



**COALITION
FOR VACCINATION**
by European Healthcare Professionals

IMMUNION

SUMMARY OF SURVEY OF HEALTH PROFESSIONALS RESULTS

DELIVERABLE 4.1



This project is co-funded by the European Union's Health Programme 2014-2020.

Project no. 101018210

Project acronym: IMMUNION

Project title: Improving IMMunisation cooperation in the European UNION

Instrument: European Union 3rd Health Programme

Start date of project: 1 April 2021

Duration: 24 months

Deliverable title: D4.1 SUMMARY OF SURVEY OF HEALTH PROFESSIONALS RESULTS

Due date of deliverable: M4

Organisation name of lead contractor for this deliverable: CPME

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Dissemination level		
PU	Public	×
CO	Confidential, restricted under conditions set out in Model Grant Agreement	
CI	Classified, information as referred to in Commission Decision 2001/844/EC	

DOCUMENT HISTORY

VERSION	DATE	NOTE	ISSUED BY
0.1	23 July 2021	First version	Markus Kujawa
1.0	26 July 2021	Reviewed	EHNet
1.1	30 July 2021	Submitted	EHNet

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1 Introduction

The objective of the IMMUNION Work Package 4 is to strengthen the Coalition for Vaccination and to improve stakeholder collaboration to increase vaccine uptake across Europe. The Coalition for Vaccination brings together European associations of healthcare professionals and relevant student associations in the field, and the IMMUNION project aims to increase the visibility and reach of the Coalition through a number of approaches and activities, focused on vaccine communication and education and training of healthcare professionals.

One of these activities is to design and launch a website for the Coalition. This website will also serve as a homepage for the IMMUNION project, as a platform for a ‘Training of Trainers’ function, and as a gateway to validated training materials for healthcare professionals on vaccine communication, vaccine safety, fighting misinformation, and other critical topics which will increase healthcare professionals’ confidence to talk about vaccines with patients, parents and the general public. These training materials will be hosted on the SEKI platform (Strengthening Education and Knowledge on Immunisation), accessible via the Coalition website.

The Work Package 4 partners carried out a survey to find out healthcare professionals’ views on their needs regarding training. The objective was to receive at least fifty survey responses from at least five organisations represented in the IMMUNION consortium and the Scientific Advisory Board (SAB). The latter includes representatives from nearly all the full member organisations of the Coalition representing different healthcare professions such as doctors, nurses, pharmacists, midwives, and dentists across Europe. Moreover, it has members from the relevant student associations in the field.

The survey results will be used to inform the design of the Coalition for Vaccination website, including resources on the linked SEKI Platform. This summary provides an overview of the results.

2 Methodology

2.1 Survey Design

The survey questions were drafted by the Coalition for Vaccination co-chairs and were based on the existing Vaccine Training Barometer developed by the University of Antwerp (an IMMUNION partner, and WP5 lead) under the framework of the [EU Joint Action on Vaccination](#). This was done to remove possible duplication and ensure that the survey also provided useful intelligence to inform activities of IMMUNION Work Package 5 which will develop vaccine communication training materials, consisting of ‘Training of Trainers’ workshops and special vaccinology sessions for congresses or conferences of healthcare professionals.

The draft survey questions were circulated among IMMUNION partners and the SAB representatives for feedback. Nine of the 15 SAB members provided comments and suggestions to the draft questions. The final draft questionnaire was amended accordingly.

The final survey questions were uploaded to the Qualtrics survey tool, which was provided by the University of Antwerp, and were translated in all EU languages using the automatic machine translation function of the Qualtrics survey tool.

The draft survey questionnaire was also tested to ensure it was convenient and easy to complete for healthcare professionals. During the testing phase, an average time of 5-10 minutes was recorded to complete the survey.

One week prior to the launch, the online survey link was shared together with a cover letter with the members of the SAB, the Coalition for Vaccination and IMMUNION partners. All organisations were requested to disseminate the survey link to their national member organisations in order to ensure a wide geographical spread and variety in healthcare professions.

The survey was launched on 7 June, and it ran until 4 July 2021. It was disseminated by emails and published on the social media channels of several Coalition for Vaccination members. Moreover, it was actively shared by several national healthcare professional organisations through their local networks using a variety of dissemination tools, including emails and newsletters. In addition, a reminder was sent to the IMMUNION partners, the Coalition for Vaccination members, and the SAB in mid-June.

