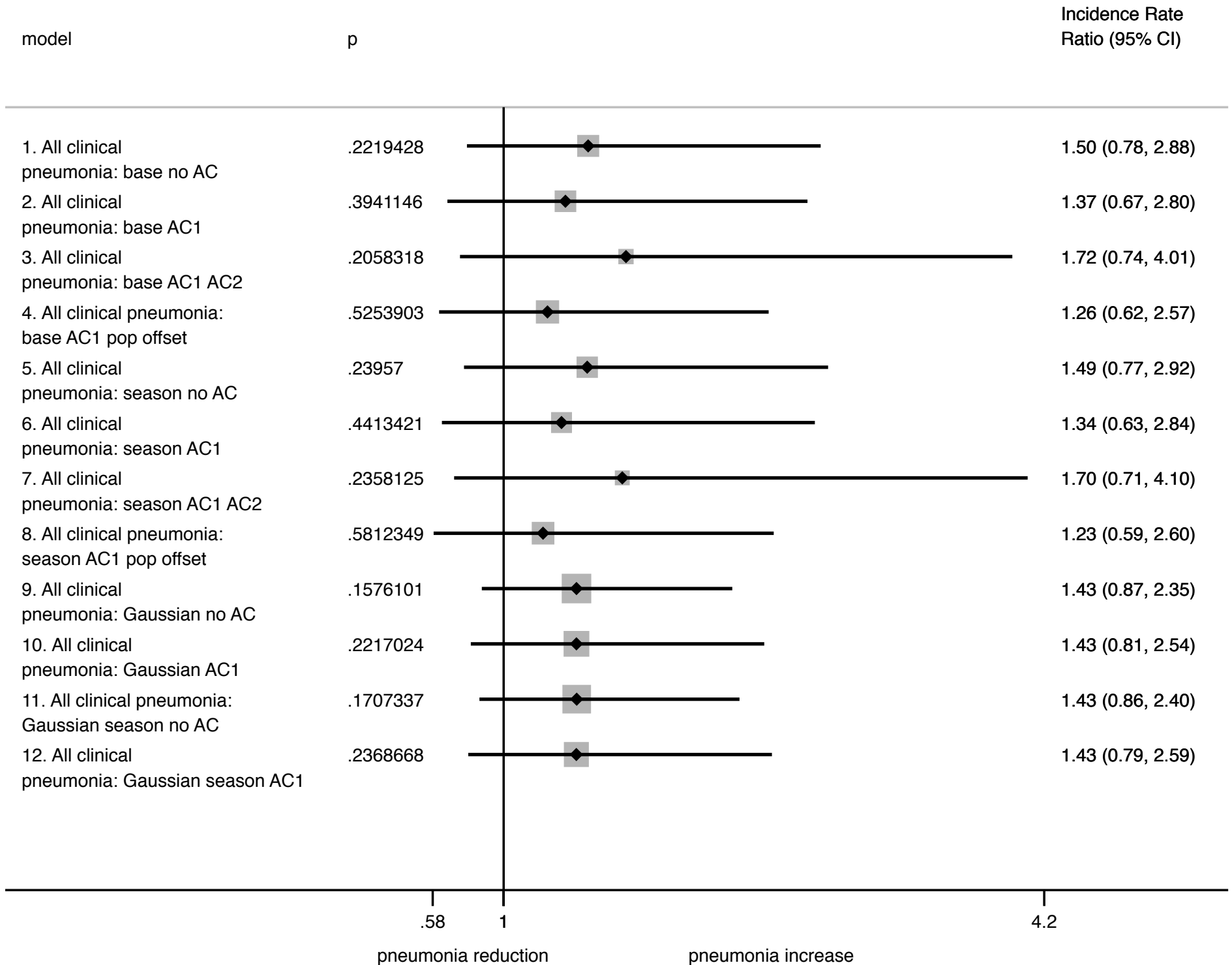


Figure A7.9 Sensitivity Analysis for Fast breathing pneumonia models - Health Centres

