

# Seasonal influenza vaccination programme country profile: Czech Republic

#### 2012–13 Season

#### **Background information**

| Influenza immunisation policy and   | d general facts about the Czech Republic   |
|---|--|
| Volume indices of GDP per capita in 2011 and 2013 (EU-28=100) Source: Eurostat <sup>a</sup>   | 83 and 82 respectively   |
| Health costs as % of GDP 2011<br>Source: Eurostat <sup>b</sup>  | 7.8%   |
| Total population of the country, 2011 Source: Eurostat $^{\rm c}$   | 10 436 560   |
| Population $\geq$ 65, 2011<br>Source: Eurostat <sup>c</sup>   | 1 644 836 (15.8% from the total population)  |
| Population with chronic medical conditions <65 years,<br>2006<br>Source: ECDC (based on methodology by Fleming and<br>Eliot, 2006) <sup>d</sup> | 853 000 (8.2% from the total population)   |
| Number of live births in 2011 <sup>e</sup>  | 108 673 (1% from the total population)   |
| National seasonal influenza recommendations<br>(e.g. age and target group recommendations and<br>guidelines)                                    | Recommendations available  |
| URL link to Immunisation Guidelines for the Czech Republic  | http://www.szu.cz/uploads/Epidemiologie/Influenza_vaccinati<br>on_recommendations_Czech_Republic.pdf |
| National Action Plan (NAP) as requested by EC   | Adopted  |
| URL link to NAP   | http://www.mzcr.cz/Verejne/dokumenty/narodni-akcni-<br>plan 5329 1092 5.html                         |

EUROSTAT links:

<sup>a</sup>GDP per capita 2013 (accessed 15.12.2014): <u>http://ec.europa.eu/eurostat/statistics-</u> <u>explained/index.php/GDP per capita, consumption per capita and price level indices</u>

<sup>b</sup>Health expenditures 2011(accessed 15.12.2014): <u>http://ec.europa.eu/eurostat/statistics-</u> <u>explained/index.php/General\_government\_expenditure\_on\_social\_protection\_and\_health</u>

<sup>c</sup>Total population and those > 65 years of age 2011(accessed 15.12.2014): <u>https://ec.europa.eu/CensusHub2/intermediate.do?&method=forwardResult</u>

<sup>d</sup> Population with chronic medical conditions 2006:

<u>http://www.ecdc.europa.eu/en/publications/Publications/0808 GUI Priority Risk Groups for Influenza Vaccinati</u> <u>on.pdf</u> (Fleming, D.M. and A.J. Elliot, Estimating the risk population in relation to influenza vaccination policy. 2006 May 15; 24(20):4378-85)

<sup>e</sup> Number of live births in 2011(accessed 15.12.2014): <u>http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00111&plugin=1</u>

# Seasonal influenza vaccination recommendations and payment mechanism for vaccination

| Vaccination recommendations (population g                   | roups targeted by vaccination)  |
|---|---|
| Overall population  | No recommendation   |
| Healthy children and adolescents                            | No recommendation   |
| Older population groups: ≥65 years of age                   | Recommended   |
| Chronic medical conditions                                  | Recommended:<br>- Pulmonary diseases;<br>- Neurologic diseases;<br>- Cardiovascular diseases;<br>- Renal diseases;<br>- Hepatic diseases;<br>- Metabolic disorders;<br>- Immunosuppressed individuals;<br>- HIV/AIDS. |
|   | No recommendation:<br>- Haematological disorders;<br>- Morbid obesity,<br>- Long-term aspirin use (children <18<br>years).  |
| Pregnancy-related vaccination (including post-partum women) | Recommended:<br>- For all pregnant women at any stage during pregnancy.   |
|   | No recommendation:<br>- Postpartum women if not vaccinated<br>during pregnancy.   |
| Healthcare workers  | Recommended:<br>To all healthcare workers   |
| Other occupational groups                                   | na  |
| Population groups in closed communities                     | Recommended:<br>- For residents of long- term care<br>facilities;   |
|   | No recommendation:<br>- For prisoners;<br>- For children in day care centres  |
| Household contacts or carer of:                             | Recommended:<br>- Individuals with chronic medical conditions.  |
|   | No recommendation:<br>- Infants <6 months of age;<br>- Immunosuppressed individuals;<br>- ≥65 years of age.   |

