

# Seasonal influenza vaccination programme country profile: Bulgaria

## 2012–13 Season

### Background information

Influenza immunisation policy and general facts about Bulgaria	
Volume indices of GDP per capita in 2011 and 2013 (EU-28=100) Source: Eurostat <sup>a</sup>	44 and 45 respectively
Health costs as % of GDP 2011 Source: Eurostat <sup>b</sup>	4.6%
Total population of the country, 2011 Source: Eurostat <sup>c</sup>	7 364 570
Population ≥65, 2011 Source: Eurostat <sup>c</sup>	1 361 397 (18.5% from the total population)
Population with chronic medical conditions <65 years, 2006 Source: ECDC (based on methodology by Fleming and Elliot, 2006) <sup>d</sup>	637 000(8.6% from the total population)
Number of live births in 2011 <sup>e</sup>	70 846 (1% from the total population)
National seasonal influenza recommendations (e.g. age and target group recommendations and guidelines)	Recommendations available
URL link to Immunisation Guidelines for Bulgaria	<a href="http://www.mh.government.bg/Articles.aspx?lang=bg-BG&amp;pageid=391&amp;currentPage=11&amp;categoryid=5211">http://www.mh.government.bg/Articles.aspx?lang=bg-BG&amp;pageid=391&amp;currentPage=11&amp;categoryid=5211</a>
National Action Plan (NAP) as requested by EC	Plan is under development
URL link to NAP	na

na: Not applicable

EUROSTAT links:

<sup>a</sup>GDP per capita 2013 (accessed 15.12.2014): [http://ec.europa.eu/eurostat/statistics-explained/index.php/GDP\\_per\\_capita,\\_consumption\\_per\\_capita\\_and\\_price\\_level\\_indices](http://ec.europa.eu/eurostat/statistics-explained/index.php/GDP_per_capita,_consumption_per_capita_and_price_level_indices)

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

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

<sup>d</sup>Population with chronic medical conditions 2006:  
[http://www.ecdc.europa.eu/en/publications/Publications/0808\\_GUI\\_Priority\\_Risk\\_Groups\\_for\\_Influenza\\_Vaccinati\\_on.pdf](http://www.ecdc.europa.eu/en/publications/Publications/0808_GUI_Priority_Risk_Groups_for_Influenza_Vaccinati_on.pdf) (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): <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tps00111&plugin=1>

## Seasonal influenza vaccination recommendations and payment mechanism for vaccination

Vaccination recommendations (population groups 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: <ul style="list-style-type: none"> <li>- Pulmonary diseases,</li> <li>- Cardiovascular diseases,</li> <li>- Renal diseases,</li> <li>- Hepatic diseases,</li> <li>- Haematological disorders,</li> <li>- Metabolic disorders,</li> <li>- Immunosuppressed individuals,</li> <li>- HIV/AIDS</li> </ul>
	No recommendation: <ul style="list-style-type: none"> <li>- Neurologic diseases,</li> <li>- Morbid obesity,</li> <li>- Long-term aspirin use (children &lt;18 years)</li> </ul>
Pregnancy-related vaccination (including post-partum women)	No recommendation: <ul style="list-style-type: none"> <li>- Pregnant women</li> </ul>
	Postpartum women if not vaccinated during pregnancy recommended only for those with chronic medical condition.
Healthcare workers	Recommended to all healthcare workers
Other occupational groups	Recommended: <ul style="list-style-type: none"> <li>- Police and Fire service</li> <li>- Military</li> <li>- Public transport (e.g. ground, rail, air, marine)</li> <li>- Social care workers</li> </ul>
Population groups in closed communities	Recommended: <ul style="list-style-type: none"> <li>- For residents of long- term care facilities;</li> <li>- For children in day care centers</li> </ul>
	No recommendation: <ul style="list-style-type: none"> <li>- For prisoners;</li> </ul>
Household contacts or care receivers	Recommended: <ul style="list-style-type: none"> <li>- Immunosuppressed individuals.</li> <li>- Individuals with chronic medical conditions;</li> <li>- ≥65 years of age.</li> </ul>
	No recommendation: <ul style="list-style-type: none"> <li>- Infants &lt;6months of age.</li> </ul>

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>	Out of pocket	Out of pocket
Chronic medical conditions groups (by group) <sup>a</sup>	Out of pocket	Out of pocket
Pregnancy-related vaccination (including post-partum women) <sup>a</sup>	na	na
Health care workers (including staff of long-stay care facilities) <sup>a</sup>	Out of pocket; Employer	Out of pocket; Employer
Other occupational groups <sup>a</sup>	Out of pocket; Employer	Out of pocket; Employer
Population groups in closed communities <sup>a</sup>	Out of pocket; National health service (Ministry of Health)	Out of pocket; National health service (Ministry of Health)
Household contacts or care givers <sup>a</sup>	Out of pocket	Out of pocket

<sup>a</sup> No co-payment for vaccine and vaccine administration.

na: Not applicable

**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

Vaccination coverage (%) in population groups targeted by seasonal influenza vaccination the from 2008–09 to the 2012–13 influenza season by method of data collection (administrative and /or survey)										
Population group	Influenza season									
	2008–09		2009–10		2010–11		2011–12		2012–13	
	Admin.	Surv.	Admin.	Surv.	Admin.	Surv.	Admin.	Surv.	Admin.	Surv.
Overall population	4.74	-	6.33	-	3.41	-	2.91	-	2.67	-
Children/adolescents	na	na	na	na	na	na	na	na	na	na
Older population groups: ≥65 years of age	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chronic medical conditions groups <sup>a</sup>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pregnant women <sup>b</sup>	-	-	-	-	na	na	na	na	na	na
Healthcare workers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Staff in long-stay care facilities <sup>c</sup>	-	-	-	-	-	-	NA	NA	NA	NA
Residents in long stay care facilities <sup>c</sup>	-	-	-	-	-	-	NA	NA	NA	NA

na: Not applicable

NA: Not available

<sup>a</sup> Vaccine uptake is for patients who are between 6 months and 65 years in a clinical risk group. It includes pregnant women with other risk factors but excludes otherwise-healthy pregnant women and carers.

