



Credit: CDC

21 April, 2023

## The impact of the health burden in an archetype analysis of older adult immunization decision-making and implementation

Focus on Europe

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Adult Immunization Board

Lois Privor-Dumm

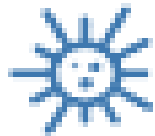


# Project description

*Little data available to explain why countries make very different decisions when reviewing similar data and achieve different results with different implementation approaches*

*We reviewed the literature and conducted key informant interviews to help describe the adult vaccine landscape and factors influencing uptake on vaccines for older adults (>50 Yrs)*

Research funded by  
GlaxoSmithKline &  
Merck



Influenza  
(Flu Vaccine)



Pneumococcal Pneumonia  
(Polysaccharide & PCV)

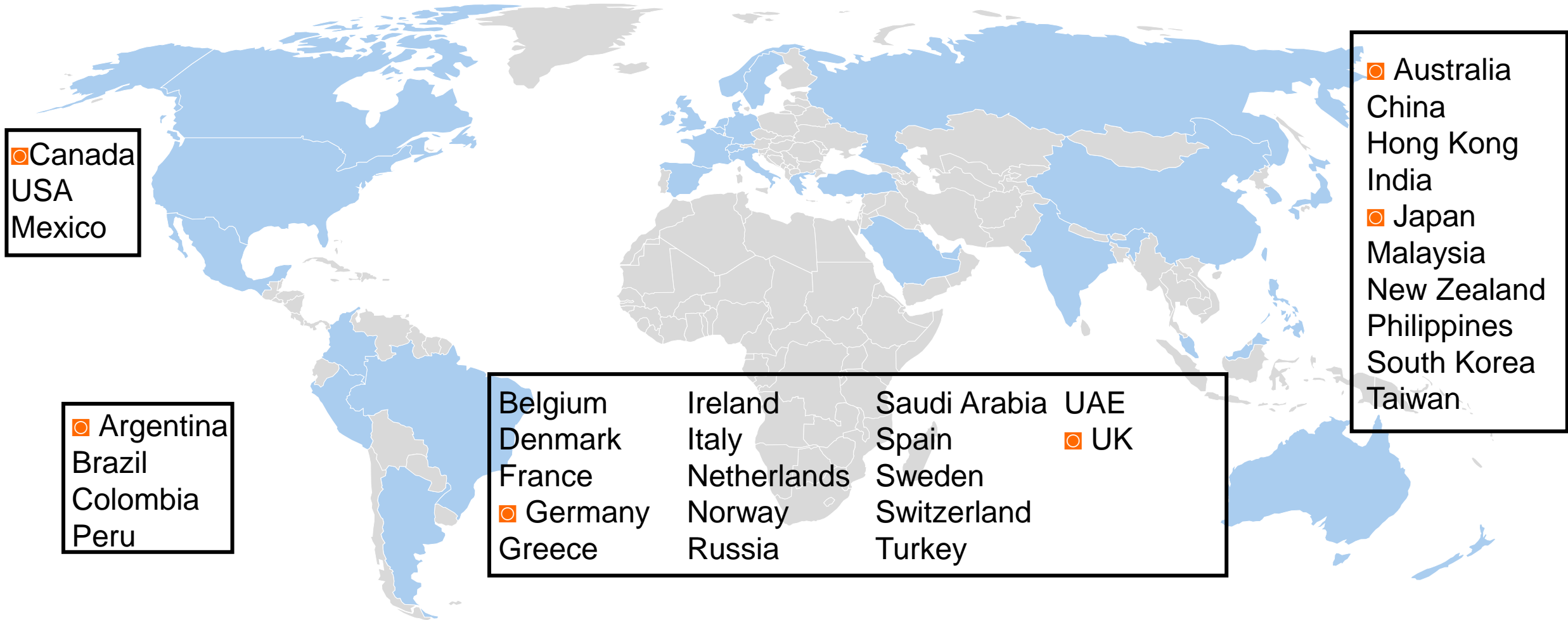


Herpes Zoster/ Shingles  
(HZ Vaccine)

