ANNALS OF FAMILY MEDICINE

Online Supplementary Material

Lau D, Hu J, Majumdar SR, Storie DA, Rees SE, Johnson JA. Interventions to improve influenza and pneumococcal vaccination rates among community-dwelling adults: A systematic review and meta-analysis. *Ann Fam Med*. 2012;10(6):538-546.

http://www.annfammed.org/content/10/6/538/suppl/DC1

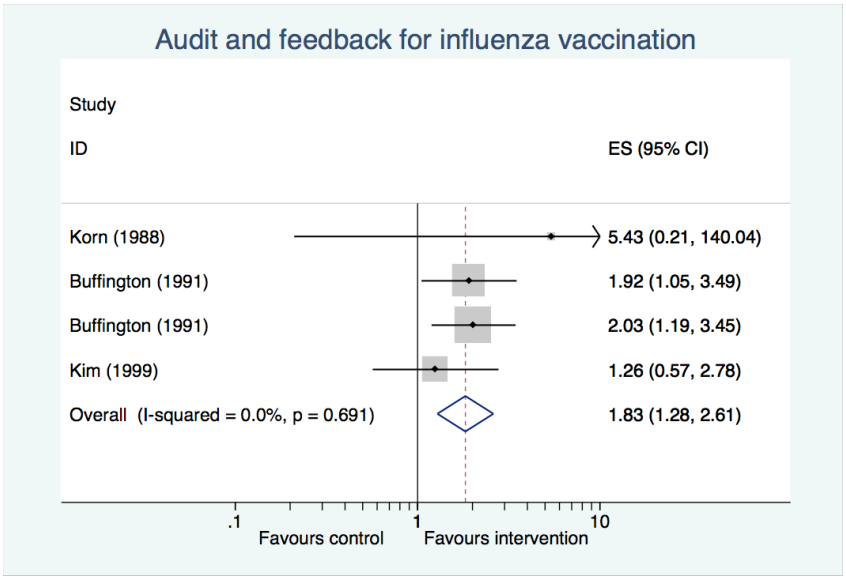
Supplemental Appendix B. These exhibits contain, for each intervention, a forest plot, a table showing each study's performance on the items of the Downs and Black instrument, and a table showing each study's performance on the Cochrane Risk of Bias (ROB) tool.

Exhibit B.1 and B.2. These exhibits contain, for each intervention, a forest plot, a table showing each study's performance on the items of the Downs and Black instrument, and a table showing each study's performance on the Cochrane Risk of Bias (ROB) tool. ROB is designed for clinical trials, and was not completed for observational studies.

A note on study design nomenclature. RCT = randomized controlled trial, CCT = controlled clinical trial, which includes randomized trials with inadequate means of random sequence generation, CBA = controlled before-and-after study, PCS = prospective cohort study, and RCS = retrospective cohort study. Please note that while the definition of CBA involves the assignment of interventions other than by random processes, we classified some studies involving randomized assignment as CBAs if, for example, the number of units assigned was too small to realize the benefits of randomization. RCT, CCT, and CBA designs differed from PCS and RCS designs chiefly in that, in the former, the intervention occurs as a result of deliberate investigator effort.

Risk of bias tables. The Risk of Bias tool has been completed for trials as a supplement to the Downs and Black items. A value of "1" represents a "yes" code (e.g.: Adequate sequence generation – 1 – yes). A value of "0" represents a "no" code (e.g.: Incomplete outcome data addressed – 0 – no). Because we applied fairly unambiguous assessment criteria, an "unclear" response was not needed. A "1" code in any column represents a source of potential bias that may lead the overall risk of bias in the study to be "unclear" or "high", instead of "low". The overall risk of bias for each study is reflected in the final column, "Free of ROB issues". In this column, a "1" code represents no ROB issues, and therefore a low risk of bias overall; while a "0" code reflects one or more ROB issues, leading to an unclear or high risk of bias. Please note that there is little empirical evidence relating the impact of methodological shortcomings, such as lack of blinding or unconcealed randomization, in quality improvement studies. An "unclear" risk or bias will be the most reasonable judgment in most cases where ROB issues are apparent.

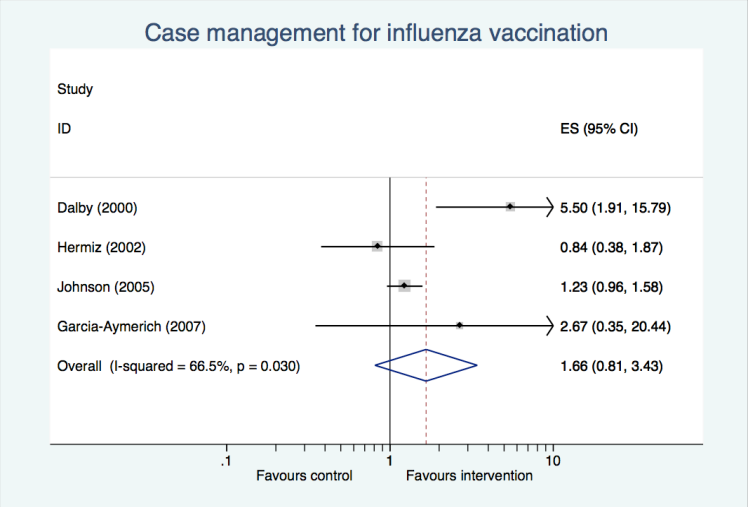
Exhibit B.1. Forest plots and study quality – Influenza vaccinations
Exhibit B.1.1. Influenza vaccinations – Audit and feedback



		Reporting										External validity			Internal validity - bias							Internal validity - confounding										Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Buffington (1991)	rct (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	9	1	0	7	3	5	5	0	20
Kim (1999)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Korn (1988)	pcs (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	8	3	5	4	0	20

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Buffington (1991)	rct (cluster)	1	1	1	1	1	1
Buffington (1991)	rct (cluster)	1	1	1	1	1	1
Kim (1999)	rct (cluster)	1	1	0	1	1	0
Korn (1988)	pcs (cluster)	NRS	NRS	1	1	1	NRS

Exhibit B.1.2. Influenza vaccinations – Case management



		Reporting										External validity			Internal validity - bias							Internal validity - confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Dalby (2000)	rct	1	1	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	8	2	5	5	0	20
Garcia-Aymerich (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	10	3	5	5	0	23
Hermiz (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	9	2	4	5	0	20
Johnson (2005)	rcs	1	1	1	1	2	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	1	6	4	0	21

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Dalby (2000)	rct	1	1	1	0	0	0
Garcia-Aymerich (2007)	rct	1	1	1	0	0	0
Hermiz (2002)	cct	1	0	0	1	0	0
Johnson (2005)	rcs	NRS	NRS	1	1	0	NRS

Exhibit B.1.3. Influenza vaccinations – Clinician education

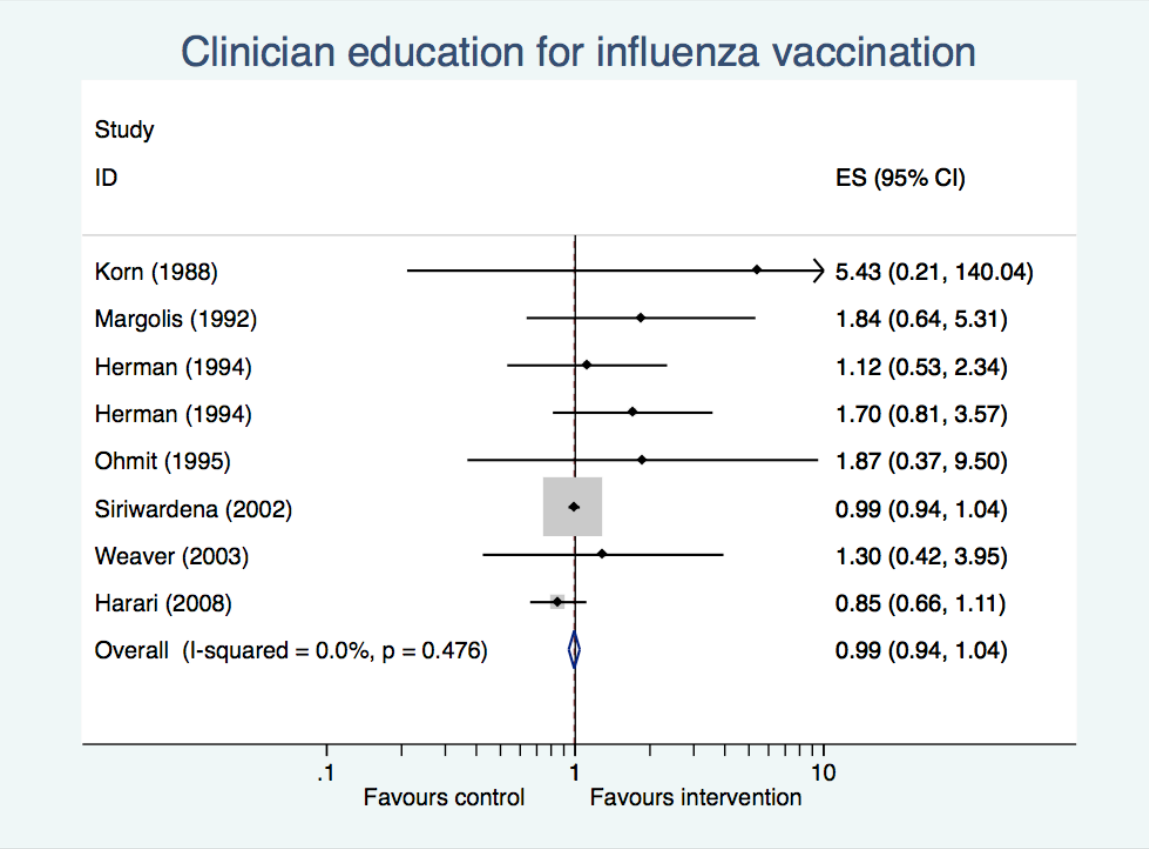


Exhibit B.1.3. Influenza vaccinations – Clinician education (continued)

		Reporting										External validity			Internal validity - bias							Internal validity - confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Harari (2008)	rct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	4	0	20
Herman (1994)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	10	3	5	6	0	24
Korn (1988)	pcs (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	8	3	5	4	0	20
Margolis (1992)	cba (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	9	1	0	7	3	6	3	0	19
Ohmit (1995)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	0	0	1	0	1	1	1	0	1	0	0	1	1	1	1	1	0	8	1	4	5	0	18
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Weaver (2003)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	10	3	4	1	0	18

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Harari (2008)	rct	1	1	0	0	0	0
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Korn (1988)	pcs (cluster)	NRS	NRS	1	1	1	NRS
Margolis (1992)	cba (cluster)	NRS	NRS	1	1	1	NRS
Ohmit (1995)	rct (cluster)	0	1	1	1	1	0
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Weaver (2003)	cba (cluster)	NRS	NRS	1	0	1	NRS