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

<sup>c</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. : ≥65 years of age; those with chronic medical conditions; pregnant women, HCWs )	na

na: Not applicable

Details on administrative method used (medical records vs. immunisation registry; manual vs. 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 assessment
Vaccine distribution data from national purchaser-entire population used	Aggregate collection of number of vaccines distributed (national purchaser);	Once, at the end of influenza season

Denominator assessment by population groups and data source	
Population group	Data source for population group
Entire population	National central statistical data
Children and adolescents	na
Adults	Not used
Individuals with medical/risk conditions (clinical risk groups)	Not used
Pregnant women	na
Healthcare workers	Not used
Essential public sector workers	Not used
Prisoners	na
Residents of long-term care institutions	Not used
Educational institutions	Not used
Other, please specify	National central statistical data

na: Not applicable

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

Scientific studies conducted for vaccination coverage; vaccine safety and vaccine effectiveness
Not conducted

Vaccine safety monitoring (adverse events following immunisation AEFV)				
Data collected at the national and at the regional level	Data linkage with immunisation registry	Details collected	Status of reporting	AEFV reported to
Yes	No	Yes, case based data including age, sex and suspected symptoms should be reported	Mandatory	MoH and Bulgarian Drug Agency

Monitoring of influenza vaccine break-through <sup>a</sup> infections in vaccinated individuals		
Data collected at the national and at the regional level	Data linkage with immunisation registry	Details 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
194 398	NK	NK

NK: Not known

Type of vaccine/Product Name	Target groups
<b>Trivalent inactivated non-adjuvanted vaccines (TIV)</b>	
Used	
Abbott; Sanofi Pasteur.	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Residents of long stay care facilities; Healthcare workers Other occupational groups
<b>Trivalent inactivated adjuvanted vaccines (aTIV)</b>	
Not used	
<b>Trivalent live attenuated nasal vaccine (LAIV)</b>	
Not used	

<b>Quadrivalent attenuated nasal vaccine (LAIV)</b>
Not used
<b>Quadrivalent inactivated non-adjuvanted vaccine (QIV)</b>
Not used

## Promoting seasonal influenza vaccination

Promoting seasonal influenza vaccination during the 2012–13 influenza season	
Promotion activities with the general public and healthcare workers	Source of information (if yes)
<b>General public</b>	
Yes	Radio; TV; Newspapers; Leaflets
<b>Population over 65</b>	
Yes	Radio; TV; Newspapers; Leaflets
<b>Pregnant women</b>	
Yes	na
<b>Chronic medical conditions</b>	
Yes	Radio; TV; Newspapers; Leaflets
<b>Healthcare workers</b>	
Yes	Radio; TV; Newspapers; Website; Professional medical societies; National medical publications

na: Not applicable

## Use of antiviral agents for treatment and chemoprophylaxis of influenza

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

Use of antiviral agents for treatment and chemoprophylaxis of influenza during the 2012–13 influenza season	
<b>Use of antivirals for <u>treatment</u> for in-patients and out-patients who are at higher risk of developing influenza complications</b>	
For in-patients who:	
<ul style="list-style-type: none"> <li>- have severe, complicated influenza-like illness (ILI);</li> <li>- have progressive influenza-like illness;</li> <li>- require hospitalisation due to influenza-like illness.</li> </ul>	Recommended
For out-patients who are at higher risk of developing influenza complications on the basis of their age or underlying medical conditions:	
<ul style="list-style-type: none"> <li>- Children &lt; 2 years;</li> <li>- Women who are pregnant or postpartum (within 6 weeks after delivery);</li> </ul>	No recommendation
<ul style="list-style-type: none"> <li>- Children &lt; 5 years;</li> <li>- Adults aged ≥65 years;</li> <li>- Individuals belonging to risk groups.</li> <li>- Residents of nursing homes and other chronic-care facilities.</li> </ul>	Recommended

<b>Use of antivirals for <u>post-exposure</u> prophylaxis</b>	
For family or other close contacts of a person at higher risk for influenza complications who have not been vaccinated with influenza vaccine at the time of exposure;	No recommendation
For unvaccinated healthcare workers with occupational exposure and who did not use personal protective equipment at the time of exposure	No recommendation
<b>Use of antivirals for <u>pre-exposure</u> prophylaxis</b>	
For individuals who are at high risk (e.g. severely immunosuppressed patients) for influenza-related complications who cannot otherwise be protected during times when a high risk for exposure exists	No recommendation
<b>Use of antivirals for <u>control of influenza outbreaks</u></b>	
For individuals in long-term care facilities/care for immunocompromised individuals if not vaccinated or if the circulating influenza strain does not match the vaccine strains	No recommendation
For unvaccinated healthcare staff who provide care to individuals at high risk of developing complications in long-term care facilities/ care for immunocompromised patients if not vaccinated or if the circulating influenza strain does not match the vaccine strains	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
<b>Existence of antiviral resistance surveillance system</b>	
Antiviral resistance surveillance system	There is no antiviral resistance surveillance system in place

Country profiles are based on the [Seasonal Influenza Vaccination in Europe](#) 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.