

Results ESNO Survey to Nurses in Europe on Vaccination Uptake

Final version

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Colophon

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Take Home Messages

Take home messages (1/6)

- The *ESNO Survey to Nurses in Europe* on Vaccination Uptake*, that was administered by 106 respondents from May-June 2022 (completion rate 80%), shows that 71.7% got vaccinated for influenza in 2020 and 63.5% in 2021. Almost all respondents (97.9%) were vaccinated for COVID-19 in 2021.
- The majority of respondents is (very) likely to get vaccinated for influenza (69.1%) and COVID-19 (81.2%) in 2022.

* 3 of 106 respondents were from non-European countries

Take home messages (2/6)

- For the majority of respondents the preferred policy is to leave influenza vaccination voluntary for other healthcare workers (63.2%), physicians (61.6%) and for nurses (58.5%). A smaller majority agrees to leave influenza vaccination voluntary for chronically ill patients (55.3%), the elderly (54.8%) and immunosuppressed patients (50.5%).
- In contrast, for the majority of respondents the preferred policy on COVID-19 vaccination is to mandate it for nurses (67.1%) , physicians (65.5%), and other healthcare workers (65.1%). For a smaller majority the preferred policy is to mandate it for the elderly (60.7%), chronically ill patients (60.0%), and immunosuppressed patients (59.5%).

Take home messages (3/6)

- Of respondents on the *ESNO Survey to Nurses in Europe on Vaccination Uptake* improved public patient perception (20.7%), training (18.7%) and institutional support (17.7%) is needed most to increase their involvement in vaccination programs. To perform better in responding to future pandemics, the most needed types of institutional support are continuous free nursing education (22.0%), improved employment and working conditions (21.7%) and personal protective equipment (18.5%).
- Furthermore, the majority of respondents assesses their knowledge about vaccines, mRNA COVID vaccines, the immune system and pathogens on a medium level (68.2%; 62.4%; 61.2% and 60.0% respectively).

Take home messages (4/6)

- Among respondents, the likelihood to get vaccinated for influenza is statistically significant associated with the likelihood to get vaccinated for COVID-19 ($p = 0.043$).
- the uptake of influenza vaccine in 2020 and 2021 with likelihood to get vaccinated for influenza in 2022 is statistically significant associated ($p < 0.001$ in both cases).
- The likelihood to get vaccinated for influenza is statistically significant associated with the preferred policy of influenza vaccination for other healthcare workers ($p = 0.019$). If nurses are (very) unlikely to get the influenza vaccination, their preferred influenza vaccination policy for other healthcare workers is to leave it voluntary.

Take home messages (5/6)

- Age is statistically significant associated with preferred vaccination policy for all healthcare professionals ($p = 0.042$, $p = 0.036$, $p = 0.051$). Hereby, a higher age is associated with a preference for mandatory influenza vaccination policy for all healthcare professionals
- Years of experience is statistically significant associated with preferred vaccination policy for all healthcare professionals ($p = 0.026$, $p = 0.043$, $p = 0.031$). More years of professional experience are associated with a preference for mandatory influenza vaccination policy.
- The country of work of nurses is statistically significant associated with the preferred policy of influenza and COVID-19 vaccination for nurses ($p = 0.047$, $p = 0.039$ respectively) and other healthcare workers ($p = 0.044$, $p = 0.037$ respectively).

Take home messages (6/6)

- A higher level of self-assessed knowledge about mRNA COVID vaccines is statistically significant associated with the likelihood to get vaccinated for COVID-19 ($p < 0.001$).

1. Background

Background

- From 2000 onwards our attention has focused on viral and other infectious diseases, and especially on vaccination. On top of this, there is also concern about nurses' personal uptake of the influenza vaccination 'with opinions being expressed without having heard the nurse's voice' .
- [ESNO](#) is a strong advocate and promoter of nursing knowledge and competencies related to infectious disease transmission and vaccination and is interested if this contributes to nurse's decision on vaccination uptake.
- Following from the *ESNO Survey to Nurses in Europe on Vaccination Uptake* in 2020 [1], this publications reports results from administering the survey (with additional items) in 2022.

2. Objectives

Objectives

- To learn about nurses' personal motivation related to influenza vaccination and the Corona-virus vaccination, and how this relates to the professional activity and (training) needs of nurses in Europe.
- To compare results from the *ESNO Survey to Nurses in Europe on Vaccination Uptake* in 2020 and 2022 and with other relevant studies.

3. Methods

Methods

- Self-constructed, electronic survey administrated via ESNO's website, Twitter, Facebook, LinkedIn and e-mail invitations from April to June 2022.
- 33 questions, mostly with predefined answering categories.
- Survey available in 8 languages:
English, German, Italian, Dutch, Greek, French, Spanish, Polish
- Themes covered in the survey are :
 - demographic characteristics;
 - professional characteristics;
 - uptake influenza vaccination in 2020/2021;
 - uptake corona vaccination;
 - likelihood of uptake influenza vaccination and corona vaccination in 2022;
 - opinion on mandating influenza and corona vaccination for healthcare professionals and specific groups;

Methods

- Themes covered in the survey are (continued):
 - likelihood to advise patients against influenza vaccination;
 - responses, requirements and needs for the COVID and other future pandemic(s);
 - self-assessment of knowledge about pathogens, vaccines, immune system;
 - source(s) for obtaining information related to pathogens, vaccines and immune system.
- Descriptive statistics and non-parametric tests were performed with Rstudio (version 2021.09.1).
- Results were compared with the results from the ESNO survey administered in 2020.

4. Results

Demographic characteristics, Professional characteristics,
Uptake influenza vaccination in 2020 and 2021,
Motivation for (not) getting influenza vaccination in 2020 and 2021,
Opinion on mandating influenza vaccination for healthcare professionals and specific groups,
Likelihood to advise patients or carers against influenza vaccination,
Contraction COVID-19 and Uptake COVID-19 vaccination in 2021,
Motivation for (not) getting COVID-19 vaccination,
Likelihood of getting influenza vaccination and COVID-19 vaccination in 2022,
Professional role(s) during COVID-19 pandemic,
Opinion on mandating COVID-19 vaccination for healthcare workers and specific groups,
Self-assessment of knowledge about pathogens, vaccines and immune system,
Main sources for obtaining information about pathogens, vaccines and immune system,
Needed institutional support in case of future pandemics,
Requirements to increase involvement in vaccination programs

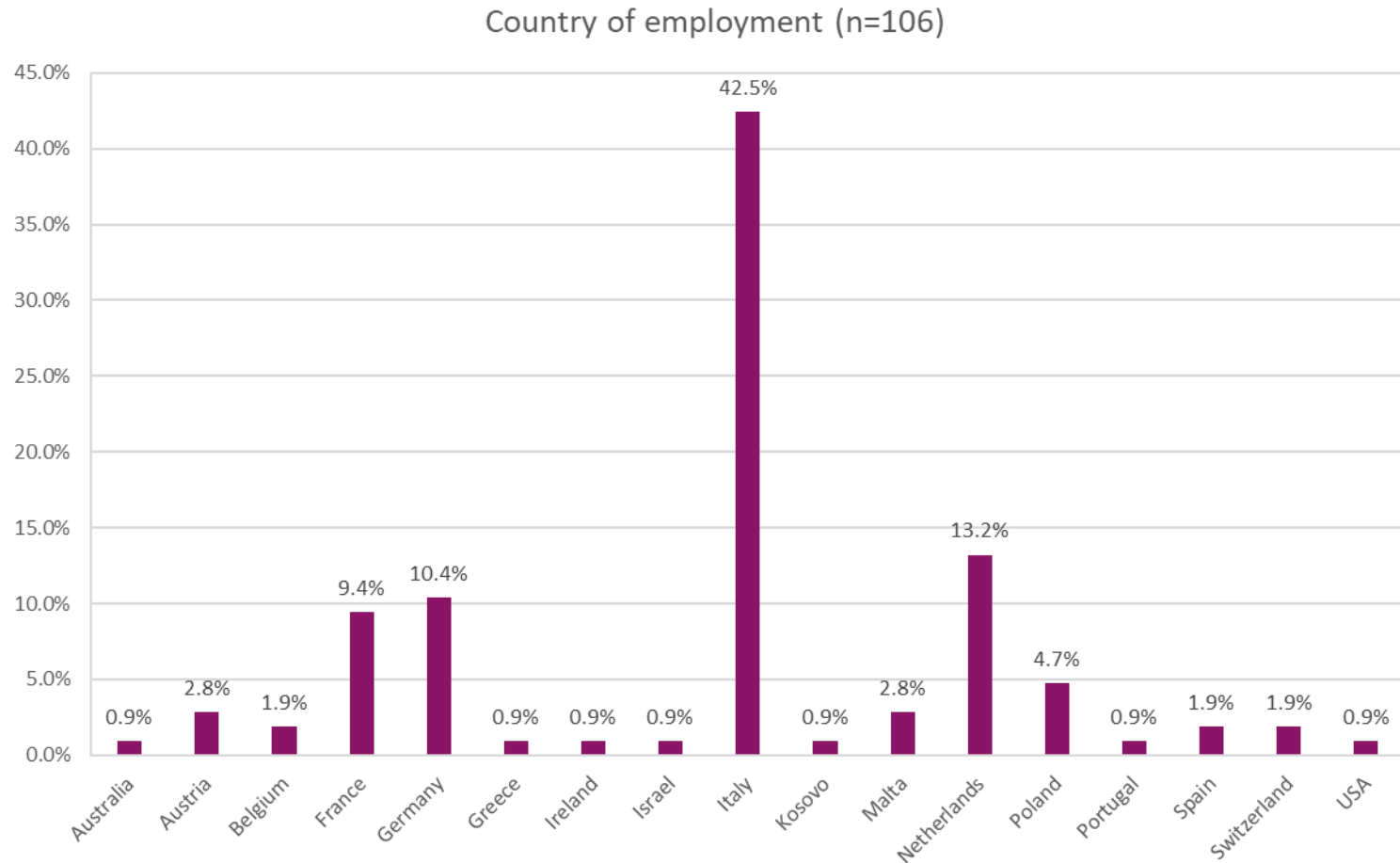
Demographic characteristics (1/3)

Characteristic	Value
Age (yrs.) (n=106)	
Mean \pm SD	47.0 \pm 11.2
Min-max	23 - 69
Gender (%) (n=106)	
Male	41.0
Female	59.1

Demographic characteristics (2/3)

Characteristic	n (%)
Country of employment: European countries	103 (96.5)
#1 Italy	45 (42.5)
#2 The Netherlands	14 (13.2)
#3 Germany	11 (10.4)
Country of employment: non-European countries	3 (2.7)