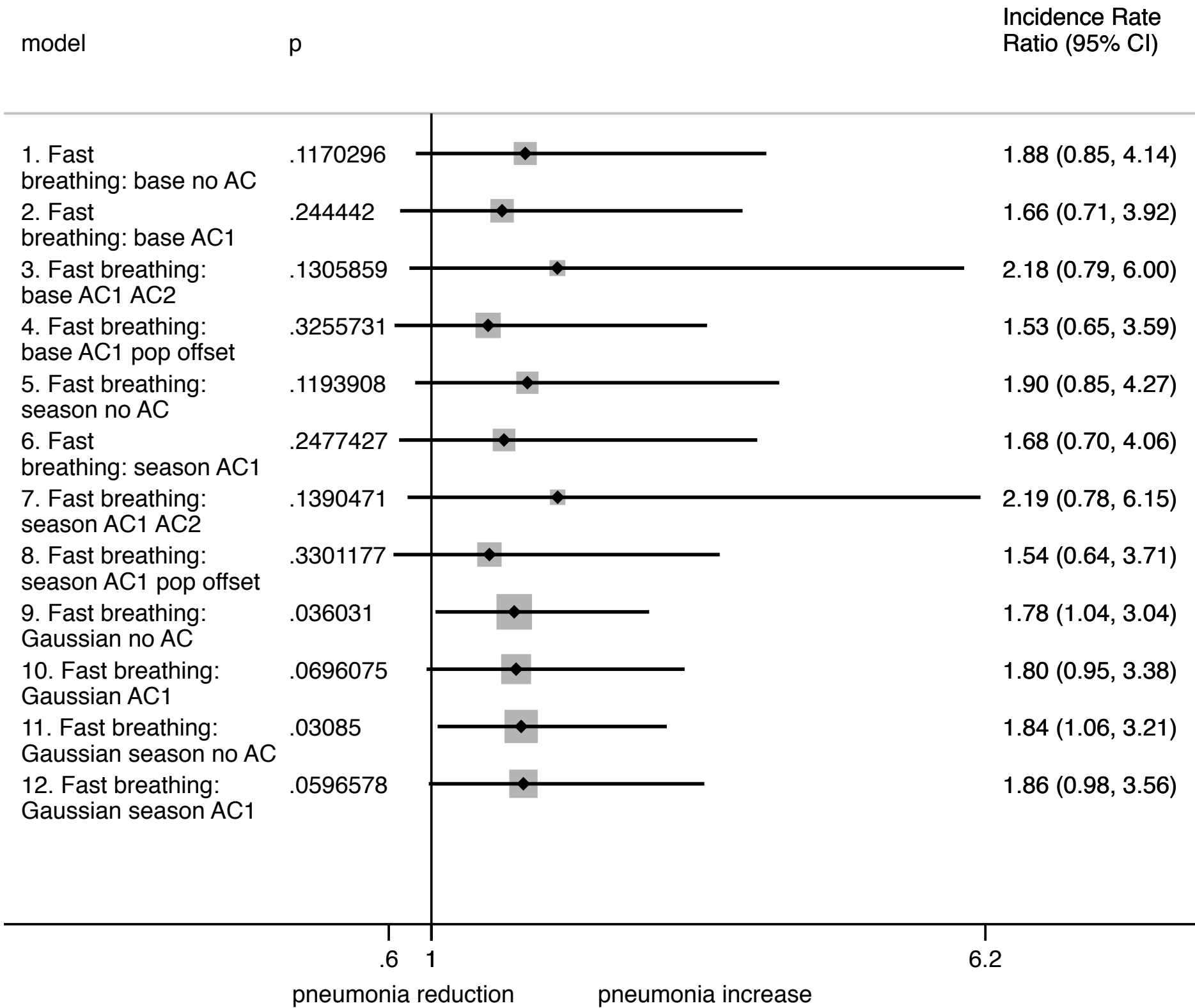


Figure A7.10

Sensitivity Analysis for Chest indrawing pneumonia models - Health Centres

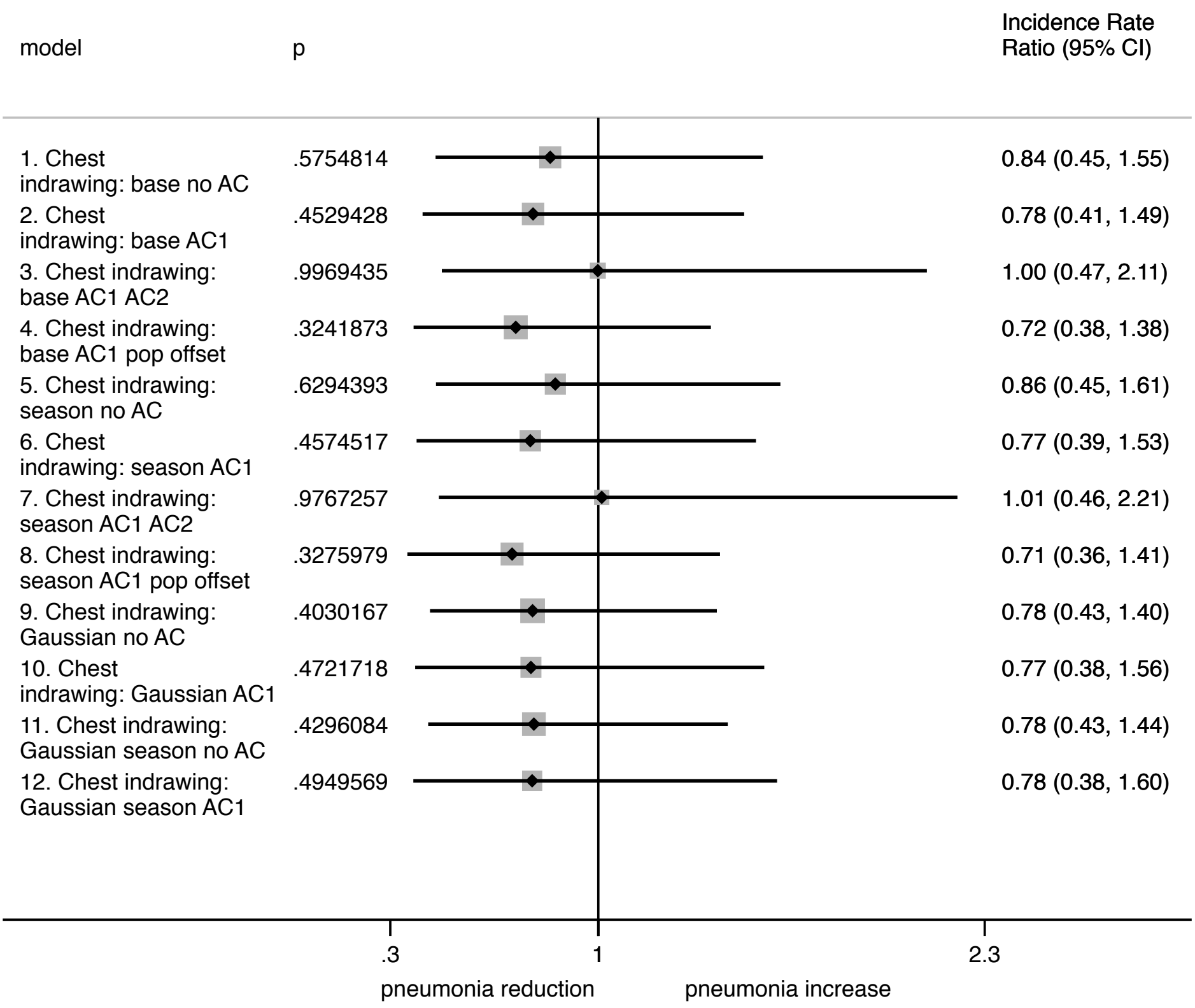


