

Interventions to Promote Seasonal Influenza Vaccinations among Healthcare Workers

Summary Evidence Tables

Author & year Study period Design suitability (design) Quality of execution (# of Limitations)	Intervention and comparison elements	Study population description Sample size	Outcome measure	Baseline value	Outcome value	Value used in summary	Follow-up time
Bannerman 1992 ¹ 1990-1991 Least (Before-After) Fair (3 limitations)	Location: Ontario, Canada Components: Free + On-site + Mobile + Clinic + Leadership Example + Small Media + Health Education + Competitions + Promotions Comparison Year: NR	Employees (16-65y) of a hospital and home for aged with no contraindications N≈ 500	Vaccination coverage -Total estimated average Residential staff Chronic care staff Laboratory- confirmed influenza cases	8.0% 6.0% 10.0% 4.0	37.5% 34.0% 41.0% 0.0	+29.5 pct pts (CI95: 25, 34) -4.0 cases (Relative Δ: -100.0%)	1 y
Bautista 2006 ² 2002-2004 Least (Before-After) Fair (2 limitations)	Location: Valencia, Spain Components: Free + On-site + Small Media + Health Education + Promotions Comparison Year: NR	Employees of a university hospital 79% female 48% nurses or similar 31% previously vaccinated N=1,906	Vaccination coverage	10.2%	18.4%	+8.2 pct pts (CI95: 6, 10)	1 y
Bertin 2007 ³ 2004-2006 Least (Before-After) Good (1 limitation)	Location: Cleveland, OH Components: Free + On-site + Small Media + Health Education + Declinations + Events + Reminders + Intranet Site Comparison Year: Small Media + Health Education + Declinations + Events	Employees at a hospital and associated outpatient clinics N=20,170 n=17,998 (89.2%)	Vaccination coverage	28.0% at Tx-8 22.0% at Tx-7 24.0% at Tx-6 26.0% at Tx-5 24.0% at Tx-4 28.0% at Tx-3 36.0% at Tx-2 38.0% at Tx-1	55.0%	One-year change: +17.0 pct pts (CI95:16, 18)	1y (9y trend)
Boersma 1999 ⁴	Location: Rapid City, SD	Hospital workers	Vaccination coverage	35.0%	71.0% at Tx	One-year change: +36.0 pct pts (CI95:	1y (5y trend)

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1993-1997 Least (Before-After) Fair (2 limitations)	Components: Free + On-site + Mobile + Provision of Information + Clinic + Incentives Comparison Year: Free + On- site	Tx-1 n=1,989 Tx n=2,073 Tx+1 n=2,170 Tx+2 n=2,300 Tx+3 n=2,300	Nosocomial influenza cases in patients	6.0	68.0% at Tx+1 69.0% at Tx+2 72.0% at Tx+3 1.0 at Tx 0.0 at Tx+1 0.0 at Tx+2 2.0 at Tx+3	33, 39) -5.0 cases (Relative Δ: -83.3%) NR	
Carman 2000 ⁵ 1996-1997 Greatest (Group Randomized Trial) Good (1 limitation)	Location: Scotland Components: Free + On-site Comparison Year: No program	Workers at 20 UK National health Service medical long-term-care geriatric hospitals n=1,217 in intervention hospitals (828 nurses)	Vaccination coverage Patient all-cause mortality Lab-confirmed influenza among patients sampled Post-mortem flu swab (% confirmed influenza of dead)	Comparison Group 4.8% 22.4% 6.2% 20.0%	Treatment Group 50.9% 13.6% 5.5% 0.0%	+46.0 pct pts (CI95: 43, 49) -8.8 pct pts (RelativeΔ: -39.3%) OR=0.58 (CI95: 0.40, 0.80; p= 0.014) -0.7 pct pts (RelativeΔ: -11.3%) -20.0 pct pts (RelativeΔ: -100.0%)	1y
Chance 2005 ⁶ Time Period: NR Least (Before-After) Fair (3 limitations)	Location: Birmingham, AL Components: Free + On-site + Mobile + Small Media + Health Education Comparison Year: Free + On- site	Healthcare workers in an inpatient rehabilitation hospital N: NR	Vaccination coverage	24.0%	55.0%	+31.0 pct pts (CI95: NR)	1y

