

Croucher Summer Course on Vaccine Hesitancy 2026

Day 1 10:00 – 12:30 | AM Session

Foundations and drivers of vaccine hesitancy

Pauline Paterson

London School of Hygiene & Tropical Medicine

Julie Leask

School of Public Health, University of Sydney, Australia

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



THE UNIVERSITY OF
SYDNEY



SABII.
Social and Behavioural
Insights in Immunisation



Confidence in vaccines



Confidence in providers



Confidence in systems

The team at The Vaccine Confidence Project™ conduct global research on vaccine confidence, examining local and global dynamics which influence vaccine decision-making.

Founding director:	Heidi Larson				
Co-directors:	Leesa Lin	Pierre Van Damme			
Team leads:	Alex de Figueiredo	Robert Kanwagi	Emilie Karafillakis	<u>Pauline Paterson</u>	Joseph Wu
Communications:	Sarah Malycha	Izzy Goldstein			
Project Managers:	Valerie Heywood	Greet Hendrickx	Sara Valckx		
Researchers:	Siyuan Chen	Yongjin Choi	Rachel Eagan		
	Lucas Garay	Caitlin Jarrett	Kathy Leung		
	Lily Minh Wass	Carlos Wong	Zhengdong Wu		



SABII.

Social and Behavioural
Insights in Immunisation



THE UNIVERSITY OF
SYDNEY

Sydney Infectious Diseases Institute

- Apply social sciences to improve vaccine uptake, systems, programs and processes
- Empower people to make quality decisions
- Embed social science expertise in decision making

Learning objectives

1. Describe the full scope of determinants of vaccine uptake
2. Identify the influences on hesitancy
3. Apply knowledge of decision heuristics to vaccine decisions
4. Identify lessons for responding to hesitancy from case studies
5. Integrate knowledge of vaccine hesitancy into interventions to address it.

Exercise

- Why don't people vaccinate?
 - Discuss with person next to you
 - Write each reason on a sticky note
 - Try to organise the list into categories

Take 5
minutes

What influences uptake? Theories, models, frameworks

Theory: a principle or body of interrelated principles that purports to explain or predict a number of interrelated phenomena

APA Dictionary

A social-ecological model of vaccination uptake.

Public policy / legislative

Vaccination program funding
Financial / taxation incentives
Public health legislation

Community

Community attitudes & activism
Social & mainstream media
Community experience of VPDs

Institutional / Service

Vaccination service accessibility /availability/flexibility
School enrolment policies

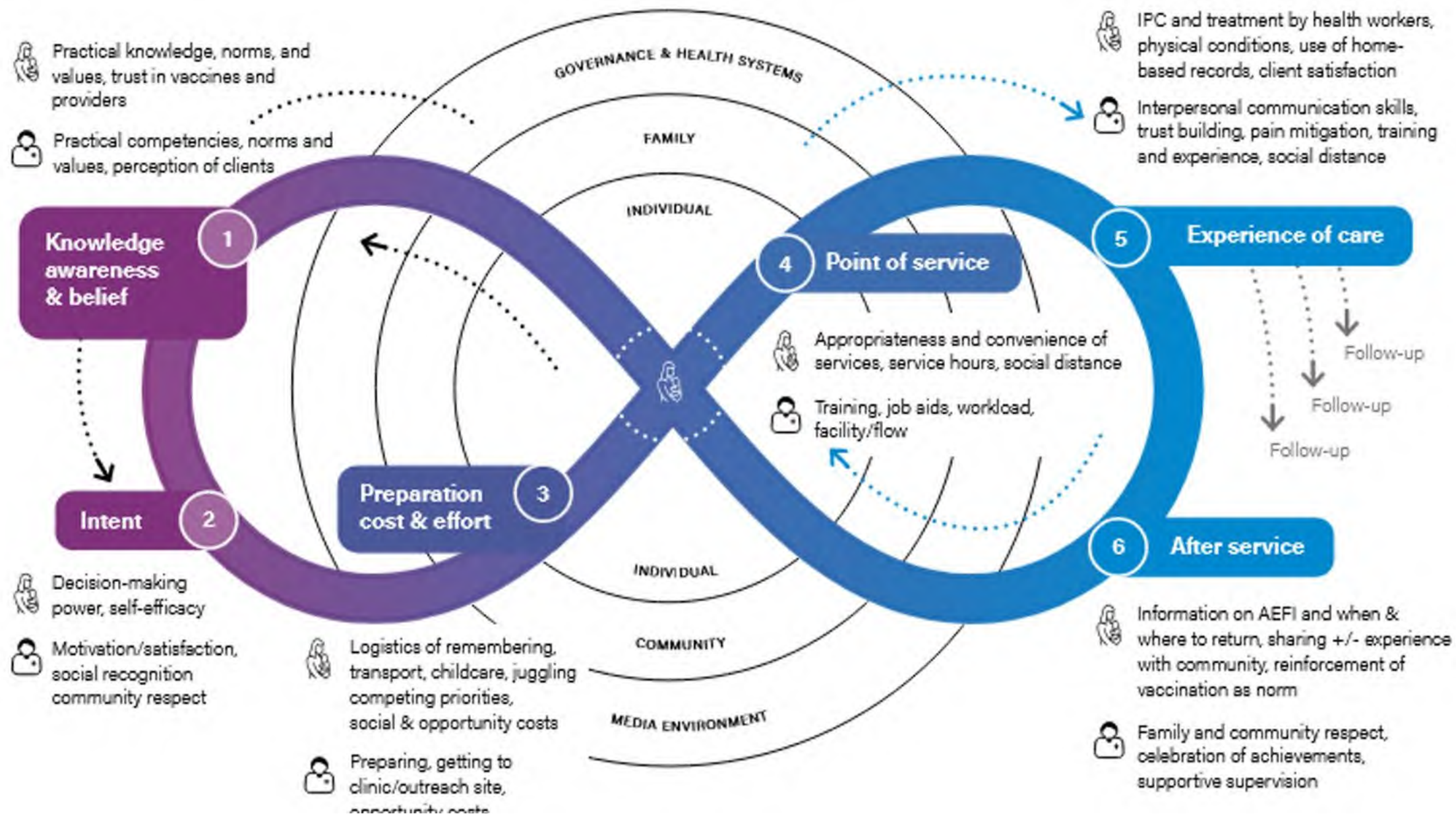
Interpersonal

Vaccination views and practices of friends, family
Peer / partner pressures
Relationship with immunisation / ante-natal care practitioners

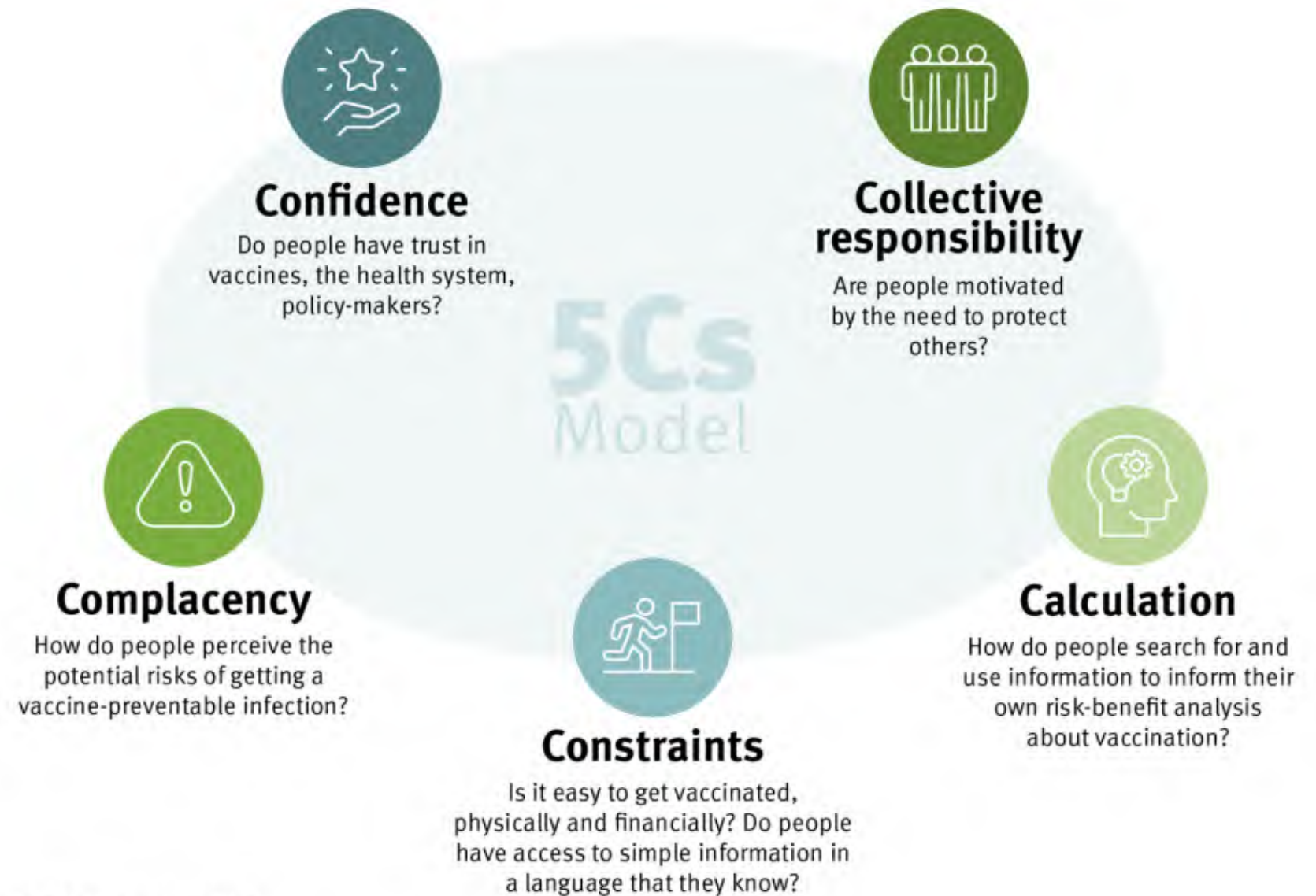
Intrapersonal

Concerns about safety/ necessity
Personal experiences with vaccines
Self-efficacy
Trust in service provider / authorities
Preference for natural immunity

Corben, P., & Leask, J. (2016). To close the childhood immunization gap, we need a richer understanding of parents' decision-making. *Human Vaccines & Immunotherapeutics*, 12(12), 3168–3176. doi.org/10.1080/21645515.2016.1221553



The 5C's



Source: ECDC, based on [18]

Betsch C, Schmid P, Heinemeier D, Korn L, Holtmann C, Böhm R. Beyond confidence: Development of a measure assessing the 5C psychological antecedents of vaccination. PLoS One. 2018;13(12):e0208601.

