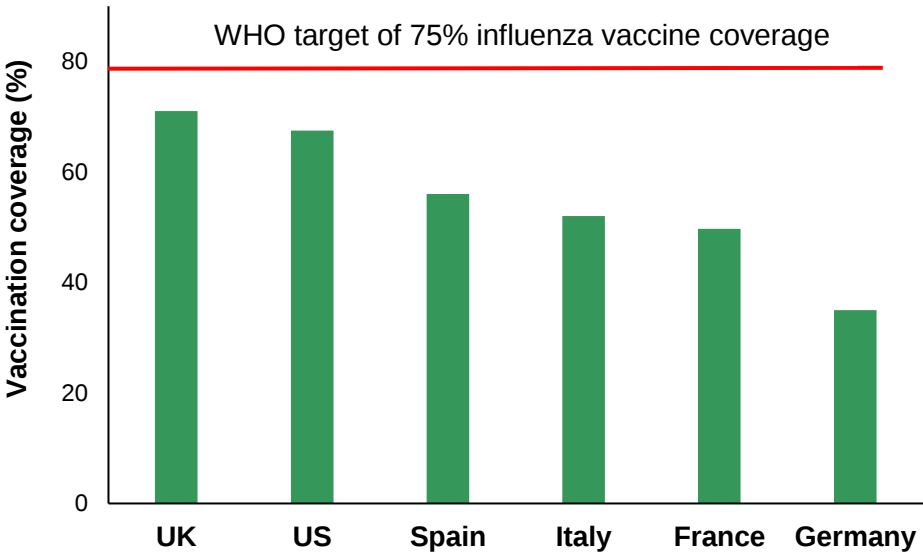


BACKGROUND

- Influenza is a highly infectious viral disease that imposes a significant healthcare burden with 49 million cases in the United States (US) and 17.8 million in Europe in 2018
- Influenza is the most frequent cause of death from a vaccine-preventable disease in the US
- Moreover, there is a difference in influenza vaccination rate in the US (69.1%) and Europe (47.1%)
- WHO recommends annual influenza vaccination to prevent influenza illness in high-risk groups
- Neither EU-5 countries nor the US could demonstrate that they reach the WHO target of 75% influenza vaccination coverage for vulnerable groups



OBJECTIVE

To assess disparities and similarities in recommendations for influenza vaccination across the US and Europe (EU-5)

METHODS

- National guidelines providing recommendations on influenza vaccine were searched for US, UK, France, Italy, Spain and Germany published in 2018-19
- Additional grey literature search was conducted to fill any gaps

RESULTS

- Recommendations for influenza vaccines were identified for Advisory Committee on Immunization Practices (ACIP) in the US, Public Health England (PHE) in the UK, High Council for Public Health (HCSP) in France, Agenzia Italiana del Farmaco (AIFA) in Italy, Primary health care (PHC) in Spain and Ministry of Health (MoH) in Germany
- These guidelines provide recommendations for different age groups, pregnant-women, healthcare workers, healthy household contacts of high-risk groups and caregivers
- However, significant disparity was observed in influenza vaccine recommendations in US and EU-5 across age groups, healthy household contacts of high-risk groups, and caregivers as presented in Table 1
- First, ACIP recommends a routine annual vaccination for children aged ≥ 6 months in the US who do not have contraindications. On the contrary, European authorities recommends annual vaccination to all persons aged ≥ 60 years
- Second, vaccination is recommended to healthy household contacts of high-risk groups in US, France, Italy and Spain, but not in Germany and UK
- Third, vaccination is recommended to primary carer of an elderly or disabled person who is not at risk group in UK and US but not in rest of EU-5 countries

Table 1: Details on disparities and similarity in influenza vaccination recommendation in the US and Europe

Parameters		ACIP  (US)	HCSP  (France)	MoH  (Germany)	AIFA  (Italy)	PHC  (Spain)	PHE  (UK)
Disparity	Age limit	≥ 6 months	≥ 65 years	≥ 60 years	≥ 65 years	≥ 65 years	≥ 65 years
	Children aged 6–59 months	Yes	No	No	No	No	Yes ^{#1}
	Children aged 5–17 years	Yes	No	No	No	No	Yes ^{\$}
	Healthy household contacts of at-risk groups	Yes	Yes	No	Yes	Yes	No
	Carers*	Yes	No	No	No	No	Yes
Similarity	Age limit for chronic medical conditions	≥ 6 months	≥ 6 months	≥ 6 months	≥ 6 months	≥ 6 months	≥ 6 months
	Healthcare workers	Yes	Yes	Yes	Yes	Yes	Yes
	Pregnant women	Yes	Yes	Yes	Yes	Yes	Yes

*Carer: a main caregiver of an elderly or disabled person and not in a clinical risk group; [#]24–59 months only; ^{\$}5–9 years only

- With respect to similarities, influenza-vaccination are recommended to all persons suffering from chronic medical conditions aged ≥ 6 months in both US and EU-5
- Likewise, influenza-vaccination is recommended to pregnant women and healthcare workers in both US and EU-5

LIMITATIONS

- The targeted nature of the review was the major limitation of this current study
- Lack of evidence from grey literature search to fill these gaps and to compile findings was also a shortcoming of the current review
- In addition, there was a variability in reporting of recommendations

CONCLUSIONS

Conclusion

- A substantial disparity was observed in influenza vaccination recommendations across age groups, high risk groups and carers across the US and EU-5
- Potential reason of identified disparity across US and Europe can be attributed to difference in influenza incidence in both children and elderly population that leads to increased hospitalization and mortality
- In order to reduce the disparity, all EU-5 countries should lower the age limit to include children aged ≥ 6 months as that of the US for influenza vaccination

Recommendation

- Guidelines in France, Germany, Italy and Spain should also recommend influenza vaccination for a main caregiver of an elderly or disabled person who are not in a clinical risk group
- Guidelines in Germany and the UK should recommend influenza vaccination for healthy household contacts of at-risk groups
- Thus, there is a need to cover wider population by European authorities to reduce substantial disease burden on healthcare and society