Exhibit B.1.4. Influenza vaccinations – Clinician reminders

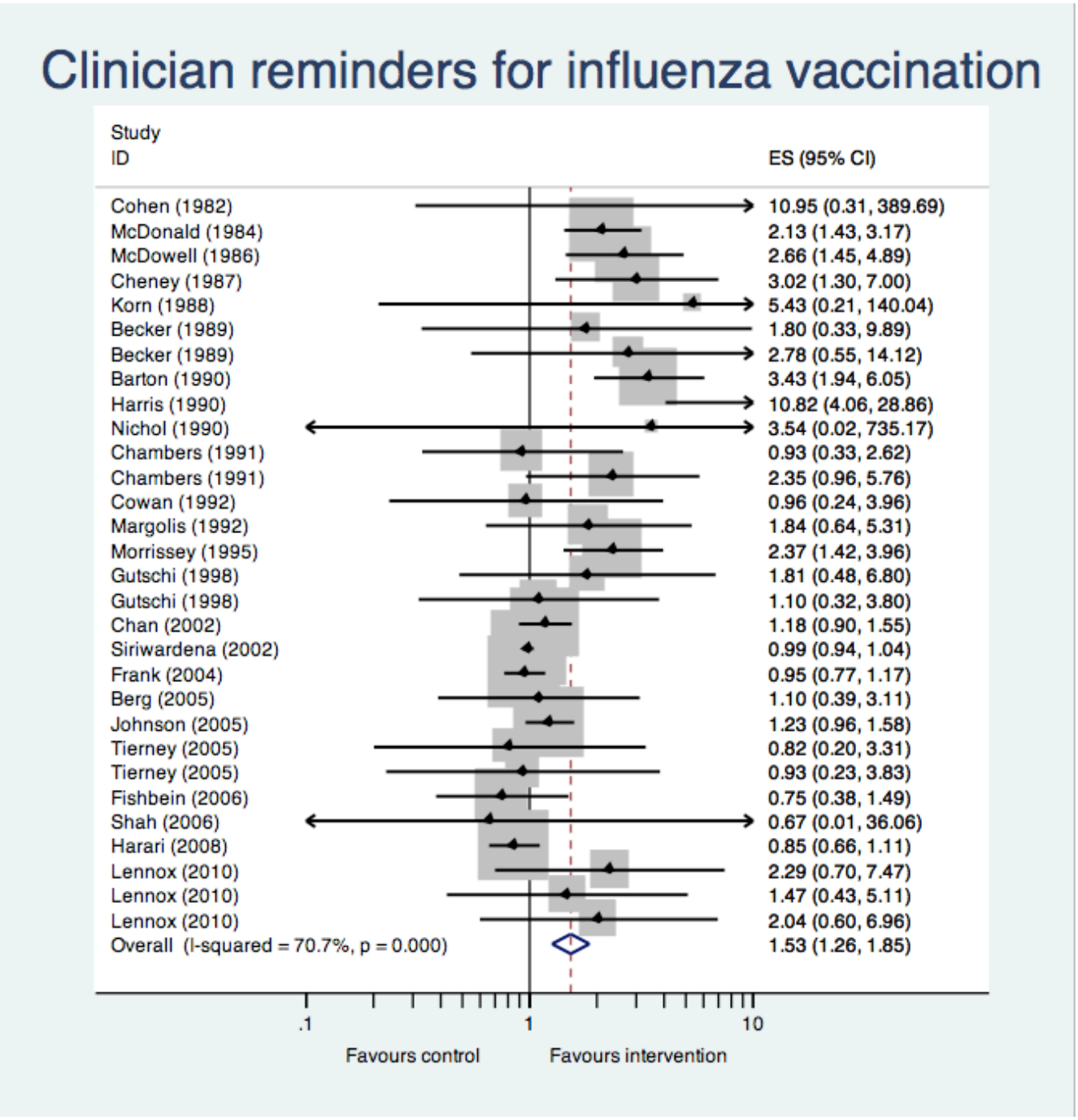


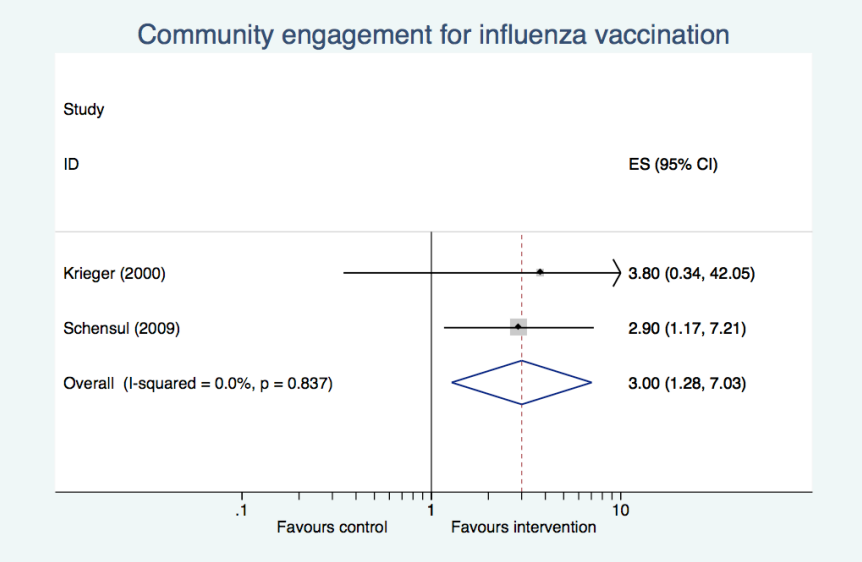
Exhibit B.1.4. Influenza vaccinations – Clinician reminders (continued)

		Reporting										External validity			Internal validity - bias							Internal validity - confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Barton (1990)	rcs	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	1	0	8	3	6	2	0	19
Becker (1989)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	0	0	9	2	4	4	0	19
Berg (2005)	rcs	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	3	5	4	0	22
Chambers (1991)	rct (cluster)	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	9	1	0	8	3	6	5	0	22
Chan (2002)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	9	3	7	6	0	25
Cheney (1987)	rct	1	1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	9	1	0	7	3	5	5	0	20
Cohen (1982)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	9	1	0	8	3	5	5	0	21
Cowan (1992)	rct (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	0	9	1	4	9	3	6	3	4	25
Fishbein (2006)	cba	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	0	0	9	1	0	8	3	4	3	0	18
Frank (2004)	cct	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	9	1	0	9	3	7	4	0	23
Gutschi (1998)	cct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	0	1	0	10	3	3	4	0	20
Harari (2008)	rct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	4	0	20
Harris (1990)	rcs	1	1	1	1	0	1	0	0	1	0	0	0	1	0	0	1	1	1	1	1	0	1	0	0	9	1	0	6	1	5	2	0	14
Johnson (2005)	rcs	1	1	1	1	2	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	1	6	4	0	21
Korn (1988)	pcs (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	8	3	5	4	0	20
Lennox (2010)	rct (cluster)	1	0	1	1	2	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	10	2	6	6	0	24
Margolis (1992)	cba (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	9	1	0	7	3	6	3	0	19
McDonald (1984)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	1	0	8	3	7	5	0	23
McDowell (1986)	cct	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	7	3	6	5	1	22
Morrissey (1995)	rct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Nichol (1990)	pcs (cluster)	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	0	0	7	3	6	1	0	17
Shah (2006)	pcs (cluster)	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	10	3	4	4	0	21
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Tierney (2005)	rct (cluster)	1	1	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	7	2	7	6	0	22

Exhibit B.1.4. Influenza vaccinations – Clinician reminders (continued)

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Barton (1990)	rcs	NRS	NRS	1	1	0	NRS
Becker (1989)	cct	1	0	0	0	0	0
Berg (2005)	rcs	NRS	NRS	1	1	0	
Chambers (1991)	rct (cluster)	1	1	1	1	1	1
Chan (2002)	rct (cluster)	1	1	1	1	1	1
Cheney (1987)	rct	1	1	0	1	0	0
Cohen (1982)	rct (cluster)	1	1	0	1	1	0
Cowan (1992)	rct (cluster)	1	0	1	1	1	0
Fishbein (2006)	cba	NRS	0	0	1	0	NRS
Frank (2004)	cct	1	0	1	1	0	0
Gutschi (1998)	cct	1	0	0	1	0	0
Harari (2008)	rct	1	1	0	0	0	0
Harris (1990)	rcs	NRS	NRS	1	1	0	NRS
Johnson (2005)	rcs	NRS	NRS	1	1	0	NRS
Korn (1988)	pcs (cluster)	NRS	NRS	1	1	1	NRS
Lennox (2010)	rct (cluster)	1	1	1	1	1	1
Margolis (1992)	cba (cluster)	NRS	NRS	1	1	1	NRS
McDonald (1984)	rct (cluster)	1	1	1	1	1	1
McDowell (1986)	cct	1	0	1	1	0	0
Morrissey (1995)	rct	1	1	1	1	0	0
Nichol (1990)	pcs (cluster)	NRS	NRS	1	0	1	NRS
Shah (2006)	pcs (cluster)	NRS	NRS	0	0	1	NRS
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Tierney (2005)	rct (cluster)	1	1	1	1	1	1

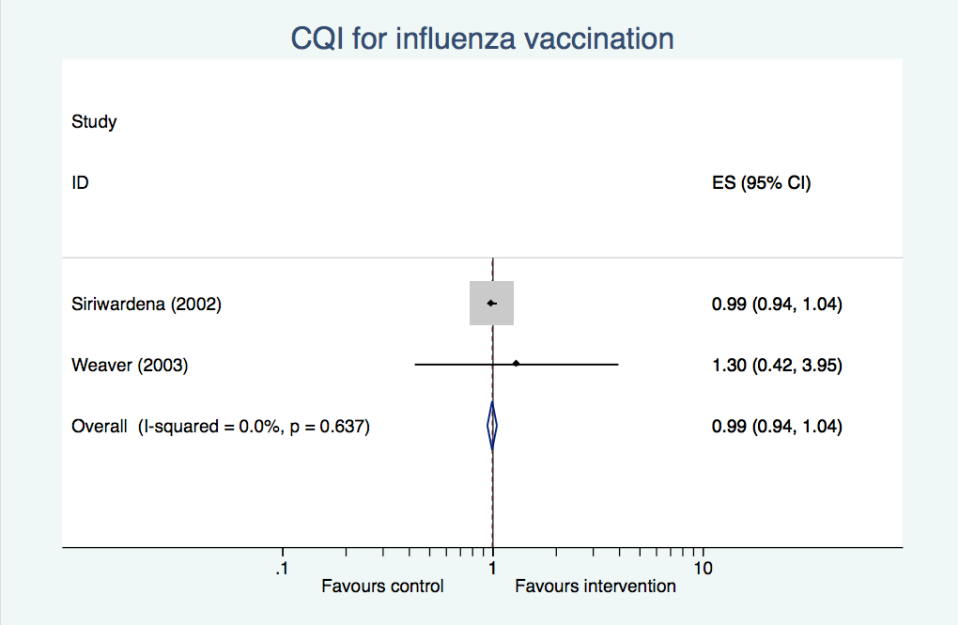
Exhibit B.1.5. Influenza vaccinations – Community engagement



		Reporting										validity			Internal validity - bias							confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Krieger (2000)	cct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	10	2	6	5	0	23
Schensul (2009)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	0	1	0	0	1	1	0	10	2	5	3	0	20

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Krieger (2000)	cct	1	0	1	1	0	0
Schensul (2009)	cba (cluster)	NRS	NRS	1	1	1	NRS

