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Measuring vaccination attitudes and behaviors of healthcare professionals across Europe with the International-Pro-VC-Be

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Sociology of health and medicine in the public arena during the COVID-19 pandemic and beyond

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Background

- **Central role of health care professionals (HCPs) in vaccinating the public and addressing vaccine hesitancy (VH)**
- **The public has a high level of confidence in HCPs**
- **Some HCPs, however, have VH (Verger 2022)**
- **VH affects their attitudes/behaviors toward patients**
- **Few studies allow reliable comparisons of VH & its determinants among HCPs in various contexts**



Objectives

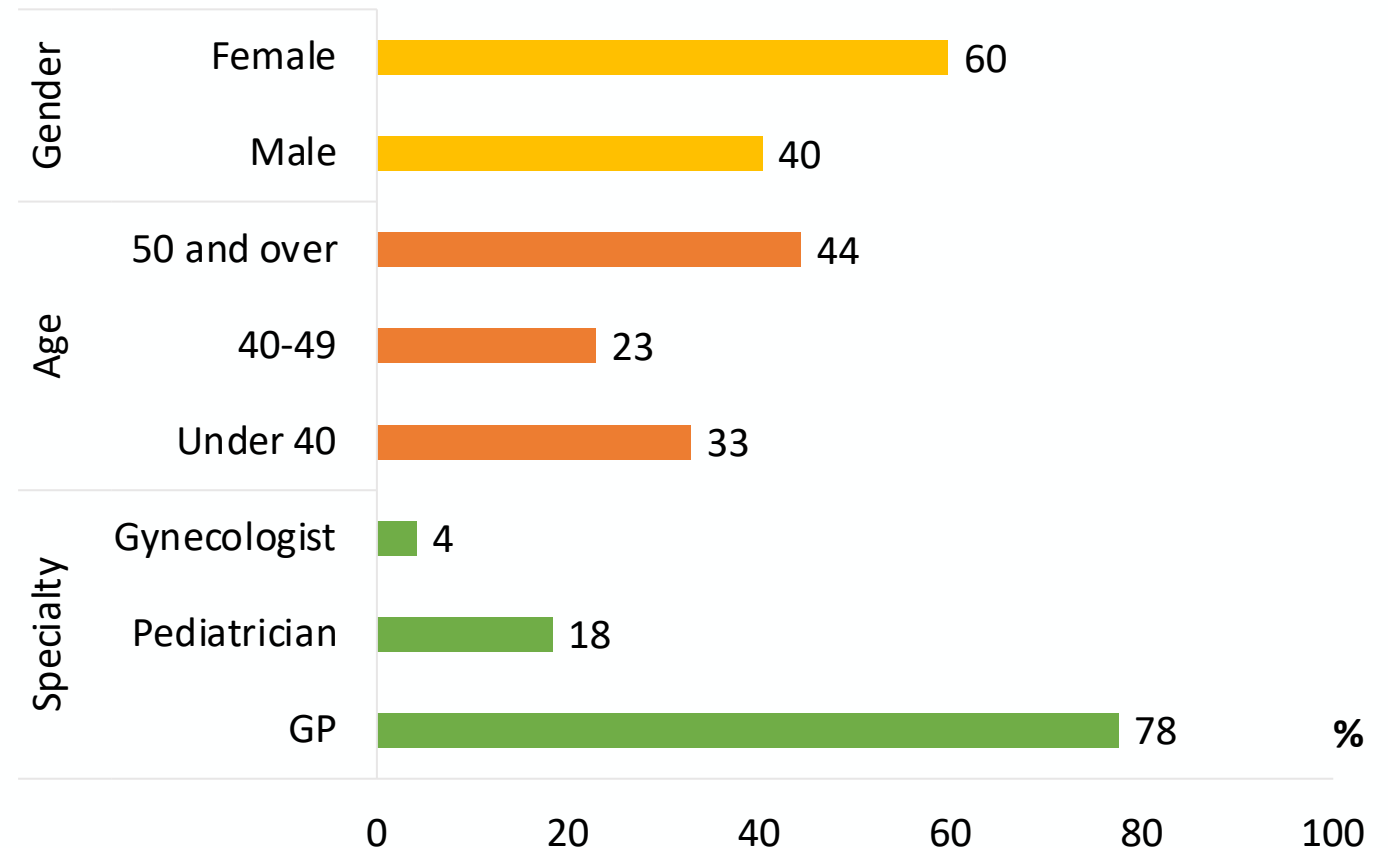
- **To study psychosocial determinants of vaccine confidence (VC) among HCPs across Europe**
 - With a validated instrument enabling comparisons
- **And their impact on HCPs' behaviors toward patients**
- **Focus on VC rather than VH:**
 - More positive regarding the delicate issue of VH among HCPs, to minimize defensiveness