BeSD framework for measuring drivers of vaccine uptake

Behavioural and Social Drivers (BeSD)

Thinking and Feeling

Perceived disease risk
Vaccine confidence
(includes perceived benefits,
safety and trust)

Social Processes

Social norms (includes support of
family and religious leaders)
Provider recommendation
Gender equity

Motivation

Intention to get
recommended
vaccines

Practical Issues

Availability
Affordability
Ease of access
Service quality
Respect from provider

Vaccination

Uptake of
recommended
vaccines



Frameworks to understand vaccine hesitancy

Pauline

Determinants of vaccine hesitancy (WHO SAGE, 2014)



Vaccine & vaccination specific issues

- Scientific risk/benefit
- Vaccination schedule
- Mode administration or delivery
- Introduction new vaccine
- Vaccine supply
- Healthcare professionals
- Costs
- Tailoring vaccines



Individual & social group influences

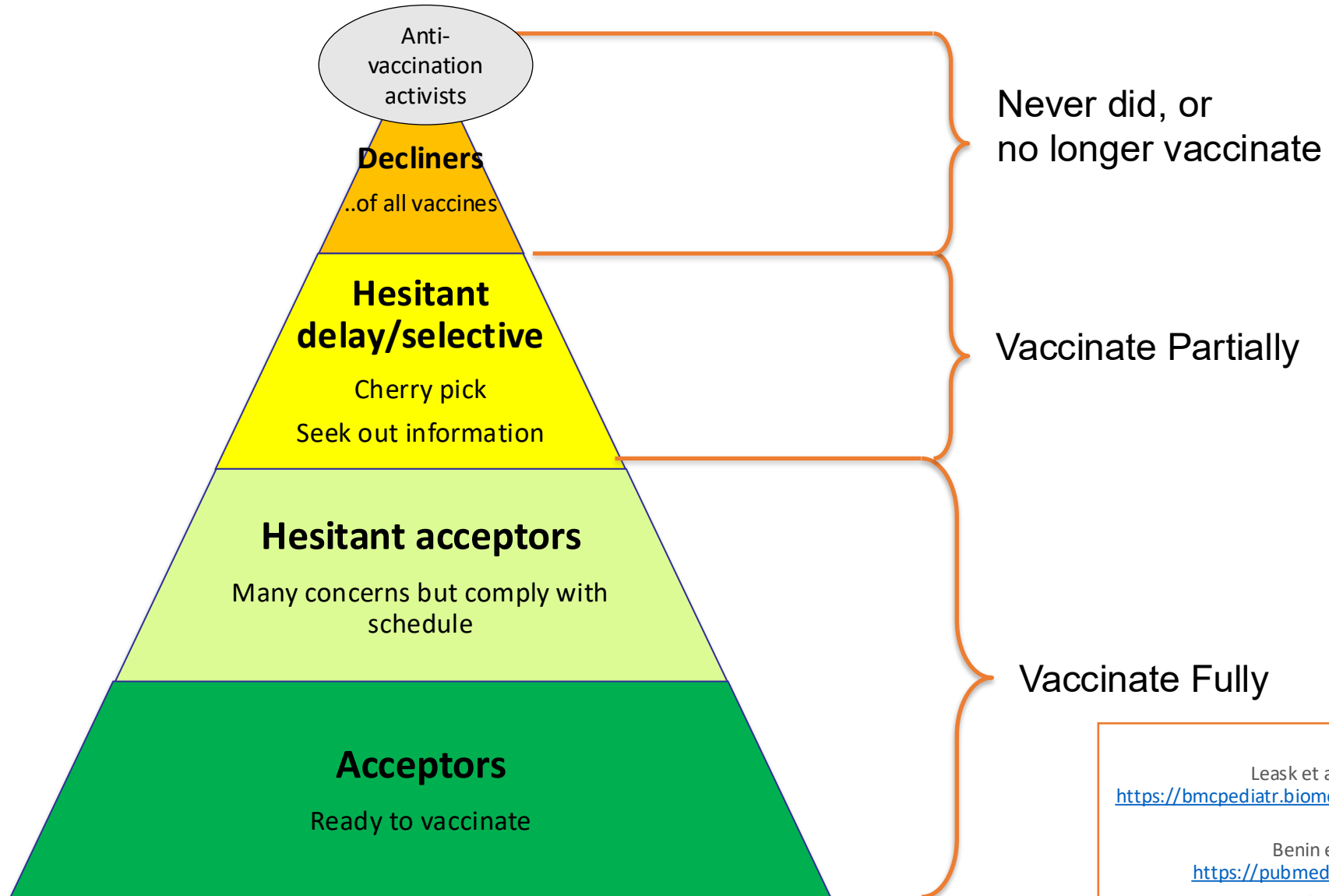
- Perceived risk/benefit
- Social norm, individual need
- Beliefs, attitudes and motivations about health
- Knowledge, awareness
- Trust in health system or provider
- Experience with past vaccination



Contextual influences

- Influential individuals or leaders
- Politics, policies (mandates)
- Religion, culture
- Socio-economics
- Communication and media
- Pharmaceutical industry
- Historical influences
- Geographic barriers

The vaccine acceptance continuum



Sources:

Leask et al BMC Pediatrics 2012

<https://bmcpediatr.biomedcentral.com/articles/10.1186/1471-2431-12-154>

Benin et al Pediatrics 2009

<https://pubmed.ncbi.nlm.nih.gov/16651306/>

Chow et al AFP 2017

<https://pubmed.ncbi.nlm.nih.gov/28260278/>



What is the state of vaccine confidence in the world?

- Four key components:
 - Vaccines are important
 - Overall, I think vaccines are safe
 - Overall, I think vaccines are effective
 - Vaccines are compatible with my religious beliefs
- Likert scale
 - Strongly agree
 - Tend to agree
 - Tend to disagree
 - Strongly disagree

The state of vaccine confidence in the world

Surveyed >284,000 individuals in 149 countries (2015-2019)

Changes over time

Between 2015-2019, confidence in the importance, safety, and effectiveness of vaccines fell in Afghanistan, Indonesia, Pakistan, the Philippines, and South Korea

Religion

When a link was found between individuals' religious beliefs and uptake, minority religious groups tended to have lower probabilities of uptake

Impact on uptake

Confidence in the importance of vaccines (rather than in safety or effectiveness) had the strongest univariate association with vaccine uptake

Europe

Europe remains one of the regions with the lowest confidence in vaccines, with signs that confidence is increasing

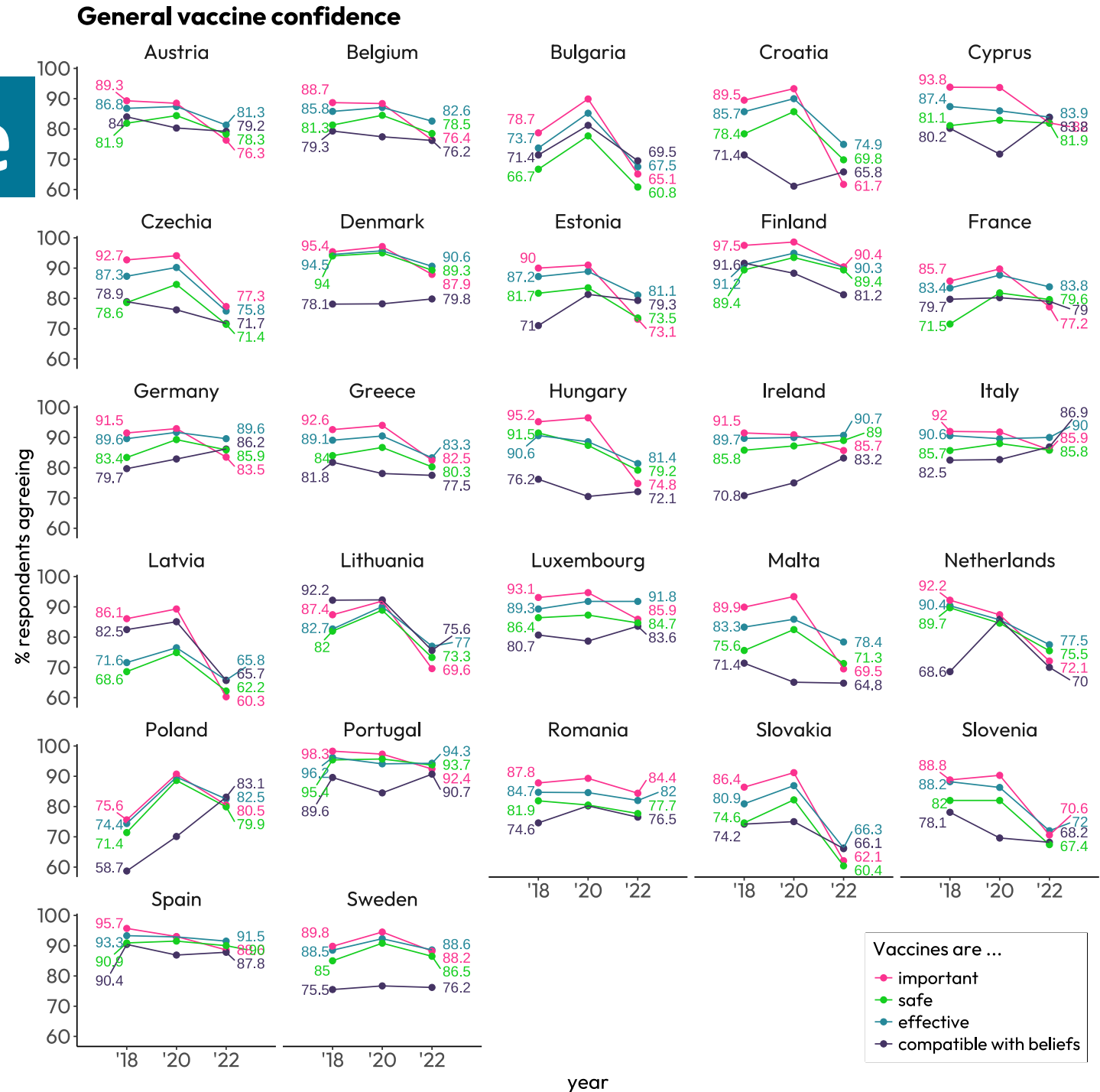
Respondents who strongly agree that vaccines are safe

0-29.9 30-39.9 40-49.9 50-59.9 60-69.9 70-79.9 80-89.9 90-99.9

de Figueiredo et al. Mapping global trends in vaccine confidence. Lancet. 2020.