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Cooper 2002 ⁷ 1996-2000 Least (Before-After) Fair (2 limitations)	Location: Melbourne, Australia Components: Free + On-site + Decentralized Access + Provision of Information + Small Media + Health Education Comparison Year: NR	All hospital workers of one hospital Pre n=1,361 Post n=1,545	Vaccination coverage	8.3%	49.0%	+40.7 pct pts (CI95: 38, 44)	4y
de Juanes 2007 ⁸ 2001-2004 Least (Before-After) Good (0 limitations)	Location: Madrid, Spain Components: Free + On-site + Small Media + Promotions + Website + Decentralized Access + Provision of Information Comparison Year: Small Media + Provision of Information + Promotions + Free + On-site	Hospital workers in one hospital, including physicians, nursing assistants, nurses, resident physicians, and ancillary staff n=5,654	Vaccination coverage -All Physicians n=1,177 Nurses n=3,156 Other personnel n=1,321	15.9% at Tx-2 21.4% at Tx-1 32.0% 16.1% 18.5%	40.4% 52.8% 27.4% 36.0%	+19.0 pct pts (CI95: 17, 21) +20.8 pct pts (CI95: 17, 25) +11.3 pct pts (CI95: 9, 13) +17.5 pct pts (CI95: 14, 21)	1y
Dunais 2006 ⁹ 2001-2002 Least (Before-After) Fair (4 limitations)	Location: Nice, France Components: Free + On-site + Mobile + Provision of Information + Health Education Comparison Year: NR	All workers of a hospital with a targeted intervention aimed at 405 staff Pre n=440 Post n=271	Vaccination coverage	5.3%	35.0%	+29.7 pct pts (CI95: 28, 31)	1y
Dysart (CDC) 2005 ¹⁰ 1980-2004 Least (Before-After) Fair (4 limitations)	Location: Minneapolis, MN Components: Free + On-site + Mobile + Health Education + Standing Orders + Clinic + Provision of Information	All workers of the Veterans Administration Medical Center Pre n=3,177 Post n=3,008	Vaccination coverage	25.0%	46.0% at Tx 65.0% at TX+1	One-year change: +21.0 pct pts (CI95: 19, 23)	1y (3y trend)

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	Comparison Year: NR						
Fitzgerald 2006 ¹¹ 2003-2006 Least (Before-After) Fair (3 limitations)	Location: Omaha, NE Components: Free + On-site + Assessment Comparison Year: Free + On-site	All workers in the facility N: NR	Vaccination coverage	78.0%	88.0%	+10.0 pct pts (CI95: NR)	3y
Gemeinhart 2004 ¹² 2002-2003 Least (Before-After) Fair (3 limitations)	Location: St. Louis, MO Components: Free + On-site + Health Education + Small Media + Incentives + Assessment Comparison Year: NR	Workers in occupational health departments at 11 hospitals, 5 long- term care facilities, home, care, and multiple outpatient entities N=24,300	Vaccination coverage	47.0%	52.7%	+5.7 pct pts (CI95: 5, 7)	1y
Girasek 1990 ¹³ 1988-1990 Least (Before-After) Fair (2 limitations)	Location: New York, NY Components: Free + On-site + Decentralized Access + Small Media + Health Education	All hospital workers at Memorial Hospital for Cancer and Allied Diseases N: NR	Vaccination coverage -Physicians Nurses	11.0% 9.0%	36.0% 30.0%	Estimated average: +23.0 pct pts (CI95: NR)	1y
Gornick 2007 ¹⁴ 2006-2007 Least (Before-After) Fair (3 limitations)	Location: Orange County, CA Components: Free + On-site + Declinations + Incentives + Health Education + Events Comparison Year: Free + On-site	All hospital workers at Children's Hospital of Orange County N=1,973	Vaccination coverage	50.0%	60.0%	+10.0 pct pts (CI95: 7, 13)	1 y
Hall 1998 ¹⁵ 1995-1996 Least (Before-After)	Location: Lexington, KY Components Free + On-site + Health Education + Mobile + Incentives + Events	All hospital workers at the University of Kentucky Hospital Pre n=2,364	Vaccination coverage	55.0%	82.9%	+27.9 pct pts (CI95: 25, 30)	1y

