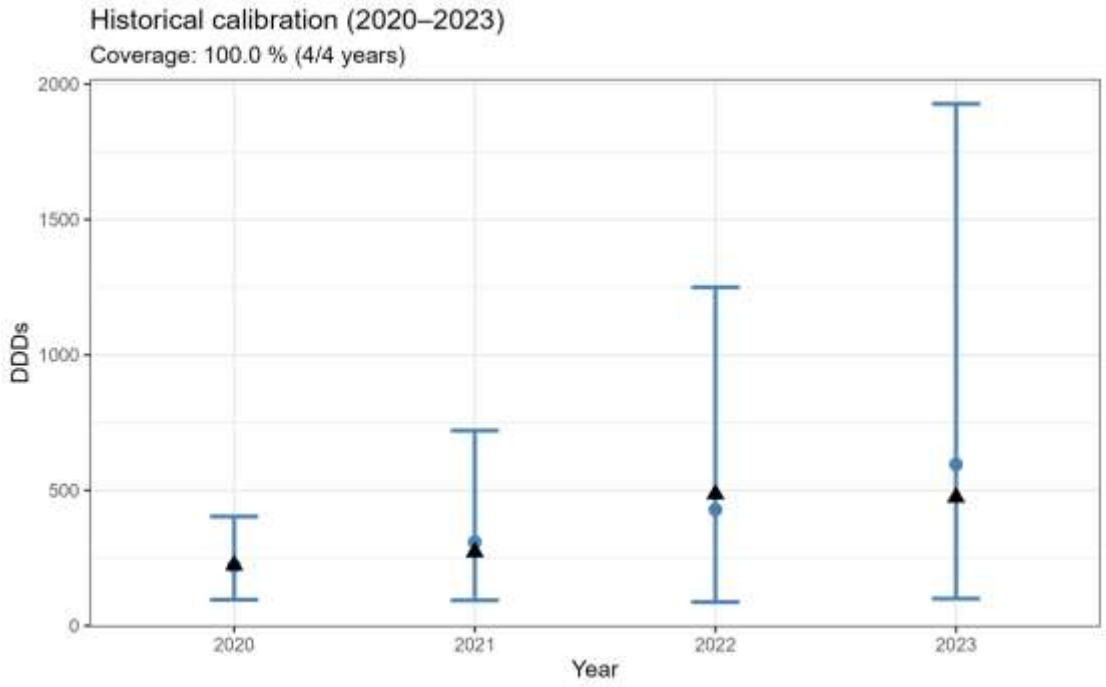

Supplementary Figure 1 Historical calibration of the bootstrap-Monte Carlo model: blue error bars showed the 95 % prediction intervals for 2020-2023 antibiotic consumption. Blue dots represented the mean simulated values; black triangles indicated the corresponding observed data.

Supplemental Table 1 Clinical characteristics and antibiotic consumption differences between 2015-2019 and 2020-2024 (UC population)

Variables	2015-2019 (n = 55)	2020-2024 (n = 137)	*P* value
Age, y	58.00 (46.00,65.00)	58.00 (44.00, 66.00)	0.504
Length of stay, day(s)	11.00 (7.00, 13.00)	11.00 (8.00, 14.00)	0.512
Hospitalization costs, 1000 CNY	7.21 (4.72, 10.14)	8.88 (5.94, 13.25)	0.748
Rate, %	29.89	21.49	0.024
DDDs per 100 bed-days	42.00 (18.57, 75.00)	69.49 (45.59, 93.75)	＜0.001
Classifications, n (%)			
β-lactam antimicrobials/penicillins	26 (47.3%)	63 (46.0%)	0.872
Cephalosporins	15 (27.3%)	37 (27.0%)	0.970
Fluoroquinolones	5 (9.1%)	22 (16.0%)	0.209
Imidazole derivatives	9 (16.3%)	6 (4.4%)	0.005
Carbapenems	0	2 (1.5%)	-
Glycopeptide antibacterials	0	6 (4.4%)	-
Other antibacterials	0	1 (0.7%)	-

Supplemental Table 2 Clinical characteristics and antibiotic consumption differences between 2015-2019 and 2020-2024 (CD population)

Variables	2015-2019 (n = 47)	2020-2024 (n = 133)	*P* value
Age, y	41.00 (30.00,	36.00 (25.00,	0.286

	54.00)	54.00)	
Length of stay, day(s)	9.00 (4.00, 14.00)	11.00 (7.00, 15.00)	0.479
Hospitalization costs, 1000 CNY	9.30 (6.69, 29.91)	10.93 (5.86, 20.22)	0.882
Rate, %	40.17	12.70	＜0.001
DDDs per 100 bed-days	58.33 (31.67, 90.60)	66.67 (42.86, 85.71)	0.449
Classifications, n (%)			
β-lactam antimicrobials/penicillins	18 (38.3%)	77 (57.9%)	0.021
Cephalosporins	19 (40.4%)	31 (23.3%)	0.024
Fluoroquinolones	6 (12.8%)	17 (12.8)	0.998
Imidazole derivatives	4 (8.5%)	4 (3.0%)	0.116
Carbapenems	0	3 (2.3%)	-
Other antibacterials	0	1 (0.7%)	-