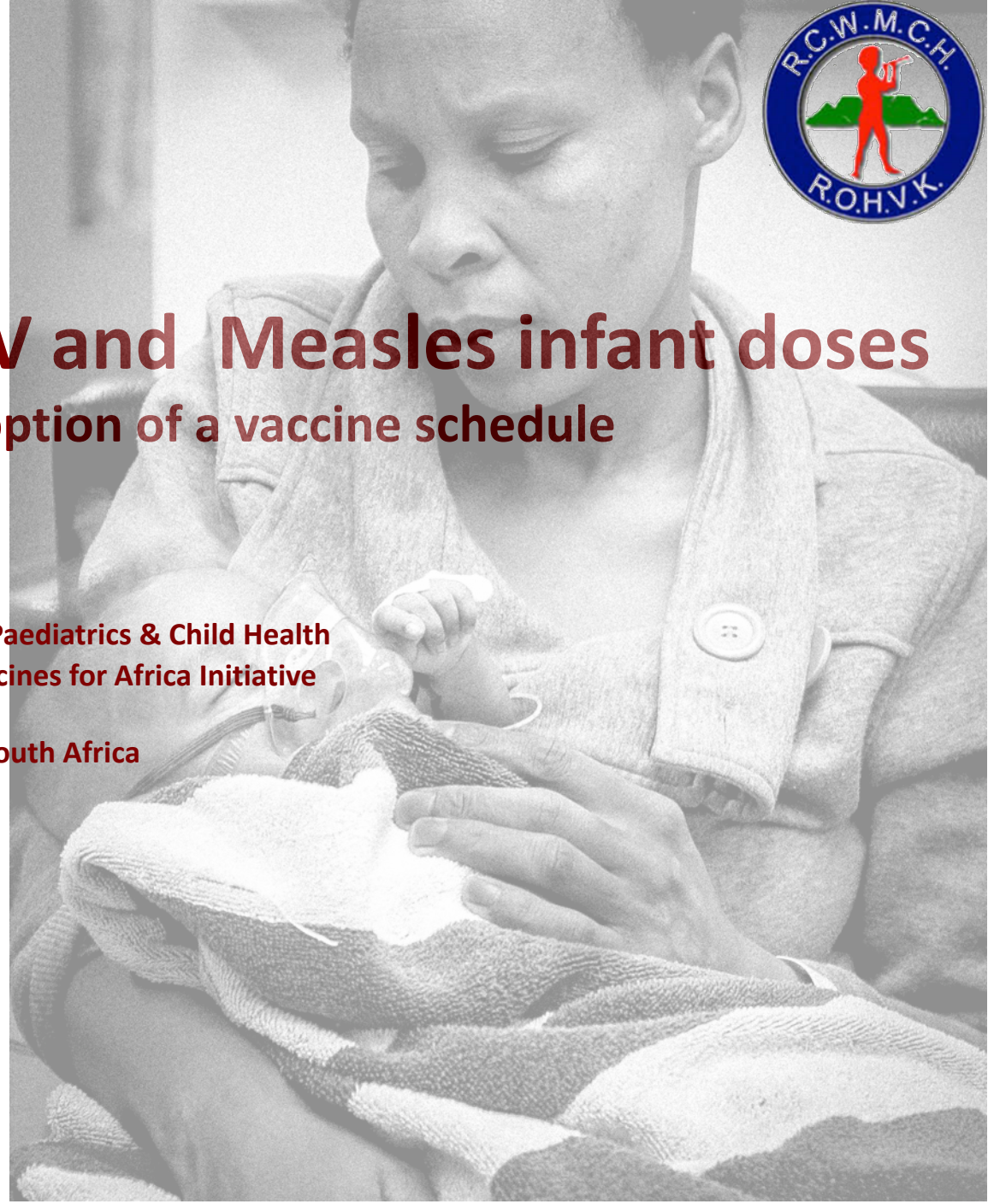
Timing of South Africa's PCV and Measles infant doses

- considerations on the adoption of a vaccine schedule



Rudzani Muloiwa Department of Paediatrics & Child Health
Red Cross War Memorial Hospital & Vaccines for Africa Initiative