na: Not applicable

## Payment mechanism for vaccine and its administration for the population groups targeted by seasonal influenza vaccine

|  | For vaccine  | For administration                       |  |  |
|--|--|--|--|--|
| Overall population   | na   | na                                       |  |  |
| Healthy children and adolescents                                   | na   | na                                       |  |  |
| Older population groups (≥65 years of age) <sup>a</sup>            | National insurance scheme  | National insurance scheme                |  |  |
| Chronic medical conditions groups (by group) <sup>b</sup>          | National insurance scheme;<br>The list of chronic diseases to<br>be reimbursed from insurance<br>is shorter than the list of<br>chronic diseases from national<br>vaccine recommendation | National insurance scheme                |  |  |
| Pregnancy-related vaccination (including post-<br>partum women)    | NA   | NA                                       |  |  |
| Health care workers (including staff of long-stay care facilities) | Out of pocket <sup>c</sup> ;<br>Employer   | Out of pocket <sup>c</sup> ;<br>Employer |  |  |
| Other occupational groups  | na   | na                                       |  |  |
| Population groups in closed communities <sup>a,b</sup>             | National insurance scheme  | National insurance scheme                |  |  |
| Household contacts or care givers <sup>d</sup>                     | Out of pocket  | Out of pocket                            |  |  |

na: Not applicable

NA: Not available

<sup>a</sup> Co-payment for vaccine exist. Only cheapest vaccine is covered from insurance for people  $\geq$ 65 of age. For other vaccine(s), there is need to pay the difference.

<sup>b</sup> Co-payment for vaccine exist. .Only cheapest vaccine is covered from insurance for people with chronic conditions. For other vaccine(s), you have to pay the difference.

<sup>c</sup> 100% paid by vaccine receiver or employer.

<sup>d</sup> You have to pay 100%.

**National insurance scheme**: health contributions are paid to the insurance fund and then for this contribution there is a package of services received. It is not by default that you receive the services if you do not pay the insurance contributions.

**National health service**: taxes are paid by a citizen or resident of the country and this person is covered by the health service.

Out of pocket: not reimbursed, paid by receiver of vaccine.

#### **Vaccination coverage rates**

| Population group                                       |        |       |        |       | Influenz | a seasor | 1 I    |              |        |       |
|--|--------|-------|--------|-------|----------|----------|--------|--------------|--------|-------|
|  | 2008   | 3–09  | 2009   | 9–10  | 2010     | )—11     | 2011   | L <b>—12</b> | 2012   | 2–13  |
|  | Admin. | Surv. | Admin. | Surv. | Admin.   | Surv.    | Admin. | Surv.        | Admin. | Surv. |
| Overall population                                     | 7.2    | na    | 7.8    | na    | NA       | na       | NA     | na           | NA     | na    |
| Children/adolescents                                   | na     | na    | na     | na    | na       | na       | na     | na           | na     | na    |
| Older population groups:<br>≥65 years of age           | NA     | NA    | NA     | NA    | NA       | NA       | NA     | NA           | NA     | NA    |
| Chronic medical conditions<br>groups                   | NA     | NA    | NA     | NA    | NA       | NA       | NA     | NA           | NA     | NA    |
| Pregnant women <sup>a</sup>                            | -      | -     | -      | -     | NA       | NA       | NA     | NA           | NA     | NA    |
| Healthcare workers                                     | NA     | NA    | NA     | NA    | NA       | NA       | NA     | NA           | NA     | NA    |
| Staff in long-stay care<br>facilities <sup>b</sup>     | -      | -     | -      | -     | -        | -        | NA     | NA           | NA     | NA    |
| Residents in long stay care<br>facilities <sup>b</sup> | -      | -     | -      | -     | -        | -        | NA     | NA           | NA     | NA    |

na: Not applicable

NA: Not available

<sup>a</sup> VENICE started to collect vaccination coverage data for pregnant women after the A(H1N1)pdm09 (2010-11 influenza season).

<sup>b</sup> VENICE started to collect vaccination coverage data for staff and residents in long-stay care facilities for the influenza season 2011-12.

