Session 5 - Adult Vaccination in Italy in specific population groups

7 December 2023

Adult Immunization Board

UNIVERSITÀ DEGLI STUDI FIRENZE
DSS DIPARTIMENTO DI SCIENZE DELLA SALUTE

University of Antwerp

Vaccinations in HCW/HCPs

Claudio Costantino

University of Palermo – University Hospital of Palermo

Declaration of competing interests

Claudio Costantino MD, PhD, MPH, Associate Professor of Hygiene, Preventive Medicine and Public Health at the University of Palermo, Referent of the Vaccination Unit of the University Hospital of Palermo.
Sicilian Region Task force for COVID-19 vaccinations and for the Regional Immunization Schedule
Italian Task Force for the drawing-up of the National Immunization Plan 2023-2025 for the Ministry of Health
Collaborating Expert of the European Medicines Agency for communication and outreach of COVID-19 vaccinations.

- I have obtained research contribution for clinical trials (as P.I.) and epidemiological studies on vaccine preventable diseases and vaccines.
- I have been speaker in International and National Conferences and component of advisory boardson invitation from GSK, Sanofi Pasteur, Seqirus, MSD, Pfizer, AstraZeneca and Janssen

In Accordance with the Ethical Code of the Italian Society of Hygiene, Preventive Medicine and Public Health

HCWs Vaccine recommendations in Italy: all started in 2012 with NIP 2012-2014

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

1. HBV
2. Seasonal Flu
3. MMR
4. Varicella
5. dTaP
6. BCG (only specific at-risk HCPs)

HCWs Vaccine recommendations in Italy: In the New NIP 2023-2025

No relevant modifications, introduction of recommendations of seasonal COVID-19 vaccinations (updated vaccines against circulating variants) in the 2022/2023 and 2023/2024 seasons via «circular» in the same way for recommendation for seasonal flu vaccination

Ministero della Salute

DIREZIONE GENERALE DELLA PREVENZIONE SANITARIA

22/23

La formulazione bivalente Original/Omicron BA.1 dei due vaccini a m-RNA, Comirnaty e Spikevax, è raccomandata prioritariamente:

- a coloro che sono ancora in attesa di ricevere la **seconda dose di richiamo**, in base alle raccomandazioni e le tempistiche già previste per la stessa (cfr. circolare n° 32664 del 11/07/2022), includendo anche operatori sanitari, operatori e ospiti delle strutture residenziali per anziani e donne in gravidanza;

si forniscono le seguenti indicazioni e raccomandazioni:

23/24

- la campagna nazionale di vaccinazione autunnale e invernale anti COVID-19, al momento, si avvarrà delle nuove formulazioni monovalenti del vaccino Comirnaty (Omicron XBB 1.5);
- una dose di richiamo del vaccino, con la descritta formulazione aggiornata, viene offerta attivamente alle categorie individuate nell'allegato 2. A richiesta e previa disponibilità di dosi, la vaccinazione può essere resa disponibile anche a coloro che non rientrano nelle categorie di cui al citato allegato. Il richiamo, di norma, ha una valenza di 12 mesi;
- la dose di richiamo con Comirnaty Omicron XBB 1.5, al fine di massimizzare la protezione per la stagione autunno/inverno 2023-2024, è raccomandata a distanza di 6 mesi dall'ultima dose di vaccino anti-COVID-19 ricevuta o dall'ultima infezione (data del test diagnostico positivo), a prescindere dal numero di eventi pregressi (dosi ricevute o diagnosi di infezione).

