

Overall antimicrobials dispensed in various service types

Year	Service Type					
	Non-inpatient services			Inpatient Services		
	Service Volume*‡	Antimicrobial Dispensed‡‡	DDD per 1,000 attendances§¶	Service Volume‡**	Antimicrobial Dispensed‡‡	DDD per 1,000 patient-days§¶
2017	16,292,000	4,173,000	256.16	7,214,000	6,531,000	905.34
2018	16,416,000	4,253,000	259.05	7,390,000	6,620,000	895.88
2019	16,533,000	4,537,000	274.41	7,557,000	6,848,000	906.10
2020	14,539,000	4,085,000	280.98	6,542,000	5,893,000	900.82
2021	16,339,000	4,443,000	271.90	7,138,000	6,198,000	868.38

* In terms of attendances

‡ Rounded to the nearest thousand

‡‡ In DDD

§ Rounded to two decimal places

¶ Due to rounding, figures may not precisely reflect the absolute figures

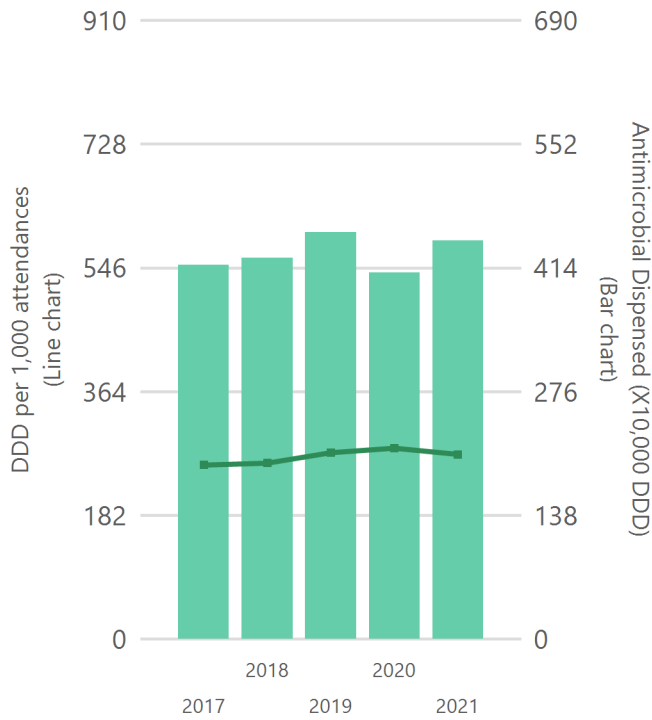
** In terms of patient-days

Note:

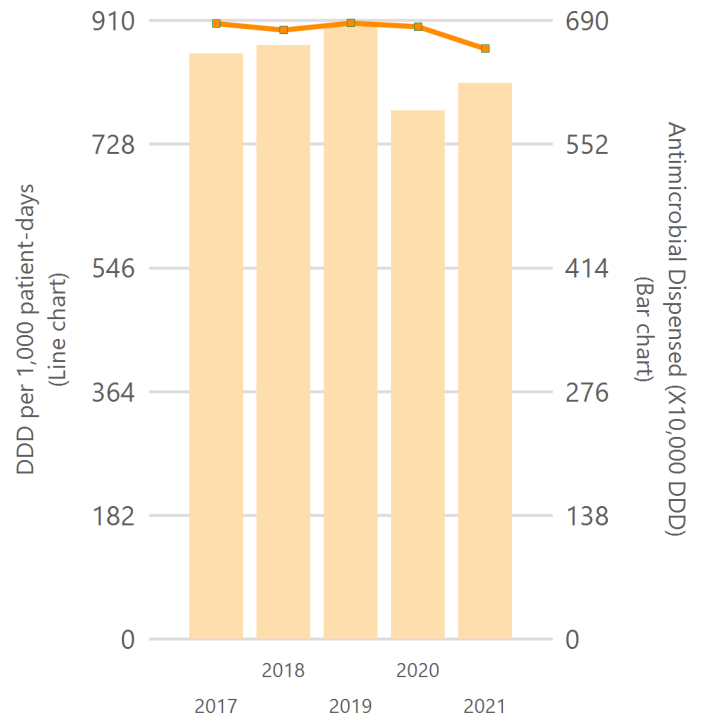
Comparisons with estimates from other publications on antimicrobial consumption should be interpreted with caution, due to continuous revisions of the ATC/DDD system and possible difference between consumption/dispensed quantity data.