Figure A7.11

Sensitivity Analysis for Danger sign(s) pneumonia models - Health Centres

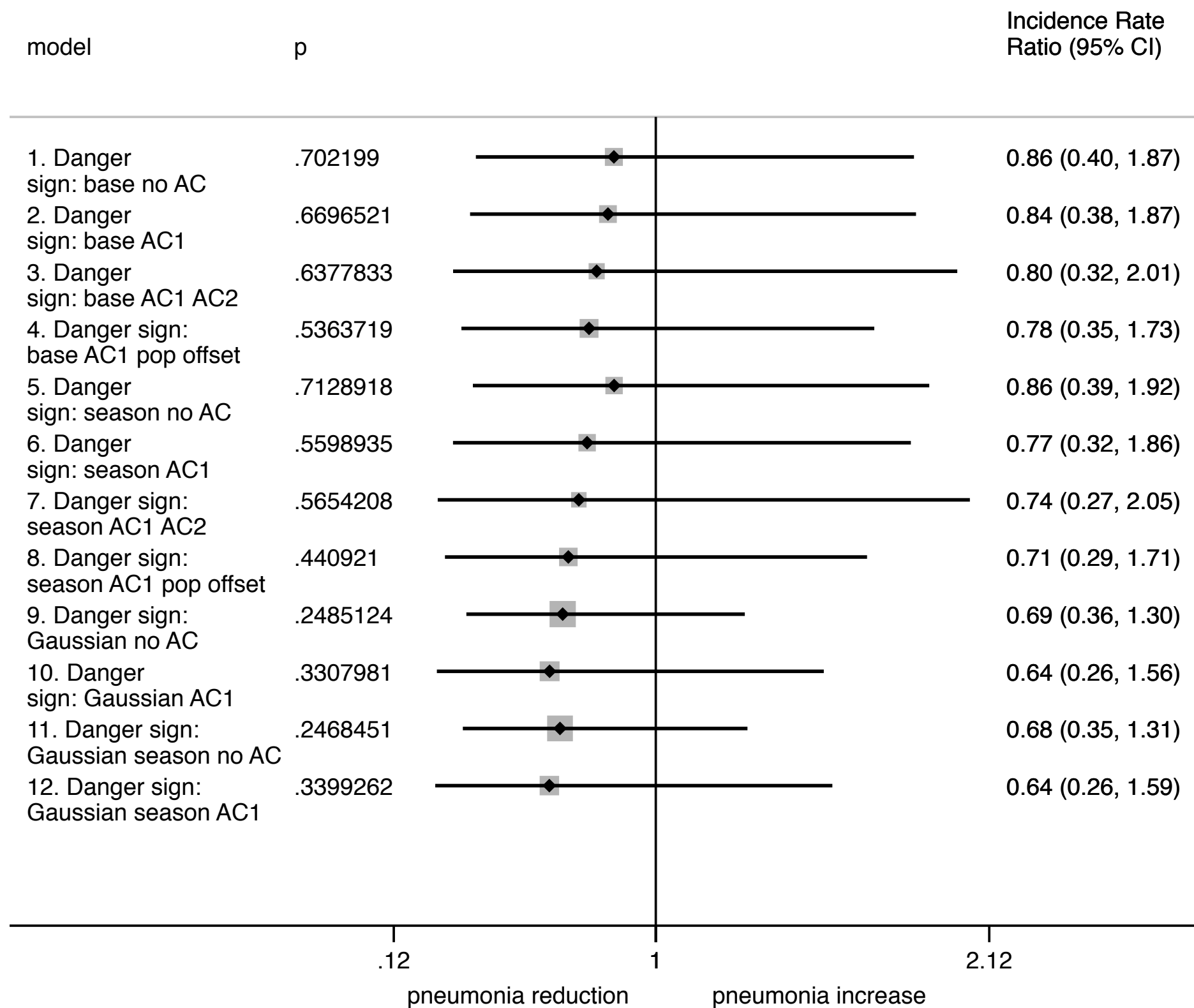


Figure A7.12

Sensitivity Analysis for Hypoxemic