

# Vaccination hesitancy in Italy<sub>y</sub>

# Donato GRECO MD

#### The ASSET FINAL EVENT

Share and move for mobilization and mutual learning at local, national and international levels on Science in Society related issues in epidemics and pandemics

Rome, 30-31.10.2017



co-funded by the EU. GA: 612236





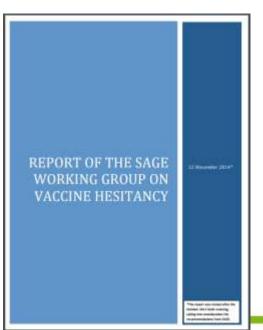


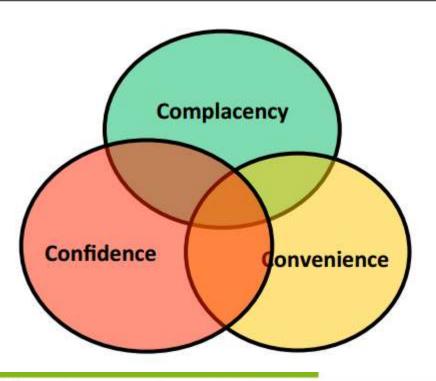


## WHO definition of vaccine hesitancy

#### **Definition: 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 is influenced by factors such as complacency, convenience and confidence.

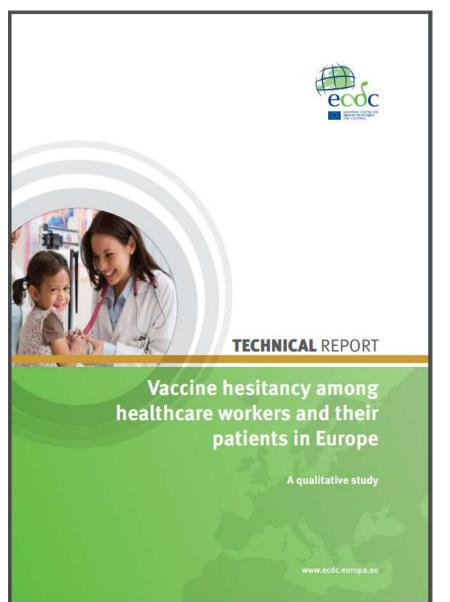




#### Action plan on Science in Society related issues in Epidemics and Total pandemics





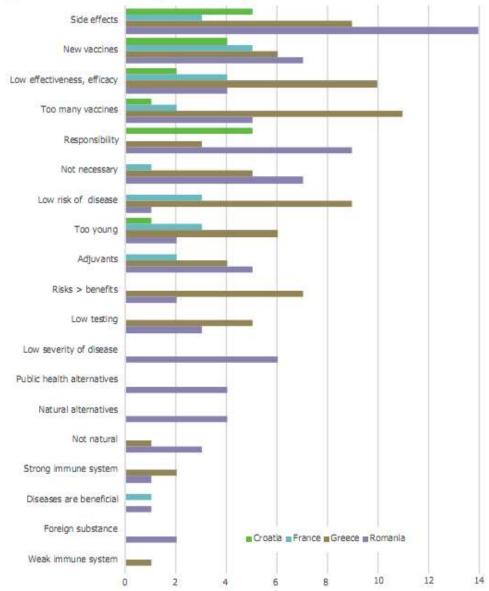




#### Some health workers are hesitant

Interviews in Croazia, Francia, Grecia e Romania

Snapshot of type of concerns expressed about vaccination preventable diseases by healthcare providers in four countries





Number of mentions of a theme during the qualitative study

#### Action plan on Science in Society related issues in Epidemics and Total pandemics





- Survey conducted in 2016 by the Italian National Health Institute in collaboration with three regions: 3230 respondents
- Computer/Mobile Assisted Web Interviewing (CAWI/MAWI) and distribution of questionnaires in day-care centres and family paediatrician waiting rooms
- Parents classified into 3 groups according to attitude/practice regarding vaccination: favorable, hesitant and anti-vax.
- Hesitant and favorable parents have similar attitudes. Both have differing attitudes with respect to anti-vax parents regarding:
  - usefulness and benefits of vaccinations
  - role of pediatrician in the vaccine offer.
- Hesitant parents:
  - are more aware of anti-vax parents of the importance of vaccination in preventing serious infectious diseases
  - trust their family pediatrician more with respect to anti-vax
  - show a more positive attitude towards awareness-raising and information campaigns
  - > represent a share of parents that could be convinced to vaccinate
- **PROGETTO CCM**: Chi dovrebbe essere vaccinato e perché: toolkit per l'azione nella società in evoluzione





