



Flanders
State of the Art



The vaccination programmes in Belgium

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The vaccination programmes in Belgium

→ Based upon recommendations of the Superior Health Council (National Immunisation Technical Advisory Group – NITAG)

→ In some cases with additional cost-effectiveness study (KCE)



→ As prevention in health is a subnational responsibility and duty: decision making for implementation (vaccination strategy, vaccination promotion, vaccination coverage assessment) is done at the subnational levels:

- × Flemish Community: all ages
- × French Speaking community (FSC): children 0-18 years and pregnant women
- × Walloon Region: wallonian adults
- × Brussels Region: adults for Brussels region, “bicommunautary” institutions
- × German speaking community: own programme, relies on FSC tenders



The vaccination programmes in Belgium

- **For Flanders:** advice by the Flemish Vaccination Board (Vaccinatiekoepel) with representatives of all kinds of vaccinators: for implementation of the vaccination programme, academics, pharmacists, mutualities, communication, ...
- **For French speaking community:** ad-hoc working groups depending on the subject discussed
- Contracted by public tenders including cold chain monitored transport and delivery directly to the consultation place of the vaccinator (open procedure, sometimes negotiation, if monopoly)
- 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

Organisation - vaccinators

- ▶ Organised preventive structures (no consultation cost for the vaccinated)
 - Well-Baby-Clinics (WBC: **Kind & Gezin, ONE**): organise visits to all newborns at home and offer possibilities for free preventive consultations with vaccination at their consultation offices.
 - School Health Services (SHS: **CLB, SPSE/CPMS**): all schools with a recognised educational programme are linked to a SHS. In the school years of recommended vaccinations information and an invitation letter is given systematically to all children for their parents. When authorized, SHS give the vaccinations to the children. Others can ask their GP or another MD for the vaccinations.
 - Occupational medicine (cost partly for employer) **(only in Flanders)**
- ▶ Settings in the preventive-curative sector – only consultation fee (vaccines free of charge) **(only for children and pregnant women in FSC)**:
 - general practitioners (GPs), paediatricians, gynaecologists
 - elderly homes, homes for disabled children and adults, ...
 - hospitals, ...

Political commitment: a public health goal on immunisation in Flanders

▶ **Public health conference**

- Public health goals on various topics in preventive health care (based upon Decree on Preventive Medicine (2003))
- 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 programme, 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