pneumonia models - Health Centres

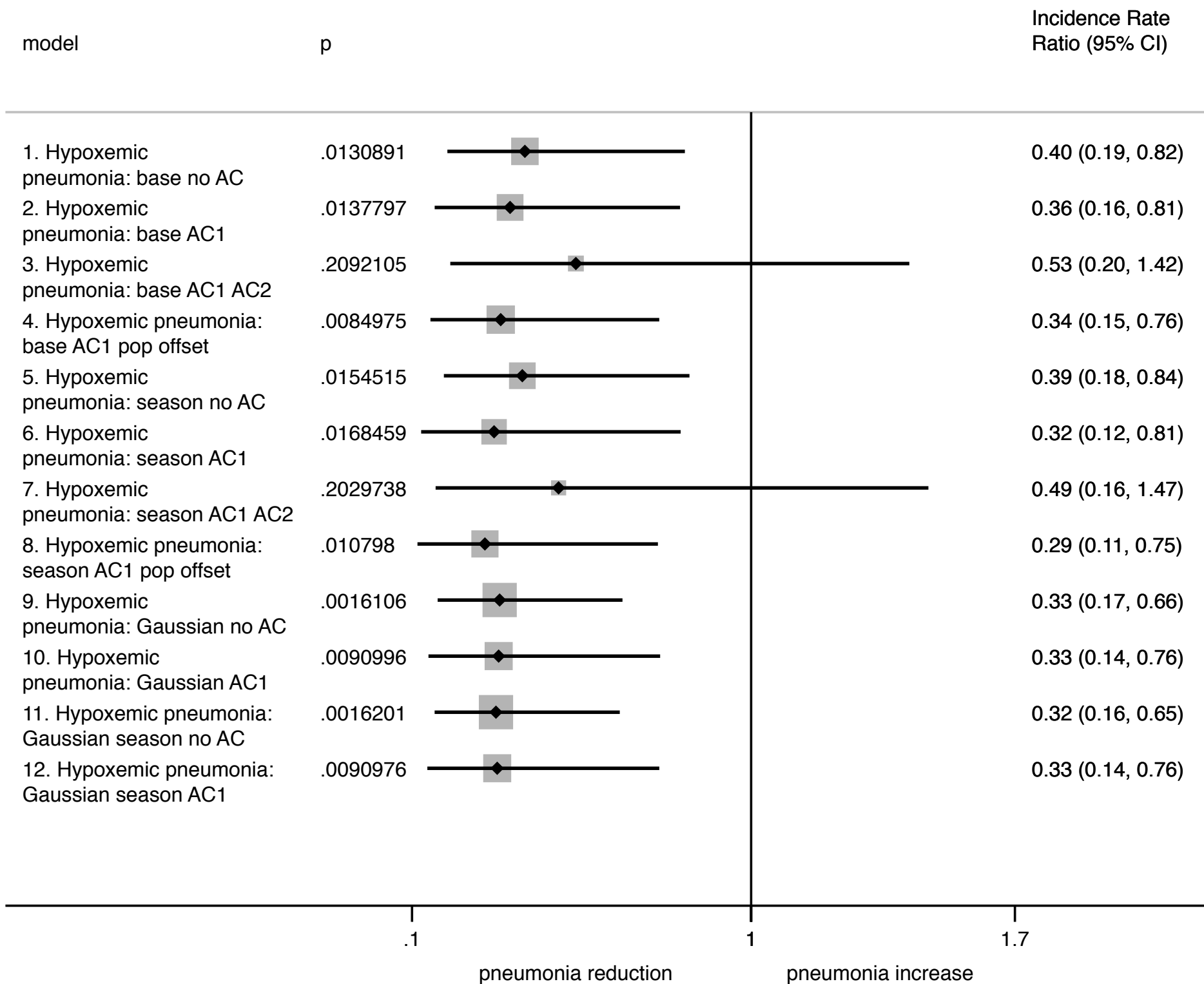


Figure A7.13

Sensitivity Analysis for proportion danger sign pneumonia models - Health Centres

