#### PILLAR I: TACKLING VACCINE HESITANCY

Vaccine hesitancy refers to delay in acceptance or refusal of vaccines despite availability of vaccination services. Vaccine hesitancy is complex and context specific varying across time, place and vaccines. It includes factors such as complacency, convenience and confidence

#### 1.1 Who do you believe are the most important actors in promoting the use of recommended vaccination? (Please specify for each option, score from 1 (not important) to 5 (most important)

	1 – Not important	2 - Somewhat important	3 - Important	4 - Very important	5 – Most important	Don't know / No opinion
*Civil society		$\checkmark$				
*European Commission		$\checkmark$				
*European Parliament or other EU institutions		$\checkmark$				
*Famous people Member States			$\checkmark$			
*Friends, peer groups			$\checkmark$			
*Healthcare providers (e.g. doctors, nurses)			$\checkmark$			
*International organizations (e.g. WHO)		$\checkmark$				
*Media	$\checkmark$					
*Member States	$\checkmark$					
*Non-governmental organizations (NGOs)					$\checkmark$	
*Other public services (school programmes, health campaigns, etc)	$\checkmark$					
*Parents, family members		$\checkmark$				
*Patient groups		$\checkmark$				
*Pharmaceutical industry	$\checkmark$					
*Pharmacists	$\checkmark$					
*Religious leaders	$\checkmark$					

#### \*1.2 How can health authorities better communicate with the public on the safe use and effectiveness of vaccines? (multiple answers possible)

$\checkmark$	Articles in newspapers
$\checkmark$	European campaigns
$\checkmark$	National campaigns
$\checkmark$	Provision of relevant user friendly information online
$\checkmark$	Social media (Twitter, Facebook, etc)
$\checkmark$	Special programmes on radio/TV
	None of the above
	I don't know/no opinion
$\checkmark$	Other: All of the above media are suitable communication tools, however any communication should be appropriately balanced and recognise vaccination as a medical intervention that has both risks and benefits. This should allow discussion of concerns, known risks associated with specific vaccines regimens, identifications of unknown risks and patential automation and recognise vaccination and recognise vaccination and recognise vaccination as a medical intervention that has both risks and benefits. This should allow discussion of concerns, known risks associated with specific vaccines regimens, identifications of unknown risks associated with specific vaccines regimens, and recognise vaccination and recognise vaccinations are recognised with specific vaccines regimens.
	protect against the relevant infectious disease(s) so allowing citizens the ability to make informed decisions about vaccination

#### \*1.3. How can health authorities better communicate with healthcare workers on the safe use and effectiveness of vaccines? More than one answer possible

$\checkmark$	European campaigns
$\checkmark$	National campaigns
√	Newsletter
$\checkmark$	Specific training during the University studies
$\checkmark$	Specific training in the workplace (including e-training)
	I don't know/no opinion
$\checkmark$	Other: All of the above media will provide suitable communication tools. However, communications should include information about the known benefit of specific vaccinations, known and unknown risks, non-pharmaceutical options that help prevent disease transmission and improve the immune response, and independent information resources on vaccination, including their known benefits and risks. Such information allows healthcare workers to provide balanced information which in turn allows citizens to make informed decisions about vaccination.

#### 1.4. Based on your experience, how much impact do these factors have on vaccine hesitancy? Please score your choice from 1 (no impact) to 5 (high impact)

	1 – No impact	2 - Low impact	3 - Medium impact	4 - Medium to high impact	5 – High impact	Don't know/ no opinion
*complacency (perceived risks of vaccine-preventable diseases are low and vaccination is not deemed necessary)		$\checkmark$				
*confidence in effectiveness of vaccines (trust issues in the effectiveness and safety of vaccines; the system that delivers them, including the reliability and competence of the health services and health professionals; and the motivations of the policy-makers who decide on the needed vaccines)					$\checkmark$	
*convenience (extent to which physical availability, affordability and willingness- to-pay, geographical accessibility, ability to understand and appeal of immunisation services affect uptake)		$\checkmark$				

#### 1.5. Which other more specific factors do you think have a big influence on vaccine hesitancy? Please score from 1 to 5

