## Supplementary online material:

 Table S1. Assessment of study quality using GRADE criteria.

Author (year of publication)	Study design - quality of evidence	Study Quality	Consistency	<b>Directness</b> (for outcome definitions, see table 2)
Alexandrova (1986)	RCT - high	Good - allocation concealed, assessment blinded but not intention to treat (ITT) analysis	Moderate consistency	Excellent - appropriate age group, intervention and outcomes for effectiveness
Belshe (1998)	RCT - high	Good - allocation concealed, assessment blinded but not ITT analysis	Good consistency	Excellent - appropriate age group, intervention and outcomes for efficacy
Belshe (2000)	RCT - high	Good - allocation concealed, assessment blinded but not ITT analysis	Moderate consistency	Excellent - appropriate age group, intervention and outcomes for efficacy
Beutner (1979)	RCT - high	Excellent - allocation concealed, assessment blinded and ITT analysis	Good consistency	Excellent - appropriate age group, intervention and outcomes for efficacy and compares both live and inactivated vaccines
Clover (1991)	RCT - high	Moderate - unclear whether allocation concealed, asssessment blinded but not ITT analysis	Good consistency	Good - appropriate age group, intervention and outcomes for efficacy but only against influenza A infection
Colombo (2001)	RCT - high	Moderate - no allocation concealment, unclear whether assessment blinded, ITT analysis	Moderate consistency	Excellent - appropriate age group, intervention and outcomes for effectiveness, clear definition of ILI
Cowling (2010)	RCT - high	Excellent - allocation concealed, assessment blinded and ITT analysis	Good for efficacy, moderate for effectiveness	Good - appropriate age group, intervention and outcomes for efficacy and effectiveness
Gruber (1990)	RCT - high	Good - allocation concealed, assessment blinded, unclear wheter ITT analysis	Good for efficacy, poor for effectiveness	Good - appropriate age group, intervention and outcomes for efficacy but only against influenza B infection and effectiveness but no definition of ILI
Hoberman (2003)	RCT - high	Good - no allocation concealment, assessment blinded and ITT analysis	Moderate consistency	Excellent - appropriate age group, intervention and outcomes for efficacy
Khan (1996)	RCT - high	Poor - unclear whether allocation concealed and assessment blinded, no ITT analysis	Good consistency	Moderate - appropriate but limited age group, appropriate intervention and outcomes for effectiveness but based on school absence
Longini (2000)	RCT - high	Good - allocation concealed, assessment blinded but no ITT	Good consistency	Moderate - appropriate age group and intervention, outcome

Author (year of publication)	Study design - quality of evidence	Study Quality	Consistency	<b>Directness</b> (for outcome definitions, see table 2)
		analysis		vague, no detail on detection of cases/surveillance of subjects
Maeda (2004)	RCT - high	Moderate - unclear whether allocation concealed, assessment blinded but no ITT analysis	Moderate consistency	Moderate - appropriate age group and intervention but outcome of efficacy only against influenza A infection
Neto (2009)	RCT - high	Good - allocation concealed and assessment blinded but no ITT analysis	Good consistency	Excellent - appropriate age group, intervention, good outcome definition and looks at antigenically similar and any strain infections.
Principi (2003)	RCT - high	Moderate - no allocation concealment, unclear whether assessment blinded, ITT analysis	Good consistency	Excellent - appropriate age group, intervention, outcome definition very suitable for measuring effectiveness
Rudenko (1993)	RCT - high	Moderate - unclear whether allocation concealed and assessment blinded, no ITT analysis	Good consistency	Good - appropriate age group, intervention and outcome for effectiveness but surveillance/detection of cases only by way of school absence
Rudenko (1996)	RCT - high	Moderate - unclear whether allocation concealed, assessment was blinded but unclear whether ITT	Good consistency	Good - appropriate age group, intervention and effectiveness outcome but uncclear whether only detected at school, no ILI definition
Tam (2007)	RCT - high	Excellent - allocation concealment, assessment blinded and ITT analysis	Good consistency	Excellent - appropriate age group, intervention and good, clear outcome definition for efficacy
Vesikari (2006)	RCT - high	Moderate - no allocation concealment, unclear whether assessment blinded, ITT analysis	Good consistency	Excellent - appropriate age group, intervention and very clearly defined methods of case detection
Vesikari (2011)	RCT - high	Moderate - unclear whether allocation concealed and assessment blinded, no ITT analysis	Good consistency	Good - appropriate age group, intervention, good outcome for efficacy but no definition of 'illness' leading to lab diagnosis, looks at an adjuvanted vaccine
Fujieda (2008)	Cohort study - low	Moderate - unclear whether allocation concealedand assessment blinded, no ITT analysis	Good consistency	Moderate - appropriate age group, intervention and outcome for effectiveness but no clear ILI definition
Gaglani (2004)	Cohort study - low	Poor - no allocation concelament, assessment not blinded and no ITT analysis	Good consistency	Excellent - appropriate age group, broad, appropriate intervention and clear outcome