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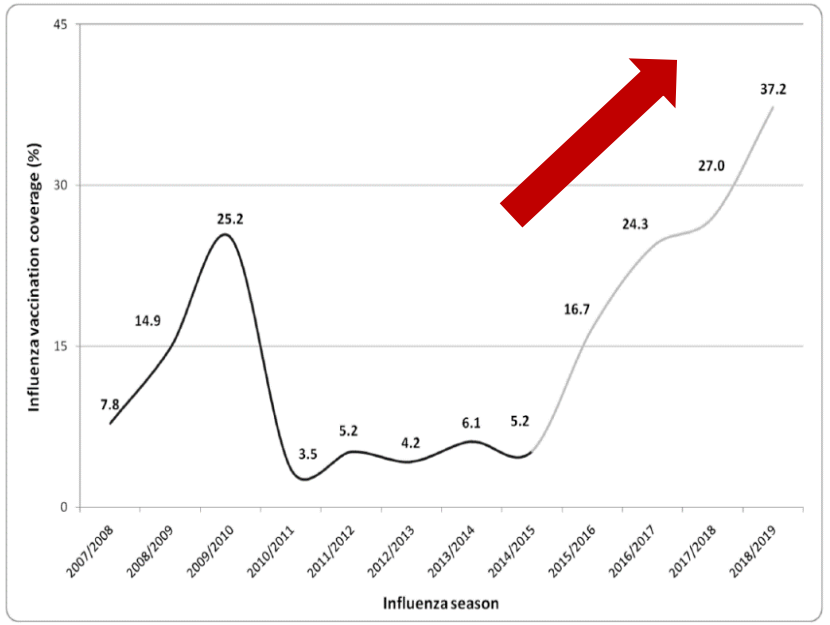
Vaccine strategies and services for administration of recommended vaccines among HCWs in Italy

A. Vaccination at work and in the Hospital Units (should be in any Hospital or Territorial Health Authority)

Pros: increase coverage rates – Cons: Not homogeneous offer



vaccines

MDPI

Article

Impact of Communicative and Informative Strategies on Influenza Vaccination Adherence and Absenteeism from Work of Health Care Professionals Working at the University Hospital of Palermo, Italy: A Quasi-Experimental Field Trial on Twelve Influenza Seasons

Claudio Costantino*, Alessandra Casuccio, Francesca Caracci, Stefania Bono, Giuseppe Calamusa, Gianmarco Ventura, Carmelo Massimo Maida, Francesco Vitale and Vincenzo Restivo

Increasing VCRs among HCWs is significantly associated with a reduction of absenteism from work (average number of working days lost, and average number of HCWs absents from work during cold season).

Table 3.Data on absenteeism from work due to acute sickness during pre and post intervention influenza seasons among HCWs of the UH of Palermo.

Observation Period:From 1st November to 31st of March	Pre-Intervention Influenza Seasons (2009/2010–2014/2015)	Post-Intervention Influenza Seasons (2015/2016–2018/2019)	% Reduction
Average seasonal number of HCWs absent from work due to acute sickness (95% CI)	1858 (1797–1919)	1693 (1573–1813)	8.8
Average seasonal number of working days lost due to acute sickness (95% CI)	11,571 (11,023–12,119)	10,077 (8626–11,528)	12.9
Average seasonal number of working days lost for single HCW due to acute sickness (95% CI)	4.5 (4.3–4.7)	4.0 (3.4–4.6)	11.1

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Vaccine strategies and services for administration of recommended vaccines among HCWs in Italy

B. Proximity vaccination: success of the COVID-19 Vaccination campaign in Italy among HCWs

Among HCWs of the UH of Palermo:

95.7% VCR first dose

93.9% full vaccination Cycle

86.7% booster dose

49.6% BA4/5 dose

…

And for XBB1.5 seasonal dose?

Vaccine strategies and services for administration of recommended vaccines among HCWs in Italy

C. Vaccination at territorial vaccination unit and/or GPs

Pros: adherence predominantly for vaccines with perceived individual risk –
Cons: generally low vaccination coverage rates against seasonal VPDs

HBV, MMRV, dTaP and COVID-19 (first 3 doses) vaccines
Generally administererd at infancy
High risk perception of personal consequences of the diseases
Fear and mandate (for COVID-19 first 3 doses)

1. Bechini A et al. Vaccine. 2012
2. Maltezou HC et al. Vaccine 2014

Vaccine strategies and services for administration of recommended vaccines among HCWs in Italy