	1 - No impact	2 - Low impact	3 - Medium impact	4 - Medium to high impact	5 - High impact	Don't know / No opinion
*Activity of anti-vaccination groups						
*Attitude (negative or neutral) of general practitioners					$\checkmark$	
*Different and sometimes contradictory recommendations from healthcare providers				$\checkmark$		
*Difficulties on access to vaccines	√					
*Distrust of science			$\checkmark$			
*Diversity of vaccination schedules/ calendars across countries (e.g each countries has own rules on when, who and how often to vaccinate)				$\checkmark$		
*Fear of possible side effects					$\checkmark$	
*Funding issues (e.g. out-of-pocket expenses)	$\checkmark$					
*Lack of (or too much) availability of vaccines	$\checkmark$					
*Lack of information about impact and side effects of vaccination						
*Introduction of compulsory vaccination for some vaccines					$\checkmark$	
*One size fit all vials (e.g. same dosage used for different age groups)				$\checkmark$		
*The belief that individual decisions do not impact the community		$\checkmark$				
*Unreliable news on social media and the internet			$\checkmark$			

\*1.6. Does the EU provide adequate communication to citizens on the benefits of authorised vaccines to maintain or increase trust?

$\checkmark$	Yes
	No
	Don't know

\*1.7. Does the EU provide adequate communication to other relevant stakeholders (e.g. patients' organisations, civil society), on the benefits of authorised vaccines to maintain or increase trust?

$\checkmark$	Yes
	No
	Don't know

1.8. In order to reduce vaccine hesitancy and help EU Member States' efforts to increase vaccine coverage rates, a number of activities to cooperate at EU level are listed in the table below. Please rate the helpfulness of each of the following EU facilitated activities:

	1- Not helpful	2 - Slightly Helpful	3 - Helpful	4 - Very helpful	Don't know / No opinion
*a) Member States establish a shared EU mapping on vaccine coverage, vaccine safety and vaccine effectiveness.	$\checkmark$				
*b) Member States and health professional associations develop and provide together inservice training for health professionals.	$\checkmark$				
*c) Member States and health professional associations develop and provide together information sessions with parent on vaccination	$\checkmark$				
*d) Member States set-up of an information website with user friendly, evidence based, up to date and factual information on safety and effectiveness of vaccines for the population and health professionals					
*e) Member States have common tools to follow what is published on social and online media, to monitor, in real time, the public confidence in vaccines, in view of understanding and appropriately addressing public concerns.	$\checkmark$				
*f) Member States evaluate together the impact of intervention strategies to address vaccine hesitancy.	$\checkmark$				
*g) Member States share media campaigns on vaccination	$\checkmark$				
*h) Member States establish a common approach towards a recommended EU vaccination schedule and an EU vaccination card and registries	$\checkmark$				
*i) Member States exchange best practices in the field of vaccine injury compensation programmes				$\checkmark$	

# 1.9 Who do you think should make efforts in providing scientific arguments in favour of vaccination programmes? Please rate.

	Low efforts	Medium efforts	High efforts	Don't know / No opinion
*a) International organisations (e.g. WHO, Global Health Security Initiative)		$\checkmark$		
*b) European Commission and EU agencies (European Centre for Disease Prevention and Control, European Medicines Agency)		$\checkmark$		
*c) Member States		$\checkmark$		
*d) Pharmaceutical industry	$\checkmark$			
*e) Healthcare professionals (doctors, nurses, pharmacists, etc.)		$\checkmark$		
*f) Non-Governmental Organisations.		$\checkmark$		

## \*1.10. What actions can be helpful to better support health care professionals to advocate vaccination? (multiple answers possible)

	Establishing routine check of vaccination status of all patients consulting for whatever reason
	Identifying and expanding opportunities for catch-up vaccinations
$\checkmark$	Offering material to explains the benefits and risks of vaccination
	Providing healthcare professionals with regular training courses on vaccination
	Allowing vaccination to be administered by general practitioners
	Allowing vaccination to be administered by nurses in community settings/healthcare centres
	Allowing vaccination to be administered by pharmacists

## \*1.11. How can civil society contribute to overcome vaccine hesitancy? (multiple answers possible)

allows them to make informed decisions without coercion or fear.

