

# Seasonal influenza vaccination programme country profile: Sweden

## 2012–13 Season

### Background information

Influenza immunisation policy and general facts about Sweden	
Volume indices of GDP per capita in 2011 and 2013 (EU-28=100) Source: Eurostat <sup>a</sup>	127 and 127 respectively
Health costs as % of GDP 2011 Source: Eurostat <sup>b</sup>	7.0%
Total population of the country, 2011 Source: Eurostat <sup>c</sup>	9 482 855
Population ≥65, 2011 Source: Eurostat <sup>c</sup>	1 784 668 (18.8% 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>	756 000 (8.0% from the total population)
Number of live births in 2011 <sup>e</sup>	111 770 (1.2% 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 Sweden	<a href="http://www.socialstyrelsen.se/publikationer2013/2013-6-37">http://www.socialstyrelsen.se/publikationer2013/2013-6-37</a>
National Action Plan (NAP) as requested by EC	Plan not adopted
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>- Neurologic 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>- Morbid obesity.</li> </ul>
	No recommendation: <ul style="list-style-type: none"> <li>- HIV/AIDS**;</li> <li>- Long-term aspirin use (children &lt;18 years).</li> </ul>
Pregnancy-related vaccination (including post-partum women)	Recommended: <ul style="list-style-type: none"> <li>- For all pregnant women in the second or third pregnancy trimester.<sup>b</sup></li> </ul>
	No recommendation: <ul style="list-style-type: none"> <li>- Postpartum women if not vaccinated during pregnancy.</li> </ul>
Healthcare workers	Recommended: <ul style="list-style-type: none"> <li>- For some healthcare workers.<sup>a</sup></li> </ul>
Other occupational groups	-
Population groups in closed communities	No recommendation: <ul style="list-style-type: none"> <li>- For residents of long- term care facilities;</li> <li>- For prisoners;</li> <li>- For children in day care centres.</li> </ul>
Household contacts or carer of:	Recommended: <ul style="list-style-type: none"> <li>- Immunosuppressed individuals</li> </ul>
	No recommendation: <ul style="list-style-type: none"> <li>- Infants &lt;6months of age;</li> <li>- Individuals with chronic medical conditions;</li> <li>- ≥65 years of age.</li> </ul>

<sup>a</sup> Only staff caring for persons who are severely immunocompromised are recommended vaccination.

<sup>b</sup>SE- Recommended for all pregnant women belonging to the above mentioned clinical risk groups AND those otherwise healthy pregnant women who were not vaccinated with Pandemrix 2009-2010.

\*Not all disorders recommended vaccine: for adults vaccine recommended only for those with diabetes. For children vaccine recommended for those with diabetes and other metabolic disorders.

\*\* Not recommended per se, but if the HIV/AIDS leads to immunosuppression, the individuals will be recommended vaccination accordingly.

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

na: Not applicable

<sup>a</sup> In some regions, the vaccine receiver is charged a symbolic amount (approximately €10) for vaccine & vaccination.

**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	na	na	na	na	na	na	na	na	na	na
Children/adolescents	na	na	na	na	na	na	na	na	na	na
Older population groups: ≥65 years of age	65.8	na	43.9	na	55.2	na	46.1	na	44.3	na
Chronic medical conditions 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 facilities <sup>b</sup>	-	-	-	-	-	-	na	na	na	na
Residents in long stay care facilities <sup>b</sup>	-	-	-	-	-	-	na	na	na	na