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Fair (3 limitations)	Comparison Year: Free + On-site	Post n=2,450					
Harbarth 1998 ¹⁶ 1995-1997 Least (Before-After) Good (1 limitation)	Location: Geneva, Switzerland Components: Free + On-site + Assessment + Health Education + Mobile + Small Media + Reminders Comparison Year: Free + On-site	Hospital workers at the University Hospitals of Geneva N=5,514	Vaccination coverage -All Physicians n pre/post =761/768 Nurses 1,617/1,649 Other 2491/3097	10.0% 19.0% 5.0% 13.0%	26.0% 37.0% 20.0% 25.6%	+16.0 pct pts (CI95: 15, 17) +18.0 pct pts (CI95: 14, 22) +15.0 pct pts (CI95: 13, 17) +12.6 pct pts (CI95: 11, 15)	1y
Hayward 2006 ¹⁷ 2003-2005 Greatest (Group Randomized Trial) Good (1 limitation)	Location: England Components: Free + On-site + Provision of Information + Small Media + Health Education Comparison Group: Provision of Information	Full- and part-time staff of 50 homes of a private UK care home chain N=22 matched pair homes Pre Tx n= 1,610 workers Post Tx n= 1,726 Pre Comp n= 1,674 Post Comp n=1,766	Vaccination coverage	Control: 5.0%	Treatment : 35.4%	+30.4 pct pts (CI95: 28, 33)	1y

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Kimura 2007 ¹⁸ 2002-2003 Greatest (Group Randomized Trial) Fair (2 limitations)	Location : Southern CA Components : Group 1—Free + On-site + Events + Reminders Group 2—Free + On-site + Events + Reminders + Health Education + Small Media + Provision of Information Comparison Group: No program	Workers of 67 participating long- term care facilities N=4,338 79% female 50% Hispanic 35% Asian 19% 50 or older 34% Vaccinated previous year n total=3,924 n group 1=832 n group 2=754	Vaccination coverage	Comparison Group Pre: 31.0% Post: 28.0%	Group 1 Pre: 35.0% Post: 46.0% Group 2 Pre: 39.0% Post: 53.0%	+14.0 pct pts (CI95: 10, 18) +13.0 pct pts (CI95: 13, 21)	1y
Klochnyk 2000 ¹⁹ 1998-1999 Least (Before-After) Fair (4 limitations)	Location: Ontario, Canada Components: Free + On-site + Events + Mobile Cart + Health Education + Provision of Information + Leadership Example + Incentives + Leave without Pay Comparison Year: NR	Workers in an acute care hospital N=884	Vaccination coverage	52.3%	78.5%	+26.2 pct pts (CI95: 24, 29)	1y
Lee 2007 ²⁰ 2004-2005 Least (Before-After) Good (1 limitation)	Location: Singapore Components: Free + On-site + Mobile + Clinic Comparison Year: Free + On- site	All workers of a hospital n=5,946	Vaccination coverage	56.8%	66.4%	+9.6 pct pts (CI95: 8, 11)	1y
Leitmeyer 2006 ²¹ 2002-2004 Moderate (Retrospective Cohort)	Location: Germany Components: Free + On-site + Health Education + Assessment + Small Media + Promotions	20 nursing and 20 physician staff randomly selected at each of 20 participating hospitals N=20 hospitals N=800 workers	Vaccination coverage	Comparison (program not implemented) Pre: 24.0% Post : 19.0%	Treatment 1: Program materials implemented with special campaign	+8.0 pct pts (NR)	1y

