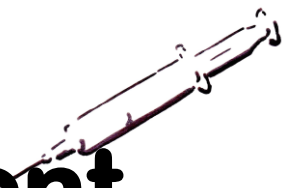


The EASAC FEAM Statement on Vaccination and beyond

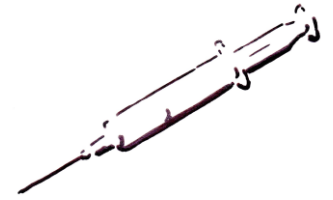


Jos WM van der Meer

**MD PhD FRCP(Lon) FRCP(Edin) FIDSA FESCMID MAE
Emeritus Professor of Medicine Radboud University
Immediate past President EASAC**



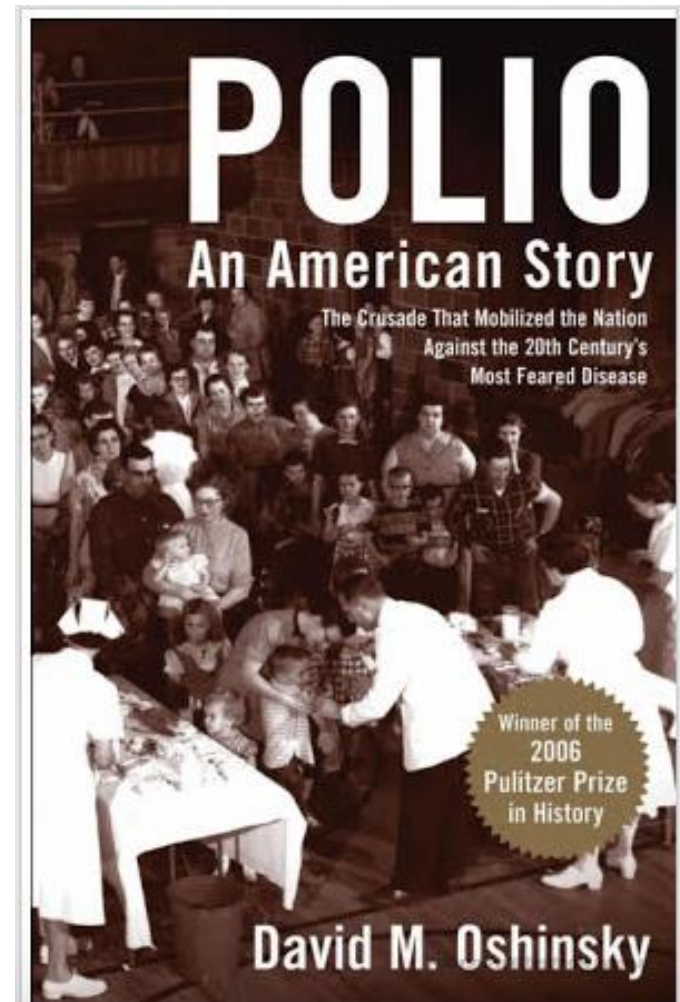
Vaccination



Considered one of the great success stories in medical sciences



Edward Jenner vaccinating against smallpox

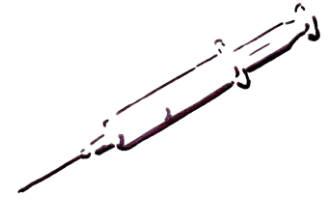




**Elvis Presley
receives a polio
vaccination from Dr
Lena Baumgartner
and Dr Harold Fuerst
at CBS studio in NY,
Oct 28, 1956**



EC Roadmap ‘Strengthened cooperation against vaccine preventable disease’



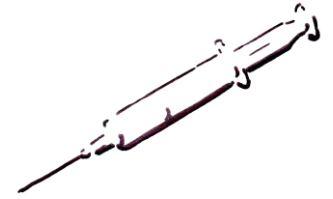
- **Public consultation in Early 2018**
- **EASAC and FEAM were not happy with the format of the consultation and decided to formulate a commentary.**



Vaccination in Europe

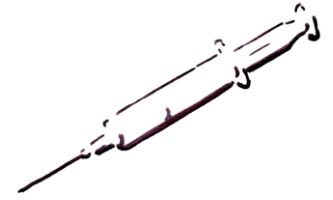
An EASAC and FEAM commentary on the EC Roadmap 'Strengthened cooperation against vaccine preventable diseases'

EASAC FEAM commentary



- **The commentary was considered a necessary first step**
- **More exploration and scoping of the problem at the different levels and in the different areas was felt necessary**
- **To that end 2 conferences in 2018:**
 - **Scientific and social aspects (A'dam Oct 2018)**
 - **Science policy interface (FEAM Forum Brussels Nov 2018)**

EASAC FEAM commentary



- **Vaccine coverage**
- **Health impact of vaccines**
- **Quality of vaccines**
- **Vaccine rejection and hesitancy**
- **Vaccine availability**
- **New vaccine development**

Since then...