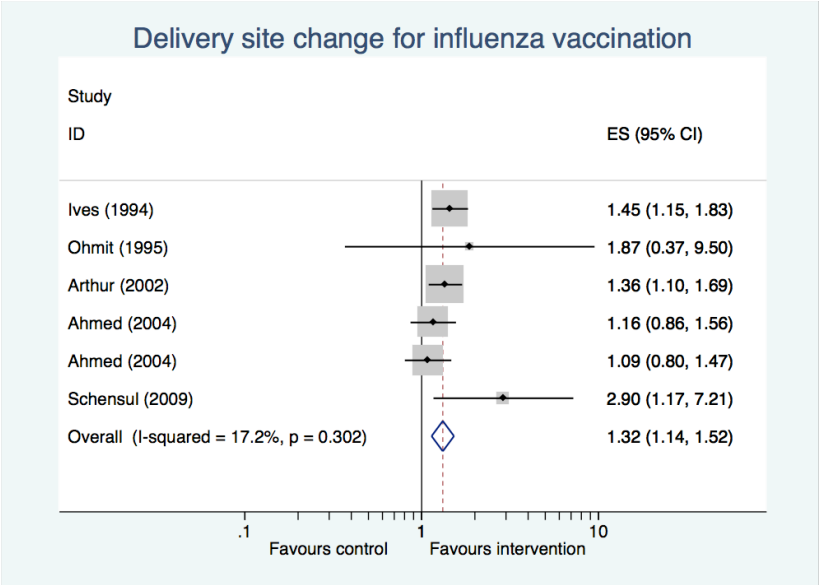
Exhibit B.1.6. Influenza vaccinations – Continuous quality improvement (CQI) or similar



		Reporting										validity			Internal validity - bias						confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Weaver (2003)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	10	3	4	1	0	18

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Weaver (2003)	cba (cluster)	NRS	NRS	1	0	1	NRS

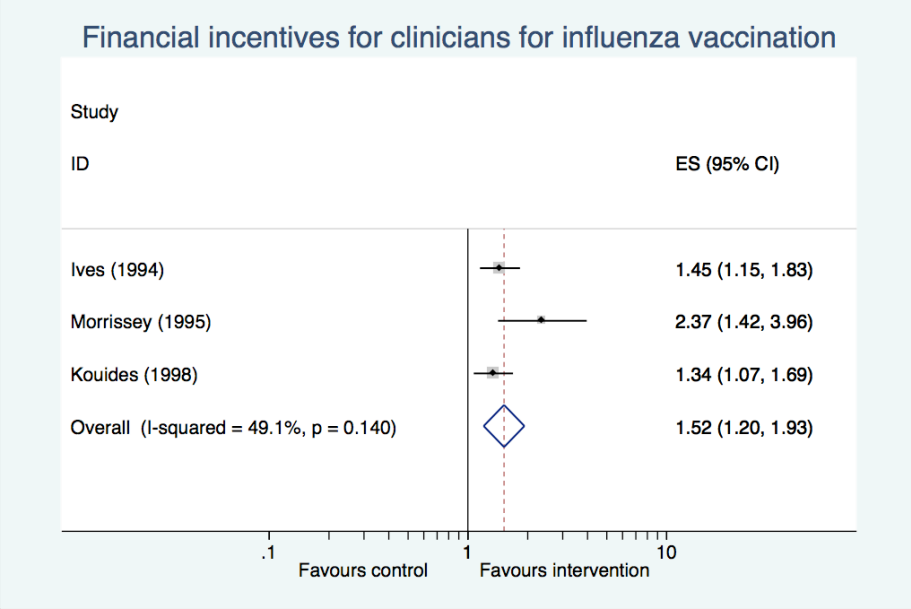
Exhibit B.1.7. Influenza vaccinations – Delivery site change



		Reporting										validity			Internal validity - bias							confounding								Summary scores						
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Ahmed (2004)	rct (cluster)	1	1	1	1	2	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	9	3	6	6	0	24
Arthur (2002)	rct (cluster)	1	1	1	1	2	1	1	1	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	0	11	3	3	6	0	23
Ives (1994)	cct	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	5	0	21
Ohmit (1995)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	0	0	1	0	1	1	1	0	1	0	0	1	1	1	1	1	0	8	1	4	5	0	18
Schensul (2009)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	0	1	0	0	1	1	0	10	2	5	3	0	20

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Ahmed (2004)	rct (cluster)	1	1	1	1	1	1
Arthur (2002)	rct (cluster)	1	1	0	1	1	0
Ives (1994)	cct	1	1	0	0	0	0
Ohmit (1995)	rct (cluster)	0	1	1	1	1	0
Schensul (2009)	cba (cluster)	NRS	NRS	1	1	1	NRS

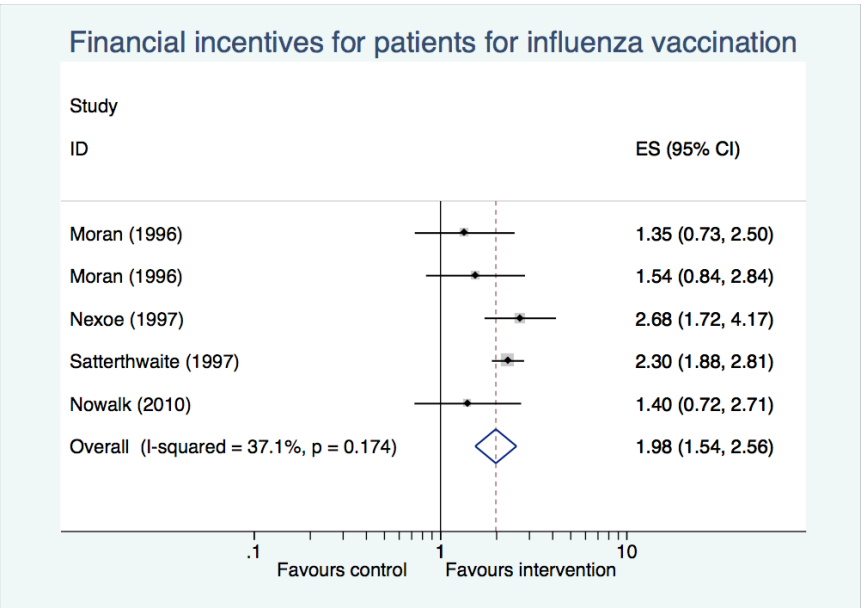
Exhibit B.1.8. Influenza vaccinations – Financial incentives (clinicians)



		Reporting										validity			Internal validity - bias							confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Ives (1994)	cct	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	5	0	21
Kouides (1998)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	1	0	8	3	7	5	0	23
Morrissey (1995)	rct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Ives (1994)	cct	1	1	0	0	0	0
Kouides (1998)	rct (cluster)	1	1	1	1	1	1
Morrissey (1995)	rct	1	1	1	1	0	0

Exhibit B.1.9. Influenza vaccinations – Financial incentives (patients)



		Reporting										validity			Internal validity - bias							confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Moran (1996)	cct	1	1	0	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	9	3	6	5	0	23
Nexoe (1997)	cct	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	9	1	0	8	3	6	4	0	21
Nowalk (2010)	rct (cluster)	1	1	1	1	2	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	11	2	6	6	1	26
Satterthwaite (1997)	cct	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	9	1	0	8	3	6	4	0	21

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Moran (1996)	cct	1	0	1	1	0	0
Nexoe (1997)	cct	1	0	1	1	0	0
Nowalk (2010)	rct (cluster)	1	1	1	1	1	1
Satterthwaite (1997)	cct	1	0	1	1	0	0

