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SCUOLA SUPERIORE DI EPIDEMIOLOGIA E MEDICINA
PREVENTIVA «GIUSEPPE D'ALESSANDRO»

*XLVI Corso: IL SISTEMA VACCINALE IN ITALIA:
LE PRIORITA' NON RINVIABILI*

ERICE-SICILIA: 24 – 27 NOVEMBRE 2014

***Migliorare le competenze e gli atteggiamenti del
personale sanitario nei confronti delle
vaccinazioni***

Francesco Vitale

Dipartimento di Scienze per la Promozione della Salute e Materno Infantile "G. D'Alessandro"

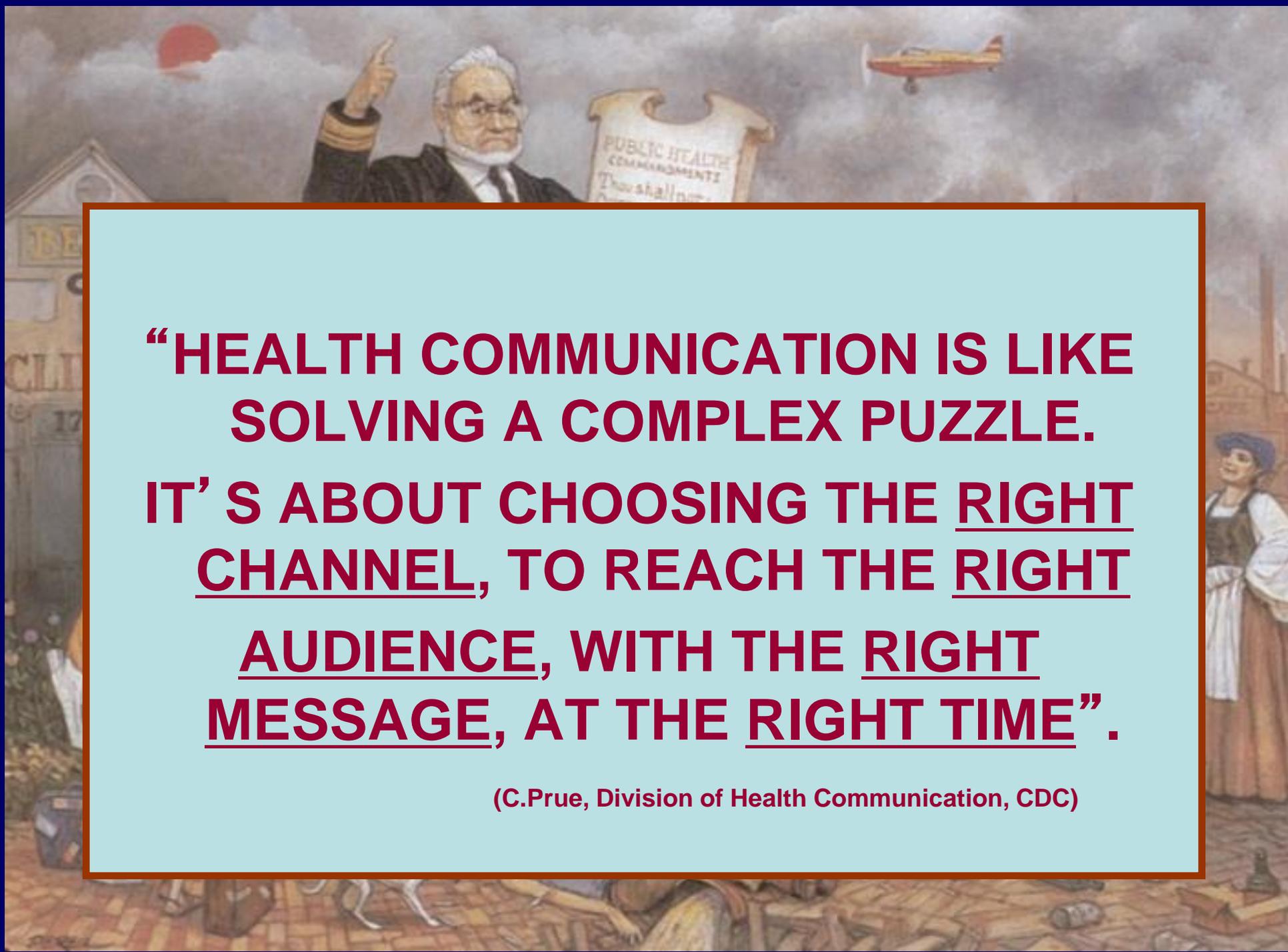
Università di Palermo



Dichiarazione conflitto di interessi

Francesco Vitale è ordinario di Igiene all'Università degli studi di Palermo

- è stato componente di advisory board per GSK, Pfizer, Novartis e Sanofi**
- ha ottenuto contributi per studi epidemiologici su malattie prevenibili da vaccini**
- è stato relatore a Congressi regionali, nazionali e internazionali su invito di GSK e Pfizer.**

A painting depicting a public health official, likely a doctor or health officer, pointing upwards with his right hand. He is wearing a dark suit and glasses. In front of him is a large, light-colored sign that reads "PUBLIC HEALTH COMMANDMENTS" and "Thou shalt...". The background shows a cloudy sky with a red sun or moon, a yellow airplane flying, and a woman in a blue hat and brown dress standing on the right. The overall scene suggests a historical or allegorical setting related to public health.

“HEALTH COMMUNICATION IS LIKE SOLVING A COMPLEX PUZZLE. IT’ S ABOUT CHOOSING THE RIGHT CHANNEL, TO REACH THE RIGHT AUDIENCE, WITH THE RIGHT MESSAGE, AT THE RIGHT TIME”.

(C.Prue, Division of Health Communication, CDC)

Il puzzle si fa più complesso per la comunicazione con gli Operatori Sanitari ?



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Comunicazione aziendale
integrata per organizzazioni sanitarie e sociosanitarie



Corso ECM
Formazione a distanza on-line

Il professionista sanitario e la comunicazione



World Health Organization
Ministero della Salute



The NEW ENGLAND JOURNAL of MEDICINE

Le raccomandazioni non mancano...



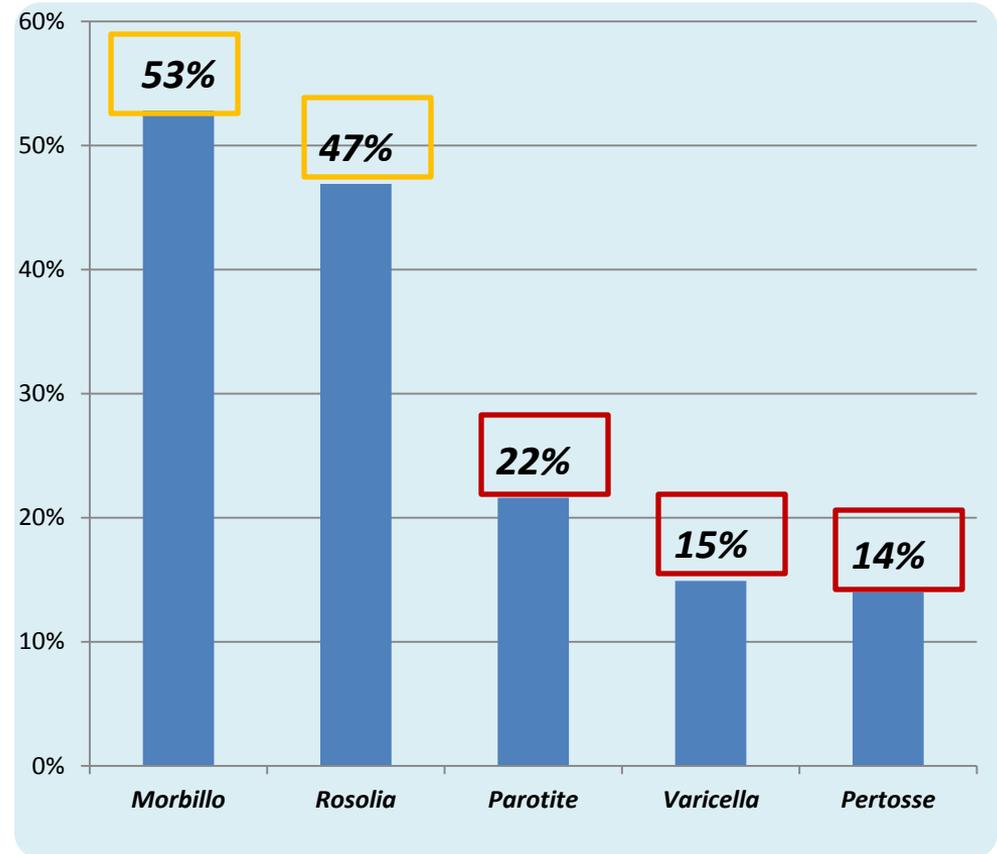
Ministero della Salute

Piano Nazionale Prevenzione Vaccinale 2012-2014 • Le vaccinazioni per gli operatori sanitari

Vaccino	Raccomandazioni
anti-epatite B	- 3 dosi di vaccino ai tempi 0, 1 e 6-12 mesi. - schedula rapida a 4 dosi (0, 1, 2, 12 mesi) in caso di immediata esposizione al rischio di infezione - fino a 3 ulteriori dosi (0,1,6 mesi) ai NON rispondenti al primo ciclo
anti-influenzale	Promozione attiva in tutte le az. sanitarie per incrementare l'adesione alla vaccinazione da parte dei propri operatori e degli studenti dei corsi durante l'annuale campagna vaccinale
anti-MPR	due dosi distanziate di almeno 4 settimane, anche in caso di suscettibilità ad una soltanto delle 3 malattie prevenute dal vaccino MPR.
anti-varicella	due dosi distanziate di almeno 4 settimane a tutti gli operatori sanitari suscettibili
anti-tbc (BCG)	soli operatori sanitari ad alto rischio di esposizione a ceppi multi-farmaco-resistenti, o che operino in ambienti ad alto rischio e non possano, in caso di cuticonversione, essere sottoposti a terapia preventiva, per controindicazioni cliniche all'uso di farmaci specifici.
anti-dTaP	Per la protezione del neonato è consigliabile per gli operatori dei reparti ostetrici e del nido un richiamo con dTaP, così come lo è per tutte le altre figure che accudiscono il neonato

Nonostante le raccomandazioni però...

- Survey tra O.S. di 6 Ospedali di Firenze condotta nel 2011
- 75% di sesso F, età media 42 anni, 59% infermiere, 22% medici
- Tassi di vaccinazione riportati in soggetti con anamnesi neg per patologia
- soltanto il 30% dei non vaccinati è disposto a ricevere le vaccinazioni in studio



Taddei, Bonanni et al. Hum Vac 2014

➤ **In Spagna su 560 O.S. (non vaccinati durante l'infanzia per DTP) presso ospedali pediatrici solo il 51% ha Ig protettive contro B. pertussis** Urbitzondo et al. HV&I 2014

➤ **In Francia su 550 studenti di medicina coperture osservate: 79% MMR, 24% Meningo, 5% Influenza** Faure et al. Med Mal Inf 2013

Le raccomandazioni variano in base alle conoscenze...