2.2 Survey Analysis

The survey was analysed using the Qualtrics survey tool Reports function. This tool allows to filter responses for different categories of choice, such as nationality or profession indicated in the questions 1 and 2.

The Qualtrics Report tool allows to export the graphs and text responses in different formats. For this analysis, the Word format was chosen, and the displayed results have been copied in the Results Section.

For the analysis of the text responses to the open questions, Google Translate was used to translate the received responses from different EU languages into English to ensure full comprehension.

The open text responses were consequently analysed and grouped. To some questions, hundreds of open text responses were received. Therefore, they were analysed qualitatively and the responses that added new information to the closed responses already provided were identified. A qualitative summary of the open responses received were added to the graphs and tables that could be extracted from the Qualtrics survey tool under the section Results.

3 Results

A total of 3298 completed responses were received by 4 July 2021. This is a lot more than what was expected, showing the interest of healthcare professionals. This chapter provides a summary of responses to each of the questions of the survey.

Q1 - In which country are you professionally active?

The results of the first question indicate the countries where respondents are professionally active. It is notable that a high share of responses was recorded in Romania (39%) and Greece (29%). These countries and Latvia were specifically targeted because the IMMUNION Work Package 5 aims to organise 'Training of Trainers' workshops there. A relatively high share of

responses was recorded in Latvia but also in Austria, France, Ireland, Italy, Malta, and Portugal. Moreover, there was an adequate number of responses from all other EU countries but also from non-EU countries such as Iceland, North Macedonia, Norway, Serbia, Switzerland, Turkey, the United Kingdom, and the United States.

Q2 - What is your main profession?

The second question showed that the balance between different healthcare professionals among the respondents was good, also when taking into account the number of active healthcare professionals in each profession. Responses were received from more than five organisations represented in the IMMUNION consortium and the Scientific Advisory Board (SAB). The majority of respondents were doctors, nurses and pharmacists. Midwives, dentists and healthcare students participated as well. Some respondents were active as physiotherapists, psychologists and other academics.

Q3 - In general, do you feel confident to respond to patients' questions about vaccines?

More than half of the respondents (54%) answered that they feel confident in answering patients' questions about vaccines. More than a third of the respondents (36%) were similarly confident stating that they were most of the times confident to answer patients' questions on vaccines. Only 3% of respondents did not feel confident at all.

Q4 - During the last year, were there questions about vaccines that you could not answer?

Only one third (34%) of the respondents answered that in the past year there were no questions about vaccines that they could not answer. In contrast, more than half (53%) of the respondents stated that they were unable to answer questions about the COVID-19 vaccines. Moreover, 13% of the respondents stated that they were unable to answer questions about other vaccines. Those respondents expressed that it is difficult to provide answers particularly to questions on vaccine safety, adverse events and the side effects of vaccines, and their effectiveness and working mechanisms. Some respondents felt that questions on the composition of vaccines, their use in special populations (e.g., pregnant or immunocompromised patients), vaccination schedules, dosage schedule, duration of protection, herd immunity, and the functioning of the immune system were difficult.

Q5 - Do you feel you have gained sufficient knowledge to support you in answering questions about vaccines?

Two thirds of the respondents (66.5%) felt that they have gained sufficient knowledge to support themselves in answering questions about vaccines, with most of these respondents acquiring this knowledge through additional education (in-service training). The rest of the respondents had acquired it through standard education (pre-service training) or personal experience. However, it is notable that one third of the respondents answered that they have not gained sufficient knowledge.

Q6 - Have you followed any specific course/information lecture or other in-service training about vaccines since being licensed to practice?

According to the results, 33% of the respondents had sought information on vaccines through self-studies, 29% had followed an info session(s), and 20% had followed a course about vaccines since being licensed to practice. Moreover, 18% answered they did not follow any specific course.

Q7 - Would you be willing to follow an extra course about vaccines in case it was provided?

An overwhelming majority (89%) of the respondents answered that they would be willing to follow an extra course on vaccines should it be provided. Amongst those who are willing to take such a course, half (49%) preferred the option of an online course. Other options were divided quite evenly between the respondents: a one-day course (16%), a 3-hour lecture or workshop (15%), a one-hour lecture or workshop (13%) and 5-day course (7%).