# 34 study countries

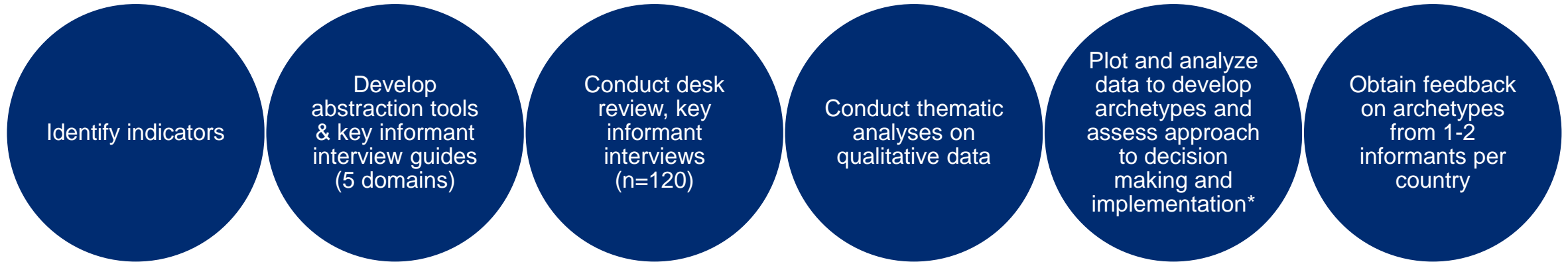
*Countries selected to represent a diversity of adult immunization programs and approaches and represent a variety of geographic regions*

📍 = case study country



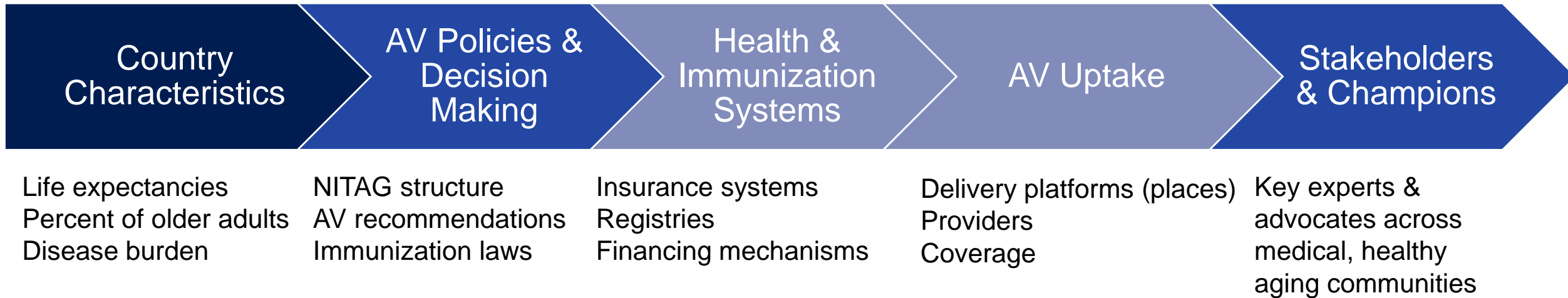


# Methods - Overview





# Methods - 5 domains of data collection



# Data sources

- Global databases
- Country Ministry of Health sites
  - Press releases
  - NITAG documents
- Country policy & laws
  - Vaccine recommendations
  - Laws and legal gazettes
- Peer-reviewed literature
- Grey literature (dissertations, reports, working papers, etc.)
- IVAC's organizational knowledge
- Key informant interviews (AUS, ARG, CAN, GER, JAP, UK)
  - MOH, vaccine program, NITAG, researchers, economists, medical and/or advocacy organizations, public health experts

