

Global Business Units

The table below presents sales by Global Business Unit (GBU). Please note that Emerging Markets sales for Specialty Care and Primary Care are included in the China & Emerging Markets GBU.

Net Sales by GBU (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Sanofi Genzyme (Specialty Care) ^(a)	2,292	+21.8%	4,311	+25.9% ^(c)
Primary Care ^(a)	2,281	-15.7% ^(d)	4,566	-16.3% ^(e)
China & Emerging Markets ^(b)	1,891	+7.0%	3,849	+8.7%
Total Pharmaceuticals	6,464	+1.7%	12,726	+2.4%
Consumer Healthcare (CHC)	1,143	+1.1%	2,399	+0.8%
Sanofi Pasteur (Vaccines)	1,021	+24.7%	1,894	+22.5%
Total net sales	8,628	+3.9%	17,019	+4.1%^(f)

(a) Does not include China & Emerging Markets sales - see definition page 10; (b) Includes Emerging Markets sales for Primary Care and Specialty Care; (c) +18.6% at CS - Adjusted for Bioverativ acquisition and sales of Bioverativ products to SOBI –see page 5; (d) -10.4% at CS; (e) -11.1% at CS; (f) +4.8% at CS - Adjusted for Bioverativ and sales of Bioverativ products to SOBI and European Generics.

Global Franchises

The tables below present second-quarter and first-half 2019 sales by global franchise, including Emerging Markets sales, to facilitate comparisons. Appendix 1 provides a reconciliation of sales by GBU and franchise.

Net sales by Franchise (€ million)	Q2 2019	Change at CER	Developed Markets	Change at CER	Emerging Markets	Change at CER
Specialty Care franchises	2,620	+22.9%	2,292	+21.8%	328	+30.0%
Rare Disease	810	+8.3%	640	+3.0%	170	+31.7%
Multiple Sclerosis	540	+2.8%	522	+2.9%	18	0.0%
Oncology	431	+14.1%	302	+10.2%	129	+24.3%

Immunology	548	+166.3%	541	+164.1%	7	ns
Rare Blood Disorder	291	+7.8% ⁽¹⁾	287	+6.2% ⁽²⁾	4	ns
Primary Care franchises	3,844	-8.7%⁽³⁾	2,281	-15.7%⁽⁴⁾	1,563	+3.1%
Established Rx Products ⁽⁵⁾	2,406	-10.0% ⁽⁶⁾	1,275	-18.2% ⁽⁷⁾	1,131	+1.0%
Diabetes	1,290	-7.0%	865	-13.3%	425	+8.2%
Cardiovascular	148	-1.4%	141	-4.2%	7	+133.3%
Consumer Healthcare	1,143	+1.1%	753	+1.5%	390	+0.3%
Vaccines	1,021	+24.7%	578	+15.8%	443	+37.7%
Total net sales	8,628	+3.9%⁽⁸⁾	5,904	1.2%⁽⁹⁾	2,724	+10.0%

(1) +2.2 % at CS- see page 5; (2) +0.7% at CS- see page 5; (3) -5.2% at CS; (4) -10.4% at CS; (5) including Generics; (6) -4.5% at CS; (7) -8.9% at CS; (8) +5.8% at CS; (9) +3.8% at CS

(7) See Appendix 10 for definitions of financial indicators.

Net sales by Franchise (€ million)	H1 2019	Change at CER	Developed Markets	Change at CER	Emerging Markets	Change at CER
Specialty Care franchises	4,947	+26.7%⁽¹⁾	4,311	+25.9%	636	+31.8%
Rare Disease	1,576	+9.2%	1,253	+3.4%	323	+34.3%
Multiple Sclerosis	1,069	+4.3%	1,029	+3.7%	40	+18.9%
Oncology	830	+11.0%	575	+6.3%	255	+22.7%
Immunology	907	+173.8%	897	+171.5%	10	ns
Rare Blood Disorder	565	+65.4% ⁽²⁾	557	+62.9% ⁽³⁾	8	ns
Primary Care franchises	7,779	-8.5%⁽⁴⁾	4,566	-16.3%⁽⁵⁾	3,213	+4.9%