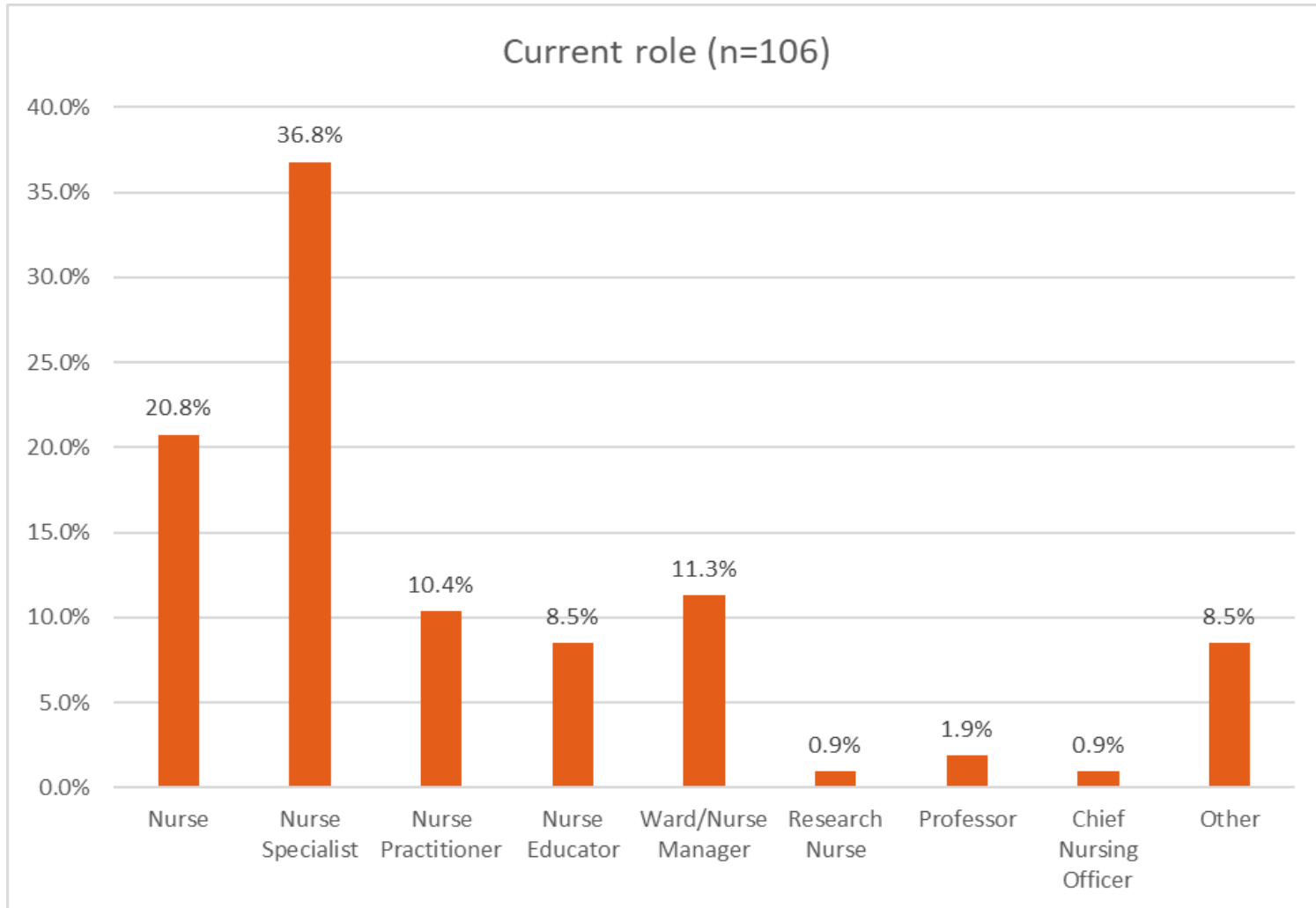
Demographic characteristics (3/3)



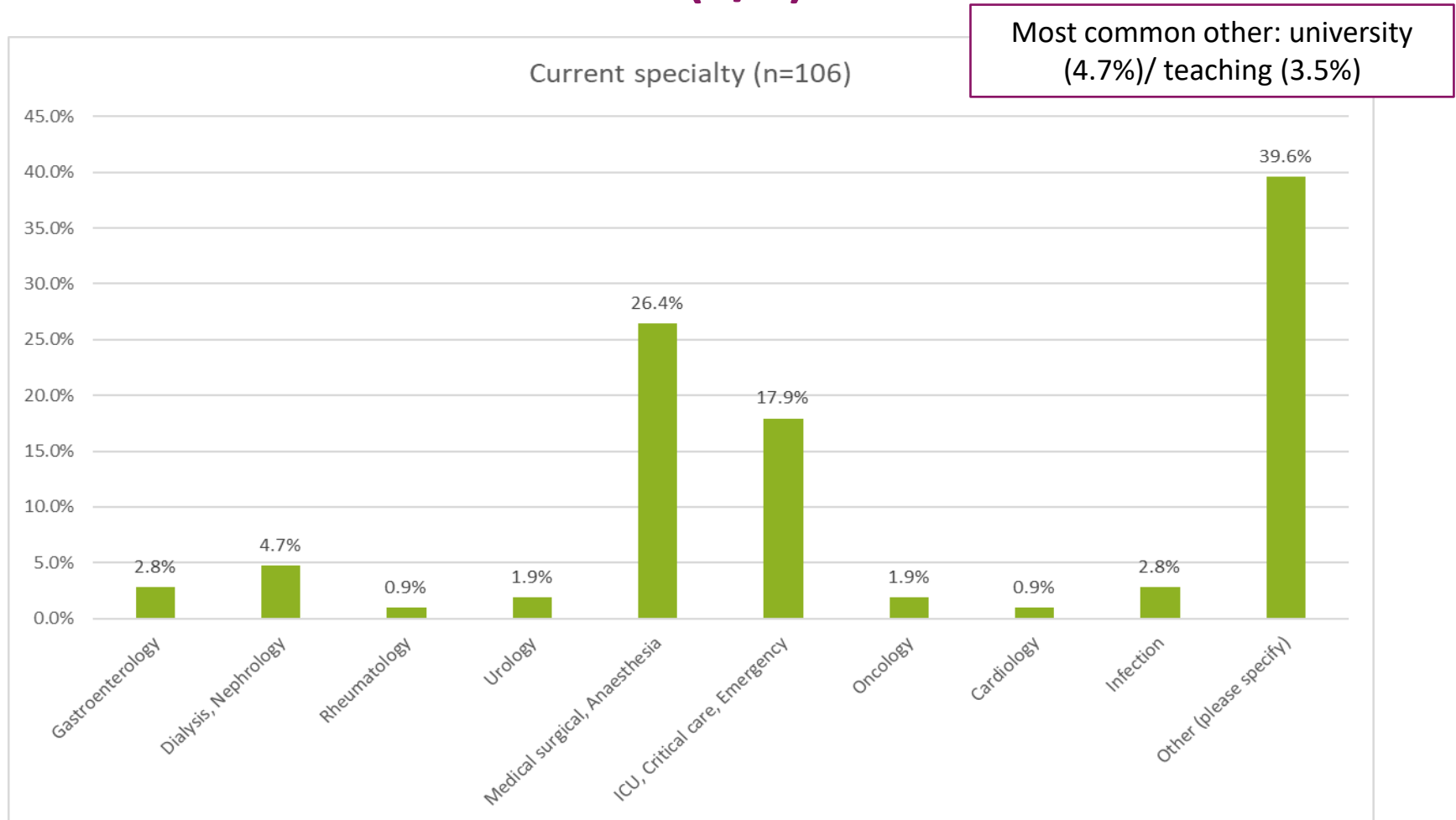
Professional characteristics (1/5)

Current role	n (%)
Nurse	22 (20.8)
Nurse Specialist	39 (36.8)
Nurse Practitioner	11 (10.4)
Nurse Educator	9 (8.5)
Ward/Nurse Manager	12 (11.3)
Research Nurse	1 (0.9)
Clinical Research Associate	0 (0)
Professor	2 (1.9)
Chief Nursing Officer	1 (0.9)
Other	9 (8.5)

Professional characteristics (2/5)



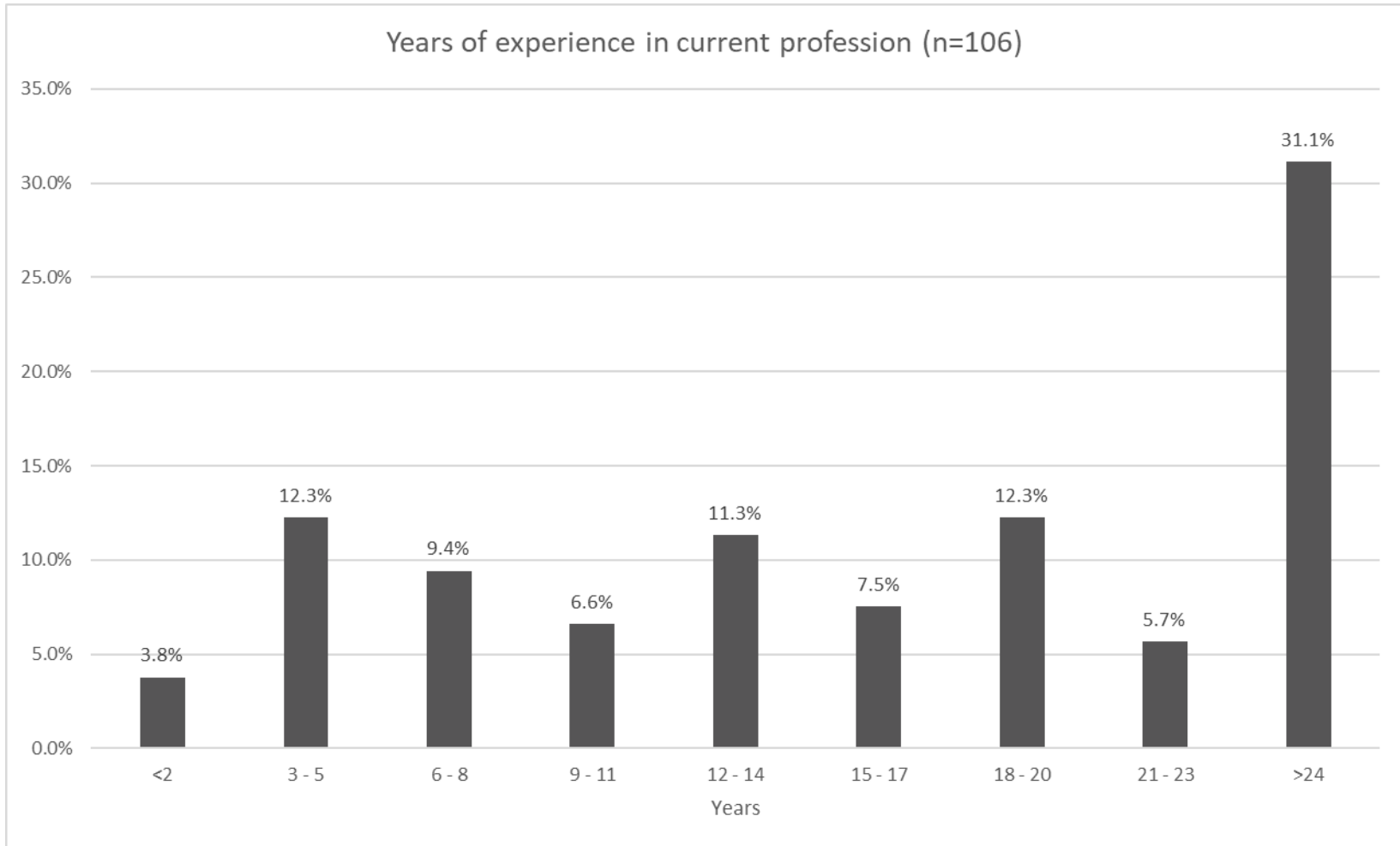
Professional characteristics (3/5)



