

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§¶
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
2022	14,553,000	3,960,000	272.11	7,067,000	5,933,000	839.61

* 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

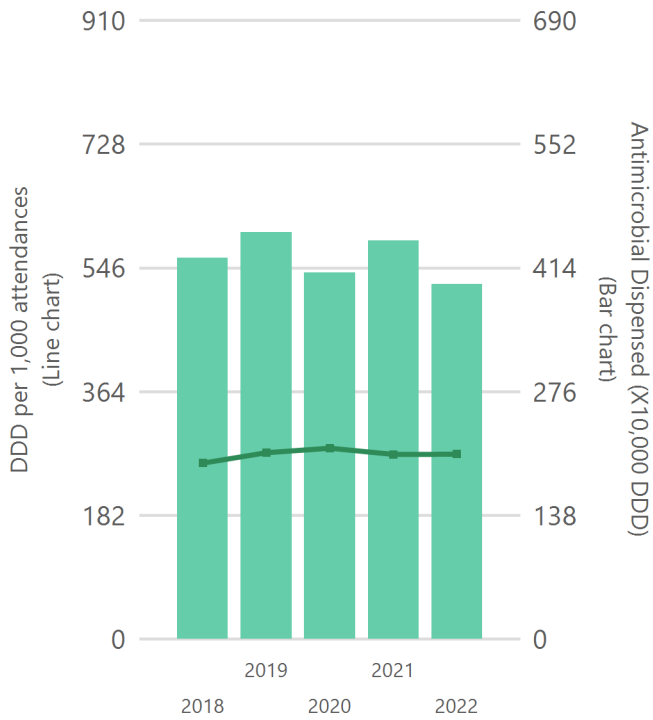
** In terms of patient-days

Note:

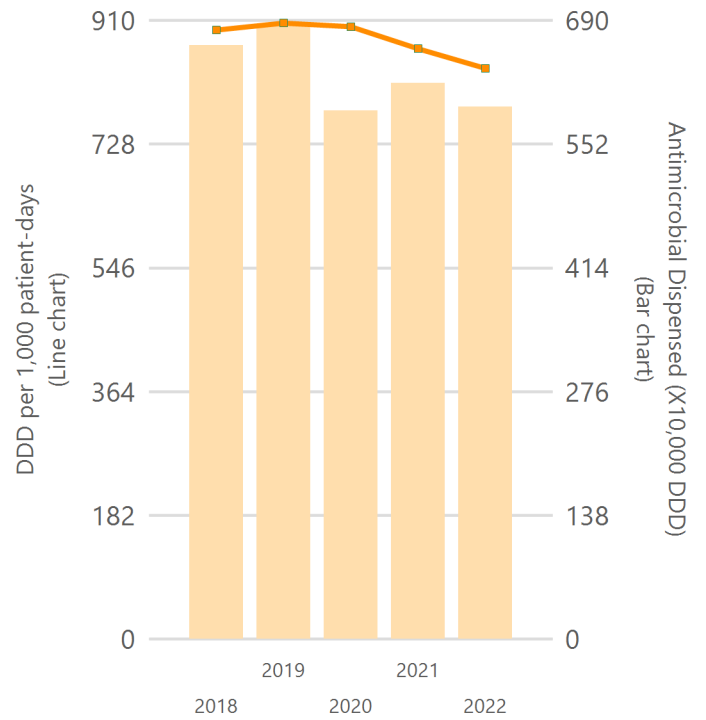
Comparisons with estimates from other publications on antimicrobial consumption should be interpreted with caution, due to continuous revisions of the ATC/DDD system and possible difference between consumption/dispensed quantity data.

Overall antimicrobials dispensed in various service types

Non-inpatient Services



Inpatient Services



The 5 most dispensed ATC pharmacological subgroups in year 2022 in all HA services (by WHO ATC classification)

ATC Pharmacological Subgroup		Antimicrobial dispensed in DDD					Percentage Change (2022 over 2018) ^{†‡}
Code	Description	Year 2018*	Year 2019*	Year 2020*	Year 2021*	Year 2022*	
J01C	Beta-Lactam Antibacterials, Penicillins	6,236,000	6,451,000	5,333,000	5,673,000	5,163,000	-17.21%
J01A	Tetracyclines	873,000	1,060,000	1,112,000	1,163,000	1,088,000	24.58%
J01D	Other Beta-Lactam Antibacterials	840,000	858,000	824,000	903,000	922,000	9.78%
J01M	Quinolone Antibacterials	1,040,000	1,019,000	896,000	921,000	853,000	-17.96%
J01F	Macrolides, Lincosamides and Streptogramins	882,000	934,000	744,000	779,000	692,000	-21.59%
	Others	1,000,000	1,062,000	1,071,000	1,202,000	1,174,000	17.40%
Total		10,873,000	11,385,000	9,979,000	10,641,000	9,893,000	-9.01%