- EC adopted a proposal for a Council Recommendation and Communication on Strengthened Cooperation against Vaccine Preventable Diseases (April 2018):
 - 1) tackling vaccine hesitancy and improving vaccination coverage;
 - 2) sustainable vaccination policies in the EU;
 - 3) EU co-ordination and contribution to global health.
- State of Vaccine Confidence in the EU 2018



Programme

Conference Amsterdam

October 2018



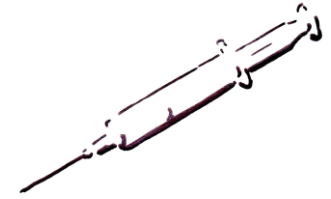
- Welcome *Prof. Wim van Saarloos (KNAW)*
- The EASAC-FEAM statement *Prof. Jos van der Meer (EASAC)*
- Vaccine coverage in the EU *Dr. Piotr Kramarz (ECDC)*
- The tailoring immunisation programme *Dr. Katrine Bach Habersaat (WHO)*
- Not all vaccines are equal *Prof. Jaap van Dissel (CIB RIVM)*
- The effects of vaccines on innate immunity *Prof. Mihai Netea (Radboud UMC)*
- How to improve the flu vaccine *Prof. Ron Fouchier (Erasmus MC)*
- Dealing with vaccine hesitancy and rejection *Prof. Tara Smith (Kent State Univ)*
- Vaccine discussion on the internet *Prof. Piek Vossen (VU University)*
- The way ahead *Prof. George Griffin (FEAM)*



Vaccination in Europe

An EASAC and FEAM commentary on the EC Roadmap 'Strengthened cooperation against vaccine preventable diseases'

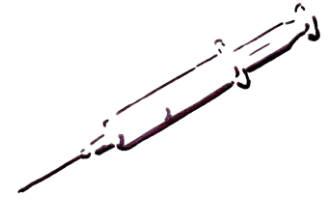
EASAC & FEAM Vaccination Recommendations (1)



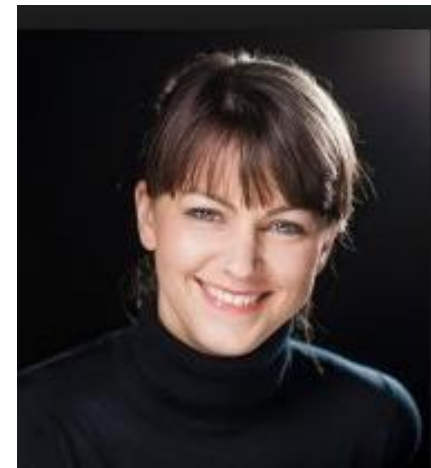
1. Investigate the reasons for low and decreasing vaccine uptake at the level of EU Member States in order to develop tailor-made interventions. Make use of the WHO TIPS programme.

It is a heterogeneous multi-faceted problem at the level of the members states. Where are the obstacles? What are the experiences with the TIPS programme?

At the Amsterdam meeting

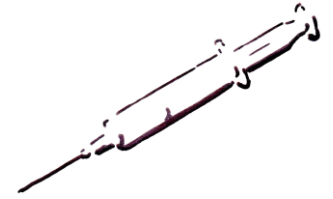


- It is a member state problem
- The TIPS approach is worthwhile, but amount of work and costs are unclear
- Yet, such data are badly needed
- Explanations for decline in vaccine uptake may be unexpected



Katrine Bach-Habersaat

EASAC & FEAM Vaccination Recommendations (2)

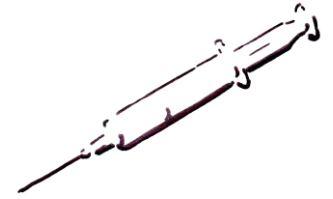


2. Develop and implement a European vaccination card and registry. Do not give normalisation of vaccine programmes (i.e., the choice of dose and timing) among different countries a high priority.

