



WP4 Understanding and Preparing

D4.2 Online Surveys with Questionnaires Validated and Culturally Adapted



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Online Surveys with Questionnaires Validated and Culturally Adapted

DATE

October 2024

VERSION

Version 1.0

REPORT AUTHORS

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PROJECT COMMISSIONED BY

EU4Health Programme, European Commission

European Health and Digital Executive Agency

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Document Information	
Project Title	Developing a Country-Observatory for sharing best practices for vaccination promotion
Project Acronym	co-OPERATOR
Grand Agreement	101133251
Work Package	4
Deliverable	4.2
Contractual Date of Delivery	31.10.2024
Actual Day of Delivery	31.10.2024
Responsible Partner	Cyprus University of Technology
Document Status	Draft V1.0
Total Number of Pages	193
Attachments	9



Executive Summary

The EU-funded project, co-OPERATOR, aims to gather, structure, and disseminate knowledge, best practices, and resources related to strategies for COVID-19 vaccination. The primary focus is on advancing communication, knowledge, and skills while addressing systemic barriers and facilitators to effectively promote vaccination messages to the population. This document reports on the methodology used to address the objectives of Task 4.3 of Work Package 4 and outlines the next steps.

Task 4.3 is dedicated to the development and validation of the tools that will be used in Work Package 5 to collect empirical data from Cyprus, Greece, Italy, and Portugal related to vaccination hesitancy and promotion and its determinants. The surveys are designed so that data will be collected a) from the general population to understand the determinants of vaccination hesitancy and b) from healthcare professionals to understand the barriers and facilitators of promoting vaccine information. Two established theoretical frameworks from the behavioural sciences were used to design these surveys, namely the 7C Vaccination Readiness Model and the Capabilities, Opportunities, Motivation-Behaviour Model (COM-B), for the general population and the healthcare professionals respectively.

As a first step, a review of the literature was carried out to identify existing tools focused on the theoretical frameworks of interest. Three relevant scales were identified based on the 7C Vaccination Readiness Model while no existing quantitative tools were identified for healthcare professionals based on the Capabilities, Opportunities, Motivation-Behaviour Model.

Internal and external input by experts was provided on the development of the two surveys. The main scale consisting of the survey for the general population is the validated 7C Vaccination Readiness Scale, which presented significant advantages as compared to the other scales. Provided that no previous tools for healthcare professionals were identified that could adequately serve our purpose, the COM-B Vaccination Promotion Questionnaire was developed by the study team.

The psychometric validation of the tools that consist of the two surveys includes forward/backward translation and cultural adaptation followed by expert reviewing as well as pilot testing using cognitive interviewing with end users before the administration to the general population and healthcare professionals to assess their acceptability, validity, and reliability. Given that the COM-B Vaccination Promotion Questionnaire is a novel instrument, an Expert Consensus Study was also conducted to examine the content validity of the questionnaire prior translation.

A rigorous process was followed in all participating countries for the development and validation of the tools consisting of the two surveys using best practices to ensure that the data collected during Work Package 5 and beyond will provide robust evidence.



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List of Abbreviations

CNBC - Cyprus National Bioethics Committee
COM-B - Capabilities, Opportunities, Motivation-Behaviour
CUT - Cyprus University of Technology
D4.2 - Deliverable 4.2
HCPs - Healthcare Professionals
MS - Ministry of Health of the Republic of Portugal
T4.3 - Task 4.3
UNIPi - University of Pisa
WP4 - Work Package 4

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Figure 1. The 7C Vaccination Readiness Model. Arrows indicate a positive (+) or negative (-) association between each of the components and general vaccination readiness.

Figure 2. The COM-B Model of behaviour.



About the Project

The co-OPERATOR project seeks to leverage the evidence suggesting that the transmission of vaccination messages to the population has been met with varying degrees of success. There is a clear need to enhance stakeholders' capacities and opportunities for effective engagement in vaccination promotion initiatives. Addressing vaccination hesitancy is a multifaceted challenge that demands the mobilisation of diverse actors, ranging from healthcare professionals to local governments. The aim of the project is to develop and pilot a knowledge hub, virtual observatory, and training system in the five participating countries, Cyprus, Greece, Italy, Netherlands, and Portugal, as proof-of-concept that will collect, organise, and disseminate knowledge, best practices, and resources related to stakeholders' strategies used and needs towards vaccination against COVID-19 and beyond with an emphasis on advancing communication, knowledge, and skills whilst recognising and tackling systemic barriers and facilitators for promoting vaccination to the population.

Specific objectives:

- The co-OPERATOR project will develop an innovative and citizen-centred digital solution with an evidence-based virtual observatory to increase vaccine uptake and vaccine literacy among participating countries.
- will support decision-makers, experts, and EU citizens to understand the determinants of vaccine uptake and healthcare professionals' (HCPs') barriers and facilitators of promoting vaccine information.
- The project will integrate two established theoretical frameworks from the behavioural sciences in this endeavour.
- The tailored approach implemented by the project on the target populations will improve health outcomes and strengthen effectiveness of innovative approaches to vaccination uptake.

The co-OPERATOR consortium foresees engaging target populations through the direct involvement of local communities to foster a shared vision of innovative approaches to health that are citizen-centred, multi-stakeholder and capable of stimulating new service models.

Keywords: Vaccination promotion, Digital Transformation, Virtual Observatory, Awareness, Data management, Capacity Building, Knowledge Transfer, Policy Development

Partners of the project:

Coordinator

1. CUT-TECHNOLOGIKO PANEPISTIMIO KYPROU

Beneficiaries

2. CSI-CSI CENTER FOR SOCIAL INNOVATION LTD
3. MS-MINISTERIO DA SAUDE - REPUBLICA PORTUGUESA
4. UNIFI-UNIVERSITA DI PISA
5. CSSA-COMPUTER SOLUTIONS ANONYMI VIOMICHANIKI KAI EMPORIKI ETAIREIA PLIROFORIKIS
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1 Introduction

Deliverable 4.2 (D4.2) concerns with the progress achieved during Task 4.3 (T4.3) of Work Package 4 (WP4). The task is focused on the development and validation of the tools that consist of the survey for the general population and the survey for HCPs. Specifically, there were two main surveys to be prepared and validated, one for the general population focused on the determinants of COVID-19 vaccination hesitancy and one for HCPs focused on barriers and facilitators of promoting vaccination efficiently. There were also two validation study protocols to be developed, describing the psychometric validation of the tools that consist of the survey for the general population and the survey for HCPs, respectively. The project integrates two established theoretical frameworks from the behavioural sciences, the 7C Vaccination Readiness Model (Geiger et al., 2021) and the Capabilities, Opportunities, Motivation-Behaviour (COM-B) Model (Michie et al., 2011), respectively.

1.1 Theoretical Frameworks

1.1.1 The 7C Vaccination Readiness Model

Grounded in previous theoretical models (Betsch et al., 2018; Larson et al., 2014; MacDonald, 2015; Thomson et al., 2016), the 7C Vaccination Readiness Model reflects a broad scope of psychological antecedents to vaccination. These include *confidence* (refers to trust in the safety and effectiveness of vaccines and trust in health authorities and health officials who recommend and develop vaccines), *complacency* (refers to the perceived risk and perceived level of threat of vaccine-preventable disease), *constraints* (refers to structural or psychological barriers that make vaccination difficult or costly), *calculation* (refers to when personal costs and benefits of vaccination are weighted), *collective responsibility* (refers to the willingness to protect others by getting vaccinated by means of herd immunity), *compliance* (refers to the support of punishment for refusing vaccination and giving benefits to those who have been vaccinated), and *conspiracy* (refers to the belief in conspiracy theories and fake news related to vaccination) (Geiger et al., 2021). It was derived from the 5C Vaccination Readiness Model (Betsch et al., 2018), with the addition of *compliance* and *conspiracy* items. The model was highly relevant and used during the COVID-19 pandemic as a behavioural model that was developed specifically to understand individual determinants of vaccination hesitancy. Figure 1 below illustrates the 7C Model.

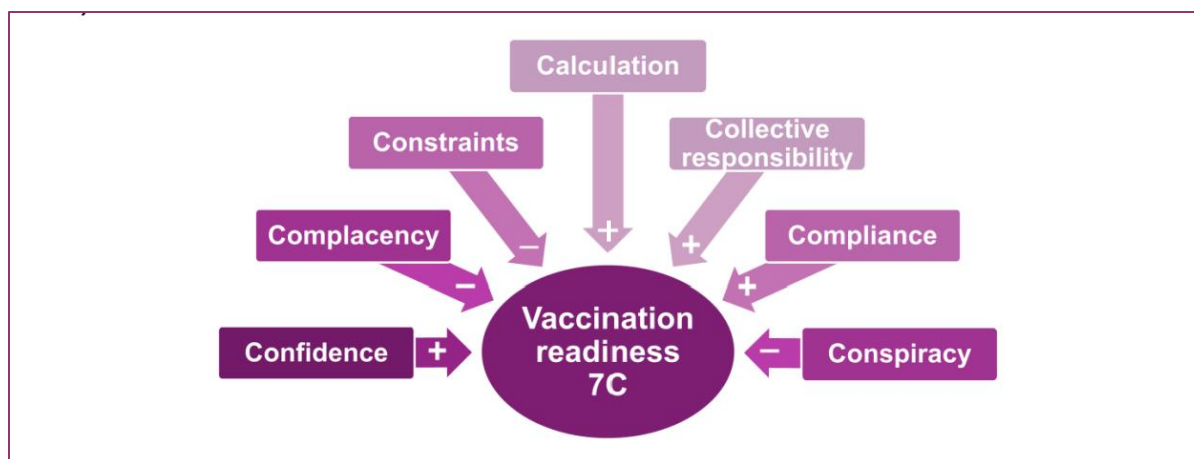


Figure 1. The 7C Vaccination Readiness Model. Arrows indicate a positive (+) or negative (-) association between each of the components and general vaccination readiness.

1.1.2 The COM-B Model

The COM-B Model is based on the Behaviour Change Wheel (Michie et al., 2011) and is one of the most widely used models to understand the context in which individuals perform certain behaviours, including vaccination (Habersaat & Jackson, 2020). It ascertains behaviour in three determinants: the individuals' capabilities, opportunities, and motivation to initiate the behaviour (in this case, to promote vaccination efficiently). *Capability* refers to whether an individual has the knowledge, skills, and abilities to engage in a behaviour and its components are psychological capability (knowledge, strength, skills, stamina) and physical capability (physical strength and skill). *Opportunity* refers to the external factors which make the execution of behaviour possible, and its components are physical opportunity (provided by the environment such as time, location, resources) and social opportunity (such as social factors, cultural norms, and social cues). *Motivation* refers to the internal processes which influence decision-making, and its components are reflective motivation (such as plans, evaluation) and automatic motivation (such as impulses, inhibitors, and desires). The COM-B is a comprehensive theoretical model that provides a structure to identify both behavioural and contextual barriers and facilitators of vaccination promotion by HCPs which can then be mapped to evidence-based intervention functions and subsequent policy domains. The COM-B Model is illustrated in Figure 2.

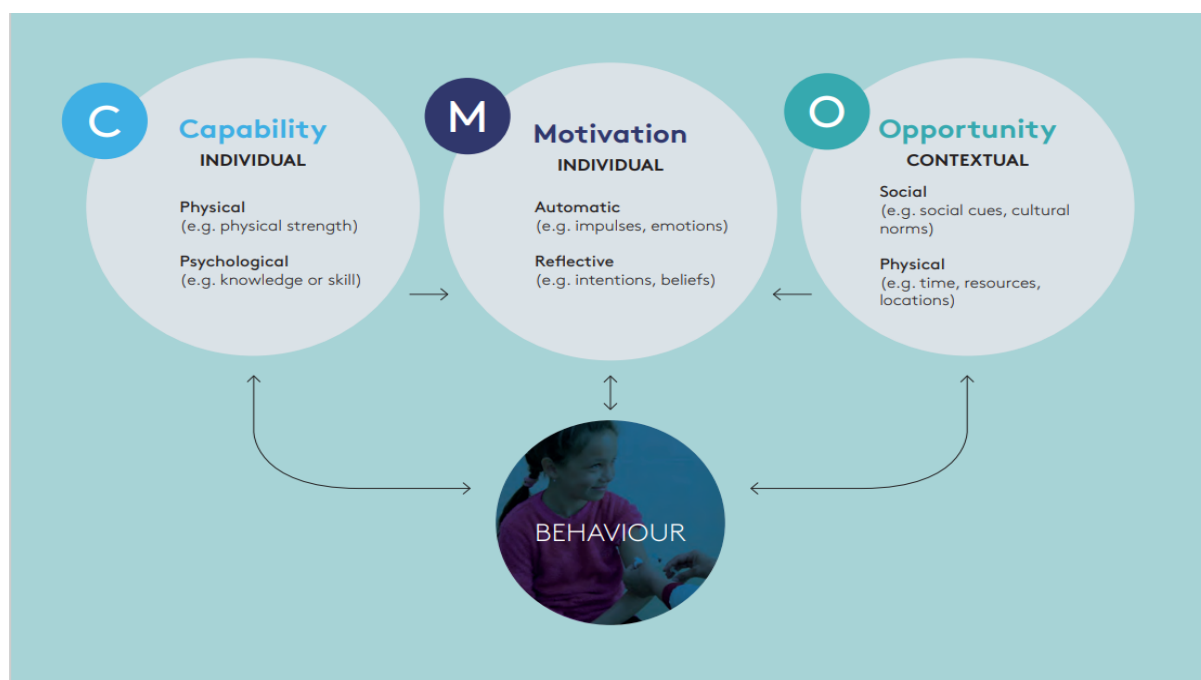


Figure 2. The COM-B Model of behaviour change.

2 Objectives of T4.3

The following objectives had been set for T4.3:

- (a) Objective 4.1: To develop the survey tools, based on the 7C Vaccination Readiness Model and the COM-B Model, to be used for empirical data collection in Cyprus, Greece, Italy, and Portugal during WP5 and
- (b) Objective 4.2: To evaluate the tools' translation, cultural adaptation, and psychometric properties to ensure the data collected during WP5 and beyond (using the co-OPERATOR platform) will be robust.

3 Steps Followed to Address Objectives

To address objective 4.1 of T4.3, we first reviewed the existing literature to identify available tools for the general population and for HCPs based on the 7C Model and the COM-B Model, respectively.

3.1 Review of the Literature

3.1.1 Tools for the General Population Based on the 7C Model

To identify available tools measuring the determinants of COVID-19 vaccination hesitancy in the general population using the 7C Model, we set the following research questions: a) What are the existing tools (scales, questionnaires, surveys) for measuring the determinants of vaccination

hesitancy in the general population using the 7C Model and b) if available, what are the psychometric properties of the existing tools?

To answer our research questions, we searched the databases PubMed, Medline, Embase, Scopus, and PsycInfo using the search queries (7C OR '7C Model' OR '7C Framework') AND (Vaccination OR Vaccine OR Immunisation OR Immunization). The literature search was conducted by Dr Laura Panagi in February 2024. Restrictions were applied to include studies published in English and after 2020 since the 7C Model was established in 2021. No exclusion criteria were applied.

Most papers were excluded during the title and abstract screening because they were not within to the scope of the review. Three relevant scales were identified among 21 eligible papers, namely the 7C Vaccination Readiness Scale (Geiger et al., 2021; identified in 18 studies), the 8C Vaccination Readiness Scale (Howe & Dearnly, 2023; identified in 1 study), and the Knowledge-Attitudes 7C Questionnaire (Moirangthem et al., 2021; identified in 1 study). A set of data relating to the description of each scale as well as its psychometric performance was extracted with the aim of producing a clear and accurate summary of the characteristics of each scale. Relevant data collected from each scale are recorded in Table 1.

The 7C Vaccination Readiness Scale was the most widely used scale, developed to assess general vaccination readiness (the tendency to be willing and ready to get vaccinated) and seven components that may increase or decrease the likelihood of getting vaccinated (Geiger et al., 2021), as described in Figure 1. The scale builds on earlier work that distinguished five components of vaccination readiness, the 5C Vaccination Readiness Scale (Betsch et al., 2018), but with the addition of the *compliance* and *conspiracy* items. Findings from the psychometric validation of the scale in the general population in Denmark are summarised in Table 1. The psychometric validation of the scale confirmed a bifactor measurement model that consists of a general factor of vaccination readiness and of component-specific nested factors. The scale showed medium to large convergent validity and higher criterion (predictive) validity versus the previous 5C scale in predicting the willingness to get vaccinated against COVID-19. The scale has been translated in several languages, adapted to different vaccine types, and administered in different population studies with good psychometric performance (internal consistency from 0.64 to 0.95) (Kalebić Maglica & Šincek, 2022; Kyprianidou et al., 2023; Oudin Doglioni et al., 2023; Tokiya et al., 2022; Williams et al., 2022).

The most recently developed 8C Vaccination Readiness Scale (Howe & Dearnly, 2023), which builds upon the 7C framework, proposes an eighth component, *certification*, defined as the person's self-report that, in the past, they have had to provide evidence of vaccination. Findings from the Confirmatory Factor Analysis of a bifactor model of US citizens' self-reported COVID-19 vaccination status showed that this eighth component had good psychometric properties and the 8C model had slightly higher criterion (predictive) validity than the 7C model (see Table 1). Nevertheless, even though obtaining proof of vaccination could motivate individuals in taking the COVID-19 vaccine during the pandemic, since this would facilitate safe and free movement within and outside the country, the certification proof is, reasonably, not applicable in the post-COVID era when such restriction measures are uplifted.

The Knowledge-Attitudes 7C Questionnaire ((Moirangthem et al., 2021) was based on the 5C Vaccination Readiness Scale (Betsch et al., 2018) with the addition of two antecedents, namely *social conformism* (which refers to taking decisions by imitating peers) and *confidence in systems* (which refers to confidence in the wider circle of systems, including authorities and employer). Findings from the psychometric validation of the questionnaire showed higher criterion (predictive) validity versus the previous 5C Scale in predicting the willingness to vaccinate against COVID-19 (see Table 1). However, the questionnaire was adapted to apply to COVID-19 vaccination of healthcare and welfare sector workers specifically, and not of the general population.

All in all, results from the literature review aiming to identify available tools for measuring determinants of vaccination hesitancy in the general population using the 7C theoretical framework and their psychometric characteristics revealed that the 7C Vaccination Readiness Scale, which is the most widely used scale and with good psychometric performance, could sufficiently fulfill the co-OPERATOR objectives and, therefore, was selected to collect data from the general population in the different countries. This selection was further supported by the input received from the research team based at CUT, as described in section 3.2 (page 14) below.

Table 1. The psychometric properties of the three 7C-related Scales identified in the literature.

7C Scales	Validation sample	Exploratory factor analysis	Confirmatory factor analysis	Convergent validity	Criterion (predictive) validity	Other correlations
Geiger et al., 2021	N=681 General population Denmark/ Jan 2021	To determine items to be revised or replaced	Model fit: CFI=0.927 TLI=0.911 RMSEA=0.048 SRMR=0.046 Model saturation: $\omega=0.88$	Correlations with other relevant scales: $r=0.17$ to $r=0.60$	Explained variance in willingness to vaccinate: $R^2=0.84>$ $R^2=0.77$ (5C)	With short version: $r=0.92$
Howe & Dearnly, 2023	N=406 General population US/ Sep 2023	To determine components to be added	Model fit: CFI=0.815 TLI=0.786 RMSEA=0.079 SRMR=0.096 Model saturation: $\omega=0.76$	Not tested	Explained variance in willingness to vaccinate: $R^2=0.67>$ $R^2=0.66$ (7C)	With short version: $r=0.89$ 'Certification' with other components: $r=-0.08$ to $r=0.47$ 'Certification' items with each other: $r=0.45$ to $r=0.52$
Moirangthem et al., 2021	N=5,234 Healthcare and welfare workers France/ Dec 2020- Feb 2021	Not tested	Not tested	Not tested	Explained variance in willingness to vaccinate: $R^2=0.65>$ $R^2=0.14$ (5C)	Not tested

Note. N=number; CFI=Comparative Fit Index; TLI=Tucker Lewis Index; RMSEA=Root Mean Square Error of Approximation; SRMR=Standardised Root Mean Square Residual; ω =McDonald's omega; r =Pearson's correlation; R^2 =R squared

3.1.2 Tools for HCPs Based on the COM-B Model

To identify available tools measuring barriers and facilitators of promoting vaccination by HCPs based on the COM-B Model, we set the following research questions: a) What are the existing tools (scales, questionnaires, surveys) for measuring barriers and facilitators of promoting vaccination by HCPs based on the COM-B Model, and b) if available, what are the psychometric properties of the existing instruments?

To answer these research questions, we searched the databases PubMed, Medline, Embase, Scopus, and PsycInfo using the search queries (COM-B OR 'COM-B Model' OR 'COM-B Framework') AND (Vaccination OR Vaccine OR Immunisation OR Immunization). The literature search was conducted by Dr Laura Panagi in February 2024. Restrictions were applied to include studies published in English and after 2010 since the COM-B Model was established in 2011. No other exclusion criteria were applied.

Most papers were excluded during the title and abstract screening because they were not within to the scope of the review. Among 40 eligible papers, mostly included a qualitative measure for vaccination (e.g., interview guide) based on the COM-B model, with three COM-B scales being identified (Cordoba-Sanchez et al., 2022; Phillips et al., 2021; Shafie et al., 2023). Nevertheless, none of these scales was developed to measure HCPs' barriers and facilitators of promoting vaccination. After discussions with the research team based at CUT, as described in the section below, it was decided to build a new scale to be used to collect data during WP5 and beyond.

3.2 Internal and External Input

The development of the two surveys and the study protocols was supported by the input of the local team at Cyprus University of Technology (CUT), as well as our project collaborators based at the partner institutions as listed on page 7. Specifically, Dr Laura Panagi (Task Leader), held meetings with Dr Angelos Kassianos (Principal Investigator) and Dr Maria Kyprianidou (Project Manager) on a weekly basis. In addition, the local CUT team arranged two in-person meetings, in March 2024 and September 2024, to discuss the findings of the literature review and provide feedback on the content of the two surveys that were developed. More detailed, written feedback on the content of the surveys and study protocols was also obtained from the CUT team as well as partners based at the University of Pisa (UNIPi) throughout the whole duration of the Task. Furthermore, Dr Laura Panagi updated the WP Leaders about the progress achieved in relation to T4.3 and received crucial feedback during the Coordination Team meetings scheduled on a monthly basis. Furthermore, the second co-OPERATOR Steering Committee Meeting, which took place in Athens in July 2024, was another opportunity for Dr Laura Panagi to present, in-person, the work conducted and gain valuable input from all partners.

Apart from internal feedback, input from external experts was also sought. Specifically, Dr George Kassianos, General Practitioner in the UK and the National Immunisation Lead for the UK Royal College of General Practitioners and Dr Mattis Geiger, expert in psychological measurement and member of the team that developed the 7C Model, were invited to provide their written feedback on the two surveys and study protocols, respectively. In addition, Dr Laura Panagi conducted two online meetings with Ms Siff Malue Nielsen, Technical Officer for

Table 2. List of individuals involved in the development of the two surveys and the study protocols.

Literature review	Content development	Internal feedback on surveys and study protocols	External feedback on surveys and study protocols
CUT Dr Laura Panagi	CUT Dr Laura Panagi Dr Angelos Kassianos Dr Nicos Middleton Dr Ourania Kolokotroni Dr Koralia Michael Dr Christiana Nicolaou Dr Elena Rousou Dr Maria Kyprianidou Dr Maria Dimitriadou	CUT Dr Laura Panagi Dr Angelos Kassianos Dr Nicos Middleton Dr Ourania Kolokotroni Dr Koralia Michael Dr Christiana Nicolaou Dr Elena Rousou Dr Maria Kyprianidou Dr Maria Dimitriadou UNIFI Prof. Caterina Rizzo Dr Francesco Baglivo Dr Luigi de Angelis Dr Gianluca Cruschelli Prof. Lara Tavosci Dr Milena Pasquale	United Kingdom Dr George Kassianos University of Erfurt Dr Mattis Geiger

Vaccine-Preventable Diseases and Immunization at the WHO Regional Office for Europe, to discuss the content of the two surveys and opportunities for improvement. Table 2 lists all individuals involved in the development of the two surveys and the study protocols.

3.3 Survey Tools Development

3.3.1 Survey for the General Population

The survey for the general population, consisted mainly of items from the 7C Vaccination Readiness Scale. This decision was informed by the literature review, as described in section 3.1.1 (page 10) above, and further supported by the internal and external feedback received. The full version of the scale will be used in WP5 for data collection; it consists of 21 items (Geiger et al., 2021). Responses are rated on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree, with higher scores indicating higher confidence, complacency, constraints, calculation, collective responsibility, compliance, and conspiracy.

Additional measures were included in the survey for the general population. These measures were added a) to describe the population, b) to validate the 7C Scale and b) to collect empirical data during WP5 to cover a broader spectrum of vaccination readiness' determinants. Indeed, one disadvantage of the 7C Model is that it often omits tackling the wider contextual factors that can influence choice and therefore, this element is covered by adding further tools to the survey. The selection of the additional tools was informed by the findings of the desk review, as reported in D4.1. Consequently, apart from our main measure, the 7C Scale, self-reported information will be collected on sociodemographic data, health status, previous infection, whether they had

received recommendations for vaccination by a HCP in the past, vaccination behaviour and future vaccination intention, attitudes towards vaccination policies, and trust towards various institutions and stakeholders. The Vaccine Hesitancy Survey (Larson et al., 2015), the Behavioural and Social Drivers of Vaccination Survey (WHO, 2022), the 16-item European Health Literacy Questionnaire (Sørensen et al., 2015), and the Prosocialness Scale for Adults (Caprara et al., 2005) will also be administered. Adaptations to these tools were carried out by Dr Laura Panagi, where necessary, to reflect COVID-19 vaccination specifically. The survey for the general population (English version) is included in Annex 1.

3.3.2 Survey for HCPs

As mentioned in section 3.1.2 (page 14) above, no existing COM-B measures were identified addressing HCPs' barriers and facilitators of promoting vaccination hence the development of a novel instrument, the COM-B Vaccination Promotion Questionnaire. The newly developed questionnaire is targeted for HCPs (primary HCPs, secondary HCPs, nursing professionals, pharmacists, medical doctors under their specialisation training, and medical and nursing students on their final year) who are involved in vaccination promotion as part of their day-to-day communication with the people they see in practice. The target behaviour of the questionnaire is the capacity of the healthcare professional to promote COVID-19 vaccination.

Using the well-established COM-B model, the questionnaire items were generated by Dr Laura Panagi at CUT using deductive methods, through literature review and assessment of available scales and indicators of the domain. The Tailoring Immunisation Programmes guide (WHO, 2019a) was identified as a useful and comprehensive tool for the purposes of questionnaire development. Specifically, the Tailoring Immunisation Programmes approach, which is grounded on the COM-B model, has been developed by the WHO Regional Office for Europe to help countries achieve increased and equitable vaccination uptake through integrating research and behavioural insights into immunisation program planning and policy in each country. The guide provides a list of relevant topics to explore in research with HCPs, mapped onto the COM-B model, and was used to guide the item development phase. The items were developed in English language to maximise input from experts. The set of questionnaire items were reviewed by the project's collaborators as well as external experts. After item development, an Expert Consensus Study was followed to assess the content validity of the questionnaire. Section 3.4.2 (page 19) below describes the Expert Consensus Study in more detail.

Additional self-reported measures were included in the survey for HCPs. The reasons for adding further measures were a) to describe the sample, b) to compare responses with the COM-B Vaccination Promotion Questionnaire for validation purposes and b) to enrich the empirical data that will be collected during WP5. Therefore, apart from the developed COM-B Vaccination Promotion Questionnaire, information will be collected on sociodemographic data, job duties, vaccination behaviour and intention, an open question about the perceived barriers and facilitators of vaccination promotion, and questionnaire indicators such as whether the questions included in the questionnaire were easy to understand or not, interesting or not, fair and balanced or not. The survey for HCPs (English version) is included in Annex 2.

3.3.3 The Addition of Influenza-related Questions

In agreement with the Task's objectives, the two surveys were developed to target COVID-19 vaccination. Following discussions with the project's collaborators in the different countries, it was deemed useful to also collect data related not only to COVID-19 vaccination but also to other annual vaccinations, specifically influenza vaccination (Center for Disease Control and Prevention, 2024). Indeed, influenza remains a significant respiratory illness that poses a continual threat to public health (Javanian et al., 2021; WHO, 2019b). Both COVID-19 and influenza vaccination rates in Europe are suboptimal (Chen et al., 2022; Lazarus et al., 2023; Mathieu et al., 2020) and the co-administration of COVID-19 and influenza vaccines has emerged over the past few years as a critical strategy to enhance vaccination coverage (Achterbergh et al., 2024). Therefore, in the post-COVID era, understanding vaccine hesitancy towards *annual* vaccinations, and HCPs' abilities to promote both types of vaccines, is essential to inform targeted intervention and policy strategies. Subsequently, moving above and beyond the Task's objectives, the two surveys include both COVID-19-related and influenza-related items, with the same item being applied twice, reflecting COVID-19 and influenza vaccines, respectively. This decision was made during the co-OPERATOR Kickoff meeting in Cyprus in January 2024.

3.4 Survey Tools Validation

To address objective 4.2 of T4.3, we first developed two study protocols referring to the psychometric validation of the selected 7C Vaccination Readiness Scale and the psychometric validation of the newly developed COM-B Vaccination Promotion Questionnaire, respectively. For the validation of the 7C Scale, the Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN) Study Design Checklist (Mokkink et al., 2019) was used to support the design of the study. The COSMIN checklist is recommended for designing studies to evaluate measurement properties of existing scales (Mokkink et al., 2019). For the validation of the COM-B Vaccination Promotion Questionnaire, we used a rigorous process to develop and evaluate the new instrument using best practices for developing and validating scales for health, social, and behavioral research (Boateng et al., 2018). The two study protocols are included in Annex 3 and Annex 4, respectively.