C. Vaccination at territorial vaccination unit and/or GPs

Pros: adherence predominantly for vaccines with perceived individual risk –
Cons: generally low vaccination coverage rates against VPDs

European Journal of Public Health, 1–5

doi:10.1093/eurpub/ckaa179

Coverage rates against vaccine-preventable diseases among healthcare workers in Sicily (Italy)

Caterina Ledda[1], Venerando Rapisarda[1], Helena C. Maltezou[2], Eleonora Contrino[3], Arianna Conforto[3], Carmelo Massimo Maida[3], Fabio Tramuto[3], Francesco Vitale[3], Claudio Costantino[3]

		Age groups			Gender		
		<39, *n* (%)	>39, *n* (%)	*P*-value	Female, *n* (%)	Male, *n* (%)	*P*-value
Measles	Immune	238 (59.9)	1217 (55.6)	0.1	820 (59.4)	635 (52.7)	<0.001
Mumps	Immune	205 (51.6)	1118 (51.1)	0.8	738 (53.4)	585 (48.5)	<0.001
Rubella	Immune	214 (53.9)	1228 (56.1)	0.4	831 (60.2)	611 (50.7)	<0.001
Varicella	Immune	262 (65.9)	1250 (57.1)	<0.001	874 (63.3)	638 (52.9)	<0.001
Hepatitis B	Immune	350 (88.2)	1617 (73.9)	<0.001	1098 (79.5)	869 (72.1)	<0.001
Diphtheria tetanus pertussis	Immune	116 (29.2)	438 (20.0)	<0.001	292 (18.9)	262 (21.7)	0.7
Influenza 2017/2018	Immune	56 (14.1)	369 (16.8)	0.1	181 (13.1)	244 (20.2)	<0.001
Influenza 2016/2017	Immune	28 (7)	205 (9.4)	0.1	96 (6.9)	137 (11.4)	<0.001
Influenza 2015/2016	Immune	12 (8.5)	121 (8.5)	0.9	51(6.2)	82(10.9)	<0.001

MMR Immunization: 57.2%-52.3%
(natural or two doses)
Varicella Immunization: 63.2%
(natural or two doses)
Hepatitis B: 82.3%
dTPa: 25.6%
(last doses received for at least 10 years)
Flu – 15/16 to 17/18 season: 15.2%-8.3%

Vaccine strategies and services for administration of recommended vaccines among HCWs in Italy

vaccines

MDPI

Article

Attitudes and Perception of Healthcare Workers Concerning Influenza Vaccination during the 2019/2020 Season: A Survey of Sicilian University Hospitals

Claudio Costantino [1], Caterina Ledda [2], Raffaele Squeri [3], Vincenzo Restivo [1], Alessandra Casuccio [1], Venerando Rapisarda [2], Giorgio Graziano [1], Davide Alba [1], Livia Cimino [1], Arianna Conforto [1], Gaetano Bruno Costa [3], Smeralda D'Amato [3], Francesco Mazzitelli [3], Francesco Vitale [1] and Cristina Genovese [3,*]