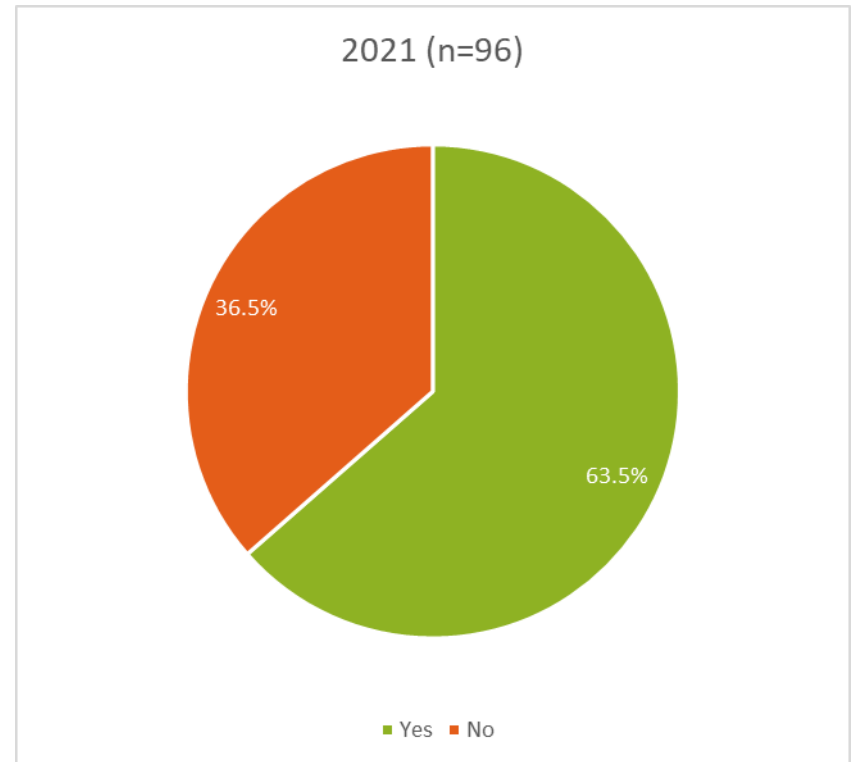
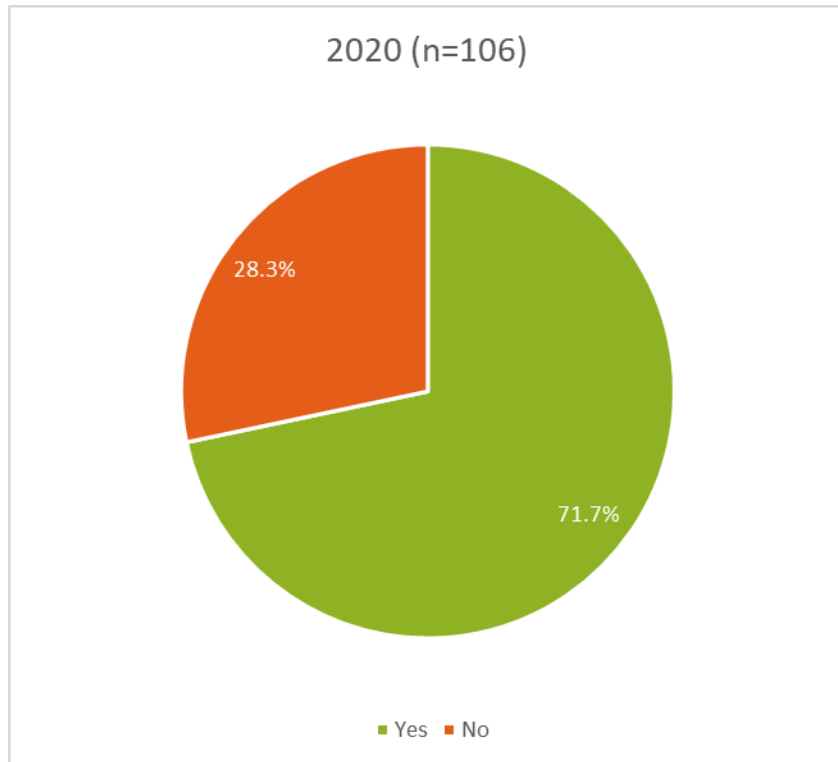
Professional characteristics (4/5)

Characteristic	%
Experience in current profession (yrs.) (n=106)	
less than 2	3.8
3-11	28.3
12-20	31.1
21 or longer	36.8
Total	100.0

Professional characteristics (5/5)



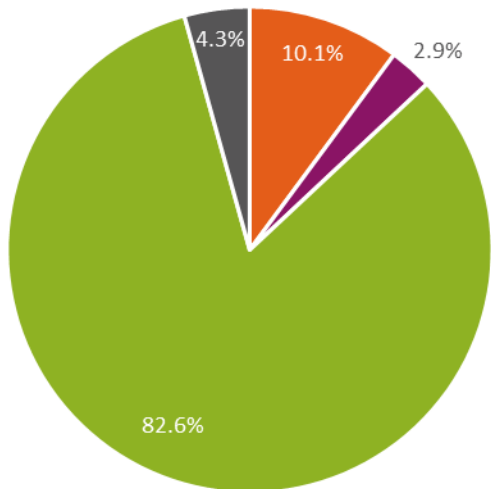
Uptake influenza vaccination in 2020 and 2021



Motivation for getting influenza vaccination in 2020 and 2021

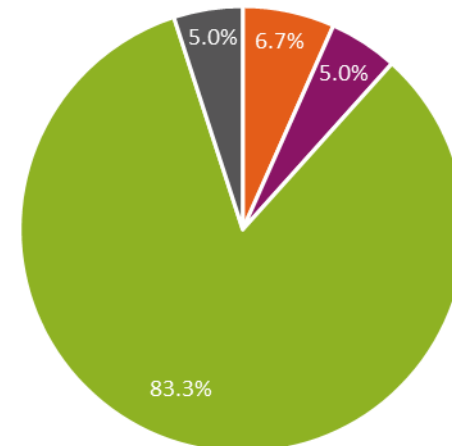
If you got the influenza vaccination...

Why did you get the influenza vaccination in 2020?
(n=69)



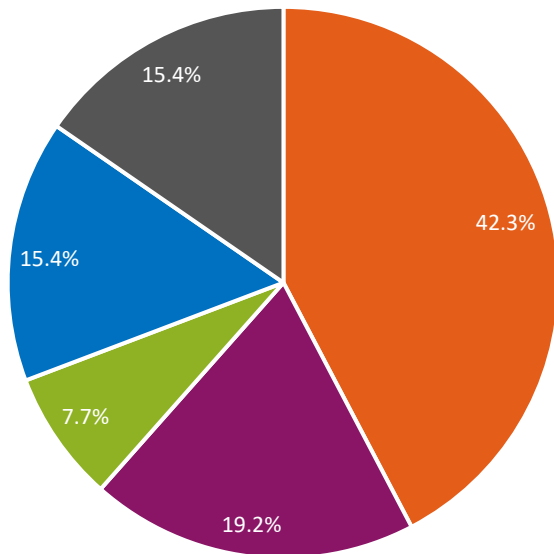
- To protect myself and my family
- To protect my patients
- To protect myself, my family and my patients
- Other (please specify)

Why did you get the influenza vaccination in 2021?
(n=60)



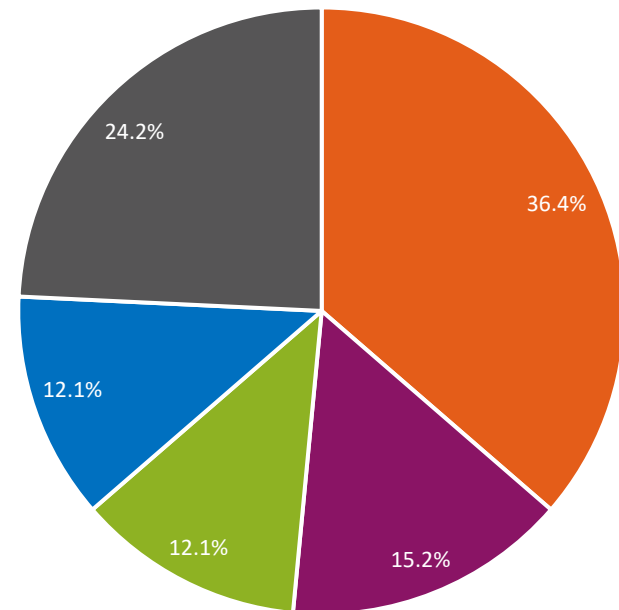
Motivation for not getting influenza vaccination in 2020 and 2021

Why did you not get the influenza vaccination in 2020
(n=26)

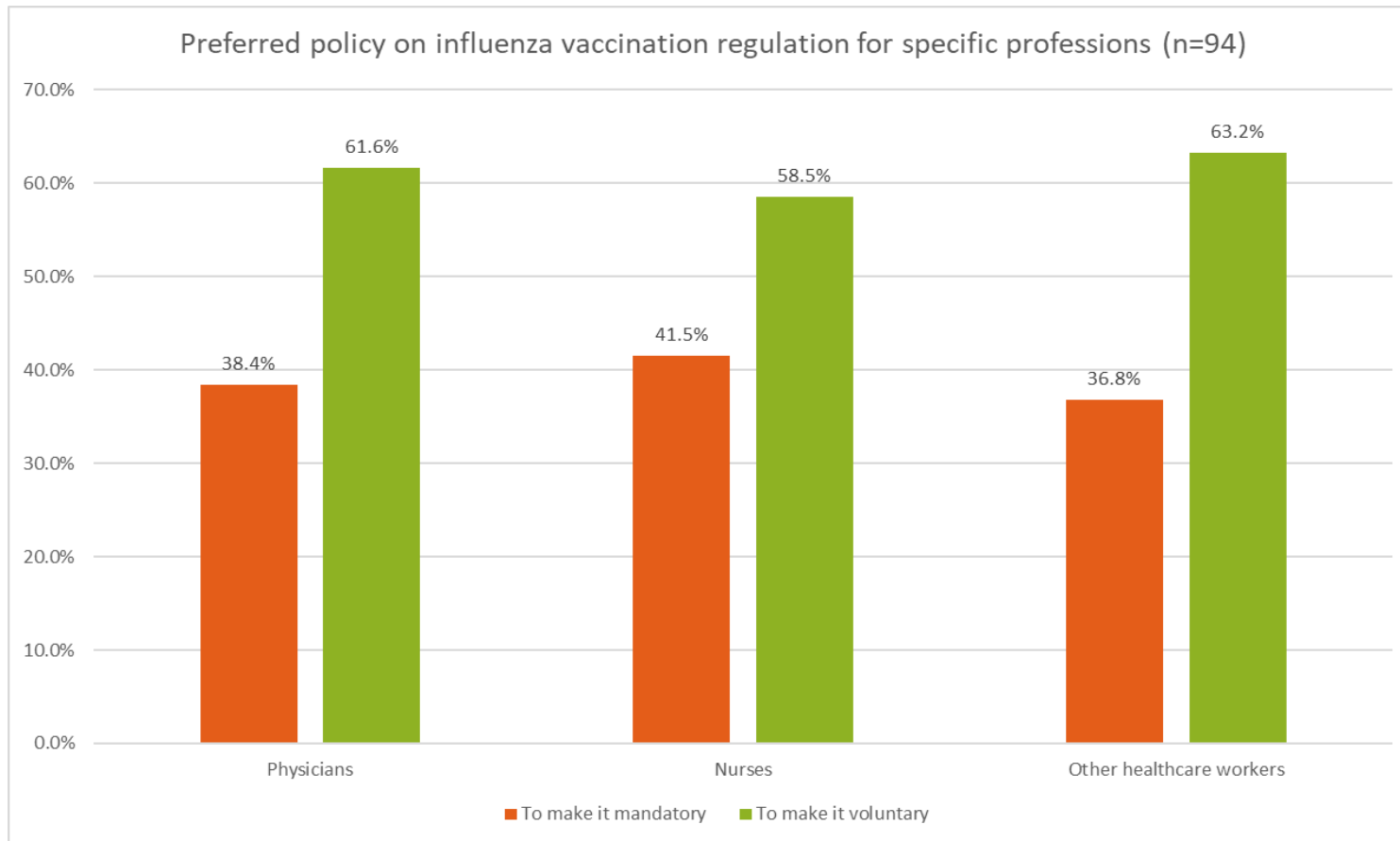


- I'm healthy/ no need/ I never had influenza
- Previous bad experience / allergy / health reasons
- No interest / no contact with patients
- I don't agree/ I don't want
- Other or no reason