3.4.1 Survey for the General Population

As outlined in the study protocol (see Annex 3), the tools consisting of the survey for the general population were translated and culturally adapted in Greek from the CUT team, in Italian from the UNIPI team, and in Portuguese from the Ministry of Health of the Republic of Portugal (MS). The same activities were carried out in all countries. We used a standard translation procedure (Boateng et al., 2018; Sousa & Rojjanasrirat, 2011) where two independent translators carried out forward translation (from English to the language of interest), followed by a backward translation (from the language of interest to English) by another two independent translators. The original, forward, and backward translations were then evaluated by local experts (at least 4 experts per country) who provided their written feedback. Feedback was addressed by the study teams in the different countries to result in revised translated and

culturally adapted versions of the survey. The Greek, Italian, and Portuguese versions of the survey are included in Annex 5, Annex 6, and Annex 7, respectively.

To finalise translation and cultural adaptation of the survey tools, we carried out cognitive interviews with 5-15 end users in each country who provided their feedback on the content of the tools (Boateng et al., 2018). Using cognitive interviewing, we aim to improve the quality, interpretability and usability of the survey. During the interviews, we asked participants to provide in-depth insights on the content of the questionnaire to ensure that questions and response options are clear and easy to understand (face validity), and well-adapted to the local language, cultural context, and healthcare system. Albeit citizens in Cyprus and Greece use the same language, given the different cultural contexts and healthcare systems, we deemed necessary to carry out cognitive interviews in Greece as well. Thus, we invited our collaborator Dr Panayiota Dimitropoulou (School Psychologist based at the University of Crete) to help with this process in Greece. A Cognitive Interview Guide (included in Annex 8) along with a Consent Form for participants were developed by Dr Laura Panagi at CUT and distributed to the teams in Greece, Italy, and Portugal who are involved in this process. The findings from cognitive interviews are discussed internally to identify ways to address participants' feedback. The people involved in the translation and cultural adaptation of the survey for the general population, as well as those who will be involved in cognitive interviewing, are listed in Table 3.



Table 3. List of people involved in the translation and cultural adaptation of the survey for the general population per participating country.

Forward translation	Backward translation	Expert review of translation	Cognitive interviewing
CUT Dr Maria Dimitriadou Mr Rafael Omirou	CUT Dr Elena Rousou Dr Koralia Michael	CUT Dr Nicos Middleton Dr Ourania Kolokotroni Dr Angelos Kassianos Dr Christiana Nikolaou Ms Ioli Orphanide	CUT Dr Elena Rousou Dr Koralia Michael Dr Maria Dimitriadou
UNIFI Dr Gianluca Cruschelli Dr Milena Pasquale	UNIFI Dr Luigi De Angelis Dr Francesco Baglivo	UNIFI Prof. Caterina Rizzo Prof. Lara Tavoschi Dr Virginia Casigliani Dr Guglielmo Arzilli	UNIFI Dr Francesco Baglivo Dr Gianluca Cruschelli Dr Milena Pasquale
MS Ms Ana Justo Mr Bruno Alves	MS Ms Sara Moura Dr Joana Roque	MS Mr Miguel Arriaga Mr Andreia Costa Ms Rita Francisco Mr Rui Gaspar Mr Jorge Oliveira	MS Ms Ana Justo University of Crete Dr Panayiota Dimitropoulou

The survey will be then administered to the general population in Cyprus, Greece, Italy, and Portugal to evaluate the tools' psychometric properties to ensure the quantitative data collected during WP5 and beyond (using the co-OPERATOR platform). Data collection will be initiated within the first quarter of 2025. A series of statistical analyses will be carried out for the overall sample and separately for each country, including validity (structural, criterion [predictive], construct [convergent, differentiation by known groups, cross-cultural]), and reliability (internal consistency, test-retest) analyses. More detailed information on the methodological study with the general population, including the sampling method, inclusion criteria, sample size, and statistical analyses is provided on study protocol (see Annex 3). The study protocol is under preparation to be submitted for scientific publication.

3.4.2 Survey for HCPs

As described in section 3.3.2 (page 16) above, the set of items consisting of the COM-B Vaccination Promotion Questionnaire were developed by Dr Laura Panagi using deductive methods and reviewed by the project's collaborators as well as external experts. After the item development phase, an Expert Consensus Study was conducted with 5 experts from Europe to assess the content validity of the questionnaire (Boateng et al., 2018). Participants were selected based on their expertise in the COM-B Model and on vaccination. Highly knowledgeable individuals in the field of vaccination promotion, COM-B, and questionnaire development were invited. The list of experts who agreed to take part in the study and their expertise is shown in Table 4. Their participation involved the completion of a Consent Form, an online feedback form

on the content of the questionnaire (included in Annex 9), and the participation in an online Focus Group discussion.

Table 4. Participants in the Expert Consensus Study.

Expert	Institution	Country	Area of Expertise
Dr Inge van der Putten	Maastricht University	Netherlands	Vaccine decision making
Dr Pinelopi Anagnostopoulou	University of Cyprus	Cyprus	Paediatrics - Paediatric Pulmonology
Dr Chris Keyworth	University of Leeds	United Kingdom	Healthcare professional-patient interactions, questionnaire design, COM-B
Mr Brett Graig	WHO Europe	Switzerland	Vaccine equity
Ms Siff Malue Nielsen	WHO Europe	Switzerland	Vaccine, acceptance and demand

Using the online feedback form, experts were asked to review the questionnaire items and rate the degree to which they agree or disagree with the inclusion of each item using a scale from 1 = strongly disagree to 5 = strongly agree. They could also provide comments they might have regarding the relevance and representation of the domain of interest or suggest re-wording of the items or response options. The Expert Consensus Focus Group took place in October 2024 and was coordinated by Dr Laura Panagi. During the meeting, experts had the opportunity to elaborate on their written feedback and resolve any disagreements to come to a consensus on the items included, excluded, and modified based on majority opinion. The results from the Expert Consensus Study were discussed with Dr Angelos Kassianos and Dr Maria Kyprianidou at CUT to identify ways to address experts' feedback and, therefore, improve the content of the questionnaire. Another meeting will be held with the whole CUT team in November 2024 to discuss the inter-rater agreement and resolve any remaining points.

The revised version of the questionnaire is translated and culturally adapted in Greek, Italian, and Portuguese. In consistency with the survey for the general population, multiple forward and backward translations were conducted followed by expert reviewing and cognitive interviews with end users who are able to tell whether the questions reflect the domains being investigated (Boateng et al., 2018).

The survey will be then administered to HCPs in Cyprus, Greece, Italy, and Portugal to evaluate the tools' psychometric properties to ensure the quantitative data collected during WP5 and beyond (using the co-OPERATOR platform) will provide robust evidence. Data collection will be initiated within the first quarter of 2025. A series of statistical analyses will be carried out for the overall sample and separately for each country, including acceptability, validity (content, discriminant, structural, construct [convergent, differentiation by known groups, cross-cultural]), and reliability (internal consistency, test-retest) analyses. More detailed information on the methodological study with HCPs, including the sampling method, inclusion criteria, sample size,

and statistical analyses is provided on study protocol (see Annex 4). The study protocol is now under preparation to be submitted for scientific publication.

4 Ethical Approvals

The methodology included in T4.3 involves individual respondents and interviewees that require personal data protection ensuring confidentiality, and approval for the participation of the target groups in research activities and the implementation of them. As such, all research activities were planned in compliance with fundamental ethical issues, in accordance with decision n° 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 and the data protection provisions contained in Article 8 of the Charter of Fundamental Rights of the European Union as well as the General Data Protection Regulation (GDPR) framework. Dr Laura Panagi, who leads T4.3, is well-trained in data protection and sensitive issues and she is also a member of the Ethics Committee of the project. Dr Laura Panagi coordinated the ethics submissions in each country, in consultation with the Ethics Committee.

Ethical approval was sought from the relevant bodies in Cyprus (Cyprus National Bioethics Committee [CNBC]), Italy (University of Pisa Bioethics Committee), and Portugal (Ethics Council of the Lisbon Nursing School [Escola Superior de Enfermagem de Lisboa]). A set of documents including Participants' Information Sheet and Consent Form were prepared by the study teams in each country, which were submitted along with the main ethics application to the relevant bodies. The CNBC (EEBK EII 2024 01 238) and the University of Pisa Bioethics Committee (56/2024) have already provided a favourable opinion towards the implementation of the research activities. No ethics application was required for the implementation of the research in Greece.

5 Summary and Next Steps

In summary, for the purposes of the co-OPERATOR project, and in line with the objectives set for T4.2, two surveys were developed and validated; For the general population based on the 7C Vaccination Readiness Model and for HCPs based on the COM-B Model to be used for empirical data collection during WP5.

The tools consisting of the survey for the general population were translated and culturally adapted to be administered in Cyprus, Greece, Italy, and Portugal. The tools will be pilot tested using cognitive interviews with end users in each country, before administering them more broadly to the general population to assess their psychometric properties. The newly developed COM-B Vaccination Promotion Questionnaire for HCPs was developed following a rigorous process including item development, questionnaire development, and questionnaire validation. In agreement with the steps taken for the general population survey, the survey for HCPs will be translated and culturally adapted in each country followed by expert reviewing and cognitive interviews with end users prior to its administration to HCPs to assess its psychometric properties.

Using the innovative co-OPERATOR platform, the two validated surveys will be used, in an ongoing basis, to collect data during WP5 and beyond. These data will be mapped to reflect

citizens' determinants of vaccination hesitancy in Cyprus, Greece, Italy, and Portugal as well as HCPs' capabilities, opportunities, and motivation towards vaccination promotion in order to inform policymakers in their efforts to tailor interventions in each country.



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Annexes

- Annex 1 Survey for the general population (English version)
- Annex 2 Survey for healthcare professionals (English version)
- Annex 3 Protocol for the psychometric validation of the 7C Vaccination Readiness Scale in the general population in four European countries
- Annex 4 Protocol for the development and psychometric validation of the COM-B Vaccination Promotion Questionnaire in healthcare professionals in four European countries
- Annex 5 Survey for the general population (Greek version)
- Annex 6 Survey for the general population (Italian version)
- Annex 7 Survey for the general population (Portuguese version)
- Annex 8 Cognitive Interview Guide
- Annex 9 Expert Consensus Study Feedback Form



Annex 1 Survey for the general population (English version)

START OF QUESTIONNAIRE

Please answer the following questions.

There are no right or wrong answers.

If you are unsure of the response to a question, please choose the one that you think is the most appropriate. Often, the best response may be the first response you thought of.

You cannot save your answers and come back later.

We remind you that the questionnaire is completely confidential, and it is very important for us to answer it honestly.

If you have difficulty viewing the survey, please try a different device and/or web browser.

A. SOCIODEMOGRAPHIC INFORMATION

Please provide the following sociodemographic information about yourself.

1. What country do you reside?

Country of residence	Please tick
Cyprus	
Greece	
Italy	
Portugal	
Other	

[If the participant selects 'Other' country, we re-direct them to the message 'Thank you for your interest in participating in this survey. Unfortunately, you are not eligible to take part and, therefore, your participation will be terminated. Thank you for your time.']

2. In what type of area do you reside?

Area of residence	Please tick
Rural/Country area	
Suburban	
Urban/Metropolitan	

3. How would you describe your gender?

Gender	Please tick
Man	
Woman	
Non-binary	
Other	

4. What is your age? [open text]

5. What is your highest level of completed education?

Completed education	Please tick
Primary/Elementary school or less	
Secondary/High school	
Tertiary - College degree	
Tertiary - University degree	
Postgraduate degree	
Doctoral degree	
Other [please specify]	

6. Are you a healthcare professional?

Healthcare professional status	Please tick
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No	
Yes [please specify]	

7. What is your yearly household income? By ‘household income’ we mean the total gross income (including wages and any other sources of income) for all people living in the house.

Yearly household income	Please tick
<€16,000	
€16,000-€29,999	
€30,000-€59,999	
€60,000+	



8. **Think of this ladder as representing where people stand in (country goes here e.g., Cyprus).** At the **top** of the ladder are the people who are the best off – those who have the most money, the most education, and the most respected jobs. At the **bottom** are the people who are the worst off – those who have the least money, least education, the least respected jobs, or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?

Please place a large 'X' on the rung where you think you stand at this time in your life relative other people in (country goes here e.g., Cyprus).



9. What is your current marital status?

Marital status	Please tick
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Single	
In a relationship	
Engaged/Married	
Separated/Divorced	
Widowed	

10. What is your current living situation?

Living situation	Please tick
I live alone	
I live with parents	
I live with my partner/spouse/own family	
I live with friends or roommates	

11. Are you a parent?

Parental status	Please tick
No	
Yes [please specify number of children]	

12. If you are a parent, do you have children under 18 years old?

Children under 18	Please tick
No	
Yes [please specify number of children under 18]	

B. HEALTH STATUS

13. How would you rate your general health as compared to other people at your age?

General health	Please tick
Very bad	
Bad	
Fair	
Good	
Very good	

14. Has a doctor or healthcare professional ever told you that you have any of the following health conditions?

Health condition	Please tick all that apply
Any heart disease or history of heart attack or stroke	
Hypertension (high blood pressure)	
Any chronic lung disease (e.g., asthma, chronic obstructive pulmonary disease, chronic bronchitis)	



Active/current cancer	
Kidney diseases	
Liver disorders	
Metabolic disorders (e.g., diabetes [high blood sugar])	
Morbid obesity (BMI $\geq$ 40)	
Endocrine disorders (e.g., thyroid problems)	
Any autoimmune disease (e.g., lupus, multiple sclerosis, rheumatoid arthritis, psoriasis, Crohn's disease, inflammatory bowel disease)	
Other condition that compromises the immune system (e.g., HIV/AIDS, on immunosuppressant medication)	
Any blood disorder (e.g., anemia, blood clots)	
Neurologic conditions (e.g., Parkinson's disease)	
Any depressive disorder (e.g., major depression)	
Any anxiety disorder (e.g., panic disorder, generalised anxiety disorder)	
Other mental health condition	
Disabilities	
Other [please specify]	

C. COVID-19/INFLUENZA INFECTION

15. Have you ever been infected with COVID-19/influenza?

Previous infection	Please tick
No	
I had symptoms but not confirmed it by a test	
Yes, confirmed by a test	

D. VACCINE RECOMMENDATIONS

16. Were you offered or prescribed a COVID-19/influenza vaccine (please tick all that applies):

Vaccine offer or prescription	No	Yes
In the past		
During the last vaccination season (last autumn or winter)		

17. If you were offered or prescribed a COVID-19/influenza vaccine during the last vaccination season, who offered you or prescribed you the vaccine?

Healthcare professional who offered or prescribed the vaccine during last season	Please tick all that apply
Primary healthcare professional (e.g., general practitioner, internal medicine physician, geriatrist)	
Secondary healthcare professional (e.g., infectious disease specialist)	



Medical doctor under specialisation training	
Health visitor	
Nursing professional	
Pharmacist	
Medical trainee	
Nursing trainee	
Other [please specify]	

18. Has a healthcare professional recommended you receive a COVID-19/influenza vaccine?

Recommendation by healthcare professional	Please tick
No	
Yes	

19. If yes, who recommended you a COVID-19/influenza vaccination?

Healthcare professional who recommended vaccination	Please tick all that apply
Primary healthcare professional (e.g., general practitioner, internal medicine physician, geriatrist)	
Secondary healthcare professional (e.g., infectious disease specialist)	
Medical doctor under specialisation training	
Health visitor	
Nursing professional	
Pharmacist	
Medical trainee	
Nursing trainee	
Other [please specify]	

20. Has/ve any other person(s) recommended you receive a COVID-19/influenza vaccine?

Recommendation by other person(s)	Please tick
No	
Yes [please specify]	

21. How satisfied are you with healthcare professionals' answers to your questions related to COVID-19/influenza vaccination?

Satisfaction with answers	Please tick
Not at all satisfied	
A little satisfied	
Moderately satisfied	
Very satisfied	

E. VACCINATION BEHAVIOUR AND INTENTION



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22. Did you receive a influenza vaccine during the last vaccination season?

Influenza vaccination during last season	Please tick
No	
Yes	

23. If yes, what was/were the reason(s) behind your decision to get vaccinated during the last vaccination season? [open text]

24. If no, what was/were the reason(s) behind your decision NOT to get vaccinated during the last vaccination season? [open text]

25. When did you receive a COVID-19 vaccine last?

Last COVID-19 vaccination	Please tick
Within the last 6 months	
Within the last 12 months	
Ever	
Never	

26. If you received a COVID-19 vaccine in the past, what was/were the reason(s) behind your decision to get vaccinated? [open text]

27. If you did not receive a COVID-19 vaccine in the past, what was/were the reason(s) behind your decision NOT to get vaccinated? [open text]

28. Do you have the intention to get vaccinated against COVID-19/influenza in the future?

Intention to vaccinate in the future	Please tick
I definitely would not	
I probably would not	
I am unsure	
I probably would	
I definitely would	

29. Do you have the intention to get vaccinated against COVID-19/influenza every year?

Intention to vaccinate every year	Please tick
I definitely would not	
I probably would not	
I am unsure	
I probably would	
I definitely would	



F. ATTITUDES TOWARDS VACCINATION POLICY

30. To what extent do you agree or disagree that vaccination against COVID-19/influenza should be mandatory for all citizens?

Attitude towards mandatory vaccination	Please tick
Strongly disagree	
Disagree	
Neither agree nor disagree	
Agree	
Strongly agree	

G. TRUST

31. When you think about the information you receive with regards to COVID-19/influenza vaccination, what is the level of trust you give in each of the following people or organisations? Please rate your level of trust from 1 = complete trust to 4 = no trust at all.

To what extent do you trust:	1=complete trust	2=fair amount of trust	3=little trust	4=no trust at all
31a. Your family/relatives				
31b. Your friends				
31c. Your national political leaders (e.g., the president/Prime Minister, ministers, members of the parliament)				
31d. Your regional political leaders (e.g., the mayor, members of the city council)				
31e. Public health authorities				
28f. Your doctor or healthcare professional				
31g. International health organisations such as the World Health Organization				
31h. Pharmaceutical corporations				
31i. Scientists and scientific organisations				
31j. Famous people (actors, athletes, musicians)				
31k. Your religious leader				



32. What is your most frequent source of information with regards to COVID-19/influenza vaccination?

Most frequent source of information	Please tick all that apply
Media (e.g., TV, radio, newspapers)	
The internet (e.g., websites)	
Social media (e.g., posts on Facebook)	
Other, please specify [open text]	

H. 7C VACCINATION READINESS SCALE

33. The following statements refer to COVID-19/influenza infection for which a vaccination is available and recommended by health authorities. Please state how much you agree with each of the statements. Rate the statements from 1 = strongly disagree to 7 = strongly agree.

Item	Response						
	1	2	3	4	5	6	7
33a. I get vaccinated against COVID-19/influenza because it is too risky to get infected.							
33b. Political decisions about COVID-19/influenza vaccination are scientifically grounded.							
33c. I do not need COVID-19/influenza vaccination because COVID-19/influenza infection does not hit me hard.							
33d. I am convinced the appropriate authorities do only allow effective and safe COVID-19/influenza vaccines.							
33e. COVID-19/influenza vaccination is unnecessary for me because I rarely get ill with COVID-19/influenza anyway.							
33f. COVID-19/influenza vaccination side effects occur rarely and are not severe for me.							
33g. It should be possible to sanction people who do not follow the COVID-19/influenza vaccination recommendations by health authorities.							



33h. I only get vaccinated against COVID-19/influenza when the benefits clearly outweigh the risks.							
33i. I sometimes miss out on COVID-19/influenza vaccination because vaccination is bothersome.							
33j. Health authorities knuckle under to the power and influence of pharmaceutical companies.							
33k. COVID-19/influenza vaccination is so important to me that I prioritise getting vaccinated over other things.							
33l. It should be possible to exclude people from public activities (e.g., concerts) when they are not vaccinated against COVID-19/influenza.							
33m. I also get vaccinated against COVID-19/influenza because protecting vulnerable risk groups is important to me.							
33n. I make sure to receive COVID-19/influenza vaccination in good time.							
33o. I get vaccinated against COVID-19/influenza when I do not see disadvantages for me.							
33p. For COVID-19/influenza vaccine, I carefully consider whether I need it.							
33q. The health authorities should use all possible means to achieve high COVID-19/influenza vaccination rates.							
33r. COVID-19/influenza vaccination contains chemicals in toxic doses.							
33s. COVID-19/influenza vaccination causes diseases and allergies that are more serious than the diseases they ought to protect from.							
33t. I also get vaccinated against COVID-19/influenza							

because I am thereby protecting other people.							
30u. I see COVID-19/influenza vaccination as a collective task against the spread of influenza/COVID-19 disease.							

I. BEHAVIOURAL AND SOCIAL DRIVERS (BeSD)

34. Do you want to get a COVID-19/influenza vaccine?

Intention to get vaccinated	Please tick
No, I do not want to	
Yes, I do want to	
I am not sure	
I am already vaccinated	

35. How important do you think getting a COVID-19/influenza vaccine is for your health?

Confidence in vaccine benefits	Please tick
Not at all important	
A little important	
Moderately important	
Very important	

36. How safe do you think a COVID-19/influenza vaccine is for you?

Confidence in vaccine safety	Please tick
Not at all safe	
A little safe	
Moderately safe	
Very safe	

37. How concerned are you about getting COVID-19/influenza?

Perceived risk – self	Please tick
Not at all concerned	
A little concerned	
Moderately concerned	
Very concerned	

38. How much do you trust the healthcare professionals who would give you a COVID-19/influenza vaccine?

Confidence in healthcare professionals	Please tick
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Not at all	
A little	
Moderately	
Very much	

39. Has a healthcare professional recommended you get a COVID-19/influenza vaccine?

Healthcare professional recommendation	Please tick
No	
Yes	

40. If it was time for you to get a COVID-19/influenza vaccine, would you need permission to go and get it?

Gender equity – travel autonomy	Please tick
No	
Yes	

41. Do you think most of your close family and friends want you to get a COVID-19/influenza vaccine?

Family norms	Please tick
No	
Yes	

42. Do you think most adults you know will get a COVID-19/influenza vaccine if it is recommended to them?

Peer norms	Please tick
No	
Yes	

43. Do you think most of the people you work with will get a COVID-19/influenza vaccine?

Workplace norms	Please tick
No	
Yes	
Not currently working	

44. Do you think your religious leaders want you to get a COVID-19/influenza vaccine?

Religious leader norms	Please tick
No	
Yes	

45. Do you think other community leaders want you to get a COVID-19/influenza vaccine?

Community leader norms	Please tick
No	
Yes	

46. Have you received a COVID-19 vaccine?

COVID-19 vaccine uptake	Please tick
No	
Yes, I received one dose	
Yes, I received two doses	
Yes, I received three or more doses	
Not sure	

47. Have you received a influenza vaccine?

Influenza vaccine uptake	Please tick
No	
Yes	
Not sure	

48. If yes, how many times in the last 3 years did you receive the vaccine? [this question applies only to influenza vaccine]

Number of influenza vaccinations in the last 3 years	Please tick
Once	
Twice	
3 times (every year)	

49. Do you know where to go to get a COVID-19/influenza vaccine for yourself?

Know where to get vaccination	Please tick
No	
Yes	

50. Have you ever been contacted about being due for a COVID-19/influenza vaccine?

Received recall	Please tick
No	
Yes	

51. Is a COVID-19/influenza vaccine available for you to get at your place of work?

On-site vaccination	Please tick
---------------------	-------------



No	
Yes	
Not currently working	

52. How easy is it to get a COVID-19/influenza vaccine for yourself?

Ease of access	Please tick
Not at all easy	
A little easy	
Moderately easy	
Very easy	

53. How easy is it to pay for COVID-19/influenza vaccination? When you think about the cost, please consider any payments to the clinic, the cost of getting there, plus the cost of taking time away from work.

Affordability	Please tick
Not at all easy	
A little easy	
Moderately easy	
Very easy	

54. What makes it hard for you to get a COVID-19/influenza vaccine?

Reasons for low ease of access	Please tick all that apply
Nothing, it's not hard	
Making an appointment is hard	
The vaccination site is hard to get to	
The opening times are inconvenient	
The waiting time takes too long	
I am unable to leave work duties	
Sometimes people are turned away without vaccination	
Is there something else? [open text]	

55. How satisfied are you with COVID-19/influenza vaccination services?

Service satisfaction	Please tick
Not at all satisfied	
A little satisfied	
Moderately satisfied	
Very satisfied	



56. What is not satisfactory about the COVID-19/influenza vaccination services?

Service quality	Please tick all that apply
Nothing, I am satisfied	
Vaccine is not available	
The vaccination site does not open on time	
Waiting times are long	
The vaccination site is not clean	
Staff are poorly trained	
Staff are not respectful	
Staff do not spend enough time with people	
Is there something else? [text box]	

J. VACCINE HESITANCY SURVEY

57. How much do you agree with each of the following statements on COVID-19/influenza vaccination? Please indicate your level of agreement from 1 = strongly disagree to 5 = strongly agree.

	1=strongly disagree	2 = disagree	3=neither agree nor disagree	4=agree	5=strongly agree
57a. The COVID-19/influenza vaccine is important for my health.					
57b. The COVID-19/influenza vaccine is effective.					
57c. Having myself vaccinated against COVID-19/influenza is important for the health of others in my community.					
57d. The COVID-19/influenza vaccine offered by the government program in my community is beneficial.					
57e. New COVID-19/influenza vaccines carry more risks than older vaccines.					
57f. The information I receive about the COVID-19/influenza vaccine from the vaccine program is reliable and trustworthy.					



57g. Getting a COVID-19/influenza vaccine is a good way to protect myself from disease.					
57h. Generally, I do what my doctor or healthcare provider recommends about the COVID-19/influenza vaccine for myself.					
57i. I am concerned about serious adverse effects of the COVID-19/influenza vaccine.					
57j. I do not need a COVID-19/influenza vaccine since influenza/COVID-19 disease is not common anymore.					

58. Do you have any worries or concerns when you go for COVID-19/influenza immunisation?

Worries or concerns	Please tick
No	
Yes	

59. If yes, what are they? Please list below any worries or concerns that you may have when you go for COVID-19/influenza immunisation [open text]

60. Did you ever experience an adverse event following immunisation against COVID-19/influenza?

Adverse event in the past	Please tick
No	
Yes, mild complications	
Yes, severe complications	

61. If yes, do these complications discourage you from getting vaccinated against COVID-19/influenza?

Effects of adverse event	Please tick
No	
Yes, to a certain extent	
Yes, to a great extent	

K. HEALTH LITERACY

62. The following questions concern your knowledge about health and disease. On a scale from 1 = very easy to 4 = very difficult, how easy would you say it is to:

	1=very easy	2	3	4=very difficult
62a. Find information on treatments of illnesses that concern you?				
62b. Find out where to get professional help when you are ill?				
62c. Understand what the doctor says to you?				
62d. Understand your doctor's or pharmacist's instruction on how to take a prescribed medicine?				
62e. Judge when you may need to get another opinion from a second doctor?				
62f. Use information the doctor gives you to make decisions about your illness?				
62g. Follow instructions from your doctor or pharmacist?				
62h. Find information on how to manage mental health problems like stress or depression?				
62i. Understand health warnings about behaviour, such as smoking, low physical activity and drinking too much?				
62j. Understand why you need health screenings?				
62k. Judge if the information on health risks in the media is reliable?				
62l. Decide how you can protect yourself from illness based on information in the media?				
62m. Find out about activities that are good for your mental well-being?				
62n. Understand advice on health from family members or friends?				
62o. Understand information in the media on how to get healthier?				
62p. Judge which everyday behavior is related to your health?				

L. PROSOCIALNESS SCALE

- 63.** The following statements describe a large number of common situations. There are no right or wrong answers; the best answer is the immediate, spontaneous one. Read each phrase carefully and tick the number that reflects your first reaction from 1 = never/almost never to 5 = always/almost always.



	1=never/ almost never	2=rarely	3=occasi onally	4=often	5=always/ almost always
63a. I am pleased to help my friends/colleagues in their activities.					
63b. I share the things that I have with my friends.					
63c. I try to help others.					
63d. I am available for volunteer activities to help those who are in need.					
63e. I am empathic with those who are in need.					
63f. I spend time with those friends who feel lonely.					

END OF QUESTIONNAIRE

Thank you for your participation!

We would like to contact you again to complete the same questionnaire in 2-weeks's time. Please indicate whether you consent to be re-contacted for the second phase of the survey.

- I consent for the researchers to re-contact me for the second phase of the survey.
- I do not consent for the researchers to re-contact me for the second phase the survey.

[If the participant selects 'I consent [...]', then we ask them to provide their email address].

For more information, you can contact Dr Laura Panagi, Department of Nursing, Cyprus University of Technology at +357 96715014 and via email at laura.panagi@cut.ac.cy or Dr Angelos Kassianos, Department of Nursing, Cyprus University of Technology at angelos.kassianos@cut.ac.cy. Before closing your browser, please press submit.



Co-funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor HaDEA can be held responsible for them [Grand Agreement: 101133251].

Annex 2 Survey for healthcare professionals (English version)

START OF QUESTIONNAIRE

Please answer the following questions.

There are no right or wrong answers.

If you are unsure of the response to a question, please choose the one that you think is the most appropriate. Often, the best response may be the first response you thought of.

You cannot save your answers and come back later.

We remind you that the questionnaire is completely confidential, and it is very important for us to answer it honestly.