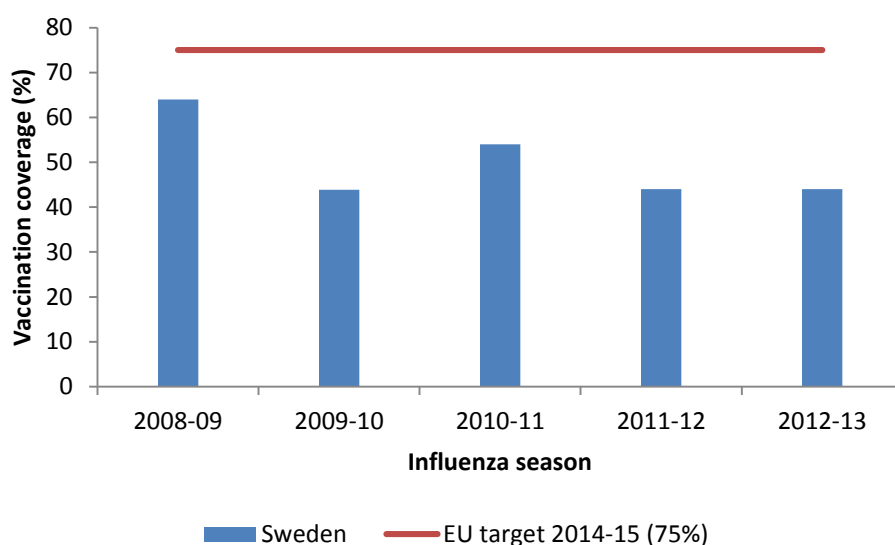
na: Not applicable

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.

**Figure 1. Seasonal influenza vaccination coverage among those ≥65 years of age from the 2008–09 to the 2012–13 influenza season**



## Methods to monitor vaccination coverage, safety and effectiveness

Monitoring of vaccination coverage during the 2012–13 influenza season	
<b>Method used to monitor influenza vaccination coverage</b>	
Combination of administrative and survey methods	

Method used (administrative, survey) to monitor vaccination coverage by population group <sup>a</sup>	
Administrative	Survey
Adults: aged ≥65 years old;	Adults: aged ≥65 years old;

<sup>a</sup> Each county medical officer estimated the vaccination coverage for their geographical area, by administrative or survey method.

Details on administrative method used (medical records vs. immunisation registry; manual vs. electronic) by population group			
<b>Medical records</b>		<b>Immunisation registry</b>	
Manual	Electronic	Manual	Electronic
No	Adults: aged ≥65 years old;	No	Adults: aged ≥65 years old;

Numerator assessment		
<b>Pharmaceutical data</b>	<b>Administrative data</b>	<b>Frequency of numerator assessment</b>
Not used	Aggregate collection of number of vaccine doses administered;	Once, at the end of influenza season

Denominator assessment by population groups and data source	
Population group	Data source for population group
Entire population	Used. National population registry
Children and adolescents	na
Adults	Not used
Individuals with medical/risk conditions (clinical risk groups)	Not used
Pregnant women	Not used
Health care 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	Not used

na: Not applicable

Details for survey method used for the 2012–13 influenza season <sup>a</sup>			
Type of the survey	Survey mode	Sampling strategy	Sample size
NA	NA	NA	NA

NA: Not Available

<sup>a</sup> Different survey methods were used in different counties.

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

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	Not possible (no national immunisation registry)	Case based data including age, sex and the symptoms suspected to be AEFI	Mandatory	The Swedish Medical Products 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 comprehensive system with systematic follow up	na (no national immunisation registry)	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
<b>Trivalent inactivated non-adjuvanted vaccines (TIV)</b>	
Used <sup>a</sup>	
Abbott; Baxter; GlaxoSmithKline; Sanofi Pasteur	Older adults (e.g. ≥60/65 years); Those with medical condition/s; Pregnant women; Health Care Workers;
<b>Trivalent inactivated adjuvanted vaccines (aTIV)</b>	
Not used	
<b>Trivalent live attenuated nasal vaccine (LAIV)</b>	
Used	
Astra Zeneca	Children and adolescents with medical condition/s
<b>Quadrivalent attenuated nasal vaccine (LAIV)</b>	
Not used	
<b>Quadrivalent inactivated non-adjuvanted vaccine (QIV)</b>	
Not used	

<sup>a</sup> TIVs are mostly used. Vaccines are procured before the influenza season by each county separately. LAIV vaccines were available season 2012-2013, but it is not known to what extent they were 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>	
No	na
<b>Population over 65</b>	
Yes	Radio; TV; Newspapers; Leaflets; Posters; Website
<b>Pregnant women</b>	
No	na
<b>Chronic medical conditions</b>	
Yes	Radio; TV; Newspapers; Leaflets; Posters; Website
<b>Healthcare workers</b>	
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: <a href="http://www.socialstyrelsen.se/publikationer2013/2013-6-37">http://www.socialstyrelsen.se/publikationer2013/2013-6-37</a>	

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>- Residents of nursing homes and other chronic-care facilities.</li> <li>- Children &lt; 2 years;</li> <li>- Children &lt; 5 years;</li> </ul>	No recommendation
<ul style="list-style-type: none"> <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> </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	Recommended
<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 an 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. 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.