Frame: H2020 Jitsuvax project (preparing HCPs to address vaccine misinformation)



Methods: design, setting, population

- **Online cross-sectional survey from March to June 2022**
- **Four European countries: Finland, France, Germany, and Portugal**
- **2748 physicians involved in vaccination activities:**
 - Finland: 375
 - France: 1213
 - Germany: 603
 - Portugal: 557

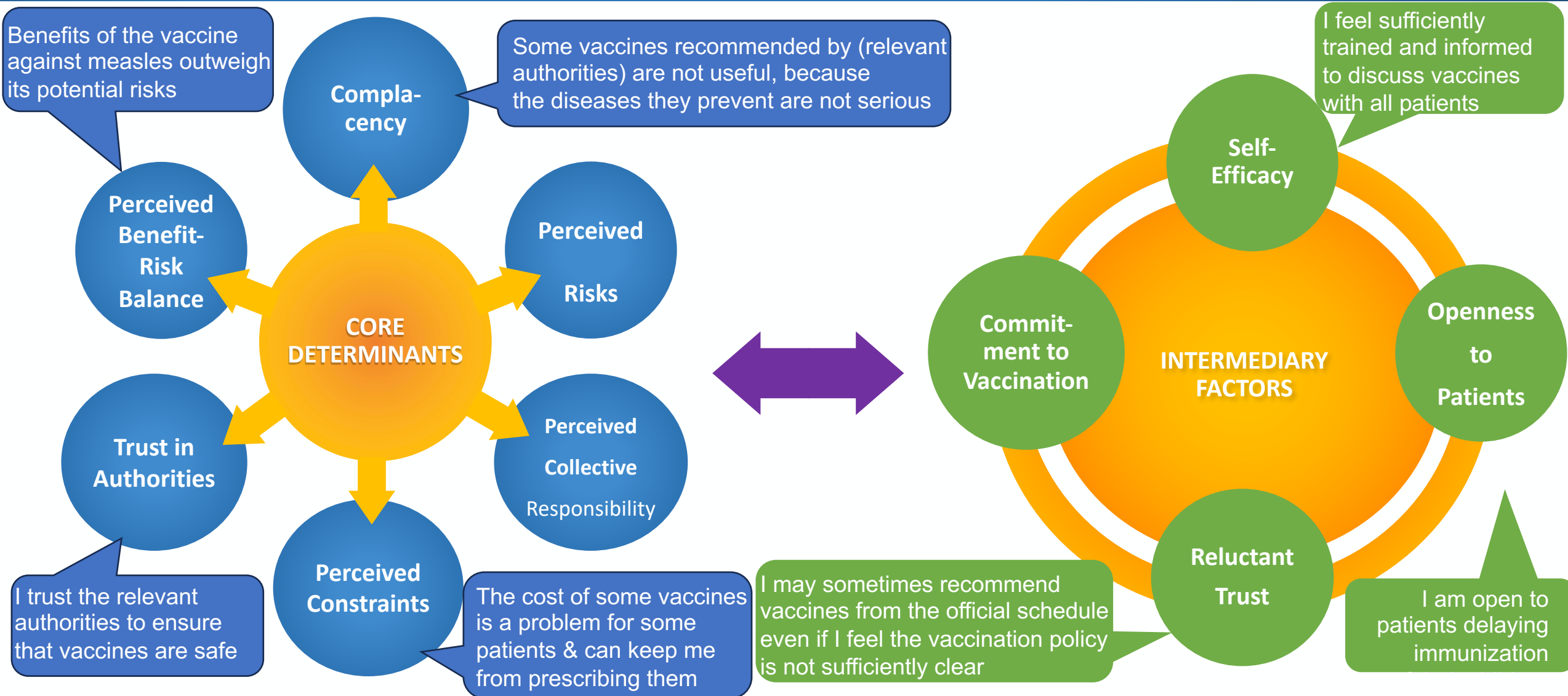


Instrument: International Professional Vaccine Confidence and Behaviors (I-Pro-VC-Be) questionnaire



- **Original version validated in French** (Verger 2022, Expert Rev. Vaccines 2022)
- **Jitsuvax: adaptation for Finland, Germany, Portugal and UK of both long and short forms**
- **Validation:**
 - Same factor structure as in French, structure invariance according to country, good criterion validity