If you have difficulty viewing the survey, please try a different device and/or web browser.



A. SOCIODEMOGRAPHIC INFORMATION

Please provide the following sociodemographic information about yourself.

1. What country do you reside?

Country of residence	Please tick
Cyprus	
Greece	
Italy	
Portugal	
Other	

[If the participant selects 'Other' country, we re-direct them to the message 'Thank you for your interest in participating in this survey. Unfortunately, you are not eligible to take part and, therefore, your participation will be terminated. Thank you for your time.']

2. In what type of area do you reside?

Area of residence	Please tick
Rural/Country area	
Suburban	
Urban/Metropolitan	

3. How would you describe your gender?

Gender	Please tick
Man	
Woman	
Non-binary	
Other	

4. What is your age? [open text]

5. What is your highest level of completed education?

Completed education	Please tick
High school	
Tertiary - College degree	
Tertiary - University degree	
Postgraduate degree	
Doctoral degree	
Other [please specify]	

5. Are you a healthcare professional?



Healthcare professional status	Please tick
No	
Yes, primary healthcare professional [please specify]	
Yes, secondary healthcare professional [please specify]	
Yes, medical doctor under specialisation training [please specify specialisation training]	
Yes, nursing professional	
Yes, health visitor	
Yes, pharmacist	
Yes, medical trainee	
Yes, nursing trainee	
Yes, other [please specify]	

6. Where do you work?

Place of work	Please tick all that apply
Private office/Clinic	
Public hospital/Health centre	
Nursing home	
Pharmacy	
Ministry of Health/Public Health Authority	
University/Education sector	
Other [please specify]	

7. What is your yearly household income? By 'yearly household income' we mean the total gross income per year (including wages and other sources of income) for all people living in the house.

Yearly household income	Please tick
<€16,000	
€16,000-€29,999	
€30,000-€59,999	
€60,000-€89,999	
€90,000-€119,999	
€120,000+	

8. What is your current marital status?

Marital status	Please tick
Single	
In a relationship	
Engaged/Married	
Separated/Divorced	
Widowed	



9. What is your current living situation?

Living situation	Please tick
I live alone	
I live with parents	
I live with my partner/spouse	
I live with my own family	
I live with friends or roommates	

10. Are you a parent?

Parental status	Please tick
No	
Yes [please specify number of children]	

11. If you are a parent, do you have children under 18 years old?

Children under 18 years old	Please tick
No	
Yes [please specify number of children under 18]	

B. VACCINATION BEHAVIOUR AND INTENTION

12. Have you received a COVID-19/influenza vaccine?

Previous vaccination	Please tick
No	
Yes	
Not sure	

13. If yes, how many doses of the COVID-19 vaccine did you receive in total? [open text]

14. If yes, how many times in the last 3 years did you receive the influenza vaccine?

Number of influenza vaccinations in the last 3 years	Please tick
Once	
Twice	
3 times (every year)	

15. Did you receive a influenza vaccine during the last vaccination season?

Influenza vaccination during last season	Please tick
No	
Yes	

16. When did you receive a COVID-19 vaccine last?

Last COVID-19 vaccination	Please tick
Within the last 6 months	
Within the last 12 months	
Ever	
Never	

17. Do you have the intention to get vaccinated against COVID-19/influenza in the future?

Intention to vaccinate in the future	Please tick
I definitely would not	
I probably would not	
I am unsure	
I probably would	
I definitely would	

18. Do you have the intention to get vaccinated against COVID-19/influenza every year?

Intention to vaccinate every year	Please tick
I definitely would not	
I probably would not	
I am unsure	
I probably would	
I definitely would	

C. JOB DUTIES

19. Please read the following questions regarding your job duties and tick where appropriate.

Item	Response		
	No	Yes, to some extend	Yes, to a great extend
18a. Is administering the COVID-19/influenza vaccine included in your job duties?			
18b. Is promoting COVID-19/influenza vaccination included in your job duties?			
18c. Is providing advice about COVID-19/influenza vaccination included in your job duties?			

D. PERCEIVED BARRIERS AND FACILITATORS OF VACCINATION PROMOTION

This section asks about your perceived barriers and facilitators of promoting COVID-19/influenza vaccination to the people you see in clinical practice.

20. Is it difficult for you to promote COVID-19/influenza vaccination to the people you see in clinical practice?

Vaccination promotion	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

21. If yes, what do you think makes it difficult for you to promote COVID-19/influenza vaccination? Please indicate any perceived barriers below. [open text]

22. If no, what do you think makes it easy for you to promote COVID-19/influenza vaccination? Please indicate any perceived facilitators below. [open text]

E. COM-B VACCINATION PROMOTION QUESTIONNAIRE

PART I - CAPABILITIES

The first part of the following questionnaire includes questions relating to your capabilities to promote COVID-19/influenza vaccination to the people you see in clinical practice.

Please read the following questions and tick where appropriate.

Do you have the necessary knowledge about...	No	Yes, to some extent	Yes, to a great extent
23. COVID-19/influenza vaccine safety?			
24. COVID-19/influenza vaccine contraindications?			
25. COVID-19/influenza vaccine effectiveness?			
26. Adverse events following COVID-19/influenza immunisation?			
27. COVID-19/influenza infection and the related risks?			
Do you have knowledge of...			
28. National COVID-19/influenza vaccination guidelines/protocols?			
29. COVID-19/influenza vaccination coverage in adults in your country?			
Do you feel confident in your own skills to...			
30. Manage adverse events following COVID-19/influenza immunisation?			
31. Communicate with people about COVID-19/influenza vaccination?			
32. Communicate with vulnerable groups (e.g., those with chronic health conditions) about COVID-19/influenza vaccination?			
33. Tailor the discussion about COVID-19/influenza vaccination to the person you are facing and explain in a way that the individual will understand?			



34. Tailor your communication to different positions on COVID-19/influenza vaccination (e.g., accepting, hesitant, refusing)?			
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35. Do you have a good understanding of the reasons why some people or communities do not vaccinate against COVID-19/influenza?

Knowledge of reasons for non-vaccination	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

36. If administering the COVID-19/influenza vaccine is part of your duties, do you have the physical skills related to administering the vaccine correctly?

Skills to administer the vaccine	Please tick
No	
Yes, to some extent	
Yes, to a great extent	
Not applicable/not part of my duties	

37. Do you have the resilience to continue to engage with people that are considered to be challenging, e.g., patients declining vaccination?

Resilience to engage with people	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

38. Do you identify any gaps in your knowledge and/or skills that you need to fulfill in order to promote COVID-19/influenza vaccination more efficiently? If yes, please indicate them below.
[open text]

PART II – OPPORTUNITIES

The second part of the questionnaire includes questions relating to the opportunities of promoting COVID-19/influenza vaccination to the people you see in clinical practice.

39. Do you experience competing priorities or undue stress during the workday?

Competing priorities or stress	Please tick
No	
Yes, to some extent	
Yes, to a great extent	



40. Is your working environment sufficiently private to enable you to talk to people about COVID-19/influenza vaccination?

Physical surroundings	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

41. Do you have sufficient time to talk to people about COVID-19/influenza vaccination during your workday?

Time	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

42. Are there reliable systems in place to monitor COVID-19/influenza vaccination and detect missed vaccinations?

Monitoring systems	Please tick
No	
Yes	

43. Is COVID-19/influenza vaccine supply sustainable and sufficient?

Vaccine supply	Please tick
No	
Yes	

44. Is official/trustworthy information about influenza/COVID-19 vaccination available to you to access (e.g., official recommendations by the government, training material)?

Available information for healthcare professionals	Please tick
No	
Yes, limited information	
Yes, detailed information	

45. If available, is the information on COVID-19/influenza vaccination tailored to healthcare professionals?

Tailored to healthcare professionals	Please tick
No	
Yes	

46. If available, do you receive information on COVID-19/influenza vaccination in a format and language which match your needs?

Format and language of information	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

47. Is official/trustworthy information about COVID-19/influenza vaccination available to you to provide to the people you see in clinical practice (e.g., informational leaflets, educational material)?

Available information for patients	Please tick
No	
Yes, limited information	
Yes, detailed information	

48. If available, is the information on COVID-19/influenza vaccination tailored to different population groups (e.g., to vulnerable groups)?

Tailored information to different population groups	Please tick
No	
Yes	

49. If available, is the information on COVID-19/influenza vaccination in a format and language which match the needs of the users?

Format and language of information	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

50. Are you supported by the local and national government in promoting COVID-19/influenza vaccination?

Support by the local and national government	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

51. Are you supported by health authorities in promoting COVID-19/influenza vaccination?

Support by health authorities	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

52. Are you confident that you are protected by the system if something goes wrong related to COVID-19/influenza vaccination?

Protection by the system	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

53. Do your colleagues actively encourage COVID-19/influenza vaccination promotion?

Vaccination encouragement by colleagues	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

54. Does your manager actively encourage COVID-19/influenza vaccination promotion?

Vaccination encouragement by the manager	Please tick
No	
Yes, to some extent	
Yes, to a great extent	
Not applicable/I do not have a manager	

55. What are the challenges you are faced with relating to promoting COVID-19/influenza vaccination in your workplace? Please indicate anything that challenges you below. [open text]

PART III – MOTIVATION

The third part of the questionnaire includes questions relating to your motivation of promoting COVID-19/influenza vaccination to the people you see in clinical practice.

56. To what extent do you agree or disagree that vaccination against COVID-19/influenza should be mandatory for:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
All citizens					
Vulnerable groups					
Healthcare professionals					

57. Do you have a sense of professional duty to promote COVID-19/influenza vaccination?

Sense of professional duty	Please tick
No	



Yes, to some extent	
Yes, to a great extent	

58. Do you feel that you have an individual responsibility to protect the community through vaccination for COVID-19/influenza?

Sense of individual responsibility	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

59. Do you believe that promoting COVID-19/influenza vaccination is important for being a good healthcare professional?

Positive value of vaccination	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

60. Is it a criterion of success for you if your country achieves high COVID-19/influenza vaccination rates?

Vaccination success rates	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

61. Do your attitudes and values about COVID-19/influenza disease and prevention agree with influenza/COVID-19 vaccination?

Agreement with attitudes and values	Please tick
No	
Yes, to some extent	
Yes, to a great extent	

62. Do you find COVID-19/influenza vaccination promotion to be:

Perception for vaccination promotion	Please tick all that apply
Stressful	
Burdensome	
Time-wasting	
Easy	
Difficult	
Satisfying	
None of the above	



Other [please specify]	
------------------------	--

- 63.** What motivates you in promoting COVID-19/influenza vaccination? If nothing motivates you in promoting vaccination, please write 'nothing'. [open text]
- 64.** Which factors may affect your motivation towards promoting COVID-19/influenza vaccination? If nothing affects your motivation, please write 'nothing'. [open text]
- 65.** When you think about the information you receive about COVID-19/influenza vaccination, what is the level of trust you give in each of the following people or organisations? Please rate your level of trust from 1 = complete trust to 4 = no trust at all.

To what extend do you trust:	1=complete trust	2=fair amount of trust	3=little trust	4=no trust at all
65a. Your national political leaders (e.g., the president, ministers, members of the parliament)				
65b. Your regional political leaders (e.g., the mayor, members of the city council)				
65c. The manager/management in your organisation				
65d. Public health authorities				
65e. National professional associations				
65f. International professional associations				
65g. International health organisations (e.g., World Health Organization)				
65h. Pharmaceutical corporations				
65i. Scientists and scientific bodies				
65j. Famous people (e.g., actors, athletes, musicians)				
65k. Your religious leader				



65l. The medial (e.g., TV, radio, newspapers)				
65m. The internet				
65n. The social media (e.g., Facebook)				

F. QUESTIONNAIRE INDICATORS

As a final step, we would like to ask you a few questions about the questionnaire used in section E, the COM-B Vaccination Promotion Questionnaire.

- 66.** Overall, on a rating scale from 1=difficult to understand to 5=easy to understand, how easy or difficult did you find it to understand the questions? [open text]
- 67.** Overall, on a rating scale from 1=boring to 5=interesting, how boring or interesting did you find the questionnaire? [open text]
- 68.** Overall, on a rating scale from 1=none of the questions were fair and balanced to 5=all of the questions were fair and balanced, how fair and balanced did you find the questions? [open text]
- 69.** Do you have any comments on your experience of completing the COM-B Vaccination Promotion questionnaire? [open text]
- 70.** Do you have any other comments, such as whether the questions made assumptions about respondents, didn't display correctly on common screen sizes and formats, could have caused offence, had any grammatical/spelling errors, or other things? [open text]

END OF QUESTIONNAIRE

Thank you for your participation!

We would like to contact you again to complete the same questionnaire in 2-weeks's time. Please indicate whether you consent to be re-contacted for the second phase of the survey.

- I consent for the researchers to re-contact me for the second phase of the survey.
- I do not consent for the researchers to re-contact me for the second phase the survey.

[If the participant selects 'I consent [...]', then we ask them to provide their email address]

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Annex 3 Protocol for the Psychometric Validation of the 7C Vaccination Readiness Scale in the General Population in Four European Countries

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**Co-funded by
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Abstract

Introduction: The 7C Vaccination Readiness Scale provides a useful, comprehensive tool for assessing the psychological antecedents of vaccination. The objectives of the proposed study are a) to translate and

culturally adapt the 7C Vaccination Readiness Scale targeting influenza and COVID-19 vaccination to be administered to the general population in Cyprus, Greece, Italy, and Portugal, and b) to evaluate the validity and reliability of the Greek, Italian, and Portuguese versions of the scale.

Methods: Forward and backward translation procedures will take place followed by expert reviewing and cognitive interviews with end users. The scale will then be administered to the general adult population in Cyprus, Greece, Italy, and Portugal for the psychometric properties to be examined. A subsample of participants will be invited to complete the survey twice, after a 2-weeks period.

Expected Outcomes: We expect a) the 7C Vaccination Readiness Scale to be translated and culturally adapted to be administered to the general population in Cyprus, Greece, Italy, and Portugal, and b) the scale to be validated to be used in future population studies in Cyprus, Greece, Italy, and Portugal.

Impact: Should the scale be confirmed as psychometrically sound, it can be used in different populations and under different settings to support decision-makers to understand the determinants of influenza and COVID-19 vaccine uptake and, subsequently, to optimise vaccination efforts against these vaccine-preventable diseases.

Keywords

COVID-19, influenza, vaccination, 5C framework, 7C framework, 7C Vaccination Readiness Scale, psychometric properties, Europe.

Introduction

The COVID-19 pandemic has had profound health, social, and economic ramifications globally (Pierce et al., 2021; Richards et al., 2022; Suthar et al., 2022). Vaccination has emerged as a critical strategy to

alleviate the spread and severity of COVID-19 (Graña et al., 2022; Suthar et al., 2022). Sequentially, influenza remains a significant respiratory illness that poses a continual threat to public health (Javanian et al., 2021; WHO, 2019). The Center for Disease Control and Prevention currently recommends that all individuals aged 18 years old and above receive influenza and COVID-19 vaccines annually (Center for Disease Control and Prevention, 2024), highlighting the need for the population to get vaccinated prior to the winter season when infection rates reach their peak (Liu et al., 2021; Nypaver et al., 2021). Nevertheless, both COVID-19 and influenza vaccination rates in Europe are suboptimal (Chen et al., 2022; Lazarus et al., 2023; Mathieu et al., 2020). For example, the estimated influenza vaccination rates among the general population range from 12% in Hungary to 52% in Greece (Chen et al., 2022). With regards to COVID-19 vaccines, 70% of the population in Europe has received at least one dose of the COVID-19 vaccine (Our World in Data, 2024a) and 66% have completed the initial vaccine protocol up to June 2024 (Our World in Data, 2024b).

Vaccine hesitancy, defined as the delay in acceptance or refusal of vaccines despite their availability (MacDonald, 2015), is one of the top 10 threats to global health posing obstacles to achieving optimal vaccine uptake (Salmon et al., 2015; WHO, 2019). Insights from behavioural theories are crucial to understanding the factors associated with vaccine hesitancy. Grounded in previous theoretical models (Betsch et al., 2018; Larson et al., 2014; MacDonald, 2015; Thomson et al., 2016), the 7C Vaccination Readiness Framework reflects a broad scope of psychological antecedents to vaccination (Geiger et al., 2021), considering both individual and context components. These include *confidence* (refers to trust in the safety and effectiveness of vaccines and trust in health authorities and health officials who recommend and develop vaccines), *complacency* (refers to the perceived risk and perceived level of threat of vaccine-preventable disease), *constraints* (refers to structural or psychological barriers that make vaccination difficult or costly), *calculation* (refers to when personal costs and benefits of vaccination are weighted), *collective responsibility* (refers to the willingness to protect others by getting vaccinated by means of herd immunity), *compliance* (refers to the support of punishment for refusing vaccination and giving benefits to

those who have been vaccinated), and *conspiracy* (refers to the belief in conspiracy theories and fake news related to vaccination) (Geiger et al., 2021).

In the context of the 7C Framework, the 7C Vaccination Readiness Scale was developed to assess general vaccination readiness (the tendency to be willing and ready to get vaccinated) and the seven components that may increase or decrease the likelihood of getting vaccinated (Geiger et al., 2021), as described above. The scale builds on earlier work that distinguished five components of vaccination readiness (Betsch et al., 2018), but with the addition of the *compliance* and *conspiracy* items. Results from the psychometric validation of the scale in the general population in Denmark confirmed a bifactor measurement model that consists of a general factor of vaccination readiness and of component-specific nested factors (CFI=0.927; TLI=0.911; RMSEA=0.048; SRMR=0.046; model saturation: $\omega=0.88$). The scale showed medium to large convergent validity ($r = 0.17$ to $r = 0.60$), and higher criterion (predictive) validity versus the previous 5C scale in predicting the willingness to vaccinate against COVID-19 (explained variance in willingness to vaccinate: $R^2 = 0.84$ vs. $R^2 = 0.77$ for the 5C) (Geiger et al., 2021). The scale has been translated in several languages (Geiger et al., 2021), adapted to different vaccine types, and administered in different population studies with good psychometric performance (internal consistency from 0.64 to 0.95) (Kalebić Maglica & Šincek, 2022; Kyprianidou et al., 2023; Oudin Doglioni et al., 2023; Tokiya et al., 2022; Williams et al., 2022).

The proposed study is part of a larger, ongoing project entitled ‘Developing a Country-Observatory for Sharing Best Practices for Vaccination Promotion (co-OPERATOR)’, funded by the EU4Health scheme¹. The overarching aim of the co-OPERATOR project is to develop an innovative and citizen-centered digital solution with an evidence-based virtual observatory to tackle vaccine hesitancy in the participating countries (Cyprus, Greece, Italy, Portugal) and beyond. These cross-country efforts are important as certain factors exhibit specificity to particular countries, reflecting the nuanced influences that contribute to

¹www.bsihlab.com

hesitancy within diverse cultural and regional contexts (Kyprianidou et al., 2023). Measuring the antecedents of vaccine hesitancy in different countries is, therefore, crucial for effective public health planning and successful intervention strategies.

Study Objectives

For the purposes of the co-OPERATOR project, the Greek, Italian, and Portuguese versions of the 7C Vaccination Readiness Scale will be psychometrically validated. The objectives of the proposed study are a) to translate and culturally adapt (where appropriate) the 7C Vaccination Readiness Scale to be administered to the general population in Cyprus, Greece, Italy, and Portugal, and b) to evaluate the validity (structural, criterion [predictive], construct [convergent, differentiation by known groups, cross-cultural]), and reliability (internal consistency, test-retest) of the Greek (in Cyprus and Greece), Italian (in Italy), and Portuguese (in Portugal) versions of the scale.

Methods

Study Design

The proposed study will use a cross-sectional research design; data collection will be carried out in the four participating countries of the co-OPERATOR project (Cyprus, Greece, Italy, Portugal) in March 2025. A random subsample of consented participants will be invited to complete the questionnaire twice, with interval time being two weeks. The Greek and Italian versions of the scale are already available at <https://www.vaccination-readiness.com/measure/>. Slight adaptations will be made by the study team for the scales to reflect influenza and COVID-19 vaccines specifically. The scale will be translated in Portuguese by our collaborators in Portugal (based at the Ministry of Health, Division of Literacy, Health and Well-being), subjected to forward and backward translation procedures. Expert reviewing with 5-7 experts and cognitive interviews with 5-15 end users (Boateng et al., 2018) will then follow to finalise translation and cultural adaptation. For the interviews, adults from the general population in each country will be recruited through convenient sampling procedures. Expert reviewing and interviews will take place in September 2024.

Two different versions of the scale will be administered, one for influenza vaccine and one for COVID-19 vaccines, respectively, using an online survey. It is anticipated that the average duration of completing the survey will be 20 minutes. The Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN) Study Design Checklist (Mokkink et al., 2019) was used to support the design of the study. The checklist is recommended for designing studies to evaluate measurement properties of existing scales (Mokkink et al., 2019).

Inclusion and Exclusion Criteria

Participants must be ≥ 18 years old and living in one of the participating countries. Information about age and country of residence will be collected via self-report.

Sample Size

Convenience sampling methods will be applied in each country. Specifically, the online survey will be promoted using social media channels and through the local Institution's emailing lists (Cyprus University of Technology in Cyprus, Computer Solutions in Greece, University of Pisa in Italy, Ministry of Health, Division of Literacy, Health, and Well-being in Portugal) including students, academic, and non-academic staff. RedCap software will be used to collect the data in each country (<https://www.project-redcap.org/>).

The sample size for this study was calculated using a power analysis. Assuming a literature-based range of COVID-19 vaccine hesitancy prevalence between 11% and 71%, with a mean prevalence of approximately 41%, we aim for a confidence level of 95% and a precision of 5%. Based on these parameters and using the formula presented in Figure 1, we determined the total sample sizes of respondents necessary to achieve sufficient statistical power. Therefore, to achieve adequate statistical power it is necessary to administer the questionnaire to a population sample of $N = 372$ in Cyprus, $N = 372$ in Greece, $N = 372$ in Italy, and $N = 372$ in Portugal.

Figure 1: Sample Size Calculation

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N} \right)}$$

Note. N = population size; e = Margin of error (percentage in decimal form); z = z-score.

Study Variables

Apart from the 7C Vaccination Readiness Scale, further self-reported measures will be used in statistical analyses for the psychometric validation of the scale. Standard translation procedures will take place in all participating countries, including expert reviewing and cognitive interviews with end users, for the measures that are not available in the language of interest or for which standard procedures were not followed. The survey will include two sections, one for the influenza vaccine and the other one for COVID-19 vaccines.

Sociodemographic Characteristics

Sociodemographic variables will include age, gender (man, woman, non-binary, other), educational level (primary education/elementary school or less, secondary/high school, College degree, University degree, postgraduate degree, doctoral degree, other), healthcare professional status (no, yes [please specify]), yearly household income (<€16,000, €16,000–€29,999, €30,000–€59,999, €60,000+), subjective social status with the use of the ladder (Adler et al., 2000), country of residence (Cyprus, Greece, Italy, Portugal, other), area of residence (rural/country, suburban, urban/Metropolitan), number and age of children, marital status (single, in a relationship, engaged or married, divorced/separated, widowed), and living situation (alone, with parents, with partner/spouse, with own family, with friends or roommates).

7C Vaccination Readiness Scale

The 7C Vaccination Readiness Scale assesses general vaccination readiness and seven components of vaccination readiness, namely confidence, complacency, constraints, calculation, collective responsibility,

compliance, and conspiracy (Geiger et al., 2021). The full version of the scale will be used in the proposed study; it consists of 21 items and is recommended for studies focusing on specific components, while if focusing on general vaccination readiness, the 7-item short version is sufficient (Geiger et al., 2021). Responses are rated on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree, with higher scores indicating higher confidence, complacency, constraints, calculation, collective responsibility, compliance, and conspiracy.

Vaccine Hesitancy Survey

The Vaccine Hesitancy Survey was developed by the SAGE Working Group on Vaccine Hesitancy to measure and address the nature and scale of hesitancy issues among the general public in different countries (Larson et al., 2015). The development of the tool was guided by the definition of vaccine hesitancy and a matrix of determinants informed by a systematic review of peer reviewed and grey literature, and by the expertise of the working group. The questions were piloted in the annual WHO-UNICEF joint reporting form, completed by National Immunization Managers globally. A set of questions relevant to the focus of this study was selected by the study team to facilitate comparisons with the 7C Vaccination Readiness Scale. The selected questions have been adapted by the study team to reflect influenza and COVID-19 vaccines specifically.

Behavioural and Social Drivers (BeSD) Vaccination Survey

The BeSD Vaccination Survey was developed by the Immunization, Vaccines and Biologicals team of the World Health Organisation (WHO, 2022). It is a globally standardised tool for assessing the behavioural and social drivers of vaccination, defined as beliefs and experiences specific to vaccination that are potentially changeable to increase vaccine uptake. The drivers of vaccination are grouped and measured in four domains: a) thinking and feeling about vaccines, b) social processes that drive or inhibit vaccination, c) motivation (or hesitancy) to seek vaccination, and d) practical issues involved in seeking and receiving vaccination. The survey, which is completed by the general adult population, consists of 22 questions

targeting COVID-19 vaccination. For the purposes of this study, the survey questions were adapted to reflect influenza vaccination as well. Some of the survey questions are not currently applicable, such as ‘Would getting the vaccine allow you to see your family and friends again?’ and, therefore, were removed.

European Health Literacy Questionnaire (HLS-EU-Q16)

The European Health Literacy questionnaire (Sørensen et al., 2015) is one of the most widely used measures of HL and will be applied to measure perceived health literacy (HL). The original version of the tool consists of 47 items assessing HL with regard to three domains: a) healthcare, b) disease prevention, and c) health promotion. In all three domains, items tap on four competences that influence a person’s decision making: accessing, understanding, appraising, and applying, creating a 4 x 3 matrix. We will use the short version of the scale, consisting of 16 items. The items in the shorter questionnaire represent well 11 out of the 12 cells in this matrix and at the same time present good psychometric properties. Response categories; ‘very difficult’, ‘fairly difficult’, ‘fairly easy’, and ‘very easy’ are dichotomized into ‘easy’ (scored with 1) and ‘difficult’ (scored with 0), with final score ranging from 0 (low/no HL) to 16 (high HL). The tool has been translated and validated in Greek (Andreou et al., 2019; Michou & Costarelli, 2022), Italian (Lorini et al., 2019), and Portuguese (Pedro et al., 2023) showing adequate and above psychometric properties.

Prosocial Behaviour

Prosocial behaviour will be assessed using the Prosocialness Scale for Adults (PSA) (Caprara et al., 2005). To avoid burdening the respondents, we selected six out of 16 items as applied previously (Haller et al., 2021). The statements refer to helping and sharing with friends and others, being available for volunteer activities, being empathetic with those in need, and spending time with lonely people. Participants are asked to rate the frequency of occurrence of the stated behaviour on a 5-point Likert scale ranging from 1 = never/almost never to 5 = always/almost always. Scores are summed up with higher values indicating more prosocial behaviour.

Vaccination Behaviour

Questions relating to previous vaccination uptake and future intention will be included, separately for influenza and COVID-19 vaccines. More precisely, for influenza vaccine, participants will be asked whether they have ever been vaccinated (no, yes), how often they have been vaccinated during the last 5 years (once, twice, 3 times, 4 times, 5 times/yearly), whether they have been vaccinated during the last vaccination season (no, yes), whether they intend to vaccinate in the future (no, yes), and whether they intend to vaccinate every year (no, yes). For COVID-19 vaccine, participants will be asked whether they have ever been vaccinated (no, yes), the number of doses administered, whether they have been vaccinated during the last vaccination season (no, yes), their intention to get vaccinated in the future (no, yes) and every year (no, yes).

Statistical Analyses

Statistical analyses will be carried out for the whole sample and separately for each country and for each vaccine type. Descriptive statistics will be first summarised as means and standard deviations for continuous variables which follow normal distribution and medians and interquartile range for continuous variables which do not follow normal distribution and absolute (n) and relative (%) frequencies for categorical variables. Appropriate statistical tests and models will be used to examine any associations between the study variables (set for significance at 0.05). Statistical analyses will be carried out in STATA 18.0 (Stata Corp, College Station, TX, USA) and R programming language.

To examine the psychometric properties of the 7C Vaccination Readiness Scale, a series of statistical analyses will be carried out. Firstly, confirmatory factor analysis using a bifactor measurement model that consists of a general factor of vaccination readiness and of component-specific nested factors will be conducted (set for significance at 0.05). Reliability testing will include internal consistency using Cronbach's alpha coefficient calculated for each of the components (set for significance at 0.05) and test-retest consistency between two independent measurements (set for significance at 0.05). The two measurements will be carried out under the same test conditions to calculate the intraclass correlation

coefficient, omega coefficient, and measurement error, with a random sub-sample of consented participants who will be invited to complete the survey again after 2-weeks' time. Validity testing will include criterion validity (predictive), construct validity (convergent, differentiation by known groups), and cross-cultural validity. Predictive validity will be tested by examining the extent to which the scores are associated with a) previous vaccination behaviour and b) future vaccination intention using binary and multinomial logistic regression analysis, respectively, adjusted for sociodemographic characteristics (set for significance at 0.05). Convergent validity testing will use multi-trait multi-method matrix (set for significance at 0.05) to explore the degree to which the scores are related to the scores on the Vaccine Hesitancy Survey Tool (Larson et al., 2015), the Behavioural and Social Drives (BeSD) measure (WHO, 2022), the European Health Literacy questionnaire (Sørensen et al., 2015), and the Prosocialness Scale for Adults (Caprara et al., 2005), as expected based on theoretical grounds. The 7C scale and the comparison instruments will be administered at the same time and under the same test conditions. To examine differentiation between known groups, we will explore the distribution of the scores over three samples based on their vaccination status (vaccine acceptant vs. vaccine hesitant vs. vaccine resistant) using one-way ANOVA (set for significance at 0.05). Cross-cultural validity can only be tested with the Greek version of the scale, where comparisons will be carried out between the samples in Cyprus and Greece using a multi-group confirmatory factor analysis (set for significance at 0.05). Criterion (concurrent) validity testing will not be performed as there is currently no gold standard measurement available to facilitate comparisons.