Established Rx Products ⁽⁶⁾	4,912	-9.7% ⁽⁷⁾	2,582	-18.5% ⁽⁸⁾	2,330	+2.3%
Diabetes	2,584	-6.9%	1,714	-14.6%	870	+11.7%
Cardiovascular	283	-1.1%	270	-3.4%	13	+85.7%
Consumer Healthcare	2,399	+0.8%	1,586	-0.9%	813	+4.2%
Vaccines	1,894	+22.5%	1,102	+10.8%	792	+42.2%
Total net sales	17,019	+4.1%⁽⁹⁾	11,565	+0.6%⁽¹⁰⁾	5,454	+11.8%

(1)+20.3 % at CS- Adjusted for Bioverativ and sales of products to SOBI – see page 5; (2) +1.7% at CS- see page 5; (3) +0.2% -see page 5; (4) -5.0% at CS; (5) -11.1% at CS; (6) including Generics; (7)-4.1% at CS; (8) -9.4% at CS; (9) +4.8% at CS- Adjusted for Bioverativ and sales of Bioverativ products to SOBI and European Generics;(10)+1.6% at CS - Adjusted for Bioverativ and sales of Bioverativ products to SOBI and European Generics

Pharmaceuticals

Second-quarter Pharmaceutical sales were up 1.7% to €6,464 million mainly driven by Dupixent[®] which was partially offset by Diabetes and Established Rx Products including the disposal of the European generics business. First-half sales for Pharmaceuticals increased 2.4% to €12,726 million.

Specialty Care franchises

Immunology franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Dupixent [®]	496	+168.2%	825	+175.3%
Kevzara [®]	52	+150.0%	82	+160.0%
Total Immunology	548	+166.3%	907	+173.8%

Dupixent[®] (collaboration with Regeneron) generated sales of €496 million in the second quarter (up 168.2%). In the U.S., Dupixent[®] sales of €403 million (up 152.3%) were driven by continued growth in atopic dermatitis which benefited from launch in the adolescent age group (12 to 17 years of age) in mid-March and from rapid uptake in asthma. In Europe, second-quarter sales were €46 million (up 187.5%). First-half Dupixent[®] sales increased 175.3% to €825 million. Dupixent[®] has been launched in 28 countries as of the second quarter of 2019 with 11 more launches in atopic dermatitis and 7 in asthma planned over the remainder of 2019. The U.S. FDA approved Dupixent[®] for chronic rhinosinusitis with nasal polyposis on June 26, 2019.

Kevzara[®] (collaboration with Regeneron) sales were €52 million (up 150.0%) in the second quarter, of which €30 million was in the U.S. (up 86.7%) reflecting increased adoption and category share. First-half Kevzara[®] sales increased 160.0% to €82 million.

Multiple Sclerosis franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Aubagio [®]	466	+10.6%	903	+11.2%
Lemtrada [®]	74	-28.4%	166	-21.7%
Total Multiple Sclerosis	540	+2.8%	1,069	+4.3%

Second-quarter **Multiple Sclerosis** (MS) sales increased 2.8% to €540 million driven by double-digit growth of Aubagio[®] in the U.S and Europe, partially offset by lower Lemtrada[®] sales. First-half MS sales increased 4.3% to €1,069 million.

Second-quarter **Aubagio**[®] sales increased 10.6% to €466 million, supported by the U.S. performance (up 10.5% to €336 million) and Europe (up 18.0% to €105 million). First-half Aubagio[®] sales increased 11.2% to €903 million.

In the second quarter, **Lemtrada**[®] sales decreased 28.4% to €74 million due to lower U.S. sales (down 13.0% to €42 million) and European sales (down 51.1% to €22 million), reflecting increased global competition and the update to the EU label. First-half Lemtrada[®] sales decreased 21.7% to €166 million.

Oncology franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Jevtana [®]	126	+18.4%	237	+13.4%
Thymoglobulin [®]	94	+23.0%	175	+17.4%
Eloxatin [®]	55	+19.6%	109	+20.0%

Mozobil [®]	49	+9.1%	93	+9.8%
Taxotere [®]	42	0.0%	89	+3.6%
Zaltrap [®]	23	-4.2%	45	-2.2%
Others	42	+10.8%	82	0.0%
Total Oncology	431	+14.1%	830	+11.0%

Second-quarter **Oncology** sales increased 14.1% to €431 million driven by Emerging Markets (up 24.3% to €129 million) and the U.S. (up 12.7% to €150 million). First-half Oncology sales increased 11.0% to €830 million.

