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The vaccination programme in Flanders

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Infectious disease control and vaccination

The vaccination programme in Flanders

- **Vaccines for the vaccination programme**
  - → based upon recommendations of the Superior Health Council (National Immunisation Technical Advisory Group – NITAG)
  - → As prevention in health is a subnational responsibility and duty: decision making for implementation at the subnational levels (Flemish Community, Walloon Region, Brussels)
  - → For Flanders: advice by the Flemish Vaccination Board with representatives of all kind of vaccinators and academics: advises about implementation of vaccinations
  - → contracted by public tenders including cold chain monitored transport and delivery directly to the consultation place of the vaccinator. All vaccinators can order the vaccines free of charge in a quantity adapted to their specific setting in order to be able to vaccinate when necessary (vaccine stock available).

Organisation - vaccinators

- **Organised preventive structures (no consultation cost)**
  - → Well-Baby Clinics (WBC): organise visits to all new-borns at home and offer possibilities for free preventive consultations with vaccination at their consultation offices.
  - → School Health Services (SHS): all schools with a recognised educational programme are linked to a SHS. In the school years of recommended vaccinations: information + invitation letter to all children for their parents. When authorized vaccinations are given for free. Free choice for another MD is possible (consultation fee to be paid).
  - → Occupational medicine (cost for employer)
  - → Coordination MD of elderly homes (CRA)
  - → Mobile Vaccination Team, for underserved people and outbreaks

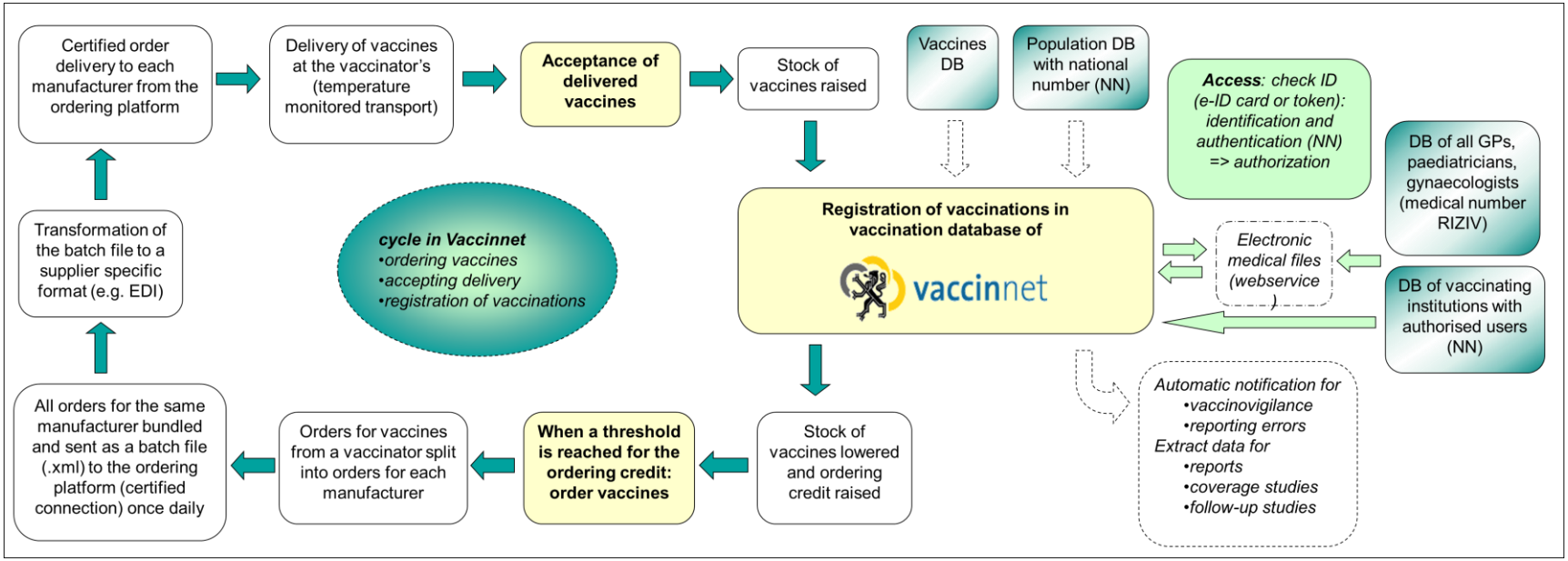
- **Settings in the preventive-curative sector – only consultation fee (vaccines free of charge):**
  - → general practitioners (GPs), paediatricians, gynaecologists
  - → elderly homes, homes for disabled children and adults, hospitals, …

