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### **Survey on knowledge, attitudes and practice of Italian pediatricians in relation to vaccinations**

Dear Doctor,  
We kindly ask your participation in a brief survey regarding the prevention of vaccine-preventable diseases. The aim of the survey is to gather information regarding knowledge and attitudes of pediatricians towards vaccinations. The questionnaire is simple and will take about 15 minutes to complete. It is an anonymous questionnaire and we assure you that your responses will be treated with complete confidentiality; responses to this survey will be presented only in an aggregated format for the purpose of study and research. Thank you for your time and availability.

#### **SECTION 1**

**1) In my professional activity,**

- I advise parents to vaccinate their children according to the vaccination schedule
- I recommend only mandatory vaccinations
- I do not recommend vaccinations
- I do not express an opinion regarding vaccinations (neutral attitude, neither in favor nor against vaccinations)

**2) In your professional activity, do you administer childhood vaccinations?**

- Yes, regularly
- Yes, occasionally
- No, never

**3) In your professional activity how frequently do you talk to families about the importance of vaccinations?**

- On every available occasion
- Occasionally, when the topic comes up
- Only if parents bring up the topic of vaccination
- Never, but I am in favor of vaccination
- Never, I am against vaccinations

**4) What is your reaction towards parents who refuse to vaccinate their child for one or more diseases (only one answer allowed):**

- I support their decision
- I try to change their minds by providing information on vaccines and disease risks
- I do not interfere with their decision
- I have never been faced with this situation

**5) What is your reaction towards parents who decide to delay one or more vaccinations for their child under two years of age (only one answer allowed):**

- I support their decision
- I try to change their minds by providing information on vaccines and disease risks
- I do not interfere with their decision
- I have never been faced with this situation

**6) In the last year have you carried out any vaccination promotion initiatives among your patients?**

- No, but I am in favor of vaccination
- No, I am against vaccination
- Yes, posters or vaccine information materials in waiting room
- Yes, I send reminders by phone or e-mail
- Yes, other (specify): \_\_\_\_\_)

**7) During the last 2 years, have you perceived any changes in the level of parental concern regarding the safety and/or efficacy of vaccines:**

- Yes, it has increased a great deal
- Yes, It has slightly increased
- No, it has not changed
- Yes, it has slightly decreased
- Yes, it has decreased a great deal

**8) According to your professional experience, which of the following is the single most important reason parents decide to refuse one or more vaccines for their child? (only 1 answer is possible)**

- Vaccine safety concerns
- Concerns that vaccines can weaken your child's immune system
- Belief that the probability of contracting a vaccine-preventable disease is very low
- Belief that vaccine-preventable diseases are harmless and not serious enough to justify vaccination
- Belief that vaccines are not effective
- Belief that vaccine recommendations are guided by profit considerations of pharmaceutical companies
- Religious reasons
- I don't know
- Other (please specify: \_\_\_\_\_)

**9) In your professional activity, have you ever witnessed any of the following vaccine-preventable diseases?**

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| Pertussis  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Tetanus  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Measles  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Mumps  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Rubella  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Varicella  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Hepatitis B (acute or chronic infection)                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Invasive pneumococcal disease/meningococcal disease/ Hib | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

**10) In your professional activity, have you ever witnessed any of the following serious adverse events that you believe were caused by vaccination?**

- Seizures  Yes  No
- Anaphylaxis or any other important allergic reaction  Yes  No
- Neuritis/neuropathy  Yes  No
- Multiple sclerosis  Yes  No
- Encephalopathy/Encephalitis  Yes  No
- Autism  Yes  No
- Guillain Barré Syndrome  Yes  No
- Other serious adverse events  Yes  No

(please specify: \_\_\_\_\_)

**11) How often do you verify that your patients are up to date with the vaccination schedule?**

- systematically  often  occasionally  never

**12) Do you have an idea of what proportion of your pediatric patients are unvaccinated?**

- < 5%  5-10%  >10%  I don't know

**13) In your opinion, how likely is it that an unvaccinated child living in Italy will contract one of the following diseases in the next 10 years?**

	Very unlikely	Unlikely	Not very likely	Likely	Very likely	I don't know
Diphtheria						
Pertussis						
Tetanus						
Measels						
Mumps						
Rubella						
Polio						
Varicella						
Invasive pneumococcal disease/meningococcal disease/ <i>Haemophilus influenzae</i> b						

**14) In your opinion, if a child were to get one of these diseases, how likely is it that he/she would become seriously ill?**

	Very unlikely	Unlikely	Not very likely	Likely	Very likely	I don't know
Diphtheria						
Pertussis						
Tetanus						
Measels						
Mumps						
Rubella						
Polio						
Varicella						
Invasive pneumococcal disease/meningococcal disease/ <i>Haemophilus influenzae</i> b						



**15) How effective are the following vaccines in preventing disease in children?**

	<b>Very effective</b>	<b>Effective</b>	<b>Not very effective</b>	<b>Not at all effective</b>	<b>I don't know</b>
Diphtheria-Tetanus-acellular Pertussis (DTPa)					
Haemophilus b (Hib)					
Measles-Mumps-Rubella (MMR)					
Inactivated Polio (IPV)					
Pneumococcal - conjugate vaccine					
Hepatitis B (HBV)					
Varicella (VZV)					
Meningococcal C					
Influenza					
Human Papilloma Virus (HPV)					

