



VACCINE HESITANCY AMONG PRIVATE GENERAL PRACTITIONERS IN FRANCE THE MEDEVAC PROJECT 2015-17

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FRENCH CONTEXT

- ❑ Multiplication of vaccination-related controversies over the past 20 years
- ❑ Increased public concern about vaccine safety
[Rey, 2018; Larson, 2016]
- ❑ Inadequate vaccination coverage for some vaccines, measles epidemics
- ❑ Extension of obligatory vaccination to 11 early childhood vaccines, decided in July 2017

TRUST IN PHYSICIANS AND THEIR ROLE IN VACCINATION

- ❑ The French population trusts doctors more than any other profession [IRSN barometer]
- ❑ This confidence is constructed as part of a close, personal doctor-patient relationship
- ❑ But also by patients' commitment to resources (time, networks) to find the doctor who is the “best fit” for them
- ❑ Primary role of general practitioners (GPs) and pediatricians in vaccination of the French population

MOST PRIVATE GPS ARE FAVORABLE TO VACCINATION IN GENERAL

- ❑ 80% are very favorable to vaccination generally (17% somewhat favorable)
- ❑ 85% are favorable to the continuation of several/some mandatory vaccines
- ❑ with only 25%, however, favorable to extending them beyond DTP [Collange, 2015]
- ❑ But 25% also have doubts about the utility of some vaccines recommended by the authorities.

REASONS FOR DOUBTS ABOUT THE UTILITY OF SOME VACCINES (QUALITATIVE)

- **Uncertainties about effectiveness of some vaccines**
 - ▣ E.g. HPV: "*...it may be too early to really assess it...*"
- **Perception that some vaccine-protected diseases are rare** (e.g., meningococcus C)
- **Questioning of the principle of mass vaccination** and preference for targeting vaccines according to individual risk
- **Preference for other means of protection besides vaccination** e.g., homeopathy (influenza); screening (HPV)
- **Perception that too many vaccines are proposed**
 - ▣ "*I find that we overmedicalize things and thus put children in a bubble*"

HETEROGENOUS VACCINE RECOMMENDATION PRACTICES

Reported frequency of GPs' recommendations of different vaccines to target groups [Verger, 2015]

<i>% lines, adjusted data, N = 1582</i>	Never	Some-times	Often Always
MMR for adolescents, young non-immunized adults	4	13	83
Meningococcus C as catch-up from 2 to 24 years	18	26	57
Meningococcus C among babies 1 to 2 months	16	17	68
HPV for girls aged 11 to 14 years	10	17	72
Hepatitis B as catch-up for adolescents	11	26	63
Seasonal influenza for adults with diabetes < 65 years	5	12	84

UNCERTAINTIES ABOUT THE SAFETY OF SOME VACCINES OR VACCINE COMPONENTS

"In your opinion, is it probable that the following vaccines cause the following diseases? "

<i>% lines, adjusted data, N = 1582</i>	Not at all probable	Improb- able	Fairly probable	Very probable
Seasonal influenza and Guillain-Barré syndrome	22	54	21	4
Hepatitis B and multiple sclerosis	48	40	9	2
Aluminum (adjuvant) and Alzheimer disease	38	50	9	3
A/H1N1 (Pandemrix) and narcolepsy	30	49	16	5
Human papillomavirus (HPV) and multiple sclerosis	51	43	5	1
Adjuvants and long-term complications	18	49	26	7

REASONS FOR GPs' UNCERTAINTY ABOUT VACCINE SAFETY (QUALITATIVE)

□ **Principled position**

- Vaccines, like medications, are not necessarily harmless
- They can induce autoimmune reactions

□ **Attitude of prudence**

- Need for distance/hindsight/objectivity as scientific knowledge evolves

□ **Feeling of being overwhelmed, helpless**

- Exposure to media pressure (about HBV) instills doubt
- Difficulty telling what's true from what's false/fake news

□ **Grounding in experience**

- Physicians upset after an apparent adverse effect after the vaccination of a patient or family member

PREVALENCE OF VACCINE HESITANCY AMONG GPs

Vaccine hesitancy	No	Slight	Moderate	High
<i>Column %, weighted data, N=1582</i>	(18%)	(68%)	(11%)	(3%)
<i>Links between vaccines & severe adverse effects (somewhat/very likely)</i>				
Hepatitis B vaccine and multiple sclerosis	0	7	30	83
Aluminium adjuvants and Alzheimer's disease	0	7	15	71
Human papilloma virus (HPV) vaccine and multiple sclerosis	0	0	27	50
<i>Vaccine usefulness (somewhat/strongly agrees)</i>				
Children are vaccinated against too many diseases	0	21	37	62
<i>Frequency of vaccine recommendations (often/always)</i>				
Measles-mumps-rubella (non-immune adolescents/young adults)	100	84	56	53
HPV (girls aged 11–14 years)	100	72	47	24
Seasonal influenza (adults <65 years with diabetes)	100	84	70	48

(Hierarchical Ascending Classification) [Verger, 2016]

RELATIVE CONFIDENCE IN PUBLIC HEALTH AUTHORITIES

- 80% of GPs have confidence in public health authorities to inform them of the benefits and risks of vaccines
 - ▣ 90% in health agencies and 45% in the pharmaceutical industry
- But 53% of GPs consider that the pharmaceutical industry influences the public health authorities
- And 29% prefer to rely on their own judgment rather than vaccination official guidelines.