Jevtana[®] sales were up 18.4% to €126 million in the second quarter supported by the performance in the U.S. (up 18.6% to €54 million) and Europe (up 15.8% to €44 million). First-half Jevtana[®] sales increased 13.4% to €237 million. In the second quarter, **Thymoglobulin[®]** sales increased 23.0% to €94 million driven by Emerging Markets and the U.S. **Eloxatin[®]** sales grew 19.6% to €55 million driven by China. First-half sales of Thymoglobulin[®] and Eloxatin[®] increased 17.4% (to €175 million) and 20.0% (to €109 million), respectively.

Libtayo[®] (cemiplimab-rwlc, collaboration with Regeneron) was approved in the U.S. in September 2018 for the treatment of patients with metastatic cutaneous squamous cell carcinoma (CSCC) or locally advanced CSCC who are not candidates for curative surgery or curative radiation. U.S. Libtayo[®] sales are consolidated by Regeneron. Libtayo[®] was approved in Brazil at the end of March and in Canada in April. In July, Libtayo[®] was approved in the European Union for adult patients with metastatic or locally advanced CSCC who are not candidates for curative surgery or curative radiation.

Rare Disease franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Myozyme [®] / Lumizyme [®]	234	+11.0%	454	+10.9%
Fabrazyme [®]	211	+9.6%	396	+7.8%

Cerezyme [®]	187	+5.5%	363	+5.9%
Aldurazyme [®]	54	+5.8%	121	+18.4%
Cerdelga [®]	50	+28.9%	98	+28.4%
Others Rare Disease	74	-4.0%	144	-0.7%
Total Rare Disease	810	+8.3%	1,576	+9.2%

In the second quarter, **Rare Disease** sales increased 8.3% to €810 million, driven by Emerging Markets (up 31.7% to €170 million). In the U.S., second-quarter Rare Disease sales grew 6.8% to €299 million. In Europe, sales were stable in the quarter at €256 million. First-half Rare Disease sales increased 9.2% to €1,576 million.

Second-quarter **Gaucher (Cerezyme[®] and Cerdelga[®])** sales were up 9.6% to €237 million, supported by the increasing penetration of Cerdelga[®] in Europe and the U.S. and the sustained growth of Cerezyme[®] in Emerging Markets. Second-quarter Cerdelga[®] sales increased 28.9% to €50 million, with sales up 50% in Europe (to €18 million) and up 17.4% in the U.S. (to €29 million). First-half Gaucher sales were €461 million, up 9.8%.

Second-quarter **Pompe (Myozyme[®]/Lumizyme[®])** sales grew 11.0% to €234 million, supported by positive trends in naïve patient accruals. This performance was driven by the U.S. (up 13.0% to €83 million) and Emerging Markets (up 36.7% to €39 million). First-half Myozyme[®]/Lumizyme[®] sales increased 10.9% to €454 million.

Second-quarter **Fabry (Fabrazyme[®])** sales grew 9.6% to €211 million, reflecting strong performance in Emerging Markets (up 55.0% to €29 million). Over the period, U.S. sales increased 6.5% (to €105 million) and European sales were stable (at €45 million). First-half Fabrazyme[®] sales were up 7.8% to €396 million.

Rare Blood Disorder franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Eloctate [®]	171	-8.0%*	345	+47.5%*
Alprolix [®]	105	+23.5%**	200	+84.3%**
Cablivi [®]	15	-	20	-
Total Rare Blood Disorder	291	+7.8%***	565	+65.4%***

*-11% at CS in Q2 2019 and -7.7% in H1 2019 at CS-see footnotes 8 and 9; **+12.4% at CS in Q2 2019 and +9.3% at CS in H1 2019 –see footnotes 8 and 9);

***+2.2% at CS in Q2 2019 and +1.7% in H1 2019 at CS-see footnotes 8 and 9

Bioverativ was consolidated in Sanofi's Financial Statements from March 9, 2018. Second-quarter sales of the Rare Blood Disorder franchise were €291 million, up 2.2% at CS⁽⁸⁾. Non U.S. sales were €71 million with Japan as the primary contributor. Consolidated first-half sales of the Rare Blood Disorder franchise were €565 million, up 1.7% at CS⁽⁹⁾.

Eloctate[®] sales were €171 million in the second quarter, down 11.0% at CS⁽⁸⁾. In the U.S., sales of the product decreased 16.4% to €135 million, reflecting ongoing competitive pressure. In the Rest of the World region, Eloctate[®] sales increased 6.9% at CS⁽⁸⁾ to €32 million. First-half Eloctate[®] sales were €345 million, down 7.7% at CS⁽⁹⁾.