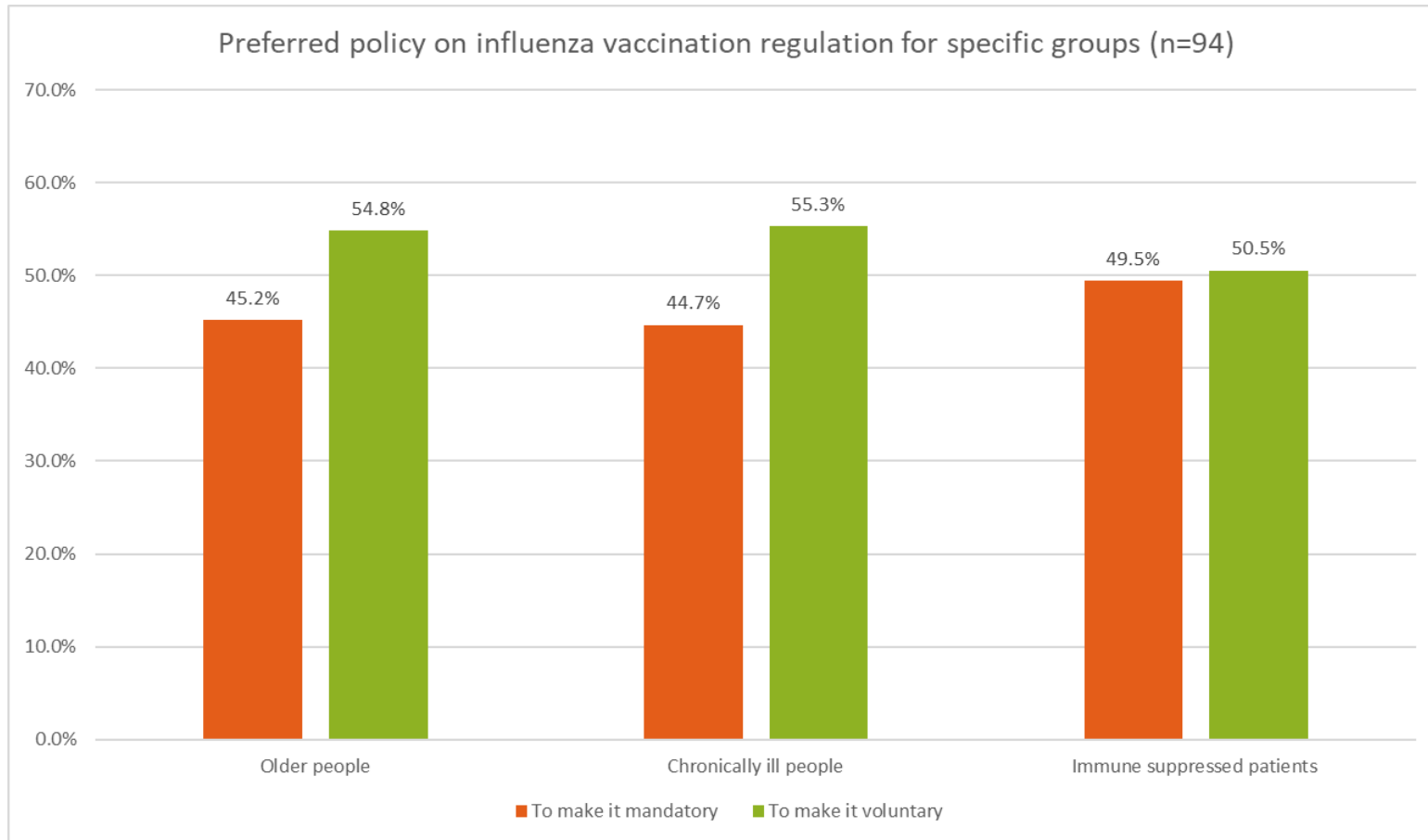
Why did you not get the influenza vaccination in 2021 (n=33)



Opinion on mandating influenza vaccination for healthcare professionals



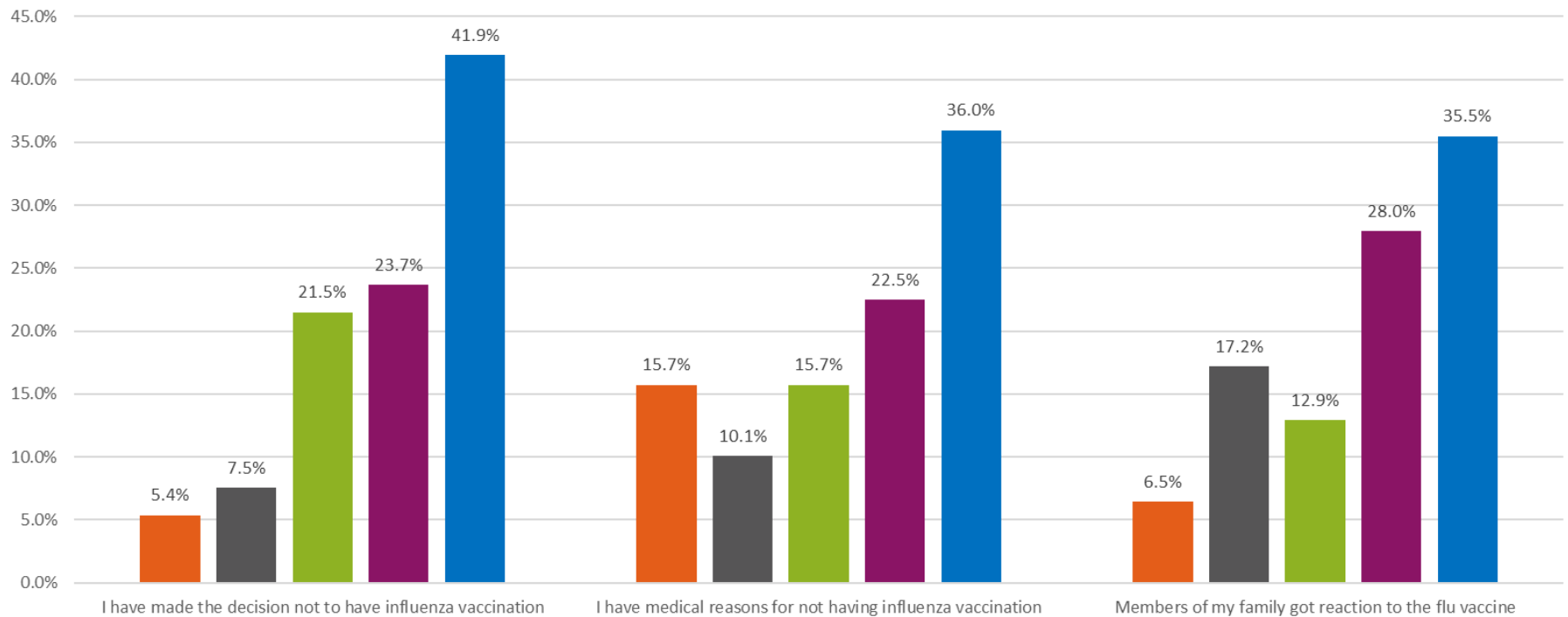
Opinion on mandating influenza vaccination for specific groups



Likelihood to advise patients or carers against influenza vaccination

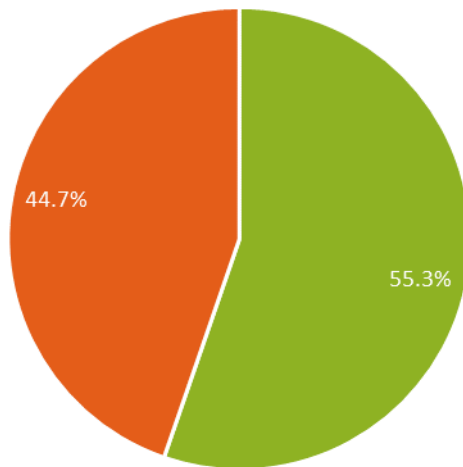
How likely would you advise your patients or carers against vaccination in the following situation? (n=93)

very likely likely neither likely nor unlikely unlikely very unlikely



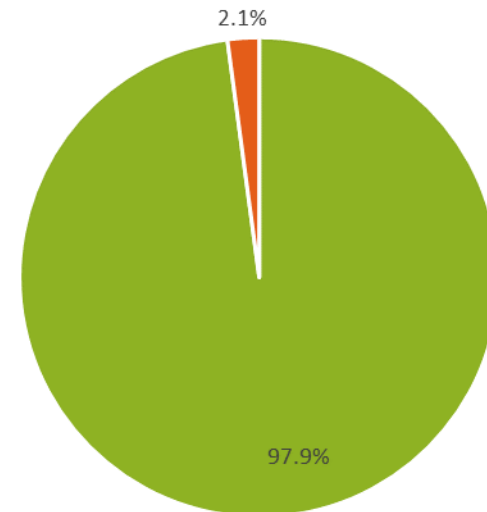
Contraction COVID-19 and uptake COVID-19 vaccination

Do you know if you have had COVID-19? (n=85)



■ Yes ■ No

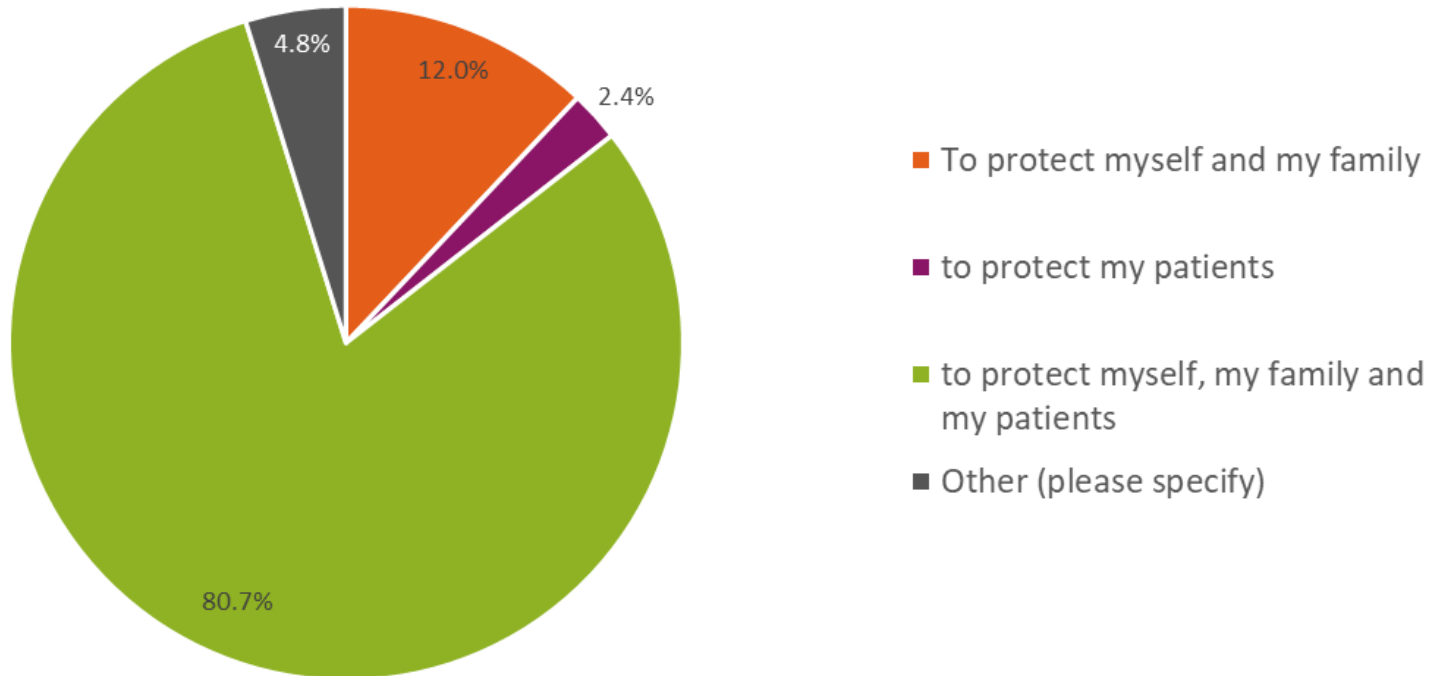
Did you get a COVID-19 vaccination? (n=93)