- **We used the long form: 49 items divided in two parts:**
 - Vaccination behaviors: self-vaccination; frequency of vaccine recommendations to patients (16 items)
 - 10 psychosocial determinants of vaccine confidence (33 items)
- ***Other questions in addition to the I-Pro-VC-Be: social norms (2 items)***

10 psychosocial determinants of vaccine confidence and behaviors (I-Pro-VC-Be)

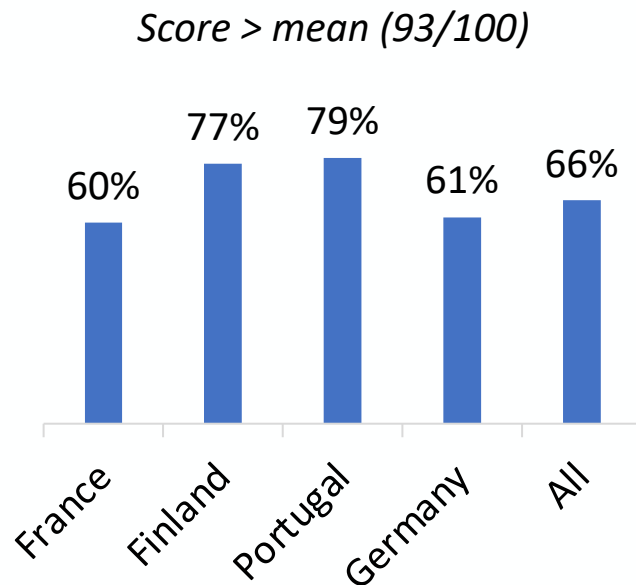


Statistical analysis

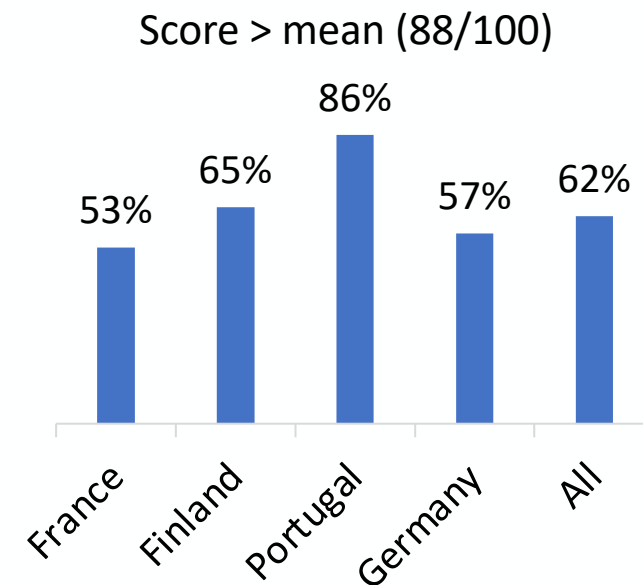
- **Construction of:**
 - Standardized scores for each psychosocial determinant
 - Standardized score of vaccine recommendation frequency
- **Associations between the psychosocial factors and GPs' vaccine recommendation frequency score:**
 - Multiple modified Poisson regression