Author (year of publication)	Study design - quality of evidence	Study Quality	Consistency	<b>Directness</b> (for outcome definitions, see table 2)
				definition for effectiveness
Halloran (2003)	Cohort study - low	Moderate - no allocation concealment, unclear whether assessment blinded, unclear whether ITT analysis	Good consistency	Excellent - wide, appropriate age group, appropriate intervention and clear definitions of efficacy and effectiveness-both measured
Heikkinen (1991)	Cohort study - low	Moderate - no allocation concealed, assessment blinded, no ITT analysis	Good consistency	Excellent - appropriate, if narrow age group, appropriate intervention, clear outcome definitions for both efficacy and effectiveness
Katayose (2011)	Cohort study - low	Poor - unclear whether allocation concealed, assessment not blinded and no ITT analysis	Good consistency	Good - appropriate age group, intervention and outcomes for efficacy although only measured for influenza A infection
Piedra (2005)	Cohort study - Iow	Poor - no allocation concealed, unclear whether assessment blinded, no ITT analysis	Moderate consistency	Excellent - appropriate, wide age group, intervention and good outcome definitions
Piedra (2007)	Cohort study - Iow	Poor - no allocation concealed, unclear whether assessment blinded, no ITT analysis	Good consistency	Good - appropriate age group and intervention, clear definitions of outcome measures
Salleras (2006)	Cohort study - low	Moderate - unclear whether allocation concealed or assessment blinded, no ITT analysis	Doos for efficacy, moderate for effectiveness	Excellent - appropriate age group and intervention, very well defined outcome measures
Yamaguchi (2010)	Cohort study - low	Poor - no allocation concealment, unclear whether assessment blinded, no ITT analysis	Good consistency	Excellent - appropriate age group and intervention, clear outcome definitions and separately classified illness caused by influenza A and B
Joshi (2009)	Case-control - low	Moderate - unclear whether allocation concealed, assessment was blinded, no ITT analysis	Good consistency	Good - appropriate age group and intervention, good outcome definitions
Kelly (2011)	Case-control - low	Moderate - no allocation concealment, assessment blinded, no ITT analysis	Good consistency	Excellent - appropriate age group, intervention and very clear case definitions