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Fair (3 limitations)	Comparison Group: No program	n=396 Mean age=40.3 59% female	Pre/Post Physicians Nurses	Post1: 21.0% 22.0% 21.0%	Pre: 23.0% Post 26.0% Post1: 30.0% Treatment 2: Program materials implemented with regular program Pre: 17.0% Post: 21.0% Post1: 22.0% 25.0% 22.0%	+9.0 pct pts (NR) +3.0 pct pts (NR) +1.0 pct pts (NR)	
Lopes 2008 ²² 2004-2007 Moderate (Time-Series) Good (1 limitation)	Location: São Paolo, Brazil Components: Free + On-site + Mobile + Health Education + Small Media + Clinic Comparison Year: Free + On-site	All healthcare workers, including "permanent and casual staff," employees, students, and volunteers, of a hospital system n 2004=20,033 n 2005=19,877 n 2006=20,053 n 2007=20,026	Vaccination coverage	6.0% at Tx-2 6.5% at Tx-1	45.0% at Tx 48.5% at Tx+1	One-year change: +38.5 pct pts (CI95: 38, 39)	1y (4y trend)
Maher 2006 ²³ 2003-2006 Least (Before-After) Fair (2 limitations)	Location: Mountainside, NJ Components: Free + On-site + Health Education + Incentives + Assessment Comparison Year: Free + On-site	All healthcare workers of a hospital N>693	Vaccination coverage	41.0%	57.0%	+16.0 pct pts (CI95: 11, 21)	1y

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Mayoryk 2006 ²⁴ 2004-2006 Least (Before-After) Fair (3 limitations)	Location: Baltimore, MD Components: Free + On-site + Incentives + Declinations Comparison Year: NR	All workers at a chronic hospital and long-term care facility n=745	Vaccination coverage	32.0%	84.2%	+52.2 pct pts (CI95: 48, 57)	2y
McCullers 2006 ²⁵ 2002-2004 Least (Before-After) Fair (3 limitations)	Location: Memphis, TN Components: Free + On-site + Small Media + Individual Feedback Comparison: NR	Workers at St. Jude's Children's Research Hospital with direct patient-care responsibilities n>1,799	Vaccination coverage -All Physicians Nurses	44.7% 69.0% 30.0%	80.0% 88.0% 82.0%	+35.3 pct pts (CI95: 32, 38) +19.0 pct pts (NR) +52.0 pct pts (NR)	1y
Nace 2007 ²⁶ 1996-2006 Moderate (Time-Series) Good (0 limitations)	Location: Pittsburgh, PA Components: Free + On-site + Reminders + Health Education + Assessment + Declinations + System Change Comparison years: Free + On-site + Small Media	All paid workers hired by the Baptist Homes of Western Pennsylvania n=211-242 81% White 18% African American 41% 50 or older	Vaccination coverage	54.0% at Tx-6 55.2% at Tx-5 77.5% at Tx-4 62.8% at Tx-3 63.0% at Tx-2 64.1% at Tx-1	93.7% a Tx 95.5% at Tx+1 73.7% at Tx+2 86.0% at Tx+3	One-year change: +29.6 pct pts (CI95: 23, 37)	1y (10y trend)
Ohr 1992 ²⁷ 1990-1991 Least (Before-After) Fair (2 limitations)	Location: Dallas, TX Components: Free + On-site + Health Education + Clinics + Personalized Letters and Phone Calls Comparison Year: Free + On- site + Health Education	All internal medicine, OB/GYN, and general surgery residents, and all junior medical students in training at the U of Texas Southwestern Medical Center at Dallas N=442 n pre=442 n post=335 Mean age=27.0 years 26.8% Female	Vaccination coverage	19.7%	53.0%	+33.3 pct pts (CI95: 27, 40)	1y