Results: perceived benefit-risk balance, importance of collective protection

Score of agreement that vaccines have a favorable benefit-risk balance

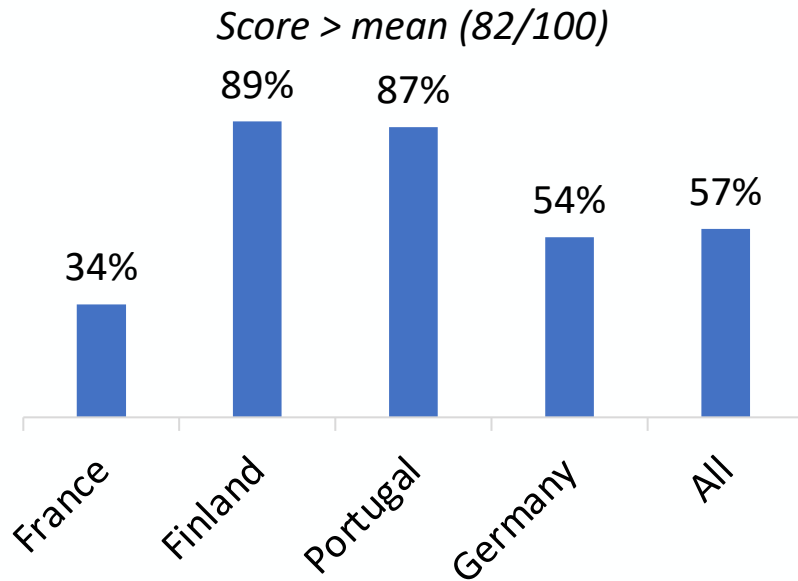


Score of agreement that collective protection is important

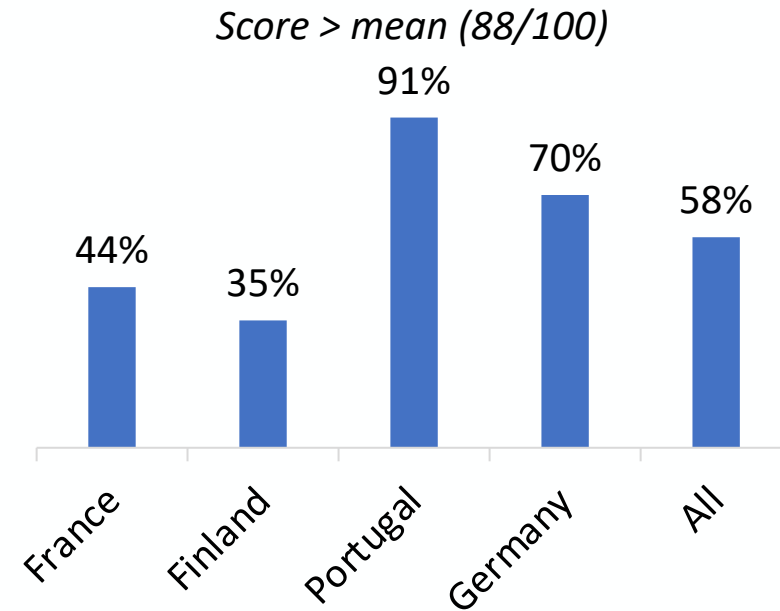


Trust in authorities, commitment to immunization

Trust in health authorities score



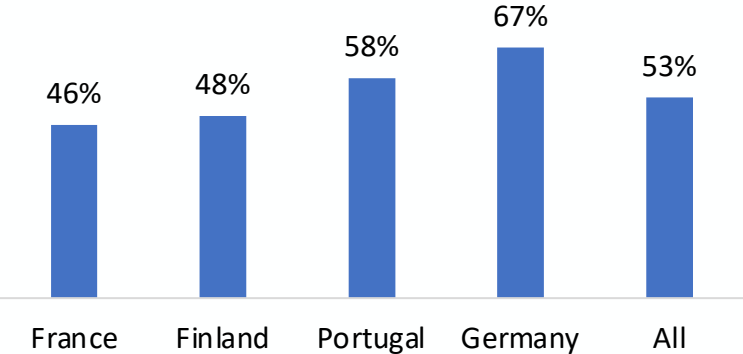
Commitment to ensuring patient immunization score



