Factors influencing the attitudes and opinions of Czech physicians and citizens toward influenza vaccination in Czech pharmacies (4CPS-016)

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BACKGROUND

Pharmacy-based vaccination (PBV) has already shown widespread success. Czech Republic has low influenza vaccination rate with currently no PBV.

OBJECTIVE

The objective was to determine physicians’ and citizens’ attitudes and opinions toward influenza vaccination in Czech pharmacies.

METHODS

Sociological cross-sectional study:

November to December 2020
Pilot testing preceded
Face-to-face structured interviews (1,348 physicians; 2,023 citizens)

Parts of the study:

A questionnaire focused on:
- Socio-demographic variables
- The attitude of physicians and citizens to influenza vaccination in pharmacies (positives, negatives, utilization of PBV)
- Statements (whether citizens and physicians agree with influenza vaccination in pharmacies)

Descriptive statistics and Pearson Chi-square test (Statistical analysis by program SASD 1.5.8.)

RESULTS

SOCIO-DEMOGRAPHIC DATA

- 1093 physicians (611 female; 55.9%)
  - Mean age 48 ± 0.8 years
  - 406 (37.1%) religious
  - Physician Specialization
    - 341 (31.2%) General practitioner for adults
    - 211 (19.3%) General practitioner for children and adolescents
    - 541 (49.5%) Other
- 1769 citizens (611 female; 51.0%)
  - Mean age 47 ± 0.1 years
  - 607 (34.3%) religious
  - Education (Tab. 1)

Table 1 Citizens’ education completed

<table>
<thead>
<tr>
<th>Education</th>
<th>Quantity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>149 (8.4)</td>
</tr>
<tr>
<td>Trade/technical/vocational</td>
<td>512 (28.9)</td>
</tr>
<tr>
<td>Secondary (with diploma)</td>
<td>714 (40.4)</td>
</tr>
<tr>
<td>Higher (bachelor’s or master’s degree)</td>
<td>394 (22.3)</td>
</tr>
</tbody>
</table>

ATTITUDE (CITIZENS AND PHYSICIANS) ON INFLUENZA VACCINATION IN PHARMACIES PROVIDED BY TRAINED PHARMACISTS

AGREEMENT

- 25.2% citizens, 33.1% physicians

DISAGREEMENT

- 41.1% citizens (more frequently woman, p < 0.05)
- 56.3% physicians (more frequently religious, p < 0.01)

NO OPINION

- 33.7% citizens (more frequently with lower education, p < 0.05)
- 10.6% physicians

ATTITUDES TO THE POSSIBILITY OF VACCINATION IN THE PHARMACY (CITIZENS’ VIEW)

AGREEMENT

- 8.6% only at a pharmacy that citizens visit regularly and where they trust their pharmacist
- 4.2% at any pharmacy
- 18.7% only at a recommendation of their physician

DISAGREEMENT

- 27.6% refusing influenza vaccination in general
- 14.5% never (more frequently citizens > 65 years, p < 0.001)

NO OPINION

- 25.3%

INFLUENZA VACCINATION IN PHARMACIES—REPORTED POSITIVES (TAB. 2)

Table 2 Reported positives regarding vaccination in pharmacies (citizens and physicians)

<table>
<thead>
<tr>
<th>Influenza vaccination in Pharmacy—positives</th>
<th>Citizens</th>
<th>Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased availability of vaccination</td>
<td>22.7%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Higher rate of influenza vaccination</td>
<td>15.0%</td>
<td>23.5%</td>
</tr>
<tr>
<td>Saving time for general practitioners</td>
<td>24.3%</td>
<td>41.8%</td>
</tr>
<tr>
<td>I don’t perceive any positives</td>
<td>50.3%</td>
<td>34.0%</td>
</tr>
<tr>
<td>Other positives</td>
<td>21.2%</td>
<td>37.9%</td>
</tr>
</tbody>
</table>

The sum of relative frequencies exceeds 100% (citizens and physicians mark up to 3 positives)

- Increased availability of vaccinations (citizens with higher education, p <0.001)

INFLUENZA VACCINATION IN PHARMACIES—REPORTED NEGATIVES (TAB. 3)

Table 3 Reported negatives regarding vaccination in pharmacies (citizens and physicians)

<table>
<thead>
<tr>
<th>Influenza vaccination in pharmacy—negatives</th>
<th>Citizens</th>
<th>Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacists are not competent health professionals</td>
<td>23.8%</td>
<td>25.1%</td>
</tr>
<tr>
<td>Pharmacists are not able to assess for whom influenza vaccination is not suitable</td>
<td>23.9%</td>
<td>23.4%</td>
</tr>
<tr>
<td>The pharmacy is not a adequate place for influenza vaccinations</td>
<td>31.0%</td>
<td>41.5%</td>
</tr>
<tr>
<td>Pharmacists are unable to deal with the adverse reactions of influenza vaccination</td>
<td>29.2%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Other negatives</td>
<td>16.2%</td>
<td>19.6%</td>
</tr>
</tbody>
</table>

The sum of relative frequencies exceeds 100% (citizens and physicians mark up to 3 negatives)

- Pharmacy is not adequate place for influenza vaccination (women, p <0.01)

CONCLUSION

Almost a third of respondents agreed with influenza vaccinations in pharmacies. This would significantly increase influenza vaccination in the Czech Republic. The level of education was the most important factor in selecting the positives of this vaccination, other factors had a statistically less significant effect on opinions and attitudes. For this reason, a higher level of information and knowledge of the population of the Czech Republic can be considered as one of the possible factors for increasing interest and reducing concerns about influenza vaccination by trained pharmacists in pharmacies.