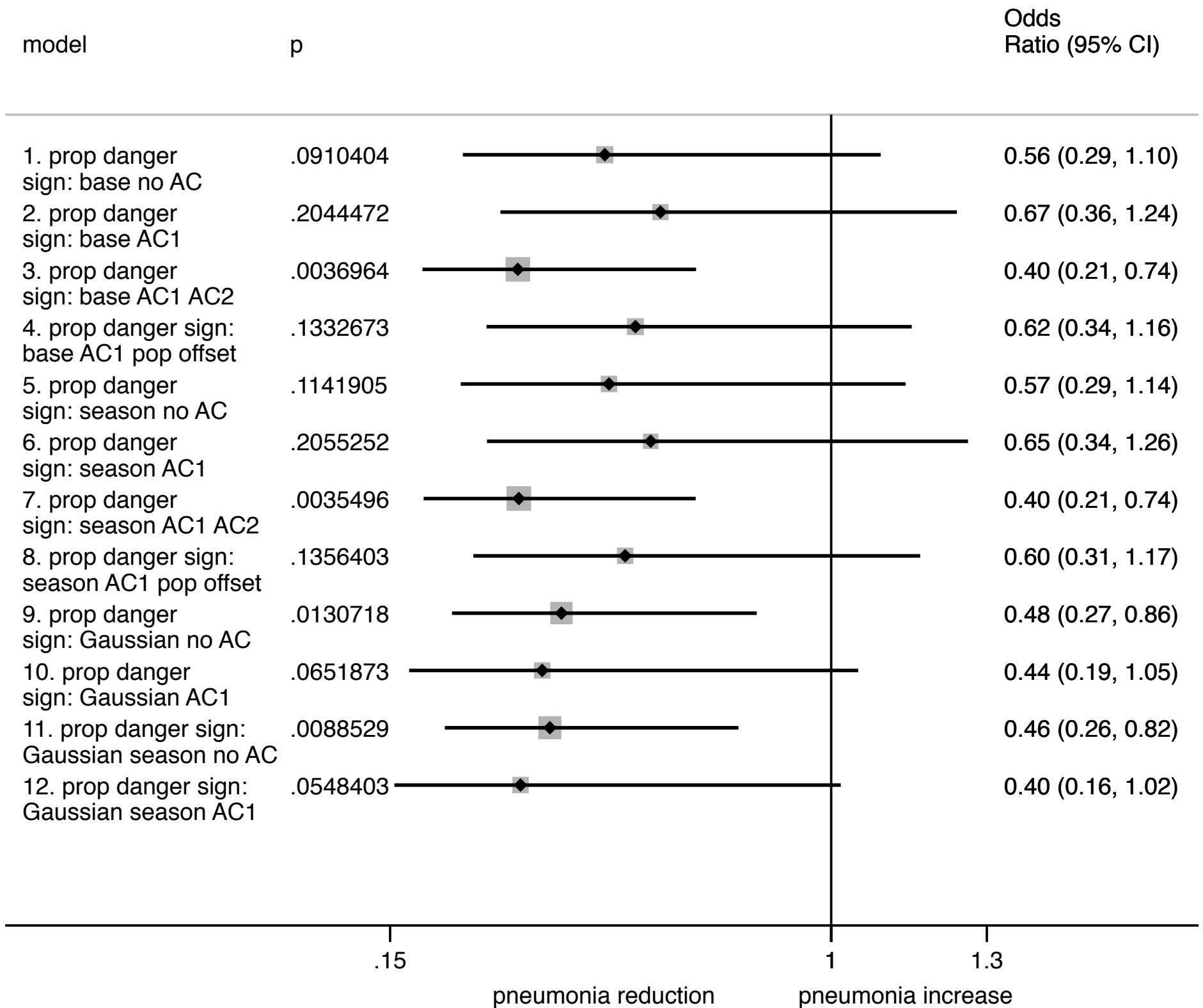


Figure A7.14

Sensitivity Analysis for All clinical pneumonia models - Community Health Worker clinics

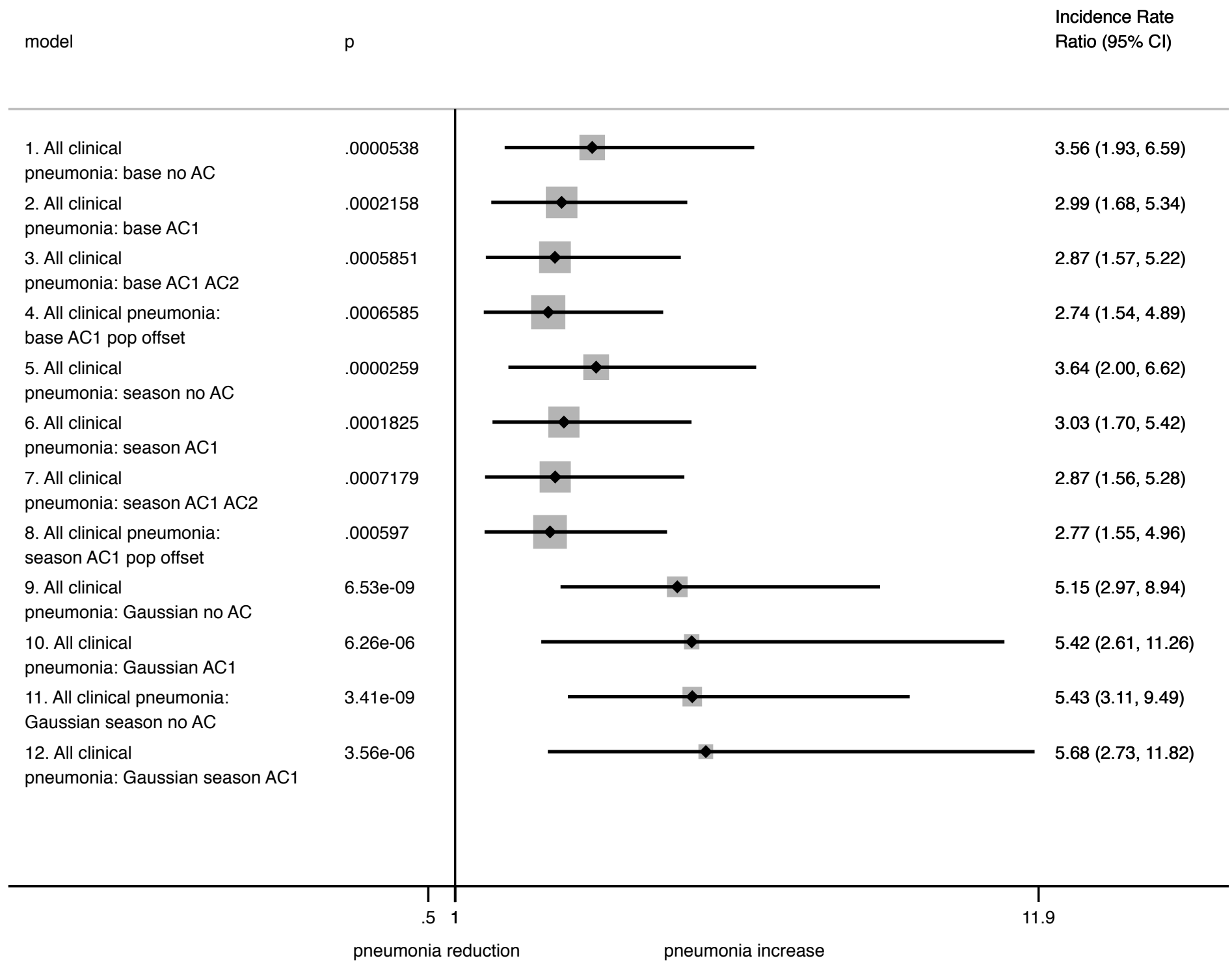


Figure A7.15

Sensitivity Analysis for Fast breathing pneumonia models - Community Health Worker clinics