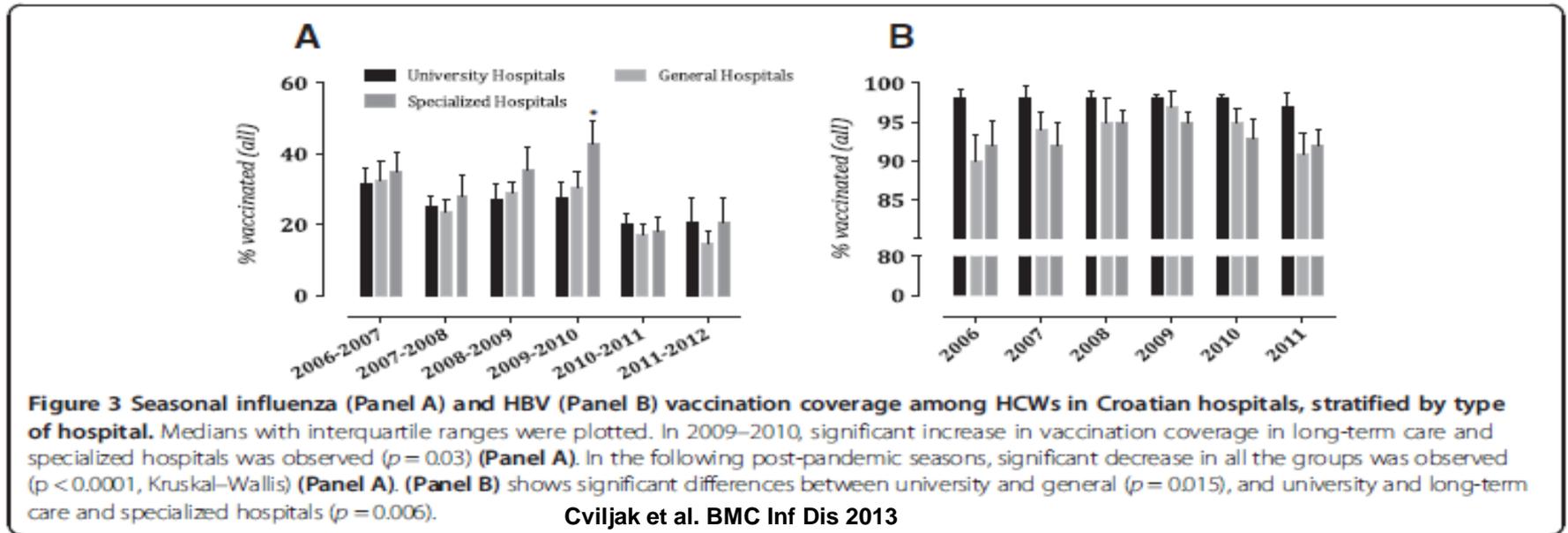
TABLE 2. Multivariate Analysis of Risk Factors Related to Recommending Hepatitis B Virus (HBV) Vaccination to Other Healthcare Workers (HCWs), Georgia, 2007

Perceived safety of vaccine	Risk factor combination		No. who reported combination of factors (n = 297)	No. (%) who recommended HBV vaccine	Adjusted PR (95% CI)
	Perceived HCW risk of HBV infection	Perceived complications to vaccine			
Safe	At risk	No	27	27 (100)	25.3 (3.5–183.8)
		Yes or not sure	143	109 (76)	20.5 (2.8–149.1)
	No increased risk or not sure	No	0
		Yes or not sure	43	14 (33)	8.7 (1.2–65.4)
Unsafe	At risk	No	3	2 (67)	19.1 (1.9–190.8)
		Yes or not sure	59	8 (14)	4.3 (0.6–32.5)
	No increased risk or not sure	No	1	0	...
		Yes or not sure	21	1 (5)	1

NOTE. Factors included in the final model included interaction terms, so the results are presented for combinations of perceptions. Two additional factors were also statistically significantly associated with the outcome (recommending HBV vaccine to other HCWs): being vaccinated for HBV (PR, 1.6 [CI, 1.4–1.9]) and working at hospital B rather than hospital A (PR, 1.4 [CI, 1.2–1.7]). These 2 factors were not included in the interaction terms. Adjusting for other factors (eg, age, sex, marital status, occupation, exposure to blood, and no. of vaccinated colleagues) did not substantially alter the estimates. CI, confidence interval; PR, prevalence ratio.

...ma anche in base al tipo di vaccino

Studio condotto in oltre il 40% O.S. croati, coperture > 90% per HBV, <40% per influenza



Determinants of influenza vaccination uptake among Italian healthcare workers.

Table 1. Distribution of socioeconomic characteristics of professionals

Copertura vaccinale antinfluenzale su 5.336 O.S. distribuiti sul territorio italiano		Vaccine coverage during the previous 12 mo (n = 5,336)					
		Not-vaccinated		Vaccinated			
		N°	%	CI 95%	N°	%	CI 95%
	Total sample	4,226	79.2	78.1 -80.3	1,110	20.8	19.7–21.9
Sex	Male	1,306	74.2	72.1–76.2	455	25.8	23.8–27.9
	Female	2,920	81.7	80.4–82.9	655	18.3	17.1–19.6



Diversa percezione dei vaccini tra gli operatori sanitari (O.S.)?



www.HelloCrazy.com

Vaccinazioni anti, HBV, Meningo, MMR, Varicella

- **In genere effettuate in età infantile**
- **Correlate al rischio di contrarre la patologia**
- **Possibile maggior gravità e conseguenze cliniche in seguito all'infezione**

Vaccinazione anti influenzale

- **Da ripetere annualmente**
- **Minore percezione del rischio di contrarre la malattia nei soggetti adulti sani**
- **Patologia ritenuta banale e non considerata come possibile infezione correlata all'assistenza**

Eppure è la più raccomandata...

Risk groups and other groups recommended for influenza vaccination in European countries

(Source: VENICE survey 2008).

Risk groups

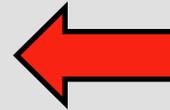
Demographic and patient groups:

1. Older age group, usually 65 years and older^{††}
2. Persons with chronic medical conditions^{††*}
3. Pregnant women
4. Children (below age 2 or below age 5)

Other groups recommended for immunisation

Health occupational groups:

5. Persons living with persons at higher risk
6. Health care and other care workers^{§§}



Other occupational groups

7. Essential services, usually first responders but also groups like military members and airline pilots
8. Veterinarians and poultry workers

In tutti gli Stati Europei...

Galanakis, D'ancona, Lo Palco et al. Expert Rev. Vaccines 2014

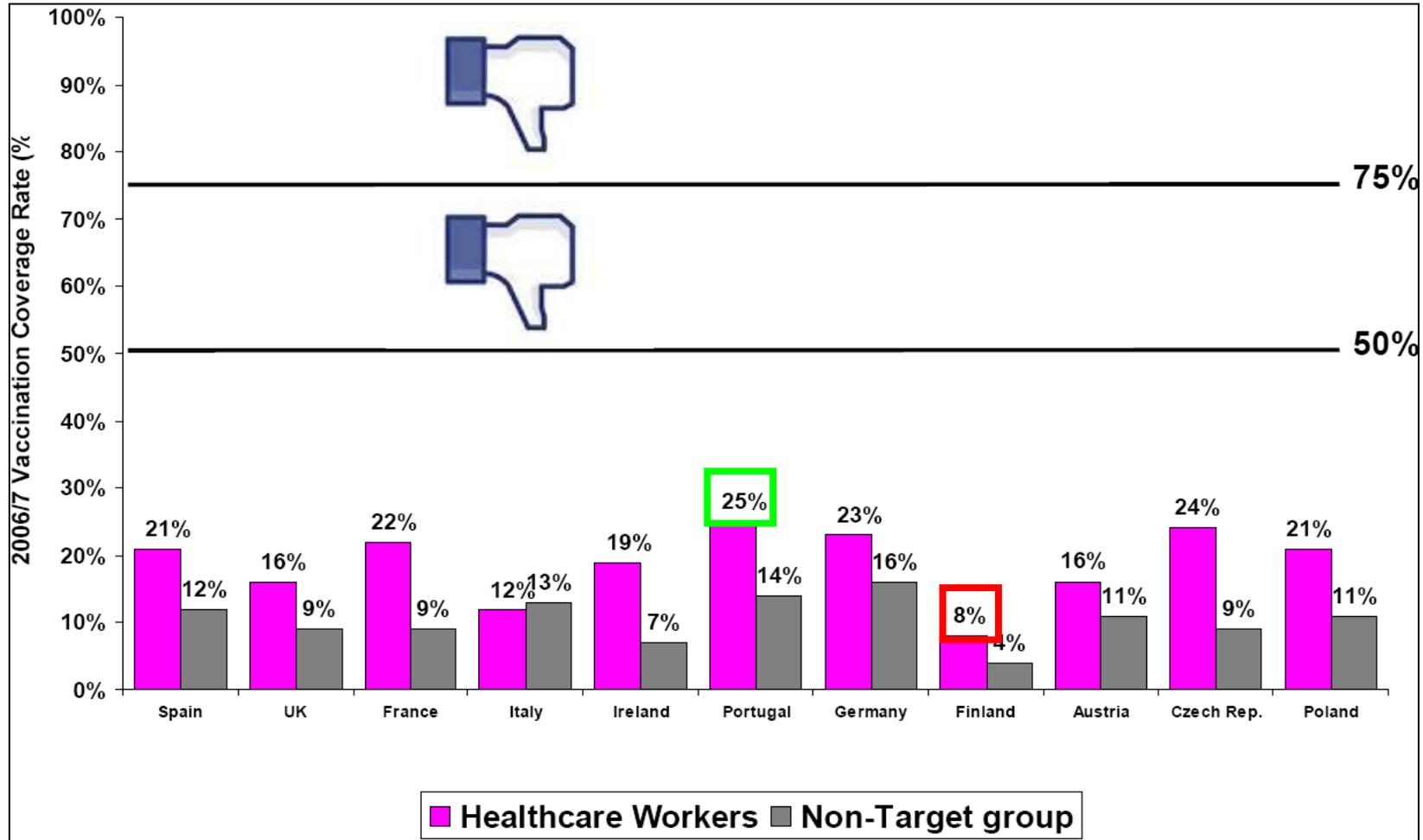


Table 1. Policies for vaccination recommendations for healthcare workers in European countries (as of 2012).