#### Methods to monitor vaccination coverage, safety and effectiveness

#### Monitoring of vaccination coverage during the 2012–13 influenza season

Method used to monitor influenza vaccination coverage

Administrative method only

| Method used (administrative, survey) to monitor vaccination coverage by population group   |        |  |  |
|--|--------|--|--|
| Administrative   | Survey |  |  |
| Do not monitor vaccination coverage in any population groups recommended vaccine (e.g. $\geq$ 65 years of age; those with chronic medical conditions; pregnant women, healthcare workers). | na     |  |  |

na: Not applicable

| Details on administrative method used (medical records vs. immunisation registry; manual vs.<br>electronic) by population group |                                       |        |            |  |
|---|---------------------------------------|--------|------------|--|
|   | Medical records Immunisation registry |        |            |  |
| Manual  | Electronic                            | Manual | Electronic |  |
| na  | na                                    | No     | No         |  |

na: Not applicable

| Numerator assessment |  |  |  |  |
|----------------------|--|--|--|--|
| Pharmaceutical data  | Administrative data  | Frequency of numerator<br>assessment     |  |  |
| Not used             | Aggregate collection of number of<br>vaccines administered | Once, at the end of the influenza season |  |  |

| Denominator assessment by population groups and data source     |   |  |  |
|---|---|--|--|
| Population group  | Data source for population group  |  |  |
| Entire population   | Not used  |  |  |
| Children and adolescents  | Not used  |  |  |
| Adults  | Not used  |  |  |
| Individuals with medical/risk conditions (clinical risk groups) | Not used  |  |  |
| Pregnant women  | Not used  |  |  |
| Healthcare workers  | Not used  |  |  |
| Essential public sector workers                                 | Not used  |  |  |
| Prisoners   | Not used  |  |  |
| Residents of long-term care institutions                        | Not used  |  |  |
| Educational institutions  | Not used  |  |  |
| Other, please specify   | Used. Individuals with chronic medical conditions plus people of age ≥65 together; number of vaccine administered, one summary number from health insurance company |  |  |

| Details for survey method used for the 2012–13 influenza season                      |    |    |    |  |  |
|--|----|----|----|--|--|
| Type of the survey         Survey mode         Sampling strategy         Sample size |    |    |    |  |  |
| na   | na | na | na |  |  |

na: Not applicable

| Vaccine safety monitoring (adverse events following immunisation AEFV) |   |  |                     |                                     |  |
|--|---|--|---------------------|-------------------------------------|--|
| Data collected at<br>the national and at<br>the regional level         | Data linkage with<br>immunisation<br>registry | Details collected  | Status of reporting | AEFV reported to                    |  |
| Yes  | No  | Yes, case based data<br>including age, sex and<br>suspected symptoms<br>should be reported |                     | State Institute for<br>Drug Control |  |

| Monitoring of influenza vaccine break-through <sup>a</sup> infections in vaccinated individuals                        |    |    |  |  |
|--|----|----|--|--|
| Data collected at the national<br>and at the regional levelData linkage with immunisation<br>registryDetails collected |    |    |  |  |
| There is no such system  | na | na |  |  |

na: Not applicable

<sup>a</sup> Break-through infection is defined as laboratory-confirmed influenza infection >14 days after seasonal influenza vaccination in the current season (i.e. vaccine failure).

## Vaccine procurement and delivery

| Influenza vaccine procurement and delivery, 2012–13 influenza season |             |      |  |
|--|-------------|------|--|
| Number of doses  |             |      |  |
| Purchased  | Distributed | Used |  |
| NK   | NK          | NK   |  |

NK: Not known

| Type of vaccine/Product Name                        | Target groups   |  |
|---|---|--|
| Trivalent inactivated non-adjuvanted vaccines (TIV) |   |  |
| Used  |   |  |
| Abbott;<br>Sanofi Pasteur;                          | Children and adolescents;<br>Healthy adults;<br>Older adults (e.g. ≥60/65 years);<br>Those with medical condition/s;<br>Pregnant women;<br>Residents of long stay care facilities;<br>Health Care Workers;<br>Other occupational groups |  |
| Trivalent inactiva                                  | ated adjuvanted vaccines (aTIV)   |  |
| Not used  |   |  |
| Trivalent live a                                    | ttenuated nasal vaccine (LAIV)  |  |
| Not used  |   |  |
| Quadrivalent a                                      | ttenuated nasal vaccine (LAIV)  |  |
| Not used  |   |  |
| Quadrivalent inactiv                                | vated non-adjuvanted vaccine (QIV)  |  |
| Not used  |   |  |