Vaccine Confidence changes over time

In Europe, agreement that vaccines are **important**, **safe**, **effective**, and **compatible with beliefs** has fallen in 2022 compared to 2020 values. Agreement that vaccines are important and effective are also below 2018 levels, but agreement that vaccines are safe and compatible with beliefs are higher than 2018 levels.



Experiences, beliefs and social expectations influence vaccine hesitancy

- Negative experiences
- Damaged relationships with health care workers
- Exposure to others' stories
- Child's unique health status
- Intensive parenting

'It was terrifying. It was really scary and it was really hard to get any help with it too, medically. So we rang the doctors ... and they didn't really believe that she was having a reaction. It was just a thing that coincidentally happened.'

Mother, Australia

Given the family history with her brothers, with the chronic fatigue and given that her own system was showing that she was really struggling ... we just feel that her system is quite different and it's very reactive and very inflammatory.

Mother, Australia

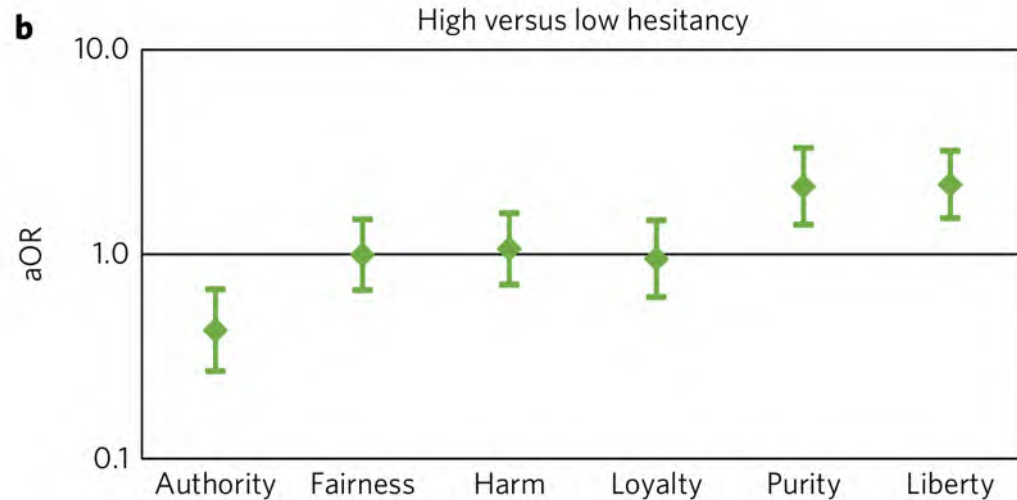
The reason why we don't take our children is the workers at the health centre don't admit us if we have missed the date of the appointment. **They insult us for being late.** So we fear to go there for vaccination because they offended us.

Mother, Omonada, Ethiopia

1. McKnight, J., & Holt, D. B. Global Public Health, 9(10) 2014. <https://doi.org/10.1080/17441692.2014.972967>
2. Helps C, et al. BMJ Open 2019;9
3. Helps, C et al Journal of Public Health Policy. 2018
4. Ward PR et al. PLoS ONE 2017
5. Wiley et al Social Science and Medicine 2020
6. Christou-Ergos M, et al. SSM-Qualitative Research in Health. 2022
7. Christou-Ergos, M et al. Vaccine. 2023.

Moral foundations influence vaccine hesitancy

- Purity ✓
- Liberty ✓
- Authority ✗



I grow vegetables and I have chickens I mean, I feed my children organic food, I cook everything from scratch. I don't give them processed food. We have no chemicals in the house. We don't drink fluoridated water, we drink rainwater which has been filtered. So why would I then go and put all those chemicals in my child?

Mother, South Australia



Amin, A. B., et al Nature Human Behaviour 2017

Helps, C et al Journal of Public Health Policy. 2018
Ward PR et al. PLoS ONE 2017
Wiley et al Social Science and Medicine 2020 .
Leask J, et al. Vaccine 2006.

Social norms influence vaccine hesitancy

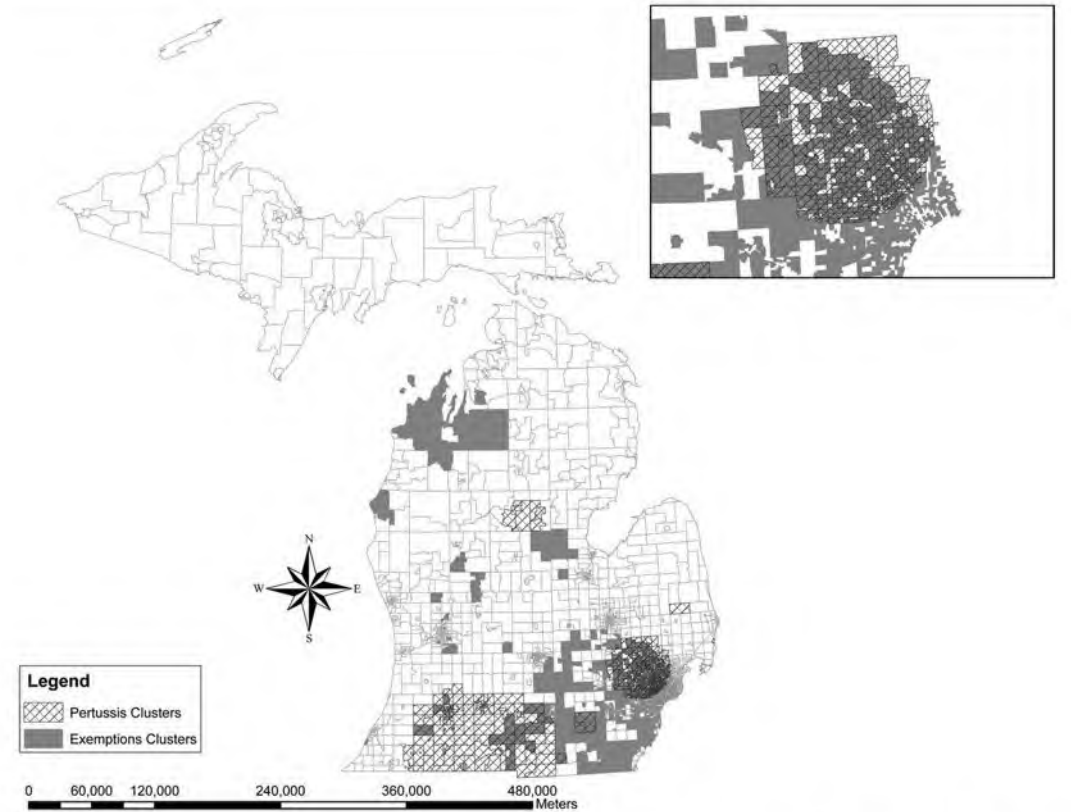
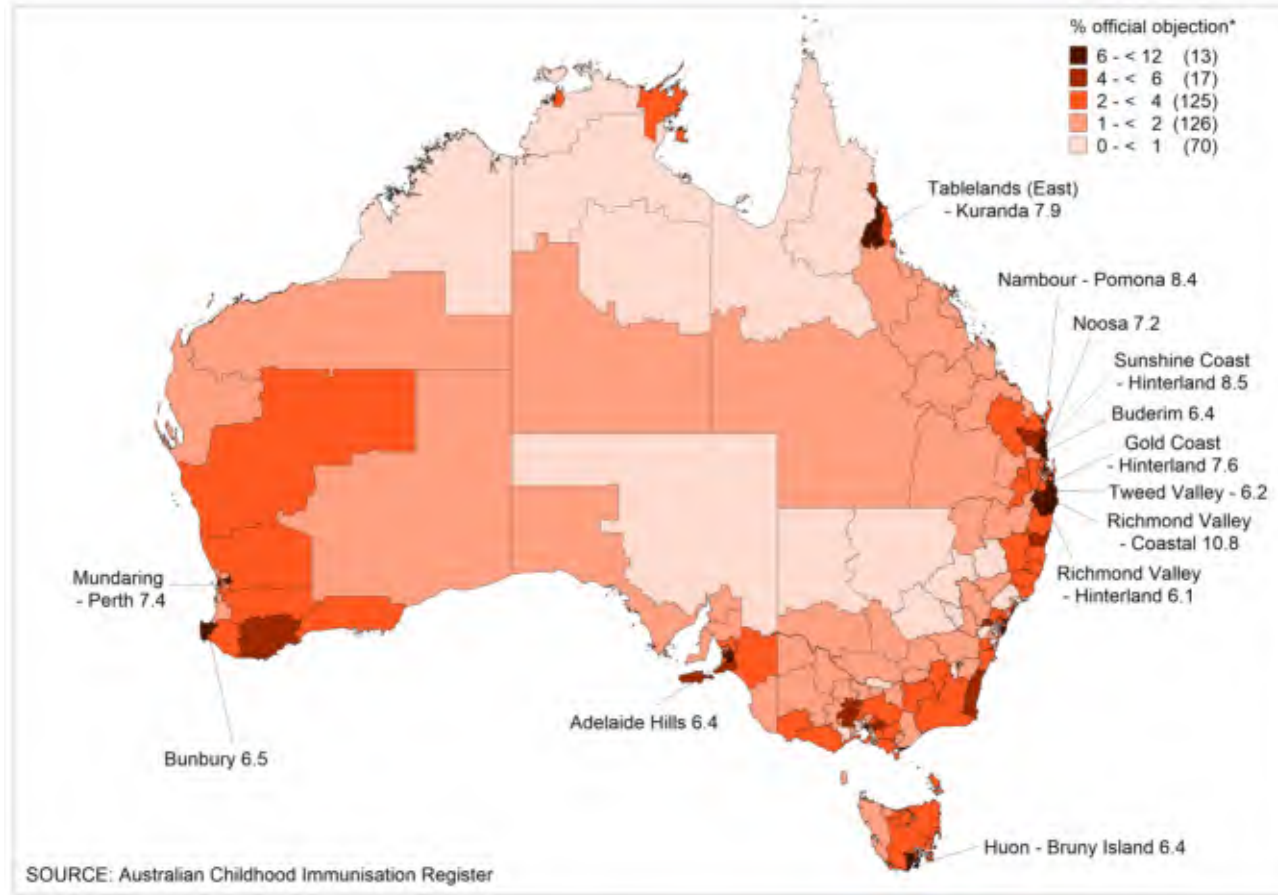
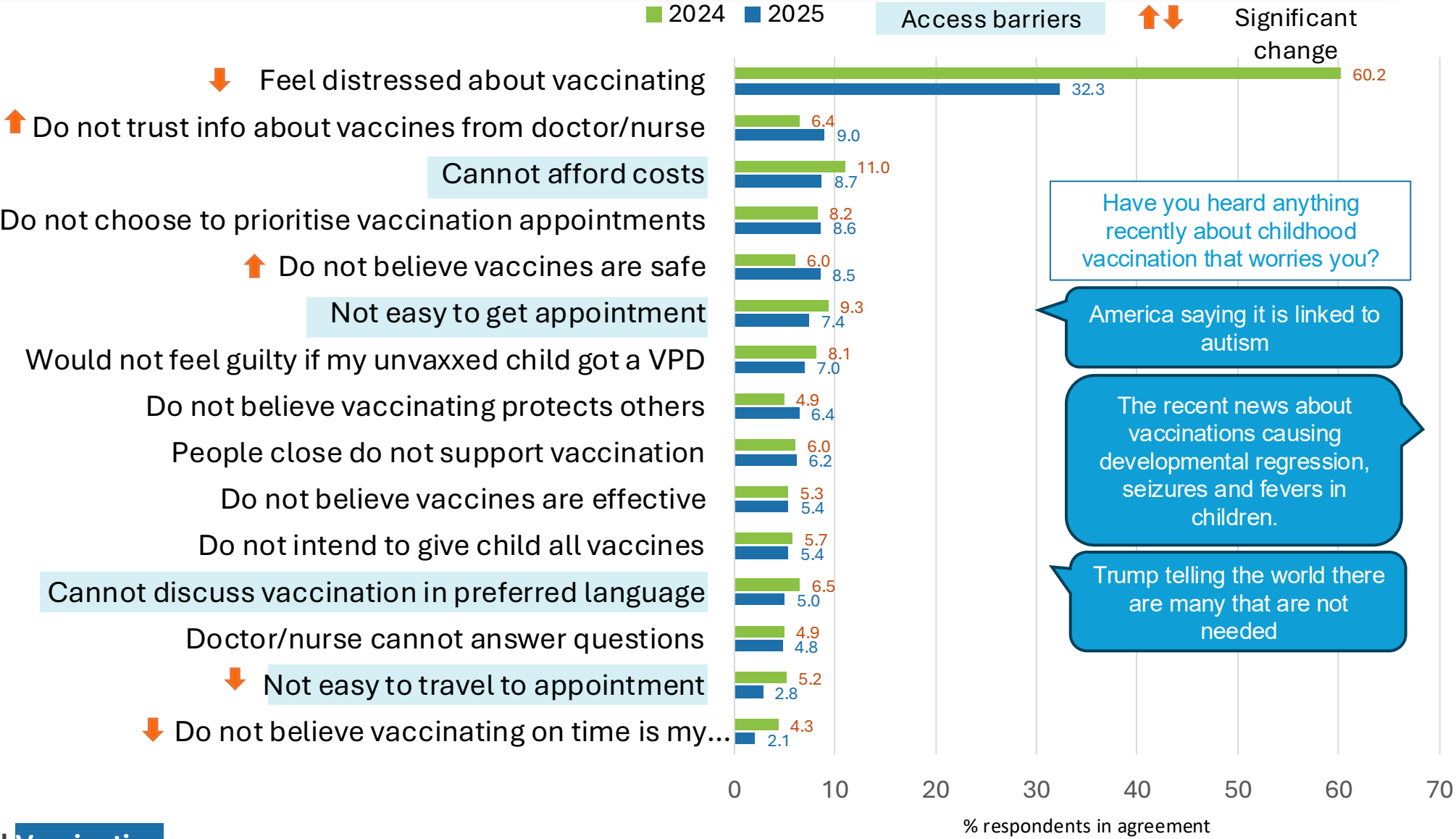