Political commitment: a public health goal on immunisation

- **Public health conference**
  - → Public health goals on various topics in preventive health care (Decree of 21 November 2003 regarding preventive healthcare)
  - → On April 21st 2012: public health conference on immunisation leading to an actualised public health goal on vaccinations with an action plan for 2012-2020. This was unanimously adopted by the Flemish Parliament in July 2013

- **Vaccination schedule for lifetime vaccination officialised by Ministerial Decree on January 29th 2015.**
  - → defines the vaccination schedule for Flanders
  - → defines what part of it is considered as the vaccination pogramme, aiming at optimal/maximum vaccination coverage, with free vaccines
  - → makes registration of given vaccinations mandatory in Vaccinnet, the vaccines ordering system linked to a vaccination database

Vaccinnet: an operational vaccine ordering system linked to a vaccination database



Basic Vaccination Schedule 2017

Age	IPV-DTP$_a$-Hib-HBV	Pn$_c$	RV*	MMR	MenC	IPV-DTP$_a$	HPV	dTp$_a$
8 weeks	X	X	X					
12 weeks	X		X					
16 weeks	X	X	(X)					
12 months		X		X				
15 months	X				X			
6 year						X		
10 year				X				
girls 12 year							XX	
14 year								X

*RV: rotavirus vaccination recommended but not in vaccination programme (2 or 3 doses depending on brand)

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Vaccination programme in adults

- **Booster vaccination with dTp_a:**
  - → Vaccination op pregnant women during each pregnancy (between week 24 – 32 gestational age)
  - → Cocoon vaccination for care givers, professionals and family taking care of infants, …
  - → Booster vaccination in adults

- **Influenza vaccination:**
  - → Residents in elderly homes
  - → Residents in institutions for disabled people (with a restriction) and for chronic psychiatric patients

- **Vaccination of asylum seekers (all ages):**
  - → At the moment of asylum demand: RX thorax + vaccinations (IPV when indicated, MMR, dTp_a)

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HBV-vaccination in Belgium

- **From 1983 onwards:**
  - → Mandatory for health care workers, (later) extended to other care givers
  - → Paid by the Fund for occupational diseases (FBZ – Fedriz: Federal Agency for Professional Risks)

- **Advice NITAG (Superior Health Council) 1996:**
  - → add HBV-vaccination to vaccination schedule

- **Implementation in vaccination programme: September 1999:**
  - → Infants (2+1 scheme HBV-vaccine)
  - → One cohort of school children (Flanders 1st year secondary school)

- **Since 2004 hexavalent vaccine in infants and catch-up in school children if needed (children from non-vaccinating countries,…)**

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Hepatitis A vaccination

- **HAV-vaccination is not part of the vaccination programme**
- **Advice about HAV-vaccination:**
  - → Travel to countries where HAV is endemic (e.g.visiting friends and family)
  - → Food handlers: risk of contamination of manipulated food
  - → People working with sewage and care givers
  - → In the action plan on immunization: try to create willingness to vaccinate in the sector

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Vaccines through the health insurance (RIZIV – INAMI) – outside programme

- HBV vaccines partially reimbursed for some risk groups:
  - → Patients (dialysis, transplantation, poly transfusion, etc....)
  - → Household contacts of HBsAg+ persons, special attention to newborn baby's from HBsAg+ mothers (also in the programme)
  - → Some mentally disabled people

- Not reimbursed for:
  - → Travelers
  - → People with multiple sex partners
  - → Sex workers
  - → MSM

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Hepatitis-vaccination of risk groups

- **Occupational medicine:**
  - → Financed by Fund for occupational diseases (FBZ-Fedris)
  - → Mandatory HBV vaccination for care givers/(future) health care providers – e.g. medical students (otherwise no medical degree)
  - → Sewage workers (HAV)
  - → Combination vaccines (hepA + B) allowed

- **Specific attention to sex workers by dedicated NGO's:**
  - → Ghapro, Pasop

- **Post-exposure vaccination**
  - → Outbreak management if necessary with Mobile Vaccination Team (HAV)

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Vaccination coverage in Flanders: infants (EPI survey)

