

**Additional Table 1: Influenza vaccination coverage rate among HCWs during the different flu seasons (n=304)**

Flu seasons	Availability of vaccine at work place *	Influenza vaccination uptake*	Place of taking vaccine ***	
			Work place	Pharmacy /Private center
	n (%)	n (%)	n (%)	n (%)
<b>2019-2020</b>	79 (27.9%)**	48 (16.9%)**	32 (66.7%)	16 (33.3%)
<b>2020-2021</b>	234 (82.7%)**	82 (28.9%)**	76 (92.7)	6 (7.3%)
<b>2021-2022</b>	257 (90.8%)**	91 (32.2%)**	87 (95.6%)	4 (4.4%)
<b>2022-2023</b>	288 (94.7%)	124 (40.8%)	123 (99.2%)	1 (0.8%)

\* As reported by study participants; \*\*Twenty-one participants were excluded from total (experience was less than one year)\*\*\* percentages were calculated from total number of HCWs took influenza vaccine at that flu season

**Additional Table 2: Score of attitudes toward influenza vaccine in relation to socio-demographic characteristics**

<b>Variables</b>	<b>Levels</b>	<b>Mean</b>	<b>±SD</b>	<b>P-value</b>
<b>Age</b>	20-29	39.38	4.99	0.057
	30-39	38.09	5.70	
	40-49	37.15	5.52	
	≥50	37.90	5.85	
<b>Sex</b>	Male	38.35	5.09	0.359
	Female	38.91	5.58	
<b>Residence</b>	Urban	38.69	5.56	0.877
	Rural	38.59	5.13	
<b>Marital</b>	Married	38.13	5.15	<b>0.005*</b>
	single	40.09	5.35	
<b>Smoking</b>	Yes	37.86	4.75	0.405
	No	38.73	5.42	
<b>Having chronic diseases</b>	Yes	39.09	6.17	0.695
	No	38.71	5.34	
<b>Education</b>	Illiterate	36.71	5.1	< <b>0.001*</b>
	Read & write	34.17	4.54	
	Primary Or preparatory	30.8	4.87	
	Secondary	35.75	5.12	
	University	39.61	4.86	
	Postgraduate	40.98	5.56	
<b>Occupation</b>	Physicians	40.10	5.39	< <b>0.001*</b>
	Nurse	39.25	5.48	
	Administrators	38.32	5.29	
	Security employee	36.0	2.96	
	Workers	35.61	5.29	
<b>Experience duration</b>	Less than one year	39.71	5.43	<b>0.014*</b>
	One to five years	37.90	5.17	
	More than five years	39.72	5.48	
<b>Income monthly (equivalent to dollar)</b>	1000-2000	36.31	4.15	< <b>0.001*</b>
	2000-5000	39.27	5.57	
	>5000	40.64	3.75	

\*Significant at p<0.05

**Additional Table 3: Effect of COVID-19 disease and vaccination on attitude toward influenza vaccination**

<b>Variables</b>	<b>Levels</b>	<b>Mean</b>	<b>±SD</b>	<b>P-value</b>
<b>Having COVID-19 disease</b>	Yes	39.63	5.62	<b>&lt;0.001*</b>
	No	37.46	4.78	
<b>Receiving COVID-19 vaccines</b>	Yes	38.58	5.28	0.823
	No	38.72	5.44	

\*Significant at  $p < 0.05$

**Additional Table 4: Reported perceived facilitators and barriers for the flu vaccination during the last flu season 2022-2023**

	Yes	No	May be
<b>A- Reported perceived facilitators among those who uptake the flu vaccines (n=124)</b>			
<b>Social</b>			
The flu vaccine would protect me and my family	116 (93.5%)	3 (2.4%)	5 (4%)
The flu vaccine would protect my colleagues & patients	110 (88.7%)	7 (5.6%)	7 (5.6%)
<b>Management and economic</b>			
The flu vaccine is available at my work-place	107 (86.3)	8 (6.5%)	9 (7.3%)
The flu vaccine is available at a low price or for free	102 (82.3%)	11 (8.9%)	11 (8.9%)
<b>Personal</b>			
The flu vaccine helps me to avoid co-infection with COVID-19	73 (58.9%)	22 (17.7%)	29 (23.4%)
I am an elderly	10 (8.1%)	113 (91.1)	1 (0.8%)
I have co-morbidity (HTN-DM-COPD)	18 (5.9)	100 (80.6%)	6 (4.8%)
<b>B- Reported perceived barriers among those who did not receive the flu vaccines (n=180)</b>			
<b>Management and economic</b>			
The vaccine is not available	52 (28.9%)	109 (60.6%)	19 (10.5%)
The vaccine is not mandatory	99 (55%)	60 (33.3%)	21 (11.7)
I think that the influenza vaccine is costly	51 (28.3%)	98 (54.5%)	31 (17.2%)
Unsuitable place for the vaccination	52 (28.9%)	86 (47.8%)	42 (23.3%)
Incomplete information regarding the flu vaccine	58 (32.2%)	112 (62.2%)	10 (5.5%)
<b>Personal (including: perceived susceptibility and severity of infection, perceived benefit-risk)</b>			
I think that the influenza vaccine isn't effective	51 (28.2%)	73 (40.6%)	56 (31.1%)
I have concerns about the side effects of the vaccine	93 (51.7%)	44 (24.5)	43 (29.9)
Limited available time because to being busy	84 (46.7%)	50 (27.8%)	46 (25.6%)
I was not ill during the time of the vaccination	86 (47.8%)	50 (27.8%)	44 (24.4)
Seasonal influenza is a minor health problem, so no need for vaccination	72 (40.0%)	71 (39.5%)	37 (20.6%)
Having health conditions that may be contraindicated to vaccination	51 (28.3%)	95 (52.8%)	34 (18.9%)
Although I received the flu vaccine before, I had the flu	71 (39.4%)	82 (45.6%)	27 (15.0%)
Contracting the influenza will provide immunity so no need for vaccination	73 (40.6%)	65 (36.1%)	42 (23.3%)