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Olson 1991 ²⁸ 1986-1990 Moderate (Time-Series) Fair (2 limitations)	Location: Sheridan, WY Components: Free + On-site + Health Education + Mobile + Assessment Comparison Years: Free + On-site	Workers of a VA hospital n 1989=432 n 1990=445	Vaccination coverage	19.0% at Tx-3 24.0% at Tx-1	62.3% at Tx 75.0% at Tx+1	One-year change: +38.3 pct pts (CI95: 32, 44)	1y (5y trend)
Parry 2004 ²⁹ 1998-2002 Least (Before-After) Fair (3 limitations)	Location Stamford, CT Components: Free + On-site + Incentives Comparison Year: NR	All workers in a hospital n 1998-1999: 1,471 n 2001-2002: 2,024	Vaccination coverage	34.0%	52.0%	+18.0 pct pts (CI95: 15, 22)	1y
Poland 2005 in (CDC 2005) ^{10,30} 1999-2004 Least (Before-After) <i>incremental program</i> Fair (3 limitations)	Location: Rochester, MN Components: Free + On-site + Decentralized Access + Incentives + Vaccine Champions Comparison Year: NR	All healthcare workers at the Mayo Clinic n=26,261 in final year	Vaccination coverage	Y1: 53.6% Y2: 42.2% Y3: 42.6% Y4: 56.4% Y5: 76.5%		Trend change +22.9 pct pts (CI95: NR)	1y (5y trend)

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Salgado 2004 ³¹ 1987-2000 Least (Before-After) Fair (2 limitations)	Location: Charlottesville, VA Components: Free + On-site + Mobile + Reminders Comparison Year: Free + On- site + Health Education + Clinic	All healthcare workers at a university hospital N: NR	Vaccination coverage Nosocomial influenza cases	4.0% 10.0	16.0% at Tx 22.0% at Tx+1 30.0% at Tx+2 30.0% at Tx+3 30.0% at Tx+4 40.0% at Tx+5 41.0% at Tx+6 42.0% at Tx+7 49.0% at Tx+8 62.0% at Tx+9 60.0% at Tx+10 67.0% at Tx+11 6.0 at Tx 2.0 at Tx+1 1.0 at Tx+2 3.0 at Tx+3 6.0 at Tx+4 8.0 at Tx+5 0.0 at Tx+6 0.0 at Tx+7 3.0 at Tx+8 7.0 at Tx+9 3.0 at Tx+10 0.0 at Tx+11	+12.0 pct pts (CI95: NR) 1 year effect: -4.0 cases (Relative Δ: - 40.0%; CI95: NR)	1y (12y trend)
Samms 2004 ³² ?-2003 Least (Before-After) Fair (2 limitations)	Location: Charleston, WV Components: Free + On-site + Health Education + Vaccine Champions + Decentralized Access + Incentives Comparison Year: NR	All workers of a three-hospital medical center N=5,826	Vaccination coverage	30.0%	47.0%	+17.0 pct pts (CI95: 15, 19)	≥1y

