

Caring for a diverse population: when data and policy come together

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November 28th 2025 | Health Equity Forum Bern, Switzerland



Context



Bern



Toronto

Pediatric emergency clinician-scientist, working in high-income countries with high population diversity

Case study Inselspital, Bern, Switzerland

- Jonathan 4 y, Eritrean
- Sore throat since 4 months
- 3 times seen by GP

→ Non-urgent triage score
Seen by doctor in residency
new to pediatrics

Status	V	Triage	Eintritt	Aufenthaltsort	Patient	Diagnose	Alter	Gewicht
V			14:30	Koje 4	[REDACTED]	Dyspnoe mit 6l O2, Trisomie 21, Inhalation mit 5... mehr	5 9/12 Jahre	
			14:02	Koje 2	[REDACTED]	Fieber, Husten, Va Pneumonie : War gestern und h... mehr	3 3/12 Jahre	14.3 kg
			13:49	Wartezimmer	[REDACTED]	Sturz auf Kopf	1 5/12 Jahre	12.5 kg
			14:15		[REDACTED]	Radiushalsfraktur, anguliert nach radial und ven... mehr	8 4/12 Jahre	25 kg
			13:21	Wartezimmer	[REDACTED]	Verletzung Gingiva, Zahnhälse liegen frei, haben... mehr	6 3/12 Jahre	25 kg
			14:14	Wartezimmer	[REDACTED]	Otitis externa, hat jetzt jetzt eher Zunahme Sch... mehr	8 4/12 Jahre	39 kg
			10:54	ER	[REDACTED]	Zuweisung von RX, Nagelkranzfraktur DIG 1	6 5/12 Jahre	31.2 kg
			13:14	Beo 1	[REDACTED]	Husten, Schnupfen, Erbrechen, Durchfall, Fieber	1 5/12 Jahre	9.3 kg
			12:30	Gipsraum	[REDACTED]	Stauchungsfraktur distaler Radius rechts	8 4/12 Jahre	25 kg
			13:11	Beo 1	[REDACTED]	Fieber, Durchfall, Erbrechen	3 Monate	5.1 kg

History and exam

History:

Frequent episodes with «sore throat»

Exam:

Throat without pathology

Paresis eye-muscle

Additional information:

Picture from mother: opisthotone position

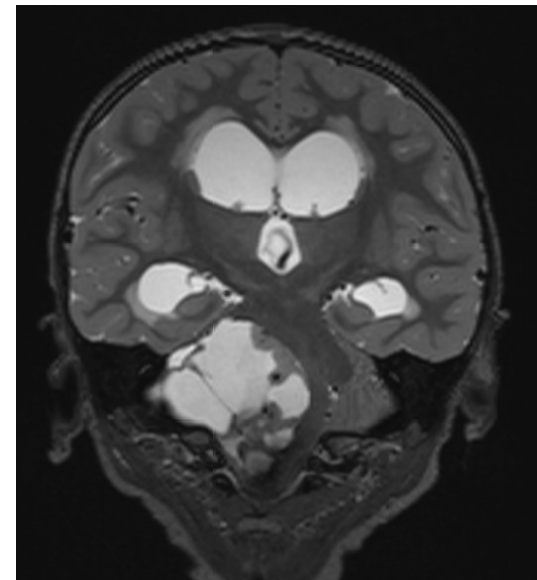
Brain tumor

(Ependymoma WHO grade II)

Signs of increased intracranial pressure



with the kind permission of the family



Case study SickKids Toronto, Canada

5 year old immigrant male

Worsening shortness of breath since 2 days

Needs interpreter for language common in Subsaharan
Africa

moderate tachypnoea, normocardic

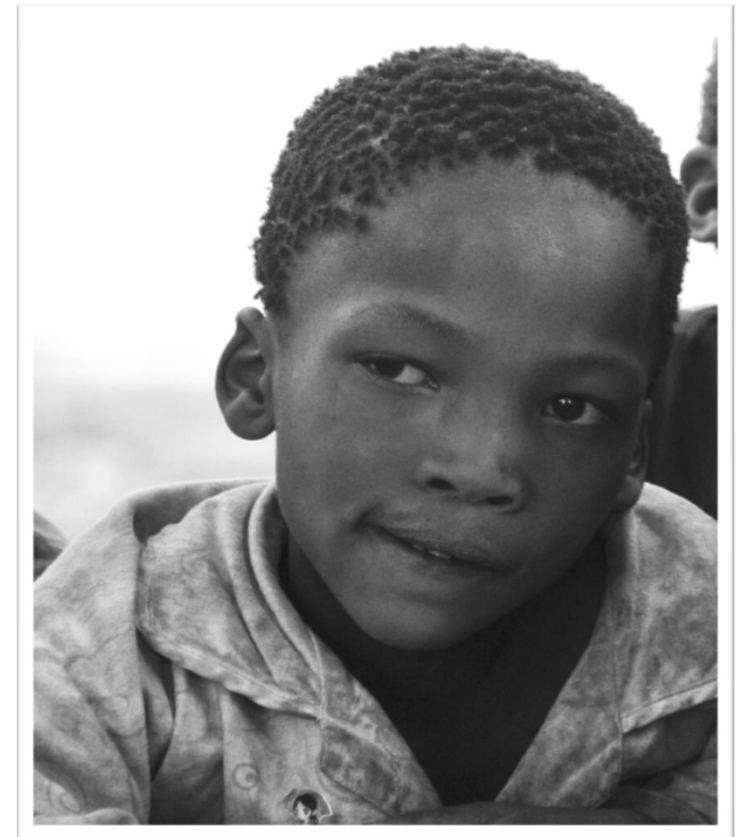
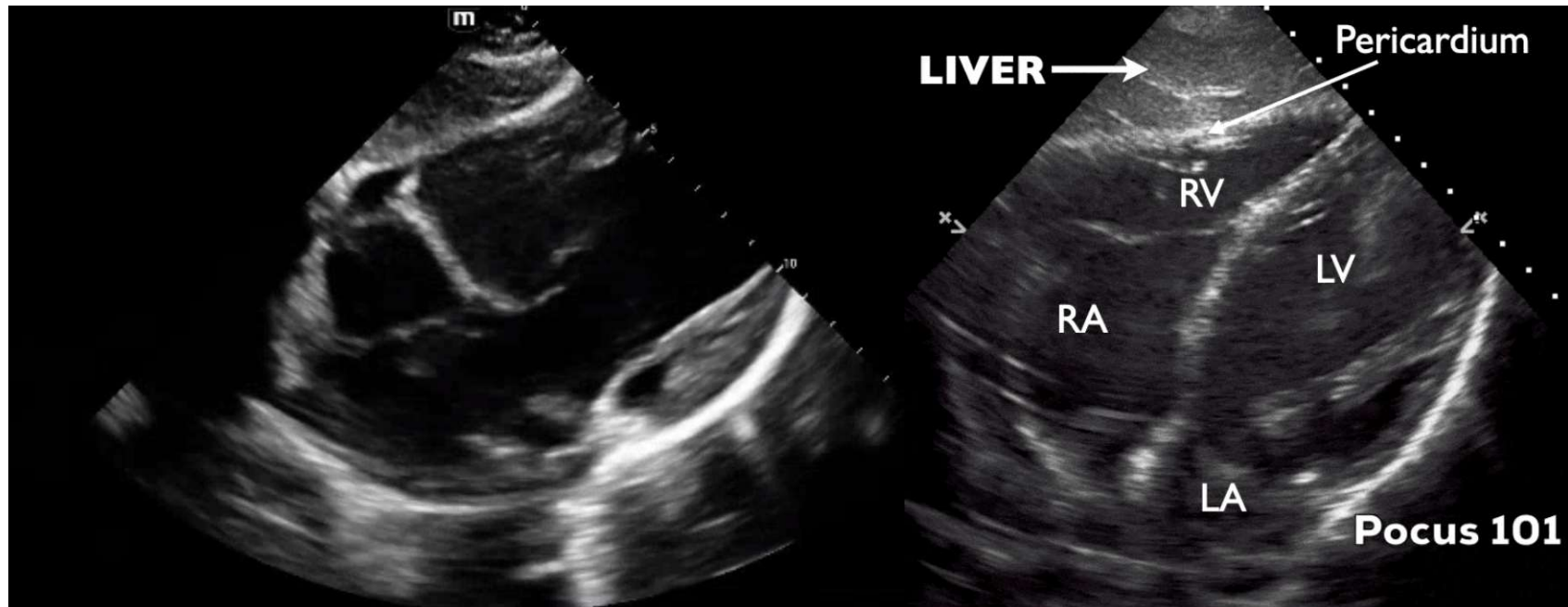