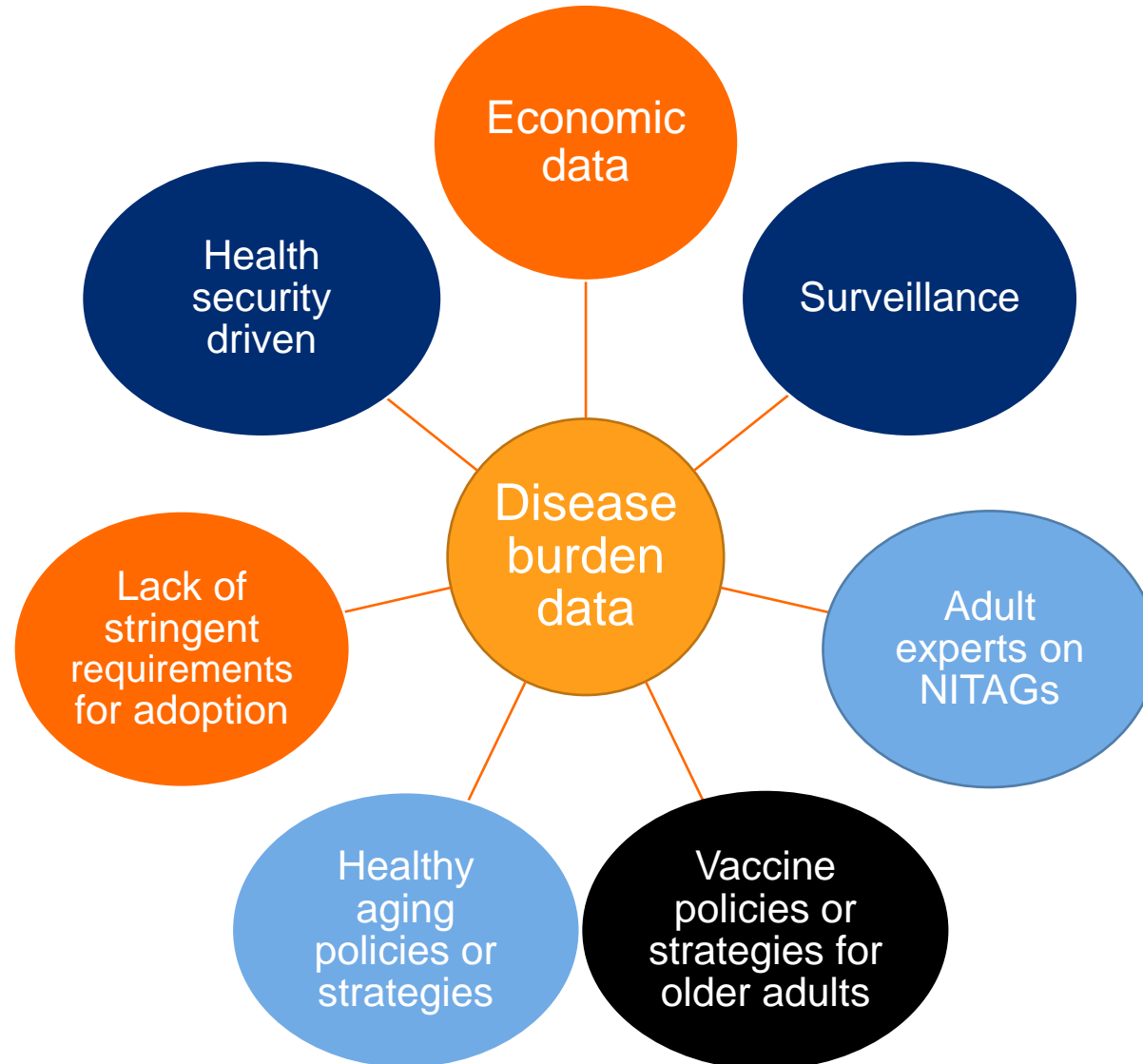
[jhsp.h.edu/ivac](http://jhsp.h.edu/ivac)