Overall antimicrobials dispensed in various service types

Non-inpatient Services



Inpatient Services



The 5 most dispensed ATC pharmacological subgroups in year 2021 in all HA services (by WHO ATC classification)

ATC Pharmacological Subgroup		Antimicrobial dispensed in DDD					
Code	Description	Year 2017*	Year 2018*	Year 2019*	Year 2020*	Year 2021*	Percentage Change (2021 over 2017)†‡
J01C	Beta-Lactam Antibacterials, Penicillins	6,223,000	6,236,000	6,451,000	5,333,000	5,673,000	-8.83%
J01A	Tetracyclines	747,000	873,000	1,060,000	1,112,000	1,163,000	55.57%
J01M	Quinolone Antibacterials	1,022,000	1,040,000	1,019,000	896,000	921,000	-9.86%
J01D	Other Beta-Lactam Antibacterials	814,000	840,000	858,000	824,000	903,000	10.86%
J01F	Macrolides, Lincosamides and Streptogramins	933,000	882,000	934,000	744,000	779,000	-16.42%
	Others	965,000	1,000,000	1,062,000	1,071,000	1,202,000	24.53%
Total		10,704,000	10,873,000	11,385,000	9,979,000	10,641,000	-0.59%

* Rounded to the nearest thousand

† Rounded to two decimal places

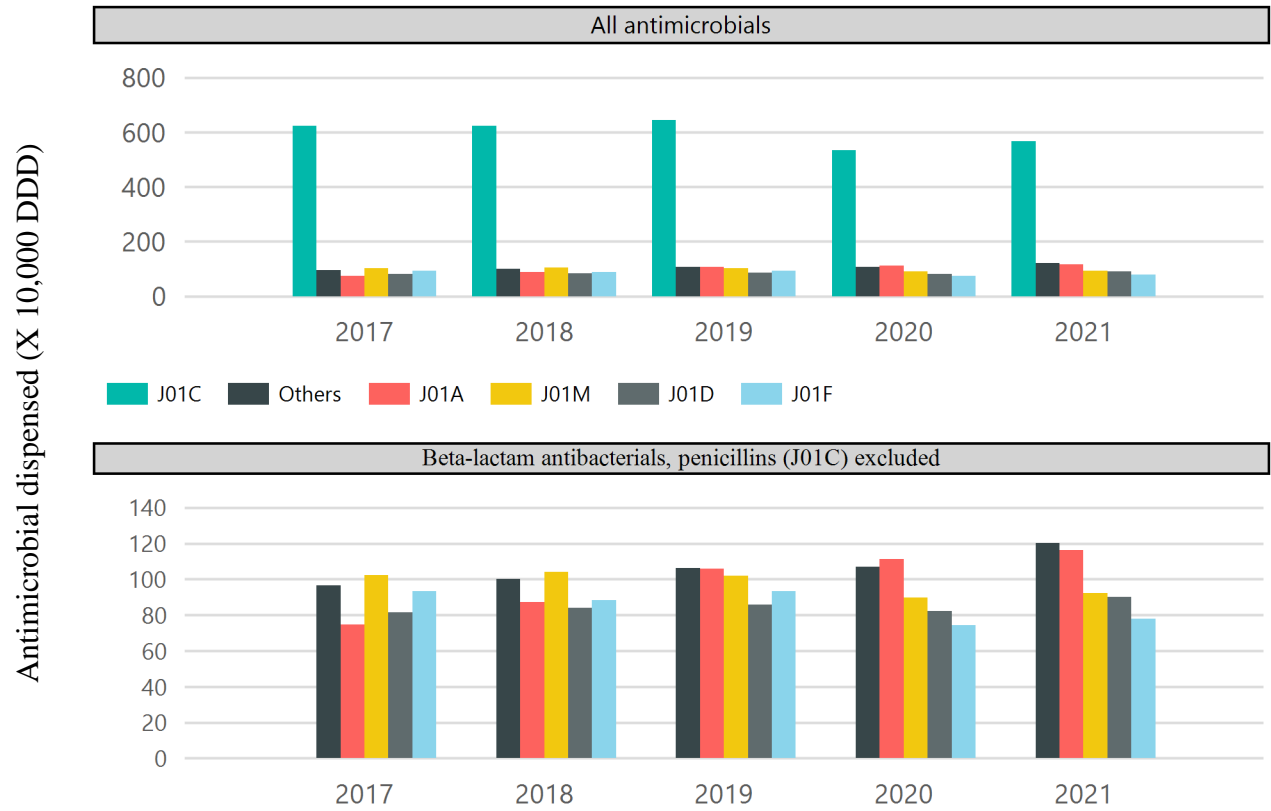
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The 5 most dispensed ATC pharmacological subgroups in year 2021 in all HA services (by WHO ATC classification)