Author (year of publication)	Outcome definition
Alexandrova (1986)	Incidence of influenza and acute respiratory disease during influenza epidemic. Comparison of the influenza morbidity rates among vaccine and control groups of children were based on clinical diagnosis during the epidemic period.
Belshe (1998)	Influenza defined as any illness detected by active surveillance associated with positive culture for wild type influenza virus 28 days after the first dose and any time after the second dose during the influenza A H3N2 and B epidemic. After outbreak of influenza in the community parents were contacted and reminded to notify if the subject had symptoms suspected to be caused by influenza : fever, runny nose, nasal congestion, sore throat, cough, headache, muscle aches, chills, vomiting, suspected or confirmed otitis media, decreased activity, irritability, wheezing, shortness of breath, and pulmonary congestion. Attempted to collect viral culture specimens within four days after the onset of any illness.
Belshe (2000)	Primary end-point of efficacy - first episode of culture-confirmed influenza occurring in an individual child after revaccination. Subtype specific efficacy (A and B). Influenza - any illness detected by active surveillance associated with positive culture for wild-type influenza virus. Incidences of flu-like illness detected by surveillance - diagnoses included LRT disease (physician-diagnosed croup, bronchitis, pneumonia or wheezing) and otitis media with or without concomitant fever.
Beutner (1979)	The extent and nature of clinical illness in the vaccinees during the subsequent outbreaks of natural influenza infection were evaluated by examination of all sick children within 24 hours. Influenza confirmed by isolation of influenza virus strains from serum.
Clover (1991)	Influenza A infection: Febrile illnesses (with temperature >38°C) : including upper or lower respiratory tract illness, otitis media, influenza-like illness. Afebrile illnesses: When community surveillance indicated that influenza virus was spreading in the community (influenza A/Taiwan/86), weekly telephone contacts to families were made to evaluate respiratory illnesses. Home or clinic visits were scheduled for physical examination and collection of nasal washes or swab specimens for viral isolation. An illness was attributed to influenza A infection if influenza virus was isolated during the illness. Illnesses were characterized by review of records which included date of onset, symptoms, physical signs diagnosis of each contact.
Colombo (2001)	Influenza-like illness: fever (rectal temperature >38.5°C) and cough or sore throat lasting at least 72 hours.
Cowling (2010)	Serologically confirmed infection indicated by a 4-fold or greater increase in antibody titer.
	ILI - temperature ≥37.8°C plus cough or sore throat ARI - self-reported symptoms; at least any 2 of fever ≥37.8°C, chills, headache, sore throat, cough, phlegm, nasal congestion, runny nose and muscle or joint pain
Fujieda (2008)	ILI: acute febrile illness occurring during the highest epidemic period in each study area (ILI, not influenza as claimed by the authors). Fever reported as below 38, between 38 and 39 and 39 or more (no description of how temp was taken)
Gaglani (2004)	Medically attended acute respiratory illness: upper and lower respiratory tract illnesses, otitis media and sinusitis - clinic and emergency department visits included. Health care providers then obtained a throat swab or a nasal wash for an influenza virus culture
Gruber (1990)	Influenza-like illness caused by influenza B virus infection, confirmed by viral isolation from nasal washes or throat swabs taken from subjects experiencing any respiratory symptoms (no further detail)
Halloran (2003)	MAARI - any URI, LRI, sinusitis, otitis media. Influenza A (H1N1) and B confirmed by throat swab or nasal wash from any child presenting with a history of fever and any respiratory illness
Heikkinen (1991)	Children symptomatic of a respiratory tract infection or fever had nasopharyngeal mucus specimen for rapid viral antigen detection of influenza A virus infection

Table S2.	Outcome	definitions	of included	studies.