The former is OK

The latter is considered a waste of time and money with a high risk to fail

At the Amsterdam meeting:

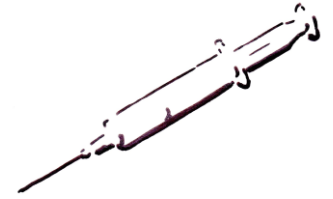


- In every country has an advisory committee (NITAG); ECDC hopes to strengthen the coordination and harmonisation.
- The IMI-funded ADVANCE project aims to make a major contribution to the vaccine debate in the context of digital health, for example a full risk-benefit assessment based on real world and real time data.



Piotr Kramarz

EASAC & FEAM Vaccination Recommendations (3)



3. Recognize that not all vaccines in the vaccination programmes are of equal relevance for public health and for individual protection. Make priorities in these programmes.

At population level: diphtheria, polio vaccines

At individual level: tetanus, rabies vaccines

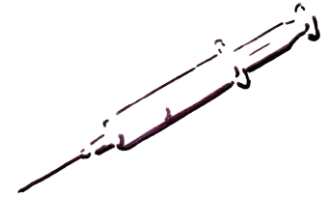
At both levels: meningococcal vaccines



Jaap van Dissel



EASAC & FEAM Vaccination Recommendations (4)



4. Recognize that not all vaccines are of optimal general quality in terms of efficacy and side effects

examples: influenza vaccine

pertussis vaccine

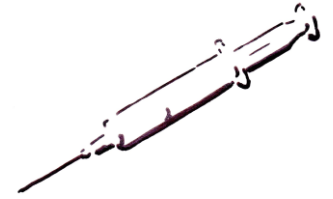
At the Amsterdam meeting

- **The problems with the quality flu vaccine are obvious:**
 - Poor antibody response (in elderly and sick persons)
 - Poor protection because of bad fit to the prevalent strains
- **Measures:**
 - higher dose to poor responders
 - quadrivalent vaccine (Type B)
 - Other ways of application
 - Better adjuvants
 - Better prediction of next year's strains (big data, antigenic cartography)
 - Aiming at other antigens (e.g., broad acting vaccine)



Ron Fouchier

EASAC & FEAM Vaccination Recommendations (5)



5. To deal with the problem of vaccine rejection and hesitance, realise that the approach to *vaccine hesitant, vaccine resistant and vaccine rejecting* groups is different. With the help of social scientists, develop strategies to enhance vaccine uptake in vaccine hesitant and vaccine resistant individuals.



Tara Smith



Open Forum Infectious Diseases

REVIEW ARTICLE



Vaccine Rejection and Hesitancy: A Review and Call to Action

Tara C. Smith¹

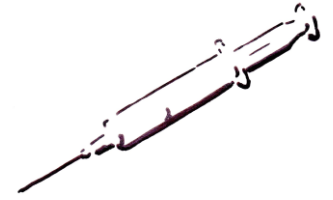
¹College of Public Health, Kent State University, Ohio

‘the positive narrative’
‘no jab, no play’



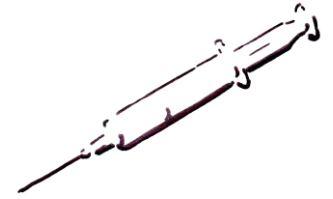


Piek Vossen



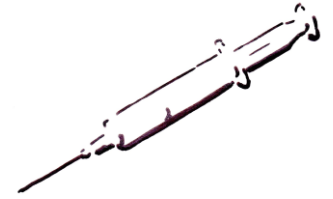
- **Scanning the dispersed information on the internet**
- **Much information on the internet, little communication; a post \neq a debate**
- **Anti vaccine lobby and professional and governmental information are in separate bubbles**

EASAC & FEAM Vaccination Recommendations (6)



6. Develop a monitoring system for vaccine shortage and stimulate vaccine production by industry at the European level ensuring safety and quality of manufacturing.

EASAC & FEAM Vaccination Recommendations (7)



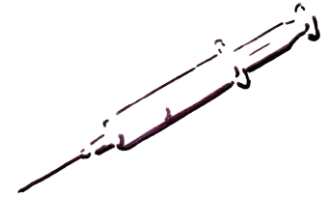
7. Revisit the BCG vaccination programmes in childhood: the vaccine does not induce long-lasting protection against tuberculosis and there is a serious worldwide shortage of the vaccine.