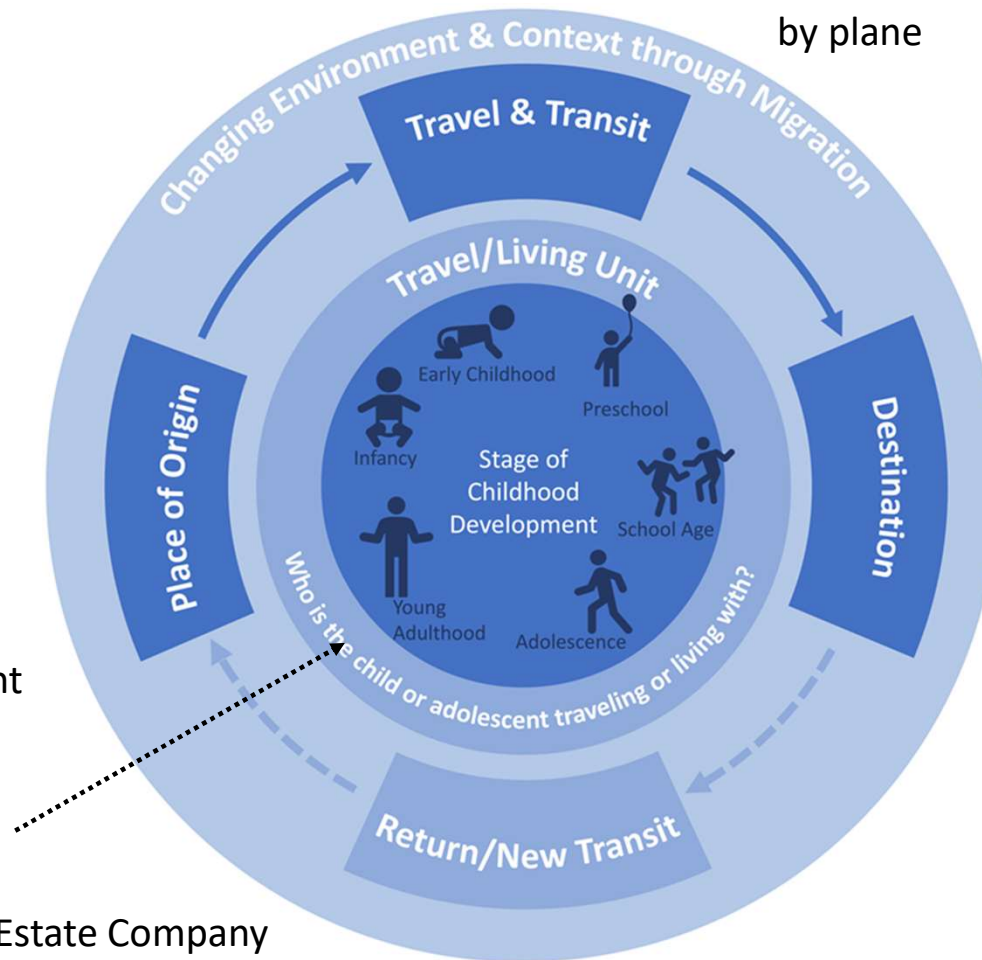
Image: photographer: Izla Kaya Bardavid

Complex cardiac heart disease



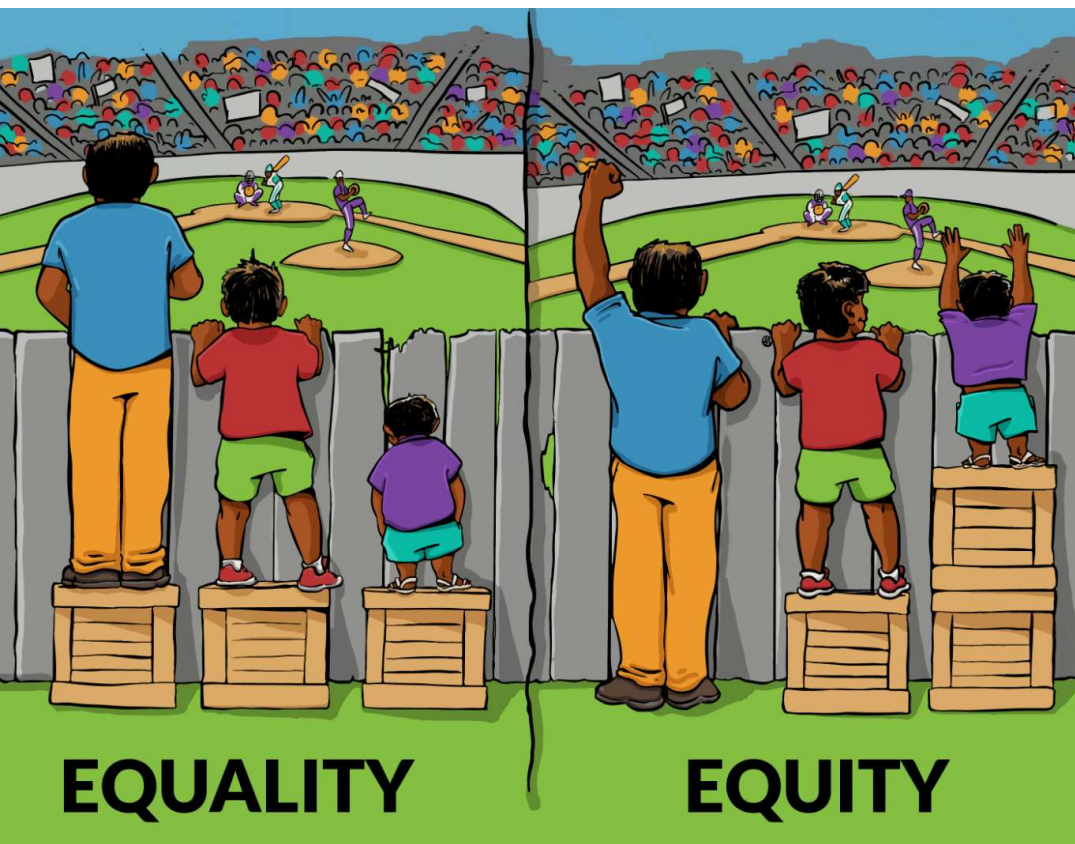
unrepaired double inlet LV with discordant VA connection with a large VSD and intact atrial septum