# Position related to vaccines is based on a variety of factors.

**Beliefs** 

**Experiences** 

Family

**Friends** 

Co-workers

**News stories** 



**Anecdotes** 

Healthcare Providers

Education

**Articles/Books** 



**Teachers** 





#### WHAT ARE THE CONCERNS?

# Babies are too young Too many vaccines

Schedule not well-tested Vaccines cause other diseases

Vaccines contain harmful ingredients









#### Some antivaccines miths

- "I am not antivaccine: i am pro safe vaccines
- Vaccines are toxic
- A demand for absolute safety
- A demand for abslute proof
- Vaccines did not save us
- Vaccines are "innatural"
- Chosing between "vaccine injury" and disease









## Framing the message

# TOO MANY TOO SOON

Vaccine Ingredients: mercury, aluminum, antifreeze, formaldehyde, aborted human fetus cells, chick embryos, monkey kidney cells, fetal bovine serum, etc.

www.safevaccines.org







#### Too many vaccines in one shot?

- Children have the immune capacity to respond to about 10,000 antigens at any one time.
- Whe we give a child 11 vaccine in a single shot, we mobilize 0,1% of his immune system.
- However the next days the «used» naive B-and Tcells are constantly replenished, a vaccination never «uses up» a fraction of the immune system.
- Infact the immune system have the capacity to replenish more than 2 billions CD4.









## Vaccines: Then and Now

Year	Number of Vaccines	Number of Immunologic Components
1900	1	~200
1980	7	~3,041
2013	14	~150

Action plan on Science in Society related issues in Epidemics and Total pandemics

# Can a child produce simultaneusly antibodies to many antigens?

 Current data suggest that the theoretical capacity determined by diversity of antibody variablen gene regions would allow for more than 100 billions different antibody specificities

Abbas AK et al.»cell mol immunol» WB Saunders 1994





# ASSE

#### Concern:

The vaccine schedule is not well-tested.

- Individual vaccines are tested extensively:
  - Phase I
  - Phase II
  - Phase III
- Studies include "concomitant-use studies"
- Post-Licensure studies (phase IV)

No other drug is tested as much as vaccines !!!
Go to Cochrane vaccine library !!!





## ASSET

#### Concern:

#### Vaccines cause diseases

- Vaccines do not cause:
  - Autism
  - SIDS
  - Diabetes
  - Multiple sclerosis
  - Guillian-Barré syndrome
  - Asthma
  - Allergies
- Any concerns are studied; if a causal relationship was found, use of the vaccine would be reevaluated.





# ASSET

#### Concern:

Vaccines contain harmful chemicals.

- Aluminum is used as an adjuvant.
- Exposure from food in first 6 mos. of life is greater than in vaccines
- Longitudinal studies demonstrated no harm from mercurial salts in vaccines
- Mercurial salts have been precautionally removed from vaccines



#### ime association of vaccine side effects

- In the first 24 months children receive 12 vaccines in multiple doses
- Any bad health event in that period necessarely is within few weeks after a vaccination session
- Time association of a bad health event and a previous vaccination is extremely high
- Can time association be considered a casual relationship??







# Tactics and tropes of the antivaccine movement (sciebceblogs.com/insolence/2012/)

- 1. Skewing the science
- 2. Shifting hypotheses
- 3. Censorship
- 4. Attacking the opposition









## unfortunately

 Many health autorities in Europe prefer to accept vaccine compensation instead of going to a scientific investigation between vaccination and the decleared damage.







#### THEN WHAT TO DO

- 1. REACT: respond to each story
- 2. SPEAK: speak with parents friends relatives
- 3. TRAIN: include massive amount on the compulsory CME for HCW
- 4. DOCUMENT : Make public scientific evidence on vaccine side effects
- 5. Educate: include vaccine prevention in basic and advanced curricula