Political context in French speaking community

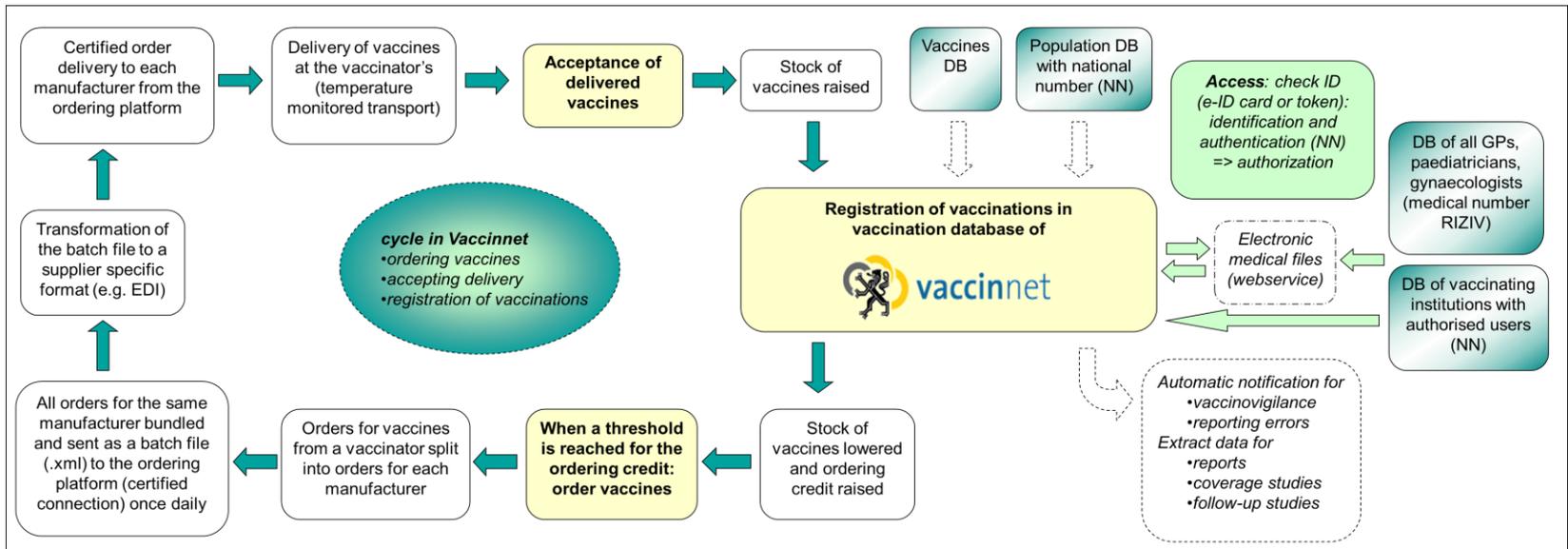
▶ **Transfer of competencies in 2015:**

- Previously, vaccination policy was dealt by the General Direction of Health of the French Community
- In 2015 competences are split and shared between different institutions
- This sharing of competences involves coordination and collaboration with many actors
- Vaccination policy for children, « hautes écoles » and pregnant women is transferred to ONE



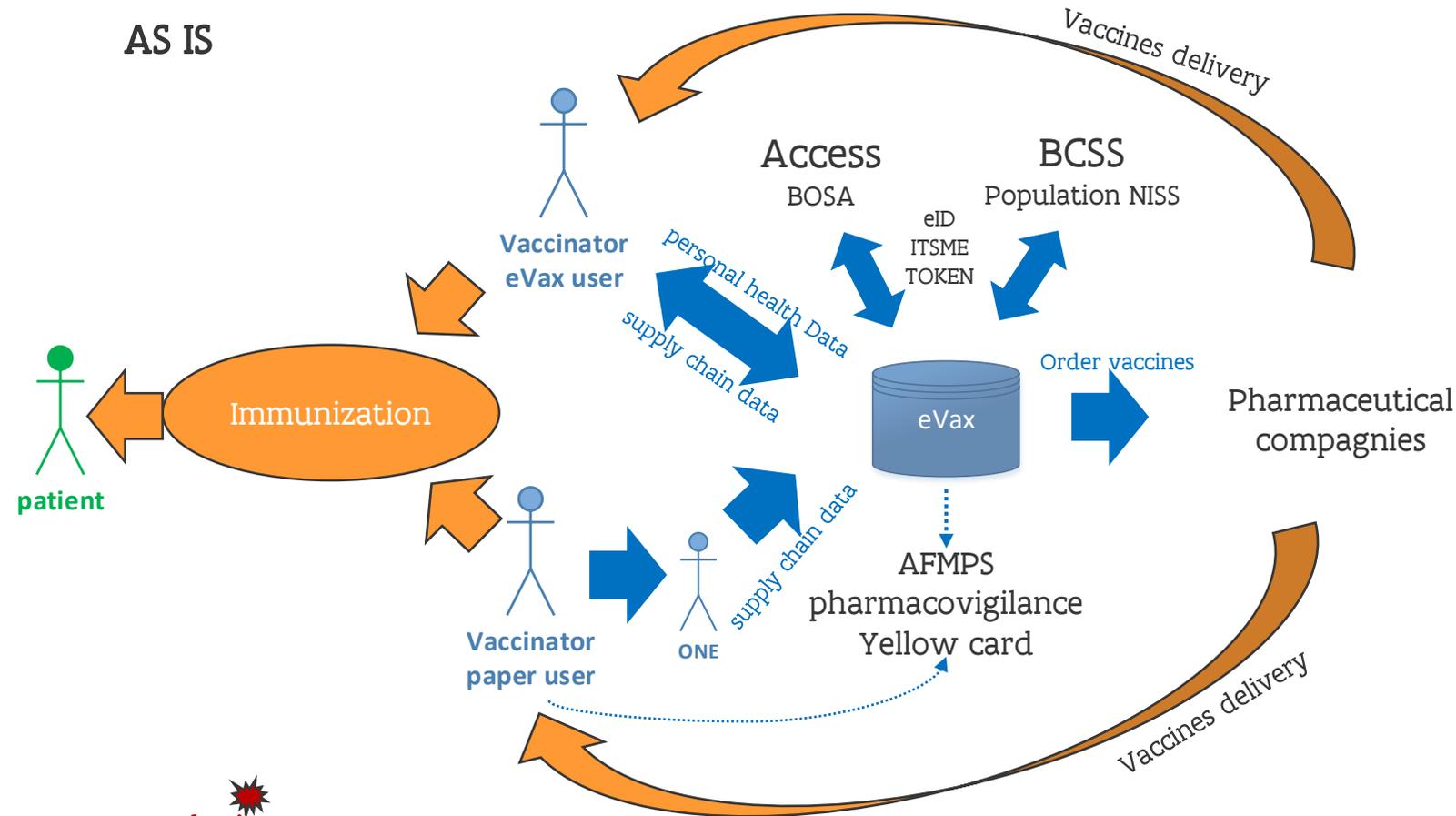
ONE manager of the programme AND vaccinator via the Well Baby Clinics