Antimicrobials dispensed in all HA services grouped by WHO ATC classification



The 10 most dispensed antimicrobials in year 2021 in all HA services

ATC Pharmacological Subgroup		Antimicrobial dispensed in DDD					
Code	Description	Year 2017*	Year 2018*	Year 2019*	Year 2020*	Year 2021*	Percentage Change (2021 over 2017)†‡
J01CR02	Amoxicillin and Beta-Lactamase Inhibitor	4,664,000	4,807,000	5,087,000	4,203,000	4,497,000	-3.58%
J01AA02	Doxycycline	671,000	801,000	996,000	1,048,000	1,093,000	62.87%
J01MA12	Levofloxacin	758,000	779,000	767,000	671,000	690,000	-8.98%
J01CR05	Piperacillin and Beta-Lactamase Inhibitor	385,000	409,000	439,000	405,000	438,000	13.75%
J01FA09	Clarithromycin	540,000	500,000	509,000	368,000	418,000	-22.52%
J01EE01	Sulfamethoxazole and Trimethoprim	234,000	271,000	300,000	317,000	348,000	48.72%
J01CA04	Amoxicillin	294,000	290,000	297,000	223,000	279,000	-5.16%
J01CF02	Cloxacillin	455,000	372,000	324,000	272,000	246,000	-45.84%
J01FA10	Azithromycin	270,000	260,000	300,000	261,000	244,000	-9.85%
J01XE01	Nitrofurantoin	219,000	212,000	224,000	217,000	227,000	4.02%
	Others	2,215,000	2,172,000	2,140,000	1,993,000	2,161,000	-2.45%
Total		10,704,000	10,873,000	11,385,000	9,979,000	10,641,000	-0.59%

[Report Footnote]:

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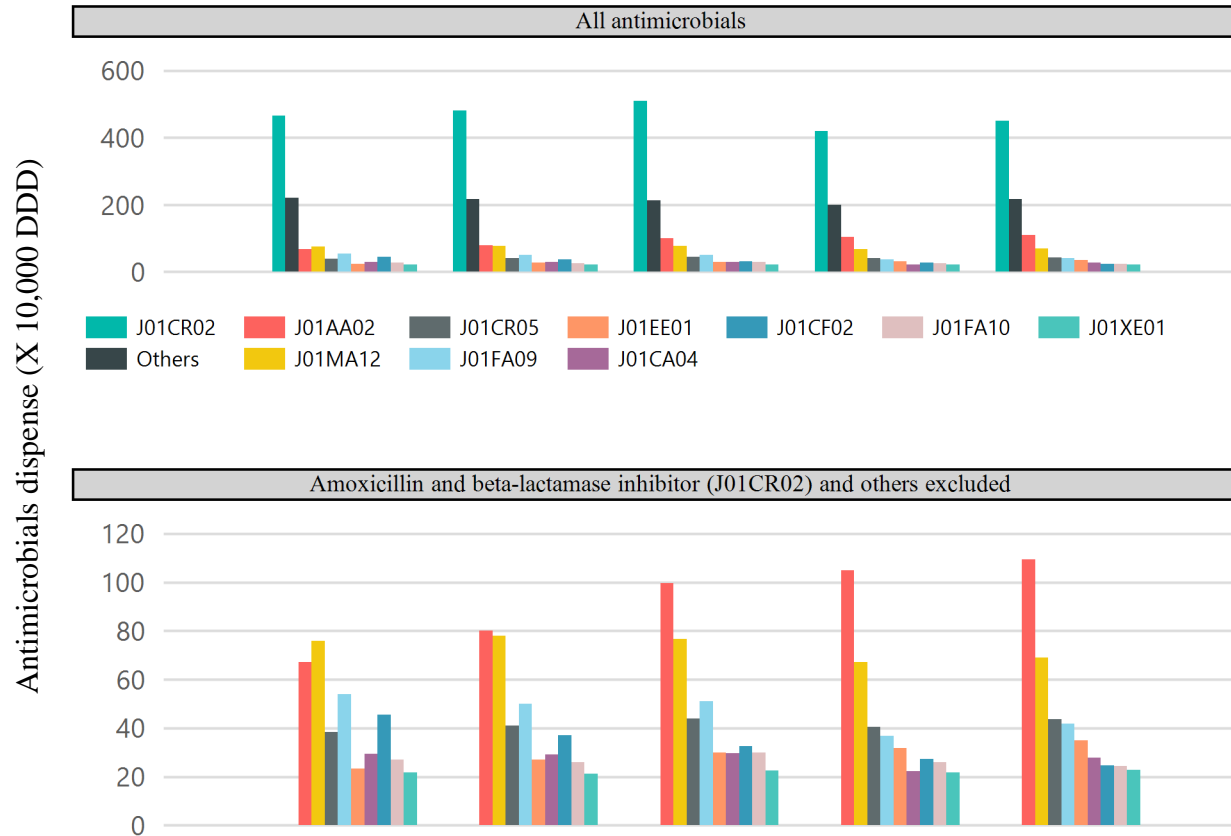
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Note:

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The 10 most dispensed antimicrobials in year 2021 in all HA services

The 10 most dispensed Antimicrobials in all HA services



Summary on number of patient-days and antimicrobial dispensed in HA Inpatient Services,
stratified by specialty

		Medicine	Surgery	O&T	ICU/HDU	Others	All Inpatient Services
Year 2017	Total DDD of antimicrobials dispensed*	3,399,000	1,179,000	687,000	116,000	1,150,000	6,531,000
	Total number of patient-days*	3,464,000	962,000	813,000	70,000	1,905,000	7,214,000
	DDD per 1,000 patient-days†	981.24	1,225.26	845.75	1,651.98	603.56	905.34
Year 2018	Total DDD of antimicrobials dispensed*	3,432,000	1,241,000	695,000	119,000	1,134,000	6,620,000
	Total number of patient-days*	3,560,000	992,000	855,000	72,000	1,910,000	7,390,000
	DDD per 1,000 patient-days†	963.87	1,250.22	812.56	1,658.41	593.71	895.88
Year 2019	Total DDD of antimicrobials dispensed*	3,557,000	1,270,000	693,000	119,000	1,208,000	6,848,000
	Total number of patient-days*	3,699,000	1,007,000	866,000	71,000	1,914,000	7,557,000
	DDD per 1,000 patient-days†	961.52	1,261.29	800.37	1,678.31	631.31	906.10
Year 2020	Total DDD of antimicrobials dispensed*	3,126,000	1,148,000	601,000	111,000	907,000	5,893,000
	Total number of patient-days*	3,385,000	853,000	661,000	67,000	1,577,000	6,542,000
	DDD per 1,000 patient-days†	923.38	1,346.71	910.33	1,662.92	575.03	900.82
Year 2021	Total DDD of antimicrobials dispensed*	3,156,000	1,289,000	691,000	109,000	954,000	6,198,000
	Total number of patient-days*	3,656,000	972,000	774,000	70,000	1,666,000	7,138,000
	DDD per 1,000 patient-days†	863.10	1,325.62	892.75	1,559.05	572.77	868.38
Percentage change (2021 over 2017)†^	Total DDD of antimicrobials dispensed	-7.16%	9.30%	0.50%	-5.90%	-17.01%	-5.09%
	Total number of patient-days	5.55%	1.03%	-4.79%	-0.29%	-12.55%	-1.06%
	DDD per 1,000 patient-days	-12.04%	8.19%	5.56%	-5.63%	-5.10%	-4.08%