Self-efficacy, reluctant trust

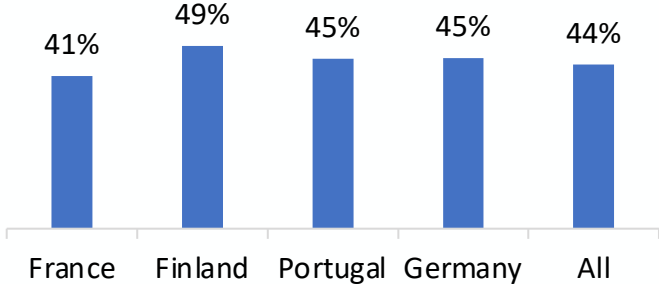
Self-efficacy score

Self-efficacy > mean (81/100)



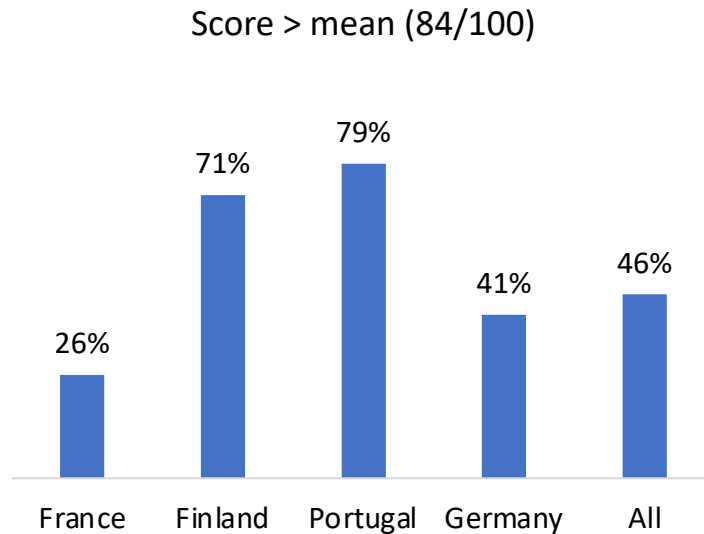
Reluctant-trust score

Score > mean (31/100)