	Using famous people to promote vaccination
$\checkmark$	Responding to fake news
$\checkmark$	Establishing parent groups or peer groups on vaccination
	Establishing information sessions for teachers and staff in childcare and schools
	Promoting routine check of vaccination status of pupils in schools
	Messages reminding vaccination in airports and other places of mass gathering
$\checkmark$	Other. Vaccine hesitancy is exacerbated by biases in information both from pro-vaccine (including governments that support national immunisation programmes) and antivaccine organisations and influencers. There is a clear lack of balanced, valid scientific information, such as health outcomes in vaccinated vs
	unvaccinated populations. There is usually no attempt to predict risks of adverse events in target populations. Adverse event information in patient infor- mation leaflets is frequently not communicated to patients by healthcare providers delivering vaccines. Knowledge base of risks and benefits is poor among healthcare providers, and is often biased. Citizens have the right to receive clear unbiased information on particular vaccinations, as well as information about non-pharmaceutical options, given vaccination is a medical intervention. Citizens and their families must be given ready access to unbiased information that

## 2.1 Which organisations do you think are responsible for ensuring that vaccination programmes function well?

	Yes	No	Don't know / No opinion
*a) International organisations (e.g. WHO, UNICEF, Global Health Security Initiative)		$\checkmark$	
*b) European Commission and EU agencies (ECDC, EMA)		$\checkmark$	
*c) EU Member States	$\checkmark$		
*d) Healthcare professionals (doctors, nurses, pharmacists)	$\checkmark$		
*e) Non-Governmental Organisations.		$\checkmark$	
*f) Pharmaceutical industry			

# \*2.2 What actions are necessary to better integrate vaccination programmes in national health systems? (multiple answers possible)

	Dedicated funding
	Vaccination to be provided as part of the routine health care visits
	Establish vaccination programmes linked to health care activities for different age groups
	Increase awareness of health professionals about vaccination
$\checkmark$	No action (they are well integrated)
	I don't know

## \*2.3 How can public health and regulatory authorities help to better balance vaccine supply and demand, both at national and EU level? (multiple answers possible)

$\checkmark$	mapping vaccine demand at European and national level
	establish systematic forecasts of vaccines in each country for each vaccine
	establish joint procurement
	change financing mechanism to ensure sustainable purchase and stock
	oblige industries established in EU to produce and supply the required vaccines
	develop incentives to EU established vaccine manufacturing capacities
	develop stockpiles of vaccines at EU level
√	I don't know / no opinion

2.4 Which policy interventions would have the biggest impact on mitigating vaccine shortages at EU level? Please rank from 1 to 5

	1 - No impact	2 - Low impact	3 - Medium impact	4 - Medium to high impact	5 - High impact	Don't know / No opinion
*Regulatory clarifications	$\checkmark$					
*Mutual assistance among Member States, sharing vaccines	$\checkmark$					
*Vaccine forecasting	$\checkmark$					
*Prioritisation of vaccine Research and Development	$\checkmark$					
*Joint Vaccine procurement between countries	$\checkmark$					
*Stakeholder dialogue	$\checkmark$					
*Availability of individual vaccines (not only combined vaccines)	$\checkmark$					
*Stockpile of key vaccines at EU level	$\checkmark$					
*Alignment and simplification of vaccination schedules	$\checkmark$					

2.5 How could grassroots level organisations, particularly NGOs, patient groups and civil society be better engaged in supporting sustainable vaccination policies? (200 characters)

Trying to get grassroots organisations to support vaccination policies is premature when there are inadequate scientific data on which to justify national immunisation programmes.