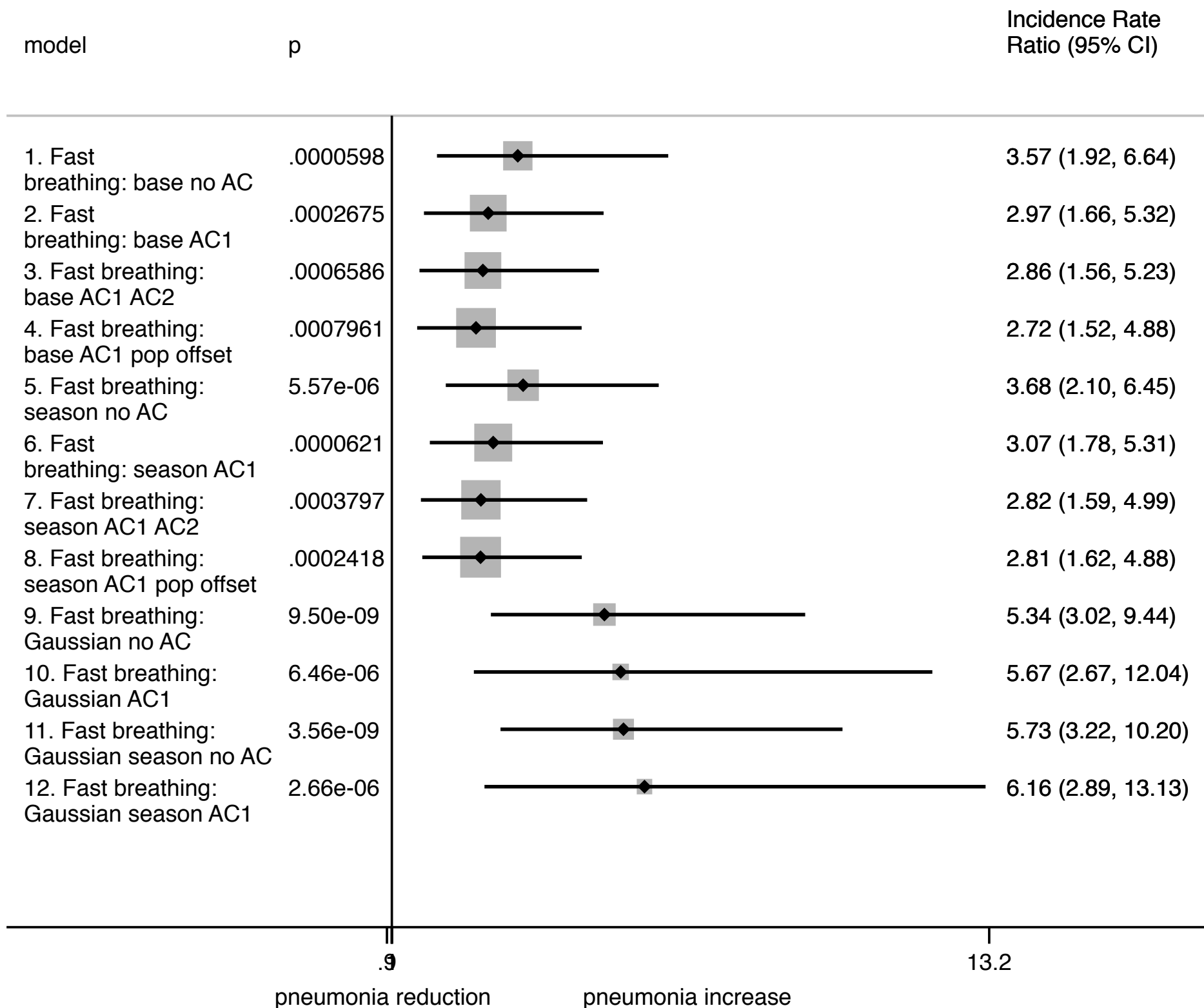


Figure A7.16

Sensitivity Analysis for Chest indrawing pneumonia models - Community Health Worker clinics