University of Cape Town, South Africa

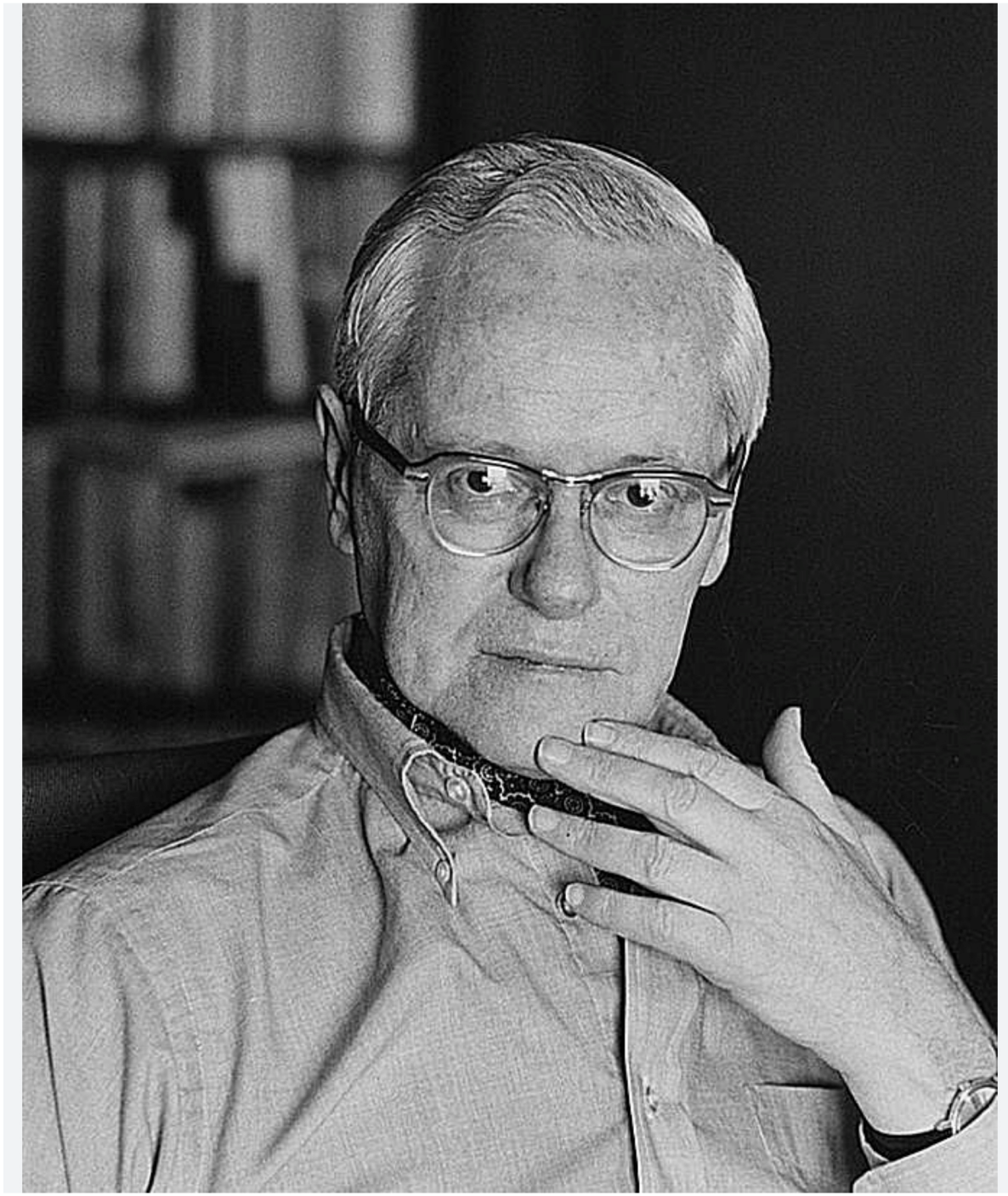
VACFA vaccines for africa

NISH
National Immunization Technical Advisory Group (NITAG) Support Hub

Disclaimer

- **Rudzani Muloiwa** has served on Advisory Boards for MSD and Pfizer, and has previously received honorarium for giving talks at Sanofi Pasteur, Pfizer and MSD sponsored meetings