Q8 - What was the most frequent topic of the questions you received in the past year (excluding COVID-19 vaccines)?

The survey results indicate that the most frequent topic of questions the respondents received in the past year, excluding COVID-19 vaccines, centre around side effects and vaccine safety (39%). This is further followed by questions on national and regional vaccination schedules (13%), vaccine specific questions (13%), catch-up vaccination (12%) and clinical manifestation of disease (12%). With regards to vaccine specific questions, responses identified questions surrounding various vaccines such as MMR, HPV, rotavirus, hepatitis, pneumococcal, meningococcal, and tick encephalitis vaccines. However, the vast majority of responses were related to influenza and COVID-19 vaccines even though the respondents were asked to exclude the latter. Moreover, some COVID-19 vaccine brands such as AstraZeneca and Pfizer were specifically mentioned.

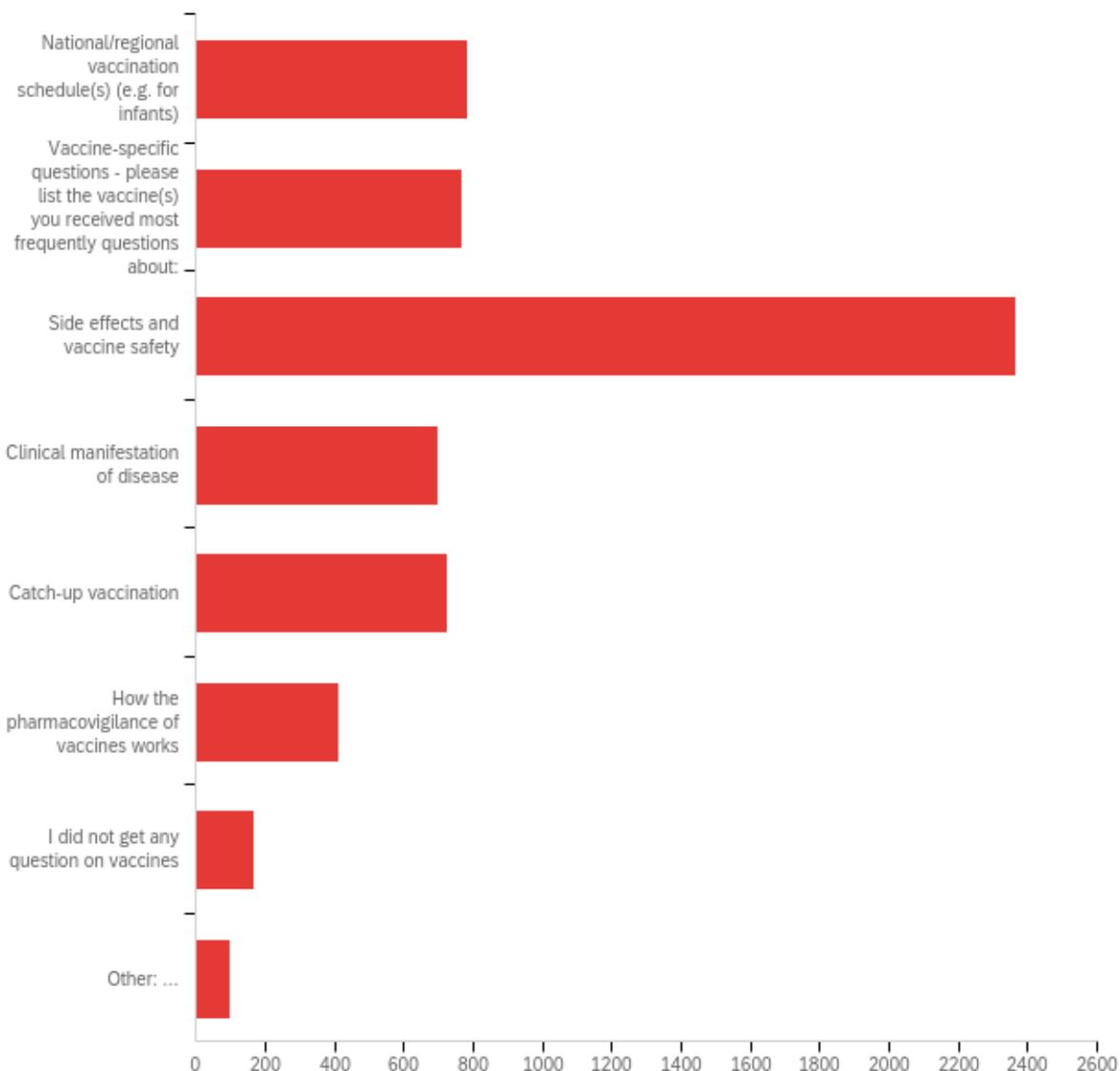


Figure 1: What was the most frequent topic of the questions you received in the past year (excluding COVID-19 vaccines)?