Country (mandatory vaccines)	Diphtheria	Tetanus	Pertussis	Polio	Measles	Mumps	Rubella	Varicella	Hepatitis A	Hepatitis B	Flu, seasonal	Flu, pandemic	<i>Neisseria meningitidis</i>	<i>Streptococcus pneumoniae</i>	BCG
Austria (0)	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	nR
Belgium (1)	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Ma	Ra	Ra	Rs	Rs	nR
Bulgaria (0)	nR	nR	nR	nR	nR	nR	nR	nR	Rs	Ra	Ra	Ra	nR	nR	nR
Cyprus (0)	Ra	Ra	Ra	Ra	Ra	Ra	Ra	nR	nR	Ra	Ra	Ra	nR	nR	nR
Czech Republic (1)	nR	nR	nR	nR	nR	nR	nR	nR	Rs	Ma	Ra	Ra	nR	nR	Rs
Denmark (0)	nR	nR	nR	nR	nR	nR	nR	nR	nR	Rs	Rs	Ra	nR	nR	nR
Estonia (0)	Ra	Ra	Ra	nR	Rs	Rs	Rs	Rs	nR	Ra	Ra	Ra	nR	nR	nR
Finland (0)	nR	nR	Rs	nR	Ra	Ra	Ra	Rs	nR	Rs	Ra	Ra	Rs	nR	nR
France (5)	Ma	Ma	Ra	Ma	Rs	Rs	Rs	Ra	nR	Ms	Ra	Ra	nR	nR	Ma
Germany (0)	nR	nR	Ra	Rs	Ra	Ra	Rs	Ra	Ra	Ra	Ra	Ra	nR	nR	nR
Greece (0)	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Rs	Rs	nR
Hungary (1)	nR	nR	nR	nR	nR	nR	nR	Rs	Rs	Ma	Ra	Ra	Rs	nR	nR
Iceland (0)	Ra	Ra	Ra	Ra	Ra	Ra	Ra	nR	nR	Ra	Ra	Ra	nR	nR	nR
Ireland (0)	Rs	Rs	Rs	Rs	Ra	Ra	Ra	Rs	Rs	Ra	Ra	Ra	Rs	nR	Rs
Italy (0)	Rs	Rs	Rs	nR	Ra	Ra	Ra	Ra	nR	Ra	Ra	Ra	nR	nR	Rs
Latvia (1)	Ra	Ra	nR	nR	nR	nR	nR	nR	nR	Ms	Ra	Ra	nR	nR	nR
Lithuania (0)	Ra	nR	nR	nR	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	nR	nR	nR
Luxemburg (0)	nR	nR	nR	nR	nR	nR	nR	Ra	nR	Ra	Ra	Ra	nR	nR	nR
Malta (0)	Ra	Ra	Ra	Ra	Ra	Ra	Ra	Ra	nR	Ra	Ra	Ra	nR	nR	Ra
Norway (0)	nR	nR	Rs	nR	nR	nR	Rs	Rs	nR	Ra	Ra	Ra	nR	nR	Ra
Poland (1)	nR	nR	Rs	nR	Rs	Rs	Rs	nR	Rs	Ma	Ra	Ra	nR	nR	nR
Portugal (0)	Ra	Ra	nR	Rs	Ra	nR	Ra	nR	nR	Ra	Ra	Ra	nR	nR	nR
Romania (0)	nR	nR	nR	nR	nR	nR	nR	nR	nR	Ra	Ra	Ra	nR	nR	nR
Slovakia (3)	nR	nR	nR	nR	nR	nR	nR	nR	Ms	Ma	Ra	Ra	nR	nR	Ms
Slovenia (6)	Ms	nR	Rs	nR	Ma	Ma	Ma	Ra	nR	Ma	Ra	Ra	Ms	nR	nR
Spain (0)	Ra	Ra	Rs	nR	Ra	Ra	Ra	Ra	nR	Ra	Ra	Ra	nR	nR	nR
Sweden (0)	nR	nR	nR	nR	nR	nR	nR	nR	nR	Rs	nR	Ra	nR	nR	Rs
The Netherlands (1)	nR	nR	nR	nR	Rs	nR	nR	Rs	nR	Ms	Ra	Ra	nR	nR	nR
UK (4)	Rs	Rs	Rs	Rs	Ms	Ms	Ms	Ra	Rs	Ms	Ra	Ra	nR	nR	Ra



Ma con scarso successo...



Influenza vaccination for health care workers: A duty of care

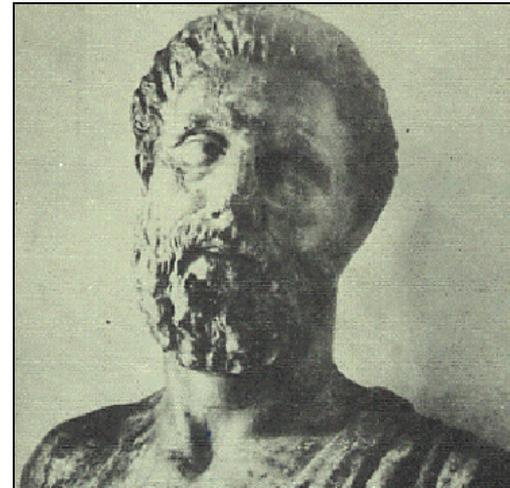
Pamela Orr MD MSc FRCPC,

Department of Medicine, University of Manitoba and Member, National Advisory Committee on Immunization

The consequences of influenza transmission within the health care environment include morbidity and mortality among patients, most of who are at high risk for the complication, and illness and absenteeism among health care providers.



Copyright: Prof. Francesco Vitale



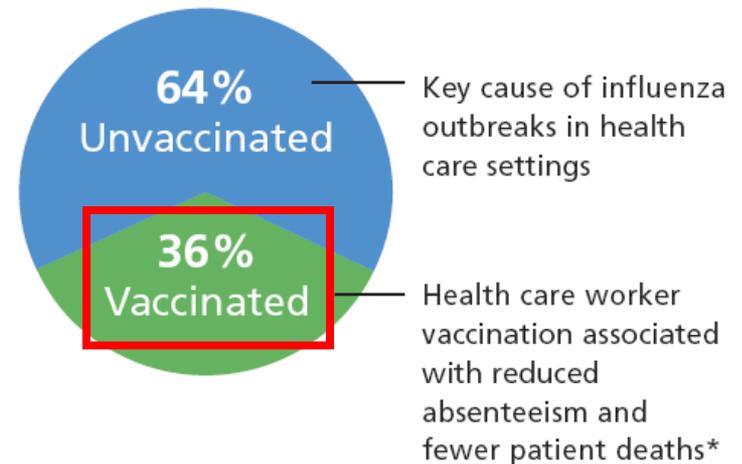
“The single best way to reduce influenza transmission in health care settings is through increased use of influenza vaccine.”

“There is no doubt that unvaccinated health care workers can either introduce influenza into a facility or propagate an outbreak.”

“Health care worker vaccination is an employee and patient health and safety initiative.”

Figure 1:

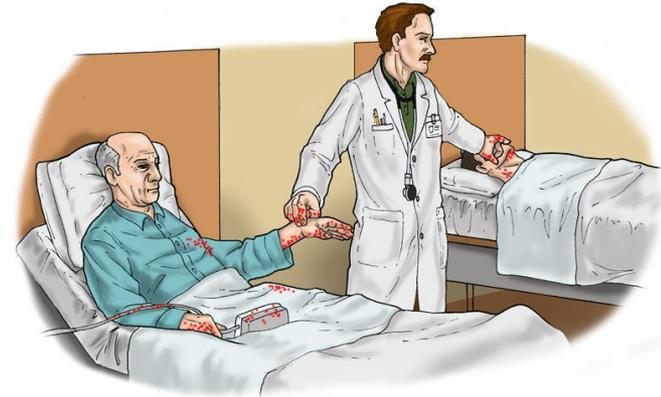
Average Annual Influenza Vaccination Rates in Health Care Workers



* Source: CDC. Prevention and control of influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*. 2003;52 (RR8):1-34.

Influenza, ICA emergente?

- Annualmente, tra il 7,1% ed il 26% degli operatori sanitari non vaccinati mostra un'evidenza sierologica di infezione da virus influenzale.¹
- Il 42% degli stessi non ricorda di avere avuto una sintomatologia respiratoria.¹
- Un incremento della copertura vaccinale del personale sanitario dal 4% al 67% è risultato associato a riduzione²:
 - di casi di influenza confermati in laboratorio dal 42% al 9%
 - dei casi di ILI nosocomiali dal 32% allo 0%



1. Wilde JA, McMillan JA, Serwint J, Butta J, O'Riordan MA, Steinhoff MC. Effectiveness of influenza vaccine in health care professionals: a randomized trial. *JAMA*. 1999 Mar 10;281(10):908-13.

2. Salgado CD, Giannetta ET, Hayden FG, Farr BM. Preventing nosocomial influenza by improving the vaccine acceptance rate of clinicians. *Infect Control Hosp Epidemiol*. 2004 Nov;25(11):923-8.



Can influenza vaccination coverage among healthcare workers influence the risk of nosocomial influenza-like illness in hospitalized patients?

E. Amodio*, V. Restivo, A. Firenze, C. Mammina, F. Tramuto, F. Vitale

Department of Sciences for Health Promotion and Mother–Child Care ‘G. D’Alessandro’, University of Palermo, Palermo, Italy

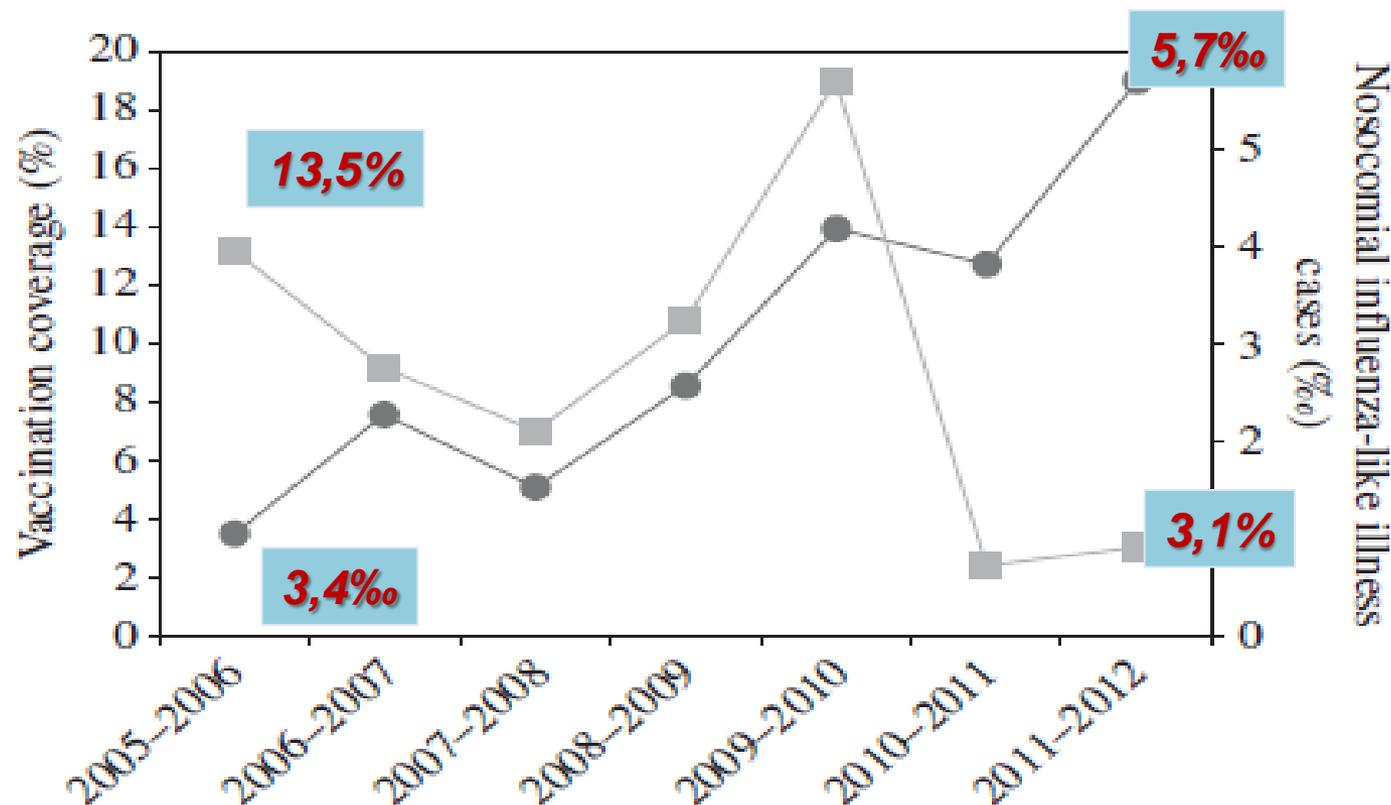


Table II

Multivariable logistic regression analysis of variables associated with the risk of nosocomial influenza-like infection (NILI)

	Adjusted OR	95% CI	P-value
Influenza vaccination coverage among healthcare workers (per % unit increase)	0.97	0.94–0.99	0.02

Each year enormous effort goes into producing influenza vaccines for that specific year and delivering them to appropriate sections of the population. Is this effort justified?