#### 3.1 How important is it for these organisations to engage in research and development in vaccines?

	Not important	Less important	Somewhat important	Important	Very important	Don't know / No opinion
*a) International Organisations	$\checkmark$					
*b) European Commission	$\checkmark$					
*c) Member States	$\checkmark$					
*d) Pharmaceutical Industry	$\checkmark$					
*e) Academia					$\checkmark$	
*f) Non-Governmental Organisations (NGOs)	$\checkmark$					

\*3.2 Regarding vaccine research for fighting infectious diseases, should the efforts of the European Union focus on actions in the EU region alone or also focus on worldwide actions (one answer possible)

$\checkmark$	Actions in the EU region
	Worldwide actions
	Both are equally important
	Don't know/No opinion

3.3 In order to increase the contribution of vaccination to public health preparedness and help EU Member States' efforts to ensure vaccine supply, a number of activities to cooperate at EU level are listed in the table below. Please rate the helpfulness of the following EU facilitated activities

	Not helpful	Less Helpful	Helpful	Very helpful	Don't know / No opinion
<ul> <li>*a) Member States collaborate to assess vaccination needs</li> </ul>	$\checkmark$				
*b) Member States collaborate to build a European virtual repository on vaccine management needs and stocks	$\checkmark$				
<ul> <li>*c) Member States collaborate to evaluate financing mechanisms for the procurement of vaccines</li> </ul>	$\checkmark$				
*d) Member States collaborate to investigate public perception on the pharmaceutical industry.				$\checkmark$	
*e) Member States collaborate to develop a crisis management plan with industry to anticipate and reduce risks during vaccine manufacturing able to decrease vaccine shortages.	$\checkmark$				
*f) Member States collaborate to establish a stakeholder communication platform to better balance vaccine demand and supply.					

3.4 Which organisation should make efforts in ensuring vaccine supply and addressing vaccine shortages? Please rate on a scale from "No efforts" to "Very high efforts".

	No efforts	Low efforts	Medium efforts	High efforts	Very high efforts	l do not know/No opinion
★a) International organisations (e.g. WHO, Global Health Security Initiative)				$\checkmark$		
*b) European Commission	$\checkmark$					
*c) EU Member States				$\checkmark$		
*d) Pharmaceutical industry				$\checkmark$		
*e) Healthcare professionals (doctors, nurses, midwives, pharmacists, etc.)						
*f) Non-Governmental Organisations.	$\checkmark$					

3.5 Who do you think should make greater efforts in funding vaccine research and development including research on the implementation of vaccination programmes? Please rate on a scale from "High efforts" to "Low efforts".

	No efforts	Low efforts	Medium efforts	High efforts	Very high efforts	l do not know/No opinion
★a) International organisations (e.g. WHO, Global Health Security Initiative)			$\checkmark$			
*b) European Commission			$\checkmark$			
*c) EU Member States			$\checkmark$			
*d) Pharmaceutical industry	$\checkmark$					
*e) Healthcare professionals (doctors, nurses, midwives, pharmacists, etc.)	$\checkmark$					
*f) Non-Governmental Organisations.	$\checkmark$					

Is there any other policy intervention that you would like to add which was not addressed in the questionnaire? (1500 character(s) maximum)

Policies omitted include 1-informed consent, 2-sources of balanced/unbiased info re risks and benefits of vaccines & individual target pathogens/infectious diseases, 3-balanced/unbiased education of healthcare professionals to allow citizens, parents/ guardians to make informed decisions, 4-rights of vaccine-injured individuals. Lack of high quality, relevant studies analysing overall health outcomes in vac'd vs unvac'd populations & trials comparing vaccines with adjuvant free placebos, given rising evidence of an adverse effects (AERs) adjuvants link. No/scarce info for parents/ guardians of chemically hypersensitive children who may be at higher risk of AERs. Info from vaccine champions generally not credible with those with reason to be hesitant (e.g. parents who have experienced AERs temporally linked to a child's vaccine event).

Health authorities underestimate & devalue citizen intelligence by maintaining all vaccines as "safe" & "effective" despite copious evidence that they're not 100% effective & may cause significant & very serious AERs. in 2011 the US Supreme Court ruled vaccines "unavoidably unsafe" (http://bit.ly/USSC\_562).

Studies focusing on non-target effects of vaccines are limited, e.g. impact on gut microbiome/neurological system/long-term development of children's immune systems. If vaccine manufacturers change formulations in ways that alter their risk/ benefit profile, not required to submit comprehensive new safety/efficacy studies to regulators.