Q9: Where do you look for information about vaccines?

The results show that healthcare professionals use various sources to look for information about vaccines. Of the respondents, 22% preferred online medical libraries (e.g., PubMed, Google Scholar) and standard medical platforms, 19% online search engines such as Google search, 15% national or regional professional standards or guidance, 14% national or regional health institutes, and 13% international health agencies or authorities. Several respondents indicated that the websites or the online information tools developed by national or regional healthcare professional associations and social media platforms were used to search for information on vaccines. In addition, some respondents indicated that they ask their healthcare professional colleagues or contact their national or regional healthcare professional associations.

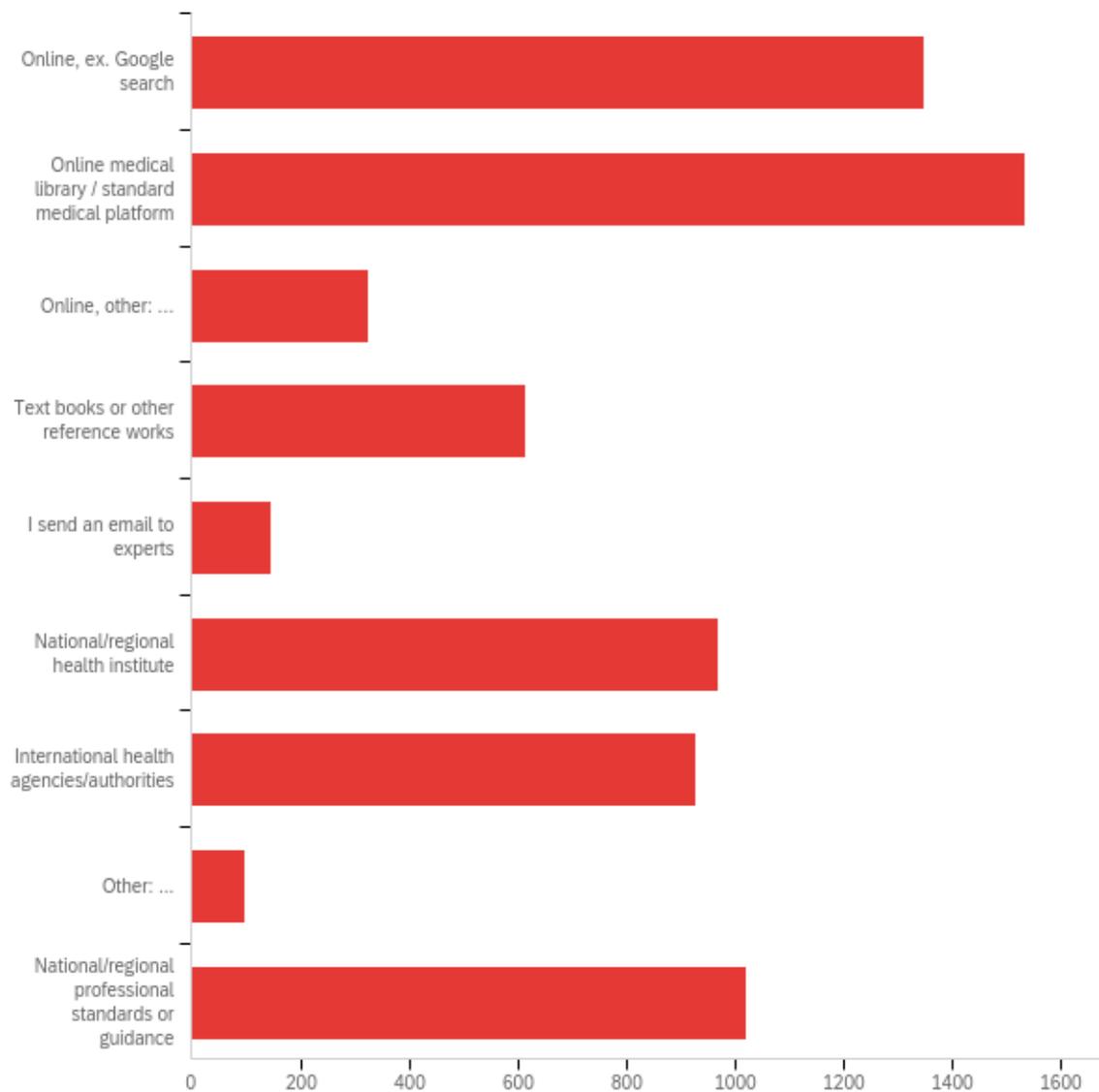


Figure 2: Where do you look for information about vaccines?

Q10 - What type of extra support would be useful to feel more confident in answering the questions of your patients?

The survey results show that healthcare professionals would find a wide variety of extra support measures useful to feel more confident in answering the questions of their patients. Amongst the most popular measures were training courses and education on vaccines and vaccinology, mobile applications with information on diseases and vaccines, and a website dedicated for the topic. Also, an FAQ system, a training course on effective communication with patients, government recommendations/support, a leaflet, and a 24/7 telephone or email helpline were mentioned. For those suggesting other supports, three main actions were elaborated, notably integration of vaccine education in undergraduate training, increased public voice of pharmaceutical companies in helping to debunk common myths, and an online forum to discuss with other healthcare professional colleagues.