WHO vaccine-preventable diseases: monitoring system. 2018 global summary



# Facilitators of Adult Vaccine (AV) National Recommendations



# Facilitators for **Implementing** Adult immunization Programs

Publicly  
financed  
vaccines

Registries

Use of  
coverage  
data & targets

Advocacy

Influence of  
champions

Access

Equity focus

Centralized  
vaccine  
delivery

Centralized  
health system



# Scores

Hi to lo pneumo vax coverage	Robustness of Policies & Decision-Making										SCORE
	Early v Late Adopters	Barriers - country specific requirements	Surveillance	Health Security	Cost-effectiveness	NITAG - presence of	PCV Adopted	HZ adopted	Nat'l Healthy Ageing Strategy	Nat'l Immunization Strategy	
UK	2	1	2	1	2	2	1	2	0	2	15
Spain	2	2	1	1	0	0	1	0	1	0	8
Ireland	1	2	1	0	1	0	2	0	1	0	8
Germany	2	1	2	1	1	0	1	1	1	0	10
Belgium	2	2	1	1	1	0	2	0	0	0	9
Norway	1	2	1	0	1	0	0	2	1	0	8
Italy	1	2	1	2	0	0	0	2	0	2	10
Turkey	1	2	1	2	1	0	0	0	1	1	9
Denmark	1	2	1	0	0	0	0	0	0	0	4
France	1	2	1	1	1	2	2	2	1	0	13
Greece	2	2	1	2	0	0	0	0	0	0	7
Sweden	2	2	1	0	1	0	0	0	0	0	6
Switzerland	0	2	1	1	0	0	0	0	0	0	4
Netherlands	2	1	1	0	2	0	0	0	0	0	6

Early versus late adopters	
0	No or late new adoptions
1	Follower
2	Leader

Country-specific requirements	
0	Multiple
1	One
2	None

Surveillance	
0	No surveillance
1	Some surveillance
2	National surveillance of HZ, Pneumo, & flu

Health Security	
0	Little or no influence
1	Some influence
2	Large influence

Focus on C-E data to make decisions	
0	Small to no focus on C-E data, or no data
1	Considers C-E but not main driver
2	Mostly considers C-E as main driver

NITAG - adult vaccine working groups	
0	No adult vaccine WG
1	One adult vaccine WG
2	Multiple adult vaccine WG

PCV Adoption	
0	PCV not recommended, unknown if considered
1	PCV considered but not recommended
2	PCV recommended

HzV adoption	
0	HzV not recommended, unknown if considered
1	HzV considered but not recommended
2	HzV recommended

Presence of Healthy Ageing Strategies	
0	No strategy
1	Subnational or national strategy
2	National strategy including adult vaccine policies

Presence of National Immunization Strategies	
0	No strategy
1	Pediatric only
2	Pediatric and adult national immunization strategy

# Implementation Scores

Hi to lo pneumo vax coverage	Financing			Vaccine Registries		Availability of Coverage Data			Advocacy	Leadership influence	Access - Providers	Equity focus	AV Programs: Degree of Centralization	Health systems: Degree of centralization	SCORE
	Flu	Pneumo	HZ	Adult	Pediatric	Flu	Pneumo	HZ							
UK	2	2	2	2	2	2	2	2	2	0	2	0	2	2	24
Spain	2	0	0	0	2	1	1	0	1	1	0	0	1	2	11
Ireland	2	0	0	1	1	2	2	0	1	1	2	0	0	2	14
Germany	2	2	0	0	1	1	1	0	0	1	0	0	1	0	9
Belgium	1	0	0	1	1	1	1	0	1	1	1	0	2	1	11
Norway	2	1	0	2	2	1	1	0	1	1	0	1	2	2	16
Italy	2	2	2	1	1	1	1	0	1	1	0	0	1	0	13
Turkey	2	2	0	0	0	1	1	0	1	1	1	0	0	0	9
Denmark	2	0	0	2	2	1	0	0	1	1	0	0	2	2	13
France	2	1	0	0	0	1	0	0	1	1	1	0	0	0	7
Greece	2	2	0	0	0	0	0	0	1	1	0	1	0	0	7
Sweden	1	0	0	2	2	1	0	0	1	1	0	0	2	2	12
Switzerland	1	0	0	0	2	1	0	0	1	1	1	0	0	0	7
Netherlands	1	0	0	0	1	1	0	0	1	1	1	0	2	1	9

Financing	
0	Out of pocket
1	Co-pay or limited, location specific
2	Fully funded or reimbursed

Registries	
0	No records
1	Subnational
2	Central

Advocacy - promotion	
0	No known advocacy for older adult vaccines
1	Few advocacy initiative
2	Multiple sectors promoting older adult vaccines

Leadership influence	
0	No influence
1	Some influence but data influences more
2	Big influence of champion or leaders