Pediatric migration cycle - understanding the journey



- Moved to Toronto in **December 2022** to get treatment for her son
 - Difficulty to access care due to administrative burden
- ED in **February 2023** as he acutely developed SOB

single mum
Vice President of Real Estate Company





1. Understand own bias & redirect thinking about difference

2. Redefine research priorities & interventions

Healthy inequity

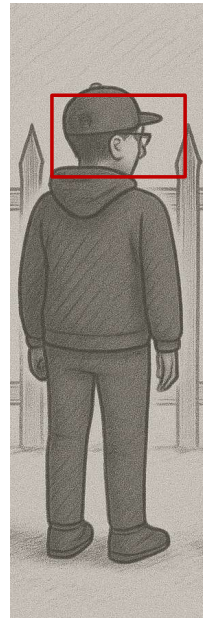
Health equity

1. Understand own bias & redirect thinking about difference

富山知事口字

‘We see only what we know’

Japanese proverb



Trends in Human Development Index 1990-2023

Switzerland scores 2/197 countries

HDI RANK	Human Development Index (HDI)							
	1990	2000	2010	2015	2020	2021	2022	2023
Very high human development								
1 Iceland	0.841	0.902	0.935	0.956	0.965	0.967	0.964	0.972
2 Norway	0.856	0.924	0.947	0.959	0.969	0.969	0.967	0.970
2 Switzerland	0.858	0.892	0.945	0.957	0.963	0.968	0.966	0.970
4 Denmark	0.844	0.896	0.920	0.943	0.954	0.958	0.959	0.962
5 Germany	0.834	0.897	0.936	0.948	0.955	0.958	0.955	0.959
5 Sweden	0.818	0.912	0.918	0.945	0.951	0.958	0.959	0.959
7 Australia	0.867	0.897	0.929	0.938	0.950	0.954	0.952	0.958
8 Hong Kong, China (SAR)	0.755	0.839	0.912	0.937	0.950	0.961	0.950	0.955
8 Netherlands	0.855	0.900	0.925	0.940	0.945	0.951	0.953	0.955
10 Belgium	0.824	0.894	0.921	0.933	0.939	0.948	0.945	0.951
11 Ireland	0.776	0.869	0.915	0.931	0.948	0.946	0.947	0.949
12 Finland	0.823	0.898	0.920	0.938	0.947	0.949	0.946	0.948
13 Singapore	0.819	0.882	0.932	0.935	0.944	0.948	0.942	0.946
13 United Kingdom	0.812	0.870	0.921	0.931	0.930	0.941	0.946	0.946
15 United Arab Emirates	0.713	0.790	0.835	0.857	0.909	0.903	0.921	0.940
16 Canada	0.865	0.894	0.918	0.932	0.931	0.937	0.935	0.939
17 Liechtenstein	..	0.882	0.914	0.925	0.929	0.933	0.936	0.938
17 New Zealand	0.811	0.896	0.926	0.934	0.940	0.939	0.933	0.938
17 United States	0.878	0.895	0.919	0.928	0.925	0.921	0.930	0.938

MIPEX Anti-discrimination score

Switzerland scores 48/55 countries

Country	Score	Country	Score	Country	Score
North Macedonia	100	Netherlands	85	Iceland	57
Bulgaria	100	Brazil	85	Israel	56
South Africa	100	Chile	85	Austria	53
Sweden	100	Moldova	84	Korea	51
Belgium	100	Slovakia	79	Lithuania	51
Canada	100	France	79	Denmark	51
Portugal	100	Italy	78	Albania	50
Finland	100	Croatia	71	Turkey	50
USA	97	Germany	70	Estonia	48
Romania	96	Australia	69	Switzerland	38
Hungary	96	Latvia	67	United Arab Emirates	38
Ukraine	94	Greece	67	Russia	22
United Kingdom	94	Mexico	67	China	19
Ireland	94	Norway	65	Japan	16
Serbia	90	Czechia	64	Saudi Arabia	15
Slovenia	90	Malta	63	Indonesia	13
Luxembourg	89	Poland	63	India	9
New Zealand	88	Cyprus	62	Jordan	4
Argentina	88	Spain	59		

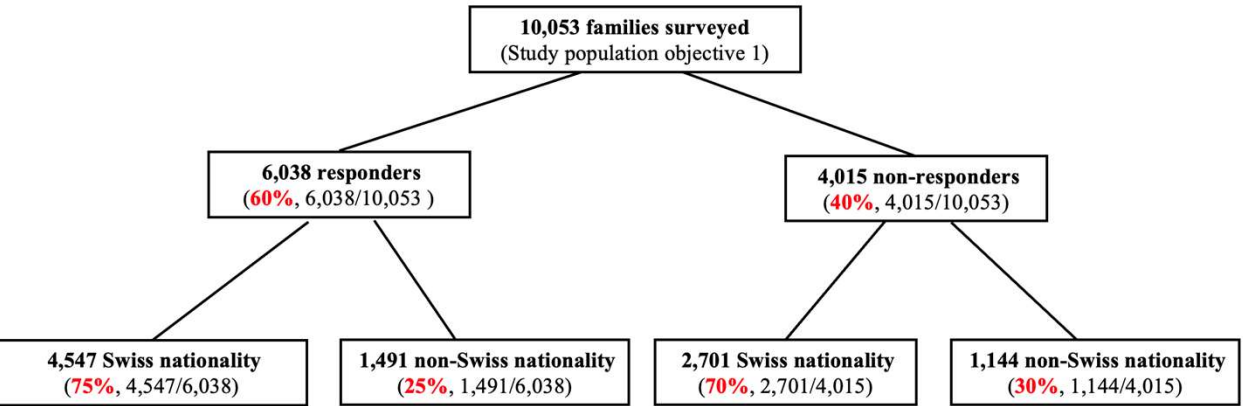
Understand own bias > Redirect thinking about difference > Redefine interventions

How did the caregivers with limited local language proficiency experience the quality of care ?

I asked for an interpreter, but I was told it was too expensive and I couldn't get one. Then I called a friend, she interpreted for me. But it was about very intimate things and then everyone noticed. You can't do that!