Expected Outcomes

The expected outcomes of the proposed study are a) the 7C Vaccination Readiness Scale translated and culturally adapted to be administered to the general population in Cyprus, Greece, Italy, and Portugal, and b) the scale validated to be used in future population studies in Cyprus, Greece, Italy, and Portugal.

Impact

Results from this study are expected to confirm the reliability and validity of the translated 7C Vaccination Readiness Scale measuring antecedents to influenza and COVID-19 vaccination in four European countries. Should the scale be confirmed as psychometrically sound, it can be used in different populations and under different settings to support decision-makers to understand the determinants of influenza and COVID-19 vaccine uptake and optimise vaccination efforts against these vaccine-preventable diseases.

Ethics

Prior to the initiation of the study, approval will be sought from the relevant ethical committee for each partner (Cyprus, Italy, Portugal, and Greece).

Informed Consent and Privacy Notification

Every participant will be provided with an information sheet and an explicit consent form that explain the purpose of data collection, storage, and processing in compliance with European General Data Protection Regulation. Before proceeding with the survey, all participants will be requested to provide their written consent to take part.

Risks

We anticipate no risks to study participants derived from their participation to the proposed survey. Table 1 presents general risks that may derive from the study, the level of risk expected, and mitigation strategies.

Table 1. Risk and Mitigation

Risk	Level	Mitigation strategies
Recruitment delays and low participation	M	Utilise targeted outreach and communication strategies, such as communicating our research to the general public via posting on different social media platforms. Ensure the survey is not too long to cause burden to study participants.
Technical failures (e.g., survey link not working)	S	Provide training to the person responsible for data collection to handle and resolve any technical issues that may occur. All participating countries have an experienced technical support team also in place to support with maintenance and troubleshooting.
Ethical compliance and data management issues	S	Provide relevant training to the person responsible for data collection and management. Adhere to strict data management protocols, ensure secure storage, regular backups, and compliance with GDPR guidelines. Pre-register study protocol on the Open Science Framework. Ensure all data are collected and maintained anonymous. Provide participants with a comprehensive information sheet and request a written informed consent for their participation to the study and data sharing. Obtain ethical approval from the relevant Ethic Committee of each participating country, ensuring all study procedures comply with ethical and legal requirements. Conduct regular reviews and audits to ensure adherence to ethical standards, including data management and participant consent processes.
Timeline delays	M	Develop a detailed project timeline with clear milestones and deliverables. Monitor progress regularly via monthly coordination team meetings.
Financial management	S	Conduct regular financial audits to ensure adherence to the project's financial management.

Note. M = medium; S = small.

Dissemination

Results from this study will be disseminated to the scientific community and the general public through Open Science Framework (osf.io) and open-access peer-reviewed publications.

Conflicts of interest

None to declare.

Author contributions

All authors contributed to the design of the study. LP drafted the protocol, and all authors reviewed the protocol critically. All authors approved the final version of the protocol to be published and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Annex 4 Protocol for the Development and Psychometric Validation of the COM-B Vaccination Promotion Questionnaire for Healthcare Professionals in Four European Countries

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**Co-funded by
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Number: 101133251]

Abstract

Introduction: The COM-B theoretical model provides a structure to identify behavioural and contextual barriers and facilitators of vaccination promotion by healthcare professionals. The objectives of the proposed study are a) to develop a COM-B Vaccination Promotion Questionnaire informed by the COM-B theoretical model and targeted for healthcare professionals, b) to translate and culturally adapt the questionnaire to be administered in Cyprus, Greece, Italy, and Portugal, and c) to examine the acceptability, validity, and reliability of the Greek, Italian, and Portuguese versions.

Methods: The list of questionnaire items will be first evaluated by experts using an online focus group. Standard translation procedures will then be followed: Forward and backward translation followed by expert reviewing and cognitive interviews with end users. The questionnaire will then be administered to the general adult population in Cyprus, Greece, Italy, and Portugal for the psychometric properties to be examined. A subsample of participants will be invited to complete the questionnaire twice, after a 2-weeks period.

Expected Outcomes: We expect a) to develop a COM-B Vaccination Promotion Questionnaire informed by the COM-B theoretical model and targeted for healthcare professionals, b) to translate and culturally adapt the questionnaire to be administered to healthcare professionals in Cyprus, Greece, Italy, and Portugal, and c) to evaluate the acceptability, validity, and reliability of the Greek, Italian, and Portuguese versions.

Impact: Should the questionnaire be confirmed as psychometrically sound, it will be used in different populations and under different settings to support decision-makers understand barriers and facilitators of vaccination promotion hence develop effective vaccination strategies against these vaccine-preventable illnesses.

Keywords



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COVID-19, influenza, vaccination, Capability, Opportunity, Motivation, behaviour change, COM-B, healthcare professionals, questionnaire development, psychometric properties, Europe.

Introduction

Vaccination is often cited as one of the most effective interventions in eliminating infectious diseases (Andre et al., 2008). The Center for Disease Control and Prevention recommends that adults receive annual influenza and COVID-19 vaccines (Center for Disease Control and Prevention, 2024), with an emphasis on the population getting vaccinated in September/October, prior to January/February when infection rates reach their peak (Liu et al., 2021; Nypaver et al., 2021). Nevertheless, both COVID-19 and influenza vaccination rates in Europe are suboptimal (Chen et al., 2022; Lazarus et al., 2023; Mathieu et al., 2020). For example, the estimated influenza vaccination rates among the general population range from 12% in Hungary to 52% in Greece (Chen et al., 2022). With regards to COVID-19 vaccines, 70% of the population in Europe has received at least one dose of the COVID-19 vaccine (Our World in Data, 2024a) and 66% have completed the initial vaccine protocol up to April 2024 (Our World in Data, 2024b). Indeed, vaccination is sometimes compromised by vaccine hesitancy (Salmon et al., 2015), defined as the delay in acceptance or refusal of vaccines despite their availability (MacDonald, 2015).

Healthcare professionals play a critical role in their patients' decision to get vaccinated (Griffin et al., 2018; Karafillakis et al., 2016). Over the course the COVID-19 pandemic, recommendations by healthcare professionals were among the strongest predictors of getting vaccinated (Karlsson et al., 2021; Meissner, 2022). Still, healthcare professionals remain one of the most trusted advisors in vaccination decision-making hence should be at the forefront of efforts to increase vaccine uptake (Paterson et al., 2016). However, ensuring a recommendation and facilitating vaccine promotion by healthcare professionals remains a challenge.

Insights from behavioural theories are useful to better understand the barriers and facilitators of promoting vaccination by healthcare professionals. The COM-B theoretical model was developed for any health



behaviour based on 19 frameworks of behaviour change (Michie et al., 2011) and was adapted to vaccination (Habersaat & Jackson, 2020). The model asserts that 'Capability', 'Opportunity', and 'Motivation' need to be present for any health behaviour to occur. Capability and motivation refer to individual determinants (such as lack of information, distrust or misperceptions), while opportunity refers to context determinants (including social, cultural, institutional, and political factors) (Michie et al., 2011). The COM-B is a comprehensive theoretical model that provides a structure to identify both behavioural and contextual barriers and facilitators of vaccination promotion by healthcare professionals which can then be mapped to evidence-based intervention functions and subsequent policy domains.

Current evidence related to the determinants of vaccination promotion or delivery by healthcare professionals based on the COM-B model confirms that all three factors of the model are relevant (Bolszewicz et al., 2022; Flood et al., 2023; Musa et al., 2020; Nnaji et al., 2023; Norman et al., 2022; Overmars et al., 2022; Randall et al., 2021; Thomas et al., 2018; Thomas et al., 2019; Tuckerman et al., 2020; Zaouk et al., 2020; Zhou et al., 2023). For example, previous studies on influenza vaccination have highlighted the role of inconsistent vaccine supply (Randall et al., 2021), time pressure (Randall et al., 2021), lack of educational resources (Randall et al., 2021), communication with patients (Tuckerman et al., 2020), knowledge of vaccine recommendations (Tuckerman et al., 2020), and perceived responsibility towards recommending or delivering the vaccine (Norman et al., 2022; Tuckerman et al., 2020). Previous evidence, however, derives solely from qualitative studies. Only four scales were identified measuring determinants of vaccination based on the COM-B model (Cordoba-Sanchez et al., 2022; Keyworth et al., 2020; Phillips et al., 2021; Shafie et al., 2023). Nevertheless, none of these scales have been developed to measure healthcare professional's barriers and facilitators of *promoting* vaccination.

The proposed study is part of a larger, ongoing project entitled 'Developing a Country-Observatory for Sharing Best Practices for Vaccination Promotion (co-OPERATOR)², funded by the European Health and

² <https://bsihlab.com/>

Digital Executive Agency (EU4Health scheme). The overarching aim of the co-OPERATOR project is to develop an innovative and citizen-centered digital solution with an evidence-based virtual observatory to increase vaccine literacy and uptake among participating countries (Cyprus, Greece, Italy, Portugal) and beyond. One of the main objectives of the co-OPERATOR project is to support decision-makers to understand the barriers and facilitators of vaccination promotion by healthcare professionals and translate scientific evidence into effective intervention strategies at regional, national, and European level. These cross-country efforts are important as certain factors may exhibit specificity to particular countries, reflecting the different challenges faced within diverse cultural and regional contexts.

Study Objectives

The objectives of the proposed study are a) to develop a COM-B Vaccination Promotion Questionnaire informed by the COM-B theoretical model and targeted for healthcare professionals, b) to translate and culturally adapt the questionnaire to be administered in Cyprus, Greece, Italy, and Portugal, and c) to examine the acceptability, validity (content, discriminant, structural, construct [convergent, differentiation by known groups, cross-cultural]), and reliability (internal consistency, test-retest) of the Greek, Italian, and Portuguese versions of the scale.

Methods

Study Design

The COM-B Vaccination Promotion Questionnaire will be developed in three phases (Boateng et al., 2018): 1) Item development, 2) questionnaire development, and 3) questionnaire evaluation. The questionnaire will include two sections, one for the influenza vaccine and the other one for COVID-19 vaccines.

Phase 1: Item Development

Deductive methods have been applied by the lead author (LP) through literature review and assessment of existing scales and indicators of the domain. The Tailoring Immunisation Programmes guide (WHO, 2019) has been identified as a useful and comprehensive tool for the purposes of this study. Specifically, the

Tailoring Immunisation Programmes approach, which is grounded on the COM-B theoretical model, has been developed by the WHO regional office for Europe to help countries achieve increased and equitable vaccination uptake through integrating research and behavioural insights into immunisation program planning and policy in each country (WHO, 2019). The guide provides a list of relevant topics to explore in research with healthcare professionals, mapped onto the COM-B model, and will be used to guide the item development phase.

Once the items have been developed, content validity will be assessed through evaluation by experts using an online focus group discussion in September 2024. The group of experts, who will be invited to participate via direct emails, will consist of 5-7 highly knowledgeable individuals about the COM-B model and questionnaire development. Their assessments will be quantified using Cohen's kappa coefficient (κ) for measuring inter-rater agreement. The original items will be developed in English language to maximise input from experts. Two different versions of the questionnaire will be developed, one for the influenza vaccine and the other one for COVID-19 vaccines.

Phase 2: Questionnaire Development

After item development and expert judgment, the questionnaire will be translated and culturally adapted in Greek, Italian, and Portuguese by the partners of the co-OPERATOR project in Italy (University of Pisa) and Portugal (Ministry of Health, Division of Literacy, Health and Well-being in Portugal). The same procedure will be carried out in all countries; Multiple forward and backward translations will be conducted followed by expert reviewing and cognitive interviews with end users. Local experts (5-7) will be invited, via direct emails, to provide their feedback on the translated version of the scale. Cognitive interviews with 5-15 end users will follow, who will be able to tell whether the questions reflect the domains being investigated. Cognitive interviews will also take place in Greece, led by the Cyprus University of Technology, to allow for any cultural adaptations of the scale.

Inclusion Criteria for Cognitive Interviews

Primary healthcare professionals, secondary healthcare professionals, medical doctors under specialisation training, nursing professionals, health visitors, pharmacists, medical trainees, and nursing trainees who resident in the country in which the questionnaire will be administered to will be eligible to take part to the study. Information on the profession/specialisation and country of residence will be provided by self-report. The sample will be recruited conveniently through professional associations' emailing lists of the associated professions/specialisations. Cognitive interviews will take place either online or in-person in October 2024.

Phase 3: Questionnaire Evaluation

Once translations are finalised, an independent sample of healthcare professionals will be recruited cross-sectionally in each country to complete the online survey in March 2025. A subsample of healthcare professionals will be invited to repeat the online survey two weeks later.

Inclusion Criteria for Cross-sectional Survey

Primary healthcare professionals, secondary healthcare professionals, medical doctors under specialisation training, nursing professionals, health visitors, pharmacists, medical trainees, and nursing trainees who resident in the country in which the questionnaire will be administered to will be eligible to take part to the study. Information on the profession/specialisation and country of residence will be provided by self-report.

Sample Size The sample size for this study was calculated using a power analysis based on expected effect sizes and the desired level of statistical significance. We set the confidence level at 95%, the margin of error at 5%, and a prevalence of 50%. Based on these parameters and using the formula illustrated in Figure 1, we determined the total sample size of respondents necessary to achieve sufficient statistical power in each country. In Cyprus, it is necessary to administer the questionnaire to N = 376 participants.

Figure 1: Sample Size Calculation

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N} \right)}$$

Note. N = population size; e = margin of error (% in decimal form); z = z-score.

Participants will be recruited conveniently, through professional organisations' emailing lists of healthcare professionals in each country. RedCap software will be used to collect the data in all four countries. Apart from the newly-developed COM-B Vaccination Promotion Scale, healthcare professionals will be asked to provide information on sociodemographic characteristics and their vaccination behaviour as described below.

Study Variables

Sociodemographic Characteristics

We will collect information on age, gender (man, woman, non-binary, other), educational level (high school, College degree, University degree, post-graduate degree, doctoral degree, other), healthcare professional status (no, yes/primary healthcare professional [please specify], no/secondary healthcare professional [please specify], no/healthcare professional under specialisation training [please specify], yes/nursing professional, yes/health visitor, yes/pharmacist, yes/medical trainee, yes/nursing trainee, yes/other [please specify]), place of work (private office/clinic, public hospital/health centre, nursing home, pharmacy, Ministry of Health/Public Health Authority, University/Education sector, other), yearly household income (<€16,000, €16,000–€29,999, €30,000–€59,999, €60,000–€89,000, €89,000–€119,000, €119,000+), country of residence (Cyprus, Greece, Italy, Portugal, other), area of residence (rural/country, suburban, urban/Metropolitan), number and age of children, marital status (single, in a relationship, engaged/married, separated/divorced, widowed), and living situation (alone, with parents, with partner/spouse, with own family, with friends or roommates).

Vaccination Behaviour

Questions relating to previous vaccination behavior and future intention will be included, separately for influenza and COVID-19 vaccines. More precisely, for influenza vaccine, participants will be asked whether they have ever been vaccinated (no, yes), how often they have been vaccinated during the last 5

years (once, twice, 3 times, 4 times, 5 times), whether they have been vaccinated during the last vaccination season (no, yes), and whether they intend to vaccinate in the future (from 1 = I definitely would not to 5 = I definitely would) and every year (from 1 = I definitely would not to 5 = I definitely would). For COVID-19 vaccine, participants will be asked whether they have ever been vaccinated (no, yes), the number of doses administered, and their intention to get vaccinated in the future (from 1 = I definitely would not to 5 = I definitely would) and every year (from 1 = I definitely would not to 5 = I definitely would).

Statistical Analyses

A series of statistical analyses will be carried out to evaluate the scale's psychometric properties. Statistical analyses will be carried out for the overall sample and separately for each country and for each vaccine type. For continuous variables, descriptive statistics will be summarised as means and standard deviations (SD) for variables which follow the normal distribution and medians and interquartile range (IQR) for variables which do not follow the normal distribution. For categorical variables, descriptive statistics will be summarised as absolute (n) and relative (%) frequencies. Appropriate statistical tests and models will be used to examine any associations between the study variables (set for significance at 0.05). Statistical analyses will be carried out in STATA 18.0 (Stata Corp, College Station, TX, USA) and R programming language. To deal with missing data, full information maximum likelihood (Enders & Bandalos, 2001) and multiple imputation (Gottschall et al., 2012; Kenward & Carpenter, 2007) have been proven useful for questionnaire development, and will be considered in analyses.

Discriminant validity will be tested with inter-item Pearson's correlations (p value set for significance at 0.05) which will be carried out to examine the extent to which scores on one item are related to scores on all other items of the same domain and to test the correlations between item scores and the sum domain score of the rest of the items excluding itself. To explore further whether the items within the questionnaire are related, exploratory factor analysis (p value set for significance at 0.05) will be used to assess the factor structure within the items. Given the established COM-B framework guiding the development of the scale,

the domains of the questionnaire were determined *a priori*: Capability, opportunity, and motivation. Thus, a 3-factor model consisting of domains measuring capability, opportunity, and motivation will be explored. Items with inadequate factor loadings or slope coefficients will be eliminated at this stage.

To explore the factor structure further and verify the fit of a 3-factor model, a confirmatory 3-factor model (p value set for significance at 0.05) consisting of domains measuring capability, opportunity, and motivation will also be examined. Reliability testing will include internal consistency using Cronbach's alpha coefficient (p value set for significance at 0.05) calculated for the three domains and test-retest consistency (p value set for significance at 0.05) between two independent measurements. The two measurements will be carried out under the same test conditions to calculate the intraclass correlation coefficient and measurement error, with interval time being two weeks. Construct validity testing (convergent, differentiation by known groups, cross-cultural) will also be examined. Convergent and divergent validity testing will use multi-trait multi-method matrix (p value set for significance at 0.05) to explore the degree to which the scores of the domain are related (convergent) to own vaccination behaviour as expected based on theoretical frameworks. The COM-B Vaccination Promotion Questionnaire and the comparison instruments will be administered at the same time and under the same conditions. The distribution of the scores over three independent samples (vaccine acceptant vs. vaccine hesitant vs. vaccine resistant) will also be examined to test differentiation between known groups using one-way ANOVA (p value set for significance at 0.05). Cross-cultural validity testing is only applicable with the Greek version of the scale, where comparisons will be made between the Cypriot and Greek population using a multi-group confirmatory factor analysis. Criterion (concurrent) validity testing will not be performed as there is currently no gold standard measurement available to facilitate comparisons. Criterion (predictive) validity testing will not be carried out as the outcome (actual vaccination uptake) of the predictor (vaccination promotion) will not be assessed.

Finally, questionnaire acceptability will be investigated using missing data analyses, questions to assess perceived ease of understanding, interest, balance and fairness of the questionnaire, and a content analysis of open-ended comment boxes.

Expected Outcomes

The expected outcomes of the proposed study are a) to develop a COM-B Vaccination Promotion Questionnaire informed by the COM-B theoretical model and targeted for healthcare professionals, b) to translate and culturally adapt the questionnaire to be administered to healthcare professionals in Cyprus, Greece, Italy, and Portugal, and c) to evaluate the acceptability, validity (content, discriminant, structural, construct [convergent, differentiation by known groups, cross-cultural]), and reliability (internal consistency, test-retest) of the Greek, Italian, and Portuguese versions of the scale.

Impact

A new questionnaire measuring barriers and facilitators of influenza and COVID-19 vaccination promotion by healthcare professionals will be developed, translated, culturally adapted and validated in four European countries. Should the questionnaire be confirmed as psychometrically sound, it will be used in different populations and under different settings to support decision-makers understand barriers and facilitators of vaccination promotion hence develop effective vaccination strategies against these vaccine-preventable illnesses.

Ethics

Prior to the initiation of the study, approval will be sought from the relevant ethical committee of each country.

Inform Consent and Privacy Notification

Every participant will be provided with an information sheet that and an explicit consent form that explain the purpose of data collection, storage, and processing in compliance with European General Data



Protection Regulation. Before proceeding with the survey, all participants will be requested to provide their written consent to take part.

Risks

We anticipate no risks to study participants derived from their participation to the proposed survey. Table 2 presents general risks that may derive from the study, the level of risk expected, and mitigation strategies.

Table 2. Risk and Mitigation		
Risk	Level	Mitigation strategies
Recruitment delays and low participation	M	Engage with multiple professional associations and send emails to healthcare professionals via the relevant association. Utilise targeted outreach and communication strategies, such as communicating our research to national medical events/seminars and posting on various social media platforms. Ensure the survey is not too long to cause burden to study participants.
Technical failures (e.g., survey link not working)	S	Provide training to the person responsible for data collection to handle and resolve any technical issues that may occur. All participating countries have an experienced technical support team also in place to support with maintenance and troubleshooting.
Ethical compliance and data management issues	S	Provide relevant training to the person responsible for data collection and management. Adhere to strict data management protocols, ensure secure storage, regular backups, and compliance with GDPR guidelines. Pre-register study protocol on the Open Science Framework. Ensure all data are collected and maintained anonymous. Provide participants with a comprehensive information sheet and request a written informed consent for their participation to the study and data sharing. Obtain ethical approval from the relevant Ethic Committee of each participating country, ensuring all study procedures comply with ethical and legal requirements. Conduct regular reviews and audits to ensure adherence to ethical standards, including data management and participant consent processes.
Timeline delays	M	Develop a detailed project timeline with clear milestones and deliverables. Monitor progress regularly via monthly coordination team meetings.
Financial management	S	Conduct regular financial audits to ensure adherence to the project's financial management.
Note. M = medium; S = small.		

Dissemination

Results from this study will be disseminated to the scientific community and the general public through Open Science Framework (osf.io) and open-access peer-reviewed publications.

Conflicts of Interest

None to declare.

Author Contributions

All authors contributed to the design of the study. LP drafted the protocol, and all authors reviewed the protocol critically. All authors approved the final version of the protocol to be published and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Annex 5 Survey for the general population (Greek version)

ΈΝΑΡΞΗ ΤΟΥ ΕΡΩΤΗΜΑΤΟΛΟΓΙΟΥ

Παρακαλώ απαντήστε στις ακόλουθες ερωτήσεις.

Δεν υπάρχουν σωστές ή λανθασμένες απαντήσεις.

Εάν δεν είστε σίγουροι για την απάντηση σε μια ερώτηση, παρακαλώ επιλέξτε αυτήν που θεωρείτε καταλληλότερη. Συχνά, η καλύτερη απάντηση μπορεί να είναι η πρώτη απάντηση που σκεφτήκατε.

Δεν μπορείτε να αποθηκεύσετε τις απαντήσεις σας και να επανέλθετε αργότερα.

Σας υπενθυμίζουμε ότι το ερωτηματολόγιο είναι απολύτως εμπιστευτικό και είναι πολύ σημαντικό για εμάς να απαντήσετε με ειλικρίνεια.

Εάν έχετε δυσκολία στην προβολή του ερωτηματολογίου, παρακαλώ δοκιμάστε μια διαφορετική συσκευή ή/και ένα διαφορετικό πρόγραμμα περιήγησης στο διαδίκτυο.

A. ΚΟΙΝΩΝΙΚΟΔΗΜΟΓΡΑΦΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ

Παρακαλώ δώστε τις ακόλουθες κοινωνικοδημογραφικές πληροφορίες για τον εαυτό σας.



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1. Σε ποια χώρα διαμένετε;

Χώρα διαμονής	Παρακαλώ σημειώστε
Κύπρος	
Ελλάδα	
Ιταλία	
Πορτογαλία	
Άλλη	

[Εάν ο συμμετέχων επιλέξει «Άλλη» χώρα, τον ανακατευθύνουμε στο μήνυμα «Σας ευχαριστούμε για το ενδιαφέρον σας να συμμετάσχετε σε αυτή την έρευνα. Δυστυχώς, δεν έχετε το δικαίωμα να συμμετάσχετε και, συνεπώς, η συμμετοχή σας θα τερματιστεί. Σας ευχαριστούμε για το χρόνο σας.»]

2. Σε τι είδους περιοχή διαμένετε;

Περιοχή διαμονής	Παρακαλώ σημειώστε
Αγροτική/Υπαίθρια περιοχή	
Προαστιακή περιοχή	
Αστική/Μητροπολιτική περιοχή	

3. Πώς θα περιγράφατε το φύλο σας;

Φύλο	Παρακαλώ σημειώστε
Άρρεν	
Θήλυ	
Μη- διαδυκό φύλο	
Άλλο	

4. Ποια είναι η ηλικία σας;

5. Ποιο είναι το υψηλότερο επίπεδο εκπαίδευσης που έχετε ολοκληρώσει;

Ολοκληρωμένη εκπαίδευση	Παρακαλώ σημειώστε
Πρωτοβάθμια/δημοτικό σχολείο ή λιγότερο	
Δευτεροβάθμια εκπαίδευση/Λύκειο	
Τριτοβάθμια - Πτυχίο κολλεγίου	
Τριτοβάθμια - Πτυχίο πανεπιστημίου	
Μεταπτυχιακός τίτλος σπουδών	
Διδακτορικό δίπλωμα	
Άλλο [παρακαλώ διευκρινίστε]	

6. Είσατε επαγγελματίας υγείας;

Ιδιότητα επαγγελματία υγείας	Παρακαλώ σημειώστε
Όχι [παρακαλώ διευκρινίστε]	
Ναι [παρακαλώ διευκρινίστε]	



7. Ποιο είναι το ετήσιο εισόδημα του νοικοκυριού σας; Με τον όρο «εισόδημα του νοικοκυριού» εννοούμε το συνολικό ακαθάριστο εισόδημα (συμπεριλαμβανομένων των μισθών και κάθε άλλης πηγής εισοδήματος) για όλα τα άτομα που ζουν στο σπίτι.

Ετήσιο εισόδημα νοικοκυριού	Παρακαλώ σημειώστε
<€16,000	
€16,000-€29,999	
€30,000-€59,999	
€60,000+	

8. Θεωρήστε ότι αυτή η σκάλα αντιπροσωπεύει τη θέση που βρίσκονται οι άνθρωποι (στην αντίστοιχη χώρα, π.χ. Κύπρος). Στην κορυφή της σκάλας βρίσκονται οι άνθρωποι



που βρίσκονται στην καλύτερη θέση – (Δηλαδή αυτοί που έχουν τα περισσότερα χρήματα, την περισσότερη εκπαίδευση και τις πιο αξιοσέβαστες θέσεις εργασίας). Στο **κάτω** μέρος της σκάλας βρίσκονται οι άνθρωποι που βρίσκονται στη χειρότερη θέση – (Δηλαδή, αυτοί που έχουν τα λιγότερα χρήματα, τη χαμηλότερη εκπαίδευση, τις κατώτερες θέσεις εργασίας ή δεν έχουν καμία θέση εργασίας. Όσο πιο ψηλά βρίσκεστε σε αυτή τη σκάλα, τόσο πιο κοντά βρίσκεστε στους ανθρώπους που βρίσκονται στην κορυφή; όσο πιο χαμηλά βρίσκεστε, τόσο πιο κοντά βρίσκεστε στους ανθρώπους που βρίσκονται στον πάτο.

Πού θα τοποθετούσατε τον εαυτό σας σε αυτή τη σκάλα;

Παρακαλώ τοποθετήστε ένα μεγάλο «X» στο σκαλοπάτι όπου πιστεύετε ότι βρίσκεστε αυτή τη στιγμή στη ζωή σας σε σχέση με τους υπόλοιπους ανθρώπους στην (η χώρα αναφέρεται εδώ, π.χ. Κύπρος).