He has also taken part in both investigator-initiated and sponsored studies supported by Sanofi Pasteur



“role model”
“self-fulfilling prophesy”

Current South African Immunisation Schedule

Birth	BOPV, BCG
6 weeks	DaPT-IPV/Hib/HBV, RV,PCV13, BOPV
10 weeks	DaPT-IPV/Hib/HBV
14 weeks	DaPT-IPV/Hib/HBV, RV, PCV13
6 months	Measles
9 months	PCV13
12 months	Measles
18 months	DaPT-IPV/Hib/HBV
6 years	Td
9+ years	HPV
12 years	Td
Pregnancy	T

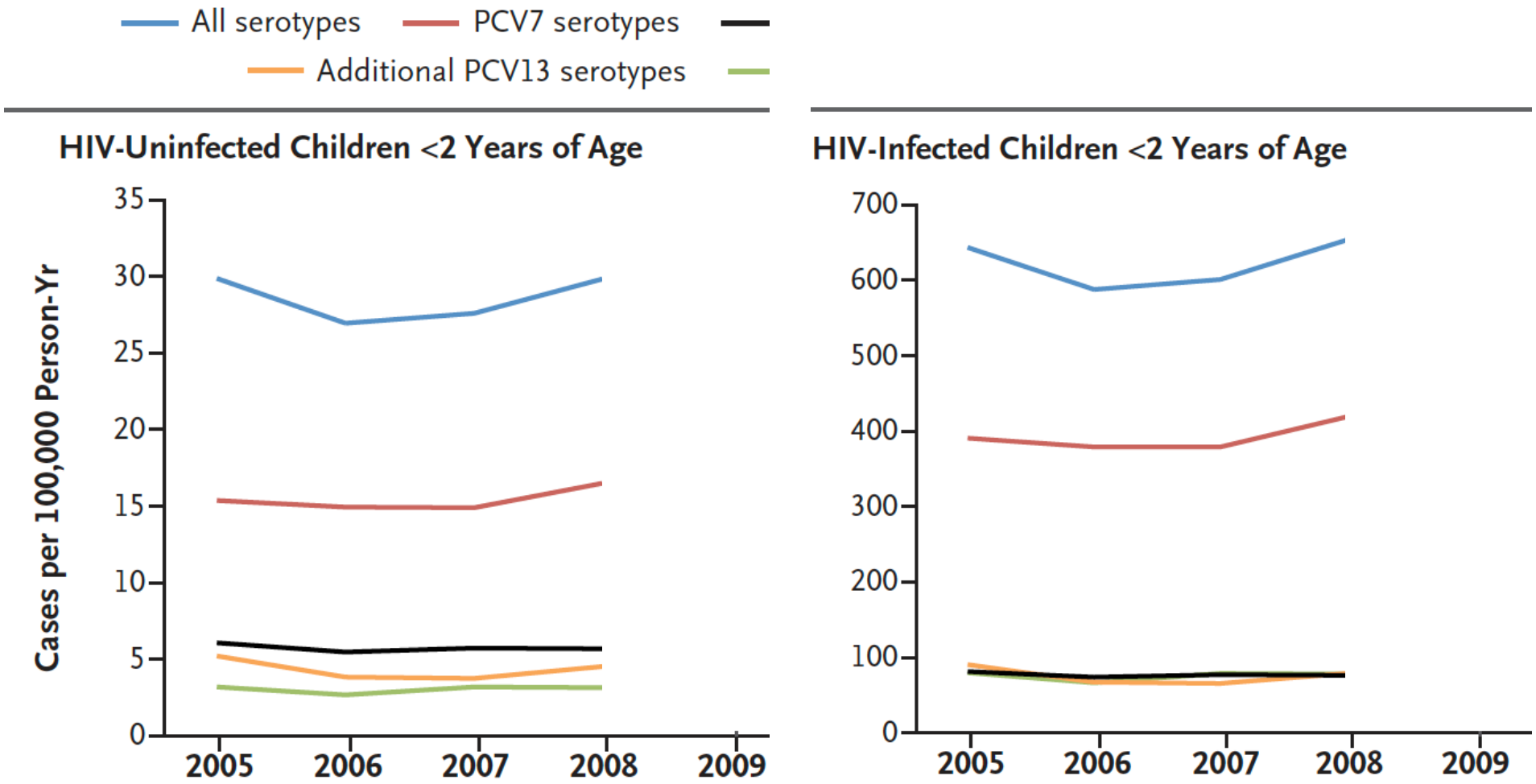
RSA Immunisation Schedule - 2008

Birth	TOPV, BCG
6 weeks	DPT/Hib, HBV, TOPV
10 weeks	DPT/Hib, HBV, TOPV
14 weeks	DPT/Hib, HBV, TOPV
9 months	Measles
18 months	DPT/Hib, TOPV, Measles
6 years	DT
12 years	Td
Pregnancy	T

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Effects of Vaccination on Invasive Pneumococcal Disease in South Africa