Lancet infec dis, 2007, 7: 658-666

doi:10.1016/S1473-3099(07)70236-0

Mortality benefits of influenza vaccination in elderly people: an ongoing controversy

Lone Simonsen, Robert J Taylor, Cecile Viboud, Mark A Miller, Lisa A Jackson



Vaccine

Volume 32, Issue 38, 27 August 2014, Pages 4849–4854

Vaccine-preventable Diseases and Vaccinations Among Health-care Workers



Conference report

Incentives and barriers regarding immunization against influenza and hepatitis of health care workers

David FitzSimons



Contents lists available at ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Vaccine.2008 June 19; 26(26): 3189.

doi:10.1016/j.vaccine.2008.03.050

Influenza vaccination for healthcare workers: Is it really as effective as we claim?

Stewart Siu-Wa Chan

aging
clinical and
experimental
research

2009 Jun;21(3):216-21. Review.

Influenza vaccination for healthcare workers: from a simple concept to a resistant issue?

Gaëtan Gavazzi



American Journal of Infection Control

Volume 42, Issue 8, August 2014, Pages 829–833



Major article

Health care workers—part of the system or part of the public? Ambivalent risk perception in health care workers

Anat Gesser-Edelsburg, PhD^a, Nathan Walter, MA^b, Manfred S. Green, MSc, MBChB, MPH, PhD^a

Motivazioni per non vaccinarsi

Review

Influenza vaccination of health care workers in hospitals—A review of studies on attitudes and predictors[☆]

Helge G. Hollmeyer^{a,*}, Frederick Hayden^b, Gregory Poland^c, Udo Buchholz^d

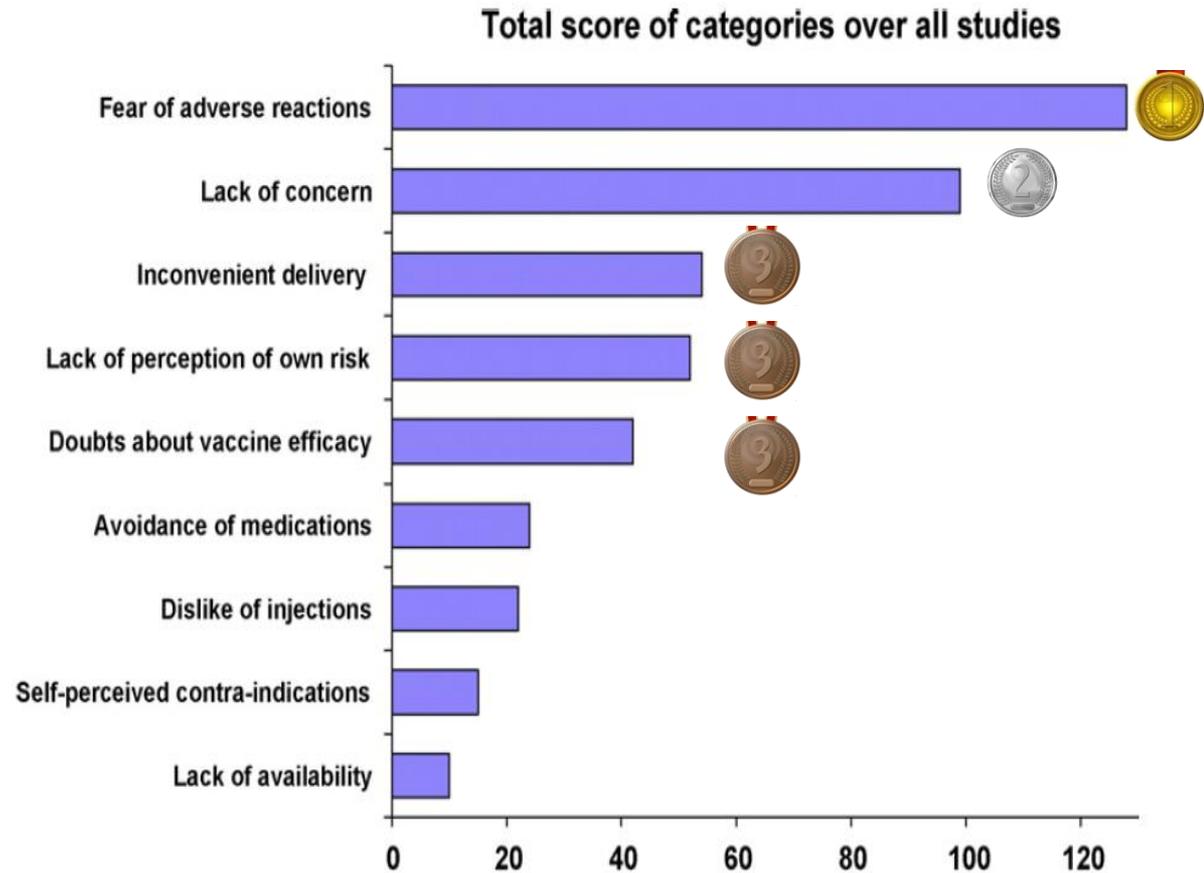


Vaccine

Volume 27, Issue 30, 19 June 2009, Pages 3935–3944



Authors	No. of respondents	Place of study
Begue [36]	120	New Orleans, USA
Buchholz et al. [51]	886	Germany
Canning et al. [52]	144	Liverpool, UK
Christian [45]	240	Spokane, USA
Harbarth et al. [42]	797	Geneva, Switzerland
Heimberger et al. [43]	922	Middletown, New York State, USA
Heininger et al. [46]	71	Basel, Switzerland
LaVela et al. [47]	1, 140	USA
Lester et al. [22]	670	Toronto, Canada
Mah et al. [54]	363	Calgary, Canada
Maltezou et al. [50]	8062	Greece
Nafziger and Herwaldt [37]	78	Iowa, USA
Nichol and Hauge [38]	392	Minneapolis, USA
O'Rorke et al. [39]	228	Navan, Ireland
Sartor et al. [53]	500	Marseille, France
Steiner et al. [40]	1718	Wisconsin, USA
Stephenson et al. [41]	597	Leicester, UK
Takayanagi et al. [48]	258	São Paulo, Brazil
Watanakunakorn et al. [44]	1203	Ohio, USA
Weingarten et al. [33]	193	Los Angeles, USA
Yang et al. [49]	3615	Singapore
Total score		



Chi è più resistente alla vaccinazione?

Table 2

Multivariate analysis: factors associated with non-vaccination against pandemic influenza A (H1N1).

	Adjusted OR	95% CI	p-value
Age group			
≤50 years	Referent	–	–
>50 years	1.1	0.8–1.4	0.58
Gender			
Male	Referent	–	–
Female	1.6	1.3–2.1	<0.001
Profession			
Doctors/biologists	Referent	–	–
Nurses/technicians/administrative workers	1.7	1.3–2.2	<0.001
Job status			
Full-time	Referent	–	–
Part-time	1.2	0.9–1.7	0.22
Influenza vaccination in 2008–2009			
Vaccine recipients	Referent	–	–
Vaccine non-recipients	4.9	3.7–6.5	<0.001

Are medical residents a “core group” for future improvement of influenza vaccination coverage in health-care workers? A study among medical residents at the University Hospital of Palermo (Sicily)

Emanuele Amodio^{a,*}, Fabio Tramuto^a, Guido Maringhini^a, Rosario Ascianto^a, Alberto Firenze^{a,b}, Francesco Vitale^a, Claudio Costantino^a, Giuseppe Calamusa^{a,b}

^a Department for Sciences of Health Promotion “G. D’Alessandro”, University of Palermo, Via Del Vespro n 133, cap 90127, Palermo Italy
^b Sanitary Direction of Azienda Ospedaliera Universitaria Policlinico “P. Giaccone” of Palermo (AOUP), Italy

Vaccine, 2011

Vaccine uptake during the 2009-2010 influenza season				
	Seasonal influenza		Pandemic influenza A (H1N1) 2009	
	Crude OR (95% CIs)	Adjusted OR (95% CIs)	Crude OR (95% CIs)	Adjusted OR (95% CIs)
Perception of high efficacy/safety	0.96 (0.75-1.23)	-	1.18 (0.97-1.42)	-
Consider themselves as a high risk group for developing influenza	1.63 (1.28-2.09) ^c	1.47 (1.05-2.06) ^a	1.49 (1.21-1.81) ^c	1.37 (1.07-1.75) ^a
Consider themselves as a high risk group for spreading influenza among general population	1.11 (0.84-1.46)	-	1.28 (1.01-1.62) ^a	1.07 (0.81-1.44)
Consider themselves as a high risk group for spreading influenza among patients	1.1 (0.84-1.42)	-	1.08 (0.86-1.35)	-
Influenza vaccination in the previous 5 years				
- never	referent	referent	referent	referent
- yes, from one to three times	25.6 (7-60.4) ^c	24.2 (7.3-80.4) ^c	6.4 (3.1-13.5) ^c	5.28 (2.3-12.1) ^c
- yes, more than three times	130 (32.2-525.2) ^c	97.2 (22.9-412.6) ^c	34 (7.6-152.3) ^c	22.3 (4.6-108.1) ^c
Awareness that MF59 is an adjuvant that enhances immunogenicity in several vaccines	1.19 (0.6-2.38)	-	2.06 (1.14-3.72) ^a	1.9 (0.96-3.98)