FIGURE 1. Relative locations of pertussis space-time clusters (1993–2004) and exemptions spatial clusters (1991–2004) in Michigan. The inset in the top right corner shows relative locations of pertussis space-time clusters and exemptions spatial clusters in the Detroit metropolitan area.

Prevalence of barriers by year (total sample)



How are our judgements about risk shaped?

An exercise



Which disease is more deadly?



Meningococcal C
disease



Influenza

TRUE OR FALSE?

1. “Measles is associated with a degenerative brain disorder”
2. “MMR vaccination is associated with a blood clotting disorder”

Rocking Horses

Focus on the rocking horses in the image.

Are they the same size?
If not, which is bigger?



Are these crosses the same or a different colour?



Meningococcal disease

32 deaths (2005-06)



Seasonal influenza

1500-3000 deaths annually¹



¹ Newall AT, Wood JG, MacIntyre CR. Influenza-related hospitalisation and death in Australians aged 50 years and older. *Vaccine* 2008;26(17):2135-41. doi: <https://doi.org/10.1016/j.vaccine.2008.01.051>

Australian Immunisation Handbook

Thrombocytopenia

Thrombocytopenia has been very rarely associated with the rubella or measles component of MMR vaccine. It is usually self-limiting and occurs in 3–5 per 100,000 doses of MMR vaccine.^{19,28,29} This is considerably less frequent than after natural measles, mumps and rubella infections.²⁹

Any association with MMRV vaccine is expected to be similar.

Mantadakis E, Farmaki E, Buchanan GR. Thrombocytopenic purpura after measles-mumps-rubella vaccination: a systematic review of the literature and guidance for management. *Journal of Pediatrics* 2010;156:623-8.

Rocking Horses



Are these crosses the same or different?



CONTEXT
MATTERS

Every day we process large amounts of information, which we simplify.



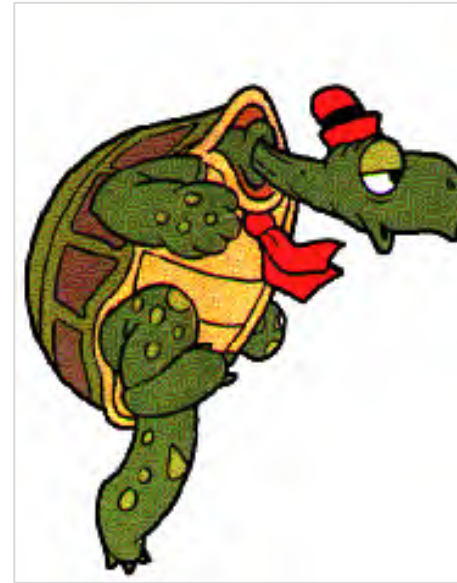
Two ways of thinking:

“System 1”



Associative
Fast
Automatic

“System 2”



Analytic
Slow
Controlled

Heuristics → Biases

(Decision Rules → Errors)



The psychometric paradigm: How do people perceive risk?



How do the public perceive risks?

- Events that provoke a **feeling of dread** (dying from Ebola, shark attacks) tend to be perceived as high risk
- Risks that are **voluntary** (driving a car, not getting your child vaccinated) tend to be seen as **lower risk**
- Risks that are **known** (catching flu) tend to be seen as **lower risk** than those that are unknown
- Experts tend to judge risk by annual fatalities
- The public tends to judge risks not by fatalities, but by the characteristics of the risk

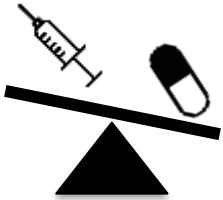


Emotional drivers of decision-making



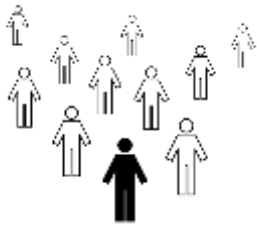
Safety concerns due to

1. **Coincidental** rather than causal adverse events
2. **Uncertainty** about real vaccine risks



Less risk tolerance for vaccines than medicine

- Visibility of disease threats
- Healthy individuals



Tensions between **individual rights versus wider societal rights** to health

Heuristics and biases



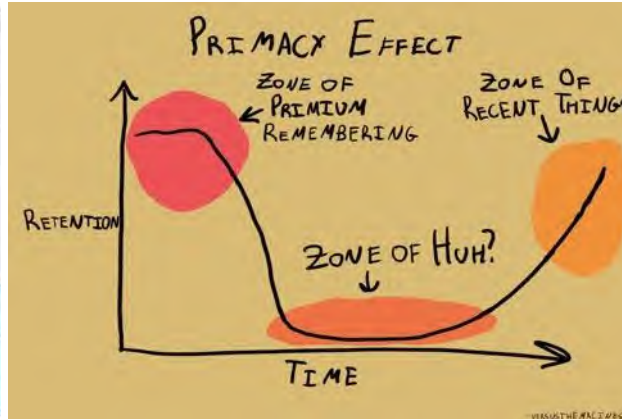
CONFIRMATION BIAS

Our prior beliefs affect how we accept or reject new information.



AMBIGUITY AVERSION

People avoid taking risks when the outcome is uncertain.



PRIMACY AND RECENCY

People tend to recall information at the beginning or end than in the middle.



AVAILABILITY BIAS

Assessing the likelihood of an outcome by how readily it comes to mind.

Trust



Trust - definitions

The “optimistic acceptance of a vulnerable situation which is based on positive expectations of the intentions of the trusted individual or institution”

Gidman W et al. BMJ Open 2012

“a relationship that exists between individuals, as well as between individuals and a system, in which one party accepts a vulnerable position, assuming the best interests and competence of the other, in exchange for a reduction in decision complexity.”