Author (year	Outcome definition
of publication)	
Hoberman	Throat cultures positive for any influenza virus in children presenting with signs and
(2003)	symptoms of a URTT and lever (at least 38 C) of AOM of both
Joshi (2009)	illness outpatient/ER visit or inpatient hospitalisation
Katayose	Influenza-positive rapid diagnostic test in patients with acute respiratory infectious
(2011)	symptoms and fever >38°C during surveillance period
Kelly (2011)	Children presenting to GP or emergency department with ILI and testing positive for
	influenza virus. ILI defined as a documented fever with oral (or aural) temperature
	$\geq$ 38°C (or axillary temperature $\geq$ 37.5°C ) with at least one acute respiratory
Khan (1006)	symptom or sign.
Khan (1990)	influenza. (Influenza acute respiratory illness within influenza season (clinical
	diagnosis)
Longini (2000)	Culture-confirmed influenza (lacking definition of surveillance of cases)
Maeda (2004)	Children presenting to hospital with a febrile illness (>38.0°C) had throat swabs
	taken and immunoassay membrane test done to detect influenza A virus antigen
Neto (2009)	Primary - First episode of culture-confirmed influenza illness caused by community-
· · ·	acquired subtypes antigenically similar to those contained in the vaccine
	Secondary - first episode of culture-confirmed influenza caused by any community-
	acquired subtypes
Piedra (2005)	MAARI visits to clinics, emergency rooms and hospitals, including those for otitis
	media and sinusitis, upper respiratory tract illness and lower respiratory tract illness
Piedra (2007)	MAARI - otitis media and sinusitis, URT illness, LRT illness, presenting to clinics, emergency departments and hospitals
Principi (2003)	Children presenting to emergency departments or primary care paediatricians with
	symptoms of respiratory tract infection. Influenza was then identified by culture
	and/or polymerase chain reaction
Rudenko	Acute respiratory disease' or 'influenza' as recorded on medical certificates for
(1993) Dudaraka	absence from school
Ruđenko (1996)	influenza and acute respiratory diseases diagnosed by a nurse in each school or kindergarten
Salleras (2006)	Acute febrile respiratory illness - detected by questionnaire filled out by parents.
	Influenza-like illness - naediatrician-attended cases of fever >38.5°C for at least 72
	hours, cough or sore throat.
	Influenza A cases - children with ILI (as defined above) who had pharyngeal/nasal
	samples positive for influenza A on RT-PCR
Tam (2007)	Culture-confirmed influenza illness from viral isolation of nasal swabs taken from subjects presenting with II I
Vesikari (2006)	Culture-confirmed influenza illness from nasal swabs taken from children exhibiting
	fever (rectal temperature of $\geq$ 38°C or axillary temperature of $\geq$ 37.5°C), wheezing,
	shortness of breath, pulmonary congestion, pneumonia or ear infection (suspected
	diagnosis of AOM). Nasal swab also required if subjects showed 2 or more of the
	following: runny nose or nasal congestion, sore throat, cough, muscle aches, chills,
	headache, irritability, decreased activity or vomiting.
vesikari (2011)	Influenza confirmed with strain identification by PCR of nasopharyngeal aspirates or
	swaps obtained from children who became III during the study period (no definition of 'illness' provided)
Yamaquchi	Case of influenza confirmed by a positive ranid diagnostic test then classified as
(2010)	influenza A or B. No details of detecting cases for rapid diagnostic testing.
Piedra (2005) Piedra (2007) Principi (2003) Rudenko (1993) Rudenko (1996) Salleras (2006) Tam (2007) Vesikari (2006) Vesikari (2011) Yamaguchi (2010)	Secondary - first episode of culture-confirmed influenza caused by any community- acquired subtypes MAARI visits to clinics, emergency rooms and hospitals, including those for otitis media and sinusitis, upper respiratory tract illness and lower respiratory tract illness MAARI - otitis media and sinusitis, URT illness, LRT illness, presenting to clinics, emergency departments and hospitals Children presenting to emergency departments or primary care paediatricians with symptoms of respiratory tract infection. Influenza was then identified by culture and/or polymerase chain reaction Acute respiratory disease' or 'influenza' as recorded on medical certificates for absence from school Influenza and acute respiratory diseases diagnosed by a nurse in each school or kindergarten Acute febrile respiratory illness - detected by questionnaire filled out by parents. Influenza-like illness - paediatrician-attended cases of fever >38.5°C for at least 72 hours, cough or sore throat. Influenza A cases - children with ILI (as defined above) who had pharyngeal/nasal samples positive for influenza illness from viral isolation of nasal swabs taken from subjects presenting with ILI Culture-confirmed influenza illness from nasal swabs taken from children exhibiting fever (rectal temperature of ≥38°C or axillary temperature of ≥37.5°C), wheezing, shortness of breath, pulmonary congestion, pneumonia or ear infection (suspected diagnosis of AOM). Nasal swab also required if subjects showed 2 or more of the following: runny nose or nasal congestion, sore throat, cough, muscle aches, chills, headache, irritability, decreased activity or vomiting. Influenza confirmed with strain identification by PCR of nasopharyngeal aspirates or swabs obtained from children who became ill during the study period (no definition of 'illness' provided) Case of influenza confirmed by a positive rapid diagnostic test then classified as influenza A or B. No details of detecting cases for rapid diagnostic testing.