Exhibit B.1.10. Influenza vaccinations – Patient outreach

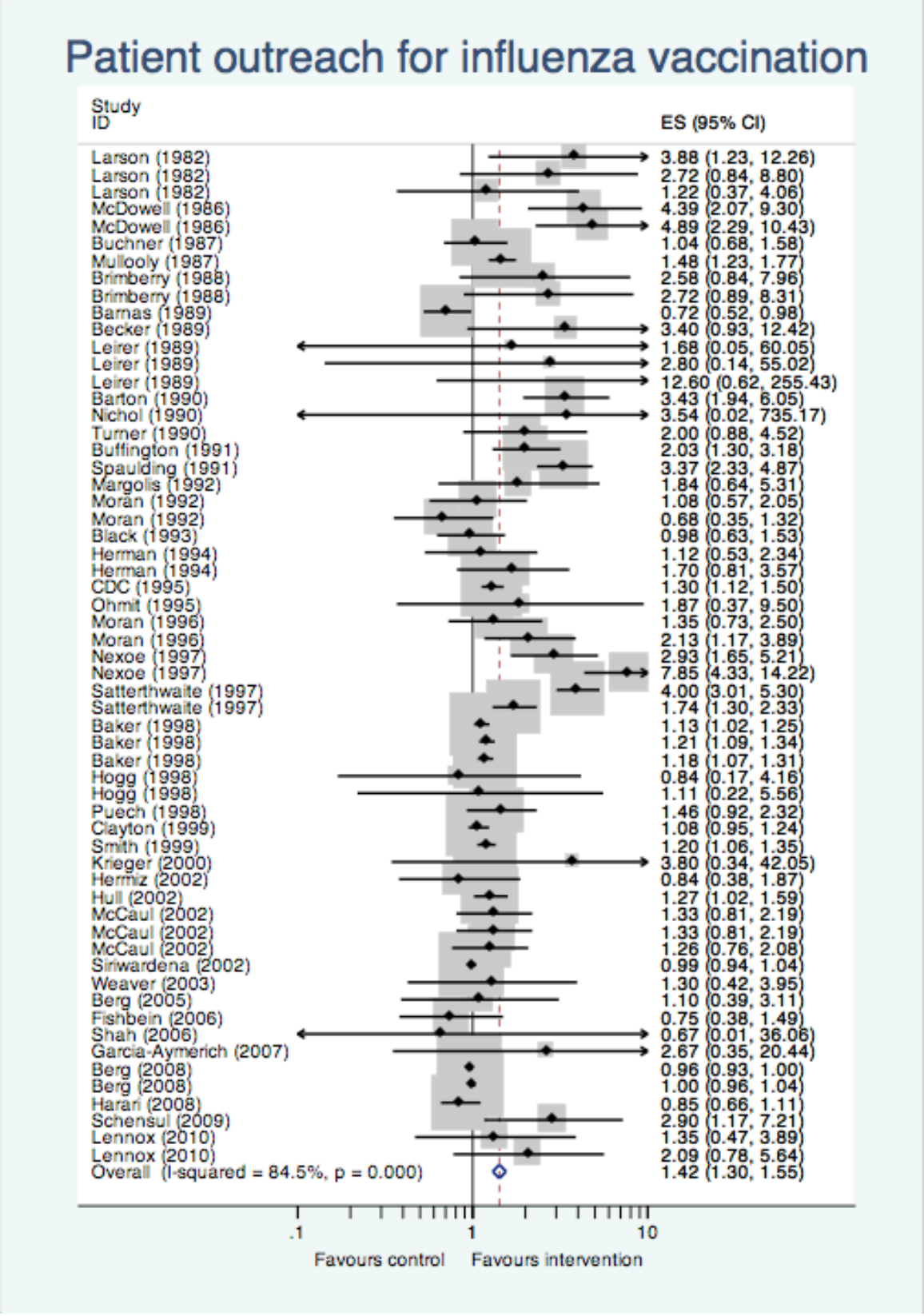


Exhibit B.1.10. Influenza vaccinations – Patient outreach (continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Baker (1998)	cct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	10	3	6	6	0	25
Barnas (1989)	cct	1	1	1	1	0	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	7	3	4	5	0	19
Barton (1990)	rcs	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	1	0	8	3	6	2	0	19
Becker (1989)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	0	0	9	2	4	4	0	19
Berg (2005)	rcs	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	3	5	4	0	22
Berg (2008)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	9	3	6	5	0	23
Black (1993)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	0	1	1	1	9	2	5	5	1	22
Brimberry (1988)	rct	1	1	0	1	0	1	1	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	9	1	0	6	3	5	5	0	19
Buchner (1987)	rct	1	1	1	1	0	1	1	0	0	0	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	2	6	3	5	4	2	20
Buffington (1991)	rct (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	9	1	0	7	3	5	5	0	20
CDC (1995)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	0	8	3	5	5	0	21
Clayton (1999)	cct	1	1	1	1	2	1	1	0	1	1	0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	4	10	1	5	6	4	26
Fishbein (2006)	cba	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	0	0	9	1	0	8	3	4	3	0	18
Garcia-Aymerich (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	10	3	5	5	0	23
Harari (2008)	rct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	4	0	20
Herman (1994)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	10	3	5	6	0	24
Hermiz (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	9	2	4	5	0	20
Hogg (1998)	cct	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	9	1	1	9	3	4	4	1	21
Hull (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	9	2	6	6	2	25
Krieger (2000)	cct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	10	2	6	5	0	23
Larson (1982)	cct	1	1	1	1	2	1	1	0	0	0	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	0	0	8	3	4	4	0	19
Leirer (1989)	rct	1	1	1	1	0	1	1	1	0	1	1	1	1	0	0	1	1	0	1	0	1	1	1	0	9	1	0	8	3	3	4	0	18
Lennox (2010)	rct (cluster)	1	0	1	1	2	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	10	2	6	6	0	24

Exhibit B.1.10. Influenza vaccinations – Patient outreach (continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Margolis (1992)	cba (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	9	1	0	7	3	6	3	0	19
McCaul (2002)	rct (cluster)	1	1	0	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	9	1	0	7	3	5	5	0	20
McDowell (1986)	cct	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	7	3	6	5	1	22
Moran (1992)	cct	1	1	0	1	0	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	1	6	3	4	6	1	20
Moran (1996)	cct	1	1	0	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	9	3	6	5	0	23
Mullooly (1987)	cct	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	9	3	4	5	0	21
Nexoe (1997)	cct	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	0	9	1	0	8	3	6	4	0	21
Nichol (1990)	pcs (cluster)	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	0	0	7	3	6	1	0	17
Ohmit (1995)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	0	0	1	0	1	1	1	0	1	0	0	1	1	1	1	1	0	8	1	4	5	0	18
Puech (1998)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	3	5	6	0	24
Satterthwaite (1997)	cct	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	9	1	0	8	3	6	4	0	21
Schensul (2009)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	0	1	0	0	1	1	0	10	2	5	3	0	20
Shah (2006)	pcs (cluster)	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	10	3	4	4	0	21
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Smith (1999)	rct	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	8	3	6	5	0	22
Spaulding (1991)	rct	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	9	1	0	9	3	6	5	0	23
Turner (1990)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	0	9	3	3	6	0	21
Weaver (2003)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	10	3	4	1	0	18

Exhibit B.1.10. Influenza vaccinations – Patient outreach (continued)

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Baker (1998)	cct	1	1	1	1	0	0
Barnas (1989)	cct	1	0	0	1	0	0
Barton (1990)	rcs	NRS	NRS	1	1	0	NRS
Becker (1989)	cct	1	0	0	0	0	0
Berg (2005)	rcs	NRS	NRS	1	1	0	NRS
Berg (2008)	rct (cluster)	1	1	1	1	1	1
Black (1993)	cct	1	0	1	1	0	0
Brimberry (1988)	rct	1	1	1	1	0	0
Buchner (1987)	rct	1	0	1	0	0	0
Buffington (1991)	rct (cluster)	1	1	1	1	1	1
CDC (1995)	rct (cluster)	0	1	1	1	1	0
Clayton (1999)	cct	1	1	1	1	0	0
Fishbein (2006)	cba	NRS	NRS	0	1	0	NRS
Garcia-Aymerich (2007)	rct	1	1	1	0	0	0
Harari (2008)	rct	1	1	0	0	0	0
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Hermiz (2002)	cct	1	0	0	1	0	0
Hogg (1998)	cct	1	0	0	1	0	0
Hull (2002)	cct	1	1	1	1	0	0
Krieger (2000)	cct	1	0	1	1	0	0
Larson (1982)	cct	1	0	0	0	0	0
Leirer (1989)	rct	1	0	0	1	0	0
Lennox (2010)	rct (cluster)	1	1	1	1	1	1
Margolis (1992)	cba (cluster)	NRS	NRS	1	1	1	NRS
McCaul (2002)	rct (cluster)	1	1	1	1	1	1
McDowell (1986)	cct	1	0	1	1	0	0
Moran (1992)	cct	1	0	0	1	0	0
Moran (1996)	cct	1	0	1	1	0	0
Mullooly (1987)	cct	1	0	0	1	0	0
Nexoe (1997)	cct	1	0	1	1	0	0
Nichol (1990)	pcs (cluster)	NRS	NRS	1	0	1	NRS
Ohmit (1995)	rct (cluster)	0	1	1	1	1	0
Puech (1998)	rct	1	1	1	1	0	0
Satterthwaite (1997)	cct	1	0	1	1	0	0
Schensul (2009)	cba (cluster)	NRS	NRS	1	1	1	NRS
Shah (2006)	pcs (cluster)	NRS	NRS	0	0	1	NRS
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Smith (1999)	rct	1	1	1	0	0	0
Spaulding (1991)	rct	1	1	1	1	0	0
Turner (1990)	rct (cluster)	1	1	0	1	1	0
Weaver (2003)	cba (cluster)	NRS	NRS	1	0	1	NRS