Access - Ease of Getting Vaccinated	
0	Difficult to get vaccinated
1	Somewhat complicated
2	Easy to get vaccinated (locations, providers)

Equity focused	
0	No or little evidence of equity focus
1	Some evidence of equity focus
2	Multiple sources of equity focus

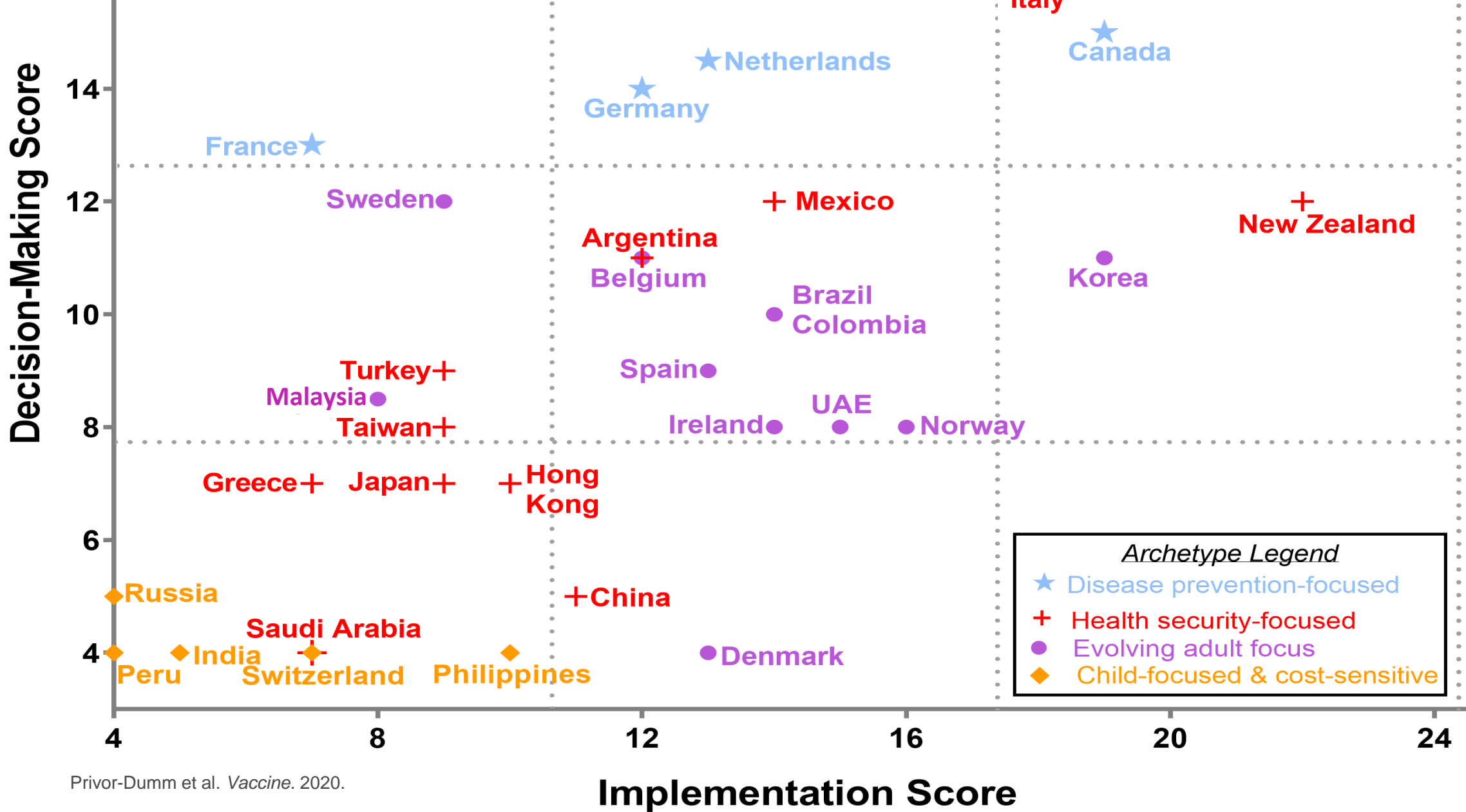
  

Degree of centralization	
0	decentralized
1	mixture
2	centralized

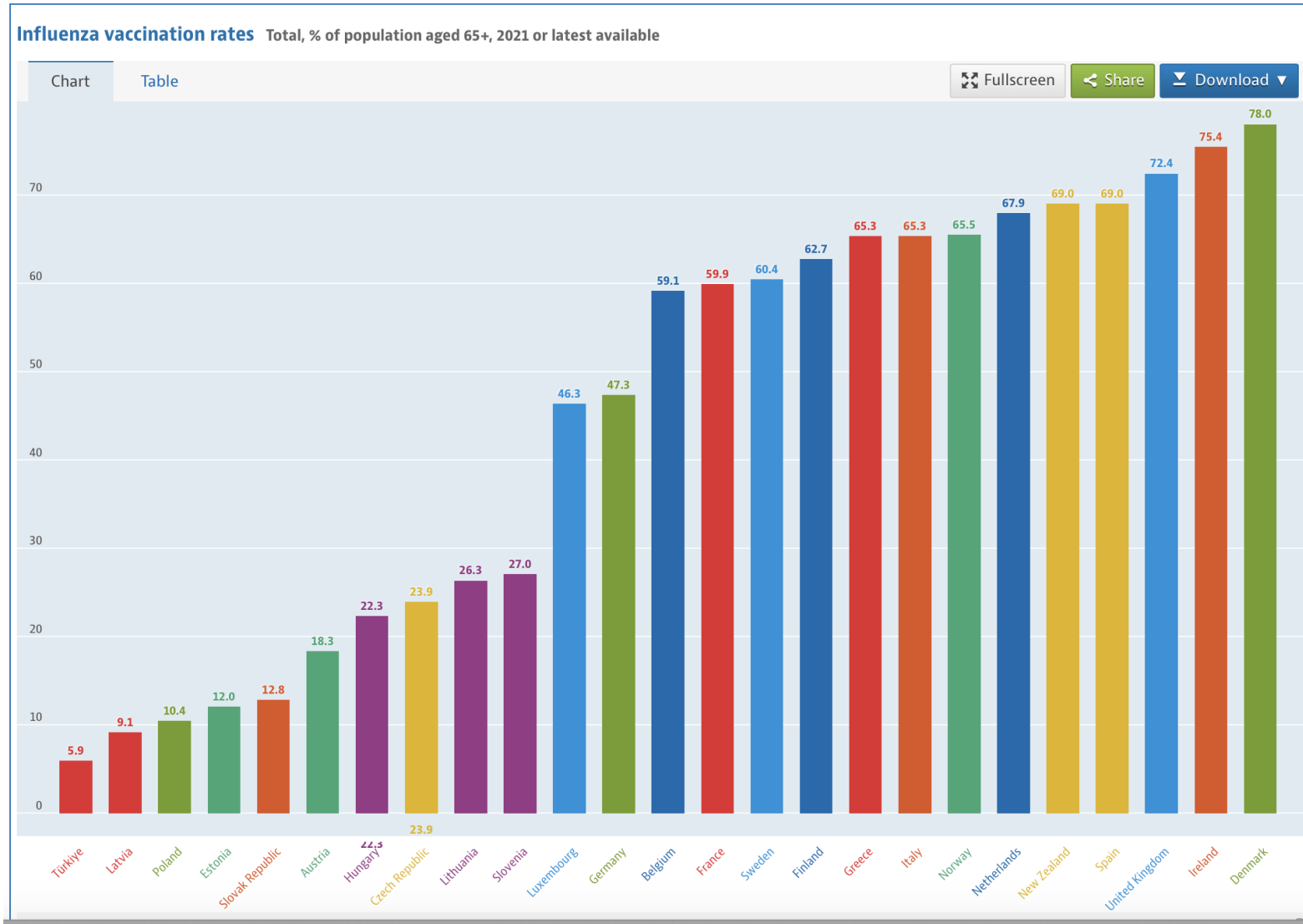


# Country Typologies (Archetypes)

## Adult immunization program