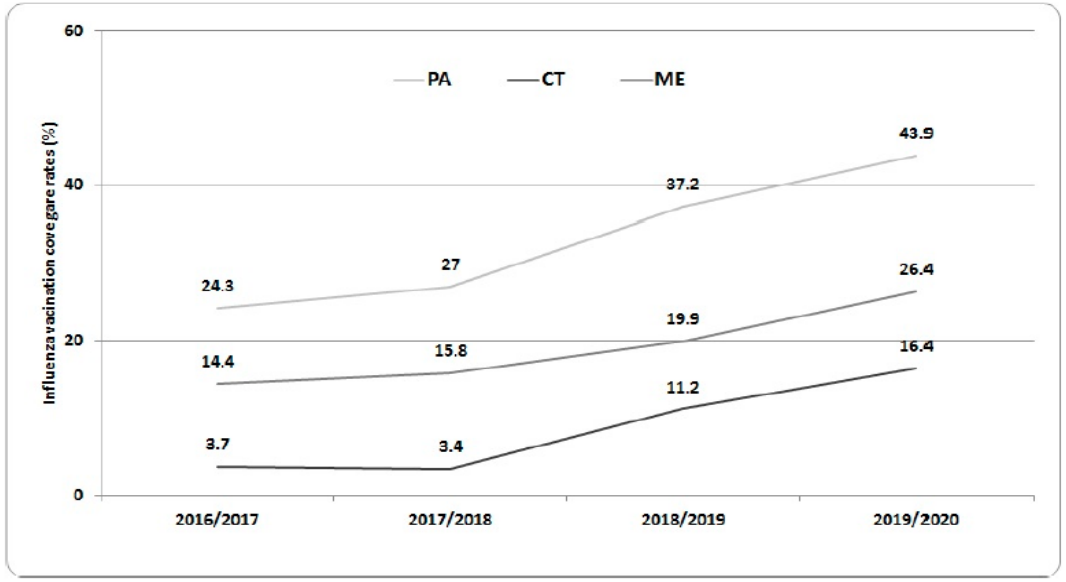

Figure 2. Influenza vaccination coverage rates against seasonal influenza observed during the last four influenza seasons (from 2016/2017 to 2019/2020) at the UHs of Catania, Messina, and Palermo (students and trainees were removed from analysis).

PA UH: vaccination center + vaccination «on site» in hospital unit

ME UH: vaccination center

CT UH: no vaccination center, Vaccination for HCWs in charge to occupational medicine

Vaccine strategies and services for administration of recommended vaccines among HCWs in Italy

- Actually in Italy, there is a lack of general coordination with local health departments, hospital structures and community organizations to improve vaccination efforts for this group.
- Any initiative in order to improv ıce of vaccination among HCWs is locally organized.
- A lack of central and regional su observed in Italy
- Probably should be promoted at ional Level an homogeneous campaign of vaccination for HCWs in orde inistration of vaccines recommended in the NIP.

Vaccine strategies and services

- What is the current vaccination rate among the target group? NO OFFICIAL DATA
- Are vaccination rates increasing or decreasing? LIKE A ROLLER COASTER

Vaccine strategies and services

- **What is the current vaccination rate among the target group? Are vaccination rates increasing or decreasing? ONLY DATA FROM LOCAL/NATIONAL INITIATIVES**

HUMAN VACCINES & IMMUNOTHERAPEUTICS
2023, VOL. 19, NO. 2, 2252250
https://doi.org/10.1080/21645515.2023.2252250

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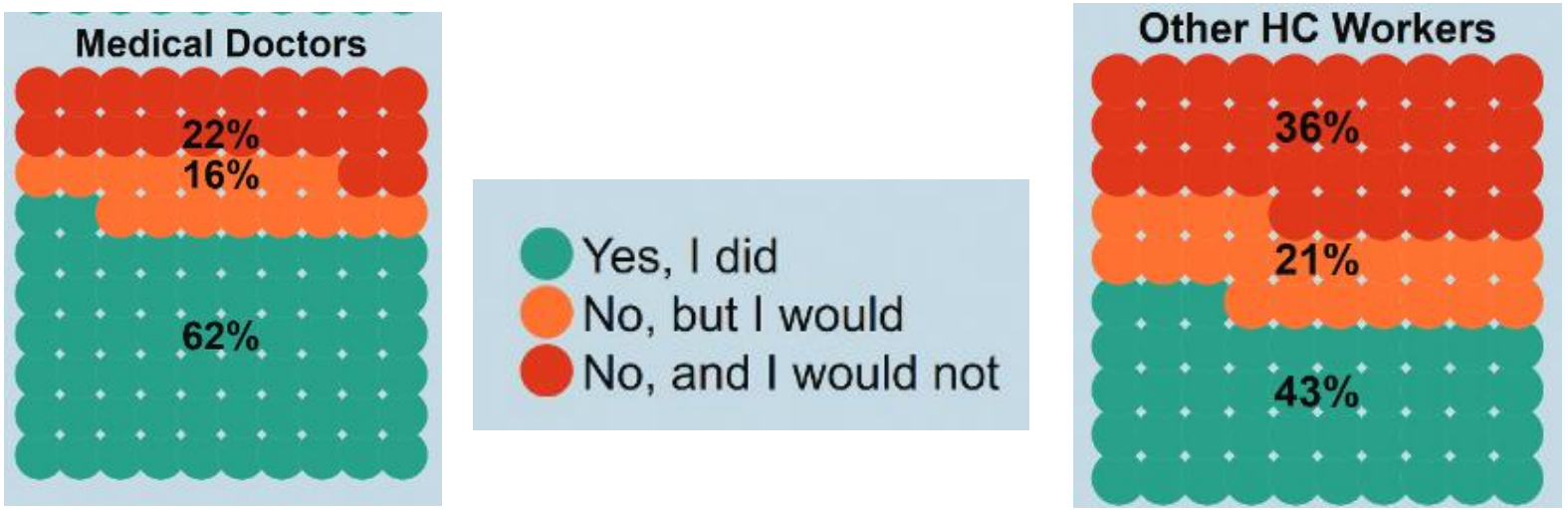
RESEARCH ARTICLE