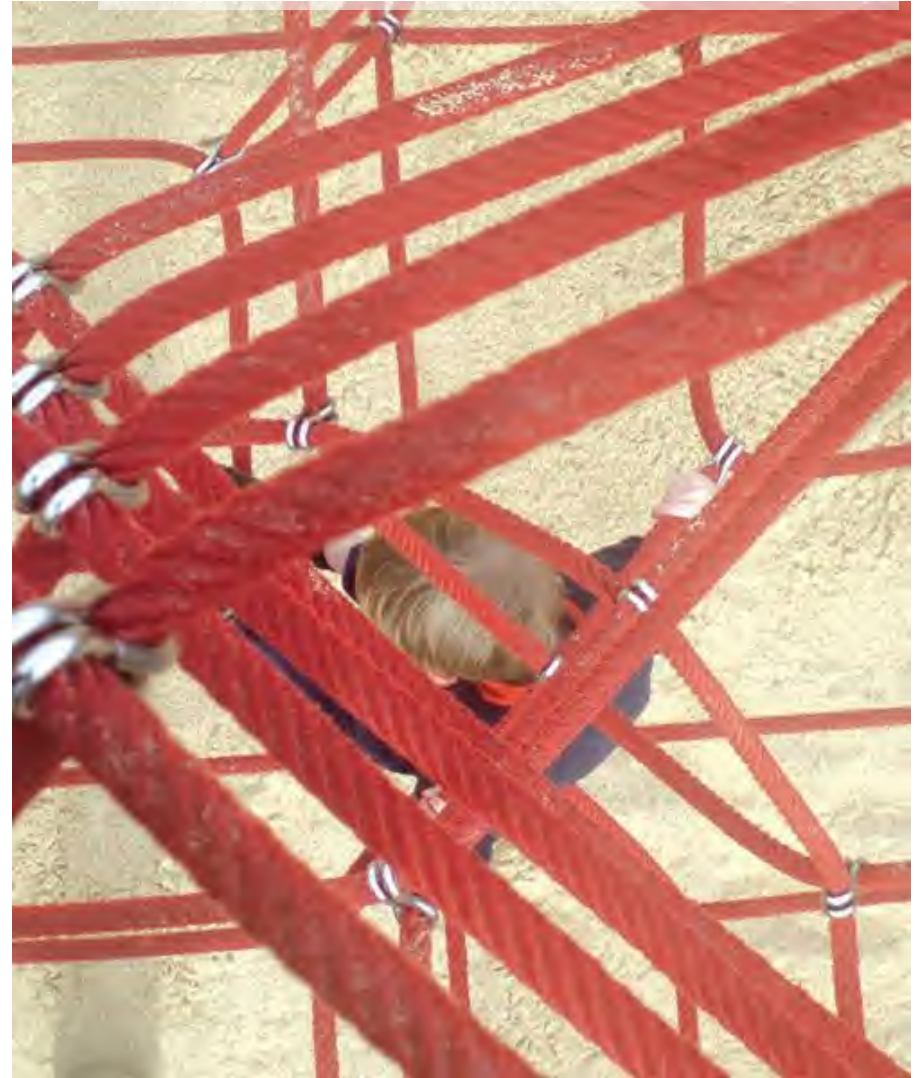
Larson et al., Human Vaccines & Immunotherapeutics 2018

Interpersonal trust



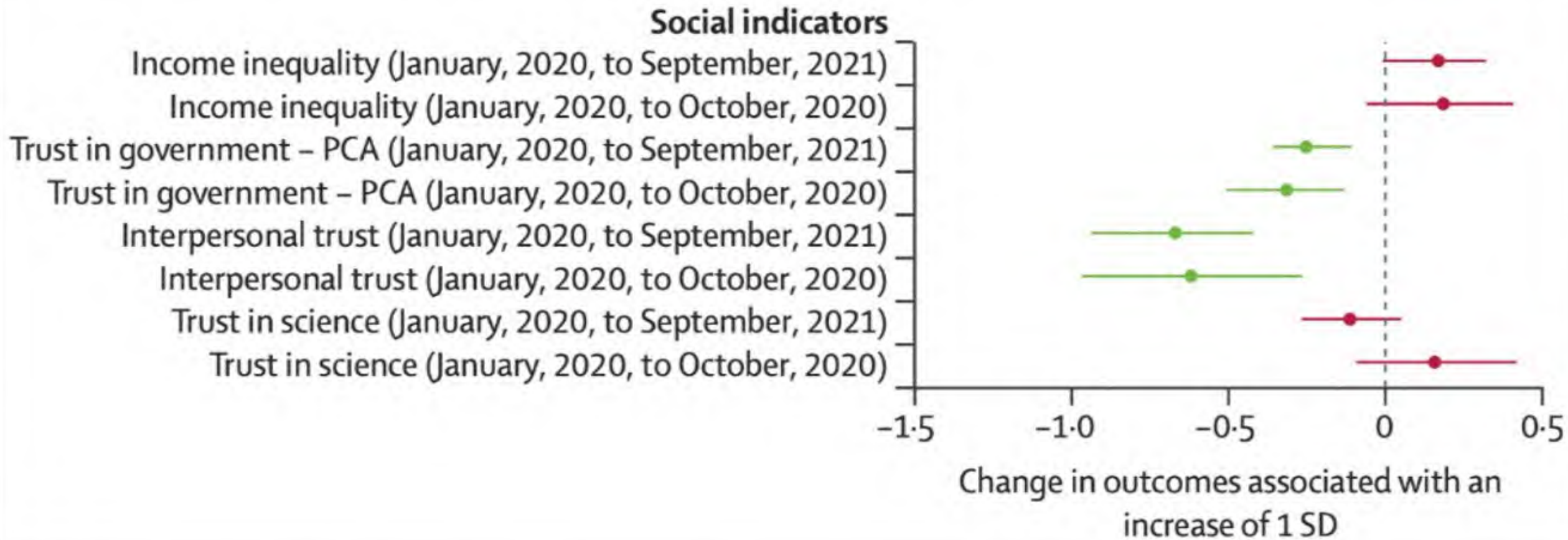
Expectations of reciprocity and goodwill among individuals and social groups

Institutional trust

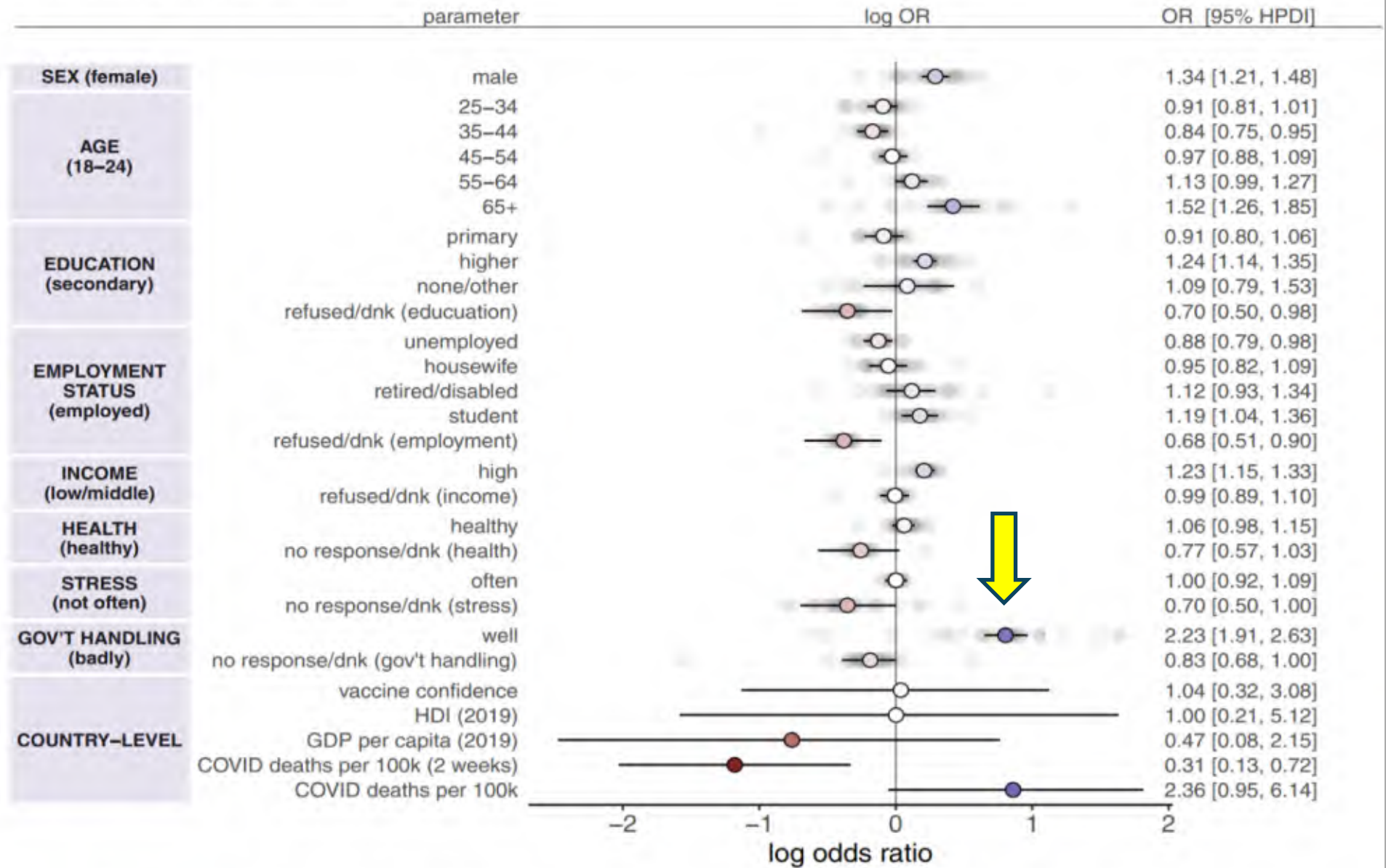


Perceptions of the legitimacy, fairness, and performance of institutions

Pandemic preparedness and COVID-19: an exploratory analysis
of infection and fatality rates, and contextual factors
associated with preparedness in 177 countries,
from Jan 1, 2020, to Sept 30, 2021



determinants of intent to accept a COVID-19 vaccine (fixed-effects)



New vaccine introduction

Exercise – Reverse brainstorm

If you wanted to disrupt a new vaccination program, what would you do?

(You don't have to be experienced in vaccination programs, just use your general knowledge and imagination.)

Write each 'disrupting factor' on a new post-it note.
Organise into thematic clusters on the wall.

Case studies

New vaccine introduction scare
Routine vaccination scare

*As we go, make notes on what lessons were
learnt and how the incident could have been
better managed*

New vaccines have the capacity to derail national immunisation programmes: Dengue vaccine controversy



- In November 2017, the manufacturer warned that the vaccine can increase the risk of severe dengue in seronegative children.
- Government accused of “committing genocide”, “having reckless disregard for citizens”.
- Insinuations of conspiracy and corruption.
- Philippines suspended dengue vaccine programme.
- Confidence in vaccine safety dropped.
- Immunisation rates for tetanus, polio, and measles plummeted as well as de-worming treatment.

UK's MMR-autism scare

EARLY REPORT

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, R P Dixon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3-10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records, ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associated, by the parents, with measles, mumps, and rubella vaccination in eight of the 12 children, with measles infection in one child, and otitis media in another. All 12 children had intestinal abnormalities, ranging from lymphoid nodular hyperplasia to aphthoid ulceration. Histology showed patchy chronic inflammation in the colon in 11 children and reactive ileal lymphoid hyperplasia in seven, but no granulomas. Behavioural disorders included autism (nine), disintegrative psychosis (one), and possible postviral or vaccinal encephalitis (two). There were no focal neurological abnormalities and MRI and EEG tests were normal. Abnormal laboratory results were significantly raised urinary methylmalonic acid compared with age-matched controls ($p=0.003$), low haemoglobin in four children, and a low serum IgA in four children.

Interpretation We identified associated gastrointestinal disease and developmental regression in a group of previously normal children, which was generally associated in time with possible environmental triggers.