* Rounded to the nearest thousand

† Rounded to two decimal places

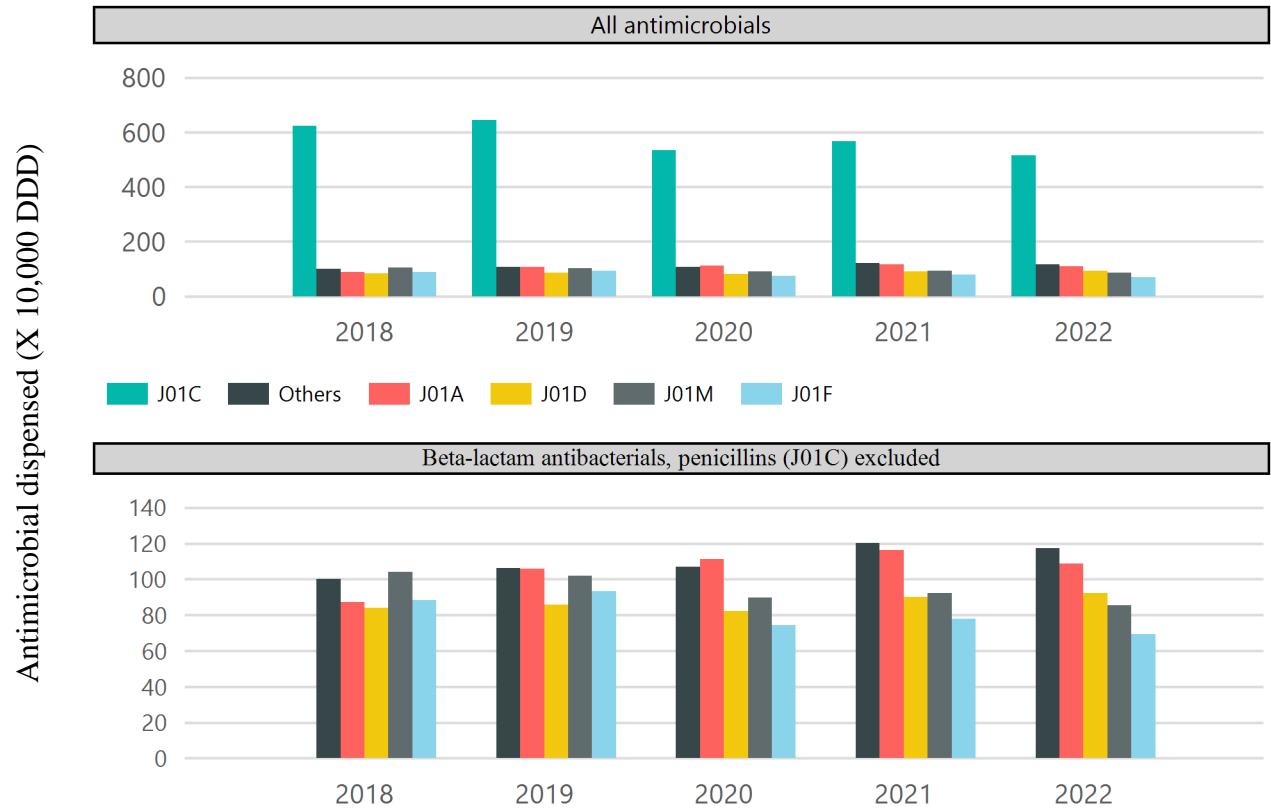
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The 5 most dispensed ATC pharmacological subgroups in year 2022 in all HA services (by WHO ATC classification)