(B 99; Satisfaction score 3 (1 worst - 6 best))

Nationality and response to measles vaccine survey



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Exposure

Nationality

Swiss
Non-Swiss §
Northern Europe
Eastern Europe
Southern Europe
Africa
Asia/Other

Sex

Male
Female

Geographic context

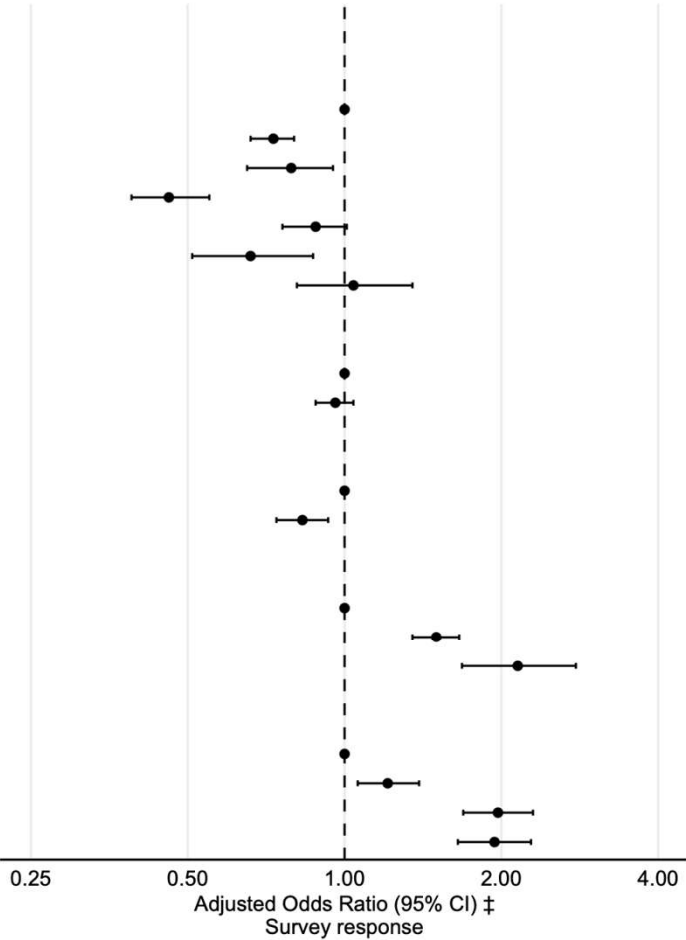
Rural
Urban

Linguistic region

German
French
Italian/Romansh

Swiss-SEP quartile §§

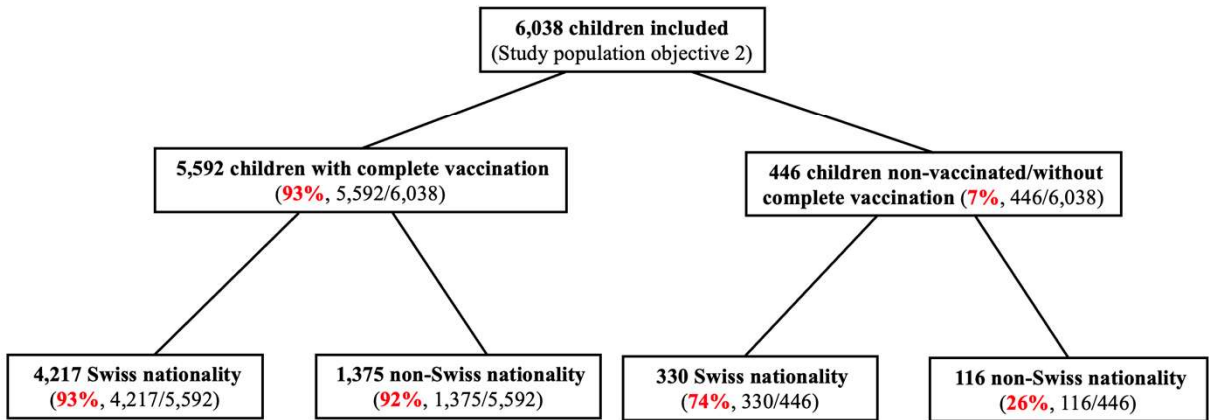
1 (lowest)
2
3
4 (highest)




Nationality and survey response

Unpublished results – please do not photograph, copy, or share

Nationality and measles vaccine uptake



 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

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Female

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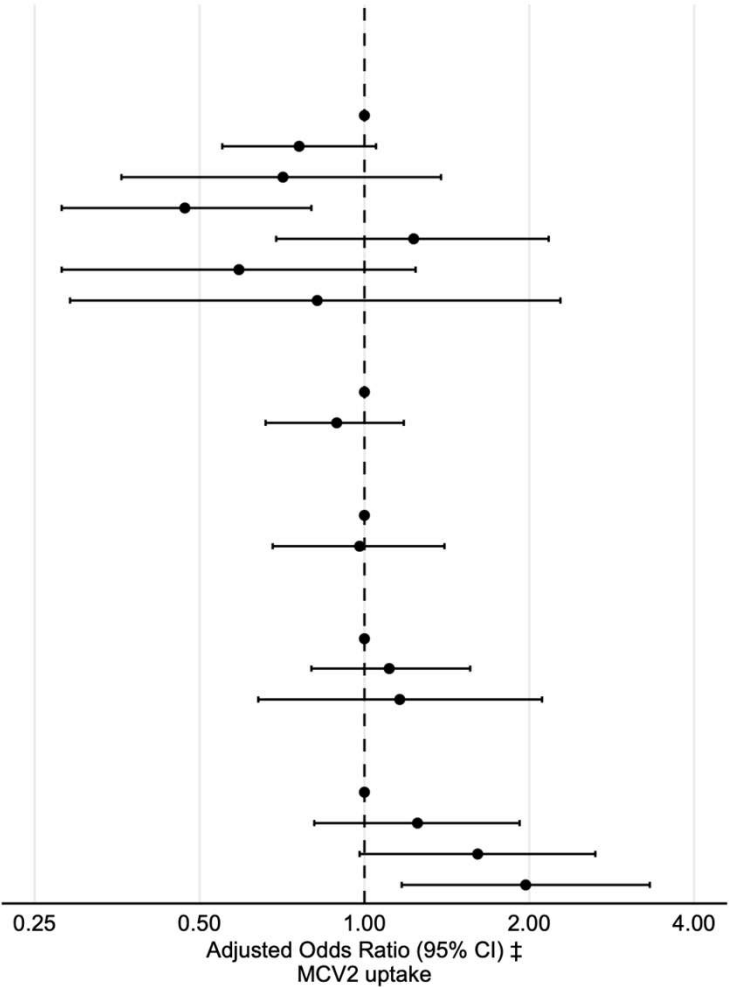
Rural
Urban