von Gottberg et al. 2014

Vaccine 26 (2008) 3277–3281

Contents lists available at ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Effectiveness of a 2+1 dose schedule pneumococcal conjugate vaccination programme on invasive pneumococcal disease among children in Norway

Didrik F. Vestrheim*, Øistein Løvoll, Ingeborg S. Aaberge, Dominique A. Caugant, E. Arne Høiby, Hilde Bakke, Marianne R. Bergsaker

Division of Infectious Disease Control, Norwegian Institute of Public Health, Norway

Vaccine 30S (2012) C21–C27

Contents lists available at SciVerse ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Review

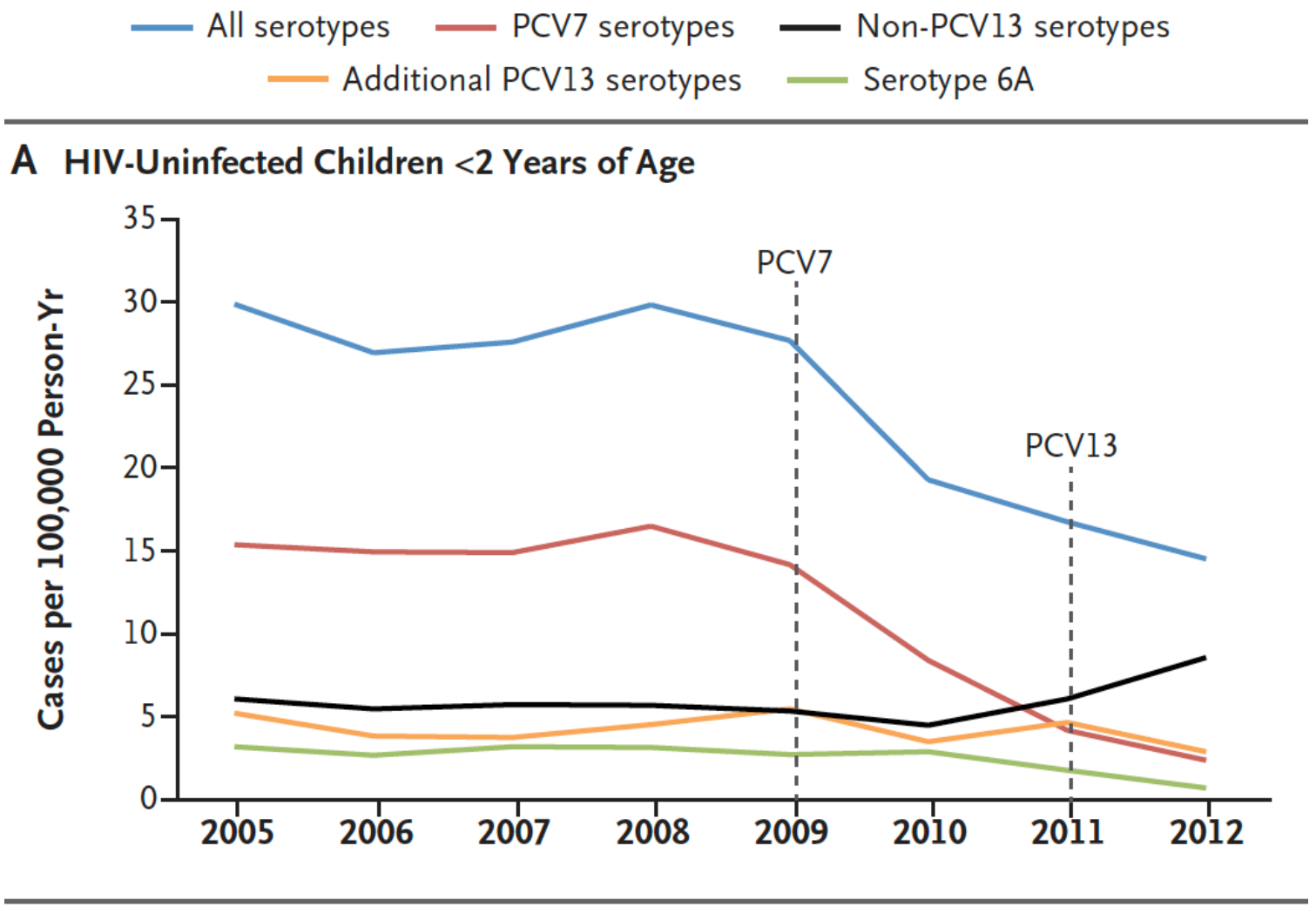
Introduction of pneumococcal conjugate vaccine into the public immunization program in South Africa: Translating research into policy