Lancet 1998; **351**: 637-41
See Commentary page 611

Inflammatory Bowel Disease Study Group. University Departments of Medicine and Histopathology (A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, R P Dixon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith) and **the University Departments of Paediatric Gastroenterology** (S H Murch, M A Thomson, D M Casson, M Malik, M Berelowitz, R P Dixon, J A Walker-Smith), **Child and Adolescent Psychiatry** (M Berelowitz), **Neurology** (P Harvey), and **Radiology** (A Valentine) Royal Free Hospital and School of Medicine, London NW3 2QG, UK
Correspondence to: Dr A J Wakefield

THE LANCET • Vol 351 • February 28, 1998 637

MMR vaccine combined



Inflammatory bowel disease



Autism and/or developmental disorder



Dr Andrew Wakefield
Gastroenterologist
Royal Free Hospital UK

"There is sufficient concern in my own mind for a case to be made for the vaccines to be given individually at not less than one year intervals."

Vaccine suspect in autism

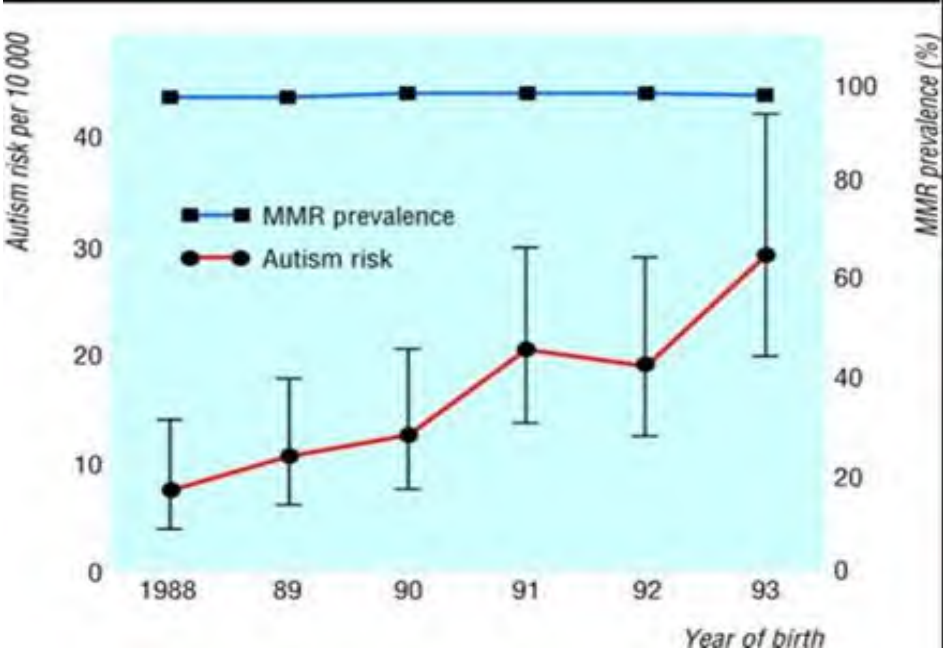
THE combined mumps, measles and rubella vaccine could be responsible for autism in young children and needs to be investigated, according to an international researcher.

John O'Leary, director of pathology at the Crumlin Women's Hospital in Dublin and a virus detection expert, has told the US Government he found the measles virus in the stomachs of 24 out of 25 children who developed autism after a normal infant.

Professor O'Leary said the virus could have come from the combined vaccine, prompting the US Government to order its health department to investigate whether measles vaccination is linked to autism.

Many large and high-quality studies show MMR does not cause autism

Trends in MMR usage and autism incidence not correlated (ecological studies in USA and UK).(1)



Many study results pooled together statistically show no association (2).

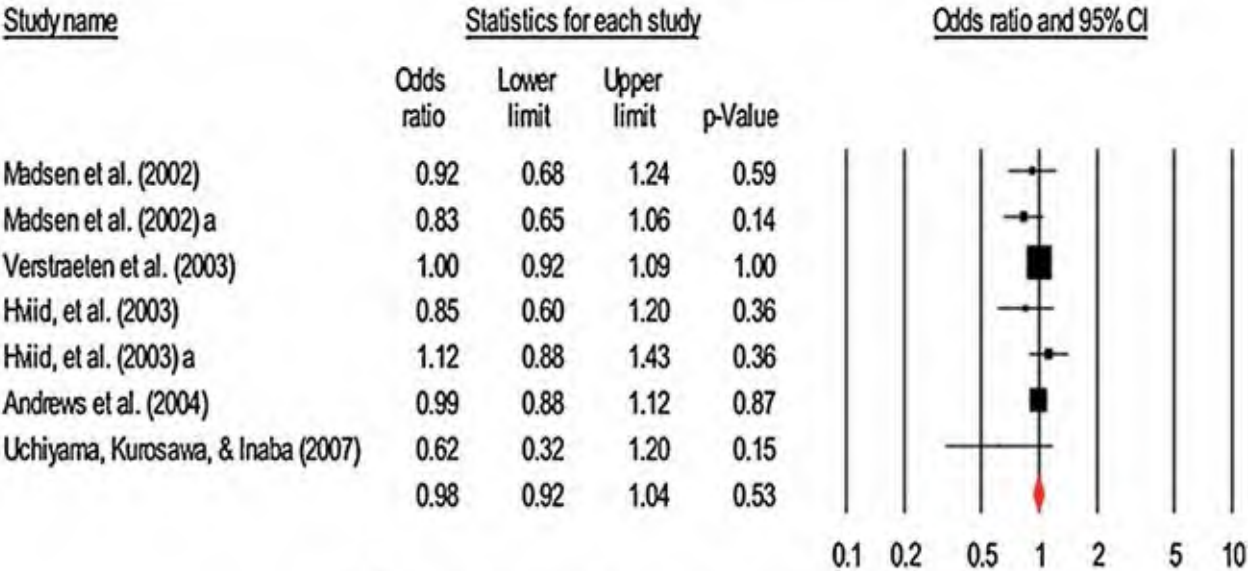
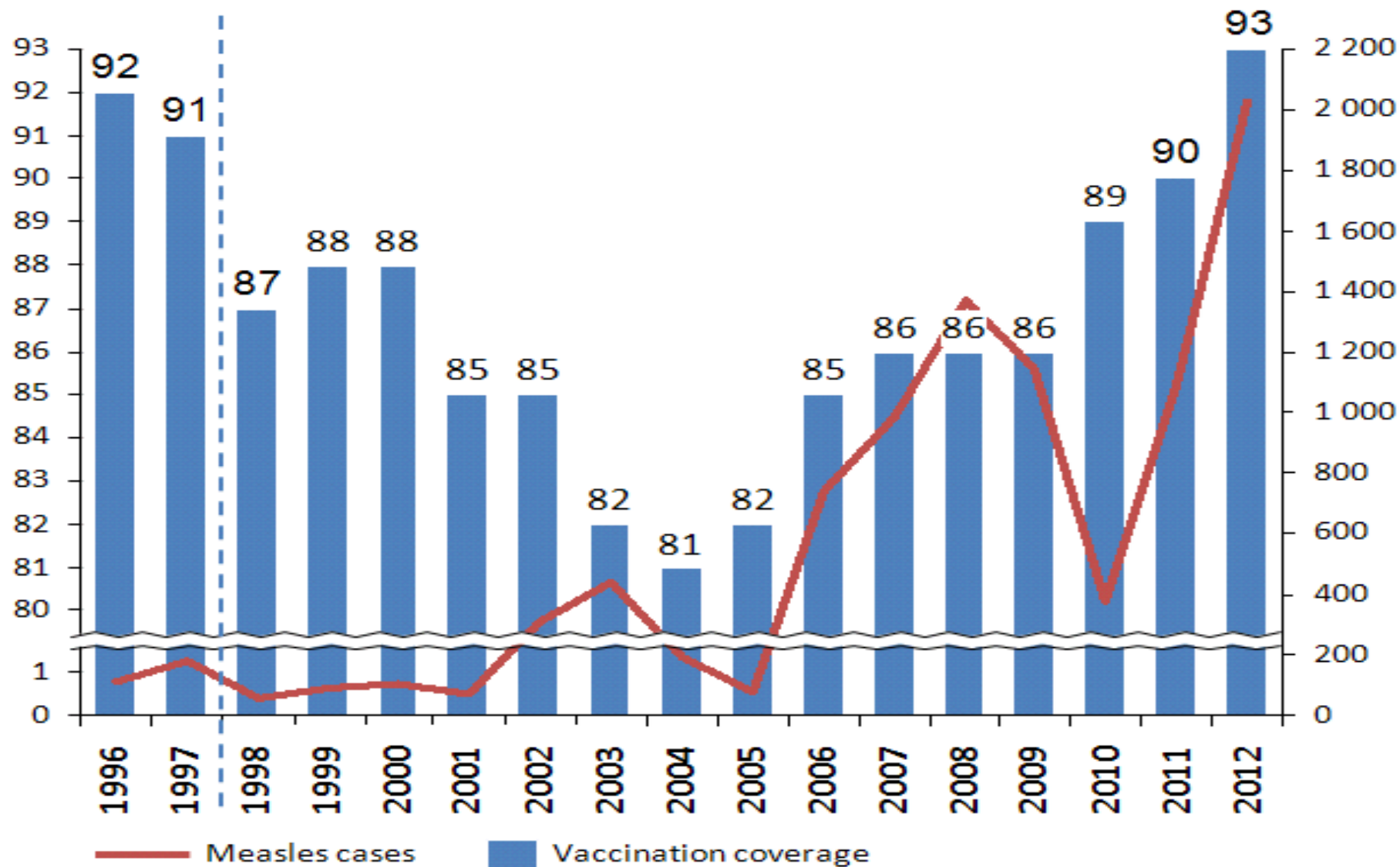


Fig. 2. Combined estimate for vaccines and autism or ASD.

1. Kaye JA, del Mar Melero-Montes M, Jick H. Mumps, measles, and rubella vaccine and the incidence of autism recorded by general practitioners: a time trend analysis. *British Medical Journal*. 2001;322(7284):460-3.

2. Taylor LE, Swerdfeger AL, Eslick GD. Vaccines are not associated with autism: An evidence-based meta-analysis of case-control and cohort studies. *Vaccine*. 2014;32(29):3623-9.

Impact of controversy in UK



Kristina
"Jabbed - Love, Fear and
Vaccines" Produced by
Genepool Productions, with
SBS Australia, Screen
Australia and Film Victoria.