^a p<0.05 ^b p<0.01 ^c p<0.001



Influenza vaccination coverage among medical residents

An Italian multicenter survey

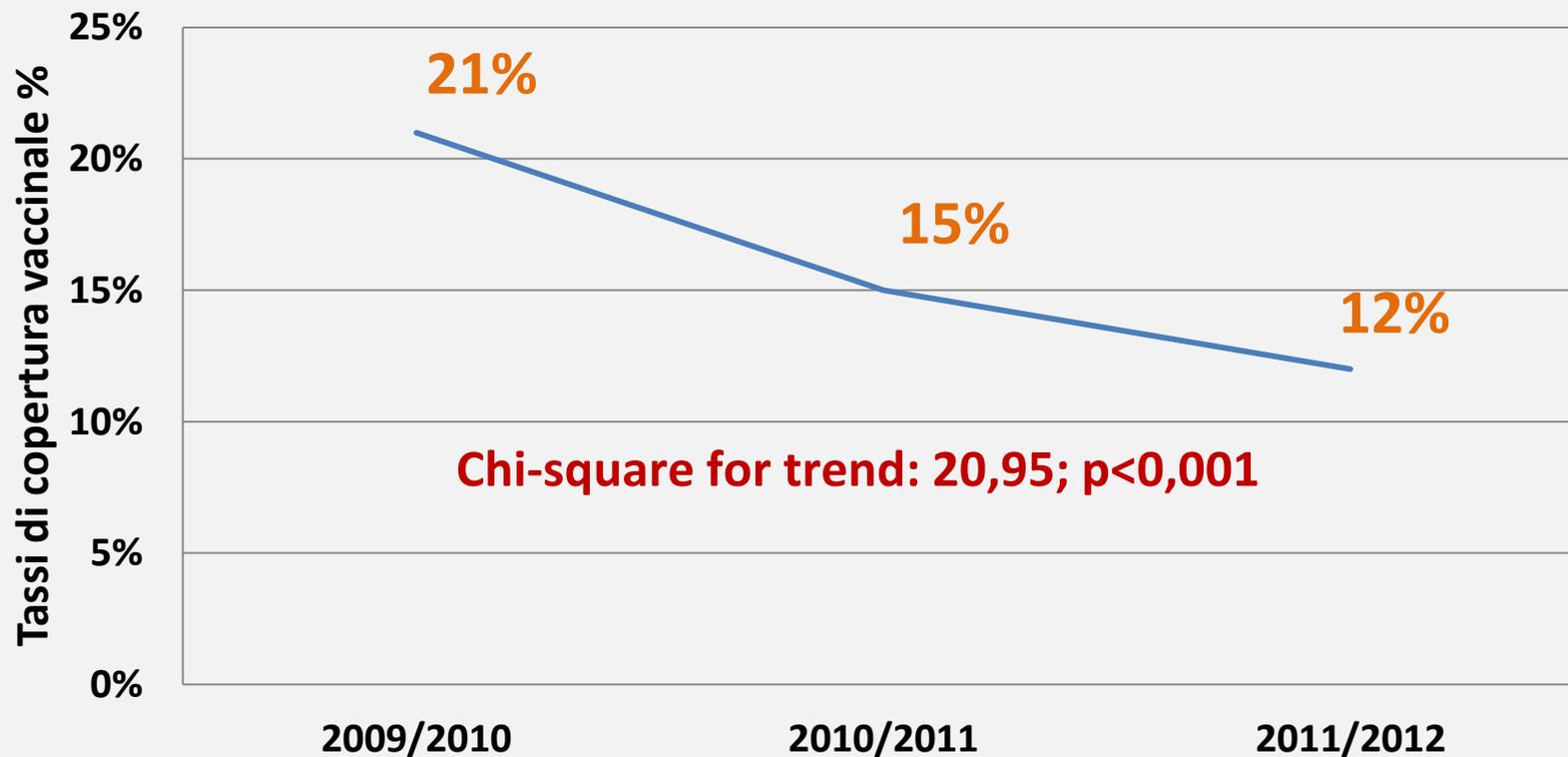
Claudio Costantino¹, Walter Mazzucco¹, Elena Azzolini², Cesare Baldini³, Margherita Bergomi⁴, Alessio Daniele Biafiore⁵, Manuela Bianco⁶, Lucia Borsari⁷, Paolo Cacchiaro⁸, Chiara Cadeddu⁹, Paola Camia⁹, Eugenia Carluccio⁹, Andrea Conti¹⁰, Chiara De Waure⁸, Valentina Di Gregori⁷, Leila Fabiani¹¹, Roberto Fallico¹², Barbara Fillsetti¹³, Maria E Flacco¹⁴, Elisabetta Franco¹⁵, Roberto Furnari¹², Veronica Galis⁶, Maria R Gallea¹², Maria F Gallone¹⁶, Serena Gallone¹⁶, Umberto Gelatti¹³, Francesco Gilardi¹⁵, Anna R Giuliani¹¹, Orazio C Grillo¹⁰, Niccolò Lanati¹⁷, Silvia Mascaretti¹³, Antonella Mattei¹³, Rocco Mico⁸, Laura Morciano¹⁵, Nicola Nante², Giuseppe Napoli¹⁸, Carmelo Nobile², Raffaele Palladino¹⁶, Salvatore Parisi¹, Maria Passaro¹⁶, Gabriele Pelissero¹⁷, Michele Quarto¹⁶, Walter Ricciardi⁹, Gabriele Romano³, Ennio Rustico⁷, Anita Saponari¹¹, Francesco S Schioppa¹⁴, Carlo Signorelli¹², Roberta Siliquini⁶, Valeria Trabacchi¹⁹, Maria Triassi¹⁹, Alessia Varetta¹⁷, Andrea Ziglio¹, Angela Zoccali¹⁹, Francesco Vitale¹, and Emanuele Amodio¹⁴*



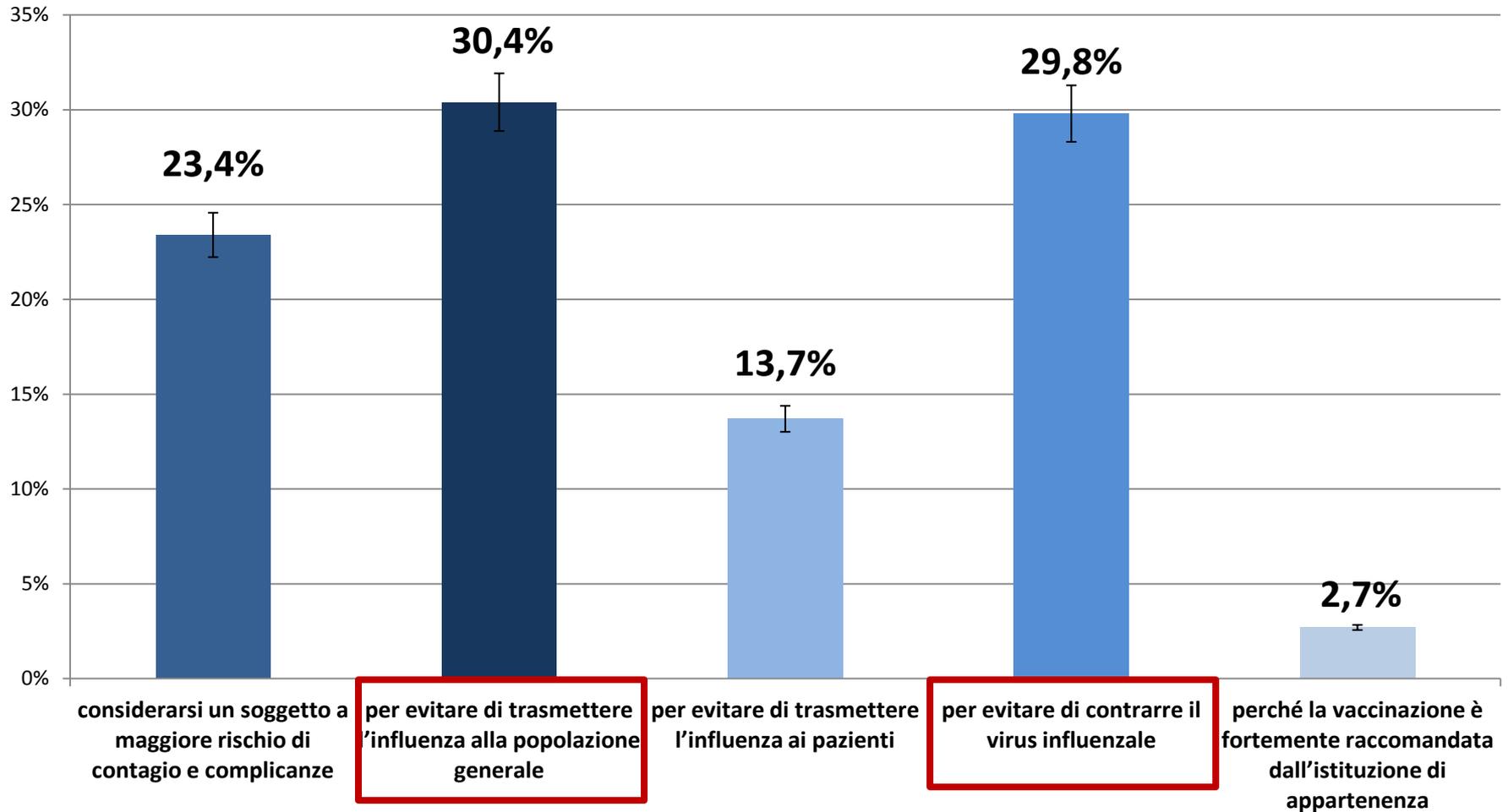
- **Sedi che non hanno aderito**
11 su 33 (33,3%)
- **Sedi che non hanno raggiunto il cut off del 20% (4 su 22)**
- **Sedi che hanno aderito ed hanno raggiunto e superato il cut off**
 - Bari
 - Bologna
 - Brescia
 - Catania
 - Catanzaro
 - Chieti
 - L'Aquila
 - Messina
 - Modena
 - Napoli Fed II
 - Palermo
 - Pavia
 - Parma
 - Roma Catt.
 - Roma Tor Ver
 - Siena
 - Torino
 - Verona