Shabir A. Madhi[a,b,c], Cheryl Cohen[a,d], Anne von Gottberg[a,c,*]

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Effects of Vaccination on Invasive Pneumococcal Disease in South Africa

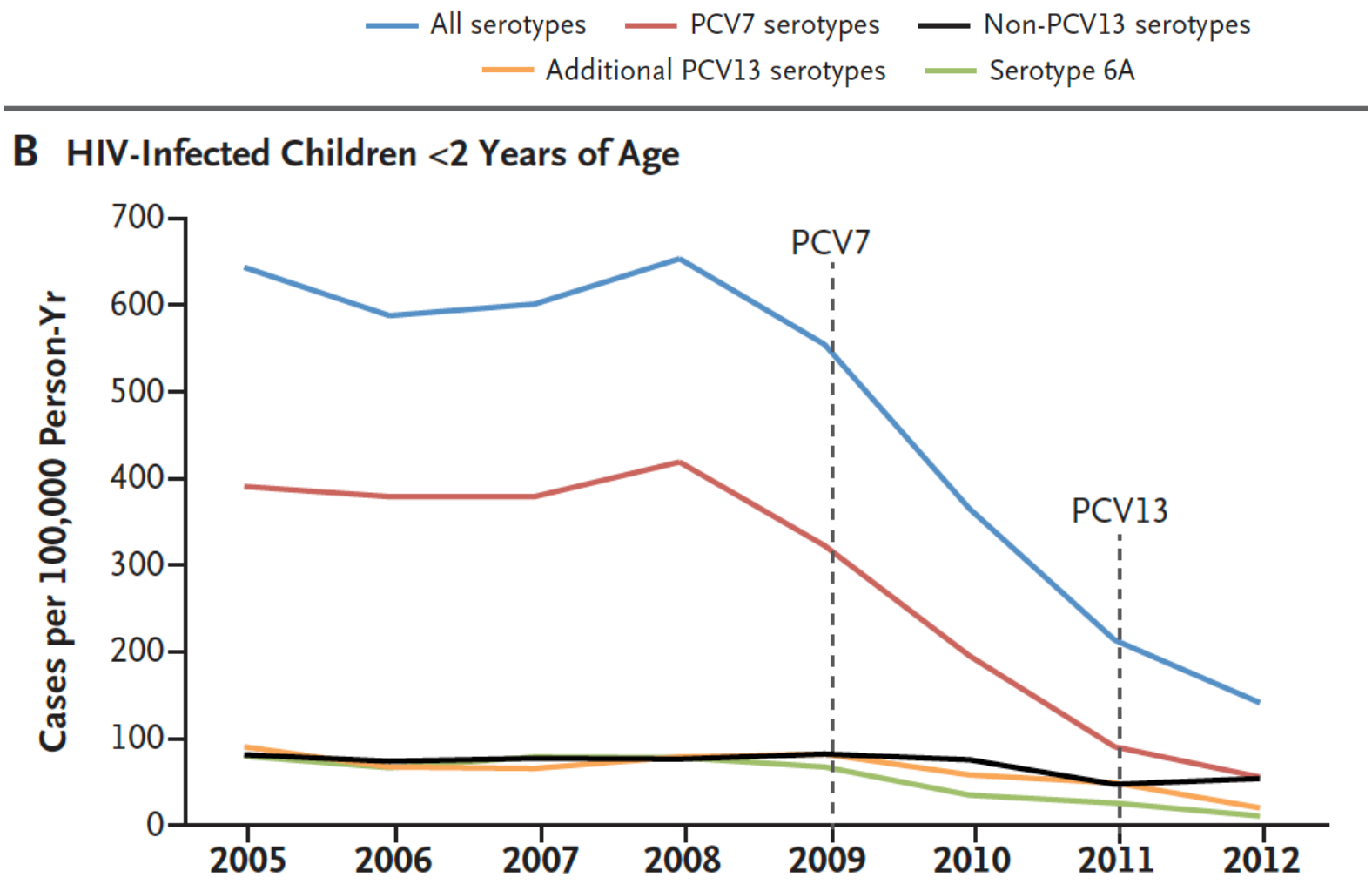