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



Ordering and register system in the French speaking community

AS IS



- No analytics
- No access for patient
- Personal health data lost (IT)
- No sharing RSW/RSB/eHealth



Towards new Immunization Information System

Vaccination programme: schedule

Age in Flanders	Age in FSC	IPV-DTP _a - Hib-HBV	Pn _c	MMR	MenC	IPV-DTP _a	HPV	dTp _a
	8 weeks	X	X					
	12 weeks	X						
	16 weeks	X	X					
	12 months		X	X				
	15 months	X			X			
6 years	5-6 years					X		
10 years	11-12 years			X				
12 years (girls and boys)	13-14 years (girls and boys)						XX	
14 years	15-16 years							X

Vaccination programme adults

(Flanders)

▶ Tdap

- Free vaccines for all indications for vaccination against tetanus, diphtheria and pertussis in adults (replaces Td since July 2014)
- Special attention for pregnant women: vaccination in every pregnancy at gestational age of 24-32 weeks and cocoon vaccination
- No prescription or authorisation from mutuality needed in Flanders

▶ Influenza

- Free for residents in elderly homes (WZC) since 2010
- Free for residents in institutions for (disabled) people with limitations and chronic psychiatric patients (since 2017)

▶ MMR

- Free for catch-up vaccination in adults up to 25 years (officially)
- Since September 2018: also for adults born in 1970 and later (needs to be included in ministerial decree determining the vaccination schedule for Flanders)

Communication – websites (Flanders)

- Online: part of the website of the agency contains all information about the vaccination programme and vaccination in general:
 - Vaccination website for professionals: www.zorg-en-gezondheid.be/vaccinaties with specific information for vaccinators
 - www.laatjevaccineren.be with information for the general public
- Campaigns: European Immunization Week (EIW): extra financial means for communication – each year an actualized website, now integrated in the general website
- E-communication to all vaccinators to the e-mail addresses used in their profiles in Vaccinnet and express information on vaccinations linked on the homepage of Vaccinnet (<https://www.Vaccinnet.be>).
- Leaflets and other materials on vaccinations: about vaccinations in general, and specific ones on HPV-vaccination, vaccination in pregnancy, influenza vaccination for the public, influenza vaccination for health care workers, ...
- Check registered vaccinations in Vitalink: <https://www.myhealthviewer.be>

Communication – websites (FrenchSC)

➤ For the professionals:

- Vaccination website for professionals: www.e-vax.be with specific information for vaccinators (news of the programme)
- Campaigns: European Immunization Week (EIW): extra means for communication
- E-communication to all vaccinators who use e-vax to the e-mail addresses used in their profiles in e-vax and Excellencis ONE
- Other materials: support communication on vaccination, procedures for storage and cold chain management
- Some outputs communicated via post: news, flyers...