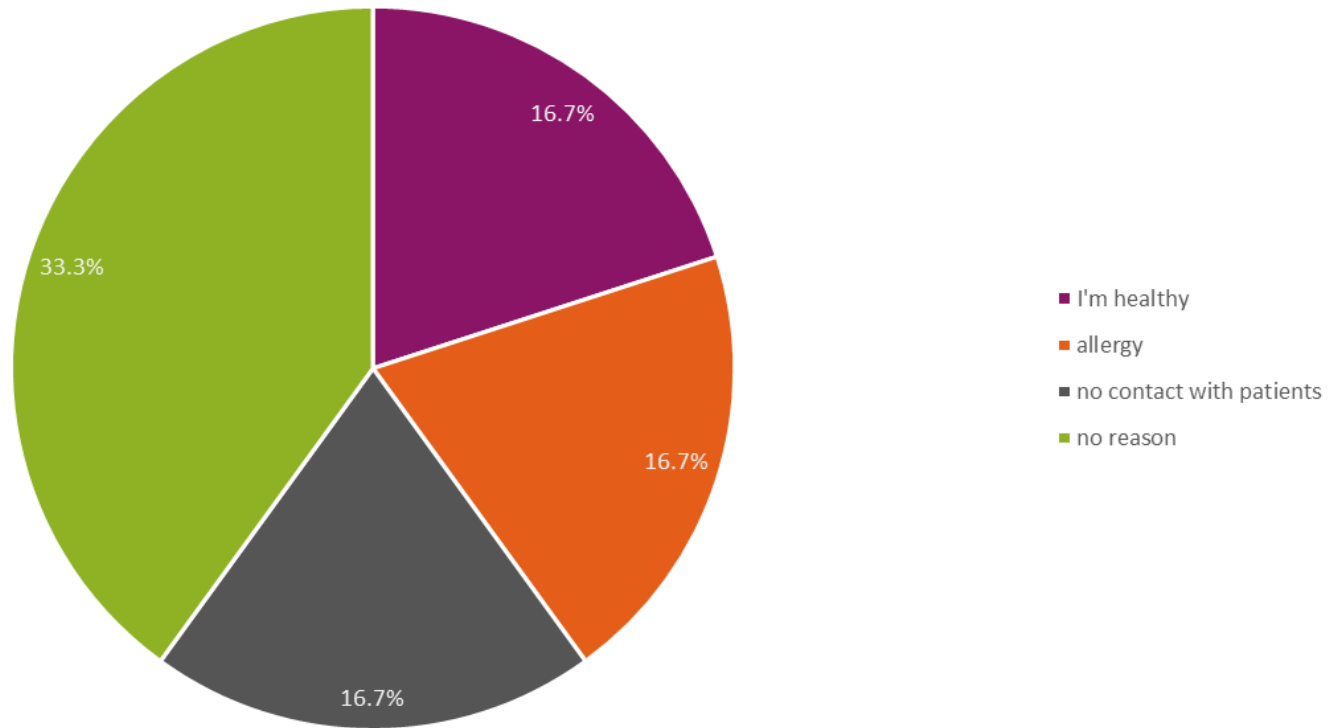
■ Yes ■ No

Motivation for getting COVID-19 vaccination

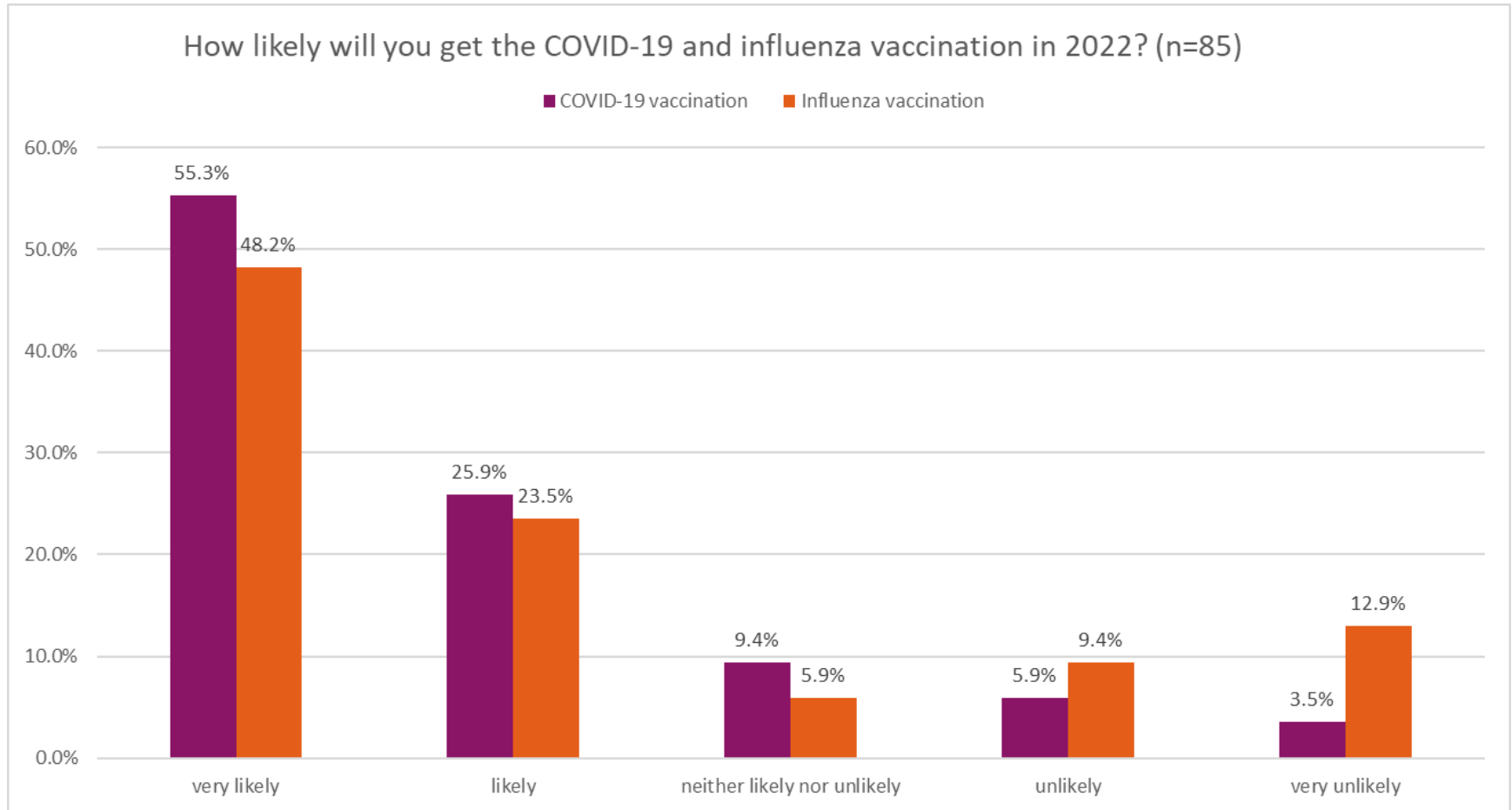
Why did you get the COVID-19 vaccination? (n=83)



Motivation for not getting the COVID-19 vaccination (n=6)