**16) Your patient is scheduled to receive the second dose of hexavalent vaccine; which of the following conditions do you consider to be a contraindication?**

	<b>False contraindication</b>	<b>Temporary contraindication</b>	<b>Permanent contraindication</b>	<b>Don't know</b>
Severe allergic reaction to a previous dose, including anaphylaxis				
Fever following a previous dose				
Acute severe gastroenteritis				
Otitis media, without fever				
Family history of reaction following a pertussis vaccine dose				
Acute upper airway infection without fever				
History of pertussis				
Diagnosis of epilepsy, well controlled				
Fever 38-40°C and moderate illness				
Fever >40°C and severe illness				
Congenital immunodeficiency				

**17) In your opinion, how safe are the following vaccines?**

	<b>Extremely safe</b>	<b>Safe</b>	<b>Not very safe</b>	<b>Not at all safe</b>	<b>Don't know</b>
Hexavalent					
Diphtheria-Tetanus-acellular Pertussis (DTPa)					
<i>Haemophilus b</i> (Hib)					

Measles-Mumps-Rubella (MMR)					
Inactivated Polio (IPV)					
Pneumococcal-conjugated (PCV)					
Hepatitis B (HBV)					
Varicella (VZV)					
Meningococcal C					
Influenza					
HPV					

**18) In general, you are:**

- absolutely against vaccinations
- moderately against vaccinations
- neutral
- moderately in favour of vaccinations
- absolutely in favour of vaccinations

**19) Please indicate if you agree with the following statements:**

	Fully disagree	Partly disagree	No opinion	Partly agree	Fully agree
Vaccines are important for my patients' health					
If we stop vaccinating, many diseases that have become rare may re-emerge					
It is better for children to develop natural immunity by getting sick rather than to get a vaccine					
Childhood vaccines are given too early					
Healthy children do not need to be vaccinated					
I am afraid that one of my patients may develop a severe adverse reaction following vaccination					
Vaccines weaken or overload the immune system					
When children get vaccinated, the whole community benefits					
The second dose of MMR is useful					
Conditions such as autism and multiple sclerosis may be caused by vaccines					
Allergies are on the rise because of vaccinations					
I am favorable to introducing mandatory school immunisation requirements					
In the U.S.A. paediatricians are increasingly rejecting patients whose parents refuse vaccinations. I agree with this attitude.					

Vaccine policy is influenced by financial profits of pharmaceutical companies					
Children receive too many vaccines					
Vaccines are among the safest and most tested medicinal products					
The frequency of adverse events to vaccines is underestimated					
Vaccination is cost-effective					
Vaccine information provided by health authorities and scientific societies is reliable					

20) Do you prescribe homeopathy to your patients?  Often  No  Occasionally

## SECTION 2

21) Age (years):  < 35  35 – 44  45 – 54  55 – 64  > 64

22) Gender:  M  F

23) In what year did you receive your medical degree? \_\_\_\_\_

24) Country of graduation:  Italy  Other, specify: \_\_\_\_\_

25) In what year did you obtain pediatric specialty certification? Year:

26) In what province do you practice as a pediatrician? \_\_\_\_\_

27) What type of professional activity do you practice?

- Primary care pediatrician
- Community Pediatrician
- Hospital-based Pediatrician
- Pediatrician in private practice
- Retired

28) Years in practice?

- < 1
- 1- 5
- 6 – 10
- >10

29) Which of the following best describes the type of area where most of your patients reside?

- Large City (> 250.000 population)
- Medium-sized city (50.000-250.000 population )
- Small city/town (<50.000 population)

30) Did you receive any training in vaccinology during your pediatric specialty training?

- Yes
- No
- I don't remember

31) Do you feel sufficiently knowledgeable about vaccines and vaccine-preventable diseases, including incidence, complications, benefits/risks of vaccination and contraindications to vaccination, to be able to confidently address parental questions?

Yes             No

**32) If not, which topics would you like to receive further training in and in which order of priority?**

- Epidemiology and complications of vaccine-preventable diseases
- Vaccine efficacy
- Vaccine safety and risks
- Vaccine components
- Pharmacovigilance
- Contraindications and precautions of vaccinations
- How to respond to parents' most frequent concerns about vaccinations
- Communication methods on vaccination issues

**33) Which other topic that was not mentioned in the previous question would you like to receive further training in?**

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**34) How much do/ have the following means influence/influenced your knowledge on vaccine-preventable diseases?**

	A great deal	Moderate amount	Neutral	Not much	Not at all
University training					
Scientific literature					
Conferences, meetings and training courses					
Institutional vaccine web pages					
Non-institutional vaccine web pages					
Discussions and contacts with colleagues					

**35) In the past 5 years, have you attended vaccination training courses or conferences (including distance learning and online courses)?**

Yes      If yes, specify the number of courses/conferences:  1-3    4-6    7-9    > 10

No

**36) Through which of the following scientific associations have you been invited to participate in the present survey? (more than one answer is possible)**

- Cultural Association of Pediatricians (ACP)
- Italian Federation of Pediatricians (FIMP)
- Italian Association of Pediatricians (SIMPe)
- Italian Pediatric Association (SIP)
- Italian Association of Social Pediatrics (SIPS)

*Thank you for your participation in this survey.*

*If you have any comments, please add them here:*

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