REASONS FOR RELATIVE CONFIDENCE IN OFFICIAL SOURCES (QUALITATIVE)

□ Criticism of authorities:

- Lack of reactivity: *"We always get information late" "directives are not always clear."*
- Lack of support: *"I find that there are not enough information campaigns to explain the benefits of vaccination to people".*

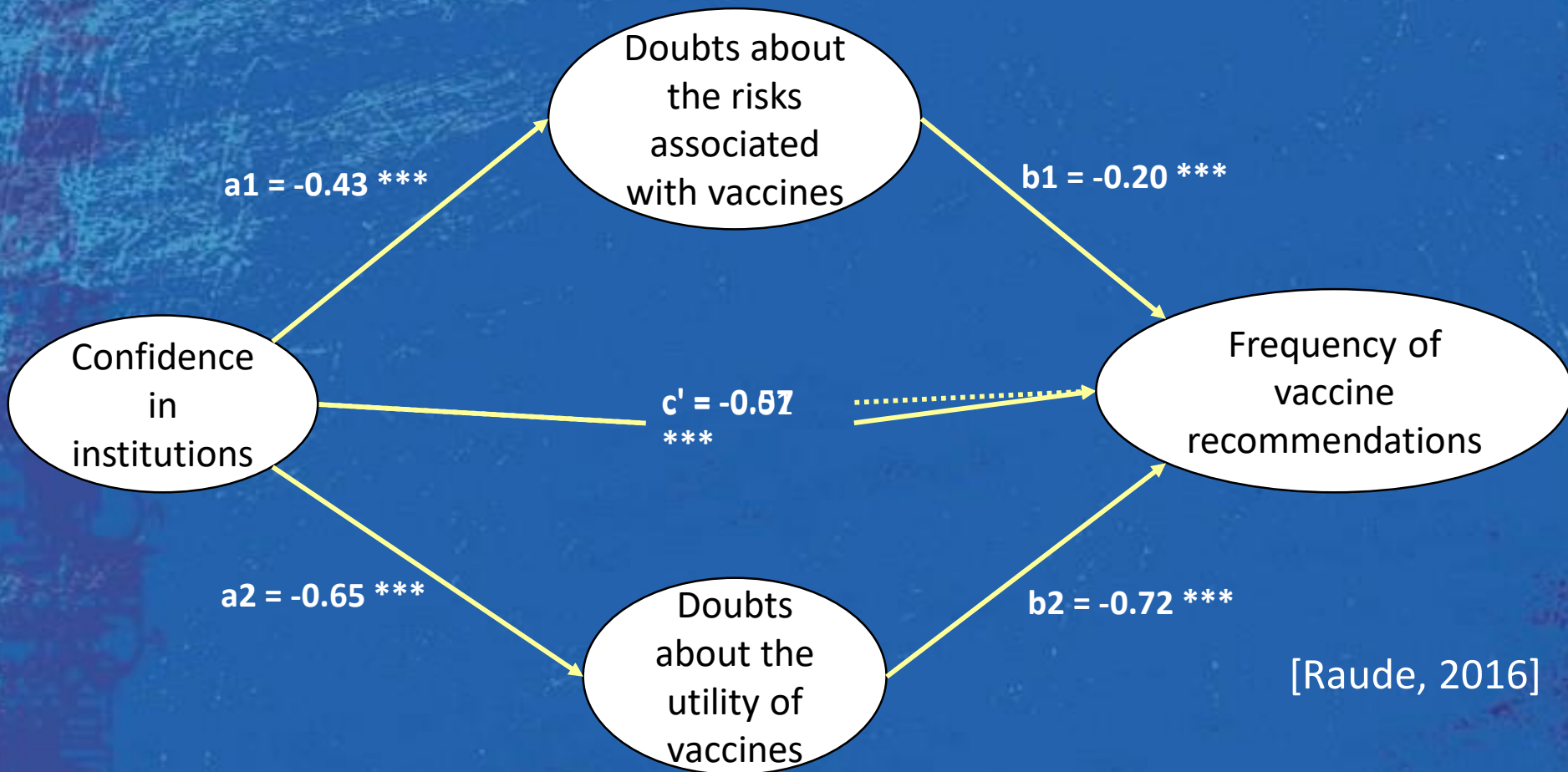
□ Experts, sometimes judged unreliable:

- *"They make mistakes, they rely too much on theories, models, and statistics."*

□ Reference to earlier health crises/controversies:

- *Contaminated blood, benfluorex (Médiateur), A/H1N1, hepatitis B...*

WHAT ROLE DOES CONFIDENCE PLAY IN VACCINE HESITANCY?