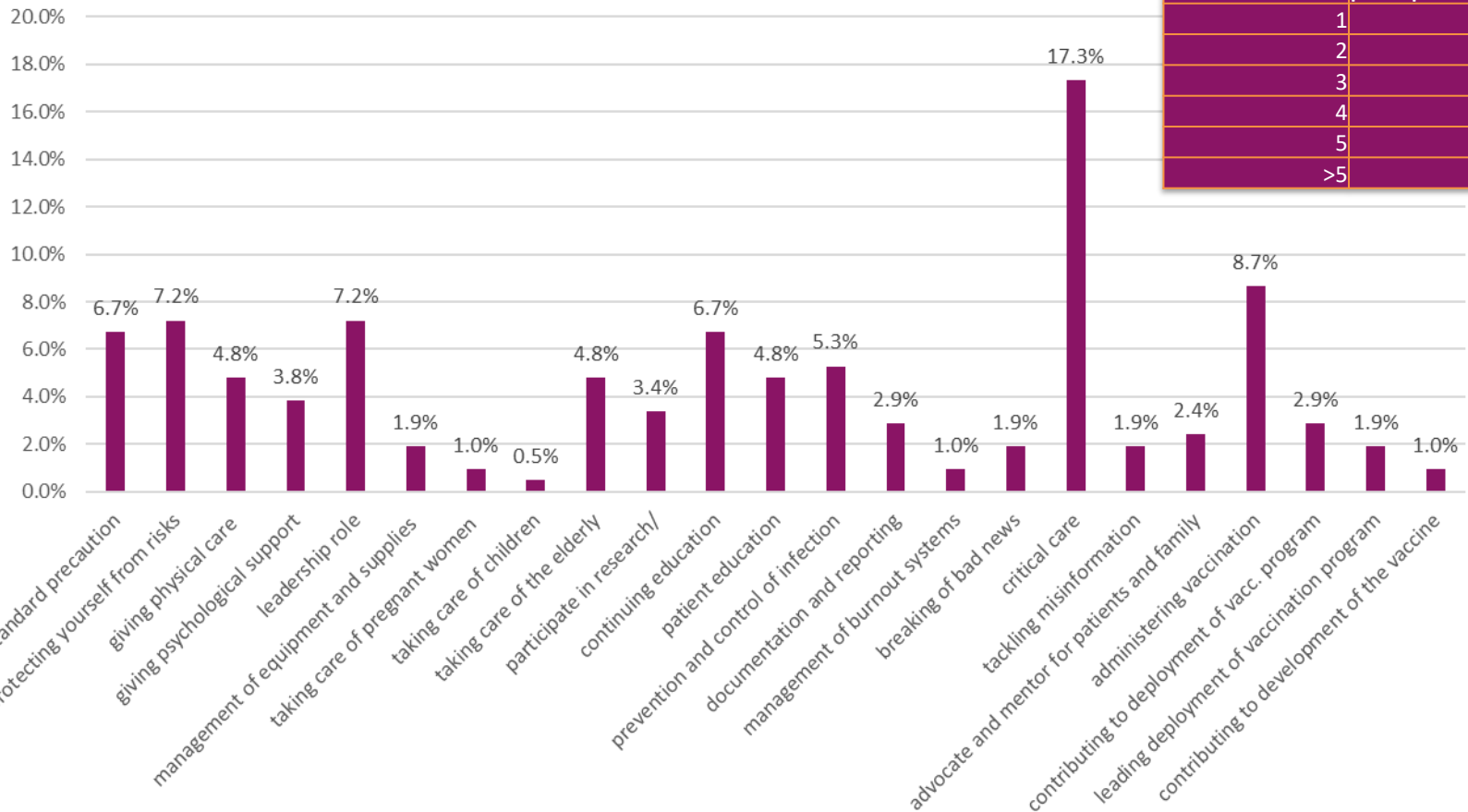


Likelihood of getting influenza vaccination and COVID-19 vaccination in 2022



Professional role(s) during COVID-19 pandemic

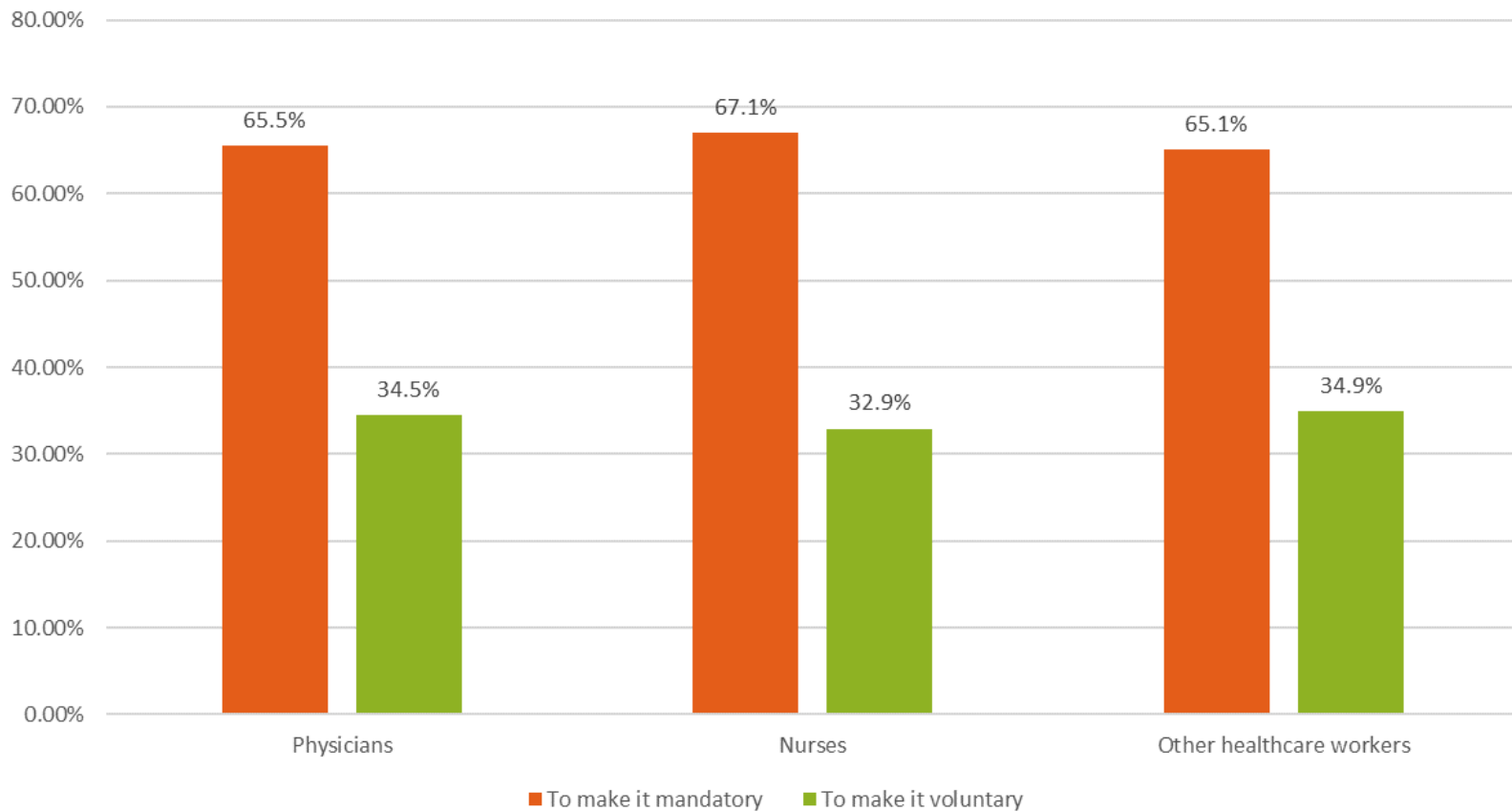
What professional role(s) did you play during the COVID-19 pandemic?
(n=106)



Number of answers chosen	Percentage of participants
1	70.8%
2	4.7%
3	7.5%
4	4.7%
5	1.9%
>5	7.5%

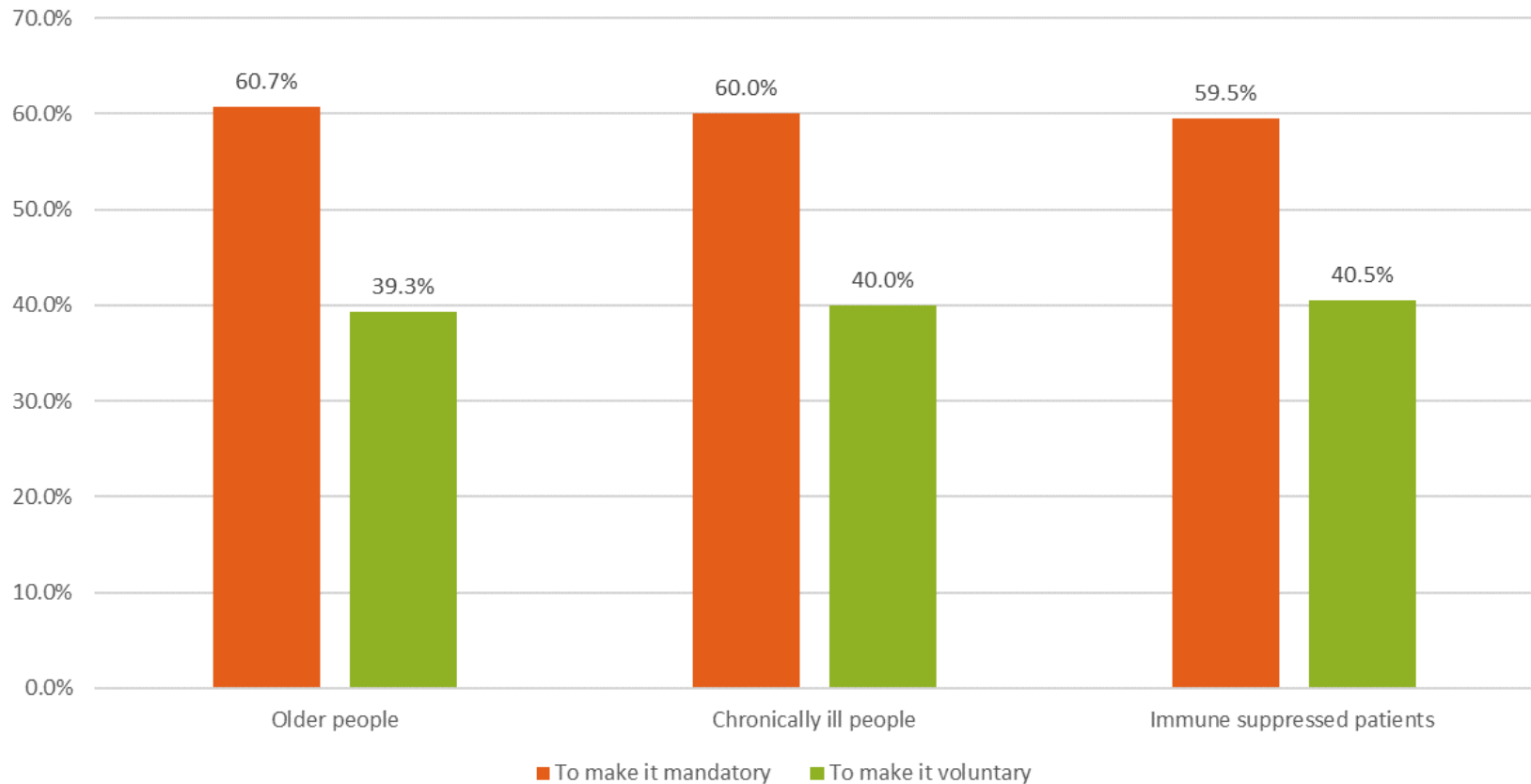
Opinion on mandating COVID-19 vaccination for healthcare professionals

Which would be your preferred policy on the COVID-19 vaccination regulation for specific professions? (n=85)



Opinion on mandating COVID-19 vaccination for specific groups

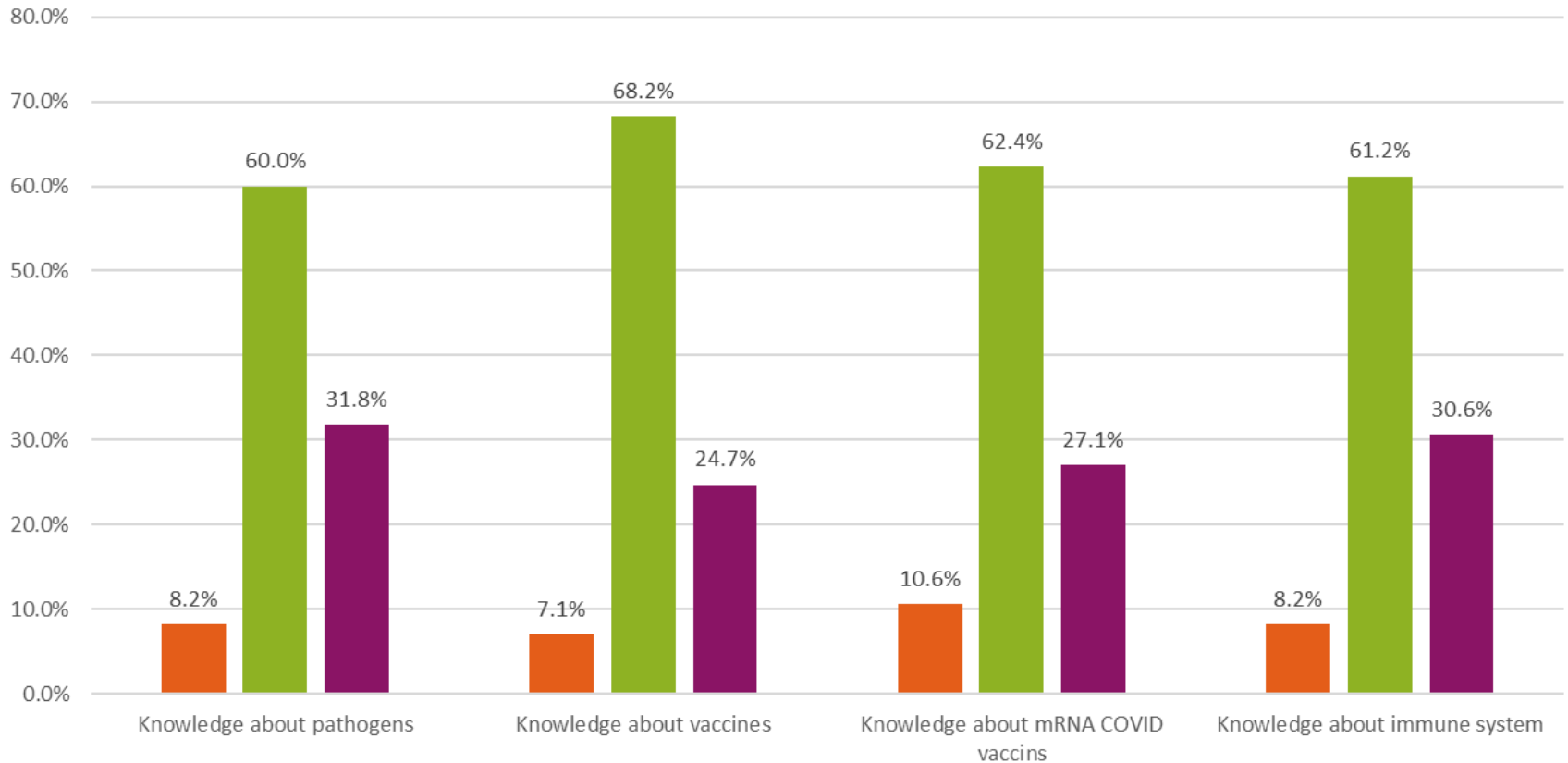
Which would be your preferred policy on the COVID-19 vaccination regulation for specific (patient) groups? (n=85)