archetypes in 34 countries

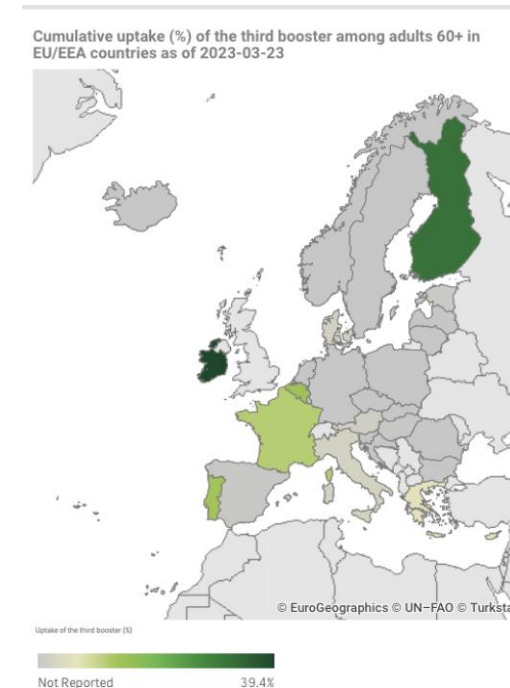
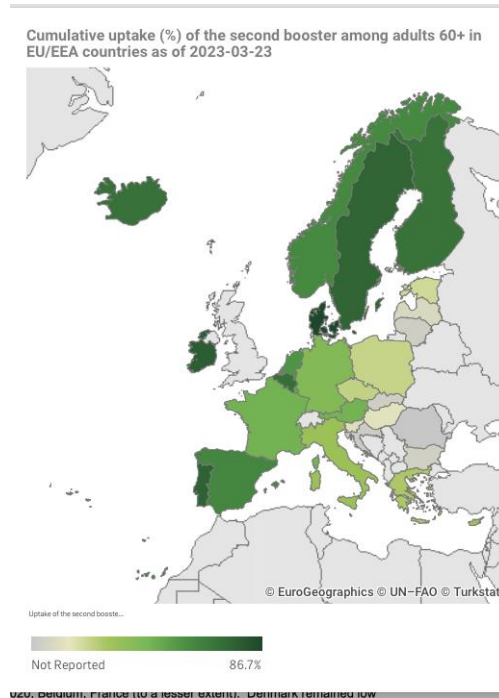
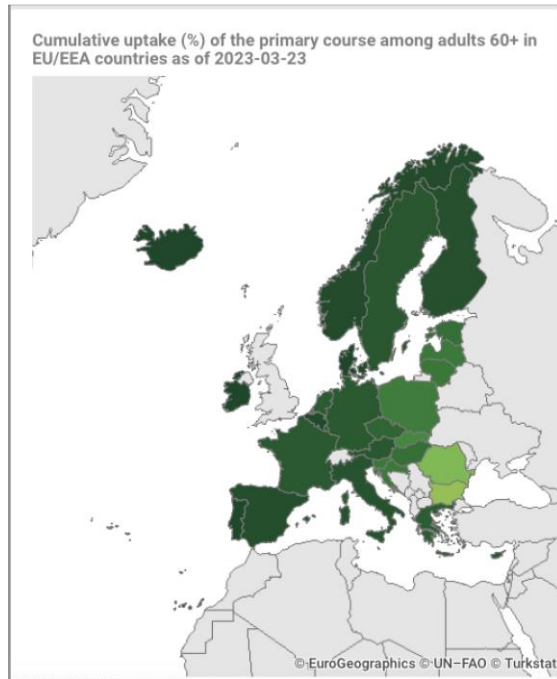


# Are older adults getting vaccinated? Seasonal influenza



Source: [OECD iLibrary](#)