Note:

* Rounded to the nearest thousand

† Rounded to two decimal places

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Overall antimicrobials dispensed in HA Inpatient Services,
stratified by specialty

Specialty	DDD per 1,000 patient-days					Percentage Change (2021 over 2017) **†
	Year 2017 *	Year 2018 *	Year 2019 *	Year 2020 *	Year 2021 *	
Medicine	981.24	963.87	961.52	923.38	863.10	-12.04%
Surgery	1,225.26	1,250.22	1,261.29	1,346.71	1,325.62	8.19%
Orthopaedics & Traumatology	845.75	812.56	800.37	910.33	892.75	5.56%
ICU/HDU	1,651.98	1,658.41	1,678.31	1,662.92	1,559.05	-5.63%
Others	603.56	593.71	631.31	575.03	572.77	-5.10%
All Inpatient Services	905.34	895.88	906.10	900.82	868.38	-4.08%

Note:

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Note:

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Broad-spectrum Antimicrobials Dispensed in HA Inpatient Services

	ATC Chemical Substance		DDD per 1,000 patient-days					Percentage Change (2021 over 2017)*†
	Code	Description	Year 2017*	Year 2018*	Year 2019*	Year 2020*	Year 2021*	
Beta-lactam Antibacterials, Penicillins	J01CR05	Piperacillin and Beta-Lactamase Inhibitor	53.31	55.38	58.13	61.83	61.27	14.93%
Other Beta-lactam Antibacterials (Cephalosporins)‡	J01DD02	Ceftazidime	3.27	3.65	4.08	4.47	5.01	53.01%
	J01DE01	Cefepime	1.84	2.35	2.69	3.29	3.63	97.54%
	J01DD62	Cefoperazone and Beta- Lactamase Inhibitor	3.88	3.85	3.65	3.40	2.94	-24.23%
	J01DD52	Ceftazidime and Beta- Lactamase Inhibitor	-	<0.005	0.10	0.30	0.44	-
	J01DI02	Ceftaroline Fosamil	0.31	0.30	0.34	0.39	0.33	9.44%
	J01DI54	Ceftolozane and Beta-Lactamase Inhibitor	0.03	0.11	0.14	0.23	-	-
Other Beta-lactam Antibacterials (Carbapenems)‡	J01DH02	Meropenem	18.77	22.99	23.21	29.36	29.92	59.37%
	J01DH03	Ertapenem	6.26	6.74	6.98	8.04	8.62	37.60%
	J01DH51	Imipenem and Cilastatin	1.07	0.92	0.86	0.90	0.79	-26.18%
Other Antibacterials	J01XA01	Vancomycin	13.84	15.12	15.46	18.53	18.71	35.14%
	J01XX08	Linezolid	1.63	1.64	1.89	1.91	1.71	4.62%
	J01XX09	Daptomycin	1.13	1.17	1.33	1.59	1.58	39.96%
	J01XB01	Colistin	0.60	0.54	0.62	0.66	0.61	1.58%

Broad-spectrum Antimicrobials Dispensed in HA Inpatient Services

	ATC Chemical Substance		DDD per 1,000 patient-days					Percentage Change (2021 over 2017)*†
	Code	Description	Year 2017*	Year 2018*	Year 2019*	Year 2020*	Year 2021*	
Other Antibacterials	J01XA02	Teicoplanin	<0.005	0.01	<0.005	<0.005	<0.005	-97.75%
Total			105.97	114.76	119.48	134.90	135.56	27.93%

* Rounded to two decimal places

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‡ ATC pharmacological subgroup “other betalactam antibacterials (J01D)” is further categorised into cephalosporins and carbapenems groups

Note:

Broad-spectrum antimicrobials not categorised as antimicrobials for systemic use (J01) under WHO ATC were excluded from analysis.

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