Andamento coperture vaccinali MFS italiani ultime tre stagioni

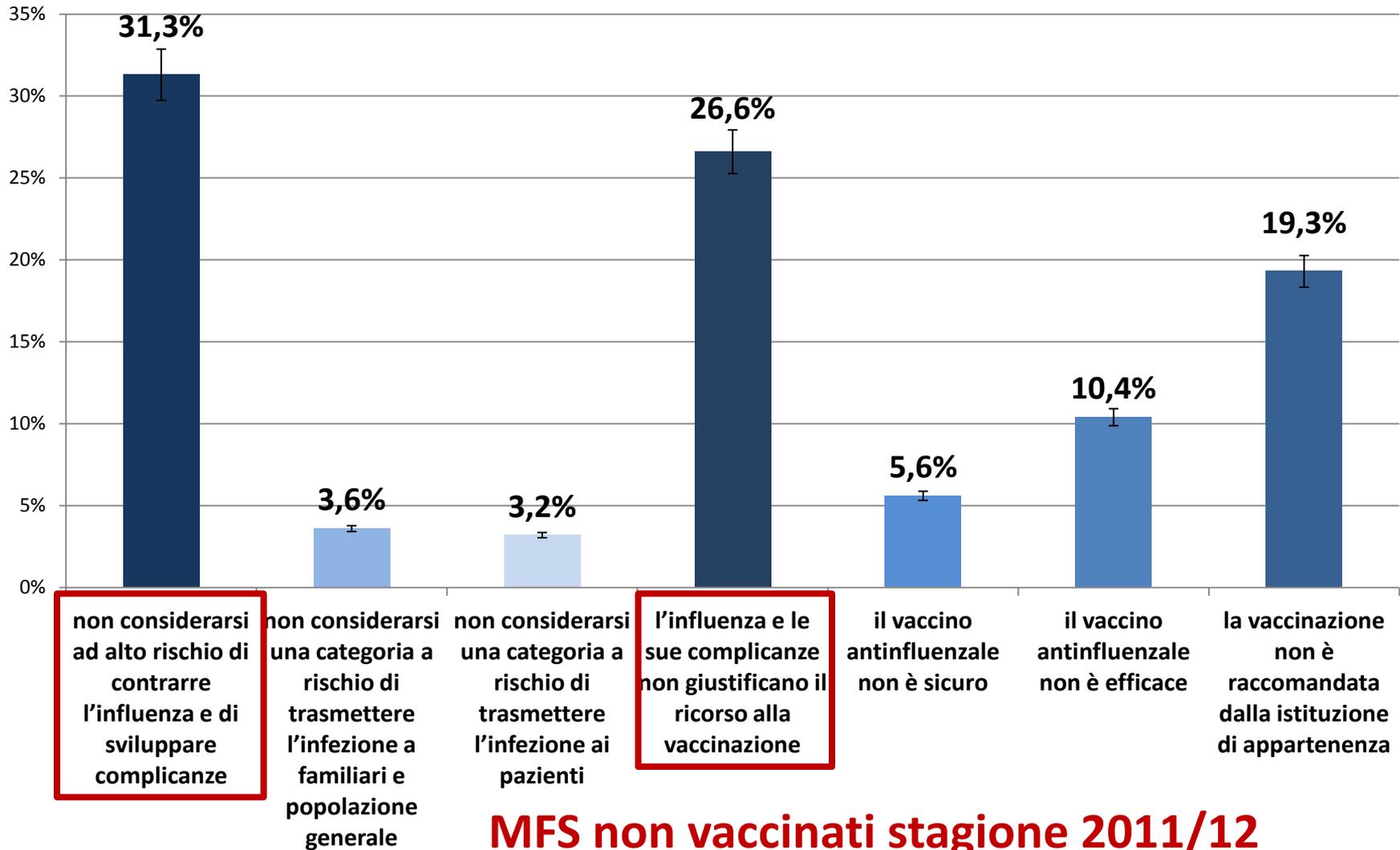


Perché si sono vaccinati...



MFS vaccinati stagione 2011/12

Perché non si sono vaccinati...



MFS non vaccinati stagione 2011/12

Chi si vaccina di più?

- Chi ha un'età più elevata **OR 1,53 (1,11-2,11)**
- Chi si è vaccinato nelle campagne di vaccinazione antinfluenzali precedenti **OR 4,42 (2,78-7,05)** e **OR 17,66 (11,92-26,17)**
- Chi ha l'attitudine a raccomandare la vaccinazione antinfluenzale ai propri pazienti o secondo le indicazioni ministeriali **OR 1,99 (1,19-3,34)** o secondo la propria valutazione clinica **OR 1,98 (1,15-3,41)**





Cosa abbiamo imparato?

- La vaccinazione antinfluenzale negli operatori sanitari è assunta sulla base di **convincimenti personali e non di raccomandazioni istituzionali**
- La vaccinazione antinfluenzale è in grado di **ridurre il rischio di diffusione di patologia nei contesti socio-sanitari e l'assenteismo dal lavoro durante i picchi epidemici**
- Gli OS che si vaccinano hanno **una maggiore attitudine a far vaccinare i propri pazienti**
- Gli OS che si vaccinano **tendono a proteggere i propri pazienti e/o familiari**, quelli che non si vaccinano viceversa **non considerano minimamente il rischio di poter veicolare l'infezione agli stessi**

Le strategie in campo...

Mandatory Vaccination of Health Care Workers

Alexandra M. Stewart, J.D.

Possibile soluzione o complicazione?

"...Health care workers have a profound effect on patients' health. Although they have the same rights as all private citizens, it is likely that courts will continue to make the health and safety of patients the priority in permitting exceptions to individual rights..."

Richard Daines
New York State Health
Commissioner

New York State's Requirements for Influenza Vaccination of Personnel in Health Care Facilities.*	
Immunization requirements Sec. 66-3.2	As a precondition to employment and on an annual basis, in accordance with the national recommendations in effect, unless there is an inadequate supply of vaccine
Affected facilities Sec. 66 - 3.1 (c)	General hospitals, diagnostic and treatment centers, certified home health agencies, long-term home health care programs, AIDS home care programs, licensed home care services agencies, hospices
Affected personnel Sec. 66 - 3.1 (b)	All persons employed by or affiliated with a health care facility: <ul style="list-style-type: none">• Paid or unpaid• Employees, medical staff, contract staff, students, and volunteers who have direct contact with patients, or whose activities are such that if they were infected with influenza, they could potentially expose patients, or others who have direct contact with patients, to influenza
Nonaffected personnel Sec. 66 - 3.1 (b)	<ul style="list-style-type: none">• Personnel who do not have direct contact with patients• Personnel who do not engage in activities that could potentially expose patients, or others who have direct contact with patients, to influenza<ul style="list-style-type: none">Those whose job site is physically separated from a patient care location and who have no direct contact with patientsThose whose job activities would require only infrequent or incidental direct contact with others who might have direct contact with patients, provided that such direct contact is unlikely to transmit influenza (e.g., administrative tasks, data entry, building maintenance)
Exceptions Sec. 66 - 3.6	Medical contraindication in accordance with nationally recognized guidelines
Facility's obligations Sec. 66 - 3.3, 3.5, 3.6, 3.7	<ul style="list-style-type: none">• Provide or arrange for influenza vaccinations at no cost to personnel, either at the facility or elsewhere depending on personal choice• Maintain vaccination documentation in personnel file• Determine the steps that those who are unvaccinated because of medical contraindication must take to reduce the risk of transmitting influenza to patients• Report aggregate vaccination status to the Department of Health
Personnel's obligations Sec. 66 - 3.3; 3.4	Existing personnel: <ul style="list-style-type: none">• No later than 11/30 of each year, receive vaccination from a source of their own choosing or one chosen by the facility• Provide documentation to the facility Newly hired personnel: <ul style="list-style-type: none">• After 11/30 and before 4/01, receive vaccination if the facility determines that they are unvaccinated
Statutory authority	<ul style="list-style-type: none">• The State Department of Health has the comprehensive responsibility for the development and administration of the state's policy regarding facilities.• The State Hospital Review and Planning Council is authorized to adopt and amend rules and regulations regarding home health agencies, hospice organizations, long-term home health care programs, and AIDS home care programs.

* The requirements are from Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York §66-3.1-3.7 (2009).

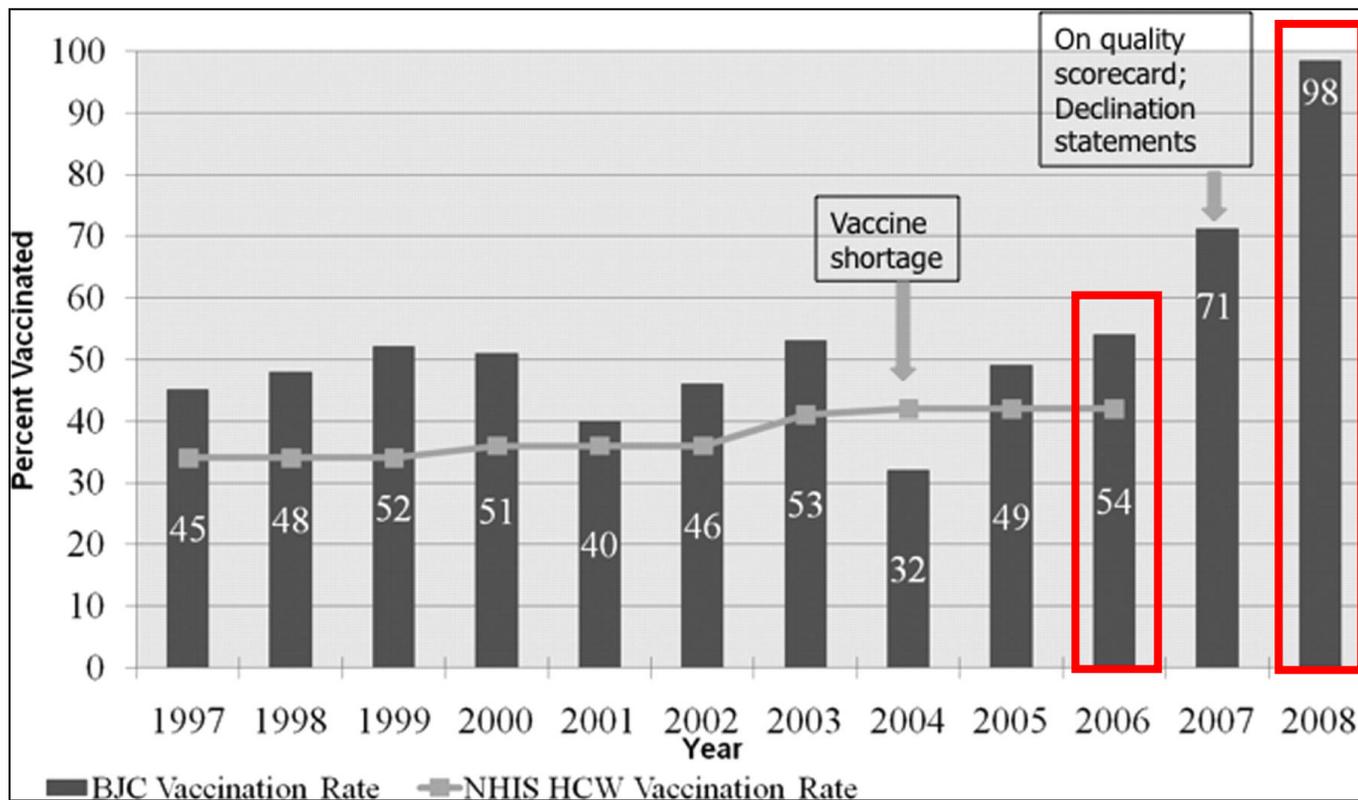
Mandatory Influenza Vaccination of Health Care Workers: Translating Policy to Practice

Mandatory Influenza Vaccination • CID 2010:50 (15 February)

Hilary M. Babcock,¹ Nancy Gemeinhart,² Marilyn Jones,² W. Claiborne Dunagan,^{1,2} and Keith F. Woeltje¹

¹Washington University School of Medicine and ²BJC HealthCare, St Louis, Missouri

BJC HealthCare is a large US health care organization with 26,000 employees: employees who were neither vaccinated nor exempted by 15 December 2008 were suspended without pay. Employees still not vaccinated or exempt by 15 January 2009 were terminated for failure to meet their conditions of employment.



Vaccination status	No. (%) of employees
Vaccinated	25,561 (98.4)
Religious exemption granted	90 (0.35)
Medical exemption granted	321 (1.24)
Noncompliant (neither vaccinated or exempt)	8 (0.03)
Total employees	25,980

Before the Mandate: Cultivating an Organizational Culture of Trust and Integrity

Joshua E. Perry, Indiana University



retrieved (n= / / 8)

Excluded at screening

BMJ



BMJ 2013;347:f6705 doi: 10.1136/bmj.f6705 (Published 12 November 2013)

Page 1 of 3

HEAD TO HEAD

Should influenza vaccination be mandatory for healthcare workers?