Exhibit B.1.11. Influenza vaccinations – Team change

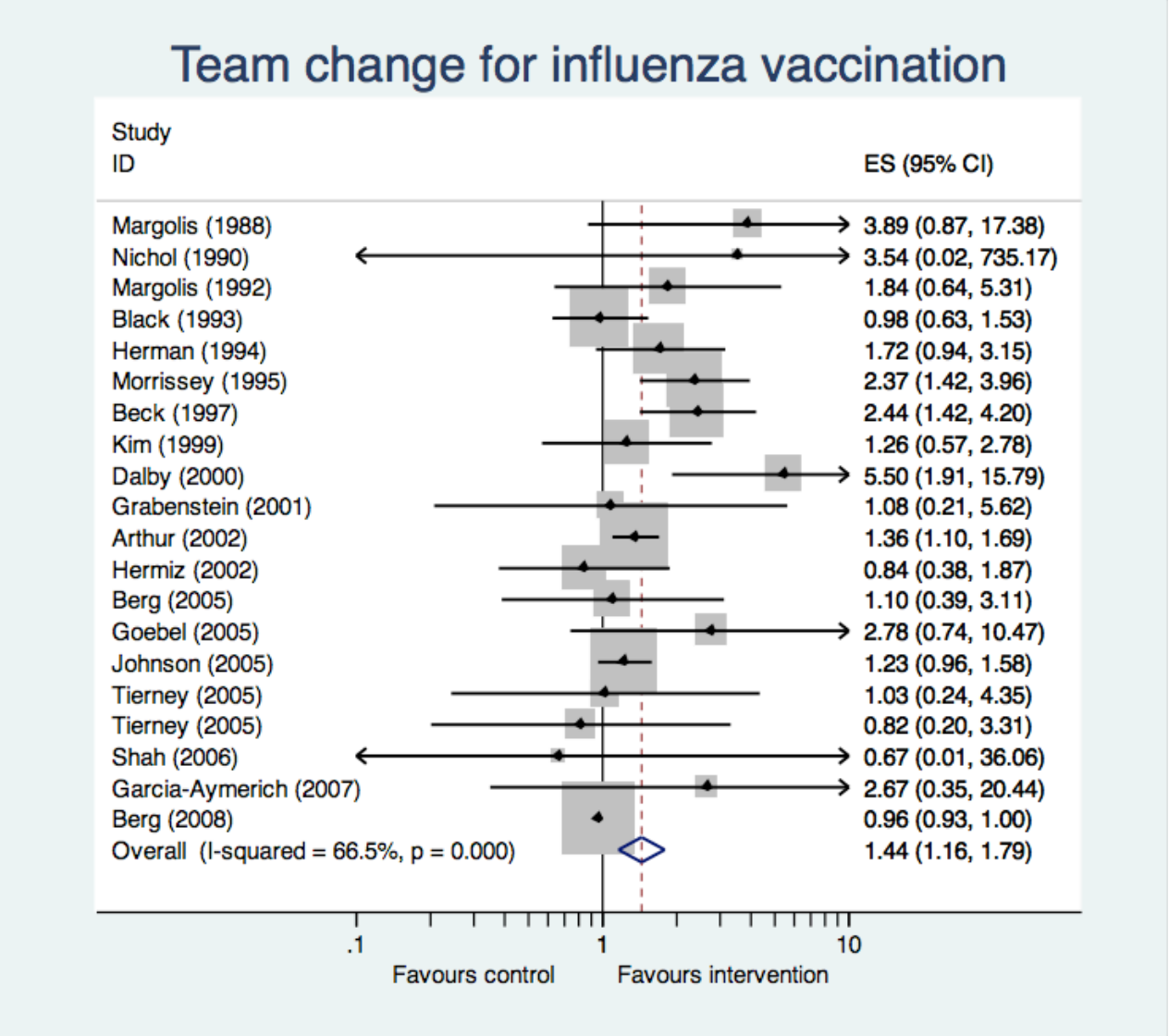


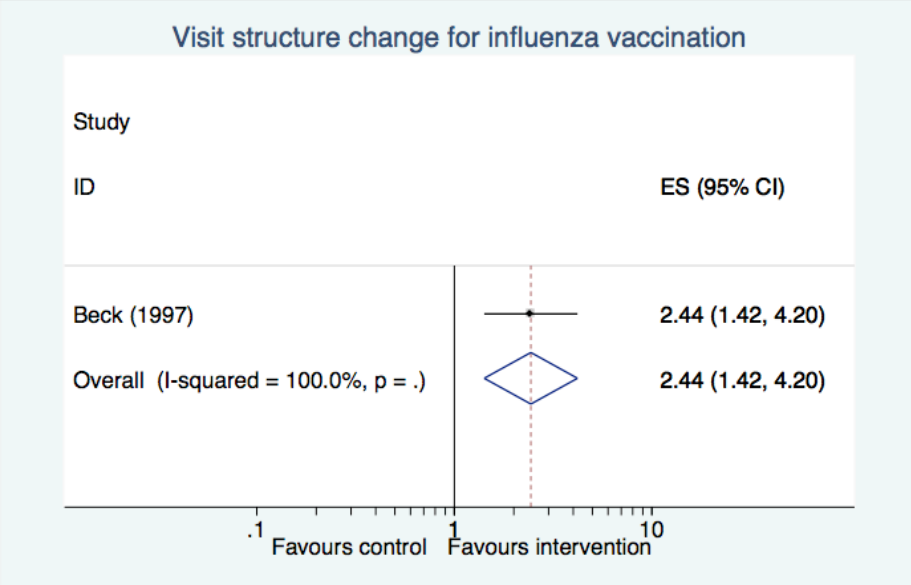
Exhibit B.1.11. Influenza vaccinations – Team change (continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Arthur (2002)	rct (cluster)	1	1	1	1	2	1	1	1	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	0	11	3	3	6	0	23
Beck (1997)	cct	1	1	1	1	2	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	9	2	6	4	0	21
Berg (2005)	rcs	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	3	5	4	0	22
Berg (2008)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	9	3	6	5	0	23
Black (1993)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	0	1	1	1	9	2	5	5	1	22
Dalby (2000)	rct	1	1	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	8	2	5	5	0	20
Garcia-Aymerich (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	10	3	5	5	0	23
Goebel (2005)	rcs (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	9	1	0	9	3	6	3	0	21
Grabenstein (2001)	rcs (cluster)	1	1	1	1	0	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	0	1	0	0	9	0	0	7	1	6	1	0	15
Herman (1994)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	10	3	5	6	0	24
Hermiz (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	9	2	4	5	0	20
Johnson (2005)	rcs	1	1	1	1	2	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	1	6	4	0	21
Kim (1999)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Margolis (1988)	rcs (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	9	1	0	8	3	4	2	0	17
Margolis (1992)	cba (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	9	1	0	7	3	6	3	0	19
Morrissey (1995)	rct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Nichol (1990)	pcs (cluster)	1	1	1	1	1	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	0	0	7	3	6	1	0	17
Shah (2006)	pcs (cluster)	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	10	3	4	4	0	21
Tierney (2005)	rct (cluster)	1	1	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	7	2	7	6	0	22

Exhibit B.1.11. Influenza vaccinations – Team change (continued)

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Arthur (2002)	rct (cluster)	1	1	0	1	1	0
Beck (1997)	cct	1	0	1	0	0	0
Berg (2005)	rcs	NRS	NRS	1	1	0	NRS
Berg (2008)	rct (cluster)	1	1	1	1	1	1
Black (1993)	cct	1	0	1	1	0	0
Dalby (2000)	rct	1	1	1	0	0	0
Garcia-Aymerich (2007)	rct	1	1	1	0	0	0
Goebel (2005)	rcs (cluster)	NRS	NRS	1	1	1	NRS
Grabenstein (2001)	rcs (cluster)	NRS	NRS	1	0	1	NRS
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Hermiz (2002)	cct	1	0	0	1	0	0
Johnson (2005)	rcs	NRS	NRS	1	1	0	NRS
Kim (1999)	rct (cluster)	1	1	0	1	1	0
Margolis (1988)	rcs (cluster)	NRS	NRS	0	1	1	NRS
Margolis (1992)	cba (cluster)	NRS	NRS	1	1	1	NRS
Morrissey (1995)	rct	1	1	1	1	0	0
Nichol (1990)	pcs (cluster)	NRS	NRS	1	0	1	NRS
Shah (2006)	pcs (cluster)	NRS	NRS	0	0	1	NRS
Tierney (2005)	rct (cluster)	1	1	1	1	1	1

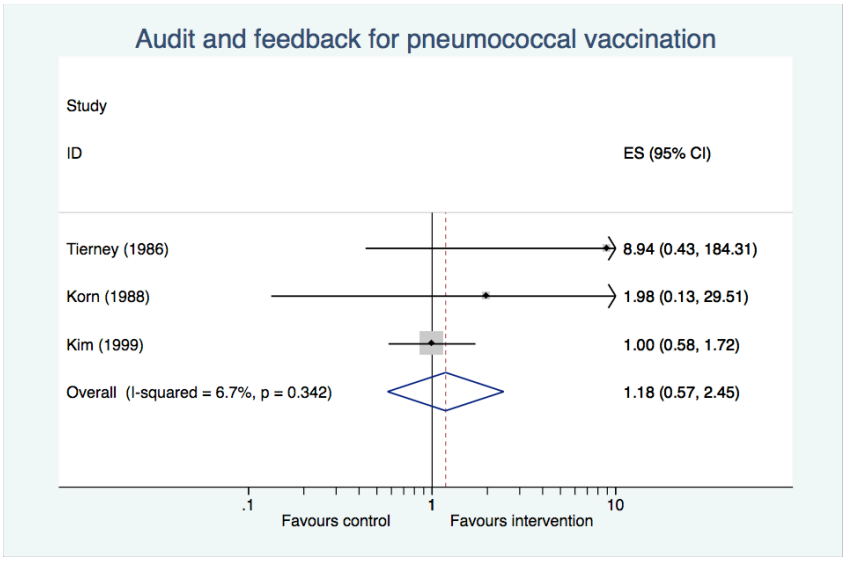
Exhibit B.1.12. Influenza vaccinations – Visit structure change



		Reporting										validity			Internal validity - bias							confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Beck (1997)	cct	1	1	1	1	2	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	9	2	6	4	0	21

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Beck (1997)	cct	1	0	1	0	0	0

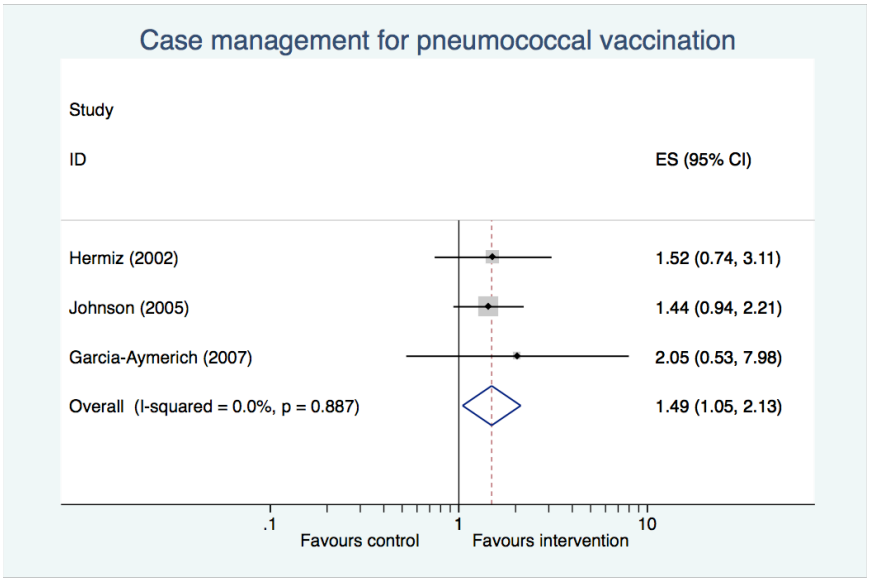
Exhibit B.2. Forest plots and study quality – Pneumococcal vaccinations
Exhibit B.2.1. Pneumococcal vaccinations – Audit and feedback



		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Kim (1999)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Korn (1988)	pcs (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	8	3	5	4	0	20
Tierney (1986)	rct (cluster)	1	1	0	1	0	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	9	1	0	5	3	6	5	0	19

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Kim (1999)	rct (cluster)	1	1	0	1	1	0
Korn (1988)	pcs (cluster)	NRS	NRS	1	1	1	NRS
Tierney (1986)	rct (cluster)	1	1	1	1	1	1

Exhibit B.2.2. Pneumococcal vaccinations – Case management



		Reporting										validity			Internal validity - bias							confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Garcia-Aymerich (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	10	3	5	5	0	23
Hermiz (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	9	2	4	5	0	20
Johnson (2005)	rcs	1	1	1	1	2	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	1	6	4	0	21

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Garcia-Aymerich (2007)	rct	1	1	1	0	0	0
Hermiz (2002)	cct	1	0	0	1	0	0
Johnson (2005)	rcs	NRS	NRS	1	1	0	NRS

Exhibit B.2.3. Pneumococcal vaccinations – Clinician education

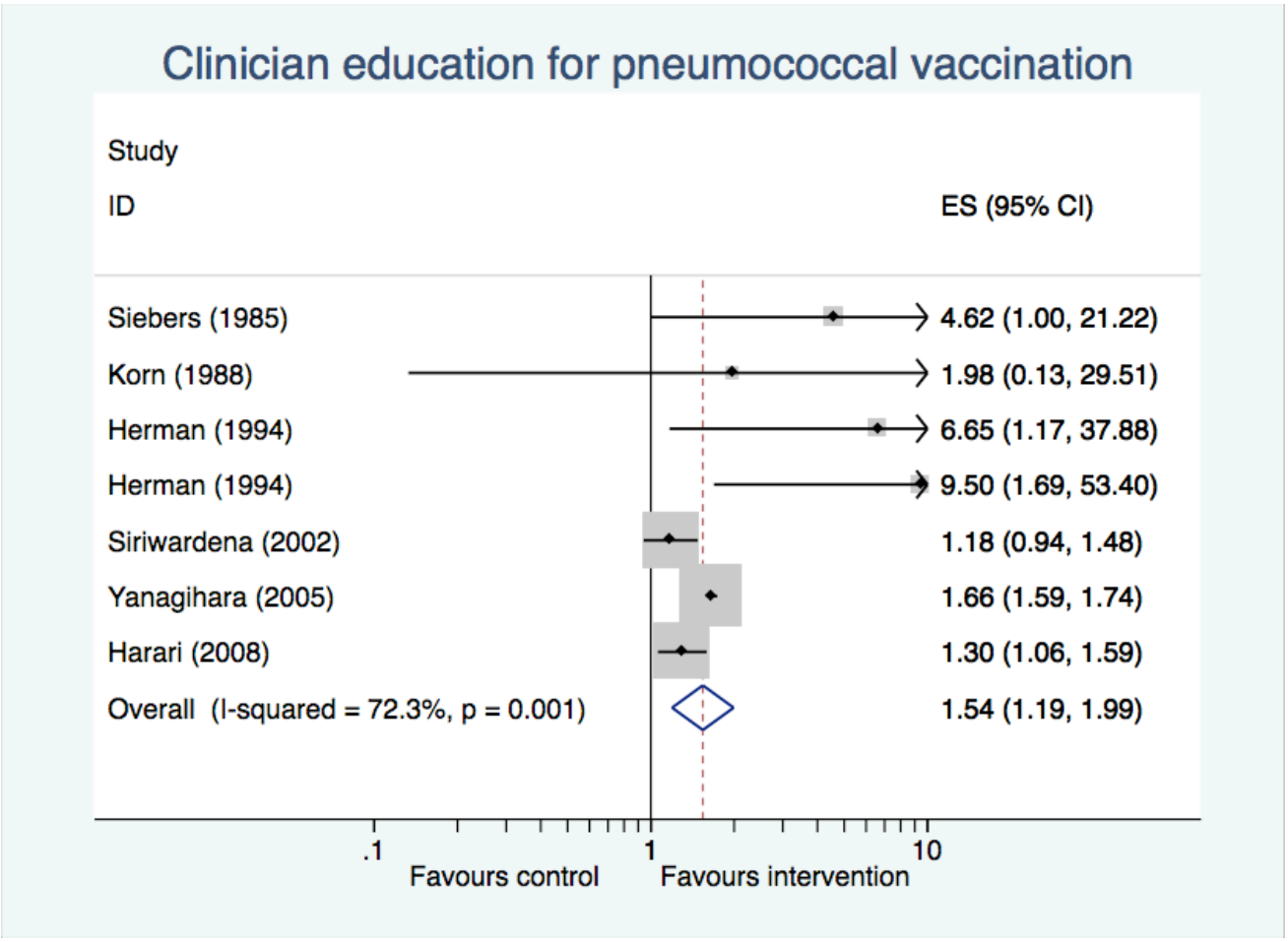


Exhibit B.2.3. Pneumococcal vaccinations – Clinician education (continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Harari (2008)	rct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	4	0	20
Herman (1994)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	10	3	5	6	0	24
Korn (1988)	pcs (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	8	3	5	4	0	20
Siebers (1985)	cct	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	7	3	4	5	0	19
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Yanagihara (2005)	pcs	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	1	0	8	3	6	2	0	19