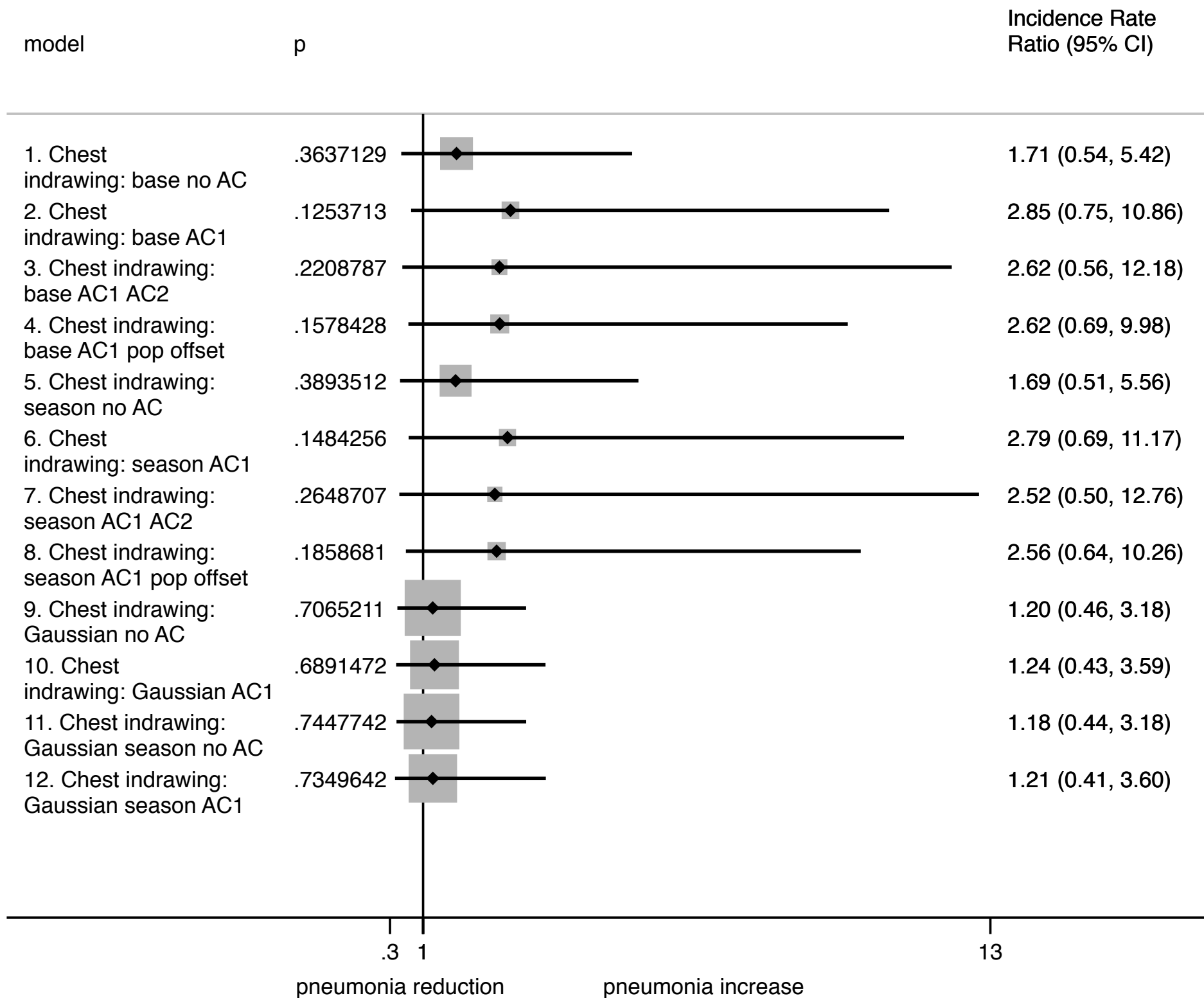


Figure A7.17

Sensitivity Analysis for Danger sign(s) pneumonia models - Community Health Worker clinics