von Gottberg et al. 2014

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

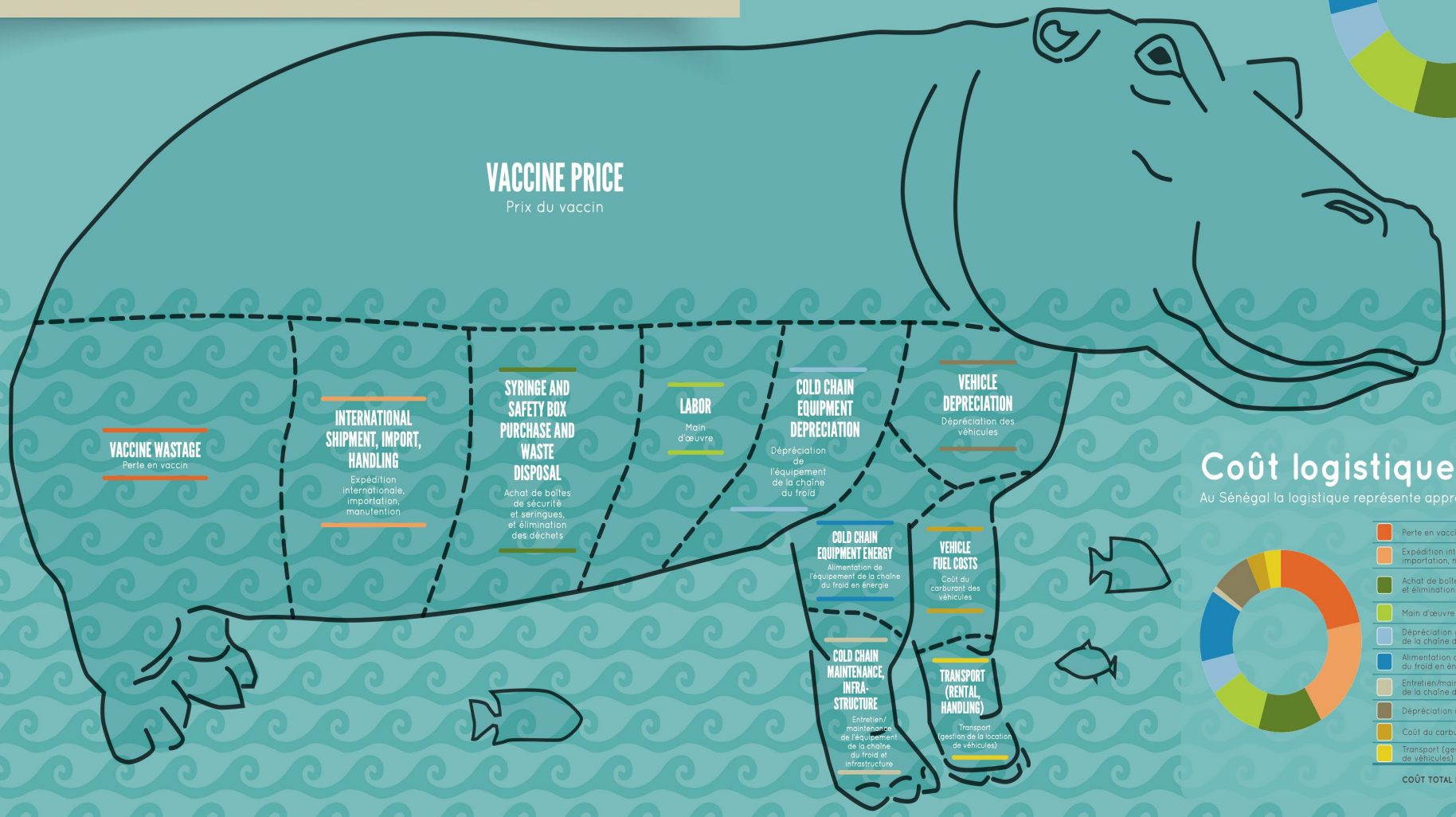
Effects of Vaccination on Invasive Pneumococcal Disease in South Africa