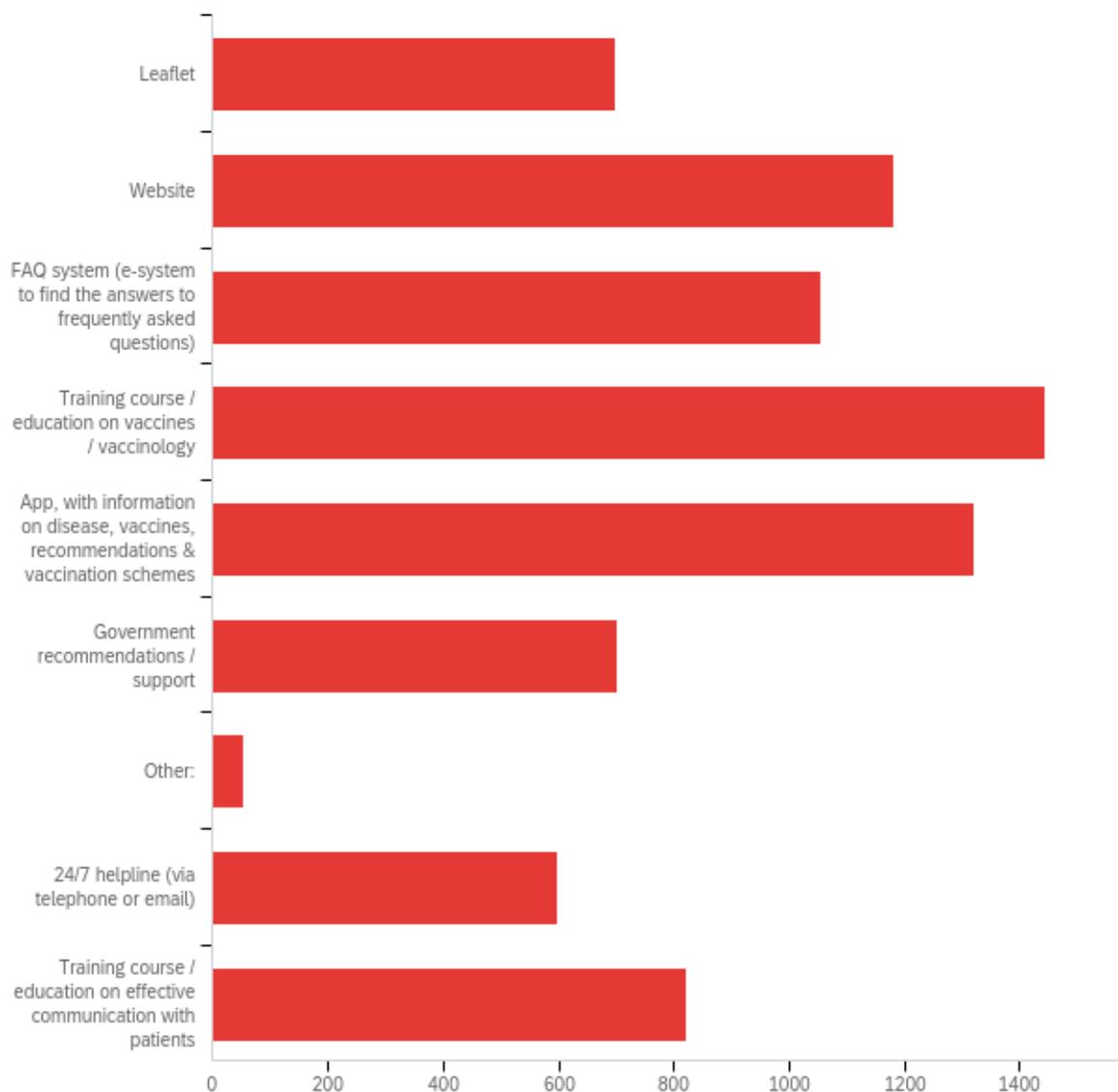


Figure 3: What type of extra support would be useful to feel more confident in answering the questions of your patients?

Q11 - Which are your preferred trusted sources for educational information on vaccines beyond undergraduate training and continuous education programmes?

According to the survey results, healthcare professionals' preferred trusted sources for educational information on vaccines (beyond undergraduate training and continuous education programmes) were European / international health institutions (23%), national or regional health institutions (22%), and healthcare professional organisations (19%). Scientific journals and individual scientific/healthcare professional experts were also deemed a trusted source by some respondents.