Alprolix[®] sales were €105 million in the second quarter, up 12.4% at CS⁽⁸⁾. In the U.S., sales of the product increased 4.5% to €74 million. In the Rest of the World region, Alprolix[®] sales increased 42.9% at CS⁽⁸⁾ to €31 million due to growth in product sales to SOBI. First-half Alprolix[®] sales were €200 million, up 9.3% at CS⁽⁹⁾.

Cablivi[®] (caplacizumab-yhdp) for the treatment of adults with acquired thrombotic thrombocytopenic purpura (aTTP), generated second-quarter sales of €15 million. In the U.S., where Cablivi[®] was launched on April 2, 2019, sales were €11 million. In Europe, where the product is commercially available in Germany, Denmark and Austria, sales were €4 million. Additional European launches are expected by year-end. First-half Cablivi[®] sales were €20 million.

Primary Care franchises

Cardiovascular franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Praluent [®]	66	+3.2%	122	+6.3%
Multaq [®]	82	-4.8%	161	-6.2%
Total cardiovascular franchise	148	-1.4%	283	-1.1%

Second-quarter **Praluent**[®] (collaboration with Regeneron) sales increased 3.2% to €66 million, driven by growth in Europe (up 40.9% to €32 million). In the U.S., sales decreased 37.1% to €24 million, impacted by significantly higher rebates. As a result of negotiations to further improve patient access and affordability throughout 2019, lower average U.S. net pricing for Praluent[®] versus prior year is expected. First-half Praluent[®] sales increased 6.3% to €122 million.

In the Praluent[®] patent litigation in Germany, the Regional Court of Düsseldorf ruled on July 11, 2019 finding infringement and issued an injunction which requires Sanofi and Regeneron to stop marketing, selling, and manufacturing Praluent[®] in Germany. Sanofi and Regeneron appealed. Amgen enforced the injunction on July 19, 2019 and Sanofi and Regeneron complied. On July 23, 2019, the Higher Regional Court ordered a temporary stay of the injunction until it rules on the request by Sanofi and Regeneron for a stay of the injunction during the pendency of main appeal. Praluent[®] sales in Germany were €20 million in the first half of 2019.

(8) Sales of products to SOBI were initially recorded in "other revenues" in H1 2018" and in sales from H2 2018; H1 2018 sales were adjusted accordingly for calculation of CS. Unaudited data.

(9) Growth comparing first-half 2019 sales versus full first-half 2018 sales at CER. Sales of products to SOBI were initially recorded in "other revenues" in H1 2018" and in sales from H2 2018; H1 2018 sales were adjusted accordingly for calculation of CS. Unaudited data.

Diabetes franchise

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Lantus [®]	758	-16.2%	1,532	-16.7%
Toujeo [®]	220	-0.9%	431	+2.2%
Total glargine	978	-13.2%	1,963	-13.2%
Apidra [®]	84	-7.6%	173	-4.9%
Amaryl [®]	81	-6.9%	171	0.0%
Admelog [®]	77	ns	143	ns
Soliqua [®]	28	+64.7%	50	+84.6%
Insuman [®]	22	-4.3%	43	-6.4%
Total Diabetes	1,290	-7.0%	2,584	-6.9%

In the second quarter, global **Diabetes** sales decreased 7.0% to €1,290 million, due to lower glargine (Lantus[®] and Toujeo[®]) sales in the U.S. Second-quarter U.S. Diabetes sales were down 17.5% to €461 million, reflecting the increased contribution to the coverage gap related to Medicare Part D and a continued decline in average U.S. glargine net prices. Second-quarter sales in Emerging Markets increased 8.2% to €425 million. Second-quarter sales in Europe decreased 6.8% to €303 million despite Toujeo[®] growth (up 10.7%). First-half global Diabetes sales decreased 6.9% to €2,584 million.

In the second quarter, **Lantus[®]** sales were €758 million, down 16.2%. In the U.S., Lantus[®] sales decreased 33.7% to €284 million, mainly reflecting lower average net price and the increased contribution to the coverage gap related to Medicare Part D. In Europe, second-quarter Lantus[®] sales were €146 million, down 16.1% due to biosimilar glargine competition and patients switching to Toujeo[®]. In Emerging Markets, second-quarter Lantus[®] sales were up 14.3% to €272 million. First-half Lantus[®] sales decreased 16.7% to €1,532 million.