Antimicrobials dispensed in all HA services grouped by WHO ATC classification



The 10 most dispensed antimicrobials in year 2022 in all HA services

ATC Pharmacological Subgroup		Antimicrobial dispensed in DDD					Percentage Change (2022 over 2018) ^{†‡}
Code	Description	Year 2018*	Year 2019*	Year 2020*	Year 2021*	Year 2022*	
J01CR02	Amoxicillin and Beta-Lactamase Inhibitor	4,807,000	5,087,000	4,203,000	4,497,000	4,097,000	-14.76%
J01AA02	Doxycycline	801,000	996,000	1,048,000	1,093,000	1,027,000	28.11%
J01MA12	Levofloxacin	779,000	767,000	671,000	690,000	657,000	-15.66%
J01CR05	Piperacillin and Beta-Lactamase Inhibitor	409,000	439,000	405,000	438,000	469,000	14.65%
J01EE01	Sulfamethoxazole and Trimethoprim	271,000	300,000	317,000	348,000	360,000	32.75%
J01FA09	Clarithromycin	500,000	509,000	368,000	418,000	355,000	-28.94%
J01FA10	Azithromycin	260,000	300,000	261,000	244,000	233,000	-10.33%
J01DH02	Meropenem	170,000	176,000	193,000	214,000	233,000	36.63%
J01CA04	Amoxicillin	290,000	297,000	223,000	279,000	231,000	-20.28%
J01DD04	Ceftriaxone	185,000	190,000	187,000	199,000	225,000	21.47%
	Others	2,399,000	2,324,000	2,102,000	2,221,000	2,006,000	-16.42%
Total		10,873,000	11,385,000	9,979,000	10,641,000	9,893,000	-9.01%

[Report Footnote]:

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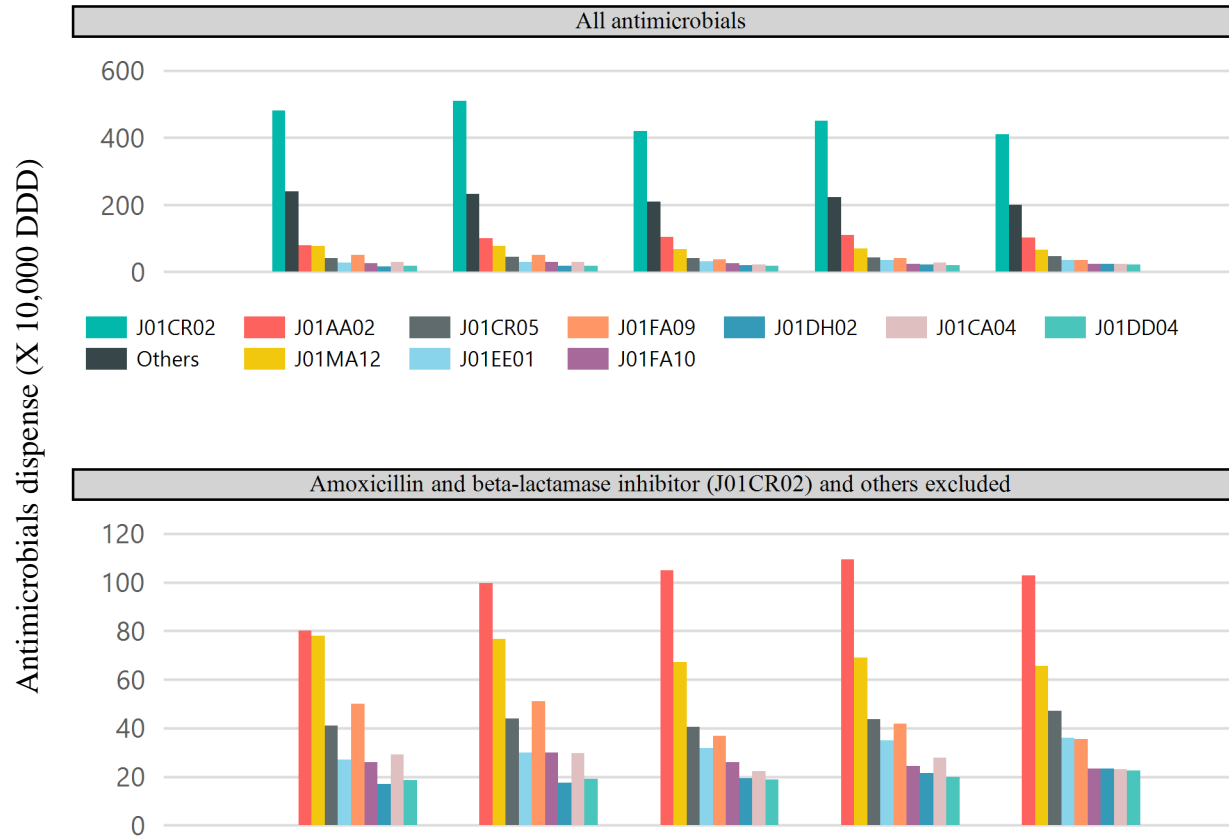
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Note:

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The 10 most dispensed antimicrobials in year 2022 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 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
Year 2022	Total DDD of antimicrobials dispensed*	3,154,000	1,170,000	611,000	114,000	883,000	5,933,000
	Total number of patient-days*	3,724,000	871,000	730,000	73,000	1,670,000	7,067,000
	DDD per 1,000 patient-days†	847.01	1,344.28	838.24	1,569.81	528.83	839.61
Percentage change (2022 over 2018) †^	Total DDD of antimicrobials dispensed	-8.08%	-5.65%	-12.03%	-4.16%	-22.12%	-10.38%
	Total number of patient-days	4.60%	-12.25%	-14.73%	1.25%	-12.57%	-4.37%
	DDD per 1,000 patient-days	-12.12%	7.52%	3.16%	-5.34%	-10.93%	-6.28%

Note:

* Rounded to the nearest thousand

† Rounded to two decimal places

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

Overall antimicrobials dispensed in HA Inpatient Services, stratified by specialty

Specialty	DDD per 1,000 patient-days					Percentage Change (2022 over 2018) *†
	Year 2018 *	Year 2019 *	Year 2020 *	Year 2021 *	Year 2022 *	
Medicine	963.87	961.52	923.38	863.10	847.01	-12.12%
Surgery	1,250.22	1,261.29	1,346.71	1,325.62	1,344.28	7.52%
Orthopaedics & Traumatology	812.56	800.37	910.33	892.75	838.24	3.16%
ICU/HDU	1,658.41	1,678.31	1,662.92	1,559.05	1,569.81	-5.34%
Others	593.71	631.31	575.03	572.77	528.83	-10.93%
All Inpatient Services	895.88	906.10	900.82	868.38	839.61	-6.28%

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 (2022 over 2018)*†
	Code	Description	Year 2018*	Year 2019*	Year 2020*	Year 2021*	Year 2022*	
Beta-lactam Antibacterials, Penicillins	J01CR05	Piperacillin and Beta-Lactamase Inhibitor	55.38	58.13	61.83	61.27	66.33	19.77%
Other Beta-lactam Antibacterials (Cephalosporins)‡	J01DD02	Ceftazidime	3.65	4.08	4.47	5.01	5.25	43.83%
	J01DE01	Cefepime	2.35	2.69	3.29	3.63	3.81	62.27%
	J01DD62	Cefoperazone and Beta- Lactamase Inhibitor	3.85	3.65	3.40	2.94	2.72	-29.30%
	J01DD52	Ceftazidime and Beta- Lactamase Inhibitor	<0.005	0.10	0.30	0.44	0.47	27,868.51%
	J01DI02	Ceftaroline Fosamil	0.30	0.34	0.39	0.33	0.34	12.73%
	J01DI54	Ceftolozane and Beta-Lactamase Inhibitor	0.11	0.14	0.23	-	0.11	-3.74%
Other Beta-lactam Antibacterials (Carbapenems)‡	J01DH02	Meropenem	22.99	23.21	29.36	29.92	32.84	42.86%
	J01DH03	Ertapenem	6.74	6.98	8.04	8.62	8.41	24.93%
	J01DH51	Imipenem and Cilastatin	0.92	0.86	0.90	0.79	0.68	-26.09%
Other Antibacterials	J01XA01	Vancomycin	15.12	15.46	18.53	18.71	19.26	27.38%
	J01XX08	Linezolid	1.64	1.89	1.91	1.71	2.02	23.38%
	J01XX09	Daptomycin	1.17	1.33	1.59	1.58	1.73	47.48%
	J01XB01	Colistin	0.54	0.62	0.66	0.61	0.58	6.93%

Broad-spectrum Antimicrobials Dispensed in HA Inpatient Services

	ATC Chemical Substance		DDD per 1,000 patient-days					Percentage Change (2022 over 2018)*†
	Code	Description	Year 2018*	Year 2019*	Year 2020*	Year 2021*	Year 2022*	
Other Antibacterials	J01XA02	Teicoplanin	0.01	<0.005	<0.005	<0.005	-	-
Total			114.76	119.48	134.90	135.56	144.55	25.95%

* 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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