➤ For the general public:

- www.vaccination-info.be information for the general public
- flyers for parents via la SHS “A chaque âge sa vaccination”
- flyer for vaccination in pregnancy



Vaccination coverage in French speaking community - toddlers

		Wallon Region			Brussels
Study conducted in	2009	2012	2015	2012	
Birth Year	2007	2010	2013	2010	
Age at interview	18-24 months				
Number interviewed	660	660	715	600	
Infants Vaccines	DTPa-Polio (4 doses)	90.4 (87.9-93.0)	90.4 (87.8-92.9)	92.9 (90.7-95.0)	91.1 (88.7-93.5)
	Hib (4 doses)	90.2 (87.7-92.8)	89.4 (86.8-92.1)	92.7 (90.5-94.9)	93.0 (90.5-95.0)
	HBV (full schedule)	90.4 (87.9-93.0)	89.2 (86.5-91.9)	92.3 (90.1-94.5)	92.9 (90.4-94.9)
	Pnc (3 doses)	80.7 (76.9-84.4)	89.2 (86.5-91.9)	92.9 (90.7-95.0)	94.9 (92.9-96.5)
	MMR (1 dose)	92.4 (90.2-94.6)	94.4 (92.4-96.4)	95.6 (93.9-96.4)	96.2 (94.3-97.6)
	MenC (1 dose)	91.2 (88.7-93.7)	89.6 (87.0-92.2)	91.2 (88.8-93.6)	93.7 (91.5-95.4)
	Rotavirus (2 doses)	77.3 (77.3-81.0)	80.2 (76.7-83.6)	87.2 (84.4-90.0)	89.7 (86.0-92.6)

Vaccination coverage in French speaking community - adolescents

		French speaking community schools in Wallonia and Brussels							
Study conducted in		2013-2014		2014-2015		2015-2016		2016-2017	
Age at interview		15-16 years		7-8 years		11-12 years		13-14 years	
Number interviewed		7500		4794		5300		4550 (girls)	
School Age Boosters	Polio (5-6 years)	Not measured	X	73.3 (72.1-74.5)		X	X		
	DT/DTPa (5-6 years)	X	73.3 (72.1-74.5)		X	X			
	MMR 2 (11-12 years)	X	X	75.0 (73.8-76.2)		86.4 (85.4-87,4)			
	HPV (13-14 years)	25.9 (24.5-27.3)		X	X	36,1 (34.7-37.5)			
	dTap (15-16 years)	53.4 (52.3-54.5)		X	X	X			

Vaccination coverage in Flanders toddlers

	2005 n=1349	2008 n=915	2012 n=874	2016 N=746
Polio 4	93.1 (91.8-94.4)	95.3 (93.7-96.5)	93.2 (91.3-94.7)	93.6 (91.1-95.5)
DTP 4	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	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 1	96.9 (95.9-97.9)	99.0 (98.1-99.5)	99.4 (98.5-99.7)	98.2 (96.6-99.2)
HBV 3/4	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		89.4 (83.8-93.2)	96.5 (95.0-97.6)	94.9 (92.9-96.5)
MBR 1	94.0 (92.6-95.3)	96.6 (95.2-97.6)	96.5 (95.0-97.6)	96.2 (94.3-97.6)
MenC 1	94.1 (92.8-95.4)	95.6 (94.1-96.8)	93.1 (91.2-94.6)	93.7 (91.5-95.4)