Second-quarter **Toujeo[®]** sales were €220 million, down 0.9%. In the U.S., second-quarter Toujeo[®] sales were €70 million, down 23.3% mainly reflecting lower average net price and the increased contribution to the coverage gap related to Medicare Part D. In Europe and Emerging Markets, second-quarter Toujeo[®] sales were €83 million (up 10.7%) and €45 million (up 24.3%), respectively. First-half Toujeo[®] sales increased 2.2% to €431 million.

Second-quarter **Apidra[®]** sales decreased 7.6% to €84 million. Lower sales in the U.S. (down 42.1% to €12 million) offset growth in Emerging Markets (up 14.8% to €30 million). First-half Apidra[®] sales decreased 4.9% to €173 million.

Second-quarter and first-half **Amaryl**[®] sales were €81 million (down 6.9%) and €171 million (stable), respectively.

Admelog[®] (insulin lispro injection) generated sales of €77 million in the second quarter of which €73 million were in the U.S. (versus €1 million in the second quarter of 2018) mainly due to access in Managed Medicaid. In the U.S., Admelog[®] sales are expected to be lower in the second half of 2019 due to WAC price adjustment of -44% as of July 1.

Second-quarter and first-half **Soliqua**[®] 100/33 (insulin glargine 100 Units/mL & lixisenatide 33 mcg/mL injection) and **Suliqua**[™] sales increased 64.7% (to €28 million) and 84.6% (to €50 million), respectively.

Established Rx Products

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Lovenox [®]	347	-8.0%	690	-9.9%
Plavix [®]	362	-3.5%	766	-0.4%
Aprovel [®] /Avapro [®]	173	+0.6%	374	+7.9%
Synvisc [®] /Synvisc-One [®]	87	-9.8%	155	-8.1%
Renvela [®] /Renagel [®]	66	-35.0%	145	-30.3%
Myslee [®] /Ambien [®] /Stilnox [®]	55	-3.6%	107	-11.2%
Allegra [®]	26	-7.1%	82	-2.5%
Generics	254	-35.8%	536	-34.8%
Other	1,036	-3.2%	2,057	-4.3%
Total Established Rx Products	2,406	-10.0%	4,912	-9.7%

In the second quarter, **Established Rx Products** sales decreased 10.0% to €2,406 million, primarily reflecting the divestment of the European generics business Zentiva at the end of the third quarter of 2018. Excluding the generics divestment, Established Rx Products sales decreased 4.5% in the second quarter, reflecting generic competition to Renvela[®]/Renagel[®] (sevelamer) in the U.S. and lower Lovenox sales in Europe[®]. First-half Established Rx Products sales decreased 9.7% to €4,912 million (down 4.1% at CS).

Second-quarter **Lovenox**[®] sales decreased 8.0% to €347 million, reflecting lower Mature Markets sales (down 18.0% to €211 million) due to biosimilar competition in several countries in Europe. In Emerging Markets, Lovenox[®] sales grew 13.2% to €136 million. First-half Lovenox[®] sales were down 9.9% to €690 million.

In the second quarter, **Plavix**[®] sales decreased 3.5% to €362 million due to generic competition in Japan (sales down 19.0% to €36 million). In China, Plavix[®] sales were stable at €208 million, reflecting implementation of the volume based procurement program (VBP) in key cities at the beginning of the second quarter. The VBP program is expected to result in a decline in Plavix[®] sales in China over the remainder of 2019. First-half Plavix[®] sales decreased 0.4% to €766 million.

Second-quarter **Aprovel**[®]/**Avapro**[®] sales increased 0.6% to €173 million. In China, Aprovel[®]/**Avapro**[®] sales were stable at €75 million reflecting the implementation of the VBP program in key cities at the beginning of the second quarter. The VBP program is expected to result in a decline in Aprovel[®]/**Avapro**[®] sales in China over the remainder of 2019. Second-quarter Aprovel[®]/**Avapro**[®] sales continued to grow in the rest of Emerging Markets. First-half Aprovel[®]/**Avapro**[®] sales increased 7.9% to €374 million.

Second-quarter **Renvela**[®]/**Renagel**[®] (sevelamer) sales decreased 35.0% to €66 million, due to generic competition in the U.S. (down 65.0% to €22 million) and despite growth in China. First-half Renvela[®]/**Renagel**[®] sales decreased 30.3% to €145 million.