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Harari (2008)	rct	1	1	0	0	0	0
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Korn (1988)	pcs (cluster)	NRS	NRS	1	1	1	NRS
Siebers (1985)	cct	1	0	0	1	0	0
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Yanagihara (2005)	pcs	NRS	NRS	1	1	0	NRS

Exhibit B.2.4. Pneumococcal vaccinations – Clinician reminders

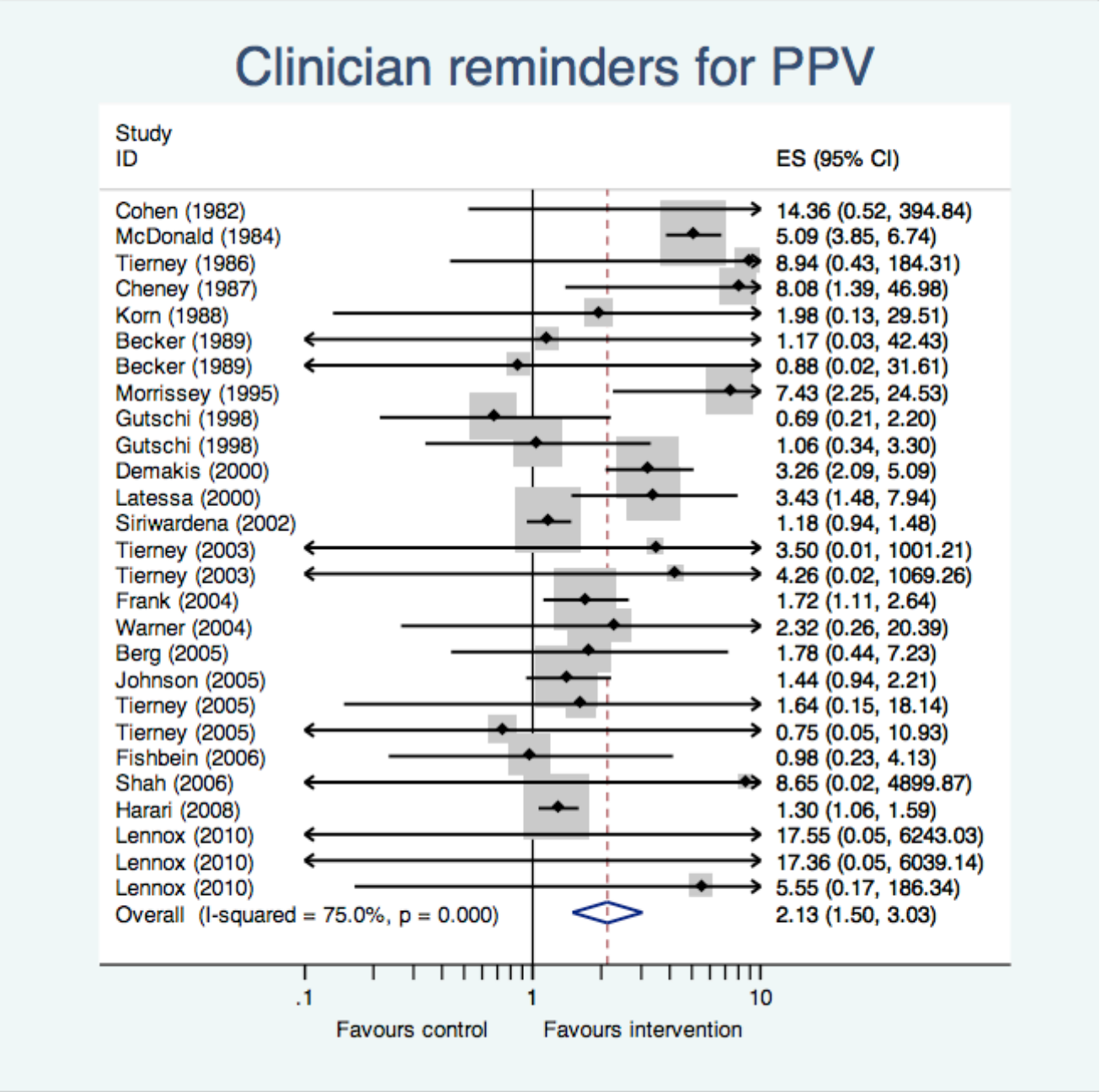


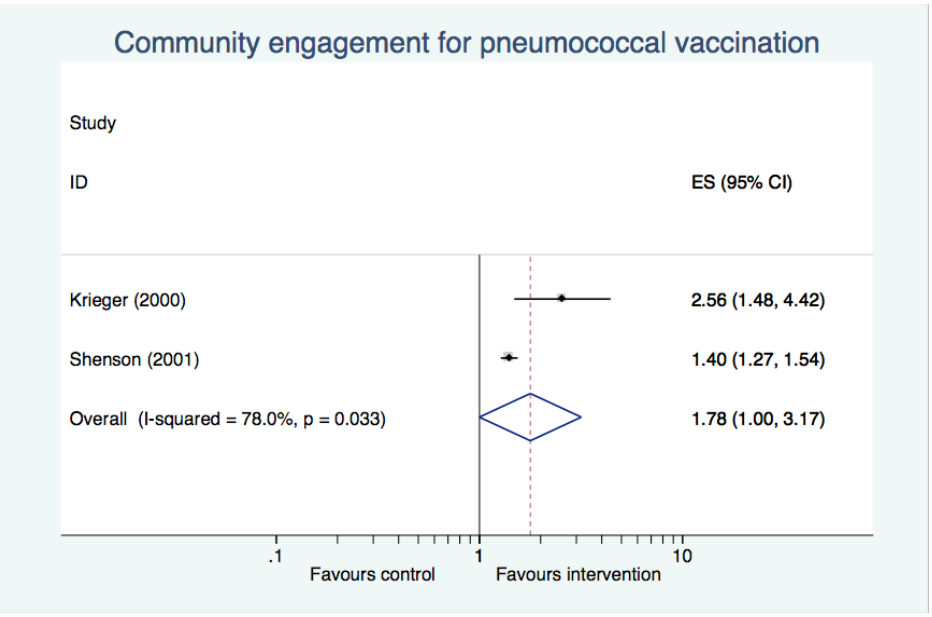
Exhibit B.2.4. Pneumococcal vaccinations – Clinician reminders (continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Becker (1989)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	0	0	9	2	4	4	0	19
Berg (2005)	rcs	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	3	5	4	0	22
Cheney (1987)	rct	1	1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	9	1	0	7	3	5	5	0	20
Cohen (1982)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	9	1	0	8	3	5	5	0	21
Demakis (2000)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	9	3	7	6	0	25
Fishbein (2006)	cba	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	0	0	9	1	0	8	3	4	3	0	18
Frank (2004)	cct	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	9	1	0	9	3	7	4	0	23
Gutschi (1998)	cct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	0	1	0	10	3	3	4	0	20
Harari (2008)	rct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	4	0	20
Johnson (2005)	rcs	1	1	1	1	2	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	1	6	4	0	21
Korn (1988)	pcs (cluster)	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	0	8	3	5	4	0	20
Latessa (2000)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	0	0	1	0	10	3	4	3	0	20
Lennox (2010)	rct (cluster)	1	0	1	1	2	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	10	2	6	6	0	24
McDonald (1984)	rct (cluster)	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	1	0	8	3	7	5	0	23
Morrissey (1995)	rct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Shah (2006)	pcs (cluster)	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	10	3	4	4	0	21
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Tierney (1986)	rct (cluster)	1	1	0	1	0	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	9	1	0	5	3	6	5	0	19
Tierney (2003)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	9	2	7	6	0	24
Tierney (2005)	rct (cluster)	1	1	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	7	2	7	6	0	22
Warner (2004)	cba (cluster)	1	1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	1	1	1	0	1	1	0	0	9	1	0	7	3	5	3	0	18

Exhibit B.2.4. Pneumococcal vaccinations – Clinician reminders (continued)

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Becker (1989)	cct	1	0	0	0	0	0
Berg (2005)	rcs	NRS	NRS	1	1	0	NRS
Cheney (1987)	rct	1	1	0	1	0	0
Cohen (1982)	rct (cluster)	1	1	0	1	1	0
Demakis (2000)	rct (cluster)	1	1	1	1	1	1
Fishbein (2006)	cba	NRS	NRS	0	1	0	NRS
Frank (2004)	cct	1	0	1	1	0	0
Gutschi (1998)	cct	1	0	0	1	0	0
Harari (2008)	rct	1	1	0	0	0	0
Johnson (2005)	rcs	NRS	NRS	1	1	0	NRS
Korn (1988)	pcs (cluster)	NRS	NRS	1	1	1	NRS
Latessa (2000)	cba (cluster)	NRS	NRS	0	1	1	NRS
Lennox (2010)	rct (cluster)	1	1	1	1	1	1
McDonald (1984)	rct (cluster)	1	1	1	1	1	1
Morrissey (1995)	rct	1	1	1	1	0	0
Shah (2006)	pcs (cluster)	NRS	NRS	0	0	1	NRS
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Tierney (1986)	rct (cluster)	1	1	1	1	1	1
Tierney (2003)	rct (cluster)	1	1	1	1	1	1
Tierney (2005)	rct (cluster)	1	1	1	1	1	1
Warner (2004)	cba (cluster)	NRS	NRS	0	1	1	NRS

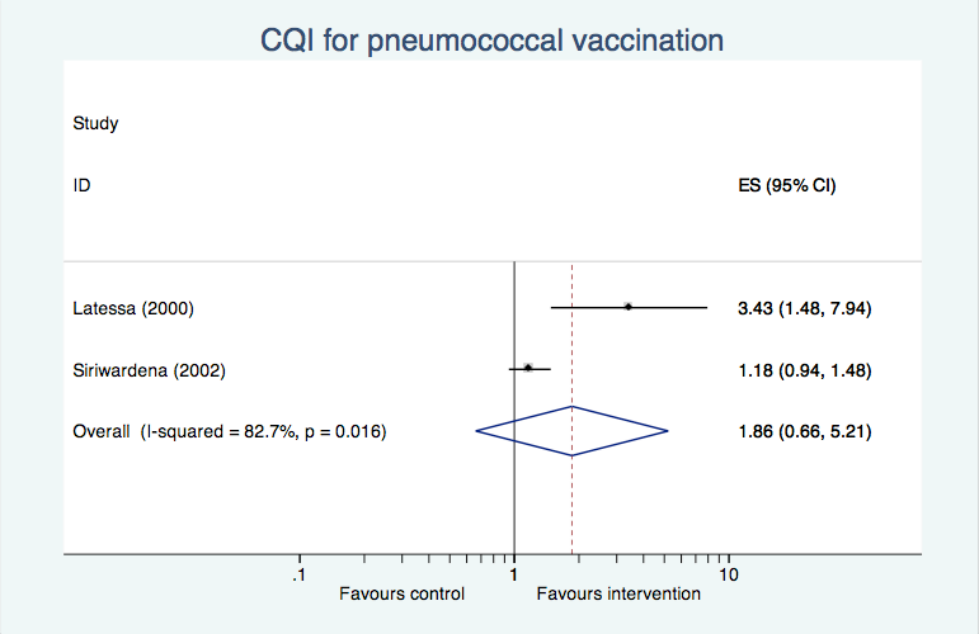
Exhibit B.2.5. Pneumococcal vaccinations – Community engagement