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Sanchez 2003 ³³ 1996-2002 Least (Before-After) Fair (2 limitations)	Location: Columbus, GA Components: Free + On-site + Health Education + Decentralized Access Comparison Year: NR	All workers at the Columbus regional Medical Center, except those with hypersensitivity reactions to influenza vaccine or eggs and women who had been pregnant for less than 14 weeks n: NR	Vaccination coverage	20.5%	30.0%	+9.5 pct pts (CI95: 7, 12)	1y
Sand 2007 ³⁴ 2003-2006 Least (Before-After) Fair (3 limitations)	Location: USA Components: Free + On-site + Health Education + Leadership Example + Incentives + Quality Improvement Comparison Year: NR	All workers at 25 long-term care facilities throughout the US, participating in the CDC-led Quality Improvement program N=25 facilities n=15 facilities (60%) n≈9,000 workers	Vaccination coverage -Average of Total Sites	Tx-1 36.4%	Tx 49.9% Tx+1 56.7%	+13.5 pct pts (CI95: 10, 17)	1y (2y trend)
			MN	25.0%	85.0%	92.0%	
			PA	53.0%	49.0%	92.0%	
			MD	30.0%		84.0%	
			MA	30.0%		65.0%	
			ND	50.0%		60.0%	
			NY1	47.0%	42.0%	57.0%	
			DC	34.0%	44.0%	56.0%	
			NY2	17.0%	34.0%	54.0%	
			PA2	52.0%	60.0%	50.0%	
			PA3	20.0%		50.0%	
			NY3	41.0%	38.0%	41.0%	
			DC2	NR	32.0%	40.0%	
			NY4	24.0%	30.0%	35.0%	
			MA2	20.0%		25.0%	
			GA	66.0%		50.0%	

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Sartor 2004 ³⁵ 1998-2002 Moderate (Time-Series) Good (1 limitation)	Location: Marseille, France Components: Free + On-site + Clinic + Mobile + Provision of Information + Health Education + Small Media Comparison Year: Free + On- site	All workers at a hospital except pregnant women n 1998=2,298 n 1999=2,349 n 2000=2,381 n 2001=2,420 n 2002=2,418	Vaccination coverage Physicians n pre/post =157/177 Nurses n pre/post =339/364 Other n pre/post =628/727	6.0% at Tx-2 7.0% at Tx-1 60.5% 49.6% 51.6%	32.0% at Tx 35.0% at Tx+1 32.0% at Tx+2 67.8% 42.3% 54.9%	One-year change: +25.0 pct pts (CI95: 23, 27) +7.3 pct pts (CI95: -3, 18) -7.3 pct pts (CI95: -15, 0.1) +3.3 pct pts (CI95: -2, 9)	1y (5y trend)
Scheifele 1990 ³⁶ 1988-1989 Least (Post-only) Fair (3)	Location: Vancouver, Canada Components: Free + On-site + Promotion + Pre- vaccination counseling	Hospital staff with direct patient contact in areas with highest congestion of patients at risk N = @ 500	Vaccination coverage	NR	57.6%	57.6% (CI95: 53, 62)	
Shannon 1993 ³⁷ 1990-1992 Least (Before-After) Fair (2 limitations)	Location: Lawrence, MA Components: Free + On-site + Health Education + Incentives Comparison Year: NR	All healthcare workers of one community hospital n 1990-1991=1,500 n 1991-1992= 1,413	Vaccination coverage	5.0%	44.0%	+39.0 pct pts (CI95: 36, 42)	1y

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Smedley 2002 ³⁸ 1995-1999 Least (Before-After) Good (1 limitation)	Location: Southampton, UK Components: Free + On-site + Clinic + Health Education + Decentralized Access + Small Media Comparison Year: Free + On- site	All healthcare workers of one university hospital n 1995=6,400 n 1996=6,400 n 1997=6,524 n 1998=6,706 n 1999=6,562	Vaccination coverage Physicians n pre/post =755/809 Nurses n=3,014/2,933 Other n=2,937/2,820	2.0% at Tx-4 1.7% at Tx-3 4.1% at Tx-2 2.4% at Tx-1 1.2% 1.6% 3.6%	4.5% 1.6% 4.1% 5.7%	+2.1 pct pts (CI95: 2, 3) +0.4 pct pts (CI95: -.8, 2) +2.5 pct pts (CI95: 2, 3) +2.1 pct pts (CI95 : 1, 3)	1y (5y trend)
Song 2006 ³⁹ 1998-2004 Least (Before-After) <i>incremental program</i> Good (1 limitation)	Location: Seoul, Korea Components: Free + On-site + Provision of Information + Assessment + Clinic + Mobile Comparison Year: Free + On- site	All healthcare workers of one university hospital n 1999-2000=1,096 n 2003-2004=1,131	Vaccination coverage	Y1: 20.0% Y2: 26.0% Y3: 23.0% Y4: 25.0% Y5: 24.0% Y6: 42.0% Y7: 78.0%		Trend change +58.0 pct pts (CI95: NR)	7y
Tannenbaum 1993 ⁴⁰ 1988-1991 Greatest (Non-randomized Group Trial) Good (1 limitation)	Location: Montreal, Canada Components: Free + On-site + Clinic + Provision of Information + Small Media Comparison Group: Free + On-site	All staff of two nursing homes n Tx=135 n Comp=133 Female (%) Tx Comp 50 or older (%) 30 16 Nurse (%) 12 17	Vaccination coverage -All Nurses n comp=23 n tx=12	Comparison Pre: 16.7% Post: 9.8% Post: 13.0%	Treatment Pre: 37.0% Post: 49.5% Post: 42.0%	+17.0 pct pts (CI95: 8, 26) +29.0 pct pts (CI95: - 2, 60)	1y