9. Ποια είναι η τρέχουσα οικογενειακή σας κατάσταση;



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Οικογενειακή κατάσταση	Παρακαλώ σημειώστε
Άγαμος/η (single)	
Σε σχέση	
Αρραβωνιασμένος/η /παντρεμένος/η	
Διαζευγμένος/η	
Χήρος/α	

10. Ποια είναι η τρέχουσα κατάσταση συμβίωσής σας;

Κατάσταση συμβίωσης	Παρακαλώ σημειώστε
Ζω μόνος/η μου	
Ζω με τους γονείς μου	
Ζω με τον/ην σύντροφο/σύζυγο μου	
Ζω με τη δική μου οικογένεια	
Ζω με φίλους ή συγγάτοικους	

11. Είστε γονέας;

Γονική κατάσταση	Παρακαλώ σημειώστε
Όχι	
Ναι [διευκρινίστε τον αριθμό των παιδιών]	

12. Εάν είστε γονέας, έχετε παιδιά κάτω των 18 ετών;

Παιδιά κάτω των 18 ετών	Παρακαλώ σημειώστε
Όχι	
Ναι [διευκρινίστε τον αριθμό των παιδιών κάτω των 18 ετών]	

B. ΚΑΤΑΣΤΑΣΗ ΥΓΕΙΑΣ

13. Πώς θα αξιολογούσατε τη γενική κατάσταση της υγείας σας σε σύγκριση με άλλα άτομα της ηλικίας σας;

Γενική κατάσταση της υγείας	Παρακαλώ σημειώστε
Πολύ κακή	
Κακή	
Μέτρια	
Καλή	
Πολύ καλή	

14. Σας έχει πει ποτέ ο γιατρός ή ο επαγγελματίας υγείας ότι αντιμετωπίζετε κάποια από τις ακόλουθες ιατρικές καταστάσεις;

Ιατρικές καταστάσεις	Παρακαλώ σημειώστε όλα όσα ισχύουν
Οποιαδήποτε καρδιακή νόσος ή ιστορικό καρδιακής προσβολής ή εγκεφαλικού επεισοδίου	
Υπέρταση (υψηλή αρτηριακή πίεση)	



Οποιαδήποτε χρόνια πνευμονοπάθεια (π.χ. άσθμα, χρόνια αποφρακτική πνευμονοπάθεια, χρόνια βρογχίτιδα)	
Ενεργός/τρέχων καρκίνος	
Νεφρικές παθήσεις	
Διαταραχές του ήπατος	
Μεταβολικές διαταραχές (π.χ. διαβήτης [υψηλό σάκχαρο στο αίμα])	
Νοσογόνος παχυσαρκία ($\Delta\text{ΜΣ} \geq 40$)	
Ενδοκρινικές διαταραχές (π.χ. προβλήματα θυρεοειδούς)	
Οποιοδήποτε αυτοάνοσο νόσημα (π.χ. HIV/AIDS, λύκος, πολλαπλή σκλήρυνση, ρευματοειδής αρθρίτιδα, ψωρίαση, νόσος του Crohn, φλεγμονώδης νόσος του εντέρου)	
Άλλη πάθηση που θέτει σε κίνδυνο το ανοσοποιητικό σύστημα (π.χ. λήψη ανοσοκατασταλτικών φαρμάκων)	
Οποιαδήποτε διαταραχή του αίματος (π.χ. αναιμία, θρόμβοι αίματος)	
Νευρολογικές παθήσεις (π.χ. νόσος του Πάρκινσον)	
Οποιαδήποτε καταθλιπτική διαταραχή (π.χ. μείζων κατάθλιψη)	
Οποιαδήποτε αγχώδης διαταραχή (π.χ. διαταραχή πανικού, γενικευμένη αγχώδης διαταραχή, διαταραχή μετατραυματικού στρες)	
Άλλη κατάσταση ψυχικής υγείας	
Αναπηρίες [Διευκρινίστε]	
Άλλο [διευκρινίστε]	

Γ. COVID-19/ΛΟΙΜΩΞΗ ΑΠΟ ΓΡΙΠΗ

15. Έχετε ποτέ μολυνθεί από COVID-19/γρίπη;

Προηγούμενη μόλυνση	Παρακαλώ σημειώστε
Όχι	
Είχα συμπτώματα, αλλά δεν επιβεβαιώθηκε με εξέταση.	
Ναι, επιβεβαιώθηκε με εξέταση	

Α. ΣΥΣΤΑΣΕΙΣ ΕΜΒΟΛΙΩΝ

16. Σας χορηγήθηκε ή σας συνταγογραφήθηκε εμβόλιο COVID-19/γρίπης (σημειώστε όλα όσα ισχύουν):

Χορήγηση ή συνταγογράφηση εμβολίου	Όχι	Ναι
Στο παρελθόν		
Κατά τη διάρκεια της τελευταίας περιόδου εμβολιασμού (το περασμένο φθινόπωρο ή χειμώνα)		

17. Εάν σας χορηγήθηκε ή σας συνταγογραφήθηκε εμβόλιο COVID-19/γρίπης κατά την τελευταία εμβολιαστική περίοδο, ποιος σας χορήγησε ή σας συνταγογράφησε το εμβόλιο;



Επαγγελματίας υγείας που χορήγησε ή συνταγογράφησε το εμβόλιο κατά τη διάρκεια της τελευταίας εμβολιαστική περιόδου	Παρακαλώ σημειώστε όλα όσα ισχύουν
Επαγγελματίας υγείας πρωτοβάθμιας περίθαλψης (π.χ. γενικός ιατρός, ιατρός εσωτερικής ιατρικής, γηρύατρος)	
Επαγγελματίας υγείας δευτεροβάθμιας περίθαλψης (π.χ. ειδικός σε λοιμώδεις ασθένειες)	
Ιατρός υπό ειδίκευση	
Επισκέπτης υγείας	
Επαγγελματίας νοσηλεύτης/τρια	
Φαρμακοποιός	
Φοιτητής/τρια ιατρικής	
Φοιτητής/τρια Νοσηλευτικής	
Άλλο [διευκρινίστε]	

18. Σας έχει συστήσει επαγγελματίας υγείας να κάνετε κάθε χρόνο εμβόλιο COVID-19/γρίπης;

Ετήσια εισήγηση από επαγγελματία υγείας	Παρακαλώ σημειώστε
Όχι	
Ναι	

19. Εάν ναι, ποιος σας πρότεινε τον ετήσιο εμβολιασμό COVID-19/γρίπης;

Επαγγελματίας υγείας που εισηγήθηκε τον ετήσιο εμβολιασμό	Παρακαλώ σημειώστε όλα όσα ισχύουν
Επαγγελματίας υγείας πρωτοβάθμιας περίθαλψης (π.χ. γενικός ιατρός, ιατρός εσωτερικής ιατρικής, γηρύατρος)	
Επαγγελματίας υγείας δευτεροβάθμιας περίθαλψης (π.χ. ειδικός σε μολυσματικές ασθένειες)	
Ιατρός υπό ειδίκευση	
Επισκέπτης υγείας	
Επαγγελματίας νοσηλεύτης	
Φαρμακοποιός	
Φοιτητής/τρια Ιατρικής	
Φοιτητής/τρια Νοσηλευτικής	
Άλλο [διευκρινίστε]	

20. Σας έχει συστήσει οποιοδήποτε άλλο πρόσωπο (ή πρόσωπα) να κάνετε εμβόλιο COVID-19/γρίπης κάθε χρόνο;

Ετήσια εισήγηση από άλλο(α) πρόσωπο(α)	Παρακαλώ σημειώστε
Όχι	
Ναι [διευκρινίστε]	

21. Πόσο ικανοποιημένοι είστε από τις απαντήσεις των επαγγελματιών υγείας στις ερωτήσεις σας σχετικά με τον εμβολιασμό COVID-19/γρίπης;

Ικανοποίηση από τις απαντήσεις	Παρακαλώ σημειώστε
Καθόλου ικανοποιημένος	
Λίγο ικανοποιημένος	
Σχετικά ικανοποιημένος	
Πολύ ικανοποιημένος	

Ε. ΣΥΜΠΕΡΙΦΟΡΑ ΚΑΙ ΠΡΟΘΕΣΗ ΕΜΒΟΛΙΑΣΜΟΥ

22. Λάβατε εμβόλιο COVID-19/γρίπης κατά την τελευταία εμβολιαστική περίοδο;

Εμβολιασμός κατά την τελευταία περίοδο	Παρακαλώ σημειώστε
Όχι	
Ναι	

23. Πότε ήταν η τελευταία φορά που έχεις λάβει το εμβόλιο Covid-19

Ο τελευταίος εμβολιασμός COVID-19	Please tick
Μέσα στους τελευταίους 6 μήνες	
Μέσα στους τελευταίους 12 μήνες	
Πάντοτε	
Ποτέ	

24. Αν ναι, ποιοι ήταν οι λόγοι που σε ώθησαν να αποφασίσεις να εμβολιαστείς την τελευταία εμβολιαστική περίοδο; [ανοικτό κείμενο]

25. Αν όχι, ποιοι ήταν οι λόγοι που σε ώθησαν να αποφασίσεις να ΝΗΝ εμβολιαστείς την τελευταία εμβολιαστική περίοδο; [ανοικτό κείμενο]

26. Έχεις την πρόθεση να εμβολιαστείς κατά του COVID-19/γρίπης στο μέλλον;

Πρόθεση για εμβολιασμό στο μέλλον	Παρακαλώ σημειώστε
Σίγουρα όχι	
Μάλλον όχι	
Δεν είμαι σίγουρος	
Πιθανώς ναι	
Σίγουρα ναι	

27. Έχεις την πρόθεση να εμβολιάζεσαι κατά του COVID-19/γρίπης κάθε χρόνο;

Πρόθεση εμβολιασμού κάθε χρόνο	Παρακαλώ σημειώστε
Σίγουρα όχι	
Μάλλον όχι	
Δεν είμαι σίγουρος	
Πιθανώς ναι	
Σίγουρα ναι	



Ζ. ΣΤΑΣΕΙΣ ΑΠΕΝΑΝΤΙ ΣΤΗΝ ΠΟΛΙΤΙΚΗ ΕΜΒΟΛΙΑΣΜΟΥ

28. Σε ποιο βαθμό συμφωνείτε ή διαφωνείτε ότι ο εμβολιασμός κατά του COVID-19/γρίπης θα πρέπει να είναι υποχρεωτικός για όλους τους πολίτες;

Στάση απέναντι στον υποχρεωτικό εμβολιασμό	Παρακαλώ σημειώστε
Διαφωνώ απόλυτα	
Διαφωνώ	
Ούτε συμφωνώ ούτε διαφωνώ	
Συμφωνώ	
Συμφωνώ απόλυτα	

Η. ΕΜΠΙΣΤΟΣΥΝΗ

29. Όταν σκέφτεστε τις πληροφορίες που λαμβάνετε σχετικά με τον εμβολιασμό κατά του COVID-19/γρίπης, ποιο είναι το επίπεδο εμπιστοσύνης που δείχνετε σε καθένα από τα ακόλουθα άτομα ή οργανισμούς; Παρακαλώ βαθμολογήστε το επίπεδο εμπιστοσύνης σας από το 1 = πλήρης εμπιστοσύνη έως το 4 = καθόλου εμπιστοσύνη.

Σε ποιο βαθμό εμπιστεύεστε:	1=απόλυτη εμπιστοσύνη	2=αρκετή εμπιστοσύνη	3=λίγη εμπιστοσύνη	4=καθόλου εμπιστοσύνη
29a. Την οικογένειά σας/τους συγγενείς σας				
29b. Τους φίλους σας				
29c. Τους πολιτικούς ηγέτες της χώρας σας (π.χ. τον πρόεδρο/πρωθυπουργό, τους υπουργούς, τα μέλη του κοινοβουλίου)				
29d. Τους περιφερειακούς πολιτικούς ηγέτες (π.χ. δήμαρχος, μέλη του δημοτικού συμβουλίου)				
29e. Αρχές δημόσιας υγείας				
29f. Τον ιατρό σας ή τον επαγγελματία υγείας				
29g. Διεθνείς οργανισμοί υγείας, όπως ο Παγκόσμιος Οργανισμός Υγείας				
29h. Φαρμακευτικές εταιρείες				
29i. Επιστήμονες και επιστημονικούς οργανισμούς				
29j. Διάσημους ανθρώπους (ηθοποιούς, αθλητές, μουσικούς)				
29k. Τον θρησκευτικό σας ηγέτη				

30. Ποια είναι η πιο συχνή πηγή πληροφόρησης σχετικά με τον εμβολιασμό κατά του COVID-19/γρίπης;

Πιο συχνή πηγή πληροφόρησης	Παρακαλώ σημειώστε όλα όσα ισχύουν
Μέσα ενημέρωσης (π.χ. τηλεόραση, ραδιόφωνο, εφημερίδες)	
Διαδίκτυο (π.χ. ιστότοποι)	



Μέσα κοινωνικής δικτύωσης (π.χ. αναρτήσεις στο Facebook, Instagram, tik tok)	
Άλλο, παρακαλώ προσδιορίστε	



Θ. 7C ΚΑΪΜΑΚΑ ΕΤΟΙΜΟΤΗΤΑΣ ΕΜΒΟΛΙΑΣΜΟΥ

- 31.** Οι ακόλουθες δηλώσεις αφορούν τη λοίμωξη από COVID-19/γρίπη για την οποία συστήνεται εμβολιασμός από τις υγειονομικές αρχές. Παρακαλώ δηλώστε πόσο συμφωνείτε με καθεμία από τις δηλώσεις.

Βαθμολογήστε τις δηλώσεις από το **1 = διαφωνώ απόλυτα** έως το **7 = συμφωνώ απόλυτα**.

Στοιχείο	Απάντηση						
	1	2	3	4	5	6	7
31α. Εμβολιάζομαι κατά του COVID-19/γρίπης επειδή είναι πολύ επικίνδυνο να μολυνθώ.							
31β. Οι πολιτικές αποφάσεις σχετικά με τον εμβολιασμό κατά του COVID-19/της γρίπης είναι επιστημονικά τεκμηριωμένες.							
31γ. Δεν χρειάζομαι τον εμβολιασμό κατά του COVID-19/γρίπης επειδή η λοίμωξη από COVID-19/γρίπη δεν με βλάπτει σοβαρά.							
31δ. Είμαι πεπεισμένος ότι οι αρμόδιες αρχές επιτρέπουν μόνο αποτελεσματικά και ασφαλή εμβόλια COVID-19/γρίπης.							
31ε. Ο εμβολιασμός COVID-19/γρίπης είναι περιττός για μένα, διότι ούτως ή άλλως σπάνια αρρωσταίνω από COVID-19/γρίπη							
31ζ. Οι παρενέργειες του εμβολιασμού COVID-19/γρίπης εμφανίζονται σπάνια και δεν είναι σοβαρές για μένα.							
31η. Θα πρέπει να είναι δυνατή η επιβολή κυρώσεων σε άτομα που δεν ακολουθούν τις συστάσεις των υγειονομικών αρχών για εμβολιασμό κατά του COVID-19/γρίπης.							
31θ. Εμβολιάζομαι κατά του COVID-19/γρίπης μόνο όταν τα οφέλη υπερτερούν σαφώς των κινδύνων.							
31ι. Μερικές φορές παραλείπω τον εμβολιασμό κατά του COVID-19/γρίπης επειδή ο εμβολιασμός είναι ενοχλητικός.							
31κ. Οι υγειονομικές αρχές υποκύπτουν στη δύναμη και την επιρροή των φαρμακευτικών εταιρειών.							
31λ. Ο εμβολιασμός κατά του COVID-19/της γρίπης είναι τόσο σημαντικός για μένα που δίνω προτεραιότητα στον εμβολιασμό έναντι άλλων πραγμάτων.							
31μ. Θα πρέπει να είναι δυνατόν να αποκλείονται άτομα από δημόσιες δραστηριότητες (π.χ. συναυλίες) όταν δεν έχουν εμβολιαστεί κατά του COVID-19/της γρίπης.							
31ν. Εμβολιάζομαι επίσης κατά του COVID-19/της γρίπης επειδή η προστασία των ευάλωτων ομάδων είναι σημαντική για μένα.							
31ξ. Φροντίζω να λαμβάνω εγκαίρως το εμβόλιο COVID-19/γρίπης.							



31ο. Εμβολιάζομαι κατά του COVID-19/της γρίπης όταν δεν βλέπω μειονεκτήματα για μένα.							
31π. Για το εμβόλιο COVID-19/γρίπης, εξετάζω προσεκτικά αν το χρειάζομαι.							
31ρ. Οι υγειονομικές αρχές πρέπει να χρησιμοποιήσουν όλα τα δυνατά μέσα για να επιτύχουν υψηλά ποσοστά εμβολιασμού κατά του COVID-19/γρίπης.							
31σ. Το εμβόλιο COVID-19/γρίπης περιέχει χημικές ουσίες σε τοξικές δόσεις.							
31τ. Ο εμβολιασμός COVID-19/γρίπης προκαλεί ασθένειες και αλλεργίες που είναι σοβαρότερες από τις ασθένειες από τις οποίες θα έπρεπε να προστατεύουν.							
31υ. Εμβολιάζομαι και εγώ κατά του COVID-19/γρίπης επειδή έτσι προστατεύω άλλους ανθρώπους.							
31φ. Θεωρώ τον εμβολιασμό κατά του COVID-19/γρίπης ως συλλογικό καθήκον κατά της εξάπλωσης της γρίπης/COVID-19.							

I. ΣΥΜΠΕΡΙΦΟΡΑ ΚΑΙ ΚΟΙΝΩΝΙΚΟΙ ΟΔΗΓΟΙ (BeSD)

32. Θέλετε να κάνετε το εμβόλιο COVID-19/γρίπης;

Πρόθεση εμβολιασμού	Παρακαλώ σημειώστε
Όχι, δεν θέλω	
Ναι, θέλω	
Δεν είμαι σίγουρος	
Είμαι ήδη εμβολιασμένος	

33. Πόσο σημαντικό πιστεύετε ότι είναι για την υγεία σας το εμβόλιο COVID-19/γρίπης;

Εμπιστοσύνη στα οφέλη του εμβολίου	Παρακαλώ σημειώστε
Καθόλου σημαντικό	
Λίγο σημαντικό	
Σχετικά σημαντικό	
Πολύ σημαντικό	

34. Πόσο ασφαλές πιστεύετε ότι είναι για εσάς το εμβόλιο COVID-19/γρίπης;

Εμπιστοσύνη στην ασφάλεια των εμβολίων	Παρακαλώ σημειώστε
Καθόλου ασφαλές	
Λίγο ασφαλές	
Σχετικά ασφαλές	
Πολύ ασφαλές	



35. Πόσο ανησυχείτε για το ενδεχόμενο να κολλήσετε COVID-19/γρίπη;

Αντιλαμβανόμενος κίνδυνος για τον εαυτό σου	Παρακαλώ σημειώστε
Καμία ανησυχία	
Λίγη ανησυχία	
Μέτρια ανησυχία	
Πολύ ανησυχία	

36. Πόσο εμπιστεύεστε τους επαγγελματίες υγείας που θα σας έκαναν το εμβόλιο COVID-19/γρίπης;

Εμπιστοσύνη στους επαγγελματίες υγείας	Παρακαλώ σημειώστε
Καθόλου	
Λίγη	
Μέτρια	
Πάρα πολύ	

37. Σας έχει συστήσει επαγγελματία υγείας να κάνετε εμβόλιο COVID-19/γρίπης;

Σύσταση επαγγελματία υγείας	Παρακαλώ σημειώστε
Όχι	
Ναι	

38. Εάν ήταν η περίοδος να κάνετε το εμβόλιο COVID-19/γρίπης, θα χρειαζόσασταν άδεια για να πάτε να το κάνετε;

Ισότητα των φύλων - ταξιδιωτική αυτονομία	Παρακαλώ σημειώστε
Όχι	
Ναι	

39. Πιστεύετε ότι οι περισσότεροι από τους στενούς συγγενείς και φίλους σας θέλουν να κάνουν το εμβόλιο COVID-19/γρίπης;

Οικογενειακά πρότυπα	Παρακαλώ σημειώστε
Όχι	
Ναι	

40. Πιστεύετε ότι οι περισσότεροι ενήλικες που γνωρίζετε θα κάνουν το εμβόλιο COVID-19/γρίπης εάν τους το συστήσουν;

Πρότυπα συνομήλικων	Παρακαλώ σημειώστε
Όχι	
Ναι	



41. Πιστεύετε ότι οι περισσότεροι από τους ανθρώπους με τους οποίους εργάζεστε θα κάνουν το εμβόλιο COVID-19/γρίπης;

Πρότυπα στο χώρο εργασίας	Παρακαλώ σημειώστε
Όχι	
Ναι	
Δεν εργάζομαι επί του παρόντος	

42. Πιστεύετε ότι οι θρησκευτικοί σας ηγέτες επιθυμούν να κάνουν το εμβόλιο COVID-19/γρίπης;

Πρότυπα θρησκευτικού ηγέτη	Παρακαλώ σημειώστε
Όχι	
Ναι	

43. Πιστεύετε ότι άλλοι ηγέτες της κοινότητας επιθυμούν να κάνουν το εμβόλιο COVID-19/γρίπης;

Πρότυπα κοινοτικών ηγετών	Παρακαλώ σημειώστε
Όχι	
Ναι	

44. Έχετε κάνει το εμβόλιο COVID-19;

Διενέργεια του εμβολίου COVID-19	Παρακαλώ σημειώστε
Όχι	
Ναι, έλαβα μία δόση	
Ναι, έλαβα δύο δόσεις	
Ναι, έλαβα τρεις ή περισσότερες δόσεις	
Δεν είμαι σίγουρος	

45. Έχετε κάνει το εμβόλιο κατά της γρίπης;

Διενέργεια του εμβολίου κατά της γρίπης	Παρακαλώ σημειώστε
Όχι	
Ναι	
Δεν είμαι σίγουρος	

46. Εάν ναι, πόσες φορές τα τελευταία 5 χρόνια έχετε εμβολιαστεί; [αυτή η ερώτηση αφορά μόνο το εμβόλιο κατά της γρίπης]

Αριθμός εμβολιασμών κατά της γρίπης τα τελευταία 5 έτη	Παρακαλώ σημειώστε
Μια φορά	
Δύο φορές	

3 φορές	
4 φορές	
5 φορές (κάθε χρόνο)	

47. Ξέρετε πού μπορείτε να απευθυνθείτε για τη χορήγηση εμβολίου COVID-19/γρίπης για τον εαυτό σας;

Γνωρίζετε πού να κάνετε τον εμβολιασμό	Παρακαλώ σημειώστε
Όχι	
Ναι	

48. Έχετε ποτέ ενημερωθεί ότι πλησιάζει η σειρά σας για το εμβόλιο κατά της COVID-19/γρίπης;

Λάβατε Υπενθύμιση	Παρακαλώ σημειώστε
Όχι	
Ναι	

49. Είναι διαθέσιμο το εμβόλιο COVID-19/γρίπης για να λάβετε στον τόπο εργασίας σας;

Εμβολιασμός επί τόπου	Παρακαλώ σημειώστε
Όχι	
Ναι	
Δεν εργάζομαι επί του παρόντος	

50. Πόσο εύκολο είναι η χορήγηση του εμβολίου COVID-19/γρίπης για τον εαυτό σας;

Ευκολία πρόσβασης	Παρακαλώ σημειώστε
Καθόλου εύκολο	
Λίγο εύκολο	
Σχετικά εύκολο	
Πολύ εύκολο	

51. Πόσο εύκολο είναι να πληρώσω για τον εμβολιασμό COVID-19/γρίπης; Όταν σκέφτεστε το κόστος, παρακαλώ λάβετε υπόψη σας τυχόν πληρωμές στην κλινική, το κόστος μετάβασης εκεί, καθώς και το κόστος που προκύπτει από την απομάκρυνση από την εργασία σας.

Οικονομικά προσιτό	Παρακαλώ σημειώστε
Καθόλου εύκολο	
Λίγο εύκολο	
Σχετικά εύκολο	
Πολύ εύκολο	

52. Τι σας εμποδίζει να κάνετε το εμβόλιο COVID-19/γρίπης;

Λόγοι δυσκολίας στην πρόσβασης	Παρακαλώ σημειώστε όλα όσα ισχύουν
Τίποτα, δεν είναι δύσκολο	
Το να κλείσεις ένα ραντεβού είναι δύσκολο	
Ο τόπος εμβολιασμού είναι δύσκολο να προσεγγιστεί	
Οι ώρες λειτουργίας δεν είναι βολικές	
Ο χρόνος αναμονής διαρκεί πολύ	
Δεν είναι εφικτό να εγκαταλείψω τα εργασιακά μου καθήκοντα	
Μερικές φορές οι άνθρωποι απομακρύνονται χωρίς εμβολιασμό	
Υπάρχει κάτι άλλο;	

53. Πόσο ικανοποιημένοι είστε από τις υπηρεσίες εμβολιασμού COVID-19/γρίπης;

Ικανοποίηση υπηρεσιών	Παρακαλώ σημειώστε
Καθόλου ικανοποιημένος	
Λίγο ικανοποιημένος	
Σχετικά ικανοποιημένος	
Πολύ ικανοποιημένος	

54. Τι ΔΕΝ είναι ικανοποιητικό στις υπηρεσίες εμβολιασμού COVID-19/γρίπης;

Ποιότητα υπηρεσιών	Παρακαλώ σημειώστε όλα όσα ισχύουν
Τίποτα, είμαι ικανοποιημένος	
Το εμβόλιο δεν είναι διαθέσιμο	
Ο χώρος εμβολιασμού δεν ανοίγει εγκαίρως	
Ο χρόνος αναμονής είναι μεγάλος	
Ο χώρος εμβολιασμού δεν είναι καθαρός	
Το προσωπικό είναι ανεπαρκώς εκπαιδευμένο	
Το προσωπικό δεν σέβεται	
Το προσωπικό δεν αφιερώνει αρκετό χρόνο στους ανθρώπους	
Υπάρχει κάτι άλλο; [πλαίσιο κειμένου]	

Κ. ΕΡΕΥΝΑ ΓΙΑ ΤΟΝ ΔΙΣΤΑΓΜΟ ΣΤΑ ΕΜΒΟΛΙΑ

55. Πόσο συμφωνείτε με καθεμία από τις ακόλουθες δηλώσεις σχετικά με τον εμβολιασμό κατά του COVID-19/γρίπης; Παρακαλώ υποδείξτε το επίπεδο συμφωνίας σας από το 1 = διαφωνώ απόλυτα έως το 5 = συμφωνώ απόλυτα.

	1=διαφωνώ απόλυτα	2=διαφωνώ	3=ούτε συμφωνώ ούτε διαφωνώ	4=συμφωνώ	5=συμφωνώ απόλυτα
55α. Το εμβόλιο COVID-19/γρίπης είναι σημαντικό για την υγεία μου.					



55β. Το εμβόλιο COVID-19/γρίπης είναι αποτελεσματικό.					
55γ. Ο εμβολιασμός μου κατά του COVID-19/γρίπης είναι σημαντικός για την υγεία των άλλων στην κοινότητά μου.					
55δ. Το εμβόλιο COVID-19/γρίπης που προσφέρεται από το κυβερνητικό πρόγραμμα στην κοινότητά μου είναι ωφέλιμο.					
55ε. Τα νέα εμβόλια COVID-19/γρίπης ενέχουν περισσότερους κινδύνους από τα παλαιότερα εμβόλια.					
55ζ. Οι πληροφορίες που λαμβάνω σχετικά με το εμβόλιο COVID-19/γρίπης από το πρόγραμμα εμβολιασμού είναι αξιόπιστες και έμπιστες.					
55η. Το να κάνω το εμβόλιο COVID-19/γρίπης είναι ένας καλός τρόπος για να προστατευτώ από την ασθένεια.					
55θ. Γενικά, κάνω ό,τι συνιστά ο γιατρός μου ή ο επαγγελματίας υγείας σχετικά με το εμβόλιο COVID-19/γρίπης για τον εαυτό μου.					
55ι. Ανησυχώ για σοβαρές ανεπιθύμητες ενέργειες του εμβολίου COVID-19/γρίπης.					
55κ. Δεν χρειάζομαι το εμβόλιο COVID-19/γρίπης, δεδομένου ότι η νόσος της γρίπης/COVID-19 δεν είναι πλέον συχνή.					

56. Έχετε ανησυχίες ή προβληματισμούς όταν πάτε για εμβολιασμό κατά του COVID-19/γρίπης;

Προβληματισμοί ή ανησυχίες	Παρακαλώ σημειώστε
Όχι	
Ναι	

57. Αν ναι, ποια είναι αυτά; Παρακαλούμε απαριθμήστε παρακάτω τυχόν ανησυχίες ή προβληματισμούς που μπορεί να έχετε όταν πάτε για εμβολιασμό COVID-19/γρίπης.
[ανοιχτό κείμενο]



58. Αντιμετωπίσατε κάποιο ανεπιθύμητο συμβάν μετά την ανοσοποίηση κατά του COVID-19/γρίπης;

Ανεπιθύμητο συμβάν στο παρελθόν	Παρακαλώ σημειώστε
Όχι	
Ναι, ήπιες επιπλοκές	
Ναι, σοβαρές επιπλοκές	

59. Εάν ναι, σας αποθαρρύνουν αυτές οι επιπλοκές από το να εμβολιαστείτε κατά του COVID-19/της γρίπης;

Επιπτώσεις του ανεπιθύμητου συμβάντος,	Παρακαλώ σημειώστε
Όχι	
Ναι, σε κάποιο βαθμό	
Ναι, σε μεγάλο βαθμό	

Λ. ΕΓΓΡΑΜΜΑΤΙΣΜΟΣ ΣΤΗΝ ΥΓΕΙΑ

60. Οι ακόλουθες ερωτήσεις αφορούν τις γνώσεις σας σχετικά με την υγεία και την ασθένεια. Σε μια κλίμακα από το 1 = πολύ εύκολο έως το 4 = πολύ δύσκολο, πόσο εύκολο θα λέγατε ότι είναι να:

	1=πολύ εύκολο	2=εύκολο	3=δύσκολο	4=πολύ δύσκολο
60α. Βρείτε πληροφορίες για τις θεραπείες των ασθενειών που σας απασχολούν				
60β. Μάθετε πού μπορείτε να ζητήσετε επαγγελματική βοήθεια όταν είστε άρρωστοι				
60γ. Καταλαβαίνετε τι σας λέει ο γιατρός				
60δ. Καταλαβαίνετε τις οδηγίες του ιατρού ή του φαρμακοποιού σας για το πώς να πάρετε ένα συνταγογραφημένο φάρμακο				
60ε. Κρίνετε πότε μπορεί να χρειαστεί να ζητήσετε μια άλλη γνώμη από έναν δεύτερο γιατρό				
60ζ. Χρησιμοποιείτε τις πληροφορίες που σας δίνει ο ιατρός για να λαμβάνετε αποφάσεις σχετικά με την ασθένειά σας				
60η. Ακολουθείτε τις οδηγίες του ιατρού ή του φαρμακοποιού σας				
60θ. Βρείτε πληροφορίες σχετικά με τον τρόπο διαχείρισης προβλημάτων ψυχικής υγείας, όπως το άγχος ή η κατάθλιψη				
60ι. Κατανοείτε τις προειδοποιήσεις για την υγεία σχετικά με συμπεριφορές, όπως το κάπνισμα, η χαμηλή σωματική δραστηριότητα και η υπερβολική κατανάλωση αλκοόλ				



60κ. Κατανοήσετε γιατί χρειάζεστε προληπτικές εξετάσεις υγείας				
60λ. Κρίνετε αν οι πληροφορίες σχετικά με τους κινδύνους για την υγεία στα μέσα μαζικής ενημέρωσης είναι αξιόπιστες				
60μ. Αποφασίσετε πώς μπορείτε να προστατευτείτε από ασθένειες με βάση τις πληροφορίες στα μέσα μαζικής ενημέρωσης				
60ν. Μάθετε για δραστηριότητες που κάνουν καλό στην ψυχική σας ευεξία				
60ξ. Μάθετε για δραστηριότητες που κάνουν καλό στην ψυχική σας ευεξία				
60ο. Κατανοείτε τις πληροφορίες στα μέσα μαζικής ενημέρωσης σχετικά με το πώς να γίνετε πιο υγιείς				
60π. Κρίνετε ποια καθημερινή συμπεριφορά σχετίζεται με την υγεία σας				



Μ. ΚΛΙΜΑΚΑ ΠΡΟΚΟΙΝΩΝΙΚΟΤΗΤΑΣ

- 61.** Οι ακόλουθες δηλώσεις περιγράφουν μεγάλο αριθμό κοινών καταστάσεων. Δεν υπάρχουν σωστές ή λανθασμένες απαντήσεις. Η καλύτερη απάντηση είναι άμεση και αυθόρμητη. Διαβάστε προσεκτικά κάθε δήλωση και σημειώστε τον αριθμό που αντικατοπτρίζει την πρώτη σας αντίδραση, με το 1 = ποτέ/σχεδόν ποτέ και το 5 = πάντα/σχεδόν πάντα.