von Gottberg et al. 2014

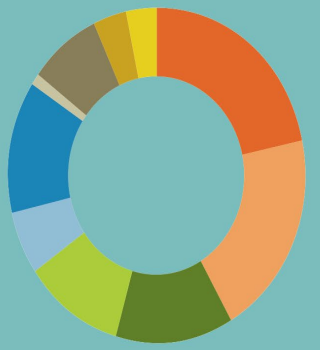
SOME VACCINE COSTS ARE HIDDEN BELOW THE SURFACE

Certains coûts liés aux vaccins sont cachés



AVERAGE LOGISTICS COST PER DOSE

In Senegal, logistics comprise approximately 50% of the total average cost per dose delivered.



Vaccine wastage	0.200	22.1%
International shipment, import, handling	0.180	19.9%
Syringe and safety box purchase and waste disposal	0.120	13.2%
Labor	0.106	11.6%
Cold chain equipment depreciation	0.049	5.4%
Cold chain equipment energy	0.115	12.7%
Cold chain maintenance, infrastructure	0.003	0.4%
Vehicle depreciation	0.070	7.7%
Vehicle fuel, insurance, and maintenance	0.032	3.6%
Other	0.031	3.5%
TOTAL SYSTEM COST PER DOSE	0.906	100.0%

VACCINES CURRENTLY USED IN SENEGAL:

VACCINE	WASTAGE
Bacille Calmette-Guerin (BCG)	50%
Pentavalent (Diphtheria, pertussis, tetanus, hepatitis B, *Haemophilus influenzae* type b)	1%

VACCINE	WASTAGE
Oral polio	10%
Measles	25%
Tetanus toxoid	10%
Yellow fever	25%

Coût logistique moyen par dose

Au Sénégal la logistique représente approximativement 50% du coût total par dose livrée.