Self-assessment of knowledge about pathogens, vaccines, and immune system

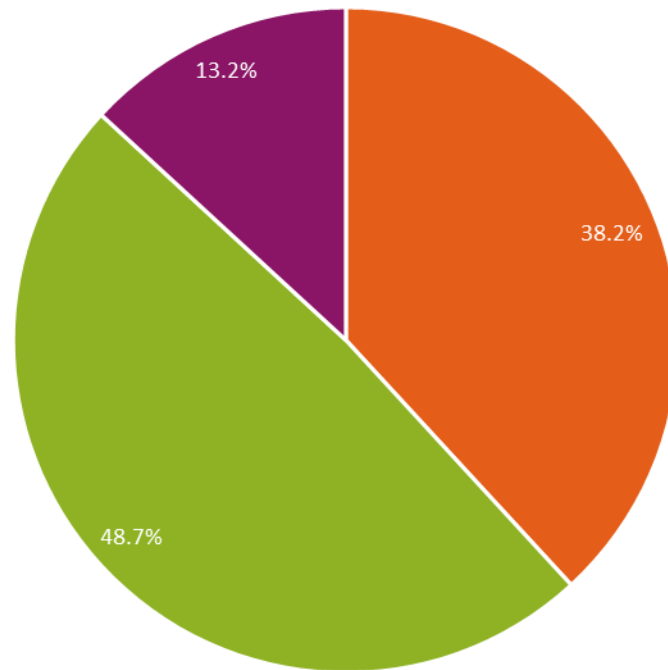
How do you assess your knowledge? (n=85)

low medium high



Main sources for obtaining information about pathogens, vaccines and immune system

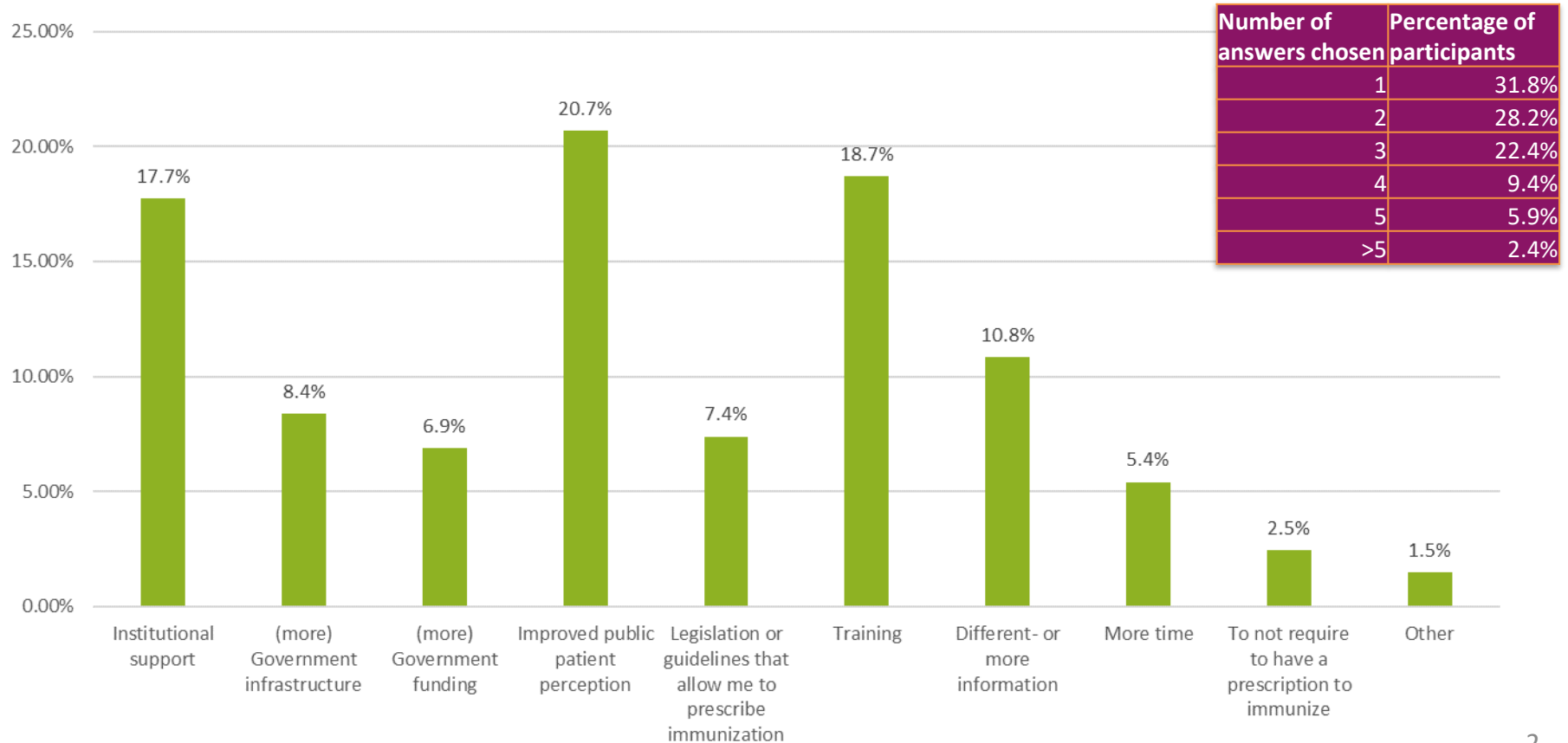
From which main source(s) did you get information related to pathogens, vaccines and/or immune system? (n=85)



Education Literature Media

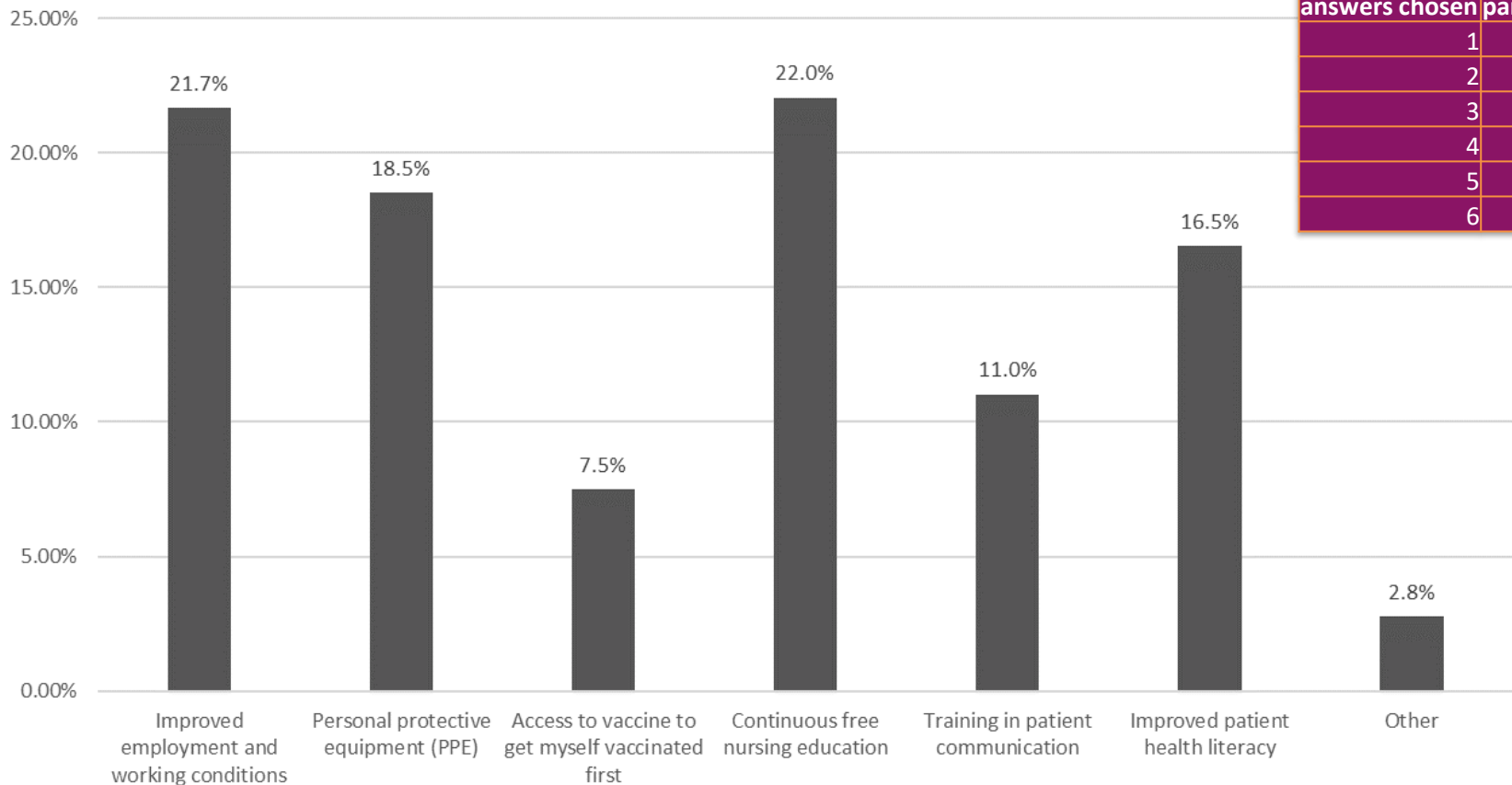
Requirements to increase involvement in vaccination programs

What are your needs or requirements to increase your involvement in vaccination programs?
(n=85)



Needed institutional support in case of future pandemics

What kind of institutional support do you need to perform better in responding to future pandemics? (n=85)



Number of answers chosen	Percentage of participants
1	17.6%
2	22.4%
3	25.9%
4	21.2%
5	4.7%
6	7.1%

Testing of associations between likelihood of uptake COVID-19 vaccination in 2022 and self-assessed knowledge level

Tested association	N valid cases	df	Pearson Chi-square	P-value
Likelihood uptake COVID-19 vaccination – knowledge of pathogens	85	8	9.692	0.287
Likelihood uptake COVID-19 vaccination – knowledge of vaccines	85	8	12.661	0.124
Likelihood uptake COVID-19 vaccination – knowledge of mRNA COVID vaccines	85	8	15.936	0.043*
Likelihood uptake COVID-19 vaccination – knowledge of immune system	85	8	4.679	0.791

*A higher level of self-assessed knowledge about mRNA COVID vaccines is statistically significant associated with the likelihood to get vaccinated for COVID-19

Testing of associations between likelihood of uptake influenza vaccination in 2022 and likelihood uptake COVID-19 vaccination and preferred vaccination policy for healthcare professionals

Tested association	N valid cases	df	Pearson Chi-square	<i>p</i> - value
Likelihood uptake COVID-19 vaccination – likelihood uptake influenza vaccination	85	16	58.435	< 0.001 *
Likelihood uptake influenza vaccination – preferred policy influenza vaccination physicians	85	4	8.093	0.088
Likelihood uptake influenza vaccination – preferred policy influenza vaccination nurses	85	4	9.303	0.054
Likelihood uptake influenza vaccination – preferred policy influenza vaccination other healthcare workers	85	4	11.755	0.019**

*The likelihood to get vaccinated for influenza is statistically significant associated with the likelihood to get vaccinated for COVID-19.

**The likelihood to get vaccinated for influenza is statistically significant associated with the preferred policy of influenza vaccination for other healthcare workers. For direction of association, see contingency table at the end of the slide deck.

Testing of associations between uptake influenza vaccination in 2020 and 2021 and likelihood of uptake 2022 + Likelihood uptake COVID vaccination and contraction of COVID in the past

Tested association	N valid cases	df	McNemar's Chi-square	p - value
Uptake influenza vaccination 2020 – Uptake influenza vaccination 2021	94	1	2.769	0.096
	N valid cases	df	Pearson's chi-square	p - value
Uptake influenza vaccination 2020 – Likelihood uptake influenza vaccination 2022 ¹	94	4	32.623	< 0.001*
Uptake influenza vaccination 2021 - Likelihood uptake influenza vaccination 2022 ¹	94	4	44.111	< 0.001*
Having had COVID before – Likelihood of COVID vaccination 2022	85	4	0.814	0.937

¹*These associations are not tested for “Uptake COVID-19 vaccination” because almost all participants (97.9%) were vaccinated.*

* The uptake of influenza vaccine in 2020 and 2021 is statistically significant associated with likelihood to get vaccinated for influenza in 2022.