In the second quarter, **Generics** sales decreased 35.8% to €254 million, reflecting the divestment of the European generics business Zentiva at the end of the third quarter of 2018. At CS, second-quarter Generics sales increased 4.9% driven by the U.S. (up 60.0% to €42 million). In Emerging Markets, Generics sales decreased 5.8% to €155 million, due to lower sales in Africa and the Middle East region. First-half Generics sales were €536 million, down 34.8% and up 4.2% at CS.

Consumer Healthcare

CHC sales by geography and category are provided in Appendix 1.

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Allergy Cough & Cold	249	+1.7%	611	+2.8%
of which Allegra [®]	105	+3.0%	243	+1.7%
of which Mucosolvan [®]	15	-27.3%	43	-10.2%
of which Xyzal [®]	13	+85.7%	27	+23.8%
Pain	308	+1.6%	630	+2.1%
of which Doliprane [®]	77	0.0%	156	-3.1%
of which Buscopan [®]	50	+10.0%	98	+4.8%
Digestive	277	+10.1%	548	+9.1%
of which Dulcolax [®]	60	+7.1%	116	+5.5%

<i>of which Enterogermina</i> [®]	54	+20.0%	115	+22.3%
<i>of which Essentiale</i> [®]	50	+8.7%	99	+12.4%
<i>of which Zantac</i> [®]	37	+12.9%	69	+4.8%
Nutritionals	162	-3.0%	314	-5.5%
Other	147	-10.8%	296	-11.3%
<i>of which Gold Bond</i> [®]	48	-6.3%	100	-4.1%
Total Consumer Healthcare	1,143	+1.1%	2,399	+0.8%

In the second quarter, CHC sales increased 1.1% to €1,143 million, led by the U.S. In the first-half, **Consumer Healthcare** (CHC) sales growth of 0.8% to €2,399 million was impacted by strengthening regulatory requirements, particularly in Europe, as well as the continued effect of divestments. These factors are expected to have a dampening effect on CHC performance in 2019 and through the first part of 2020.

In **Europe**, second-quarter CHC sales decreased 2.8% to €314 million reflecting a continued weak Cough & Cold season, as well as divestments of non-strategic brands and strengthening regulatory requirements. First-half CHC sales in Europe were down 3.4% to €680 million.

In **the U.S.**, second-quarter CHC sales increased 5.5% to €284 million driven by growth of the Allergy Cough & Cold (up 11.8%), Pain (up 12.2%) and Digestive (up 8.5%) categories which were partially offset by a lower performance of Gold Bond. In the U.S., first-half CHC sales increased 1.5% to €588 million.

In **Emerging Markets**, second-quarter CHC sales increased 0.3% to €390 million, reflecting growth in the Digestive (up 15.7%) category, partially offset by lower Allergy Cough & Cold, Pain and Nutritional categories. In the first half, Emerging Markets CHC sales increased 4.2% to €813 million.

Vaccines

Net sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
Polio/Pertussis/Hib vaccines (incl. <i>Hexaxim</i> [®] / <i>Hexyon</i> [®] , <i>Pentacel</i> [®] , <i>Pentaxim</i> [®] and <i>Imovax</i> [®])	502	+41.5%	988	+33.5%
Travel and other endemic vaccines	138	+7.9%	257	+10.5%

Meningitis/Pneumo vaccines (incl. <i>Menactra</i> ®)	136	+13.8%	248	+17.1%
Adult Booster vaccines (incl. <i>Adacel</i> ®)	134	+38.3%	234	+22.0%
Influenza vaccines (incl. <i>Vaxigrip</i> ®, <i>Fluzone HD</i> ® & <i>Fluzone</i> ®)	85	-10.2%	117	-5.5%
Other vaccines	26	+4.3%	50	+12.2%
Total Vaccines	1,021	+24.7%	1,894	+22.5%

Second-quarter **Vaccines** sales increased 24.7% to €1,021 million. This growth was driven by the strong performance of Polio/Pertussis/Hib vaccines in Emerging Markets (up 64.6% to €291 million), together with the timing of CDC purchases in the U.S. (up 20.4% to €337 million) and the performance of Boosters and Hexaxim® in Europe (up 20.1% to €161 million). First-half Vaccines sales were up 22.5% to €1,894 million.