	1=ποτέ/ σχεδόν ποτέ	2=σπάνια	3=περιστασιακά	4=συχνά	5=πάντα/ σχεδόν πάντα
61α. Βοηθάω με ευχαρίστηση τους φίλους/συναδέλφους μου στις δραστηριότητές τους.					
61β. Μοιράζομαι τα πράγματα που έχω με τους φίλους μου.					
61γ. Προσπαθώ να βοηθάω τους άλλους.					
61δ. Είμαι διαθέσιμος για εθελοντικές δραστηριότητες για να βοηθήσω όσους έχουν ανάγκη.					
61ε. Έχω ενσυναίσθηση με όσους έχουν ανάγκη.					
61ζ. Αφιερώνω χρόνο στους φίλους που νιώθουν μοναξιά.					

ΤΕΛΟΣ ΤΟΥ ΕΡΩΤΗΜΑΤΟΛΟΓΙΟΥ

Σας ευχαριστούμε για τη συμμετοχή σας!

Επίσης θα θέλαμε να επικοινωνήσουμε ξανά μαζί σας για να συμπληρώσετε το ίδιο ερωτηματολόγιο σε διάστημα 2 εβδομάδων.

Παρακαλώ δηλώστε αν συμφωνείτε να επικοινωνήσουμε ξανά μαζί σας για τη δεύτερη φάση της έρευνας.

Συναίνεση/όχι συναίνεση	Εάν επιλέξετε «Συναινώ...» γράψτε τη διεύθυνση ηλεκτρονικού ταχυδρομείου
Συναινώ στο να επικοινωνήσουν ξανά μαζί μου οι ερευνητές για τη δεύτερη φάση της έρευνας.	Email:
Δεν συναινώ στο να επικοινωνήσουν ξανά μαζί μου οι ερευνητές για τη δεύτερη φάση της έρευνας.	

Για περισσότερες πληροφορίες, μπορείτε να επικοινωνήσετε με τη Δρ Λάουρα Παναγή, Τμήμα Νοσηλευτικής, Τεχνολογικό Πανεπιστήμιο Κύπρου στο +357 96715014 και μέσω ηλεκτρονικού ταχυδρομείου στο laura.panagi@cut.ac.cy ή με τον Δρ Άγγελο Κασσιανό, Τμήμα Νοσηλευτικής, Τεχνολογικό Πανεπιστήμιο Κύπρου στο angelos.kassianos@cut.ac.cy

Πριν κλείσετε το πρόγραμμα περιήγησής σας, παρακαλούμε πατήστε submit.



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the European Union

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Annex 6 Survey for the general population (Italian version)

INIZIO DEL QUESTIONARIO

Vi preghiamo di rispondere alle seguenti domande.

Non ci sono risposte giuste o sbagliate.

Se non siete sicuri della risposta da scegliere per una domanda, selezionate quella che ritenete più appropriata. Spesso la risposta giusta è la prima a cui si pensa.

Non è possibile salvare le risposte e modificarle in un secondo momento.

Vi ricordiamo che il questionario è strettamente confidenziale e che per noi è molto importante che rispondiate con la massima sincerità

Se avete difficoltà a visualizzare le domande, suggeriamo di provare con un altro dispositivo e/o browser.

A. INFORMAZIONI SOCIO-DEMOGRAFICHE

La preghiamo di fornire le seguenti informazioni socio demografiche.

1. In quale paese risiede?



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Paese di residenza	Si prega di selezionare
Cipro	
Grecia	
Italia	
Portogallo	
Altro	

[Se come paese di residenza il partecipante seleziona “Altro”, viene reindirizzato al messaggio “Grazie per il suo interesse a partecipare a questo sondaggio. Purtroppo non ha i requisiti per partecipare e, pertanto, la sua partecipazione non potrà procedere oltre. Grazie per il suo tempo”.]

2. Come definirebbe l’area dove risiede?

Area di residenza	Si prega di selezionare
Rurale/Campagna	
Suburbana	
Urbana/Metropolitana	

3. Come definirebbe il suo genere?

Genere	Si prega di selezionare
Maschile	
Femminile	
Non-binario	
Altro	

4. Quanti anni ha? [testo libero]

5. Qual è il titolo di istruzione più elevato che possiede?

Istruzione completata	Si prega di selezionare
Primaria/ Elementare o meno	
Secondaria di primo grado / scuola media	
Secondaria / Diploma	
Laurea Universitaria	
Master post laurea	
Dottorato	
Altro [prego specificare]	

6. È un operatore sanitario?

Status di operatore sanitario	Si prega di selezionare
No	
Si [prego specificare]	



7. Qual è il suo reddito familiare annuo? Per “reddito familiare” si intende il reddito lordo totale (compresi gli stipendi e qualsiasi altra fonte di reddito) di tutte le persone che vivono nella sua abitazione.

Reddito familiare annuo	Si prega di selezionare
<€16.000	
€16.000-€29.999	
€30.000-€59.999	
>€60,000	



8. **Pensate a questa scala come a una rappresentazione della posizione sociale delle persone in (Inserire il paese di residenza).** In cima alla scala ci sono le persone che stanno meglio - quelle che hanno più soldi, un livello di istruzione più elevato e un lavoro più prestigioso. In basso ci sono le persone che stanno peggio: quelle che hanno meno soldi, un livello di istruzione più basso e un lavoro meno apprezzato, o che non hanno un lavoro. Più si è in alto in questa scala, più si è vicini alle persone in alto; più si è in basso, più si è vicini alle persone in basso.

Dove si collocherebbe in questa scala?

Per favore, metta una grande “X” sul gradino in cui pensa di trovarsi in questo momento della sua vita rispetto alle altre persone di (Inserire il paese di residenza).



9. Qual è il suo stato civile attuale?

Stato civile	Si prega di selezionare
Single	
In una relazione	
Impegnato/a - Sposato/a	
Separato/a- Divorziato/a	
Vedovo/a	

10. Qual è la sua attuale situazione abitativa?

Situazione abitativa	Si prega di selezionare
Abito da solo	
Abito con i miei genitori	
Abito con il mio partner/coniuge/con la mia famiglia	
Abito con degli amici / coinquilini	

11. Ha dei figli?

Situazione genitoriale	Si prega di selezionare
No	
Si [si prega di specificare il numero di figli]	

12. Se sì, ha figli di età inferiore a 18 anni?

Figli minori di 18 anni	Si prega di selezionare
No	
Si [si prega di specificare il numero di figli di età inferiore ai 18 anni]	

B. STATO DI SALUTE

13. Come valuta il suo stato di salute generale rispetto alle altre persone della sua età?

Stato di salute generale	Si prega di selezionare
Molto negativo	
Negativo	
Discreto	
Buono	
Molto buono	

14. Un medico o un operatore sanitario le ha mai detto di avere una o più delle seguenti condizioni di salute?



Condizioni di salute	Spuntare tutte le opzioni che interessano
Qualsiasi malattia cardiaca o storia di infarto o ictus	
Iperensione (pressione sanguigna alta)	
Qualsiasi malattia polmonare cronica (ad es. asma, broncopneumopatia cronica ostruttiva, bronchite cronica)	
Tumore in fase attiva	
Malattie renali	
Disturbi del fegato	
Disturbi metabolici (ad esempio, diabete [glicemia elevata])	
Obesità severa (BMI > 40)	
Disturbi endocrini (ad esempio, problemi alla tiroide)	
Qualsiasi malattia autoimmune (ad esempio lupus, sclerosi multipla, artrite reumatoide, psoriasi, morbo di Crohn, malattia infiammatoria intestinale)	
Altre condizioni che compromettono il sistema immunitario (ad esempio HIV/AIDS, assunzione di farmaci immunosoppressori)	
Qualsiasi disturbo del sangue (ad es. anemia, coaguli di sangue)	
Condizioni neurologiche (ad es., morbo di Parkinson)	
Disturbi depressivi (ad es. depressione maggiore)	
Qualsiasi disturbo d'ansia (per esempio, disturbo di panico, disturbo d'ansia generalizzato)	
Altre condizioni di salute mentale	
Disabilità	
Altro [specificare]	

C. INFEZIONE DA COVID-19/INFLUENZA

15. Ha mai contratto il COVID-19?

Pregresse infezioni	Si prega di selezionare
No	
Ho avuto sintomi compatibili, ma non ho mai fatto una verifica con un test	
Si, confermato con un test	

15.1 Ha mai contratto il virus dell'influenza?

Pregresse infezioni	Si prega di selezionare
No	
Ho avuto sintomi compatibili, ma non ho mai fatto una verifica con un test	
Si, confermato con un test	



D. RACCOMANDAZIONI VACCINALI

16. Le è mai stato offerto o prescritto il vaccino anti COVID-19? (Spuntare tutte le opzioni che interessano):

Offerta o prescrizione del vaccino	No	Si
In passato		
Durante l'ultima campagna vaccinale (lo scorso autunno o lo scorso inverno)		

- 16.1 Le è mai stato offerto o prescritto il vaccino anti influenzale? (Spuntare tutte le opzioni che interessano):

Offerta o prescrizione del vaccino	No	Si
In passato		
Durante l'ultima campagna vaccinale (lo scorso autunno o lo scorso inverno)		

17. Se le è stato offerto o prescritto un vaccino anti COVID-19 durante l'ultima stagione influenzale, chi le ha offerto o prescritto tale vaccino?

Operatore sanitario che ha offerto o prescritto il vaccino durante l'ultima stagione influenzale	Spuntare tutte le opzioni che interessano
Operatore delle cure primarie (ad es. medico di medicina generale, internista, geriatra)	
Specialista (ad es. Infettivologo, pneumologo)	
Medico in formazione specialistica	
Assistente sanitario	
Infermiere professionista	
Farmacista	
Medico tirocinante	
Infermiere tirocinante	
Altro [prego specificare]	

- 17.1 Se le è stato offerto o prescritto un vaccino anti influenzale durante l'ultima stagione influenzale, chi le ha offerto o prescritto tale vaccino?

Operatore sanitario che ha offerto o prescritto il vaccino durante l'ultima stagione influenzale	Spuntare tutte le opzioni che interessano
Operatore delle cure primarie (ad es. medico di medicina generale, internista, geriatra)	
Specialista (ad es. Infettivologo, pneumologo)	
Medico in formazione specialistica	
Assistente sanitario	
Infermiere professionista	
Farmacista	
Medico tirocinante	
Infermiere tirocinante	
Altro [prego specificare]	

18. Un operatore sanitario le ha mai raccomandato di fare il vaccino COVID-19?

Raccomandazione vaccinazione da parte di un operatore sanitario	Si prega di selezionare
No	
Si	

18.1 Un operatore sanitario le ha mai raccomandato di fare il vaccino anti influenzale?

Raccomandazione vaccinazione da parte di un operatore sanitario	Si prega di selezionare
No	
Si	

19. In caso affermativo, chi le ha raccomandato la vaccinazione COVID-19?

Operatore sanitario che ha raccomandato la vaccinazione	Spuntare tutte le opzioni che interessano
Operatore delle cure primarie (ad es. medico di medicina generale, internista, geriatra)	
Specialista (ad es. Infettivologo, pneumologo)	
Medico in formazione specialistica	
Assistente sanitario	
Infermiere professionista	
Farmacista	
Medico tirocinante	
Infermiere tirocinante	
Altro [prego specificare]	

19.1 In caso affermativo, chi le ha raccomandato la vaccinazione anti influenzale?

Operatore sanitario che ha raccomandato la vaccinazione	Spuntare tutte le opzioni che interessano
Operatore delle cure primarie (ad es. medico di medicina generale, internista, geriatra)	
Specialista (ad es. Infettivologo, pneumologo)	
Medico in formazione specialistica	
Assistente sanitario	
Infermiere professionista	
Farmacista	
Medico tirocinante	
Infermiere tirocinante	
Altro [prego specificare]	

20. Qualche altra persona le ha raccomandato di sottoporsi al vaccino COVID-19?

Raccomandazione alla vaccinazione da parte di altre persone	Si prega di selezionare
No	
Si [Prego specificare]	

20.1 Qualche altra persona le ha raccomandato di sottoporsi al vaccino anti influenzale?

Raccomandazione alla vaccinazione da parte di altre persone	Si prega di selezionare
No	
Si [Prego specificare]	

21. Quanto si ritiene soddisfatto delle risposte degli operatori sanitari alle sue domande relative alla vaccinazione COVID-19?

Soddisfazione relativa alle domande sulla vaccinazione	Si prega di selezionare
Per niente soddisfatto	
Poco soddisfatto	
Moderatamente soddisfatto	
Molto soddisfatto	

21.1 Quanto si ritiene soddisfatto delle risposte degli operatori sanitari alle sue domande relative alla vaccinazione anti influenzale?

Soddisfazione relativa alle domande sulla vaccinazione	Si prega di selezionare
Per niente soddisfatto	
Poco soddisfatto	
Moderatamente soddisfatto	
Molto soddisfatto	

E. COMPORTAMENTO E INTENZIONE VACCINALE

22. Ha ricevuto la vaccinazione anti-influenzale durante l'ultima stagione?

Vaccinazione anti-influenzale durante l'ultima stagione	Si prega di selezionare
No	
Si	

23. Se sì, quale è stato il motivo /quali sono stati i motivi per cui ha deciso di vaccinarsi durante l'ultima stagione influenzale? [testo libero]

24. Se no, quali sono stati i motivi per cui ha deciso di NON vaccinarsi durante l'ultima stagione influenzale? [testo libero]

25. Quando ha ricevuto l'ultima vaccinazione per COVID-19?

Ultima vaccinazione COVID-19	Si prega di selezionare
Negli ultimi 6 mesi	
Negli ultimi 12 mesi	
Da più di un anno	
Mai	

26. Se in passato ha ricevuto almeno una vaccinazione contro il COVID-19, qual'è stato il motivo /quali sono stati i motivi per cui ha deciso di sottoporsi a tale vaccinazione? [testo libero]

27. Se in passato non ha mai ricevuto una vaccinazione contro il COVID-19, qual'è stato il motivo /quali sono stati i motivi per cui ha scelto di NON sottoporsi a tale vaccinazione? [testo libero]

28. Ha intenzione di vaccinarsi contro il COVID-19 in futuro?

Intenzione di vaccinarsi in futuro	Si prega di selezionare
Decisamente no	
Probabilmente no	
Non ne sono sicuro	
Probabilmente sì	
Decisamente sì	

28.1 Ha intenzione di vaccinarsi contro l'influenza in futuro?

Intenzione di vaccinarsi in futuro	Si prega di selezionare
Decisamente no	
Probabilmente no	
Non ne sono sicuro	
Probabilmente sì	
Decisamente sì	

29. Ha intenzione di vaccinarsi contro il COVID-19 ogni anno?

Intenzione di vaccinarsi ogni anno	Si prega di selezionare
Decisamente no	
Probabilmente no	
Non ne sono sicuro	
Probabilmente sì	
Decisamente sì	

29.1 Ha intenzione di vaccinarsi contro l'influenza ogni anno?

Intenzione di vaccinarsi ogni anno	Si prega di selezionare
Decisamente no	
Probabilmente no	

Non ne sono sicuro	
Probabilmente sì	
Decisamente sì	

F. ATTEGGIAMENTI VERSO LA POLITICA VACCINALE

- 30.** Quanto è d'accordo sul fatto che la vaccinazione contro il COVID-19 dovrebbe essere obbligatoria per tutti i cittadini?

Atteggiamento riguardo l'obbligo vaccinale	Si prega di selezionare
Fortemente in disaccordo	
In disaccordo	
Né d'accordo né in disaccordo	
D'accordo	
Fortemente d'accordo	

- 30.1 Quanto è d'accordo sul fatto che la vaccinazione contro l'influenza dovrebbe essere obbligatoria per tutti i cittadini?

Atteggiamento riguardo l'obbligo vaccinale	Si prega di selezionare
Fortemente in disaccordo	
In disaccordo	
Né d'accordo né in disaccordo	
D'accordo	
Fortemente d'accordo	

G. FIDUCIA

- 31.** Quando pensa alle informazioni che riceve riguardo alla vaccinazione COVID-19, qual è il livello di fiducia che ripone in ciascuna delle seguenti persone o organizzazioni? La preghiamo di valutare il suo livello di fiducia da 1 = fiducia totale a 4 = nessuna fiducia.

Fino a che punto si fida di:	1=Fiducia totale	2=Discreta fiducia	3=Poca fiducia	4=Nessuna fiducia
31a. La sua famiglia / i suoi parenti				
31b. I suoi amici				
31c. I suoi leader politici nazionali (ad es. il presidente/primo ministro, i ministri, i membri del parlamento)				
31d. I suoi leader politici locali (ad es. il sindaco, i membri del consiglio comunale)				
31e. Le autorità sanitarie pubbliche				
31f. Il suo medico o operatore sanitario				



Fino a che punto si fida di:	1=Fiducia totale	2=Discreta fiducia	3=Poca fiducia	4=Nessuna fiducia
31g. Le organizzazioni sanitarie internazionali come l'Organizzazione Mondiale della Sanità				
31h. Le aziende farmaceutiche				
31i. Gli scienziati e le organizzazioni scientifiche				
31j. Le persone famose (attori, atleti, musicisti)				
31k. La sua guida religiosa/spirituale				

31.1 Quando pensa alle informazioni che riceve riguardo alla vaccinazione anti influenzale, qual è il livello di fiducia che ripone in ciascuna delle seguenti persone o organizzazioni? La preghiamo di valutare il suo livello di fiducia da 1 = fiducia totale a 4 = nessuna fiducia.

Fino a che punto si fida di:	1=Fiducia totale	2=Discreta fiducia	3=Poca fiducia	4=Nessuna fiducia
31a. La sua famiglia / i suoi parenti				
31b. I suoi amici				
31c. I suoi leader politici nazionali (ad es. il presidente/primo ministro, i ministri, i membri del parlamento)				
31d. I suoi leader politici locali (ad es. il sindaco, i membri del consiglio comunale)				
31e. Le autorità sanitarie pubbliche				
31f. Il suo medico o operatore sanitario				
31g. Le organizzazioni sanitarie internazionali come				



Fino a che punto si fida di:	1=Fiducia totale	2=Discreta fiducia	3=Poca fiducia	4=Nessuna fiducia
l'Organizzazione Mondiale della Sanità				
31h. Le aziende farmaceutiche				
31i. Gli scienziati e le organizzazioni scientifiche				
31j. Le persone famose (attori, atleti, musicisti)				
31k. La sua guida religiosa/spirituale				

32. Qual è la sua fonte di informazione più frequente per quanto riguarda la vaccinazione COVID-19?

Fonti di informazioni più frequenti	Spuntare tutte le opzioni che interessano
Media (ad es., TV, radio, giornali)	
Internet (ad es., pagine web)	
Social media (e.g., post di Facebook)	
Altro, prego specificare [testo libero]	

32.1 Qual è la sua fonte di informazione più frequente per quanto riguarda la vaccinazione anti influenzale?

Fonti di informazioni più frequenti	Spuntare tutte le opzioni che interessano
Media (ad es., TV, radio, giornali)	
Internet (ad es., pagine web)	
Social media (e.g., post di Facebook)	
Altro, prego specificare [testo libero]	

H. La scala “7C VACCINATION READINESS”

33. Le seguenti dichiarazioni fanno riferimento alle infezioni da COVID-19 / virus influenzali per le quali è disponibile una vaccinazione ed è raccomandata dalle autorità sanitarie. Si prega di indicare quanto si è d'accordo con ciascuna dichiarazione.

Valuta le affermazioni da 1 = fortemente in disaccordo a 7= pienamente d'accordo.

Tema: Vaccinazione COVID-19	Risposta						
	1	2	3	4	5	6	7
33a. Mi vaccino contro il COVID-19 perché è troppo rischioso ammalarsi.							
33b. Le decisioni politiche relativamente alla							



vaccinazione COVID-19 sono scientificamente fondate.							
33c. Non ho bisogno della vaccinazione COVID-19 perchè l'infezione da COVID-19 non mi ha colpito in modo grave.							
33d. Sono convinto che le autorità competenti consentano solo vaccini per COVID-19 efficaci e sicuri.							
33e. La vaccinazione per COVID-19 non è necessaria per me perchè comunque mi ammalo di COVID-19.							
33f. Gli effetti avversi della vaccinazione per COVID-19 avvengono di rado e non sono severi per me.							
33g. Dovrebbe essere possibile sanzionare chi non segue le raccomandazioni fornite dalle autorità sanitarie per il vaccino COVID-19.							
33h. Mi vaccino contro il COVID-19 solo quando i benefici superano chiaramente i rischi.							
33i. A volte non mi sottopongo alla vaccinazione COVID-19 perché la vaccinazione è fastidiosa.							
33j. Le autorità sanitarie si piegano al potere e all'influenza delle aziende farmaceutiche.							
33k. La vaccinazione COVID-19 è così importante per me che dò priorità alla vaccinazione rispetto ad altre cose.							
33l. Dovrebbe essere possibile escludere dalle attività pubbliche (ad esempio, dai concerti) le persone non vaccinate contro il COVID-19.							
33m. Mi vaccino anche contro il COVID-19 perché per me è importante proteggere i gruppi di persone fragili.							
33n. Mi assicuro di ricevere per tempo la vaccinazione COVID-19.							



33o. Mi vaccino contro il COVID-19 quando non vedo svantaggi per me.							
33p. Per il vaccino COVID-19, valuto attentamente se ne ho bisogno.							
33q. Le autorità sanitarie devono utilizzare tutti i mezzi possibili per raggiungere alti tassi di vaccinazione COVID-19.							
33r. Il vaccino per COVID-19 contiene sostanze chimiche in dosi tossiche.							
33s. La vaccinazione per COVID-19 provoca malattie e allergie più gravi delle malattie da cui dovrebbe proteggere.							
33t. Mi vaccino anche contro il COVID-19 perché così proteggo altre persone.							
33u. Vedo la vaccinazione COVID-19 come un compito collettivo contro la diffusione del COVID-19.							

Tema - Vaccino influenzale	Risposta						
	1	2	3	4	5	6	7
33a. Mi vaccino per l'influenza perché è troppo rischioso ammalarsi.							
33b. Le decisioni politiche relativamente alla vaccinazione per influenza sono scientificamente fondate.							
33c. Non ho bisogno della vaccinazione per influenza perché l'infezione da virus influenzale non mi ha colpito in modo grave.							
33d. Sono convinto che le autorità competenti consentano solo vaccini per influenza efficaci e sicuri.							
33e. La vaccinazione per influenza non è necessaria per me perché comunque mi ammalo di influenza.							
33f. Gli effetti avversi della vaccinazione per influenza							



avvengono di rado e non sono severi per me.							
33g. Dovrebbe essere possibile sanzionare chi non segue le raccomandazioni fornite dalle autorità sanitarie per il vaccino influenzale.							
33h. Mi vaccino contro l' influenza solo quando i benefici superano chiaramente i rischi.							
33i. A volte non mi sottopongo alla vaccinazione per influenza perché la vaccinazione è fastidiosa.							
33j. Le autorità sanitarie si piegano al potere e all'influenza delle aziende farmaceutiche.							
33k. La vaccinazione per influenza è così importante per me che dò priorità alla vaccinazione rispetto ad altre cose.							
33l. Dovrebbe essere possibile escludere dalle attività pubbliche (ad esempio, dai concerti) le persone non vaccinate contro l' influenza .							
33m. Mi vaccino anche contro l' influenza perché per me è importante proteggere i gruppi di persone fragili.							
33n. Mi assicuro di ricevere per tempo la vaccinazione per l' influenza.							
33o. Mi vaccino contro l' influenza quando non vedo svantaggi per me.							
33p. Per il vaccino influenzale, valuto attentamente se ne ho bisogno.							
33q. Le autorità sanitarie devono utilizzare tutti i mezzi possibili per raggiungere alti tassi di vaccinazione per l' influenza .							
33r. Il vaccino per l' influenza contiene sostanze chimiche in dosi tossiche.							
33s. La vaccinazione per l' influenza provoca malattie e							



allergie più gravi delle malattie da cui dovrebbe proteggere.							
33t. Mi vaccino anche contro l'influenza perché così proteggo altre persone.							
33u. Vedo la vaccinazione per l'influenza come un compito collettivo contro la diffusione dei virus influenzali.							

I. DETERMINANTI COMPORTAMENTALI E SOCIALI - BEHAVIOURAL AND SOCIAL DRIVERS (BeSD)

34. Vuoi ricevere un vaccino per il COVID-19?

Intenzione a sottoporsi alla vaccinazione	Si prega di selezionare
No, non voglio vaccinarmi	
Sì, voglio vaccinarmi	
Non sono sicuro	
Sono già vaccinato	

34.1 Vuoi ricevere un vaccino per l'influenza?

Intenzione a sottoporsi alla vaccinazione	Si prega di selezionare
No, non voglio vaccinarmi	
Sì, voglio vaccinarmi	
Non sono sicuro	
Sono già vaccinato	

35. Quanto ritiene importante il vaccino COVID-19 per la sua salute?

Fiducia nei benefici del vaccino	Si prega di selezionare
Non è per nulla importante	
Poco importante	
Moderatamente importante	
Molto importante	

35.1 Quanto ritiene importante il vaccino influenzale per la sua salute?

Fiducia nei benefici del vaccino	Si prega di selezionare
Non è per nulla importante	
Poco importante	
Moderatamente importante	
Molto importante	



36. Quanto pensa che il vaccino per il COVID-19 sia sicuro per lei?

Fiducia nella sicurezza del vaccino	Si prega di selezionare
Non è per nulla sicuro	
Poco sicuro	
Moderatamente sicuro	
Molto sicuro	

36.1 Quanto pensa che il vaccino influenzale sia sicuro per lei?

Fiducia nella sicurezza del vaccino	Si prega di selezionare
Non è per nulla sicuro	
Poco sicuro	
Moderatamente sicuro	
Molto sicuro	

37. Quanto è preoccupato di contrarre il COVID-19?

Rischio auto-percepito	Si prega di selezionare
Per nulla preoccupato	
Poco preoccupato	
Moderatamente preoccupato	
Molto preoccupato	

37.1 Quanto è preoccupato di contrarre l'influenza?

Rischio auto-percepito	Si prega di selezionare
Per nulla preoccupato	
Poco preoccupato	
Moderatamente preoccupato	
Molto preoccupato	

38. Quanto si fida degli operatori sanitari che le somministrano il vaccino COVID-19?

Fiducia negli operatori sanitari	Si prega di selezionare
Per niente	
Un poco	
Moderatamente	
Molto	

38.1 Quanto si fida degli operatori sanitari che le somministrano il vaccino per l'influenza ?

Fiducia negli operatori sanitari	Si prega di selezionare
Per niente	
Un poco	
Moderatamente	



Molto	
-------	--

39. Un operatore sanitario le ha raccomandato di sottoporsi alla vaccinazione COVID-19?

Raccomandazioni del professionista sanitario	Si prega di selezionare
No	
Si	

39.1 Un operatore sanitario le ha raccomandato di sottoporsi alla vaccinazione influenzale?

Raccomandazioni del professionista sanitario	Si prega di selezionare
No	
Si	

40. Se fosse il momento di fare il vaccino COVID-19, avrebbe bisogno di un permesso per andare a farlo?

Parità di genere-autonomia negli spostamenti	Si prega di selezionare
No	
Si	

40.1 Se fosse il momento di fare il vaccino influenzale, avrebbe bisogno di un permesso per andare a farlo?

Parità di genere-autonomia negli spostamenti	Si prega di selezionare
No	
Si	

41. Pensa che la maggior parte dei suoi parenti e amici stretti desidera che lei si sottoponga al vaccino COVID-19?

Influenza della famiglia	Si prega di selezionare
No	
Si	

41.1 Pensa che la maggior parte dei suoi parenti e amici stretti desidera che lei si sottoponga al vaccino influenzale?

Influenza della famiglia	Si prega di selezionare
No	
Si	



42. Pensa che la maggior parte degli adulti che conosce si sottoporrà al vaccino COVID-19 se gli viene raccomandato?

Norme tra pari	Si prega di selezionare
No	
Si	

- 42.1 Pensa che la maggior parte degli adulti che conosce si sottoporà al vaccino influenzale se gli viene raccomandato?