Amy Behrman believes that mandatory vaccination is needed to protect vulnerable patients, but Will Offley argues that evidence on effectiveness is not sufficient to over-ride healthcare workers' right to choose

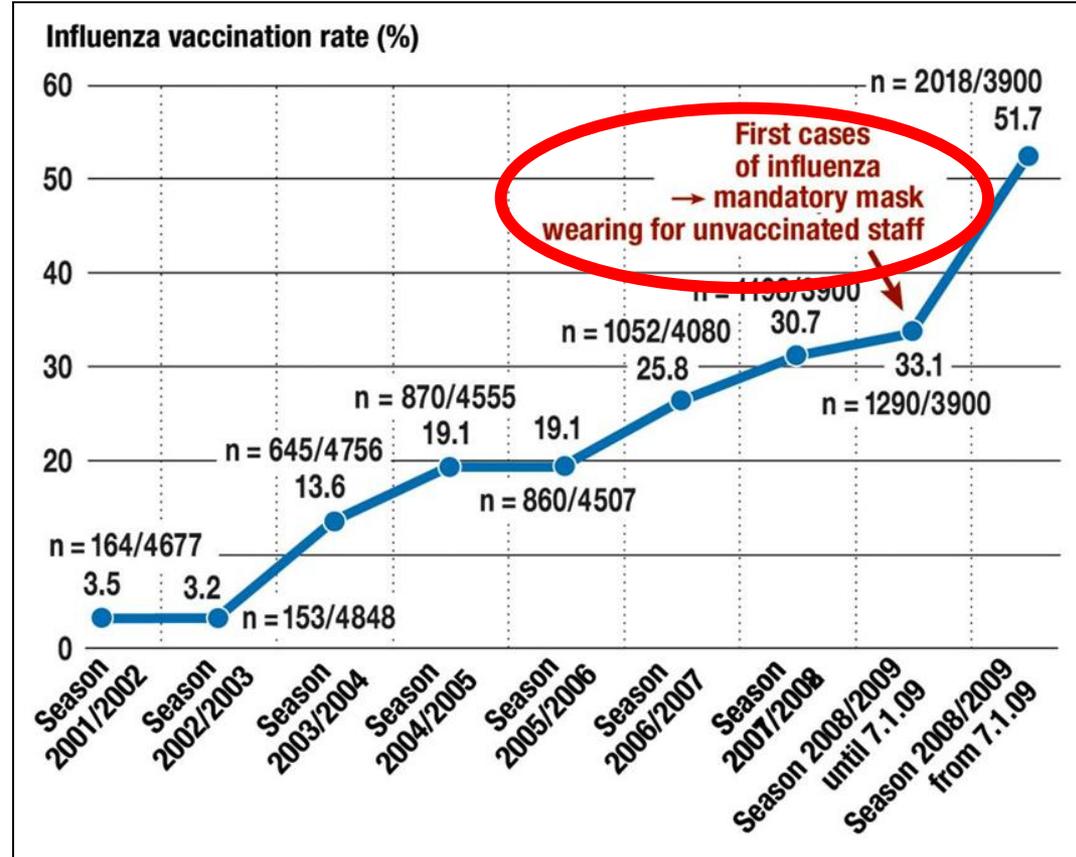
Yes—Amy Behrman

No—Will Offley

Vaccination Against Classical Influenza in Health-Care Workers

Ospedale Universitario di Francoforte

Dal 7.1.2009 obbligo per gli operatori sanitari non vaccinati a contatto diretto con pazienti di indossare la maschera protettiva durante tutto il turno di lavoro



Dtsch Arztebl Int 2009

Quali alternative possibili?

Employee Influenza Immunization Programs

Develop a fun, convenient, and affordable employee influenza immunization program:

- Use incentives to encourage participation (e.g., free vaccine for employees, pizza parties, drawings for cafeteria coupons, paid vacation days)
- Encourage departmental competition to boost immunization rates

Make vaccine more accessible:

- Multiple “waves” of employee vaccination
- Continuous program October-March
- No vaccine “missed opportunities,” offer immunization during any OHS visit during influenza season

Influenza

Protect your patients!
Protect yourself!

Influenza viruses are easily transmitted. Everyone can catch influenza and pass it to others without knowing it. Influenza comes every season.

Be prepared. Get vaccinated!



*E allora come
intervenire?*



**Appropriata
formazione**

National Vaccine Advisory Committee
(NVAC)

*Recommendations on Strategies to Achieve the Healthy People 2020 Annual
Influenza Vaccine Coverage Goal for Health Care Personnel*

Recommendation

NVAC recommends that Health Care Employers (HCE) and facilities establish comprehensive influenza infection prevention programs that include education of HCP as a key component. Comprehensive influenza infection prevention plans are recommended by the CDC as an essential step for all HCE and facilities to achieve the Healthy People 2020 influenza vaccine coverage goal. NVAC recommends that the Assistant Secretary for Health (ASH) strongly urge all HCE and facilities to adopt these recommendations.

Sapere utilizzare i codici di diagnosi

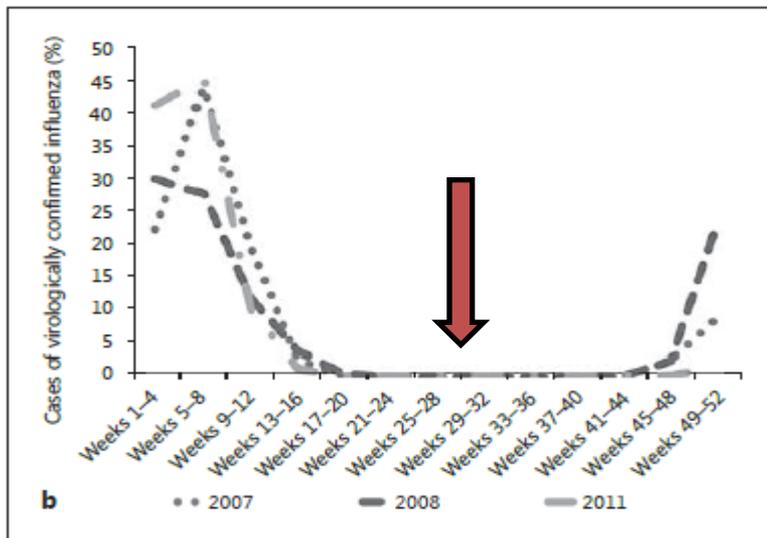
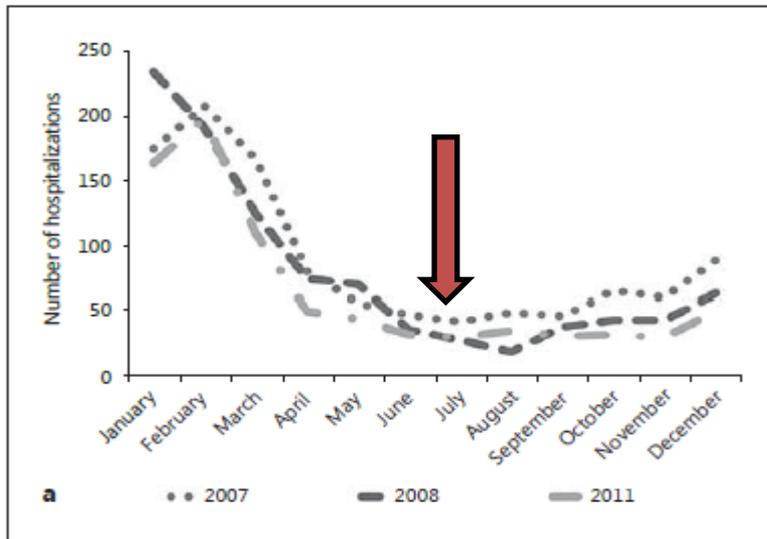


Fig. 2. a Number of patients hospitalized in Sicily (2007, 2008 and 2011) with an ICD-9 CM code for influenza infection. **b** Aggregate percentage of laboratory-confirmed influenza cases in Italy, Croatia, France, Germany, Greece, Poland, Portugal, Romania, Spain and Switzerland.

Medical Principles
and Practice

Original Paper

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Diagnosis of Influenza: Only a Problem of Coding?

Emanuele Amodio Fabio Tramuto Claudio Costantino Vincenzo Restivo
Carmelo Maida Giuseppe Calamusa Francesco Vitale

Department of Sciences for Health Promotion and Mother-Child Care 'G. D'Alessandro', University of Palermo, Palermo, Italy

In Sicily, more than one quarter of all hospital admissions with an ICD-9 CM code for influenza were observed in the months with a negligible circulation of influenza viruses. It is necessary support the need for improving medical education on the epidemiology and hospital management of influenza cases.

in oltre il 25% dei Medici in formazione italiani si registrano maggiori tassi di vaccinazione antinfluenzale tra...

- Chi ha tutor nella scuola di specializzazione più “propensi” alla vaccinazione **OR 4,4 (1,35-14,26)**
- Chi ha colleghi specializzandi più “propensi” alla vaccinazione **OR 2,2 (1,14-4,23)**
- Chi conosce la corretta composizione antigenica del vaccino antinfluenzale **OR 2,43 (1,64-2,58)**
- Chi consulta le fonti ufficiali (Ministero Salute, Letteratura Scientifica) per informarsi sulla vaccinazione antinfluenzale **OR 6,96 (3,38-14,36)**

Possibili strategie per migliorare la vaccinazione antinfluenzale tra gli OS suggerite da 2,506 MFS Italiani intervistati



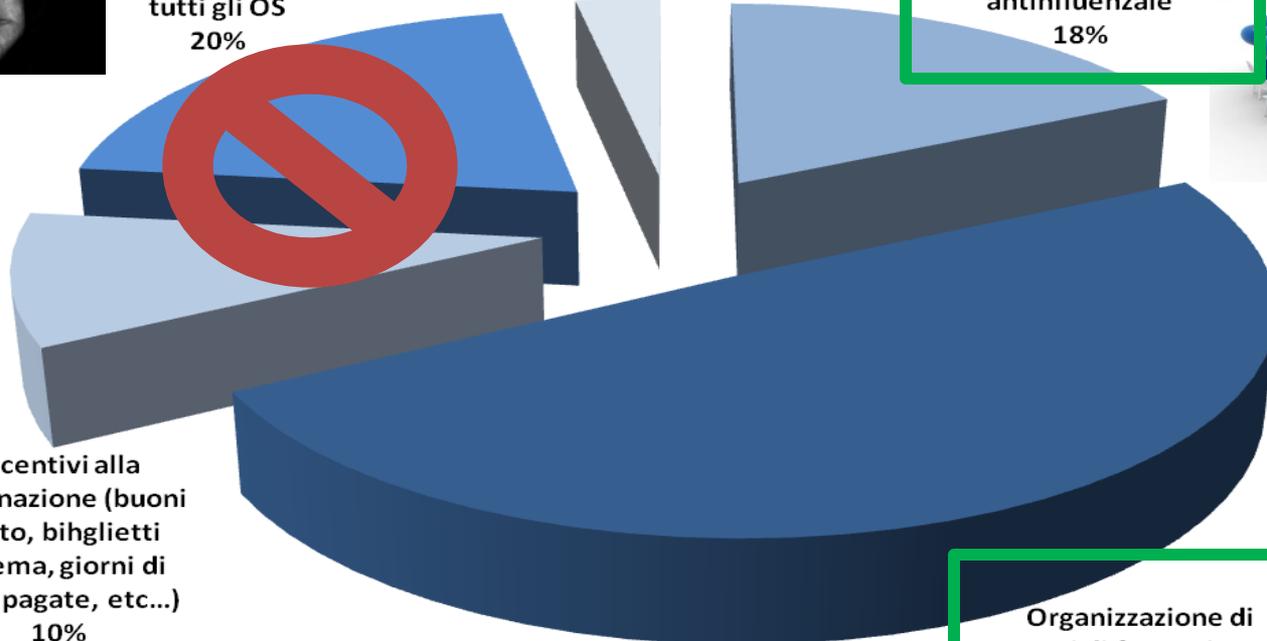
Vaccinazione obbligatoria per tutti gli OS
20%

Altro/nulla
3%

Migliore Formazione Universitaria sulla vaccinazione antinfluenzale
18%



Incentivi alla vaccinazione (buoni pasto, biglietti cinema, giorni di ferie pagate, etc...)
10%



Organizzazione di corsi di formazione multidisciplinare su influenza e relativa vaccinazione
49%



Improvement in attitudes toward influenza vaccination in medical students following an integrated curricular intervention

Nelia Afonso*, Maurice Kavanagh, Stephanie Swanberg



Table 2
Pre- and post-intervention attitudes about influenza and influenza vaccine in first-year medical students ($n=97$).