Testing of associations between preferred vaccination policy for healthcare professionals and age

Tested association	N valid cases	df	Pearson Chi-square	p - value
Preferred policy COVID-19 vaccination physicians – Age	85	2	3.544	0.170
Preferred policy COVID-19 vaccination nurses - Age	85	2	2.945	0.229
Preferred policy COVID-19 vaccination other healthcare workers - Age	85	2	3.698	0.157
Preferred policy influenza vaccination physicians – Age	94	2	6.340	0.042*
Preferred policy influenza vaccination nurses - Age	94	2	6.665	0.036*
Preferred policy influenza vaccination other healthcare workers - Age	94	2	8.423	0.015*

Age categories (yrs)

1	<40
2	40 - 55
3	> 55

* The preferred policy of influenza vaccination for healthcare professionals is statistically significant associated with the age of nurses. A higher age is associated with higher preference for a mandatory influenza vaccination policy for healthcare professionals (see contingency table at the end of the slide deck).

Testing of associations between preferred vaccination policy for healthcare professionals and years of experience

Tested association	N valid cases	df	Pearson Chi-square	p - value
Preferred policy COVID-19 vaccination physicians – Years of experience	85	2	0.997	0.607
Preferred policy COVID-19 vaccination nurses - Years of experience	85	2	0.397	0.82
Preferred policy COVID-19 vaccination other healthcare workers - Years of experience	85	2	0.333	0.847
Preferred policy influenza vaccination physicians – Years of experience	94	2	7.326	0.026*
Preferred policy influenza vaccination nurses - Years of experience	94	2	6.277	0.043*
Preferred policy influenza vaccination other healthcare workers - Years of experience	94	2	6.948	0.031*

Categories years of experience

1	<9
2	9 - 18
3	> 18

* The preferred policy of influenza vaccination for healthcare professionals is statistically significant associated with the years of experience of nurses. More years of experience are associated with higher preference for a mandatory influenza vaccination policy for healthcare professionals (see contingency table at the end of the slide deck).

Testing of associations between preferred vaccination policy for healthcare professionals and country

Tested association	N valid cases	df	<i>p</i> - value
Preferred policy COVID-19 vaccination physicians – Country	84	16	0.093
Preferred policy COVID-19 vaccination nurses - Country	85	16	0.039*
Preferred policy COVID-19 vaccination other healthcare workers - Country	83	16	0.037*
Preferred policy influenza vaccination physicians – Country	85	16	0.015**
Preferred policy influenza vaccination nurses - Country	93	16	0.047**
Preferred policy influenza vaccination other healthcare workers - Country	86	16	0.044**

Fisher's exact test is used because of low counts in some groups(countries)

* The preferred policy of influenza vaccination for nurses and other healthcare workers is statistically significant associated with the country of work of nurses.

** The preferred policy of influenza for physicians, nurses and other healthcare workers is statistically significant associated with the country of work of nurses.

5. Conclusions

Conclusions (1/9)

- Of 106 respondents, the majority (59.1%) is female. Their mean age is 47.0 (± 11.2) yrs. Taken together, respondents work in 16 European and 3 non-European countries. Of those working in European countries, most work in Italy (42.5%), the Netherlands (13.2%) or Germany (10.4%).
- About one third of respondents (36.8%) work 21 yrs. or longer in their current profession. Of all respondents, the majority (76.4%) provides nursing care in different specialty areas incl. surgery/ anaesthesia (26.4%), critical/ emergency care (17.9%) and dialysis/ nephrology (4.7%).

Conclusions (2/9)

- Of respondents 77.7% got the influenza vaccination in 2020 and 63.5% in 2021.
- Almost all (97.9%) respondents got a COVID-19 vaccination, and about half (55.3%) mention that they have had COVID-19.
- Most mentioned motivation for getting vaccinated was 'to protect myself, my family and my patients' (for influenza: 82.6% in 2020; 83.3% in 2021; for COVID-19: 80.7%).

Conclusions (3/9)

- Most mentioned motivation for *not* getting vaccinated for influenza was: I'm healthy/ no need/ I never had influenza (42.3% in 2020, 36.4% in 2021)
- The majority of respondents is (very) likely to get vaccinated for influenza in 2022 (69.1%) and COVID-19 (81.2%). More people thought it is (very) unlikely to get vaccinated for influenza (22.3%) than for COVID-19 (9.4%).

Conclusions (4/9)

- For the majority of respondents the preferred policy is to leave influenza vaccination voluntary for other healthcare workers (63.2%), physicians (61.6%) and for nurses (58.5%). A smaller majority agrees to leave influenza vaccination voluntary for chronically ill patients (55.3%), the elderly (54.8%) and immunosuppressed patients (50.5%).
- In contrast, for the majority of respondents the preferred policy on COVID-19 vaccination is to mandate it for nurses (67.1%) , physicians (65.5%), and other healthcare workers (65.1%). For a smaller majority the preferred policy is to mandate it for the elderly (60.7%), chronically ill patients (60.0%), and immunosuppressed patients (59.5%).

Conclusions (5/9)

- Results of this survey show a coherence in vaccination behaviour of respondents: the likelihood to get vaccinated for influenza in 2022 is statistically significant associated with
 - The likelihood to get vaccinated for COVID-19 in 2022.
 - The uptake of influenza vaccine in 2020 and 2021
- The majority of respondents is (very) unlikely to advise patients against influenza vaccination in the situation where respondents:
 - have made the decision not to get vaccinated for influenza (65.6%);
 - have medical reasons for not getting influenza vaccination (58.4%);
 - have family members with reaction to influenza vaccination (63.4%).

Conclusions (6/9)

- The roles that were performed most often in responding to the COVID-19 pandemic were critical care (17.3%), administering vaccination (8.7%) and protecting oneself from risks (7.2%).
- Needed most by respondents to increase involvement in vaccination programs is improved public patient perception (20.7%), followed by training (18.7%) and institutional support (17.7%).
- To perform better in responding to future pandemics, the most needed types of institutional support are continuous free nursing education (22.1%), improved employment and working conditions (21.7%) and personal protective equipment (18.5%).

Conclusions (7/9)

- The majority of respondents assesses their knowledge about vaccines, mRNA COVID vaccines, the immune system and pathogens on a medium level (68.2%; 62.4%; 61.2% and 60.0% respectively).
- Almost half of information related to mRNA COVID vaccines, vaccines, pathogens, and immune system is obtained by respondents from literature (48.7%), followed by education (38.2%) and media (13.2%).

Conclusions (8/9)

- Room for improvement exists to increase knowledge of respondents about mRNA COVID vaccines, vaccines, pathogens and immune systems:
- A higher level of self-assessed knowledge about mRNA COVID vaccines is associated with the likelihood to get vaccinated for COVID-19. With this positive connotation between knowledge and attitude towards vaccination, the importance of continuous free nursing education is accentuated.
- This is further emphasized by the result that free nursing education was needed most by respondents to perform better in responding to future pandemics.
- Furthermore, 1/5th of participants indicated they required training to increase their involvement in vaccination programs.

Conclusions (9/9)

- The likelihood to get vaccinated for influenza is statistically significant associated with the preferred policy of influenza vaccination for other healthcare workers: if nurses are (very) unlikely to get the influenza vaccination, their preferred influenza vaccination policy for other healthcare workers is to leave it voluntary.
- A higher age is associated with a preference for mandatory influenza vaccination policy for healthcare professionals.
- More years of professional experience is associated with a preference for mandatory influenza vaccination policy for healthcare professionals.
- The country of work of nurses is statistically significant associated with the preferred policy of influenza and COVID-19 vaccination for nurses and other healthcare workers.

6. Comparison with previous literature

Comparison with 2020 survey and other literature (1/8)

- With 238 respondents in 2020 [1] and 106 in 2022, one must be cautious in making comparisons.
- Besides nurses from less different countries being represented in 2022, study populations seem rather comparable for demographic and professional characteristics.
- The skewed distribution of the nationality of the respondents should be noted however, for it could be of influence on the answers (e.g. preferred vaccination policy)

Comparison with 2020 survey and other literature (2/8)

- With 60.8% and 67.8% of nurse being (very) likely to get vaccinated in 2020 for influenza and COVID-19 respectively [1], the actual uptake in 2020 was reported higher for both influenza (72.9%) and COVID-19 (97.7%).
- This means that COVID vaccine coverage among nurses is above the 70% WHO coverage target [10].

Comparison with 2020 survey and other literature (3/8)

- The majority of respondents is (very) unlikely to advise patients against influenza vaccination in the situation where respondents:
 - have made the decision not to get vaccinated for influenza (65.6%);
 - have medical reasons for not getting influenza vaccination (58.4%);
 - have family members with reaction to influenza vaccination (63.4%).
- These likelihoods are about 10% higher compared to the 2020 survey results [1].

Comparison with 2020 survey and other literature (4/8)

- In 2020 it was found that a higher level of self-assessed knowledge about vaccines and the immune system are associated with the likelihood to get vaccinated for COVID-19 [1].
- These associations were not found in 2022.

Comparison with 2020 survey and other literature (5/8)

- In 2022 it was found that a higher level of self-assessed knowledge about mRNA COVID vaccines is statistically significant associated with the likelihood to get vaccinated for COVID-19.
- This is in line with earlier European research [2][6][11][12].
- Since the item on knowledge about mRNA COVID vaccines was not part of the 2020 ESNO survey, no comparisons can be made.

Comparison with 2020 survey and other literature (6/8)

- The majority of respondents (around 60%) prefer a mandatory COVID-19 vaccination-policy for vulnerable (patient) groups and for healthcare workers.
 - This is in line with a study among 4,500 American nurses, amongst who 58% supported mandatory COVID-19 vaccinations [3].
 - This is not congruent with research done in the U.K. (n=3235), where 18% of healthcare workers favoured mandatory vaccination for healthcare workers, and 12% for the general population [4].
 - It is also not congruent with research done in France (n=4349) where the acceptance of a mandatory immunization program for healthcare workers was 29.6% and 20.4% for the general population [5].
- In the ESNO 2020 survey, around 40% of respondents (strongly) agreed to make COVID-19 vaccination mandatory [1].
- Results of the 2022 survey show that country of work of nurses is statistically significant associated with the preferred policy of influenza and COVID-19 vaccination for nurses and other healthcare workers. This could explain the incongruent comparisons with other literature.

Comparison with 2020 survey and other literature (7/8)

- The preferred policy of nurses for mandatory influenza vaccination for healthcare professionals was statistically significant associated with:
 - The age of nurses. In line with earlier research, a higher age is associated with a preference for mandatory influenza vaccination policy [7].
 - Years of professional experience of nurses. Contrary to earlier research, in the 2022 survey more years of experience were associated with a preference for mandatory influenza vaccination policy [8]
 - Likelihood to get vaccinated for influenza. Just as in earlier research, a higher likelihood of getting vaccinated for influenza is associated with preference for a mandatory vaccination policy [4][5].

Comparison with 2020 survey and other literature (8/8)

- In line with earlier research, no statistically significant associations were found between preferred influenza- or COVID-19 vaccination policy and professional activity (measured as providing patient care or not) [9].
- Similarly, these associations were not found in the ESNO 2020 survey [1].

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Contingency table likelihood influenza vaccination 2022 and preferred influenza vaccination policy for other healthcare workers

Likelihood of getting influenza vaccination	Preferred vaccination policy	
	Mandatory	Voluntary
very likely	20	17
likely	7	12
neither likely nor unlikely	1	4
unlikely	2	5
very unlikely	0	11

Contingency tables: Age/years of experience and preferred influenza vaccination policy for other healthcare workers

Age category	Preferred vaccination policy	
	Mandatory	Voluntary
1	3	17
2	7	12
3	20	20

Age categories	
1	<40
2	40 - 55
3	> 55

Yrs of experience category	Preferred vaccination policy	
	Mandatory	Voluntary
1	6	17
2	11	25
3	13	7

Categories years of experience	
1	<9
2	9 - 18
3	> 18

Here only the contingency tables with association for 'other healthcare workers' are shown. The trend is the same for the associations with nurses and physicians.



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