Linguistic region

German
French
Italian/Romansh

Swiss-SEP quartile §§

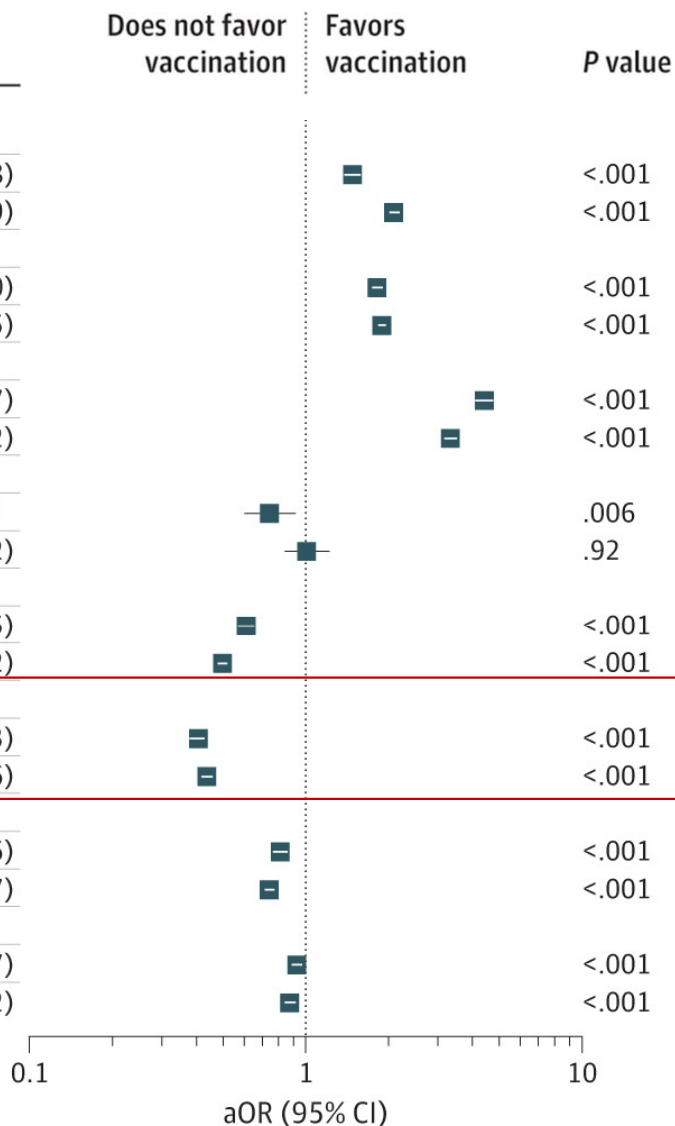
1 (lowest)
2
3
4 (highest)



Nationality and measles vaccine uptake

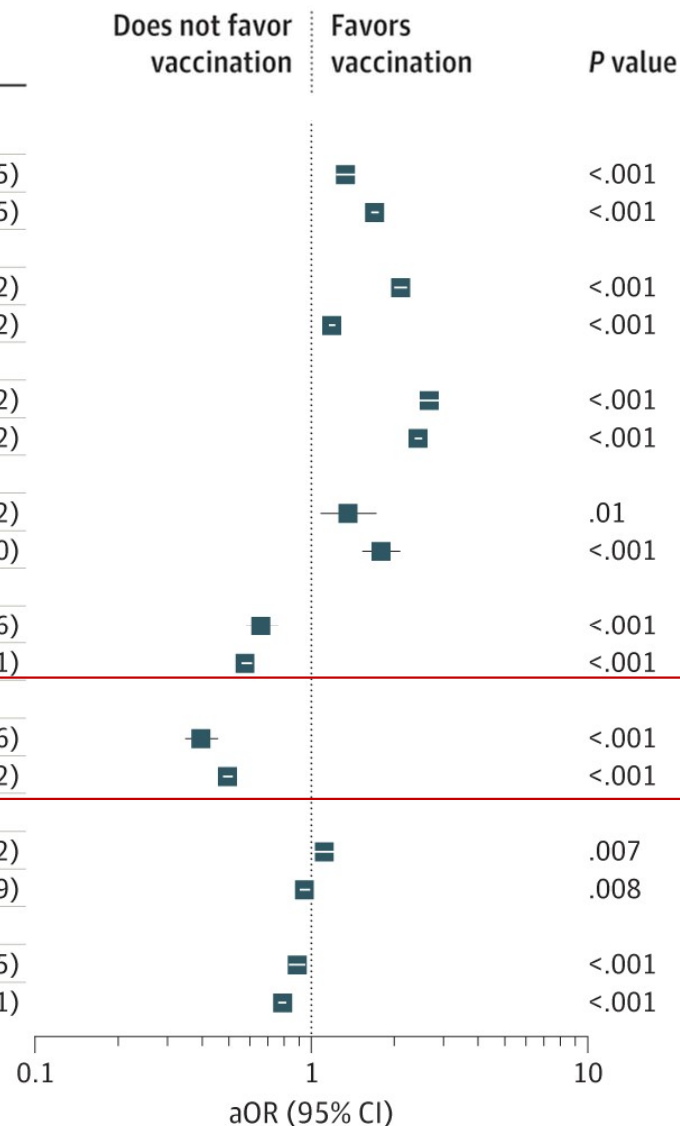
A Adolescents aged 11 to 17 years

Variable	aOR (95% CI)
Asia (East)	
First generation	1.48 (1.38-1.58)
Second generation	2.09 (2.01-2.19)
Asia (South)	
First generation	1.82 (1.74-1.90)
Second generation	1.89 (1.83-1.95)
Asia (Southeast)	
First generation	4.42 (4.10-4.77)
Second generation	3.35 (3.18-3.52)
Australasia and Oceania and Asia unspecified	
First generation	0.74 (0.6-0.92)
Second generation	1.01 (0.84-1.22)
Caribbean	
First generation	0.61 (0.57-0.65)
Second generation	0.50 (0.48-0.52)
Europe (Eastern)	
First generation	0.41 (0.38-0.43)
Second generation	0.44 (0.42-0.46)
Europe (other)	
First generation	0.81 (0.76-0.86)
Second generation	0.74 (0.71-0.77)
Middle East	
First generation	0.93 (0.89-0.97)
Second generation	0.88 (0.84-0.92)