Attitude	Positive responses pre-intervention		Positive responses post-intervention		Percent change
		Mean score ^a (SD)		Mean score ^a (SD)	
Influenza is contagious	93(95.9%)	4.57 (0.86)	95(97.9%)	4.71 (0.63)	2.0%
Vaccination decreases the risk of Influenza	89(91.8%)	4.26 (0.74)	91(93.8%)	4.47 (0.79)	2.0%
HCWs may spread Influenza to patients	91(93.8%)	4.45 (0.61)	96(98.9%)	4.70 (0.52)	5.1%**
Important to be vaccinated against Influenza	69(71.1%)	3.81 (1.07)	90(92.8%)	4.49 (0.81)	21.7%**
As a HCW I am at risk of getting Influenza	96(98.9%)	4.43 (0.52)	97(100%)	4.71 (0.46)	1.1%**
HCWs should receive Influenza vaccine	80(82.5%)	4.28 (0.85)	92(94.8%)	4.64 (0.58)	12.3%**
Influenza vaccine may cause Influenza	16(16.5%)	2.34 (1.04)	8(8.2%)	1.71 (0.91)	-8.3%*
Would recommend vaccine to family/friends	71(73.2%)	3.92 (0.85)	90(92.8%)	4.4 (0.79)	19.6%**
Comfortable counseling about Influenza vaccine	40(41.2%)	3.09 (1.06)	89(91.7%)	4.29 (0.68)	50.5%**
Comfortable administering Influenza vaccine	21(21.6%)	2.33 (1.21)	81(83.5%)	3.99 (0.78)	61.9%**

^a Likert scale responses where 1 = Strongly Disagree and 5 = Strongly Agree.

* p value < 0.05.

** p value < 0.01.

SD = standard deviation; HCW = healthcare worker.

Adeguata Comunicazione

Migliorare la comunicazione su argomenti di salute con impegno personale e sociale



a) Su un *piano professionale* con addetti ai lavori:

a) MMG

b) PLS

c) Operatori Professioni Sanitarie

Utilizzando parole semplici ed esempi concreti di pratica professionale

b) Su un *piano sociale* interessando la popolazione generale (famiglie, scuola, anziani)

Tramite Società Scientifiche e Organizzazioni di volontariato sociale

Usare un linguaggio semplice con la medicina del territorio

FAQ : Il vaccino non “funziona” perché mi capita spesso di visitare pazienti affetti dalla malattia verso cui si erano vaccinati...anzi osservo più casi di malattia tra i vaccinati che tra i non vaccinati...

R. : Nessun vaccino garantisce la protezione del 100% dei vaccinati! Questo significa che anche per vaccini ad altissima efficacia (>90%) c'è sempre una quota di soggetti che, pur vaccinati, potranno ammalarsi.



Esempio

N = 1000

(popolazione totalmente suscettibile, esclusione di “herd immunity” e valore R_0)



950 vaccinati

50 non vaccinati

...se efficacia vaccinale = 90%

855 non suscettibili

95 suscettibili

50 suscettibili

...se incidenza malattia = 5%

≈42 malati se non avessimo vaccinato!

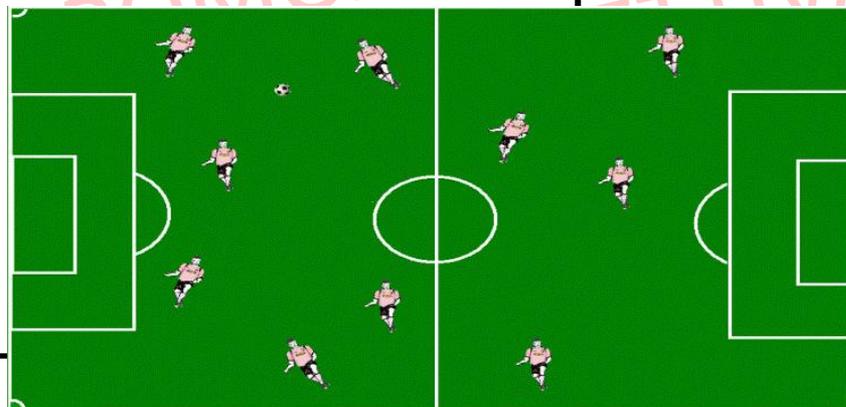
≈5 malati

Purtroppo spesso il medico “vede” solo i malati e non i sani.

≈3 malati

Comunicare Salute: Superare le barriere demografiche economiche e sociali

Sostenere la pratica vaccinale come intervento di Sanità Pubblica nel rispetto del diritto di tutti cittadini al miglior livello di Salute possibile.



Attacco

Centrocampo

Difesa

Livello: Op Sanità Pubblica

Azione:

- coperture ottimali su tutto il territorio nazionale
- Migliorare la notifica dei casi
- Sistemi di sorveglianza attiva e di comunicazione

Livello: Policy Makers

Azione:

- Supporto risorse
- Anagrafe vaccinale informatizzata

Livello: Mass Media

Azione: Comunicazione 4 C

Continua

Corretta

Costruttiva

Capillare



Progetti 2013

Elaborazione di strategie e di interventi di comunicazione sanitaria multi-obiettivo sulle malattie infettive prevenibili e sulle vaccinazioni come mezzo per aumentare le coperture vaccinali nella popolazione

OBIETTIVI SPECIFICI:

1. Conoscenza delle principali criticità informative sulle vaccinazioni e promozione di interventi di informazione rivolti alla popolazione generale e ai gruppi a rischio (*tra cui gli operatori sanitari*)

2. Promozione di interventi di informazione sulle MIPV e sulle vaccinazioni attraverso il coinvolgimento di docenti delle scuole primarie e secondarie per la promozione della cultura vaccinale nei giovani e nei loro genitori

3. Promozione di interventi di informazione e formazione sulle MIPV e sulle vaccinazioni rivolti specificatamente agli operatori sanitari





INTERVENTI NELLE SCUOLE PRIMARIE



CORSI FAD



INTERVENTI NELLE SCUOLE SECONDARIE



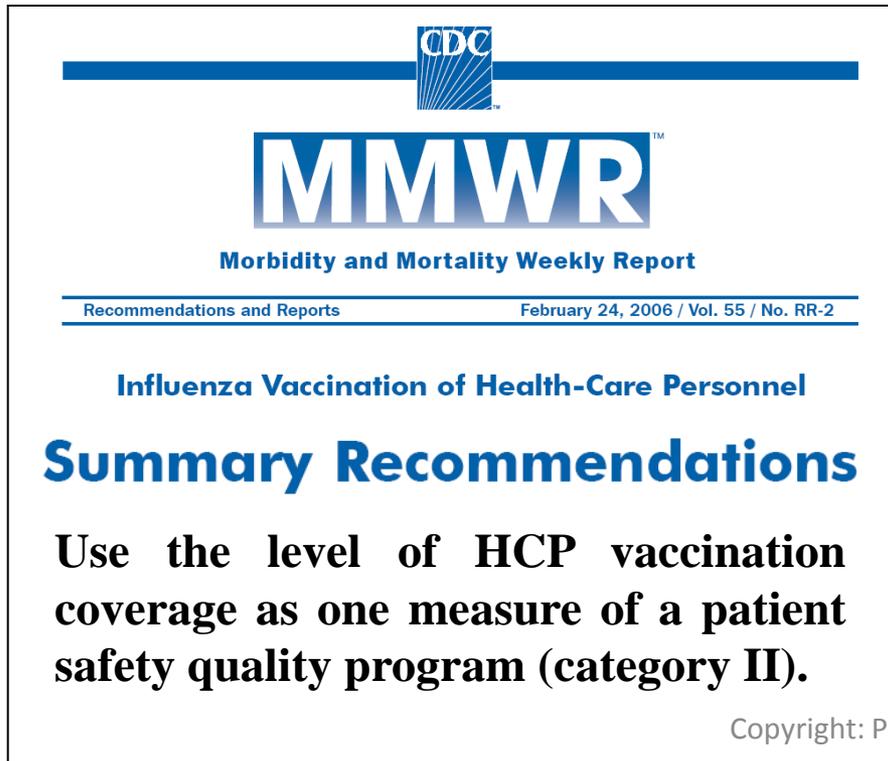
INTERVENTI NELLA POPOLAZIONE GENERALE



CALL CENTER PER POP GENERALE

In conclusione...5 punti su cui lavorare per il miglioramento della comunicazione globale

- 1) **Educare**
- 2) **Offrire**
- 3) **Somministrare**
- 4) **Monitorare**
- 5) **Produrre qualità**



The image shows the cover of a CDC Morbidity and Mortality Weekly Report (MMWR). At the top is the CDC logo. Below it, the text reads 'MMWR™ Morbidity and Mortality Weekly Report'. Underneath, it says 'Recommendations and Reports February 24, 2006 / Vol. 55 / No. RR-2'. The main title is 'Influenza Vaccination of Health-Care Personnel Summary Recommendations'. The subtitle is 'Use the level of HCP vaccination coverage as one measure of a patient safety quality program (category II)'. At the bottom right, it says 'Copyright: Prof. Francesco Vitale'.

CDC

MMWR™

Morbidity and Mortality Weekly Report

Recommendations and Reports February 24, 2006 / Vol. 55 / No. RR-2

Influenza Vaccination of Health-Care Personnel

Summary Recommendations

Use the level of HCP vaccination coverage as one measure of a patient safety quality program (category II).

Copyright: Prof. Francesco Vitale



Il sesto però è il più importante... Il buon esempio parte da noi medici!!!



2/10/2014
IP Dott. Francesco Vitale
che necessita
1 dose di Preservar 13
lotto H 73116
sc. 7/15
F. Vitale

Johann Wolfgang Goethe

Poeta, narratore, drammaturgo tedesco 1749 -1832

"Comunicare l'un l'altro, scambiarsi informazioni è natura; tenere conto delle informazioni che ci vengono date è cultura"



Grazie

*per la cortese
attenzione!*