Vaccination coverage in Flanders adolescents

	2005 (n=1344)	2008 (n=1319)	2012 (n=1300)	2016 (n=1012)
Polio 4	-	90.8 (89.2 – 92.4)	90.5 (88.7 – 92.3)	91.9 (90.1 – 93.7)
DT(P)	-	91.1 (89.6 – 92.7)	90.8 (89.0 – 92.5)	92.8 (91.1 – 94.5)
MBR 1 ^a	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 ^b	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 ^c	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 ^d	-	4.1 (2.6 – 5.7)	83.5 (80.6 – 86.4)	89.5 (86.5 – 92.4)
DTaP	-	-	-	87.4 (85.0 – 89.8)

HPV-vaccination advice NITAG



service public fédéral

SANTÉ PUBLIQUE, SÉCURITÉ DE LA CHAÎNE ALIMENTAIRE ET ENVIRONNEMENT

▶ **Advice NITAG 2007 (nr. 8204):**

- The Superior Health Council (SHC) recommends yearly general prophylactic vaccination of one birth cohort of girls aged between 10 and 13 years with 3 doses of a HPV-vaccine
- No systematic catch-up vaccination for older girls
- No vaccination of boys

▶ **Advice NITAG 2017 (nr. 9181)**

- The SHC recommends HPV-vaccination not only for the prevention of cervical cancer but also of all other cancers in which HPV is involved, and because of morbidity, the prevention of genital warts.
- General prophylactic vaccination of one cohort of girls and boys aged between 9 and 14 years with a 2 dose scheme of an adequate HPV-vaccine.

HPV-vaccination programme - Flanders

▶ **From September 2010 onwards:**

- yearly one cohort of girls in the 1st year of secondary school (11-12 years).
- main birth cohort of the 1st schoolyear of the vaccination programme: girls born in 1998

▶ **Vaccines used in the vaccination programme:**

- September 2010 – June 2014: Gardasil[®], 3 dose schedule
- July 2014 – June 2018: Cervarix[®], 2 dose schedule
- July 2019-...: Gardasil 9[®]: 2 dose schedule for girls

▶ **Vaccination of boys: started in September 2019:**

- yearly one cohort of girls and boys in the 1st year of secondary school (11-12 years).
- main birth cohort of the 1st schoolyear (main birth cohort born in 2007)

HPV-vaccination coverage in Flanders

- ▶ **EPI-based surveys (documented data)**
- ▶ **2012: girls born in 1998 (1st vaccinated cohort)**
 - ▶ 1st dose 87.5% (85.0-90.0)
 - ▶ 2nd dose 87.0% (84.4-89.5)
 - ▶ 3rd dose 83.5% (80.6-86.4)
- ▶ **2016: girls born in 2000**
(main vaccination schoolyear 2012-2013)
 - ▶ 1st dose 92.9% (90.4-95.4)
 - ▶ 2nd dose 92.8% (90.2-95.3)
 - ▶ 3rd dose 89.6% (86.4-92.8)
 - ▶ Considering correct 2-dose schedule: 91% fully vaccinated

HPV-vaccination programme French speaking community

▶ **From September 2011 onwards:**

- Yearly one cohort of girls in the 2nd year of secondary school (13-14 y).
- first birth cohort of the vaccination programme: girls born in 1998

▶ **Vaccines used in the vaccination programme:**

- September 2011 – September 2014: Gardasil[®], 3 dose schedule
- September 2014 – August 2019: Cervarix[®], 2 dose schedule
- September 2019-...: Gardasil 9[®]: 2 dose schedule for girls and boys

▶ **Vaccination of boys: started in September 2019:**

- yearly one cohort of girls and boys in the 2nd year of secondary school (13-14 years).
- first birth cohort of vaccinated boys born in 2008