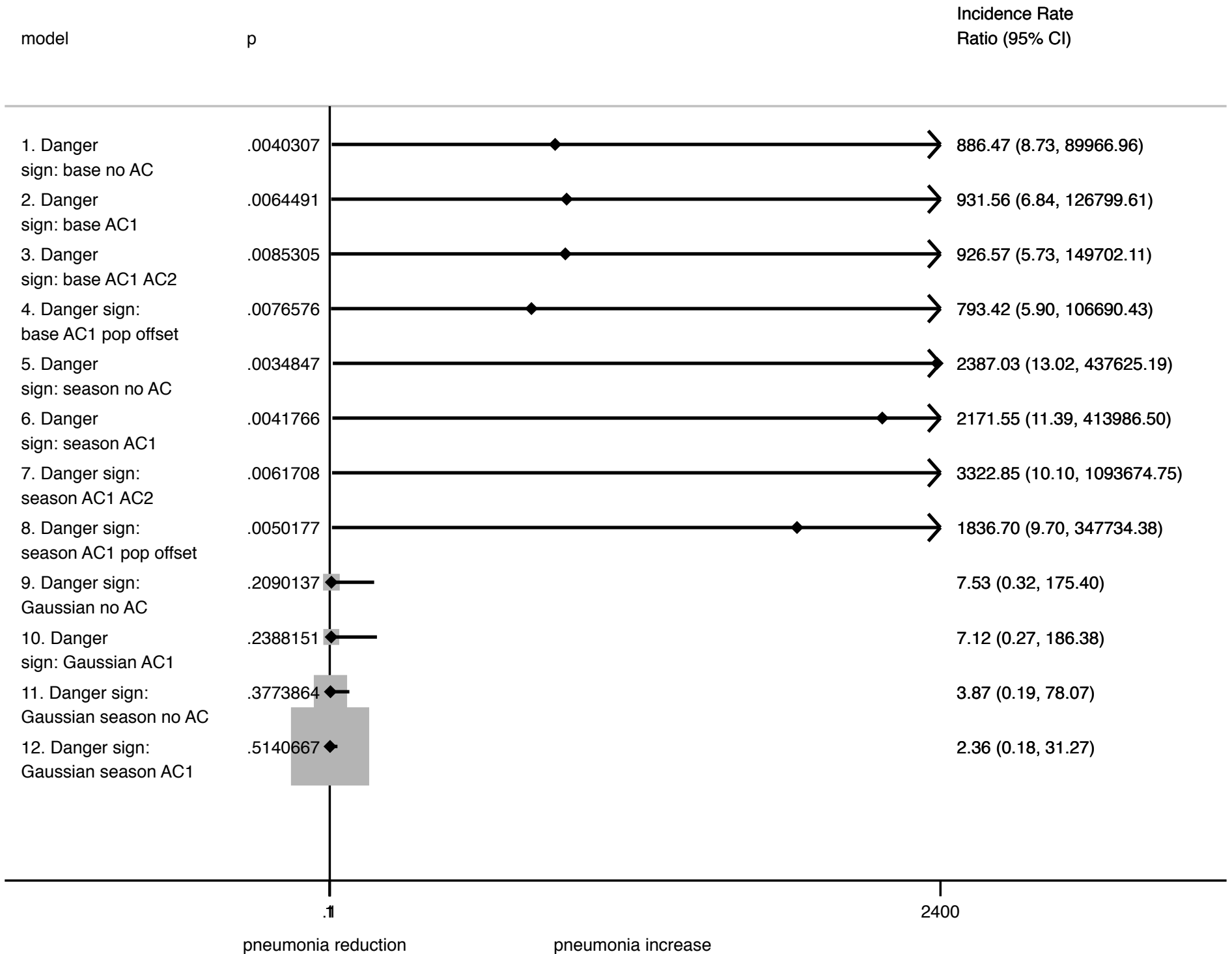


Figure A7.18

Sensitivity Analysis for Hypoxemic pneumonia models - Community Health Worker clinics

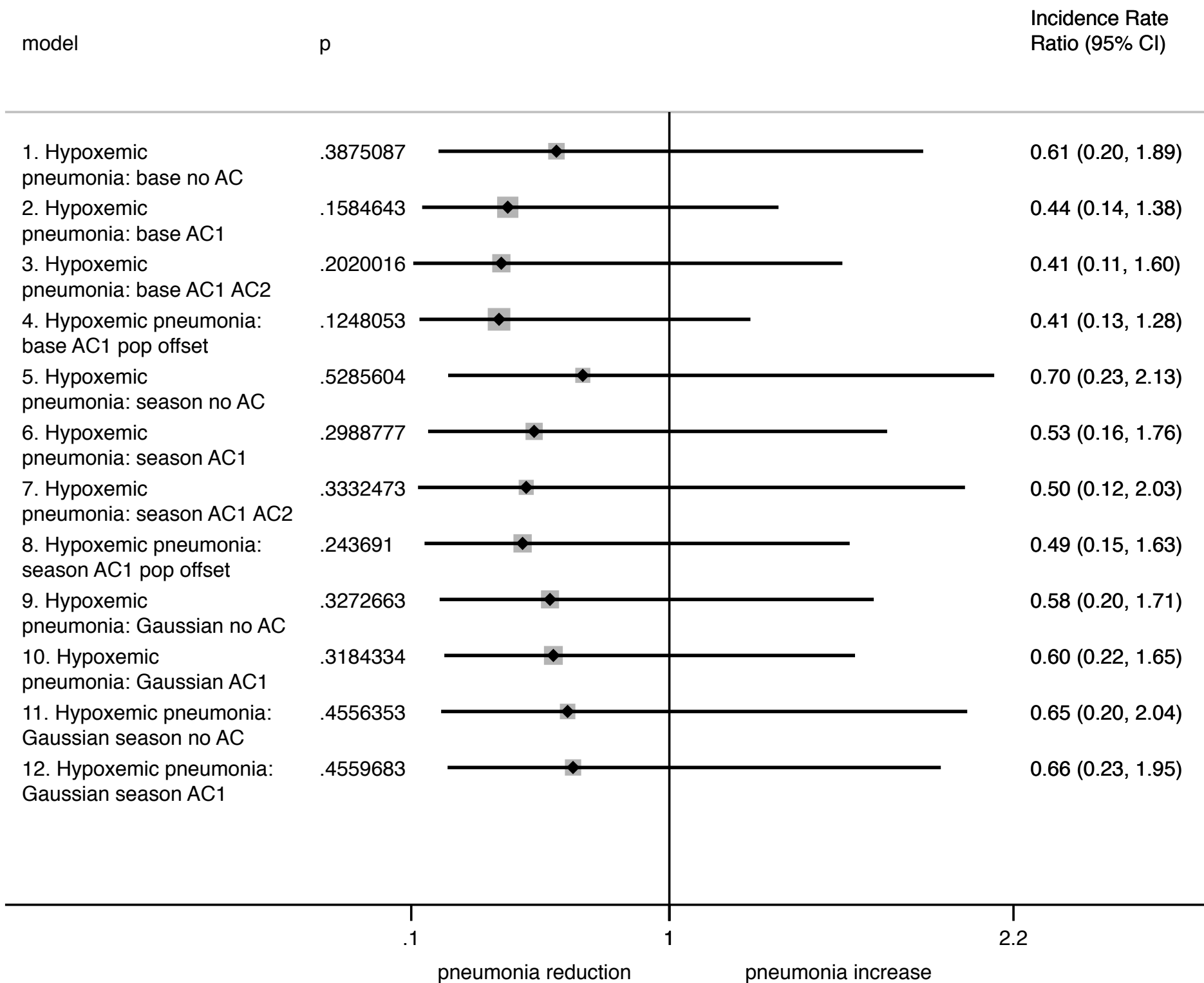


Figure A7.19

Sensitivity Analysis for proportion danger sign pneumonia models - Community Health Worker clinics