Perte en vaccin	0.200	22.1%
Expédition internationale, importation, manutention	0.180	19.9%
Achat de boîtes de sécurité et seringues, et élimination des déchets	0.120	13.2%
Main d'œuvre	0.106	11.6%
Dépréciation de l'équipement de la chaîne du froid	0.049	5.4%
Alimentation de l'équipement de la chaîne du froid en énergie	0.115	12.7%
Entretien/maintenance de l'équipement de la chaîne du froid et infrastructure	0.003	0.4%
Dépréciation des véhicules	0.070	7.7%
Coût du carburant des véhicules	0.032	3.6%
Transport (gestion de la location de véhicules)	0.031	3.5%
COÛT TOTAL DU SYSTÈME PAR DOSE	0.906	100.0%

Vaccins actuellement utilises au Sénégal

Vaccin	Pertes
Bacille Calmette-Guérin (BCG)	50%
Pentavalent (diphtérie, coqueluche, tétanos, hépatite B, Haemophilus influenzae type b)	1%
Polio oral	10%
Rougeole	25%
Anatoxine Tétanique	10%
Fièvre jaune	25%

Source: Senegal, Project Optimize, 2012

OPTIMIZE World Health Organization PATH

ROUVAX

Laboratory: Sanofi Pasteur

Last update: March 03, 2022 11:37:27 AM

Stopped marketing since the end of November 2017.

Description

Measles vaccine.

Class

Alive

https://www.mesvaccins.net/web/vaccines/436-vaksin-campak-kering

VAKSIN CAMPAK KERING

Laboratory: Bio Farma

Last update: July 27, 2019 3:43:16 PM

Measles vaccine produced and used in Indonesia.

Description

Live attenuated measles vaccine, strain CAM-70.

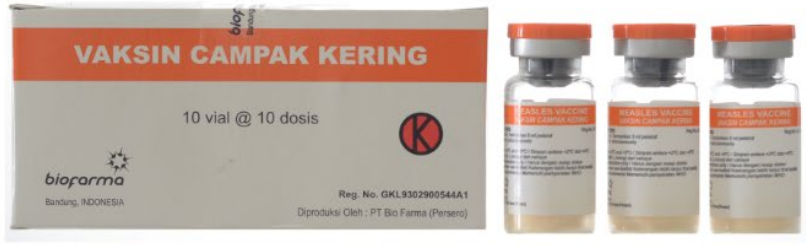
Class

Alive

Composition

Measles virus strain CAM-70: not less than 1,000 CCID50 (Cell Culture Infective Doses 50).

Other information



Current South African Immunisation Schedule

Birth	BOPV, BCG
6 weeks	DaPT-IPV/Hib/HBV, RV,PCV13, BOPV
10 weeks	DaPT-IPV/Hib/HBV
14 weeks	DaPT-IPV/Hib/HBV, RV, PCV13
6 months	Measles
9 months	PCV13
12 months	Measles
18 months	DaPT-IPV/Hib/HBV
6 years	Td
9+ years	HPV
12 years	Td
Pregnancy	T

Vaccine introduction decision-making framework

- Clarity on the burden of disease
- Meaningful efficacy or effectiveness threshold
- Safety of the vaccine in target population
- Cost effectiveness of a vaccine intervention – impact on burden
- Competing immunisation priorities
- Ability to get meaningful vaccine coverage of target group
- Impact of introducing a dose on the whole schedule
- Other logistical considerations - cost
- Registration status with regulatory body
- WHO/SAGE vaccine specific guidelines
- “The soft stuff” – acceptance, cultural norms and social behaviour

THE UNANTICIPATED CONSEQUENCES OF PURPOSIVE SOCIAL ACTION

ROBERT K. MERTON
Harvard University

I

IN SOME ONE of its numerous forms, the problem of the unanticipated consequences of purposive action has been treated by virtually every substantial contributor to the long history of social thought.[1] The diversity of context[2] and variety of terms[3] by which this problem has been known, however, have tended to obscure the definite continuity in its consideration. In fact, this diversity of context—ranging from theology to technology—has been so pronounced that not only has the substantial identity of the problem been overlooked, but no systematic, scientific analysis of it has as yet been effected. The failure to subject this problem to such thorough-going investigation has perhaps been due in part to its having been linked historically with transcendental and ethical considerations. Obviously, the ready solution provided by ascribing uncontemplated consequences of action to the inscrutable will of God or Providence or Fate precludes, in the mind of the believer, any need for scientific analysis. Whatever the actual reasons, the fact remains that though the process has been widely recognized and its importance equally appreciated, it still awaits a systematic treatment.

Thank you