Norme tra pari	Si prega di selezionare
No	
Si	

43. Pensa che la maggior parte delle persone con cui lavora si sottoporà al vaccino COVID-19?

Norme sul luogo di lavoro	Si prega di selezionare
No	
Si	
Attualmente non sto lavorando	

- 43.1 Pensa che la maggior parte delle persone con cui lavora si sottoporà al vaccino influenzale?

Norme sul luogo di lavoro	Si prega di selezionare
No	
Si	
Attualmente non sto lavorando	

44. Pensa che le sue guide religiose vogliano che lei faccia il vaccino COVID-19?

Norme dei leader religiosi	Si prega di selezionare
No	
Si	

- 44.1 Pensa che le sue guide religiose vogliano che lei faccia il vaccino influenza?

Norme dei leader religiosi	Si prega di selezionare
No	
Si	

45. Pensa che gli altri leader della comunità vogliano che lei si sottoponga al vaccino COVID-19?

Norme dei leader della comunità	Si prega di selezionare
No	

Si	
----	--

45.1 Pensa che gli altri leader della comunità vogliano che lei si sottoponga al vaccino influenzale?

Norme dei leader della comunità	Si prega di selezionare
No	
Si	

46. Ha ricevuto un vaccino per il COVID-19?

Dosi ricevute del vaccino COVID-19	Si prega di selezionare
No	
Si, ho ricevuto una dose	
Si, ho ricevuto due dosi	
si, ho ricevuto 3 o più dosi	
Non sono sicuro	

47. Ha ricevuto un vaccino per influenza ?

Uptake del vaccino influenzale	Si prega di selezionare
No	
Si	
Non sono sicuro	

48. Se sì, quante volte negli ultimi 3 anni hai ricevuto il vaccino? [questa domanda è da considerarsi solo in relazione al vaccino influenzale]

Numero di vaccinazioni influenzali a cui si è sottoposto negli ultimi 3 anni	Si prega di selezionare
Una sola volta	
2	
3 (ogni anno)	

49. Sa dove andare per vaccinarsi contro COVID-19?

Sapere dove ricevere la vaccinazione	Si prega di selezionare
No	
Si	

49.1 Sa dove andare per vaccinarsi contro l'influenza?

Sapere dove ricevere la vaccinazione	Si prega di selezionare
No	
Si	



50. È mai stato contattato perché aveva superato l'intervallo consigliato tra le dosi del vaccino COVID-19/Influenza ?

Chiamata ricevuta	Si prega di selezionare
No	
Si	

51. È disponibile un vaccino per il COVID-19 sul posto di lavoro?

Vaccinazione in loco	Si prega di selezionare
No	
Si	
Attualmente non sta lavorando	

- 51.1 È disponibile un vaccino per l'influenza sul posto di lavoro?

Vaccinazione in loco	Si prega di selezionare
No	
Si	
Attualmente non sta lavorando	

52. Quanto è facile ottenere un vaccino per COVID-19 per se stessi?

Facilità di accesso	Si prega di selezionare
Per niente facile	
Poco facile	
Moderatamente facile	
Molto facile	

- 52.1 Quanto è facile ottenere un vaccino per l'influenza per se stessi?

Facilità di accesso	Si prega di selezionare
Per niente facile	
Poco facile	
Moderatamente facile	
Molto facile	

53. Quanto è facile pagare la vaccinazione per COVID-19? Quando pensa al costo, consideri gli eventuali pagamenti alla clinica, il costo per raggiungerla e il costo dell'assenza dal lavoro.

Convenienza economica	Si prega di selezionare
Per niente accessibile	
Poco accessibile	
Moderatamente accessibile	



Molto accessibile	
-------------------	--

53.1 Quanto è facile pagare la vaccinazione per l'influenza ? Quando pensa al costo, consideri gli eventuali pagamenti alla clinica, il costo per raggiungerla e il costo dell'assenza dal lavoro.

Convenienza economica	Si prega di selezionare
Per niente accessibile	
Poco accessibile	
Moderatamente accessibile	
Molto accessibile	

54. Cosa rende per lei difficile sottoporsi alla vaccinazione per COVID-19?

Motivi della scarsa facilità di accesso	Spuntare tutte le opzioni che interessano
Nulla, non è difficile	
è difficile prendere un appuntamento	
Il centro vaccinale è difficile da raggiungere	
Gli orari di apertura non sono comodi	
Lungo tempo di attesa	
Non posso assentarmi dal lavoro	
A volte le persone vengono allontanate senza la vaccinazione	
Ha altro da aggiungere ? [testo libero]	

54.1 Cosa rende per lei difficile sottoporsi alla vaccinazione influenzale?

Motivi della scarsa facilità di accesso	Spuntare tutte le opzioni che interessano
Nulla, non è difficile	
è difficile prendere un appuntamento	
Il centro vaccinale è difficile da raggiungere	
Gli orari di apertura non sono comodi	
Lungo tempo di attesa	
Non posso assentarmi dal lavoro	
A volte le persone vengono allontanate senza la vaccinazione	
Ha altro da aggiungere ? [testo libero]	

55. Quanto è soddisfatto dei servizi vaccinali per il COVID-19?

Grado di soddisfazione dei servizi	Si prega di selezionare
Per nulla soddisfatto	
Poco soddisfatto	
Moderatamente soddisfatto	
Molto soddisfatto	



55.1 Quanto è soddisfatto dei servizi vaccinali per il vaccino influenzale?

Grado di soddisfazione dei servizi	Si prega di selezionare
Per nulla soddisfatto	
Poco soddisfatto	
Moderatamente soddisfatto	
Molto soddisfatto	

56. Cosa non è soddisfacente dei servizi di vaccinazione per COVID-19?

Qualità dei servizi	Spuntare tutte le opzioni che interessano
Nulla, sono soddisfatto	
Il vaccino non è disponibile	
Il centro vaccinale non apre in orario	
I tempi di attesa sono lunghi	
Il centro vaccinale non è pulito	
Lo staff è scarsamente addestrato	
Lo staff non è rispettoso	
Lo staff non trascorre abbastanza tempo con le persone	
C'è altro da dire ? [testo libero]	

56.1 Cosa non è soddisfacente dei servizi di vaccinazione per il vaccino influenzale?

Qualità dei servizi	Spuntare tutte le opzioni che interessano
Nulla, sono soddisfatto	
Il vaccino non è disponibile	
Il centro vaccinale non apre in orario	
I tempi di attesa sono lunghi	
Il centro vaccinale non è pulito	
Lo staff è scarsamente addestrato	
Lo staff non è rispettoso	
Lo staff non dedica abbastanza tempo alle persone	
Ha altro da dire ? [testo libero]	

J. INDAGINE SULL'ESITANZA VACCINALE

57. Quanto è d'accordo con ciascuna delle seguenti affermazioni sulla vaccinazione contro il COVID-19? Indichi il suo livello di accordo da 1 = fortemente in disaccordo a 5 = fortemente in accordo.



	1= fortemente in disaccordo	2 = in disaccord o	3= né in accordo né in disaccordo	4= in accordo	5= fortemente in accordo
57a. Il vaccino contro il COVID-19 è importante per la mia salute.					
57b. Il vaccino contro il COVID-19 è efficace.					
57c. Vaccinarmi contro il COVID-19 è importante per la salute degli altri membri della mia comunità.					
57d. Il vaccino contro il COVID-19 offerto dal programma governativo nella mia comunità è utile.					
57e. I nuovi vaccini contro il COVID-19 comportano maggiori rischi rispetto ai vecchi vaccini.					
57f. Le informazioni che ricevo sul vaccino contro il COVID-19 dal programma vaccinale sono affidabili e attendibili.					
57g. Il vaccino contro il COVID-19 è un buon modo per proteggermi dalla malattia.					
57h. Generalmente seguo le raccomandazioni del mio medico o dell'operatore sanitario riguardo al vaccino contro il COVID-19.					
57i. Sono preoccupato per i possibili effetti avversi gravi del vaccino contro il COVID-19.					
57j. Non ho bisogno del vaccino contro il COVID-19 perché il COVID-19 non è più una malattia comune.					



57.1 Quanto è d'accordo con ciascuna delle seguenti affermazioni sulla vaccinazione contro l'influenza?

Indichi il suo livello di accordo da 1 = fortemente in disaccordo a 5 = fortemente in accordo.

	1= fortemente in disaccordo	2 = in disaccord o	3= né in accordo né in disaccordo	4= in accordo	5= fortemente in accordo
57a. Il vaccino contro l'influenza è importante per la mia salute.					
57b. Il vaccino contro l'influenza è efficace.					
57c. Vaccinarmi contro l'influenza è importante per la salute degli altri membri della mia comunità.					
57d. Il vaccino contro l'influenza offerto dal programma governativo nella mia comunità è utile.					
57e. I nuovi vaccini contro l'influenza comportano maggiori rischi rispetto ai vecchi vaccini.					
57f. Le informazioni che ricevo sul vaccino contro l'influenza dal programma vaccinale sono affidabili e attendibili.					
57g. Il vaccino contro l'influenza è un buon modo per proteggermi dalla malattia.					
57h. Generalmente seguo le raccomandazioni del mio medico o dell'operatore sanitario riguardo al vaccino contro l'influenza.					
57i. Sono preoccupato per i possibili effetti avversi gravi del vaccino contro il l'influenza.					
57j. Non ho bisogno del vaccino contro l'influenza perché l'influenza non è più una malattia comune.					



58. Ha qualche preoccupazione o timore quando si sottopone alla vaccinazione contro il COVID-19?

Preoccupazioni e timori	Si prega di selezionare
No	
Si	

58.1 Ha qualche preoccupazione o timore quando si sottopone alla vaccinazione contro l'influenza?

Preoccupazioni e timori	Si prega di selezionare
No	
Si	

59. Se sì, quali sono? La preghiamo di elencare qui di seguito eventuali preoccupazioni o timori che potrebbe avere quando si sottopone all'immunizzazione COVID-19. [testo libero]

59.1 Se sì, quali sono? La preghiamo di elencare qui di seguito eventuali preoccupazioni o timori che potrebbe avere quando si sottopone all'immunizzazione influenzale. [testo libero]

60. Ha mai manifestato un evento avverso in seguito all'immunizzazione contro il COVID-19?

Eventi avversi in passato	Si prega di selezionare
No	
Si, complicazioni lievi	
Si, complicazioni gravi	

60.1 Ha mai manifestato un evento avverso in seguito all'immunizzazione contro l'influenza?

Eventi avversi in passato	Si prega di selezionare
No	
Si, complicazioni lievi	
Si, complicazioni gravi	

61. Se sì, queste complicazioni la scoraggiano dal vaccinarsi contro il COVID-19?

Effetti degli eventi avversi	Si prega di selezionare
No	
Si, in una certa misura	
Si, in larga misura	

61.1 se sì, queste complicazioni la scoraggiano dal vaccinarsi contro l'influenza?

Effetti degli eventi avversi	Si prega di selezionare



No	
Si, in una certa misura	
Si, in larga misura	



K. ALFABETIZZAZIONE SANITARIA

62. Le seguenti domande riguardano la sua conoscenza sulla salute e le malattie.

Su una scala da 1 = molto facile a 4 = molto difficile, come descriverebbe la facilità con cui riesce a:

	1=molto facile	2	3	4=molto difficile
62a. Trovare informazioni sui trattamenti delle malattie che la preoccupano				
62b. Sapere dove trovare un aiuto professionale quando si è malati				
62c. Capire cosa le dice il medico				
62d. Capire le istruzioni del medico o del farmacista su come assumere un farmaco prescritto				
62e. Capire quando è necessario chiedere il parere di un secondo medico				
62f. Utilizzare le informazioni fornite dal medico per prendere decisioni sulla propria malattia				
62g. Seguire le istruzioni del medico o del farmacista				
62h. Trovare informazioni su come gestire problemi di salute mentale come lo stress o la depressione				
62i. Comprendere le avvertenze sanitarie relative a comportamenti come il fumo, la scarsa attività fisica e il bere troppo				
62j. Capire perché è necessario sottoporsi a screening sanitari				
62k. Giudicare se le informazioni sui rischi per la salute diffuse dai media sono affidabili				
62l. Decidere come proteggersi dalle malattie in base alle informazioni dei media				
62m. Informarsi sulle attività che fanno bene al proprio benessere mentale				
62n. Capire i consigli sulla salute forniti da familiari e amici				
62o. Capire le informazioni dei media su come diventare più sani				
62p. Giudicare quale comportamento quotidiano è legato alla salute				

L. SCALA DI PROSOCIALITÀ

63. Le seguenti affermazioni descrivono un gran numero di situazioni comuni. Non ci sono risposte giuste o sbagliate; la risposta migliore è quella immediata e spontanea. Legga



attentamente ogni frase e segni il numero che riflette la sua prima reazione, da 1 = mai/quasi mai a 5 = sempre/quasi sempre.

	1=mai/quasi mai	2=raramente	3=occasionalmente	4=spesso	5=sempre/quasi sempre
63a. Mi fa piacere aiutare i miei amici/colleghi nelle loro attività.					
63b. Condivido le cose che ho con i miei amici.					
63c. Cerco di aiutare gli altri.					
63d. Sono disponibile per attività di volontariato per aiutare chi ha bisogno.					
63e. Sono empatico verso chi è in difficoltà.					
63f. Trascorro del tempo con gli amici che si sentono soli.					

FINE DEL QUESTIONARIO

Grazie per la sua partecipazione!

Vorremmo ricontattarla per completare lo stesso questionario tra 2 settimane. La preghiamo di indicare se acconsente a essere ricontattato per la seconda fase dell'indagine.

Acconsento a essere ricontattato dai ricercatori per la seconda fase del sondaggio.

Non acconsento a essere ricontattato dai ricercatori per la seconda fase del sondaggio.

[Se il partecipante seleziona “Acconsento [...]”, gli chiediamo di fornire il suo indirizzo e-mail.]

Per ulteriori informazioni, è possibile contattare il dott. Francesco Baglivo, Dipartimento di ricerca traslazionale e delle nuove tecnologie in medicina e chirurgia, Università di Pisa via e-mail all'indirizzo f.baglivo@studenti.unipi.it o la prof.ssa Lara Tavoschi, Dipartimento di ricerca traslazionale e delle nuove tecnologie in medicina e chirurgia, Università di Pisa all'indirizzo lara.tavoschi@unipi.it.
Prima di chiudere il browser, premere invio.



Co-funded by
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Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor HaDEA can be held responsible for them [Grand Agreement: 101133251].

Annex 7 Survey for the general population (Portuguese version)

INÍCIO DO QUESTIONÁRIO

Por favor, responda às seguintes questões.

Não existem respostas corretas ou erradas.

Se não tiver a certeza em relação a alguma resposta, por favor, escolha a que considera mais apropriada.

Geralmente, a melhor resposta poderá ser a que surgiu primeiro no seu pensamento.

Não pode guardar as suas respostas e voltar mais tarde.

Relembramos que o questionário é completamente confidencial e que é importante para nós que responda com honestidade.

Se tem dificuldade em visualizar o questionário, por favor tente num aparelho ou num navegador de *web* diferente.



A. INFORMAÇÃO SOCIODEMOGRÁFICA

Por favor, forneça a seguinte informação sociodemográfica sobre si.

1. Em que país reside?

País onde reside	Por favor, selecione
Chipre	
Grécia	
Itália	
Portugal	
Outro	

2. Em que tipo de área reside?

Área de residência	Por favor, selecione
Rural/Campo	
Subúrbio	
Urbano/ Metropolitano	

3. Como descreve o seu género?

Género	Por favor clique
Homem	
Mulher	
Não-binário	
Outro	

4. Qual a sua idade? _____

5. Qual o seu nível de escolaridade mais elevado?

Nível de escolaridade	Por favor, selecione
Primária	
Secundária	
Licenciatura	
Mestrado	
Doutoramento	
Outro	

6. Você é um profissional de saúde?

Profissional de Saúde	Por favor, selecione
Não	
Sim (por favor especifique a sua profissão)	

7. Qual é a renda anual do seu agregado familiar? Por renda do agregado familiar” entendemos a renda bruta total (incluindo salários e qualquer outra fonte de renda) de todas as pessoas que vivem na sua casa.

Rendimento	Por favor, selecione
Até 9 310€	
Mais de 9 310€ até 18 620€	
Mais de 18 620€ até 27 930€	
Mais de 27 930€ até 37 240€	
Mais de 37 240€	



8. **Pense nesta escada como representando a posição das pessoas em Portugal.** No **topo** da escada estão as pessoas que estão em melhor situação – aquelas que têm mais dinheiro, mais educação e os empregos mais respeitados. Na **base** estão as pessoas que estão em pior situação – aquelas que têm menos dinheiro, menos educação, os empregos menos respeitados ou nenhum emprego. Quanto mais alto se está nesta escada, mais perto se está das pessoas no topo; quanto mais baixo se está, mais perto se está das pessoas que estão no fundo.

Onde se colocaria nesta escada?

Por favor, escolha o degrau em que acha que está neste momento da sua vida em relação a outras pessoas em Portugal.



9. Qual é o seu estado civil?

Estado civil	Por favor, selecione
Solteiro(a)	
Num relacionamento	
Noivo(a)/Casado(a)	
Separado(a)/Divorciado(a)	
Viúvo(a)	

10. Selecione a situação que mais se aplica a si:

Situação	Por favor, selecione
Eu vivo sozinho(a)	
Eu vivo com os meus pais	
Eu vivo com o(a) meu(minha) parceiro(a)	
Eu vivo com os meus(minhas) amigos (as) ou companheiros(as) de casa	
Outra opção. Qual?	

11. É pai / mãe?

Estatuto parental	Por favor, selecione
Não	
Sim (por favor especifique o número de filhos)	

12. Se for pai/ mãe, indique se tem filhos com idade superior a 18 anos.

Filhos com idade superior a 18	Por favor, selecione
Não	
Sim (por favor especifique número de filhos com idade superior a 18 anos)	

B. ESTATUTO DE SAÚDE

13. Como avaliaria o seu estado geral de saúde, comparando com pessoas da sua idade?

Saúde no geral	Por favor, selecione
Muito má	
Má	
Aceitável	
Boa	
Muito boa	

14. Algum(a) médico(a) ou profissional de saúde lhe disse que tem atualmente alguma das seguintes condições de saúde?

Condição de Saúde	Por favor, selecione
Alguma doença cardíaca ou histórico de ataque cardíaco ou AVC	
Hipertensão (pressão arterial elevada)	
Alguma doença pulmonar crónica (ex.: asma, doença pulmonar obstrutiva crónica, bronquite crónica)	
Cancro ativo	
Doenças renais	
Distúrbios hepáticos	
Distúrbios metabólicos (ex.: diabetes [níveis elevados de açúcar no sangue])	
Obesidade III	
Distúrbios endócrinos (ex.: problemas de tiróide)	
Alguma doença autoimune (ex.: HIV/SIDA, lúpus, esclerose múltipla, artrite reumatoide, psoríase, doença de Crohn, doença inflamatória intestinal)	
Outra condição que comprometa o sistema imunológico (ex.: uso de medicação imunossupressora)	
Qualquer distúrbio sanguíneo (ex.: anemia, coágulos sanguíneos)	

Condições neurológicas (ex.: doença de Parkinson)	
Qualquer transtorno depressivo (por exemplo, depressão <i>major</i>)	
Qualquer transtorno de ansiedade (por exemplo, perturbação de pânico, ansiedade generalizada, stress pós-traumático, etc.)	
Outro problema de saúde mental	
Deficiências	
Outro (por favor especifique)	

C. INFEÇÃO COVID-19 / INFLUENZA (Vírus da Gripe)

15. Alguma vez esteve infetado com COVID-19/ Gripe?

Infeção prévia	Por favor, selecione
Não	
Tive sintomas, mas nunca confirmei com teste	
Sim, confirmei com teste	

D. Recomendações vacinas

16. Foi-lhe oferecida ou prescrita uma vacina contra a COVID-19/Gripe (por favor, assinale todas as opções que se aplicam)?

Vacinas oferecidas ou prescritas	Não	Sim
No passado		
Durante a última época de vacinação (outono ou inverno)		

17. Se lhe foi oferecida ou prescrita uma vacina contra a COVID-19/Gripe durante a última época de vacinação, quem a ofereceu ou prescreveu?

Profissional de saúde que ofereceu ou prescreveu a vacina durante a última época	Por favor, selecione

Profissional de saúde dos cuidados primários (por exemplo, médico de medicina geral, médico de medicina interna, geriatria)	
Profissional de saúde diferenciados (por exemplo, especialista em doenças infecciosas)	
Médico interno	
Enfermeiro(a)	
Farmacêutico(a)	
Estudante de medicina	
Estudante de enfermagem	
Outro (por favor especifique)	

18. Algum profissional de saúde recomendou que recebesse a vacina contra a COVID-19/ Gripe todos os anos?

Recomendação anual por parte de um profissional de saúde	Por favor, selecione
Não	
Sim	

19. Se sim, quem recomendou a vacinação anual contra a COVID-19/Gripe?

Profissional de saúde que recomendou a vacinação anual	Por favor, selecione
Profissional de saúde dos cuidados primários (por exemplo, médico de medicina geral e familiar, médico de medicina interna, geriatra)	
Profissional de saúde diferenciados (por exemplo, especialista em doenças infecciosas)	
Médico(a) interno	
Enfermeiro(a)	
Farmacêutico(a)	
Estudante(a) de medicina	
Estudante(a) de enfermagem	
Outro (por favor, especifique)	



20. Alguma outra pessoa recomendou que recebesse a vacina contra a COVID-19/Gripe anualmente?

Recomendação anual por outra(s) pessoa(s)	Por favor, selecione
Não	
Sim (por favor especifique)	

21. Qual é o seu nível de satisfação com as respostas dos profissionais de saúde às suas questões relativas à vacinação contra a COVID-19/Gripe?

Satisfação com as respostas	Por favor, selecione
Nada satisfeito	
Pouco satisfeito	
Moderadamente satisfeito	
Muito satisfeito	

E. COMPORTAMENTO E INTENÇÃO DE VACINAÇÃO

22. Recebeu uma vacina contra a COVID-19/Gripe durante a última época de vacinação?

Vacinação sazonal	Por favor, selecione
Não	
Sim	

23. Se sim, porque quis vacinar-se?

24. Se não, porque não quis vacinar-se?

25. Quando foi a última vez que tomou a Vacina contra a COVID-19?

Última vez que tomou a vacina contra a COVID-19	Por favor, selecione
Nos últimos 6 meses	
Nos últimos 12 meses	
Nunca	

26. Se recebeu a vacina contra a COVID-19 no passado, qual/quais o(s) motivo(s)?
27. Se não recebeu a vacina contra a COVID-19 no passado, qual/quais o(s) motivo(s)?
28. Tem intenção de se vacinar contra a COVID-19/Gripe no futuro?

Intenção de tomar a vacina no futuro	Por favor, selecione
Eu definitivamente não tomaria a vacina	
Eu provavelmente não tomaria a vacina	
Eu não tenho certeza	
Eu provavelmente tomaria a vacina	
Eu definitivamente tomaria a vacina	

29. Tem intenção de se vacinar contra a COVID-19/Gripe todos os anos?

Intenção de se vacinar todos os anos	Por favor, selecione
Eu definitivamente não tomaria a vacina	
Eu provavelmente não tomaria a vacina	
Eu não tenho certeza	
Eu provavelmente tomaria a vacina	
Eu definitivamente tomaria a vacina	

F. ATITUDES EM RELAÇÃO ÀS POLÍTICAS DE VACINAÇÃO

30. Até que ponto concorda ou discorda que a vacinação contra a COVID-19/Gripe deve ser obrigatória para todos os cidadãos?

Atitudes perante a vacinação obrigatória	Por favor, selecione
Discordo totalmente	
Discordo	
Neutro	
Concordo	
Concordo totalmente	

G. Confiança

31. Quando pensa na informação que recebe sobre a vacinação contra a COVID-19/Gripe, qual é o nível de confiança que atribui a cada uma das seguintes pessoas ou organizações? Por favor, classifique o seu nível de confiança de 1 = total confiança a 4 = nenhuma confiança.

Até que ponto confia:	1= confio completamente	2= um grau razoável de confiança	3= pouca confiança	4= não confio de todo

Nos seus familiares				
Nos seus amigos				
Líderes políticos nacionais (por exemplo, presidente, primeiro-ministro, ministros, deputados da Assembleia da República)				
Líderes políticos locais (por exemplo, presidente da câmara municipal, deputados da câmara municipal)				
Autoridades de saúde pública				
Médico(a) ou profissional de saúde				
Organizações internacionais de saúde, como a Organização Mundial da Saúde				
Empresas farmacêuticas				
Cientistas/Investigadores e organizações científicas				
Pessoas famosas (atores, atletas, músicos)				
Líder religioso				

32. Qual é a sua principal fonte de informação sobre a vacinação contra a COVID-19/Gripe?

Principal fonte de informação	Por favor, selecione
Media (por exemplo, televisão, rádio, jornais)	
Internet	
Redes sociais (por exemplo, <i>posts</i> no Facebook)	



Outro, por favor especifique	
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H. ESCALA DE PRONTIDÃO PARA A VACINAÇÃO 7C

33. As seguintes afirmações referem-se à infeção por COVID-19/Gripe para a qual existe uma vacina disponível e recomendada pelas autoridades de saúde. Por favor, indique o grau de concordância com cada uma das seguintes afirmações. Classifique as afirmações de 1 = discordo totalmente a 7 = concordo totalmente.

Item	Resposta						
	1	2	3	4	5	6	7
Eu vacino-me contra a COVID-19/Gripe porque é demasiado arriscado contrair a infeção.							
As decisões políticas sobre a vacinação contra a COVID-19/Gripe são fundamentadas cientificamente.							
Não preciso da vacinação contra a COVID-19/Gripe porque a infeção por COVID-19/Gripe não me afeta gravemente.							
Estou convencido(a) de que as autoridades competentes apenas autorizam vacinas contra a COVID-19/Gripe que são eficazes e seguras.							
A vacinação contra a COVID-19/Gripe é desnecessária porque raramente fico doente com COVID-19/Gripe.							
Efeitos secundários da vacinação contra a COVID-19/Gripe raramente ocorrem e não considero que sejam graves para mim.							
Deveria ser possível sancionar as pessoas que não seguem as recomendações das autoridades de saúde sobre a vacinação contra a COVID-19/Gripe.							
Eu só me vacino contra a COVID-19/Gripe quando os benefícios claramente superam os riscos.							
Às vezes, não me vacino contra a COVID-19/Gripe porque a vacina é incómoda.							
As autoridades de saúde cedem ao poder e à influência das empresas farmacêuticas.							



A vacinação contra a COVID-19/Gripe é tão importante para mim que priorizo a vacinação em relação a outras coisas.							
Deveria ser possível excluir pessoas de atividades públicas (por exemplo, concertos) quando não estejam vacinadas contra a COVID-19/Gripe.							
Vacino-me contra a COVID-19/Gripe porque considero importante proteger as pessoas mais vulneráveis.							
Certifico-me de receber a vacinação contra a COVID-19/Gripe atempadamente.							
Vacino-me contra a COVID-19/Gripe quando os benefícios se sobrepõem claramente aos riscos.							
Avalio cuidadosamente se necessito da vacina contra a COVID-19/Gripe.							
As autoridades de saúde devem utilizar todos os meios possíveis para alcançar elevadas taxas de cobertura vacinal contra a COVID-19/Gripe.							
As vacinas contra a COVID-19/Gripe contêm substâncias químicas em doses tóxicas.							
A vacinação contra a COVID-19/Gripe resulta em doenças e alergias mais graves do que as doenças que deveria proteger.							
Vacino-me contra a COVID-19/Gripe porque assim estou a proteger outras pessoas.							
Considero a vacinação contra a COVID-19/Gripe uma tarefa coletiva de combate à propagação da doença COVID-19/Gripe.							

I. FATORES COMPORTAMENTAIS E SOCIAIS (BESD)

34. Quer receber a vacina contra a COVID-19/Gripe?

Intenção de se vacinar	Por favor, selecione
Não, não quero	
Sim, quero	
Não tenho a certeza	
Já estou vacinado	



35. Qual a importância que atribui à vacinação contra a COVID-19/Gripe para a sua saúde?

Intenção vacinal	Por favor, selecione
Não é importante de todo	
Pouco importante	
Moderadamente importante	
Muito importante	

36. Quão segura considera a vacina contra a COVID-19/Gripe?

Confiante nos benefícios da vacinação	Por favor, selecione
Não é segura de todo	
Pouco segura	
Moderadamente segura	
Muito segura	

37. Quão preocupado(a) está com a possibilidade de contrair COVID-19/Gripe?

Risco percebido – pessoal	Por favor, selecione
Não estou preocupado(a) de todo	
Pouco preocupado (a)	
Moderadamente preocupado(a)	
Muito preocupado (a)	

38. Qual é o nível de confiança que tem nos profissionais de saúde que lhe administrariam uma vacina contra a COVID-19/Gripe?