**Figure S1.** Vaccine efficacy for live vaccines, similar antigen, using per protocol analysis (using data from Table 3): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model; Halloran (2003) was excluded from meta-analysis, as this is a cohort study (but with Halloran (2003) study included, meta-estimate is 83.4 (78.5, 88.8)).

				%
	Year of		Vaccine	Weight
Author	publication		efficacy (95% CI)	(D+L)
Belshe	1998	•	93.00 (88.00, 96.00)	17.71
Belshe	2000	•	87.00 (78.00, 93.00)	14.04
Beutner	1979		62.00 (44.00, 87.00)	2.89
Clover	1991		65.00 (31.00, 136.00)	0.70
Longini	2000, Yr 1	_ <b>→</b> >	90.00 (51.00, 159.00)	1.15
Longini	2000, Yr 2		85.00 (47.00, 153.00)	1.07
Neto	2009, Yr 1	•	74.00 (64.00, 81.00)	11.53
Neto	2009, Yr 2		74.00 (33.00, 91.00)	1.42
Tam	2007, Yr 1	+	73.00 (63.00, 81.00)	10.92
Tam	2007, Yr 2	+	84.00 (70.00, 92.00)	10.11
Vesikari	2006, Yr 1	+	85.00 (74.00, 92.00)	12.25
Vesikari	2006, Yr 2	•	89.00 (82.00, 93.00)	16.21
D+L Overal	I (I-squared = 62.3%, p = 0.002)	•	83.36 (78.28, 88.77)	100.00
I-V Overall		)	87.75 (85.26, 90.31)	
NOTE: Wei	ghts are from random effects analysis			
		31 84 15	59	
		Vaccine efficacy (	%)	

**Figure S2.** Vaccine efficacy for live vaccines, similar antigen, using intention to treat analysis (using data from Table 3): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model.

				%
	Year of		Vaccine	Weight
Author	publication		efficacy (95% CI)	(D+L)
Belshe	1998	•	93.00 (88.00, 96.00)	18.70
Belshe	2000	•	87.00 (78.00, 93.00)	15.45
Beutner	1979		62.00 (44.00, 87.00)	3.65
Clover	1991		65.00 (31.00, 136.00)	0.91
Longini	2000, Yr 1	$\rightarrow$	90.00 (51.00, 159.00)	1.49
Longini	2000, Yr 2		85.00 (47.00, 153.00)	1.39
Neto	2009, Yr 1	•	74.00 (64.00, 81.00)	13.06
Neto	2009, Yr 2		74.00 (33.00, 91.00)	1.83
Tam	2007, Yr 1	•	70.00 (60.00, 78.00)	12.05
Vesikari	2006, Yr 1	•	84.00 (73.00, 91.00)	13.65
Vesikari	2006, Yr 2	•	89.00 (83.00, 93.00)	17.83
D+L Overall	(I-squared = 69.0%, p = 0.000)	<b>♦</b>	82.48 (76.74, 88.64)	100.00
I-V Overall			87.80 (85.30, 90.38)	
NOTE: Weig	hts are from random effects analysis			

**Figure S3.** Vaccine efficacy for live vaccines, any antigen, using per protocol analysis (using data from Table 3): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model.

				%
`	/ear of		Vaccine	Weight
Author	publication		efficacy (95% CI)	(D+L)
		1		
Neto 2	2009, Yr 1	+	72.00 (62.00, 80.00)	19.95
Neto	2009, Yr 2		47.00 (15.00, 67.00)	1.89
Tam 2	2007, Yr 1	-	70.00 (61.00, 77.00)	20.94
Tam 2	2007, Yr 2		64.00 (44.00, 77.00)	9.54
Vesikari	2006, Yr 1	>	86.00 (76.00, 92.00)	22.81
Vesikari	2006, Yr 2	•	86.00 (79.00, 91.00)	24.87
D+L Overall (I-squ	ared = 72.6%, p = 0.003)	\$	76.42 (68.69, 85.00)	100.00
I-V Overall		)	80.39 (76.73, 84.23)	
NOTE: Weights are	e from random effects analysis			
	l 15	76		

**Figure S4.** Vaccine efficacy for live vaccines, any antigen, using intention to treat analysis (using data from Table 3): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model.