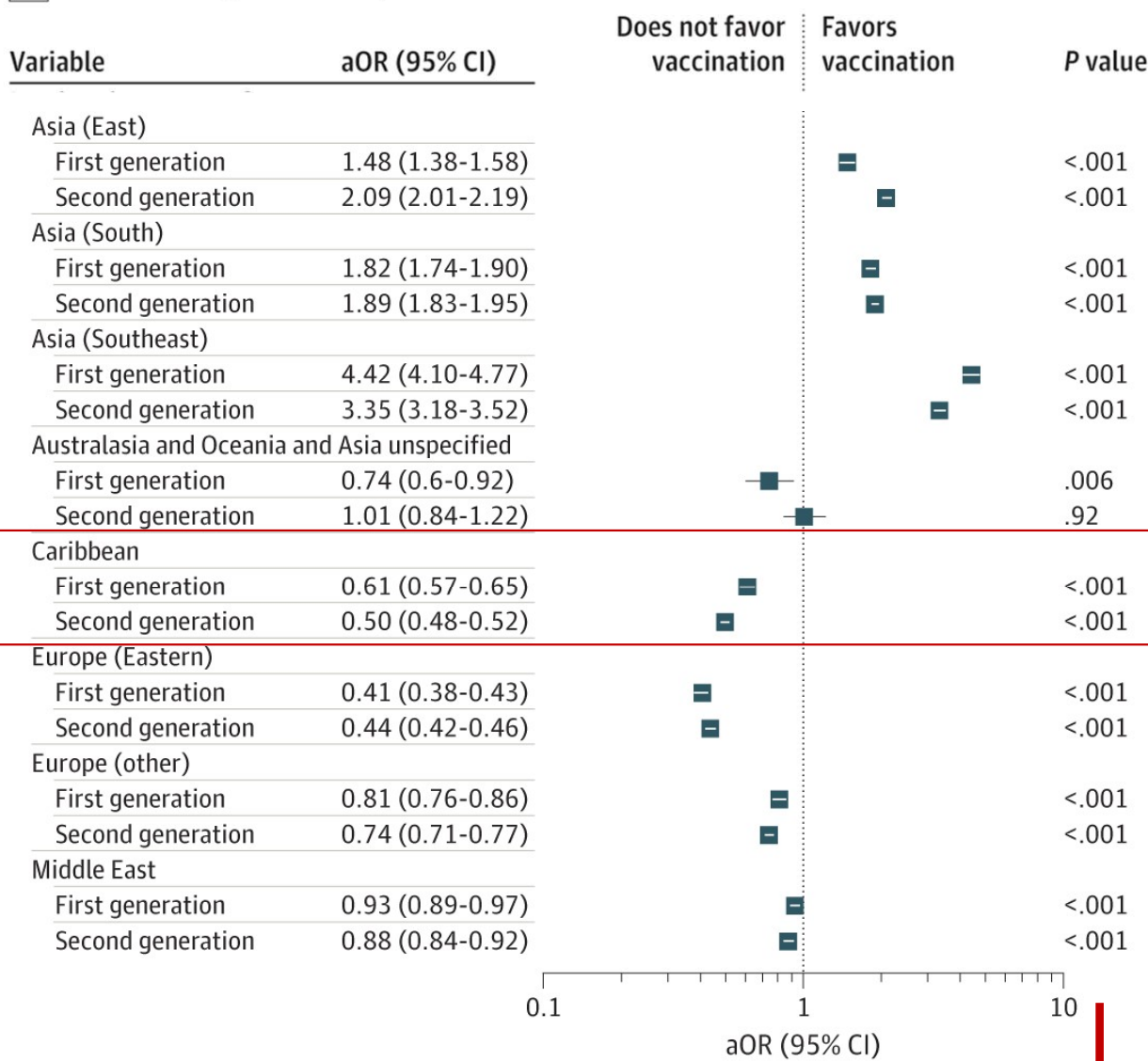


B Children aged 4 to 10 y

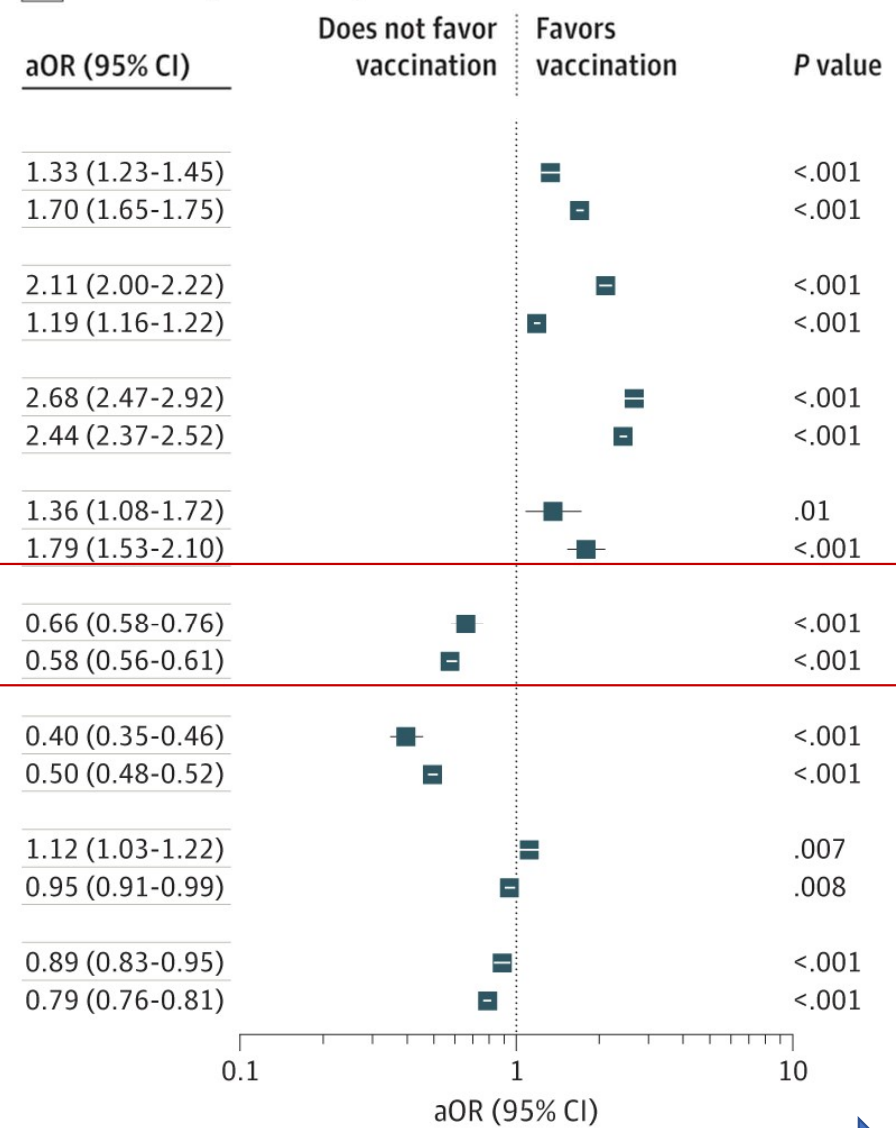
aOR (95% CI)	Does not favor vaccination	Favors vaccination	P value
1.33 (1.23-1.45)			<.001
1.70 (1.65-1.75)			<.001
2.11 (2.00-2.22)			<.001
1.19 (1.16-1.22)			<.001
2.68 (2.47-2.92)			<.001
2.44 (2.37-2.52)			<.001
1.36 (1.08-1.72)			.006
1.79 (1.53-2.10)			.92
0.66 (0.58-0.76)			<.001
0.58 (0.56-0.61)			<.001
0.40 (0.35-0.46)			<.001
0.50 (0.48-0.52)			<.001
1.12 (1.03-1.22)			.007
0.95 (0.91-0.99)			.008
0.89 (0.83-0.95)			<.001
0.79 (0.76-0.81)			<.001



A Adolescents aged 11 to 17 years



B Children aged 4 to 10 y



Health inequity

Health equity

2. Redefine research priorities & interventions



quality Intervention



quality Intervention



Qualitative studies: mistrust due to discrimination

→ major reason for under vaccination in Afro Canadian persons

"I am personally concerned whether or not the vaccines developed have been tested with enough Black people, and whether or not the people experiencing adverse events are disproportionately Black. Can you illuminate us with reliable data that address this point?"