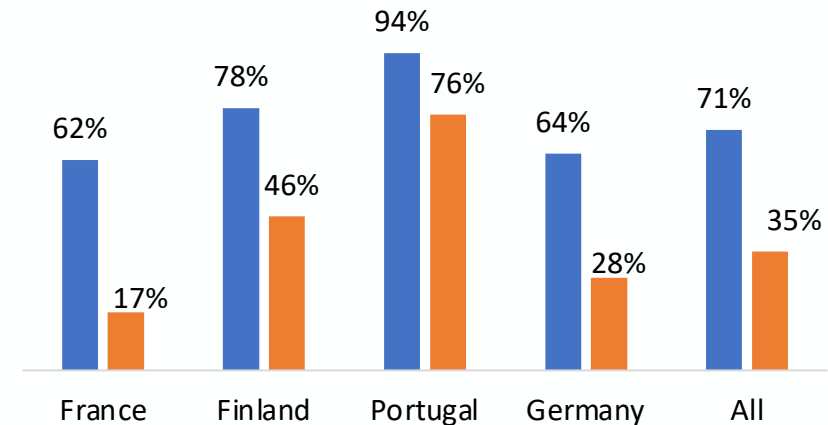


Professional norms, vaccine recommendations to patients

Score for adherence to professional norms of immunization

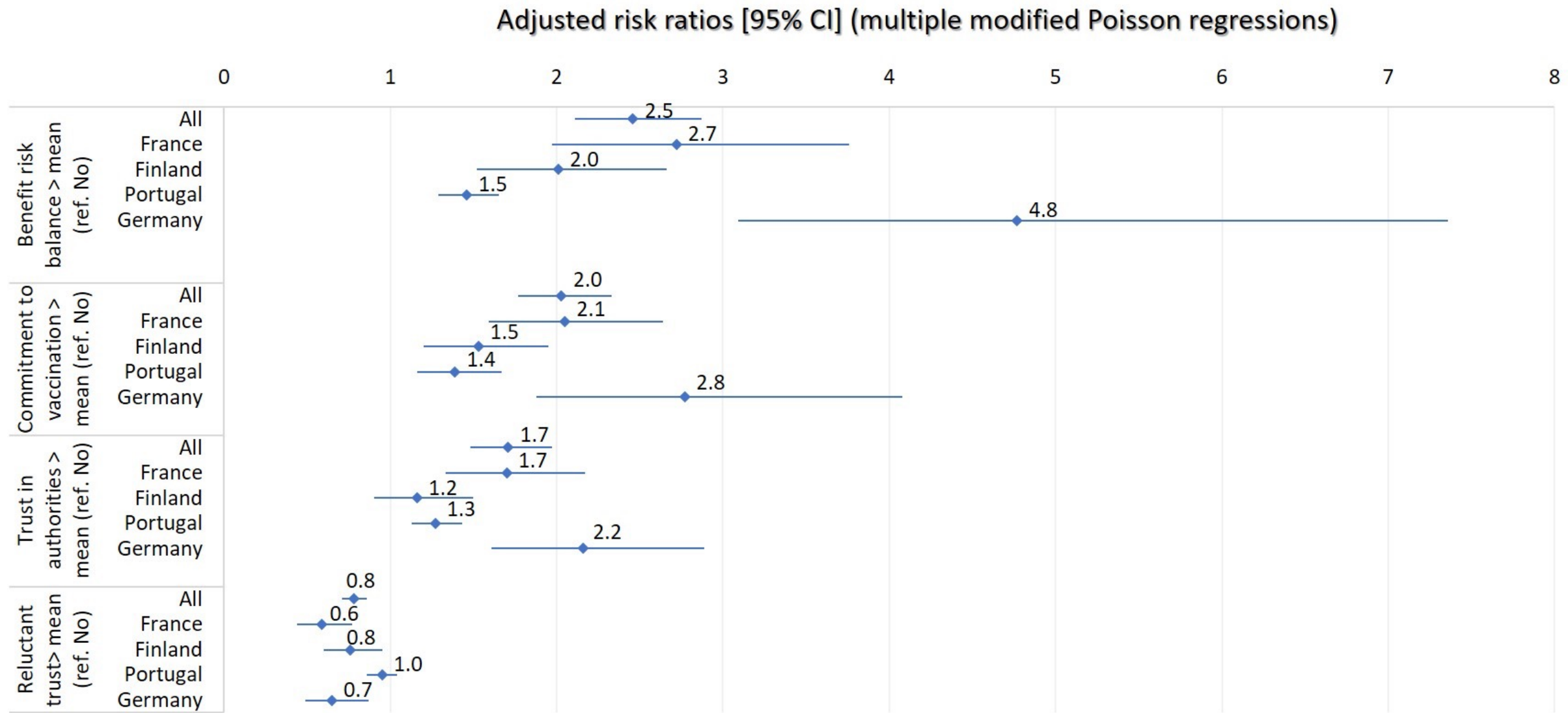


Vaccine recommendation frequency score



■ Score >75% ■ Score >90%

Associations between quasi-routine vaccine recommendations (>90 %) and some I-Pro-VC-Be factors



Discussion

- Participants very much in favor of vaccination (benefit-risk balance, collective protection)
- Contrasting results concerning trust in the authorities, with the French sample the least trusting (Wilson 2020)
- Participants with a low self-efficacy score for discussing vaccines with hesitant patients most frequent in Finland and France: need for training in communication
- Reluctant trust present in all four countries: most doctors not experts in the field of vaccination (Manca 2018)
- Caution in generalizing results

Conclusion and perspectives

- Marked variability in the frequency and influence of psychosocial determinants of vaccine confidence on vaccine behavior among health professionals
- Importance of better understanding the impact of contextual factors
- And of taking them into account in designing vaccine policies and actions to reduce vaccine hesitancy in response to future pandemics
- I-Pro-VC-Be: translated versions available at <https://osf.io/vha92/>
- Usefulness of adapting it to other countries