Source: WHO, UNICEF, Public Health England, Leask J Nature 2011

Amplifying factors



Diminished trust in government - CJD affair



Andrew Wakefield

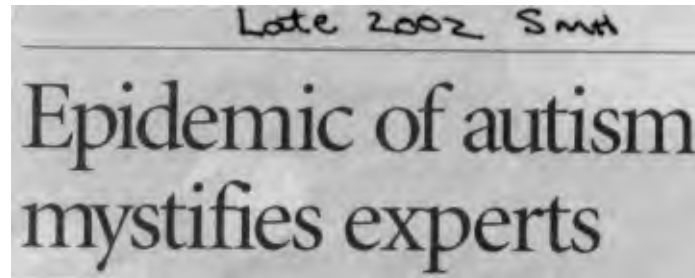


Media false balance



The University of Sydney

Strong social movement



Causal hunger and dreaded outcome

Leach, M. MMR mobilisation : citizens and science in a British vaccine controversy. <https://wellcomecollection.org/works/a8rdyf65>

Leask J, Booy R, McIntyre PB. *Medical Journal of Australia* 2010;193:5-7.

Burgess D.C, Burgess M.A, Leask J. *Vaccine* 2006;24:3921-3928.



Politicisation – baby Leo Blair

MMR-autism scare response



Initial indignance

Petts, J., & Niemeyer, S. (2004). *Health, Risk & Society*, 6(1), 7–23.
Leach, M. MMR mobilisation : citizens and science in a British vaccine controversy. <https://wellcomecollection.org/works/a8rdyf65>
Burgess D.C, Burgess M.A, Leask J. *Vaccine* 2006;24:3921-3928.



Technocratic facts-based response

Wakefield postscript

- General Medical Council May 2010 “serious professional misconduct”
- Lancet retracted original paper
- Wakefield and Walker Smith removed from medical register in UK

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Drillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associated by the parents, with measles, mumps, and rubella vaccination in eight of the 12 children, with measles infection in one child, and otitis media in another. All 12 children had intestinal abnormalities ranging from lymphoid nodular hyperplasia to atrophic ulceration. Histology showed patchy chronic inflammation in 11 children and reactive ileal lymphoid hyperplasia in seven, but no granulomas. Behavioural disorders included autism (nine), disintegrative psychosis (one), and possible postviral or vaccinal encephalitis (two). There were no focal neurological abnormalities and MRI and EEG tests were normal. Abnormal laboratory results were significantly raised urinary methylmalonic acid compared with age-matched controls ($p=0.03$), low haemoglobin in four children, and low serum IgA in four children.

Interpretation The identified associated gastrointestinal disease and developmental regression in a group of previously normal children, which was generally associated in time with possible environmental triggers.

Lancet 1998; **351**: 637–41

See Commentary page

Inflammatory Bowel Disease Study Group, University Departments of Medicine and Histopathology (A J Wakefield FRCS, A Anthony MR, J Linnell PhD, A P Drillon MRCP, S E Davies MRCP) and the **University Departments of Paediatric Gastroenterology** (S H Murch MR, D M Casson MRCP, M Malik MRCP, M A Thomson FRCP, J A Walker-Smith FRCP), **Child and Adolescent Psychiatry** (M Berelowitz MRCPsych), **Neurology** (P Harvey MRCP), and **Radiology** (A Valentine FRCP), **Royal Free Hospital and School of Medicine, London NW3 2QG, UK**

Correspondence to: Dr A J Wakefield

Introduction

We saw several children who, after a period of apparent normality, lost acquired skills, including communication. They all had gastrointestinal symptoms, including abdominal pain, diarrhoea, and bloating and, in some cases, food intolerance. We describe the clinical findings, and gastrointestinal features of these children.

Patients and methods

12 children, consecutively referred to the department of paediatric gastroenterology with a history of a pervasive developmental disorder with loss of acquired skills and intestinal symptoms (diarrhoea, abdominal pain, bloating and food intolerance), were investigated. All children were admitted to the ward for a week, accompanied by their parents.

Clinical investigations

We took histories including details of immunisations and exposure to infectious diseases, and assessed the children. In 11 cases the history was obtained by the senior clinician (JW-S). Neurological and psychiatric assessments were done by consultant staff (PH, MB) with HMS-4 criteria.¹ Developmental records included a review of prospective developmental records from parents, health visitors, and general practitioners. Four children did not undergo psychiatric assessment in hospital; all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAT under sedation with midazolam and pethidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum; ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedure was recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies (four normal colonoscopies and three on children with ulcerative colitis), in which the physician reported normal appearances in the terminal ileum. Barium follow-through radiography was possible in some cases.

Also under sedation, cerebral magnetic-resonance imaging (MRI), electroencephalography (EEG) including visual, brain stem auditory, and sensory evoked potentials (where compliance made these possible), and lumbar puncture were done.

Laboratory investigations

Thyroid function, serum long-chain fatty acids, and cerebrospinal-fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary methylmalonic acid was measured in random urine samples from eight of the 12 children and 14 age-matched and sex-matched normal controls, by a modification of a technique described previously.² Chromatograms were scanned digitally on computer, to analyse the methylmalonic-acid zones from cases and controls. Urinary methylmalonic-acid concentrations in patients and controls were compared by a two-sample *t* test. Urinary creatinine was estimated by routine spectrophotometric assay.

Children were screened for antiendomysial antibodies and boys were screened for fragile-X if this had not been done

Discussion

- What was learnt?
- How could the incident have been better managed?

Break

Strategies to address hesitancy

Interventions that work across all barriers (inc. hesitancy)

Domain where problem is identified	Interventions shown to increase vaccination
Thinking and Feeling	Campaigns to inform or educate about vaccination (pic) Dialogue-based interventions
Social Processes	Community engagement Positive social norm messages (pic) Vaccine champions and advocates Recommendations from health workers
Practical Issues	Reduced out-of-pocket costs Service quality improvements (pic) Reminders (pic) Onsite vaccination (pic) Default appointments Incentives School and work requirements



Text 1 (sent on 9/25/2020)



Peer-to-Peer training

WalmartRx - Hi John! It's flu season & you can get a flu shot at Walmart. To help you remember, you'll receive another text in a few days. Flu vaccines prevent getting or spreading the flu. INFO = info, STOP = opt out.

Text 2 (sent on 9/28/2020)

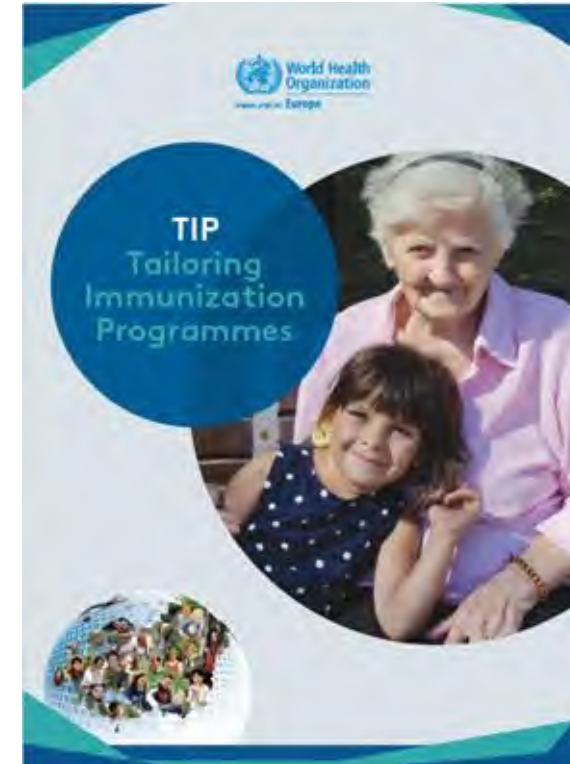
WalmartRx - Remember a flu shot is waiting for you at Walmart.

Milkman et al. *PNAS* 119 (6) e2115126119

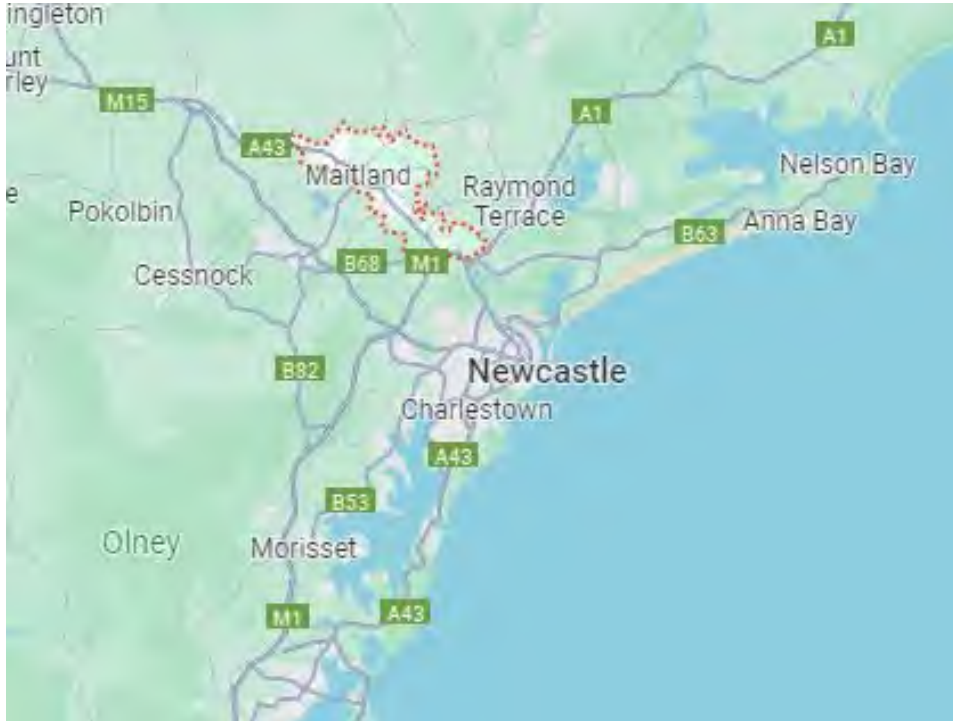
Understanding and tailoring

Tailoring Immunization Programmes (TIP)