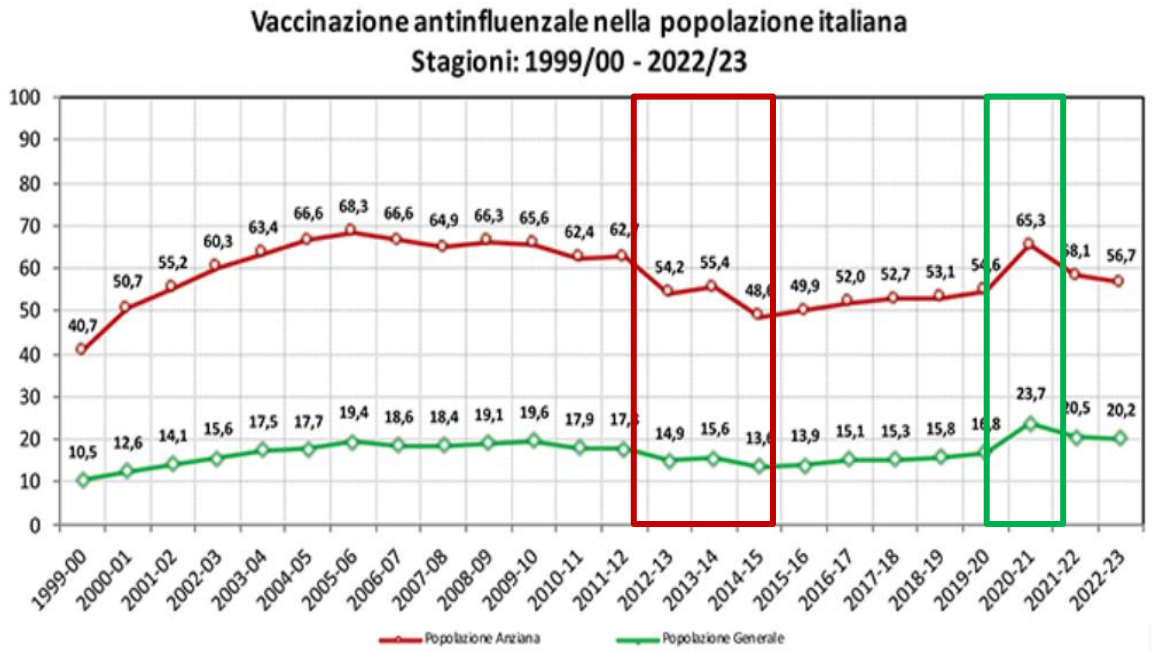
OPEN ACCESS Check for updates

Influenza vaccination landscape in Italy: A comprehensive study through the OBVIOUS project lens

Angelo Capodici[a], Marco Montalti[a], Giorgia Soldà[a], Aurelia Salussolia[a], Giusy La Fauci[a], Zeno Di Valerio[a], Francesca Scognamiglio[a], Maria Pia Fantini[a], Anna Odone[b], Claudio Costantino[c], Heidi J. Larson[d], Julie Leask[e,f], Jacopo Lenzi[a], Davide Gori[a], and the OBVIOUS Board*



Are vaccination rates increasing or decreasing?