In the second quarter, **Polio/Pertussis/Hib** (PPH) vaccines sales increased 41.5% to €502 million, driven by recovery and increased demand for Pentaxim® in China, coupled with favorable sales phasing and growth in other Emerging Markets. In the U.S., PPH sales increased 44.6% to €100 million helped by the low base for comparison in the second quarter of 2018, which resulted from the timing of CDC purchases. In Europe, PPH vaccines sales increased 14.7% to €78 million, driven by Hexaxim®. First-half PPH vaccines sales were up 33.5% to €988 million.

Second-quarter **Travel and other endemic vaccines** sales were €138 million up 7.9%, supported by Rabies vaccines. First-half Travel and other endemic vaccines sales were up 10.5% to €257 million.

Second-quarter **Menactra**® sales increased 13.8% to €136 million, driven by expansion in the Middle East. First-half Menactra® sales increased 17.1% to €248 million.

Second-quarter **Adult Booster** vaccines sales were up 38.3% to €134 million, reflecting strong performance of Repevax® in Europe and the low base for comparison of Adacel® in the U.S. in the second quarter of 2018, which resulted from the timing of CDC purchases. First-half Adult Booster vaccines sales increased 22.0% to €234 million.

Influenza vaccines sales decreased 10.2% (to €85 million) in the second quarter and decreased 5.5% (to €117 million) in the first half due to lower sales in the southern hemisphere campaign. Due to a delay in strain selection by the WHO, Sanofi expects influenza vaccine sales in the second half of 2019 to be significantly weighted towards the fourth quarter.

Company sales by geographic region

Sanofi sales (€ million)	Q2 2019	Change at CER	H1 2019	Change at CER
United States	2,851	+8.4%	5,401	+7.8%
Emerging Markets^(a)	2,724	+10.0%	5,454	+11.8%
<i>of which Asia</i>	1,132	+13.5%	2,338	+15.7%
<i>of which Latin America</i>	690	+12.3%	1,305	+8.5%
<i>of which Africa, Middle East</i>	553	+1.7%	1,109	+6.6%
<i>of which Eurasia^(b)</i>	322	+13.4%	634	+17.6%
Europe^(c)	2,164	-7.5%	4,351	-8.4%
Rest of the World^(d)	889	+4.3%	1,813	+6.3%
<i>of which Japan</i>	465	+2.6%	997	+7.7%
Total Sanofi sales	8,628	+3.9%	17,019	+4.1%

a. World excluding U.S., Canada, Western & Eastern Europe (except Eurasia), Japan, South Korea, Australia, New Zealand and Puerto Rico

b. Russia, Ukraine, Georgia, Belarus, Armenia and Turkey

c. Western Europe + Eastern Europe except Eurasia

d. Japan, South Korea, Canada, Australia, New Zealand, Puerto Rico

Second-quarter sales in the **U.S.** increased 8.4% to €2,851 million, driven by Dupixent[®]. In the U.S., first-half sales increased 7.8% to €5,401 million.

Second-quarter sales in **Emerging Markets** grew 10.0% to €2,724 million, mainly driven by Vaccines (up 37.7%), Rare Disease (up 31.7%), Diabetes (up 8.2%) and Oncology (up 24.3%). In Asia, second-quarter sales were up 13.5% to €1,132 million. In China, sales increased 17.1% to €709 million, driven by recovery and strong demand for Pentaxim[®], as well as by strong growth in Oncology. In Latin America, second-quarter sales increased 12.3% to €690 million. Second-quarter sales in Brazil were stable at €235 million impacted by lower CHC and Vaccines sales. In Africa and the Middle East region, second-quarter sales were €553 million up 1.7% driven by Africa performance partially offset by lower sales in the Middle East. Second-quarter sales in the Eurasia region increased 13.4% to €322 million, supported by strong growth in Turkey. Second-quarter sales in Russia were €173 million up 1.2%. In Emerging Markets, first-half sales increased 11.8% to €5,454 million.

Second-quarter sales in **Europe** were €2,164 million, down 7.5% reflecting divestment of the European generics business. At CS, second-quarter sales decreased 0.9% reflecting lower Lovenox[®] and Diabetes sales which were partially offset by Dupixent[®] and Vaccines performance. In Europe, first-half sales decreased 8.4% (-2.0% at CS) to €4,351 million.

Sales in **Japan** increased 2.6% to €465 million in the second quarter, driven by Dupixent® which largely offset lower sales of Plavix® and Aprovel® due to generic competition. In Japan, first-half sales decreased 7.7% to €997 million.