				%
	Year of		Vaccine	Weight
Author	publication		efficacy (95% CI)	(D+L)
Neto	2009, Yr 1	-	72.00 (62.00, 80.00)	22.09
Neto	2009, Yr 2		47.00 (15.00, 67.00)	2.00
Tam	2007, Yr 1	•	68.00 (59.00, 75.00)	22.88
Vesikari	2006, Yr 1	I	◆ 84.00 (74.00, 90.00)	25.20
Vesikari	2006, Yr 2		<ul><li>◆ 85.00 (78.00, 90.00)</li></ul>	27.83
D+L Overall (I-	squared = 73.9%, p = 0.004)		76.72 (68.78, 85.57)	100.00
I-V Overall			79.67 (75.93, 83.59)	
NOTE: Weights	are from random effects analysis		     	
			1	
		15 7	76 (0()	

**Figure S5.** Vaccine efficacy (VE) for inactivated vaccines, similar antigen (using data from Table 4): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model. Only 1 study (Vesikari) reported VE for any antigens. When VE for any antigen from this study was used in this analysis (i.e. VE for any antigen instead of similar antigen) then VE for RCT from random effects was 65.88 (52.43, 82.80), and overall VE was 67.32 (57.98, 78.16).

Author	Year of publication			Vaccine efficacy (95% CI)	% Weight (D+L)
RCT			1		
Beutner	1979			82.00 (55.00, 123.00)	11.26
Clover	1991			74.00 (29.00, 188.00)	2.37
Cowling	2010			56.00 (25.00, 123.00)	3.23
Gruber	1990		<b>i</b>	75.00 (34.00, 164.00)	3.30
Hoberman	2003			66.00 (34.00, 82.00)	9.64
Maeda	2004			45.00 (18.00, 110.00)	2.52
Vesikari	2011, Yr 1	-	<b></b>	45.00 (16.00, 64.00)	4.21
Vesikari	2011, Yr 2		-	41.00 (1.00, 58.00)	0.52
D+L Subtotal (	I-squared = 0.0%, p = 0.834)		•	66.13 (52.64, 83.08)	37.05
I-V Subtotal			•	66.13 (52.64, 83.08)	
Cohort study Heikkinen Katayose Salleras Yamaguchi D+L Subtotal ( I-V Subtotal	1991 2011 2006 2010 I-squared = 66.1%, p = 0.031)		+ † <b>†</b> \$	- 85.00 (32.00, 224.00) 53.00 (41.00, 63.00) 88.00 (49.00, 97.00) 82.00 (60.00, 112.00) 72.02 (52.94, 97.97) 66.33 (56.80, 77.46)	2.19 28.89 14.80 17.07 62.95
D+L Overall (I- I-V Overall NOTE: Weight	squared = 11.0%, p = 0.337)		\$	67.31 (58.15, 77.91) 66.27 (58.29, 75.34)	100.00
		l	1 1		
		4	67 17	'4	

**Figure S6.** Vaccine effectiveness for live vaccines (using data from Table 5): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model.