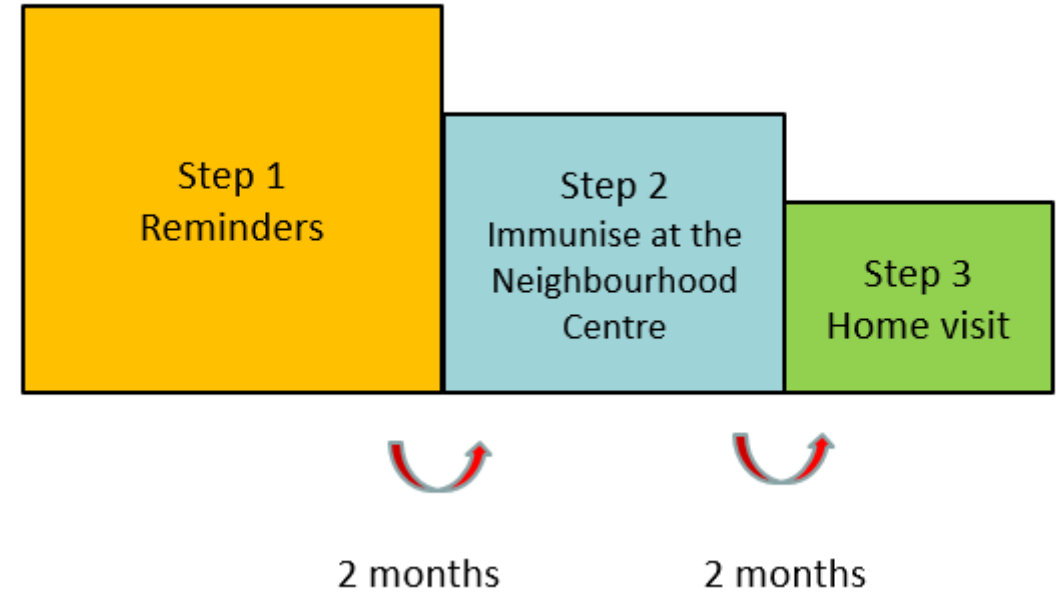
WHO Regional Office for Europe



Maitland: Tailoring Immunisation Programmes



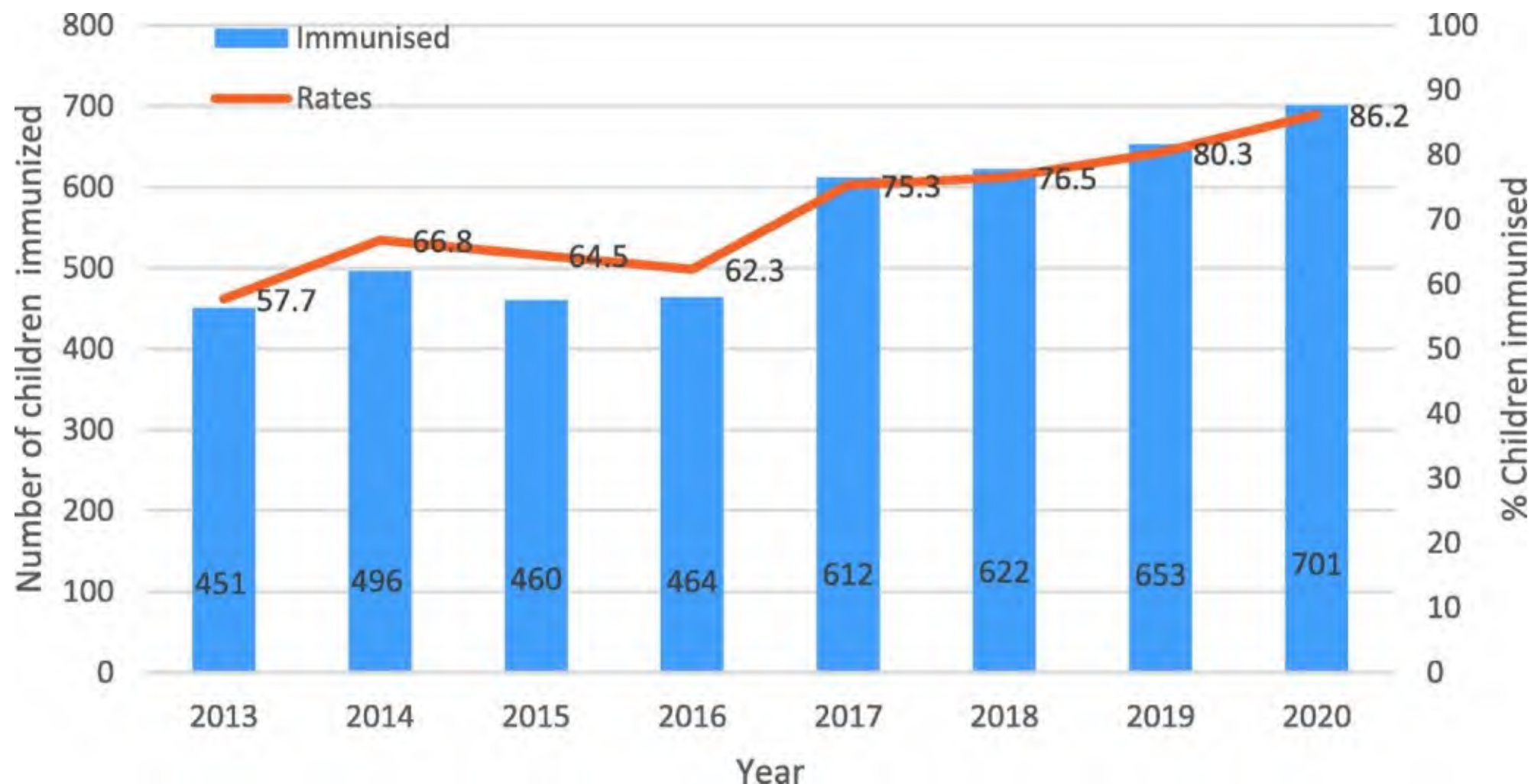
- 2017 - coverage was 57.7% for 12 month olds
- Undertook qualitative research to find out why
- Co-developed at three-step process



Plus:

- key partners continue to monitor changes using AIR data
- Aboriginal Immunisation Healthcare Worker and Multicultural Project Officer assist in contacting families and arranging services
- Nurses collaborating with the neighborhood centre and a community representative

Maitland coverage post-intervention



S. Thomas, D. Durrheim, F. Islam et al., Improved childhood immunization coverage using the World Health Organization's Tailoring Immunization Programmes guide (TIP) in a regional centre in Australia, Vaccine, <https://doi.org/10.1016/j.vaccine.2021.11.067>

Community engagement

Breakfast, tea and a chat about pregnancy vaccines and RSV

Join us in a conversation around your thoughts and experiences of vaccines in pregnancy – including on a new vaccine against Respiratory Syncytial Virus (RSV).

As a thank you for your time, all registered participants will receive a £15 Love2Shop gift voucher

To register or for more information please contact:
Camden Council at 020 7974 2015

When: 9th May 2025, 10am – 11:30

Who: Pregnant women living in Camden

Where: Agar Children's Centre,
Wrotham Road, London NW1 9SU

Organised by: Camden Local
Authority and the NIHR Health
Protection Research Unit (HPRU) in
Immunisation

Parent Feedback Sessions -
Vaccines In Pregnancy Agar
Children Centre & Family Hub



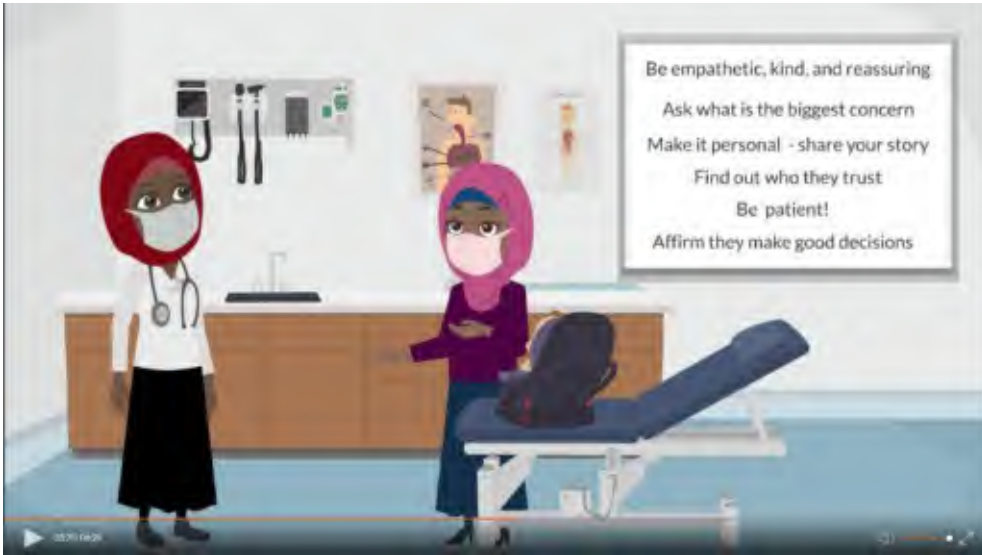
Strengthening RSV research through community engagement

- Two sessions with ethnically diverse pregnant women in Camden
- Captured valuable perspectives on RSV vaccination and decision-making
- Added real-world context to our interview findings
- Delivered in partnership with UKHSA, Camden Council and Children's Centres

Work with credible sources

Community champions training

Refugee leader training, Auburn NSW



Australia
Minnesota
Kenya
Fiji
Tonga
Vietnam
Indonesia (image)
Papua New Guinea
Eastern Highlands
Province



Peer-to-peer communication training modules, US, Kenya and Indonesia



Keeping mob safe: *yarning about vaccinations*



Workshops with community and health workers in Awabakal and Gomeroi country

Champions practice their skills, Bandung Indonesia

Successful advocates



Laura Brennan, 1992-2019

Interventions that work across all barriers (inc. hesitancy)

Domain where problem is identified	Interventions shown to increase vaccination
Thinking and Feeling	Campaigns to inform or educate about vaccination (pic) Dialogue-based interventions
Social Processes	Community engagement Positive social norm messages (pic) Vaccine champions and advocates Recommendations from health workers
Practical Issues	Reduced out-of-pocket costs Service quality improvements (pic) Reminders (pic) Onsite vaccination (pic) Default appointments Incentives School and work requirements

An exercise in addressing program challenges

Scenario 1

The UK has rolled out a new nasal spray influenza vaccine for primary school aged children 4-11 years. You work in a local public health unit and are hearing school nurses in your area are reporting concerns about porcine products in the vaccine and low uptake.

You are asked to propose a set of strategies. What do you do?

Scenario 2

A small island nation commenced its HPV vaccination program in 2024 via a school-based program. The program has been successful but in one remote mountainous region, coverage is very low. You hear it's due to resistance by a community leader. As local immunization coordinator, you go to learn more and propose some actions.

How do you learn more. What do you find?

What strategies could you consider?

Conclusions

- Hesitancy is a state of being conflicted about vaccines.
- It can lead people to delay or refuse vaccines.
- Vaccine hesitancy is complex, varying by vaccine, time, context, geographical region and sub-population.
- In addressing vaccine hesitancy:
 - Find out why people are hesitant
 - Design and evaluate evidence-based interventions
 - The most promising interventions to address hesitancy occur at the provider and community levels.

Thank you