*specific protection vs
trained immunity*



Mihai Netea

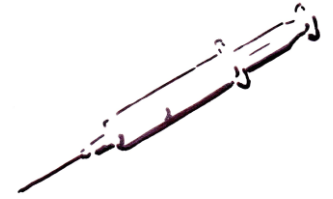
EASAC & FEAM Vaccination Recommendations (8)



8. Investigate and optimise vaccination schedules for those vaccines for which there is a shortage.

e.g., intracutaneous injection

EASAC & FEAM Vaccination Recommendations (9)

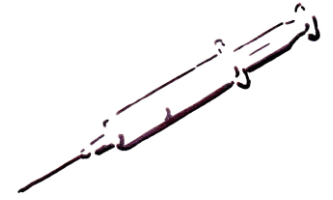


9. Develop a priority list of those vaccines that need improvement

antigenic quality

adjuvant quality

EASAC & FEAM Vaccination Recommendations (10)



10. Develop a priority list of vaccines for which there is high need

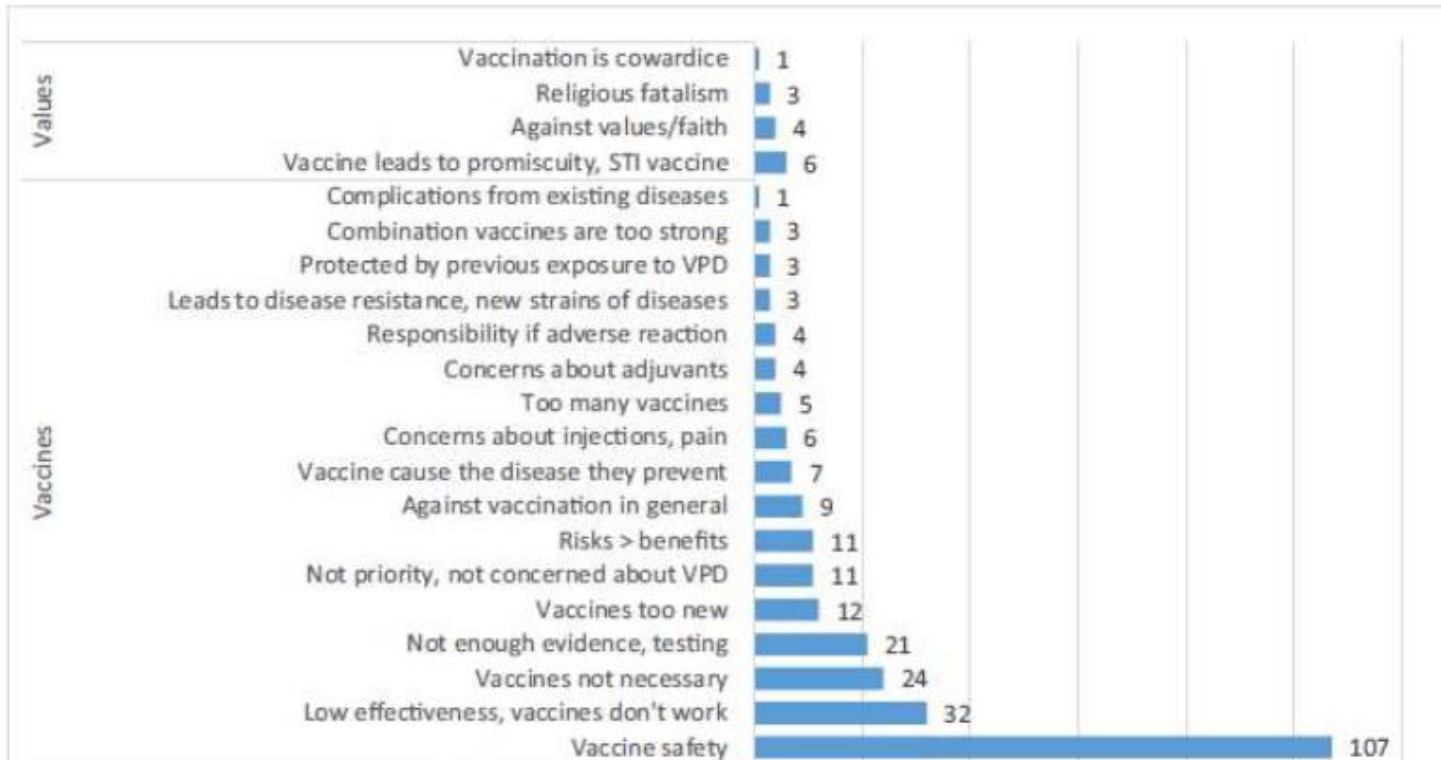
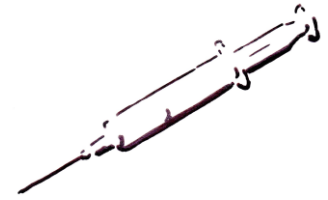
This could provide the basis for a European public private partnership in vaccine discovery and development