Study conducted in		2005	2008	2012	2016
Birth Year		°2003	°2006	°2010	°2014
Age at interview		18-24 months			
Number interviewed		1349	915	874	746
Infant vaccinations	DTPa-Polio (4 doses)	92.9 (91.6-94.2)	95.2 (93.6-96.4)	93.0 (91.1-94.5)	93.0 (90.5-95.0)
	Hib (4 doses)	92.6 (91.2-94.0)	95.2 (93.6-96.4)	93.1 (91.2-94.6)	93.0 (90.5-95.0)
	HBV (full schedule)	92.2 (90.8-93.7)	95.1 (93.5-96.3)	93.0 (91.1-94.5)	92.9 (90.4-94.9)
	Pnc (3 doses)	Not recommended	89.1 (86.9-90.9)	96.5 (95.0-97.6)	94.9 (92.9-96.5)
	MMR (1 dose)	94.0 (92.6-95.3)	96.6 (95.2-97.6)	96.6 (95.1-97.6)	96.2 (94.3-97.6)
	MenC (1 dose)	94.1 (92.8-95.4)	95.6 (94.1-96.8)	93.1 (91.2-94.6)	93.7 (91.5-95.4)
	Rotavirus (2 doses)	Not recommended	30.4 (27.5-33.4)	92.2 (90.2-93.8)	89.7 (86.0-92.6)

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*only partially reimbursed

Vaccination coverage Flanders: school-aged children - adolescents

study conducted in	2005	2008	2012	2016
birth year	1991	1994	1998	2000
age at interview	14 years	14 years	14 years	16 years
Number of interviewed (N)	1344	1319	1300	1012
DT(P_a)	-	91.1 (89.6 – 92.7)	90.8 (89.0 – 92.5)	92.8 (91.1 – 94.5)
MmR 1	80.6 (78.2 – 83.0)	88.1 (86.1 – 90.0)	89.8 (88.7 – 91.7)	90.5 (88.4 – 92.7)
MBR 2*	83.6 (81.4 – 85.8)	90.6 (89.0 – 92.2)	92.5 (90.9 – 94.1)	93.4 (91.8 – 95.1)
HBV (3)**	75.7 (73.2 – 79.2)	89.2 (87.4 – 90.9)	89.2 (87.3 – 91.2)	84.3 (81.3 – 87.3)
MenC	79.8 (77.3 – 82.4)	86.4 (84.3 – 88.6)	86.5 (84.3 – 88.8)	88.9 (86.6 – 91.2)
HPV (3)***	-	4.1 (2.6 – 5.7)	83.5 (80.6 – 86.4)	89.5 (86.5 – 92.4)
dTp_a	-	-	-	87.4 (85.0 – 89.8)

*MMR: 2 vaccinations documented: 87.7% (85.3 – 90.1%)
**HBV: depending on scheme (2-3-4 doses) and infant vaccination
***only girls (2008: N=627, 2012: N=607 en 2016: N=488) – considering accepted 2 doses scheme: 91.0% in 2016

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Strengths and opportunities

- **Strengths**
  - → High coverage vaccination programme in infants
  - → Systematic vaccination offered by SHS and catch-up HBV-vaccination to uncompletely vaccinated children (SHS)
  - → vaccines free of charge available at the consultation place of the different vaccinators (WBC, SHS, GP, paediatricians)
  - → When signs or rumours: contact between the Agency for Care and Health, Vaccination Board and academics (=> uniform and common communication, made available on websites and presented in vaccination symposium if possible, e.g. HPV)
  - → Mobile vaccination team (outbreaks, schools without SHS)
- **Opportunities**
  - → Political commitment of Flemish Government (public health goal on lifetime vaccination)
  - → Homepage of Vaccinnet as an extra (fast) communication tool

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Threats and weaknesses

- **Threats**
  - → Circulation of rumours in ("social") media
  - → Shortage of HBV- and HAV-vaccines in Europe

- **Weaknesses – dangers**
  - → Undervaccinated groups (from countries without vaccination againt HBV, some resistance for HBV-vaccination)
  - → Registration of vaccinations can still improve
  - → No systematic follow-up of circulating rumours on the internet and "social" media

Conclusions

- **Positive aspects of the vaccination programme**
  - → Systematic offer of HBV-vaccination (hexavalent) with high coverage in infants and the systematic and well organised offering of HBV-vaccination by SHS (catch-up for undervaccinated pupils) together with the availability of vaccines free of charge for all vaccinators contribute to reach and maintain this high HBV-vaccination coverage
  - → As systematic HBV-vaccination started in 1999 for children aged 11-12 years, all people up to 30 years had the opportunity to get vaccinated within the vaccination programme (free)
  - → As data are in the vaccination database of Vaccinnet, they don't get lost (if necessary lab results can be added) and can be used for future studies, relating vaccination data and data from cancer registries, as long as everybody uses the same personal identifier (national number)
  - → Mobile vaccination team: catch-up HBV vaccination (if no SHS), HAV vaccination in outbreaks

- **But: circulating rumours are a threat as for all countries**

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