		Reporting										validity			Internal validity - bias							confounding								Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Krieger (2000)	cct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	10	2	6	5	0	23
Shenson (2001)	pcs (cluster)	1	1	1	1	0	1	0	0	1	0	1	1	1	0	0	1	1	1	1	1	0	1	0	0	9	1	0	6	3	5	2	0	16

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Krieger (2000)	cct	1	0	1	1	0	0
Shenson (2001)	pcs (cluster)	NRS	NRS	1	1	1	NRS

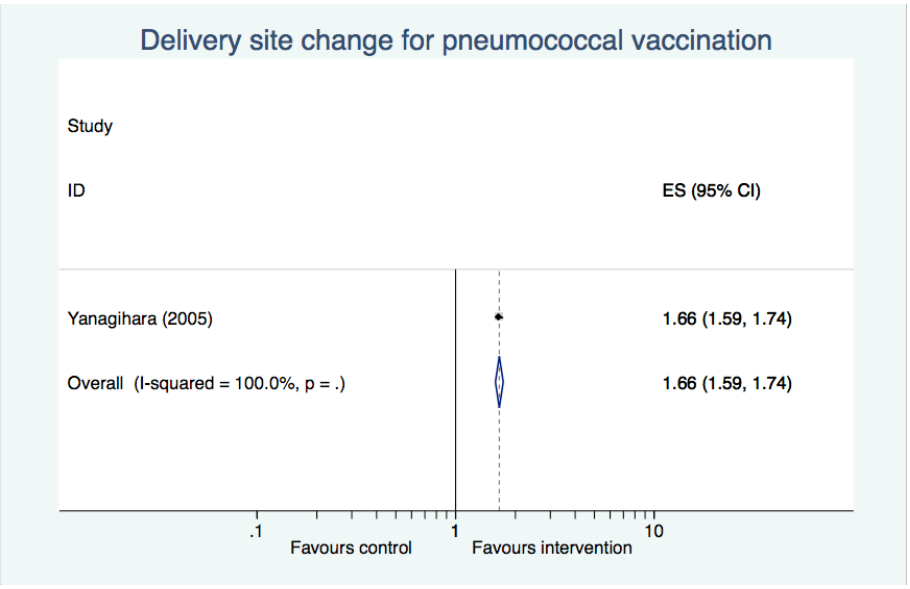
Exhibit B.2.6. Pneumococcal vaccinations – Continuous quality improvement (CQI) or similar



		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Latessa (2000)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	0	0	1	0	10	3	4	3	0	20
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Latessa (2000)	cba (cluster)	NRS	NRS	0	1	1	NRS
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0

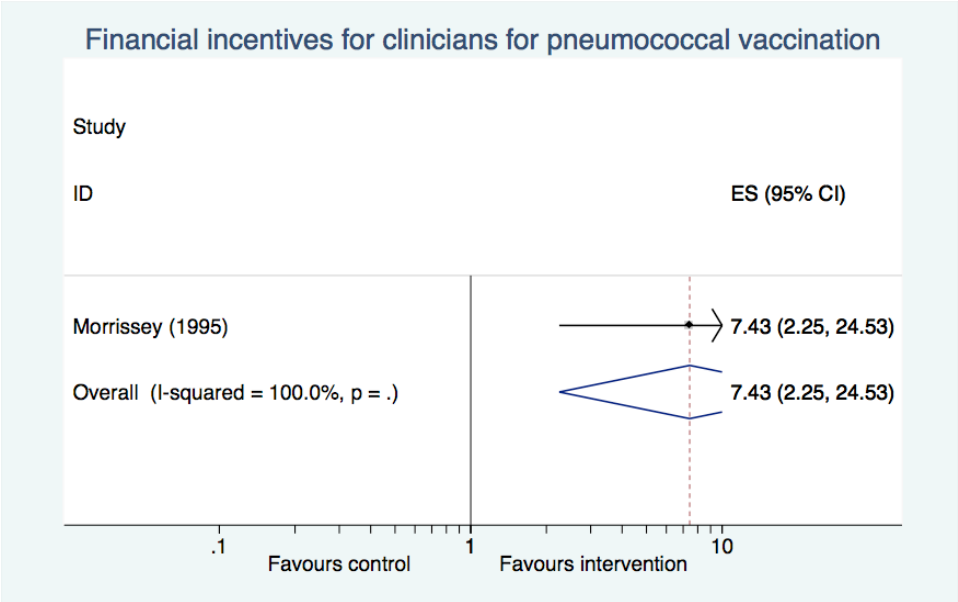
Exhibit B.2.7. Pneumococcal vaccinations – Delivery site change



		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Yanagihara (2005)	pcs	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	1	0	8	3	6	2	0	19

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Yanagihara (2005)	pcs	NRS	NRS	1	1	0	NRS

Exhibit B.2.8. Pneumococcal vaccinations – Financial incentives (clinicians)



Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Reporting												validity			Internal validity - bias							confounding							Summary scores					
Morrissey (1995)	rct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Morrissey (1995)	rct	1	1	1	1	0	0

Exhibit B.2.9. Pneumococcal vaccinations – Patient outreach

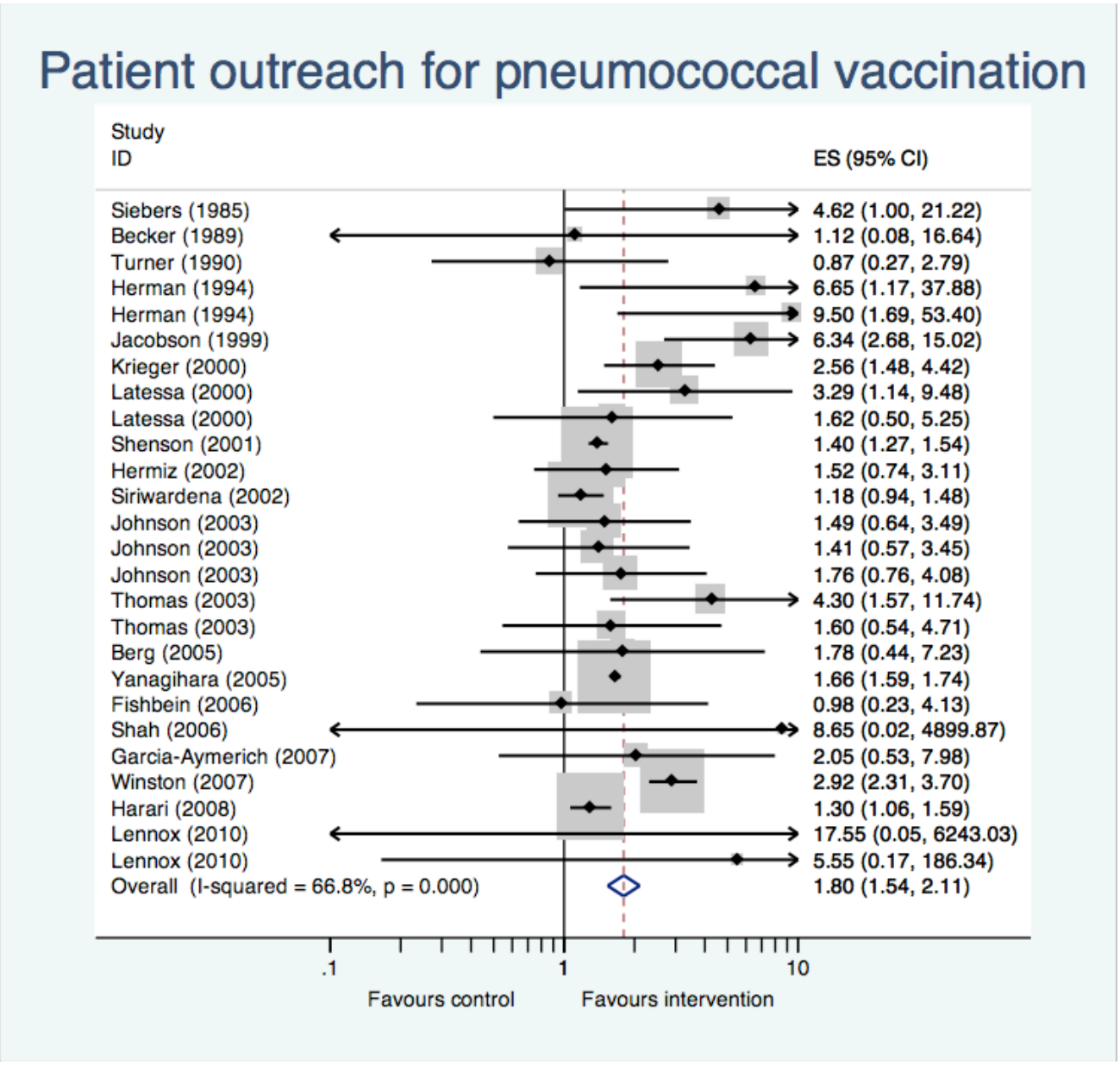


Exhibit B.2.9. Pneumococcal vaccinations – Patient outreach (Continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Becker (1989)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	0	0	9	2	4	4	0	19
Berg (2005)	rcs	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	3	5	4	0	22
Fishbein (2006)	cba	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	0	0	9	1	0	8	3	4	3	0	18
Garcia-Aymerich (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	0	10	3	5	5	0	23
Harari (2008)	rct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1	1	0	0	9	3	4	4	0	20
Herman (1994)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	10	3	5	6	0	24
Hermiz (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	9	2	4	5	0	20
Jacobson (1999)	cct	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	0	0	5	9	3	4	3	1	20
Johnson (2003)	cba	1	1	1	0	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	1	1	0	8	3	6	3	0	20
Krieger (2000)	cct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	10	2	6	5	0	23
Latessa (2000)	cba (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	0	0	1	0	10	3	4	3	0	20
Lennox (2010)	rct (cluster)	1	0	1	1	2	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	10	2	6	6	0	24
Shah (2006)	pcs (cluster)	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	0	0	1	0	0	1	0	0	10	3	4	4	0	21
Shenson (2001)	pcs (cluster)	1	1	1	1	0	1	0	0	1	0	1	1	1	0	0	1	1	1	1	1	0	1	0	0	9	1	0	6	3	5	2	0	16
Siebers (1985)	cct	1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	0	7	3	4	5	0	19
Siriwardena (2002)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	2	10	3	5	6	2	26
Thomas (2003)	cct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	1	10	3	4	5	1	23
Turner (1990)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	0	9	3	3	6	0	21
Winston (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	10	3	6	6	0	25
Yanagihara (2005)	pcs	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	0	9	1	0	8	3	6	2	0	19