[Raude, 2016]

*Other mediating factors taken into account: feeling of self-efficacy: $a3=0.29***$; $b3=0.08$*

Adjusted for the 4 stratification variables, the practice of alternative medicine, the number of continuing medical education sessions on vaccination during the past 12 months, and the type of practice - N = 1551, adjusted data.

REASONS THAT SOME GPs SAY THEY RELY ON THEIR OWN JUDGMENT (QUALITATIVE)

□ Criticism of guidelines

- *"The guidelines should be reassessed regularly"*
- Complex calendar of application, uncertainties about the intervals between boosters
- The constant changes in the vaccination schedule casts doubts on the guidelines' validity
- "...not sufficiently explicit to enable doctors to understand them well and convey them to patients..."

□ Adapt the vaccination dates to the patients

- Forget or delay due to short term patient illness
- Delay vaccines to make vaccination more acceptable to patients.

GPs DEALING WITH HESITANT PATIENTS

- ❑ 60% of GPs are not at ease in explaining the utility and risks of adjuvants
- ❑ GPs who perceive their patients' reluctance about HBV or HPV vaccines recommend these vaccines less often [Gautier, 2015; Collange, 2015, Agrinier 2016].

ATTITUDES TOWARDS HESITANT PATIENTS (QUALITATIVE)

□ Proactive GPs

- *"We also have the advantage of seeing patients again ... 'Listen now to what I'm saying, think about, and we'll talk about it next time ... We can still argue.'"*

□ Neutral GPs

- *"I see myself as a person relaying information, I'm not the one who makes this final decision."*

□ Fatalist/discouraged GPs

- *"Afterwards, you know, it's sort of a question of religion: I realised that arguing about it wasn't very useful";*

□ Radical GPs

- *"If they don't want vaccination, to some of them I say: I cannot continue to care for your child, find another doctor... "*

PERCEPTIONS OF MEDICAL SCHOOL INSTRUCTION ABOUT VACCINATION IN FRANCE

- ❑ EDUVAC national survey from September 2015 to January 2016 (27/32 medical schools) [Kerneis 2017]
- ❑ 33% of 6th year medical students did not feel adequately prepared by their education about vaccination in general
- ❑ Great variations between pedagogical objectives:
 - ❑ 64% not adequately prepared in terms of communication
 - ❑ 42% in terms of practical skills
 - ❑ 41% in terms of sources of information and vaccination policies
 - ❑ 31% in terms of vaccine-preventable diseases
 - ❑ 21% about immunological aspects.

CONCLUSIONS

- **"Reluctant trust"** [Giddens 1991]
 - ▣ Relative confidence in vaccines because unable to vaccinate otherwise
- **Practices sometimes obey "Mindlines"** rather than guidelines
 - ▣ Criticism of several aspects of the vaccination strategy and vaccination schedule in France
 - ▣ Some prefer to apply knowledge based on their personal experience rather than official expert guidelines.
- **Very inadequate training**

WAYS TO HELP DOCTORS IN THE AREA OF VACCINATION

- There is no unequivocal and simple response
- Multiple needs
 - Inform GPs better (reactivity...)
 - Train doctors to know how to deal with hesitant patients/parents: motivational interviews?
 - More appropriate pedagogical tools
 - Tools for vaccination status follow-up.

THANK YOU FOR YOUR ATTENTION

PUBLISHED ARTICLES

- ❑ Kernéis et al. Feb 2017. Vaccine Education of Medical Students: A Nationwide Cross-sectional Survey. Am J Prev Prev Med.
- ❑ Raude J. et al., 2016. « Opening the 'Vaccine Hesitancy' Black Box: How Trust in Institutions Affects French GPs' Vaccination Practices ». Expert Review of Vaccines.
- ❑ Collange F. et al., 2016. « General Practitioners' Attitudes and Behaviors toward HPV Vaccination: A French National Survey ». Vaccine 34 (6): 762-68.
- ❑ Verger P, et al., 2016. Prevalence and correlates of vaccine hesitancy among general practitioners: A cross-sectional telephone survey in France, April to July 2014. Euro Surveill. 2016;21(47)
- ❑ Verger P et al., 2015. « Vaccine Hesitancy Among General Practitioners and Its Determinants During Controversies: A National Cross-Sectional Survey in France ». EBioMedicine 2 (8): 889-95.