Year of publication		Vaccine effectiveness (95% CI)	% Weight (D+L)
1986	•	55.00 (51.00, 60.00)	11.23
1996		47.00 (35.00, 61.00)	9.81
1993, Yr 1		48.00 (22.00, 58.00)	7.64
1993, Yr 2		41.00 (14.00, 54.00)	5.84
1996, Yr 1	•	36.00 (33.00, 39.00)	11.22
1996, Yr 2		48.00 (45.00, 50.00)	11.32
I-squared = 90.7%, p = 0.000)	$\diamond$	45.80 (38.60, 54.36)	57.06
	\$	46.51 (44.76, 48.34)	
2004, Yr 1		22.00 (11.00, 32.00)	7.14
2004, Yr 2		21.00 (10.00, 31.00)	6.83
2003		18.00 (11.00, 24.00)	8.64
2005		7.00 (5.00, 9.00)	9.65
2007	-	42.00 (35.00, 50.00)	10.68
I-squared = 96.3%, p = 0.000)	$\langle \rangle$	18.95 (8.59, 41.78)	42.94
	$\diamond$	24.31 (21.27, 27.78)	
squared = 95.9%, p = 0.000)	$\diamond$	31.37 (24.84, 39.63)	100.00
. ,,	Ĭ	44.25 (42.64, 45.91)	
s are from random effects analysis			
	Year of publication 1986 1996 1993, Yr 1 1993, Yr 2 1996, Yr 1 1996, Yr 2 I-squared = 90.7%, p = 0.000) 2004, Yr 1 2004, Yr 1 2004, Yr 2 2003 2005 2007 I-squared = 96.3%, p = 0.000) squared = 95.9%, p = 0.000) s are from random effects analysis	Year of publication 1986 1996 1993, Yr 1 1993, Yr 2 1996, Yr 1 1996, Yr 2 I-squared = 90.7%, p = 0.000) 2004, Yr 1 2004, Yr 1 2005 2007 I-squared = 96.3%, p = 0.000) $\Rightarrow$ are from random effects analysis	Year of publication       Vaccine effectiveness (95% Cl)         1986       = 55.00 (51.00, 60.00)         1996       = 47.00 (35.00, 61.00)         1993, Yr 1       = 48.00 (22.00, 58.00)         1996, Yr 1       = 36.00 (33.00, 39.00)         1996, Yr 2       = 48.00 (45.00, 50.00)         I-squared = 90.7%, p = 0.000)       = 48.00 (45.00, 50.00)         2004, Yr 1       = 22.00 (11.00, 32.00)         2004, Yr 2       = 46.51 (44.76, 48.34)         2004, Yr 2       = 46.51 (44.76, 48.34)         2005       = 46.51 (44.76, 48.34)         2005       = 42.00 (35.00, 50.00)         1esquared = 96.3%, p = 0.000)       = 42.00 (35.00, 50.00)         squared = 95.9%, p = 0.000)       = 31.37 (24.84, 39.63)         stare from random effects analysis       = 44.25 (42.64, 45.91)

Vaccine effectiveness (%)

**Figure S7.** Vaccine effectiveness for inactivated vaccines for influenza-like illness (using data from Table 6): D+L indicates meta-estimates from random effects model; I+V indicates meta-estimates from fixed effects model. Only those studies that were reporting influenza like illness, or respiratory disease and influenza without segregating for acute respiratory infection (ARI) / acute lower respiratory infection (ALRI) / upper respiratory tract infection (URTI) have been included in the meta-analysis assuming all these studies are reporting ILI.

Author	Year of publication		Vaccine effectiveness (95% CI)	% Weight (D+L)
RCT				
Colombo	2001		77.00 (45.00, 131.00)	10.78
Cowling	2010		8.00 (4.00, 16.00)	9.90
Gruber	1990		- 85.00 (41.00, 174.00)	9.73
Principi	2003	-	26.00 (18.00, 36.00)	11.67
Rudenko	1993, Yr 1		33.00 (15.00, 38.00)	11.14
Rudenko	1993, Yr 2		27.00 (20.00, 34.00)	11.96
D+L Subtotal (I-squared = 85.8%, p = 0.000)		$\diamond$	32.50 (19.89, 53.10)	65.17
I-V Subtotal		۸.	30.26 (25.53, 35.86)	
Cohort study				
Fujieda	2008		24.00 (12.00, 34.00)	10.85
Heikkinen	1991		18.00 (13.00, 25.00)	11.74
Salleras	2006	-	75.00 (61.00, 84.00)	12.24
D+L Subtotal	l (I-squared = 97.1%, p = 0.000)	$\langle \rangle$	32.26 (11.24, 92.57)	34.83
I-V Subtotal		ĬØ	53.56 (46.63, 61.51)	
D+L Overall	(I-squared = 93.9%, p = 0.000)	$\diamond$	32.54 (20.03, 52.87)	100.00
I-V Overall		Ĭ ()	42.64 (38.30, 47.47)	
	hte are from random offects analysis			
NOTE: weig	his are nom random effects analysis	i		

Vaccine effectiveness