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Tapiainen 2005 ⁴¹ 2003-2005 Least (Before-After) Fair (2 limitations)	Location: Basel, Switzerland Components: Free + On-site + Clinic + Assessment + Health Education + Decentralized Access Comparison Year: NR	All healthcare workers at one university children's hospital) n 2003-2004=538 n 2004-2005=554	Vaccination coverage -All Physicians (n pre/post=90/103) Nurses (n pre /post=320/323) HCW Other (n pre/post= 128/128)	19.0% 43.0% 13.0% 16.0%	24.0% 64.0% 14.0% 16.0%	+5.0 pct pts (CI95: 0.1, 10) +21.0 pct pts (CI95: 7, 35) +1.0 pct pts (CI95: -4, 6) 0 pct pts (CI95: -9, 9)	1y
Thomas 1993 ⁴² 1989-1992 Least (Before-After) Fair (3 limitations)	Location: Winston-Salem, NC Components: Free + On-site + Provision of Information + Health Education + Events+ Leadership Example Comparison Year: NR	All workers at a long-term care facility n 1990-1991=195 n 1989-1990=195	Vaccination coverage	8.0%	46.0% at Tx 54.0% at Tx+1	+38.0 pct pts (CI95: 30, 46)	1y
Vaughan 2006 ⁴³ 2000-2004 Least (Before-After) Fair (3 limitations)	Location: Chesterfield, VA Components: Free + On-site + Health Education + Events + Incentives Comparison Year: NR	All healthcare workers at a long- term care facility N: NR	Vaccination coverage	37.6% at Tx-3 46.8% at Tx-2 47.6% at Tx-1	84.4%	One-year change: +36.8 pct pts (CI95: NR)	1y (4y trend)
Weinstock 2000 ⁴⁴ Eagan 1999 ⁴⁵ 1997-1999 Least (Before-After) Fair (2 limitations)	Location: New York, NY Components: Free + On-site + Health Education + Decentralized Access + Small Media Comparison Year: Free + On- site	All workers at a cancer hospital N: NR	Nosocomial influenza cases per 10,000 patient-days	2.6	0.7	-1.9 patient days (Relative Δ: -72.1%) p<.01	1y

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Yassi 1991 ⁴⁶ 1984 - 1989 Greatest (Other concurrent comparison group) Fair (3 limitations)	Location: Canada; Winnipeg Components: Free + On-site + Client Education Comparison: Free + On-site	Hospital employees in high risk areas n = @ 800 Comparison: Hospital employees in non-high risk areas n = @ 4700	# staff vaccinated		Treatment 1984 80 1985 69 1986 85 1987 50 1988 57 Comparison 1984 89 1985 85 1986 146 1987 92 1988 112	Difference 5.28% 4.27% 3.40% 3.20% 2.99% Median difference = 3.40% (CI95: NR)	Baseline NR

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