Frequently asked question of Afrocanadian interviewees

quality intervention

BLACK SCIENTISTS' TASK FORCE ON VACCINE EQUITY

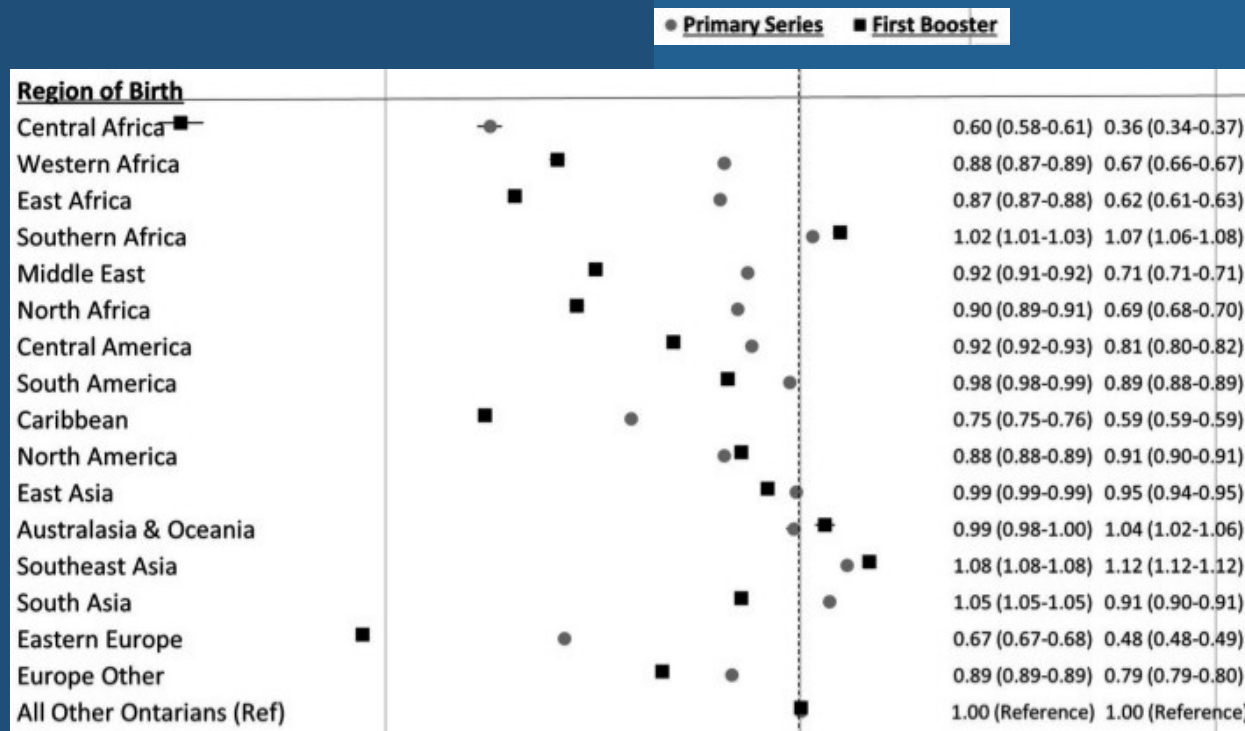
The Black Scientists' Task Force on Vaccine Equity (BSTF) was formed in December 2020. The Task Force consists of a team of physicians, specialists, public health and research consultants, immunologists, scientific regulators, mental health experts, and naturopathic physicians. This multidisciplinary team of Black experts was created to share information about COVID-19 and vaccines with the Black Toronto communities and to address their concerns about COVID-19-related issues. Through community, organization, government, health and medical professionals, and academics, the Task Force aimed to promote the Black Canadian community's well-being and health. The goal was to mitigate health disparities and health inequities faced by Black communities in Canada through a tailored response.



COVID-19 vaccine equity: a retrospective population-based cohort study examining primary series and first booster coverage among persons with a history of immigration and other residents of Ontario, Canada

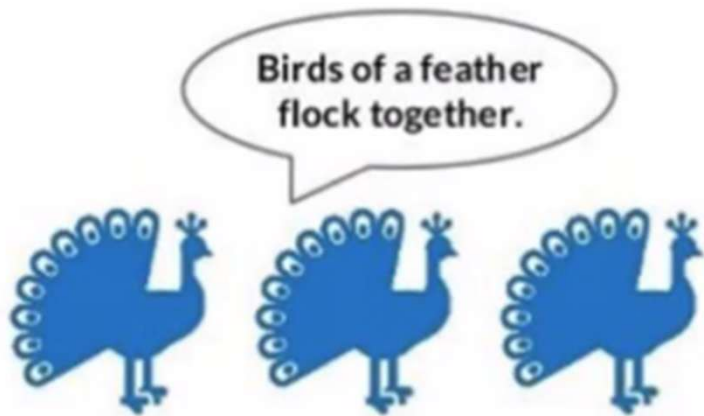
There is effectiveness, efficiency and efficacy in race and health equity

www.torontoblackcovid.com

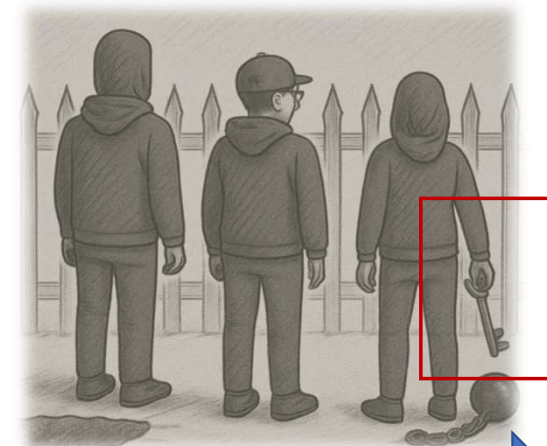


Wanigaratne S, Lu H, Gandhi S, Shetty J, Stukel TA, Piché-Renaud PP, Brandenberger J, Abdi S, Guttmann A. COVID-19 vaccine equity: a retrospective population-based cohort study examining primary series and first booster coverage among persons with a history of immigration and other residents of Ontario, Canada. *Front Public Health*. 2023 Sep 8;11:1232507. doi: 10.3389/fpubh.2023.1232507. PMID: 37744516; PMCID: PMC10515385.

The underestimated value of lived experience



Priority setting of research questions done by persons with lived experience



Understand own bias > Redirect thinking about difference > **Redefine interventions: redefine research priorities**