HPV-vaccination coverage French speaking community

- Surveys based on documented from students of french speaking schools in Brussels and Wallonia
- **Survey in 2013: 15-16 y-old girls (born in 1998)**
 - secondary objectif of the survey, meant to assess the dTap coverage-
 - 1st dose 29,7% (CI: 28.2-31.2)
 - 2nd dose 27,7% (CI: 26.3-29.1)
 - 3rd dose 25.9% (CI: 24.5-27.3)
- **Survey in 2017: 13-14 y-old girls (born in 2003)**
 - main objectif HPV coverage-
 - 1st dose 42,2%
 - 2nd dose 36.1% (CI : 34.7-37.5)
- **New survey forseen in 2020 in 13-14 year old boys and girls with HPV vaccination coverage as main objective**

The Federal Agency for Medicines and Health Products (FAMHP) and the vaccination programmes

▶ **Vaccinovigilance**

- Reporting of adverse events following vaccination (also possible in Vaccinnet)
- Detecting differences in spontaneous reporting from Vaccinnet

▶ **Vaccine shortages**

- See possibilities for derogations e.g. in non Belgian packages for the implementation in the vaccination programmes
- Avoid disruption of the programmes

Special initiatives (Flanders)

▶ Mobile vaccination team

- After an outbreak of measles in orthodox Jewish communities there was a need to try to reach underserved groups: private Jewish schools not linked to a SHS
- Started in April 2014
- vaccinate groups not reached by classic system, e.g. some private schools, camps for moving Roma people, asylum seekers, fugitives, homeless people (flu in winter), ...
- Participate in outbreak management vaccination if necessary

▶ Asylum seekers

- With the wave of refugees in 2015: use the screening moment for TB at the moment of the asylum demand to offer first vaccination (MMR, Tdap, IPV for some countries)
- Agreement between the Flemish minister and the federal state secretary for asylum and migration: systematic offer to all asylum seekers using the vaccines from the vaccination programme in Flanders

Conclusions

- ▶ Vaccinations are still well accepted in Belgium. High vaccination coverage could be reached and maintained in time so far.
- ▶ The systematic and well organised offering of vaccination by WBC and SHS and the availability of vaccines free of charge for all vaccinators contribute to reach and maintain this high vaccination coverage.
 - But: lower use of SHS for vaccination in the **French speaking community**
- ▶ As data are in the vaccination database of Vaccinnet, they don't get lost and can be used for future studies, e.g. relating vaccination data and data from cancer screening and cancer registries, as long as everybody uses the same personal identifier (national number) **(only for Flanders)**
- ▶ But: circulating rumors are a threat as for all countries
 - The influence of the French media has more impact in the south of the country

The screenshot shows the homepage of the website. At the top, there is a navigation bar with 'Bgstand', 'Begerken', 'Beeld', 'Favorieten', 'Extra', and 'Help'. The main content area features a large heading 'Vaccinaties zijn belangrijk, je hele leven lang.' followed by a paragraph explaining the importance of vaccinations. Below this, there are four circular icons representing different age groups: '0-3 jaar', '4-18 jaar', '19-64 jaar', and '65+'. To the right, there are two promotional banners: one for 'ZWANGER? BESCHERM UW KIND TEGEN KINKHOEST.' and another for 'MAZELEN, GEEN KINDERZIEKTE'. At the bottom left, there is a 'BASISVACCINATIESCHEMA' section with a timeline diagram showing vaccination points for children from 8 weeks to 14 years. The 'VACCINATION-INFO.BE' logo is visible at the bottom right of the screenshot.

The navigation menu is located at the top right of the page. It includes a search bar labeled 'Recherche...' and several menu items: 'Actualités', 'Calendrier de vaccination', 'PRINCIPES DE VACCINATION', 'VACCINATION EN PRATIQUE', 'MALADIES ET VACCINS', 'AU COURS DE LA VIE', 'CONTACTS ET RESSOURCES', 'QUESTIONS FRÉQUENTES', and 'LEXIQUE'.

The illustration shows a family consisting of a mother, a father, and a young child in a wheelchair. They are standing outdoors with trees and a blue sky in the background. The child is wearing a red and orange striped shirt. The family is positioned on the left side of a light blue background.

Vaccination contre la grippe saisonnière

En octobre et novembre, c'est le moment de se faire vacciner contre la grippe saisonnière.

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