Confiança nos profissionais de saúde	Por favor, selecione
Não tenho de todo	
Pouco	
Moderadamente	
Muito	

39. Algum profissional de saúde recomendou que recebesse a vacina contra a COVID-19/Gripe?

Recomendação de um profissional de saúde	Por favor, selecione
Não	
Sim	



40. Se de momento tivesse de receber a vacina contra a COVID-19/Gripe, precisaria de autorização para o fazer?

Equidade de género – autonomia de deslocação	Por favor, selecione
Não	
Sim	

41. Acredita que a maioria dos seus familiares e amigos próximos gostariam que se vacinasse contra a COVID-19/ Gripe?

Normas familiares	Por favor, selecione
Não	
Sim	

42. Acredita que a maioria dos adultos que conhece irá tomar a vacina contra a COVID-19/Gripe, se for recomendada?

Normas dos pares	Por favor, selecione
Não	
Sim	

43. Acredita que a maioria das pessoas com quem trabalha irá tomar a vacina contra a COVID-19/Gripe?

Normas no local de trabalho	Por favor, selecione
Não	
Sim	
Não estou a trabalhar de momento	

44. Acredita que os líderes religiosos querem que tome a vacina contra a COVID-19/Gripe?

Normas dos líderes religiosos	Por favor, selecione
Não	
Sim	

45. Acredita que os líderes comunitários querem que tome a vacina contra a COVID-19/Gripe?



Normas dos líderes comunitários	Por favor, selecione
Não	
Sim	

46. Já recebeu a vacina contra a COVID-19?

Adesão à vacina contra a COVID-19	Por favor, selecione
Não	
Sim, recebi uma dose	
Sim, recebi duas doses	
Sim, recebi três doses ou mais	
Não tenho a certeza	

47. Já recebeu a vacina contra a Gripe?

Adesão à vacina contra a Gripe	Por favor, selecione
Não	
Sim	
Não tenho a certeza	

48. Se sim, quantas vezes nos últimos 5 anos recebeu a vacina?

Número de vacinações contra a Gripe nos últimos 5 anos	Por favor, selecione
Uma	
Duas	
Três vezes	
Quatro vezes	
Cinco vezes (anualmente)	

49. Conhece o(s) local(-is) onde pode receber a vacina contra a COVID-19/Gripe?

Local(-is) onde pode receber a vacina	Por favor, selecione
Não	
Sim	



50. Já foi contactado(a) sobre a necessidade de receber a vacina contra a COVID-19/Gripe?

Foi contactado (a)	Por favor, selecione
Não	
Sim	

51. Pode ser vacinado(a) contra a COVID-19/Gripe no seu local de trabalho?

Vacinação no local de trabalho	Por favor, selecione
Não	
Sim	
Não estou a trabalhar de momento	

52. Quão fácil é, para si, obter uma vacina contra a COVID-19/Gripe?

Fácil acesso	Por favor, selecione
Não é nada fácil	
Pouco fácil	
Moderadamente fácil	
Muito fácil	

53. Quão fácil é suportar os custos pela vacinação contra a COVID-19/Gripe? Ao considerar o custo, por favor tenha em consideração quaisquer pagamentos à clínica, o custo da deslocação, bem como o custo do tempo despendido.

Acessibilidade económica	Por favor, selecione
Nada fácil	
Pouco fácil	
Moderadamente fácil	
Muito fácil	

54. O que dificulta, para si, o acesso à vacina contra a COVID-19/Gripe?

Motivos para falta de acesso	Por favor, selecione em todas as que se aplicam
Nada, não é difícil	



É difícil agendar uma consulta	
É difícil de navegar/aceder no(s)/ao(s) sites de vacinação	
Os horários de funcionamento são inconvenientes	
O tempo de espera é muito prolongado	
Não posso abandonar as minhas funções de trabalho	
Às vezes, os profissionais recusam vacinar as pessoas	
Outro motivo, especifique	

55. Quão satisfeito(a) está com os serviços de vacinação contra a COVID-19/Gripe?

Satisfação com os serviços	Por favor, selecione
Nada satisfeito(a)	
Pouco satisfeito(a)	
Moderadamente satisfeito(a)	
Muito satisfeito(a)	

56. O que não é satisfatório nos serviços de vacinação contra a COVID-19/Gripe?

Qualidade dos serviços	Por favor, selecione em todas as que se aplicam
Nada, estou satisfeito(a)	
A vacina não está disponível	
O local de vacinação não abre a horas	
O tempo de espera é muito prolongado	
O local de vacinação não está devidamente limpo	
Os profissionais não são competentes	
Os profissionais não são respeitosos	
Os profissionais não dedicam tempo suficiente às pessoas	
Outro motivo, especifique	



J. QUESTIONÁRIO SOBRE HESITAÇÃO VACINAL

57. Até que ponto concorda com cada uma das seguintes afirmações relativas à vacinação contra a COVID-19/Gripe? Por favor, indique o seu nível de concordância de 1 = discordo totalmente a 5 = concordo totalmente.

	1=discordo totalmente	2 = discordo	3= não concordo nem discordo	4= concordo	5= concordo totalmente
A vacina contra a COVID-19/Gripe é importante para a minha saúde					
A vacina contra a COVID-19/Gripe é eficaz					
Vacinar-me contra a COVID-19/Gripe é importante para a saúde das outras pessoas na minha comunidade					
A vacina contra a COVID-19/Gripe oferecida à Comunidade é benéfica					
As novas vacinas contra a COVID-19/Gripe apresentam mais riscos do que as antigas					
A informação que adquiro sobre a vacina contra a COVID-19/Gripe é fiável e digna de confiança					
Tomar a vacina contra a COVID-19/Gripe é					

benéfico para proteger-me de doenças					
Em geral, sigo as recomendações do(a) meu(minha) médico(a) ou profissional de saúde sobre a vacina contra a COVID-19/Gripe					
Estou preocupado(a) com os efeitos adversos graves da vacina contra a COVID-19/Gripe					
Não preciso da vacina contra a COVID-19/Gripe, uma vez que a doença Gripe/COVID-19 não é comum					

58. Tem alguma preocupação ou receio quanto à vacinação contra a COVID-19/Gripe?

Preocupações ou receios	Clique por favor
Não	
Sim	

59. Se sim, quais são? Por favor, liste abaixo quaisquer preocupações ou receios que possa ter quanto à vacinação contra a COVID-19/Gripe.

60. Alguma vez experienciou um evento adverso após a imunização contra a COVID-19/Gripe?

Evento adverso prévio	Clique por favor
Não	
Sim, complicações leves	
Sim, complicações graves	

61. Se sim, essas complicações desencorajam-no(a) a vacinar-se contra a COVID-19/Gripe?

Efeitos de eventos adversos	Clique por favor



Não	
Sim, até certo ponto	
Sim, em grande medida	

K. LITERACIA EM SAÚDE

62. As seguintes perguntas dizem respeito ao seu conhecimento sobre saúde e doenças. Numa escala de

1 = muito fácil a 4 = muito difícil, como classificaria a facilidade de:

	1=muito fácil	2	3	4=muito difícil
Encontrar informações sobre tratamentos de doenças que o(a) preocupam				
Descobrir onde obter ajuda profissional quando está doente				
Compreender a informação transmitida pelo(a) médico(a)				
Compreender as instruções do seu(sua) médico(a) ou farmacêutico(a) sobre como tomar um medicamento prescrito				
Avaliar a necessidade de obter a opinião de um(a) segundo(a) médico(a)				
Utilizar as informações que o(a) médico(a) fornece para tomar decisões sobre a sua doença				



Seguir as instruções do(a) seu(sua) médico(a) ou farmacêutico(a)				
Encontrar informações para gerir problemas de saúde mental, como stress ou depressão				
Compreender informações de saúde sobre comportamentos, como fumar, atividade física insuficiente e consumo excessivo de álcool				
Compreender a necessidade de realizar rastreios de saúde				
Avaliar se a informação sobre os riscos de saúde, transmitida pelos media, é fiável				
Decidir como pode proteger-se de doenças com base nas informações apresentadas pelos media				
Informar-se sobre atividades benéficas para o seu bem-estar mental				
Compreender conselhos sobre saúde de familiares ou amigos				



Compreender informações fornecidas pelos media, sobre como melhorar a saúde				
Avaliar quais comportamentos diários estão relacionados com a sua saúde				

L. ESCALA DE PROSOCIALIDADE

63. As seguintes afirmações descrevem uma extensa variedade de situações comuns. Não existem respostas corretas ou erradas; a melhor resposta é a imediata e espontânea. Leia cada frase com atenção e assinale o número que reflete a sua primeira reação, de 1 = nunca/ quase nunca a 5 = sempre/ quase sempre.

	1=nunca / quase nunca	2=raramente	3= ocasionalmente	4= frequentemente	5= sempre / quase sempre
Fico satisfeito(a) por ajudar os meus amigos/colegas nas suas atividades					
Partilho o que tenho com os meus amigos					
Eu tento ajudar os outros					
Estou disponível para atividades de voluntariado, para ajudar aqueles que estão em necessidade					
Sou empático(a) com aqueles que estão em necessidade					
Passo tempo com amigos que					



se sentem solitários					
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FIM DO QUESTIONÁRIO

Obrigado(a) pela sua participação!

Gostaríamos de entrar em contacto consigo novamente para completar o mesmo questionário dentro de 2 semanas. Por favor, indique se consente ser contactado(a) para a segunda fase do inquérito.

Consinto que os investigadores me voltem a contactar para a segunda fase do inquérito.

Não consinto que os investigadores me voltem a contactar para a segunda fase do inquérito.



Co-funded by
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Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor HaDEA can be held responsible for them [Grand Agreement: 101133251].

Annex 8 Cognitive Interview Guide

This is a guide to be used for the cognitive interviews phase of the project. Using cognitive interviewing, we aim to improve the quality, interpretability and usability of the survey for the general population developed as part of T4.3 of the co-OPERATOR project. During the interviews we need to ensure that questions and response options are clear, easy to understand, and well-adapted to the local language, cultural context, and healthcare system.

Recruit **5-15 end users** for cognitive interviewing. In our case, you need 5-15 adults from the general population. For more details on the inclusion criteria for each survey, **please check the study protocol** (<https://drive.google.com/file/d/110YGnFh3fxEUrwJ7kQfW-QxLWuMA52y8/view>).

Firstly, **ask participants to complete the survey**. Make sure that **you use the latest version of the survey (v7) and that questions for COVID-19 and influenza are administered separately and in parallel** (for example, Q1a relates to COVID-19 vaccine, Q1b relates to influenza vaccine). After completing the survey, ask participants to complete the document developed for the cognitive interviews where they are requested to provide their written feedback on the content of the questionnaire (see pages below on how to develop this document). This phase will be carried out **before the scheduled interview**.

Schedule separate interviews with each participant to discuss their written feedback and ask them to provide **more in-depth insights** on the content of the questionnaire. Interviews can be conducted either face to face or online.

Organise the feedback received from the cognitive interviews: Summarise the findings and include recommendations for addressing each feedback. This will be discussed during a scheduled meeting with all partners involved in this phase.

Dear interviewee,

Thank you for agreeing to take part to a cognitive interview for the purposes of the co-OPERATOR project. The co-OPERATOR project aims to enhance vaccination uptake among several European countries, including (country goes here e.g., Cyprus), by understanding the determinants that may influence people's decision to get vaccinated. The project focuses on COVID-19 and influenza vaccines.

As part of the project, we developed and translated a survey to be administered to the general population of (country goes here e.g., Cyprus) and **we would like to receive your feedback on the content of this survey** in order to improve the quality, interpretability, and usability of the survey.

As a first step, we would like to ask you to **complete the survey** (on paper using the attached document or online using the link X (Redcap link goes here)). After completing the survey, please **complete this document** as per the instructions. It is very important that you complete this document **before the scheduled interview**.

Interviews can be conducted either face to face or online. During the interviews we will ensure that questions and response options are clear, easy to understand, and well-adapted to the local language, cultural context, and healthcare system.



Section A.

Sociodemographic information of the interviewee:

Gender: Woman/Man/Other/Prefer not to say

Age: [open text]

Country of residence: [open text]

Are you a student? Yes/No

If you are not a student, what is your profession? [open text]

Section B.

Did you complete the survey on paper or online? On paper/Online using the link

How much time did it take to you to complete the survey (in minutes)? [open text]

Would you complete the survey if you were asked to? Yes/No

If no, what are the reasons? [open text]



Section C.

	On a scale from 1-5, how clear the question is? 1=not clear at all 5=very clear	On a scale from 1-5, how easy it is to understand the question? 1=not at all easy 5=very easy	Do you find the question to be well-adapted to (e.g., Greek)? 1= No 2=Yes 3=Not sure	Do you find the question to be well-adapted to the local cultural context and healthcare system? 1=No 2=Yes 3=Not sure	Do the response options fit to the sort of answer you want to give? 1=No 2=Yes 3=*Not applicable (N/A) *If the question is open-text, then this question about response options is N/A.	The interviewer to write down any further feedback from the participant for each of the questions
<u>Vaccination Behaviour and Intention (10 items)</u>						
Did you receive a influenza vaccine during the last vaccination season? Please tick No Yes	<i>e.g., 3</i>	<i>e.g., 3</i>			<i>e.g., Yes</i>	<i>To be completed by the interviewer during the interview.</i>
<u>Vaccine Hesitancy Survey (28 items)</u>						
How much do you agree with each of the following statements on COVID-19/influenza vaccination? Please indicate your level of agreement from 1 = strongly disagree to 5 = strongly agree.						

The COVID-19/influenza vaccine is important for my health. Please tick 1 = Strongly disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly agree						
7C Vaccination Readiness Scale (41 items) The following statements refer to COVID-19/influenza infection for which a vaccination is available and recommended by health authorities. Please state how much you agree with each of the statements. Rate the statements from 1 = strongly disagree to 7 = strongly agree.						
I get vaccinated against COVID-19/influenza because it is too risky to get infected. Please tick 1 = strongly disagree 7 = strongly agree						
Behavioural and Social Drivers of Vaccination (BeSD) (43 items)						
Do you want to get a COVID-19/influenza vaccine? Please tick No, I do not want to Yes, I do want to I am not sure I am already vaccinated						
Health Literacy Survey (16 items) The following questions concern your knowledge about health and disease. On a scale from 1 = very easy to 4 = very difficult, how easy would you say it is to:						

Find information on treatments of illnesses that concern you? Please tick 1 = very easy to 4 = very difficult						
Prosocialness Scale (6 items) The following statements describe a large number of common situations. There are no right or wrong answers; the best answer is the immediate, spontaneous one. Read each phrase carefully and tick the number that reflects your first reaction from 1 = never/almost never to 5 = always/almost always.						
I am pleased to help my friends/colleagues in their activities. Please tick 1 = never/almost never 2 = rarely 3 = occasionally 4 = often 5 = always/almost always						

Section D.

The interviewer to ask the participant for any further comments they might have, for a specific question or in general, and write them down using the box below.

Finally, the interviewer to note whether the interview took place face to face or online: Face to face/Online.

Annex 9 Expert Consensus Study Feedback Form

Focus group for the evaluation of the COM-B Vaccination Promotion Questionnaire

Thank you for agreeing to take part to the online focus group for the evaluation of the newly-developed Vaccination Promotion Questionnaire which is based on the Capabilities, Opportunities, Motivation-Behaviour Model (COM-B).

The questionnaire items were generated by Dr Laura Panagi at Cyprus University of Technology and reviewed by members of the research team as well as external experts. The newly-developed tool is **targeted for healthcare professionals** who are involved in vaccination promotion. The target behaviour of the questionnaire is **the capacity of the healthcare professional to promote vaccinations**, namely COVID-19 and influenza vaccinations. The questionnaire will be divided into **two separate sections**, one for COVID-19 and one for influenza vaccination. Therefore, the same question will be applied twice, separating COVID-19-related and influenza-related questions.

Using the well-established COM-B theoretical model of behaviour, the questionnaire items have been generated using deductive methods, through literature review and assessment of existing scales and indicators of the domain. The Tailoring Immunisation Programmes guide (attached) has been identified as a useful and comprehensive tool for the purposes of the questionnaire development. Specifically, the Tailoring Immunisation Programmes approach, which is grounded on the COM-B model, has been developed by the WHO Regional Office for Europe to help countries achieve increased and equitable vaccination uptake through integrating research and behavioural insights into immunisation program planning and policy in each country. The guide provides a list of relevant topics to explore in research with healthcare professionals, mapped onto the COM-B model, and has been used to guide the item development phase.

The questionnaire items can be found below. At this phase, we kindly ask you to review the items and rate the degree to which you agree or disagree with the inclusion of each item using a scale from 1 = strongly disagree to 5 = strongly agree. You can also provide any comments you might have with regards to the content of the questionnaire within the relevant boxes, as per the instructions. In case you would like to suggest re-wording of the items or response options, please add a comment next to the relevant text with your re-wording suggestion.

Your expert evaluation is highly valuable, and we thank you once again for your participation!

Expert A

Expert's name and surname: Inge van der Putten
Expert's affiliation: Assistant Professor
Country of residence: Netherlands
Area of expertise: Vaccine decision making

Expert B

Expert's name and surname: Pinelopi Anagnostopoulou
Expert's affiliation: Medical School, University of Cyprus
Country of residence: Cyprus
Area of expertise: Pediatrics – Pediatric Pulmonology

Expert C

Expert's name and surname: Chris Keyworth
Expert's affiliation: Uni of Leeds
Country of residence: UK
Area of expertise: COM-B, psychological measurement

Expert D

Expert's name and surname: Brett Craig
Expert's affiliation: WHO EURO
Country of residence: Denmark
Area of expertise: Vaccine equity

Expert E

Expert's name and surname: Siff Malue Nielsen
Expert's affiliation: WHO EURO
Country of residence: Denmark
Area of expertise: Vaccine, acceptance and demand





**Co-funded by
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Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor HaDEA can be held responsible for them [Grand Agreement: 101133251].

A. Please rate, under the relevant column, the degree to which you agree or disagree with the inclusion of each of the items.

1 = strongly disagree
2 = disagree
3 = neither agree nor disagree
4 = agree
5 = strongly agree

C A P A B I L I T I E S	P s y c h o l o g i c a l						Expert A	Expert B	Expert C	Expert D	Expert E
		Knowledge	Questionnaire item	1 - 5	1 - 5	1 - 5	1 - 5	1 - 5			
			1. Do you have the necessary knowledge about COVID-19/influenza vaccine safety?	2	3	2	3				
			No, to some extent, to a great extent								
			2. Do you have the necessary knowledge about COVID-19/influenza vaccine contraindications?	2	4	3	3				
			No, to some extent, to a great extent								
		3. Do you have the necessary knowledge about COVID-19/influenza vaccine effectiveness?	4	4	4	4					
No, to some extent, to a great extent											
4. Do you have the necessary knowledge about adverse events following COVID-19/influenza immunisation?	4	4	4	5							
No, to some extent, to a great extent											
5. Do you have the necessary knowledge about COVID-19/influenza infection and the related risks?	4	4	5	5							



			No, to some extent, to a great extent					
			6. Do you have knowledge of national COVID-19/influenza vaccination guidelines/protocols?	4	4	5	4	
			No, to some extent, to a great extent					
			7. Do you have knowledge of COVID-19/influenza vaccination coverage in adults in your country?	3	4	4	4	
			No, to some extent, to a great extent					
			8. Do you have a good understanding of the reasons why some people or communities do not vaccinate against COVID-19/influenza?	4	4	5	4	
			No, to some extent, to a great extent					
		Skills and trust in own skills	9. Do you feel confident in your own skills to manage adverse events following COVID-19/influenza immunisation?	4	4	4	5	
			No, to some extent, to a great extent					
			10. Do you feel confident in your own skills to communicate with people about COVID-19/influenza vaccination?	2	3	3	5	
			No, to some extent, to a great extent					
			11. Do you feel confident in your own skills to communicate with vulnerable groups (e.g., (e.g., those with chronic health conditions) about COVID-19/influenza vaccination?	2	4	3	4	

			No, to some extent, to a great extent					
			12. Do you feel confident in your own skills to tailor your communication about COVID-19/influenza vaccination to the person you are facing?	5	3	3	4	
			No, to some extent, to a great extent					
			13. Do you feel confident in your own skills to tailor the discussion about COVID-19/influenza vaccination to the person you are facing and explain in a way that the individual will understand?	2	3	3	5	
			No, to some extent, to a great extent					
		Resilience, stamina, willpower, surplus energy	14. Do you have the resilience to continue to engage with people that are considered to be challenging, e.g., patients declining vaccination?	4	4	4	4	
			No, to some extent, to a great extent					
	P h y s i c a l	Physical fitness and ability	15. If administering the COVID-19/influenza vaccine is part of your duties, do you have the physical skills related to administering the vaccine correctly?	4	4	4	3	
			No, to some extent, to a great extent, not applicable					
		Convenience, appeal and	16. Do you experience competing priorities or undue stress during the workday?	2	3	2	2	



O P P O R T U N I T I E S	P h y s i c a l	appropriateness of vaccination	No, to some extent, to a great extent					
			17. Is your working environment sufficiently private to enable you to talk to people about COVID-19/influenza vaccination?	4	5	5	4	
			No, to some extent, to a great extent					
		Rights, regulation and legislation	<i>Same as q. 31</i>					
		Structural efficiency	18. Are there reliable systems in place to monitor COVID-19/influenza vaccination and detect missed vaccinations?	4	4	4	4	
			No, yes					
			19. Is COVID-19/influenza vaccine supply sustainable and sufficient?	4	3	4	4	
			No, yes					
		Availability of information	20. Is official/trustworthy information about influenza/COVID-19 vaccination available to you to access (e.g., official recommendations by the government, training material)?	4	5	4	4	
			No, limited information, detailed information					
			21. If available, is the information on COVID-19/influenza vaccination tailored to healthcare professionals?	2	4	3	3	
			No, yes					

			22. If available, do you receive information on COVID-19/influenza vaccination in a format and language which match your needs? No, to some extent, to a great extent	4	4	4	4	
			23. Is official/trustworthy information about COVID-19/influenza vaccination available to you to provide to the people you see in clinical practice (e.g., informational leaflets, educational material)? No, limited information, detailed information	4	4	4	4	
			24. If available, is the information on COVID-19/influenza vaccination tailored to different population groups (e.g., to vulnerable groups)? No, yes	2	4	3	3	
			25. If available, is the information on COVID-19/influenza vaccination in a format and language which match the needs of the users? No, to some extent, to a great extent	4	1	2	3	
	S o c i	Social, cultural and professional demands and support	26. Are you supported by the local and national government in promoting COVID-19/influenza vaccination? No, to some extent, to a great extent	2	1	2	3	



	a l		27. Are you supported by health authorities in promoting COVID-19/influenza vaccination? No, to some extent, to a great extent	4	4	4	3	
			28. Are you confident that you are protected by the system if something goes wrong related to COVID-19/influenza vaccination? No, to some extent, to a great extent	4	4	3	5	
		Social and cultural cues, norms and values	29. Do your colleagues actively encourage COVID-19/influenza vaccination promotion? No, to some extent, to a great extent	4	4	4	4	
			30. Does your manager actively encourage COVID-19/influenza vaccination promotion? No, to some extent, to a great extent	2	3	3	4	
M O T I V A T I O N	R e f l e c t i v e	Attitudes, perceptions and risk assessment	31. To what extent do you agree or disagree that vaccination against COVID-19/influenza should be mandatory for: a) all citizens strongly disagree/disagree/neither agree nor disagree/ agree/ strongly agree b) vulnerable groups strongly disagree/disagree/neither agree nor disagree/ agree/ strongly agree c) healthcare professionals	4	4	4	4	

			strongly disagree/disagree/neither agree nor disagree/ agree/strongly agree					
			32. Do you have a sense of professional duty to promote COVID-19/influenza vaccination? No, to some extent, to a great extent	4	4	5	4	
			33. Do you feel that you have an individual responsibility to protect the community through vaccination for COVID- 19/influenza? No, to some extent, to a great extent	4	4	3	4	
		Intentions	34. Do you intend to promote COVID- 19/influenza vaccination to the people you see in clinical practice according to the schedule? No, yes	3	4	4	4	
		Values and beliefs	35. Do you believe that promoting COVID- 19/influenza vaccination is important for being a good healthcare professional? No, to some extent, to a great extent	4	4	4	4	
			36. Is it a criterion of success for you if your country achieves high COVID-19/influenza vaccination rates? No, to some extent, to a great extent	2	3	3	3	

			37. Do your attitudes and values about COVID-19/influenza disease and prevention agree with influenza/COVID-19 vaccination? No, to some extent, to a great extent	2	4	3	3	
	Confidence and trust		38. When you think about the information you receive about COVID-19/influenza vaccination, what is the level of trust you give in each of the following people or organisations? Please rate your level of trust from 1 = complete trust to 4 = no trust at all. Your national political leaders (e.g., the president, ministers, members of the parliament) Your regional political leaders (e.g., the mayor, members of the city council) The manager/management in your organisation Public health authorities National professional associations International professional associations International health organisations (e.g., World Health Organization) Pharmaceutical corporations Scientists and scientific bodies Famous people (e.g., actors, athletes, musicians) Your religious leader The media (e.g., TV, radio, newspapers) The internet The social media (e.g., Facebook)	3	3	3	3	
	Automa	Emotions, impulses and feelings	39. Do you find COVID-19/influenza vaccination promotion to be (tick all that apply): Stressful, burdensome, time-wasting, easy, difficult, satisfying, none of the above [if none, please specify]					

	t i c							
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Additional open-ended questions

Please rate, under the relevant column, the degree to which you agree or disagree with the inclusion of each of the items. 1 = strongly disagree 2 = disagree 3 = neither agree nor disagree 4 = agree 5 = strongly agree		Expert A	Expert B	Expert C	Expert D	Expert E
	Questionnaire item	1 - 5	1 - 5	1 - 5	1 - 5	1 - 5
CAPABILITIES (general)	40. Do you identify any gaps in your knowledge and/or skills that you need to fulfill in order to promote COVID-19/influenza vaccination more efficiently? If yes, please indicate them below. [open text]	3	4	4	4	
OPPORTUNITIES (general)	41. What are the challenges you are faced with relating to promoting COVID-19/influenza vaccination in your workplace? Please indicate anything that challenges you below. [open text]	4	5	4	4	

MOTIVATION (general)	42. What motivates you in promoting COVID-19/influenza vaccination? If nothing motivates you in promoting vaccination, please write 'nothing'. [open text]	4	4	4	4	
	42. Which factors may affect your motivation towards promoting COVID-19/influenza vaccination? If nothing affects your motivation, please write 'nothing'. [open text]	4	4	4	4	

- B.** Below is a list of items from the Tailoring Immunisation Programmes guide **that were not included in the questionnaire**, either because they were considered not relevant or because we believe that the COM-B model is adequately represented with the chosen items. Using the text box provided, please add any items (either from the list below or any other items) which you believe are important to be included in the questionnaire.

CAPABILITIES

43. Do they have the knowledge that will enable them to reach out to vulnerable groups or specific minority groups?
 44. Do they know pain mitigation measures?
 45. Do they have the resilience to work under difficult conditions?
 46. Are they physically fit to work under the conditions that are offered to them?

	Expert A	Expert B	Expert C	Expert D	Expert E
Please add any items (either from the list above or any other items) which you believe are important to be included in the questionnaire.	45	43	45	43	

OPPORTUNITIES

47. Are their working hours and clinic opening hours appropriate?
48. Are their general work conditions appropriate, in their view?
49. Do they consider their pay to be fair, and their job description to be appropriate?
50. Do they perform outreach vaccination? How and where, and are time and resources sufficient for this?
51. Are there enough health workers to meet the needs at the health facility where they work?
52. Do they have sufficient time to vaccinate and talk to their patients?
53. To what extent are they responsible for ensuring enforcement of vaccination law and regulation?
54. Is vaccination of health workers mandatory, and are they comfortable with this?
55. Do they have experience with introducing new vaccination mandates or regulations for health workers?
56. Are there reliable systems in place to recall and remind caregivers about vaccination?
57. Are there reliable systems in place to record vaccination consent and refusal?
58. Have information materials for health workers been tested before use?
59. What demands are they faced with from patients/caregivers?
60. What is their perception of the demands they are faced with related to vaccination?
61. Are they supported by management?
62. Do they benefit from supportive supervision?
63. Are they supported by their patients?
64. Are they supported by the local community?
65. Are they supported by their peers, and are there any peer support mechanisms in place?
66. Are they members of/affiliated with a group or community which actively encourages or discourages vaccination?
67. What are the social consequences of and reactions to vaccination/non vaccination?
68. Are they affected by the media/social media coverage on vaccination?
69. Who are their role models, and who do they respect and trust when it comes to vaccination?

	Expert A	Expert B	Expert C	Expert D	Expert E
Please add any items (either from the list above or any other items) which you believe are important to be included in the questionnaire.	51,52, 56, 57	50, 51, 52, 56,57,	61, 65	50,56,57,59,62	

MOTIVATION

70. How do they see their own role in terms of providing advice or convincing their patients to be vaccinated?
71. How do they perceive the communities and individuals they serve, e.g. specific minority groups?
72. What are their perceptions related to risk of disease and risk of adverse events following immunization?
73. Is alternative medicine in line with their values and world view?
74. What beliefs (e.g. religion or lifestyle-related) influence their vaccination intentions and behaviours?
75. How do they perceive sickness and health, a healthy lifestyle, body and soul, and how does vaccination fit with this?
76. What emotions influence their vaccination decisions and behaviours?
77. Are they proud of their job?
78. Are they afraid of the consequences if something goes wrong, and does this affect their work?
79. What are their thoughts and feelings relating to adverse events following immunization?
80. Are they afraid of being blamed for real or perceived adverse events following immunization?

	Expert A	Expert B	Expert C	Expert D	Expert E
Please add any items (either from the list above or any other items) which you believe are important	all more open questions then closed.	78	70	71,78,80	

to be included in the questionnaire.					
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- C. Finally, we would like to ask **for any general comments** you might have with regards to the content of the questionnaire, for example how easy/difficult it is to understand the questions, how fair/balanced/boring/interesting you found the questions, whether the questions make assumptions about respondents, could have caused offence, or other things?

	Expert A	Expert B	Expert C	Expert D	Expert E
Please add any comments you might have with regards to the questionnaire.	see comments in document above		as above - slight overlap in some of the questions		

Thank you for your time!

If you have any questions or require any clarifications, please email Dr Laura Panagi at laura.panagi@cut.ac.cy or Dr Angelos Kassianos at angelos.kassianos@cut.ac.cy. We look forward to discussing with you