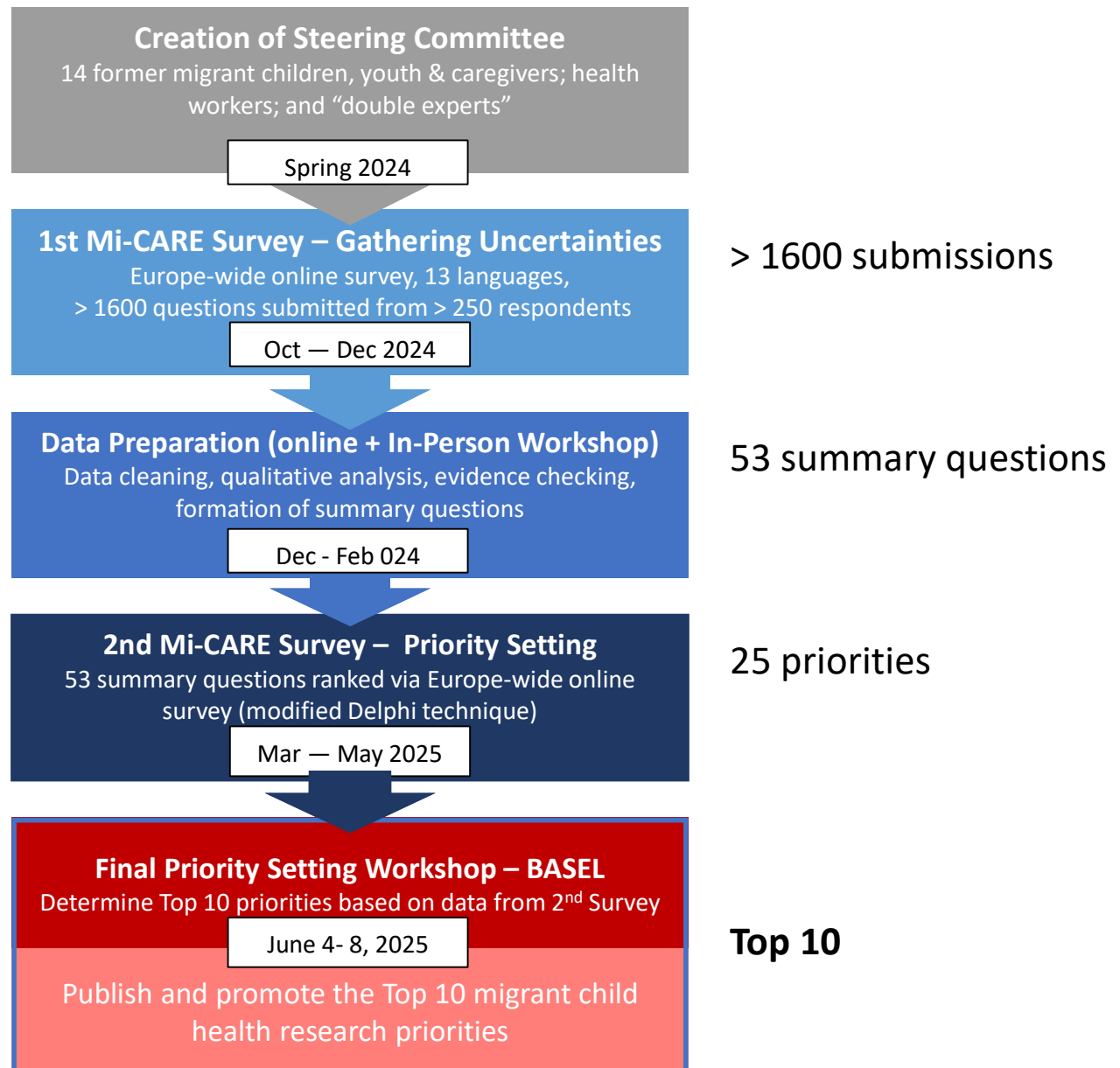
The REACH group

Refugees and Migrants in Europe – Adolescent and Child Health

Official **Strategic Advisory Group of the European Academy of Pediatrics (EAP)** since 2023

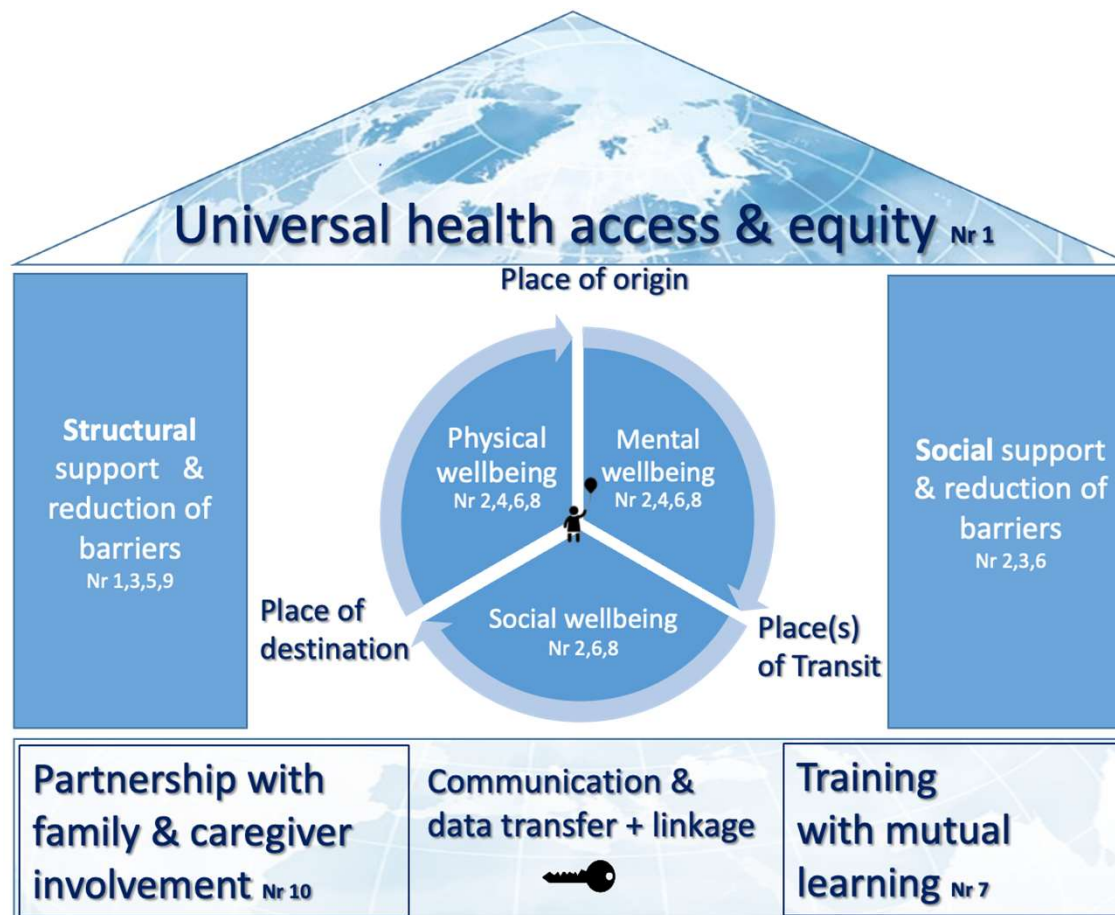
Members: Pediatricians , Healthworkers & Migrant Caregivers across Europe

Vision: across Europe, migrant and refugee minors receive equitable quality of health care compared to their local peers



Top 10 Research Priorities for Pediatric Migrant Health in Europe

Unpublished results – please do not photograph, copy, or share.



Nr	Top 10 research questions
1	Strategies to ensure universal access
2	Impact of racism and discrimination
3	Barriers to accessing healthcare
4	Impact of migration on physical and mental health
5	Chronic and complex conditions

Nr	Top 10 research questions
6	Influence of social factors in host countries
7	Training for healthcare workers
8	Specific healthcare needs of unaccompanied minors
9	Access to professional language support
10	Strengthening parental involvement

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Thank you !

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