Exhibit B.2.9. Pneumococcal vaccinations – Patient outreach (Continued)

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Becker (1989)	cct	1	0	0	0	0	0
Berg (2005)	rcs	NRS	NRS	1	1	0	NRS
Fishbein (2006)	cba	NRS	NRS	0	1	0	NRS
Garcia-Aymerich (2007)	rct	1	1	1	0	0	0
Harari (2008)	rct	1	1	0	0	0	0
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Hermiz (2002)	cct	1	0	0	1	0	0
Jacobson (1999)	cct	1	0	0	0	0	0
Johnson (2003)	cba	NRS	NRS	1	1	0	NRS
Krieger (2000)	cct	1	0	1	1	0	0
Latessa (2000)	cba (cluster)	NRS	NRS	0	1	1	NRS
Lennox (2010)	rct (cluster)	1	1	1	1	1	1
Shah (2006)	pcs (cluster)	NRS	NRS	0	0	1	NRS
Shenson (2001)	pcs (cluster)	NRS	NRS	1	1	1	NRS
Siebers (1985)	cct	1	0	0	1	0	0
Siriwardena (2002)	rct (cluster)	1	1	0	1	1	0
Thomas (2003)	cct	1	0	0	1	0	0
Turner (1990)	rct (cluster)	1	1	0	1	1	0
Winston (2007)	rct	1	1	1	1	0	0
Yanagihara (2005)	pcs	NRS	NRS	1	1	0	NRS

Exhibit B.2.10. Pneumococcal vaccinations – Team change

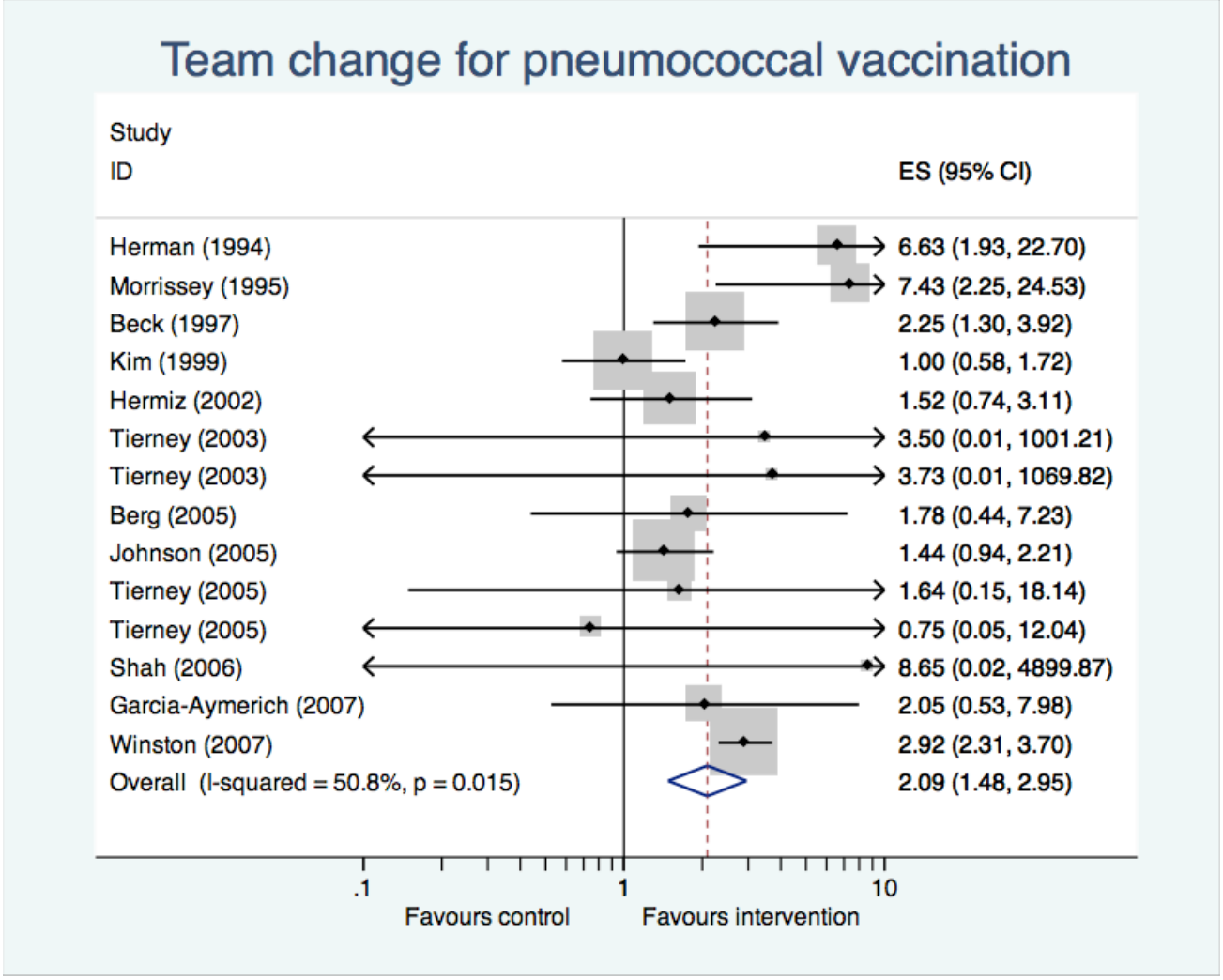
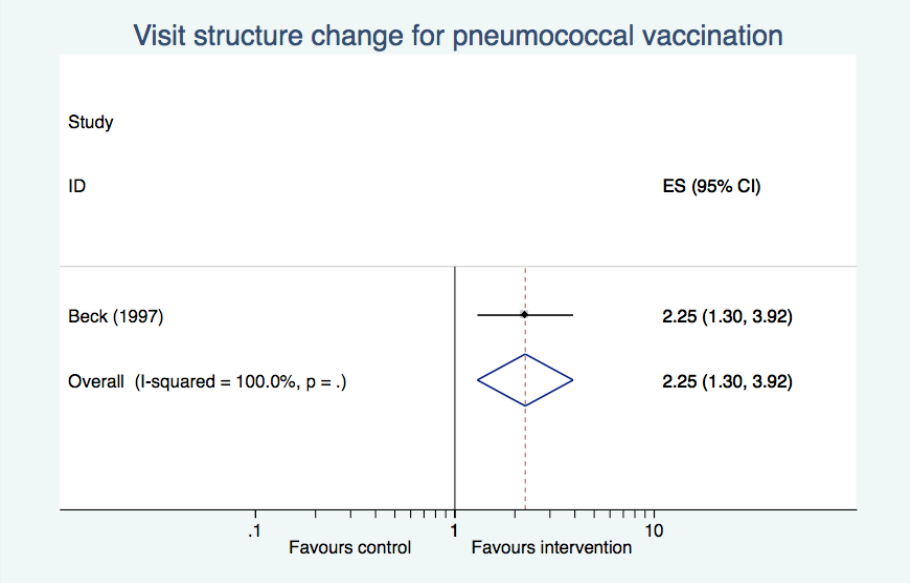


Exhibit B.2.10. Pneumococcal vaccinations – Team change (Continued)

		Reporting										validity			Internal validity - bias							confounding							Summary scores					
Study ID	Design	1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Beck (1997)	cct	1	1	1	1	2	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	9	2	6	4	0	21
Berg (2005)	rcs	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	3	5	4	0	22
Garcia-Aymerich (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0	0	10	3	5	5	0	23
Herman (1994)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	10	3	5	6	0	24
Hermiz (2002)	cct	1	1	1	1	1	1	1	0	1	1	1	0	1	0	0	1	1	1	1	1	0	1	1	1	0	1	1	0	9	2	4	5	0	20
Johnson (2005)	rcs	1	1	1	1	2	1	1	0	1	1	0	0	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	10	1	6	4	0	21
Kim (1999)	rct (cluster)	1	1	1	1	2	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Morrissey (1995)	rct	1	1	1	1	2	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	0	10	2	5	6	0	23
Shah (2006)	pcs (cluster)	1	1	1	1	2	1	1	0	0	1	1	1	1	0	0	1	1	1	1	1	0	0	1	0	0	1	0	0	10	3	4	4	0	21
Tierney (2003)	rct (cluster)	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	9	2	7	6	0	24
Tierney (2005)	rct (cluster)	1	1	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	7	2	7	6	0	22
Winston (2007)	rct	1	1	1	1	2	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	10	3	6	6	0	25

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Beck (1997)	cct	1	0	1	0	0	0
Berg (2005)	rcs	NRS	NRS	1	1	0	NRS
Garcia-Aymerich (2007)	rct	1	1	1	0	0	0
Herman (1994)	rct (cluster)	1	1	1	1	1	1
Hermiz (2002)	cct	1	0	0	1	0	0
Johnson (2005)	rcs	NRS	NRS	1	1	0	NRS
Kim (1999)	rct (cluster)	1	1	0	1	1	0
Morrissey (1995)	rct	1	1	1	1	0	0
Shah (2006)	pcs (cluster)	NRS	NRS	0	0	1	NRS
Tierney (2003)	rct (cluster)	1	1	1	1	1	1
Tierney (2005)	rct (cluster)	1	1	1	1	1	1
Winston (2007)	rct	1	1	1	1	0	0

Exhibit B.2.11. Pneumococcal vaccinations – Visit structure change



Study ID	Design	Reporting										validity			Internal validity - bias							confounding							Summary scores					
		1. Study aim clearly defined?	2. Main outcomes described in methods?	3. Patient characteristics described?	4. Interventions clearly described?	5. Distributions of principal confounders described?	6. Main findings described?	7. Estimates of random variability provided for main outcomes?	8. All important potential adverse events reported?	9. Characteristics of patients lost to follow-up described?	10. Actual p-values values reported?	11. Subjects asked to participate represented of entire population?	12. Subjects prepared to participate representative of entire population?	13. Staff, places, and facilities representative of usual treatment?	14. Attempt made to blind study subjects to interventions?	15. Attempt made to blind those measuring main outcomes?	16. If results were based on "data dredging", was this clear?	17. Analyses adjusted for different lengths of follow-up?	18. Statistical tests appropriate?	19. Compliance with intervention(s) reliable?	20. Main outcomes accurate (valid and reliable)?	21. Patients in different groups recruited from same population?	22. Patients in different groups recruited over the same time period?	23. Study subjects randomized?	24. Randomization assignment concealed from patients and health care staff?	25. Adequate adjustment for confounding?	26. Losses to follow-up taken into account?	27. Study sufficiently powered?	Reporting (/11)	External validity (/3)	Internal validity - bias (/7)	Internal validity - confounding (/6)	Power (/5)	Total Downs and Black summary score (/32)
Beck (1997)	cct	1	1	1	1	2	1	1	0	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	0	0	9	2	6	4	0	21

Study ID	Design	Adequate sequence generation	Allocation concealment	Blinding (or accurate outcome assessment)	Incomplete outcome data addressed	Free of other bias (i.e.: contamin-ation effects)	Free of ROB issues
Beck (1997)	cct	1	0	1	0	0	0