## Promoting seasonal influenza vaccination

| Promoting seasonal influenza vaccination during the 2012–13 influenza season |   |  |
|--|---|--|
| Promotion activities with the general public<br>and healthcare workers       | Source of information (if yes)                                      |  |
| General public   |   |  |
| No   | na  |  |
| Population over 65   |   |  |
| Yes  | Leaflets; Posters; Other: press conference, discussion with experts |  |
| Pregnant women   |   |  |
| No   | na  |  |
| Chronic medical conditions   |   |  |
| Yes  | Leaflets; Posters; Other: press conference, discussion with experts |  |
| Healthcare workers   |   |  |
| No   | na  |  |

na: Not applicable

# Use of antiviral agents for treatment and chemoprophylaxis of influenza

Recommendations and/or guidelines (policy document) on antiviral use

Recommendations available

| season  |   |  |
|---|---|--|
| Use of antivirals for <u>treatment</u> for in-patients and out-patients who are at higher risk of developing<br>influenza complications   |   |  |
| For in-patients who:  |   |  |
| <ul> <li>have severe, complicated influenza-like illness (ILI);</li> <li>have progressive influenza-like illness;</li> </ul>  | Recommended   |  |
| - require hospitalisation due to influenza-like illness.  | No recommendation   |  |
| For out-patients who are at higher risk of developing influenza complications medical conditions:   | on the basis of their age or underlying                       |  |
| <ul> <li>Children &lt;2 years;</li> <li>Children &lt;5 years;</li> <li>Adults aged ≥65 years;</li> <li>Individuals belonging to risk groups.</li> <li>Women who are pregnant or postpartum (within 6 weeks after delivery);</li> <li>Residents of nursing homes and other chronic-care facilities.</li> </ul> | No recommendation   |  |
| Use of antivirals for <u>post-exposure</u> proph  | ylaxis  |  |
| For family or other close contacts of a person at higher risk for influenza<br>complications who have not been vaccinated with influenza vaccine at the time<br>of exposure;  | No recommendation   |  |
| For unvaccinated healthcare workers with occupational exposure and who did<br>not use personal protective equipment at the time of exposure   | No recommendation   |  |
| Use of antivirals for pre-exposure proph  | ylaxis  |  |
| For individuals who are at high risk (e.g. severely immunosuppressed patients)<br>for influenza-related complications who cannot otherwise be protected during<br>times when a high risk for exposure exists  | No recommendation   |  |
| Use of antivirals for <u>control of</u> influenza <u>ou</u>   | itbreaks  |  |
| For individuals in long-term care facilities/care for immunocompromised<br>ndividuals if not vaccinated or if the circulating influenza strain does not match<br>the vaccine strains  | No recommendation   |  |
| For unvaccinated healthcare staff who provide care to individuals at high risk of<br>developing complications in long-term care facilities/ care for<br>mmunocompromised patients if not vaccinated or if the circulating influenza<br>strain does not match the vaccine strains                              | f No recommendation   |  |
| For all health care staff regardless of whether they received an influenza vaccination if the circulating influenza strain does not match the vaccine strains   | No recommendation   |  |
| Prisoners   | No recommendation   |  |
| Educational institutions  | No recommendation   |  |
| Existence of antiviral resistance surveillanc   | e system  |  |
| Antiviral resistance surveillance system  | There is no antiviral resistance surveillance system in place |  |

Country profiles are based on the <u>Seasonal Influenza Vaccination in Europe</u> report produced by the European Centre for Disease Prevention and Control (ECDC) and the Vaccine European New Integrated Collaboration Effort III (VENICE III). The data are from the seasonal influenza vaccination survey for 2012–13 season in EU/EEA countries. Results above use the same data as was available when the report was published. During the validation process in June 2015, minor changes were introduced in some country profiles. Therefore, data may be different to those available in the report.