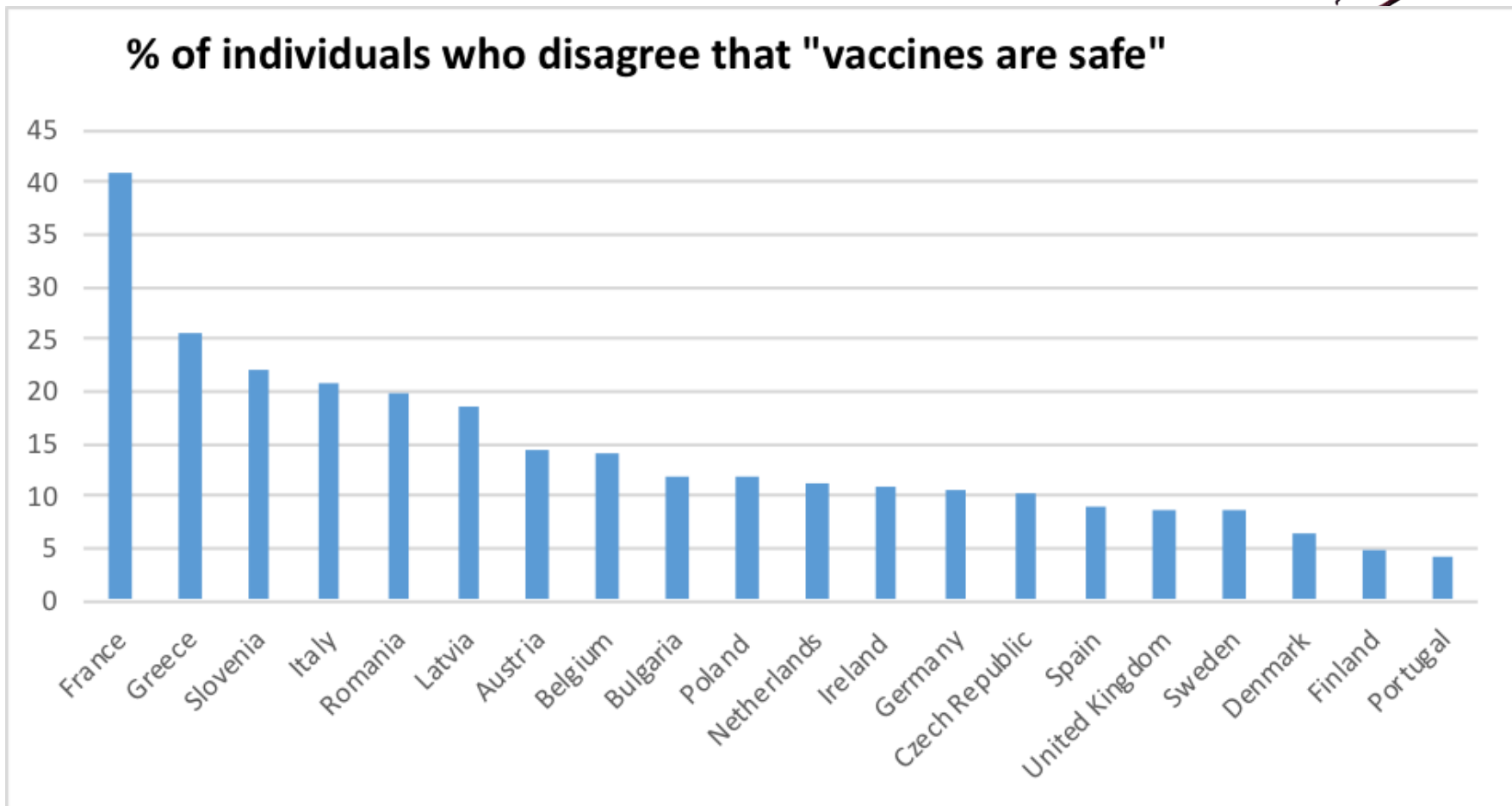
Vaccination in Europe

An EASAC and FEAM commentary on the EC Roadmap 'Strengthened cooperation against vaccine preventable diseases'

Common concerns about risks and benefits of vaccination in Europe



Source: Karafillakis and Larson (2017).



Source: The State of Vaccine Confidence (2016) project.