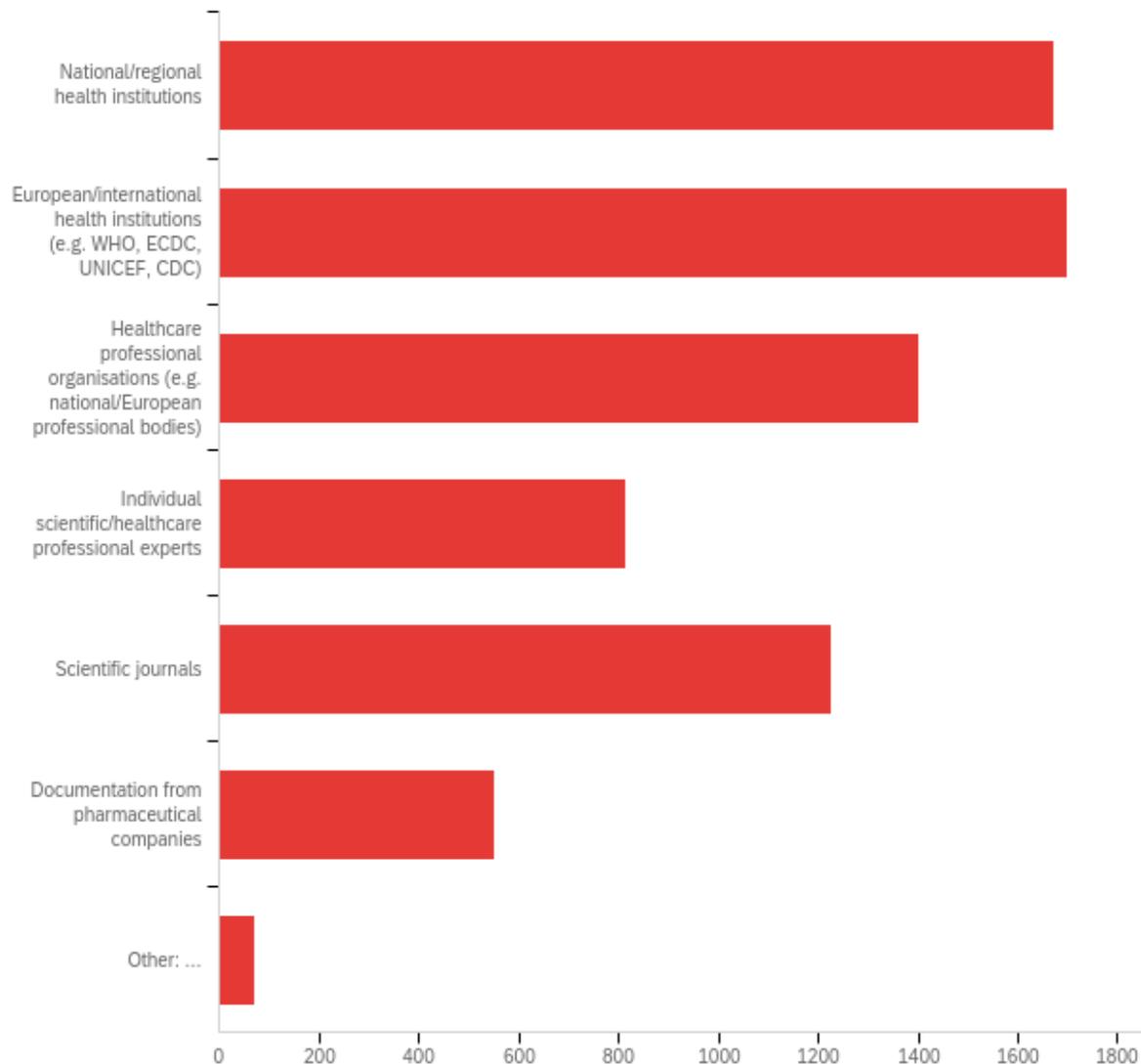


Figure 4: Which are your preferred trusted sources for educational information on vaccines beyond undergraduate training and continuous education programmes?

Q12: Which of the following topics do you consider important when accessing online training materials on vaccination?

Healthcare professionals were asked to rate the importance of topics they consider important when accessing online training materials. Respondents considered side effects, vaccine safety and pharmacovigilance as the most important topic which should be addressed. They also considered that online training materials should highlight the benefits and effectiveness of vaccines. Moreover, mode of action of vaccines, vaccine-specific considerations (e.g., contra-indications and interchangeability of vaccines), type of vaccines (e.g., inactivated, live-attenuated, mRNA, viral vector, etc.), how to address vaccine hesitancy (including the most common myths and concerns on vaccines), vaccination schedules, immunology, and communication techniques on vaccines with patients/parents were rated. Some respondents also identified other topics which could be covered in online training materials, for instance, the use of vaccines in special populations such as pregnant or immunocompromised patients. In addition, the long-term effects of vaccines was specifically mentioned as a topic which not was given in the questionnaire.

Q13: Which type of educational formats would you find important in an online training platform on vaccination?

Healthcare professionals identified explanatory videos as the most important educational format for online vaccination training platforms. Respondents also placed importance on summarised text information (e.g., fact sheets, short articles), scientific publications, frequently asked questions (FAQ) pages, webinars and recorded lectures, live online courses, and infographics and visuals. Podcasts and interactive learning tools (e.g., quizzes or exercises) were seen as the least favourable formats. Several respondents commented that they see a need for a format in which they would be able to ask questions directly. As suggestions, options such as establishing an online forum or live online Q&A sessions with experts were mentioned. In addition, several respondents highlighted that navigation and search functions should be easy to use.

Q14: Do you find it important to access educational resources in your native language or are English-language resources acceptable?

More than half of the survey participants responded that accessing educational resources written in the English language would be acceptable. However, 47% of the respondents answered that they would only access the educational resources if they were written in their own native language. Here, it is notable that the latter option was preferred particularly by the Romanian respondents (73%). This has to be taken into account because the highest share of all survey responses (39%) was recorded in Romania.

Q15: Do you have any additional suggestions or comments regarding the design and/or content of the online training platform for healthcare professionals?

The respondents had an opportunity to give additional suggestions or comments regarding the design and/or content of the online training platform for healthcare professionals. The majority (>80%) had no additional suggestions. However, relevant comments were given by the rest of the respondents. They suggested for example ensuring the accessibility of platform also after the IMMUNION project has ended, making the new platform known and easy to search and find, making the platform interactive and easy to use, keeping the information accurate and up to date,

and creating awareness about the tool already to healthcare students in their curricula. Moreover, it was suggested that the materials should be simplified as much as possible, and the terminology should be explained (e.g., via a glossary). Finally, it was reminded that there should be a possibility to print the materials, with simplified information, to be shared with the public, and that automatic machine translations should not be used for the development of educational materials.