# COVID-19 vaccination coverage variability emerges with booster doses



Source: ECDC

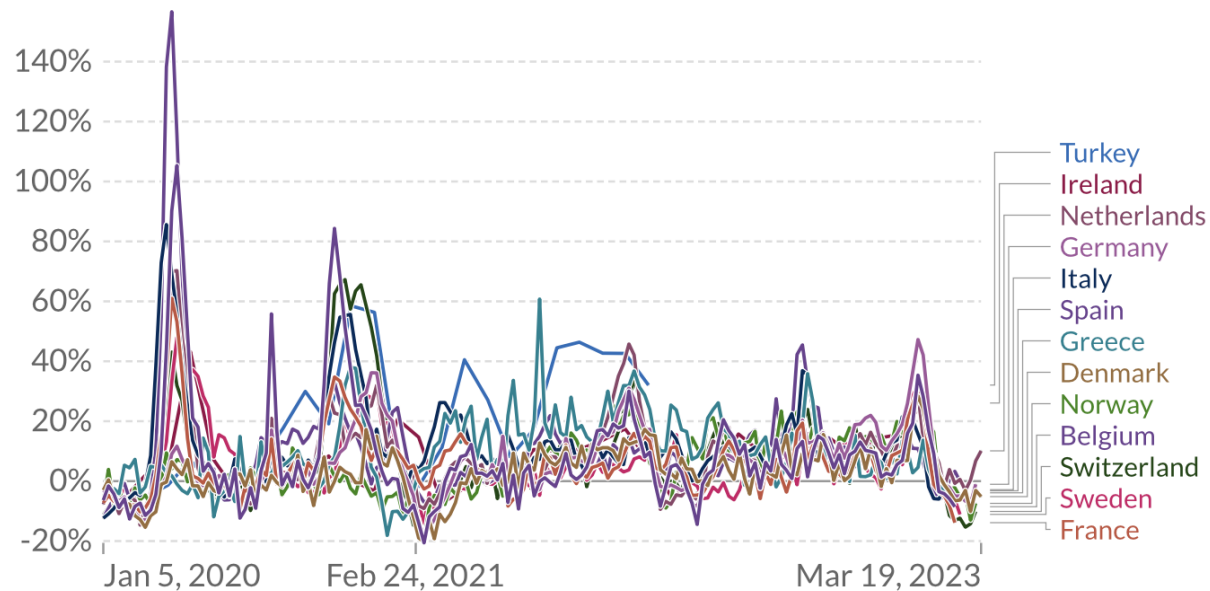
Although an important consideration for vaccine decision-making, deaths & DALYs generally don't explain differences in vaccination uptake

### Excess mortality: Deaths from all causes compared to projection

Our World in Data

The percentage difference between the reported number of weekly or monthly deaths in 2020-2023 and the projected number of deaths for the same period based on previous years. The reported number might not count all deaths that occurred due to incomplete coverage and delays in reporting.

+ Add country



Source: Human Mortality Database (2023); World Mortality Dataset (2023)

Note: Comparisons across countries are affected by differences in the completeness of death reporting. Details can be found at our Excess Mortality page.

OurWorldInData.org/coronavirus • CC BY

# Factors influencing vaccination in older adults

Domain	Illustrative examples
Policy	No older-adult or risk-specific recommendations
Access	Issues with being able to get the vaccine
Demand	<ul style="list-style-type: none"><li>• Health provider didn't recommended vaccine</li><li>• Older adults are not aware of their risk and/or that they need a vaccine</li><li>• Older adults are not aware of existing public vaccine services</li></ul>
Health & Immunization System	<ul style="list-style-type: none"><li>• Older adults are not routinely interacting with the preventive arms of the health system</li><li>• Vaccine is too expensive (high co-pay or must be fully paid out of pocket)</li><li>• Logistical challenges that make accessing vaccine difficult (e.g., limited mobility, living in nursing home, older adult must arrange for vaccination themselves, etc.)</li></ul>

# Impact of health burden in older adults & implications of archetypes

- Countries make **decisions** differently
  - In non-emergency periods, some countries require more data, including disease burden, but also economic impact
  - Other countries are influenced by politics and competing priorities and require an advocacy approach
- **Uptake** is influenced by public knowledge and perceptions, acceptance of mandates, AND access
- Financing makes a difference – where vaccines are publicly funded, uptake is higher
  - A broader approach to measuring value of adult vaccination may help where vaccines are not funded
- COVID-19 provided some important tools including digitalization of health records
- Expanding expertise on NITAGs to include a broader variety of disciplines is needed in some countries to ensure more of a life course approach
- Public knowledge and awareness of the health impact of COVID could be further leveraged for other vaccines to build public engagement in health

**Even considering differences between countries, some standardization of approaches across Europe could be valuable**