We can assume for flu/COVID that VCRs among HCWs decrease when a decrease among general populaton was observed (e.g. in Italy in the Post H1N1 Pandemic years and during the «Fluad case» season) and actually during the «COVID-19 Vaccine fatigue» emergency

Letters » Flu vaccination deaths

Deaths after Fluad flu vaccine and the epidemic of panic in Italy

BMJ 2015 ; 350 doi: https://doi.org/10.1136/bmj.h116 (Published 14 January 2015)
Cite this as: *BMJ* 2015;350:h116

Article | Related content | Metrics | Responses

Carlo Signorelli, president1, Anna Odone, member1, Michele Conversano, member1, Paolo Bonanni, member1

REVIEW article

Front. Immunol., 10 March 2022
Sec. Vaccines and Molecular Therapeutics
Volume 13 - 2022 |
https://doi.org/10.3389/fimmu.2022.839433

This article is part of the Research Topic
Understanding Preclinical and Clinical Immunogenicity Risks in Novel Biotherapeutics
View all 6 Articles

Mind the "Vaccine Fatigue"

Zhaohui Su[1*†] Ali Cheshmehzangi[2,3†] Dean McDonnell[4†]
Claudimar Pereira da Veiga[5†] Yu-Tao Xiang[6,7,8,9*†]

University of Antwerp

What are the key challenges in vaccinating this population in Italy?

1. **Increase awareness and knowledge of Italian HCWs on the importance of recommended vaccines in order to protect themselves or their patients/family members, etc…**
2. **Uniform vaccination offer for HCWs across the Regional and National territory**
3. **Make vaccinations for HCWs "easy to access" and analyze vaccination coverage rates (integrated with National Vaccination Registry) in any Hospital and Local Health Authorities (Public and Private)**

Piano Nazionale Prevenzione Vaccinale

PNPV 2023-2025

20 marzo 2023

Promote vaccination culture and training among healthcare professionals.

Are there notable successes or best practices in this population that have improved vaccination rates or delivery? What are the future goals and initiatives to improve vaccination in this target group.

1. Vaccination offer at workplace
2. Fear…fear of COVID-19 increase significantly adherence to flu vaccination during 2020/21 season (waiting for COVID-19 vaccination) and fear of COVID-19 resulted in very high vaccination coverage among HCWs for the primary vaccination cycle.
3. Mandate…High vaccination coverage among HCWs especially for first booster dose during 2021/22 season

vaccines

MDPI

Article

Did Italy Really Need Compulsory Vaccination against COVID-19 for Healthcare Workers? Results of a Survey in a Centre for Maternal and Child Health

Michela Peruch [1], Paola Toscani [2], Nicoletta Grassi [2], Giulia Zamagni [2], Lorenzo Monasta [2], Davide Radaelli [1], Tommaso Livieri [1], Alessandro Manfredi [2] and Stefano D'Errico [1,*]

ITALIA | MARTEDÌ 24 AGOSTO 2021 QUESTO ARTICOLO HA PIÙ DI DUE ANNI

Finora tutti i ricorsi degli operatori sanitari non vaccinati sono stati respinti

Sempre con le stesse motivazioni: l'interesse pubblico previsto dalla legge prevale sulla libertà di scelta vaccinale

Are there notable successes or best practices in this population that have improved vaccination rates or delivery? What are the future goals and initiatives to improve vaccination in this target group.

1. Use incentives to encourage participation to seasonal vaccination campaign (e.g. paid vacation days for employees vaccinated, drawings for cafeteria/pizzeria/SPA coupons,…)
2. On site vaccination in Hospital Unit with “multiple waves of vaccination” from October to February
3. Encourage departmental competition to boost immunization rates with economic incentives for HCWs of the best Hospital Unit/department in term of VCRs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