4 Discussion

The IMMUNION survey results show that there are many healthcare professionals who are unable to answer their patients' questions about vaccinations, especially in relation to the COVID-19 vaccines. It is notable that one third of the respondents answered that they have not gained sufficient knowledge to support themselves in answering questions about vaccines.

On the other hand, the survey shows that many healthcare professionals do feel confident to respond to these questions as they have gained sufficient knowledge, with most of these respondents acquiring this knowledge through additional education (in-service training). Some respondents had sought information also through self-studies.

It is important that the less confident healthcare professionals are able to gain more knowledge. The survey shows that the majority of healthcare professionals would be willing to follow extra courses on vaccines if they were provided, preferably in an online format. Also, a mobile application or a website dedicated to the topic were preferred options. These platforms should contain educational materials such as explanatory videos, fact sheets, short articles, scientific publications, frequently asked questions (FAQ) pages, webinars, and recorded lectures. The respondents highlighted that the materials should be easy to find and to navigate.

The most difficult questions for healthcare professionals are related particularly to vaccine safety, adverse events and the side effects of vaccines, and their effectiveness and working mechanisms. The survey results indicate that these are also the most frequent questions the respondents received in the past year. In addition, the respondents had received questions for example on the national and regional vaccination schedules, specific vaccines, and catch-up vaccinations. With regards to vaccine specific questions, the vast majority of responses were related to COVID-19 and influenza vaccines.

The training materials should therefore focus on these topics. The survey respondents also wished that the materials would advise how to address vaccine hesitancy and introduce some communication techniques with patients and parents. Moreover, healthcare professionals considered that training materials should also take more positive approach and highlight the benefits and effectiveness of vaccines.

The survey shows that healthcare professionals use various sources to look for information on vaccines. These sources can be online medical libraries and standard medical platforms, online search engines, national or regional professional standards or guidance, national or regional health institutes, and international health agencies or authorities. Several respondents indicated that the websites or the online information tools developed by national or regional healthcare professional associations were also used to search for information on vaccines. At the same time, European and international health institutions, national or regional health institutions, and healthcare professional organisations were seen as their preferred trusted sources for

educational information on vaccines beyond undergraduate training and continuous education programmes.

The survey was responded by 3298 healthcare professionals from all the European Union member states but also other European countries. However, a high share of responses was recorded in Greece and Romania.

The balance between different healthcare professionals among the respondents was good. The majority of the responses were given by doctors, nurses and pharmacists, but also midwives, dentists, and different healthcare professional students participated in the survey. Overall, the results from different healthcare professions were very similar.

The language of the vaccination training materials should be considered when developing the website. More than half of the survey participants responded that accessing educational resources written in the English language would be acceptable. However, the other half answered that they would access the resources only if they were available in their own native language. Here, it is notable that the latter option was preferred particularly by the Romanian respondents. This has to be taken into account because the highest share of all survey responses was recorded in Romania.

5 Conclusions

The IMMUNION survey shows that there is a need for additional vaccination training for many healthcare professionals in Europe because not all healthcare professionals do feel confident to respond their patients' questions about vaccinations. Therefore, the new the Coalition for Vaccination website will be an important support as it will serve as a platform for a 'Training of Trainers' function and as a gateway to validated training materials for healthcare professionals on vaccine communication, vaccine safety, fighting misinformation, and other critical topics which will increase healthcare professionals' confidence to talk about vaccines with patients, parents and the general public. The survey results also reveal that healthcare professionals use various sources to look for information on vaccines. Among these, sources provided by healthcare professional organisations were seen as one of the most preferred and trusted. As the Coalition for Vaccination brings together European associations of healthcare professionals and relevant student associations in the field, the new Coalition website has a great potential to reach the different healthcare professionals and increase their knowledge on vaccination.

The results will be further analysed and discussed amongst the IMMUNION consortium members. They will be taken into account to further develop the Coalition website (in liaison with WP2), inform the development of the SEKI platform (in liaison with WP2), inform the development of some of the communications materials produced by the Coalition (WP4), and provide valuable input into the development of the 'Training of Trainers' workshops at European level and in the three countries the project targets (WP5). Therefore, WP5 colleagues will specifically analyse the results from Greece, Latvia and Romania.