○ The data are calculated from claims registered in the NDB. The data do not always reflect the precise antibiotic use because the data of patients who receive publicly funded health care are not always included. The numerical values are different from those of the surveillance of antibiotic sales (http://amrcrc.ncgm.go.jp/surveillance/020/20190902163931.html) due to the different data source.

○ The figures indicate drug utilization standardized by defined daily dose (DDD) per population and drug, called DID (DDDs/1,000 inhabitants/day) (Reference: https://www.whocc.no/atc_ddd_index/). The DDD is according to data published on January 1, 2017.

○ The population is according to estimates published by the Statistics Bureau, Ministry of Internal Affairs and Communications, Japan. (https://www.stat.go.jp/data/jinsui/)

○ The AWaRe Classification is a tool for antimicrobial stewardship recommended by the WHO. (Reference: https://adoptaware.org/; related tables: http://amrcrc.ncgm.go.jp/surveillance/020/AWaRe_bunrui_2019_ver5.pdf)

○ Please see this PDF (http://amr.ncgm.go.jp/pdf/190903_glossary.pdf) for definitions of terminology related to the surveillance of antibiotics.

○ Notes

・ The ATC codes shown on pages 2, 6, 7, 8, and 9 are explained below. See https://www.whocc.no/atc_ddd_index/ for more information about ATC classifications.

- Cephalosporin, etc.: J01D (other β-lactam antibiotics) ※Includes carbapenem
- Macrolide, etc.: J01F (macrolides, lincosamides, and streptogramins)
- Fluoroquinolone, etc.: J01M (quinolone antibiotics) ※ Includes nalidixic acid and pipemidic acid
- Penicillin: J01C (β-lactam antibacterials, penicillins) ※ Includes combination drugs containing β-lactamase inhibitor

・ Surveillance categorized by facility (clinic or hospital) is based on the classification by the regional bureau of health and welfare (see page 5).

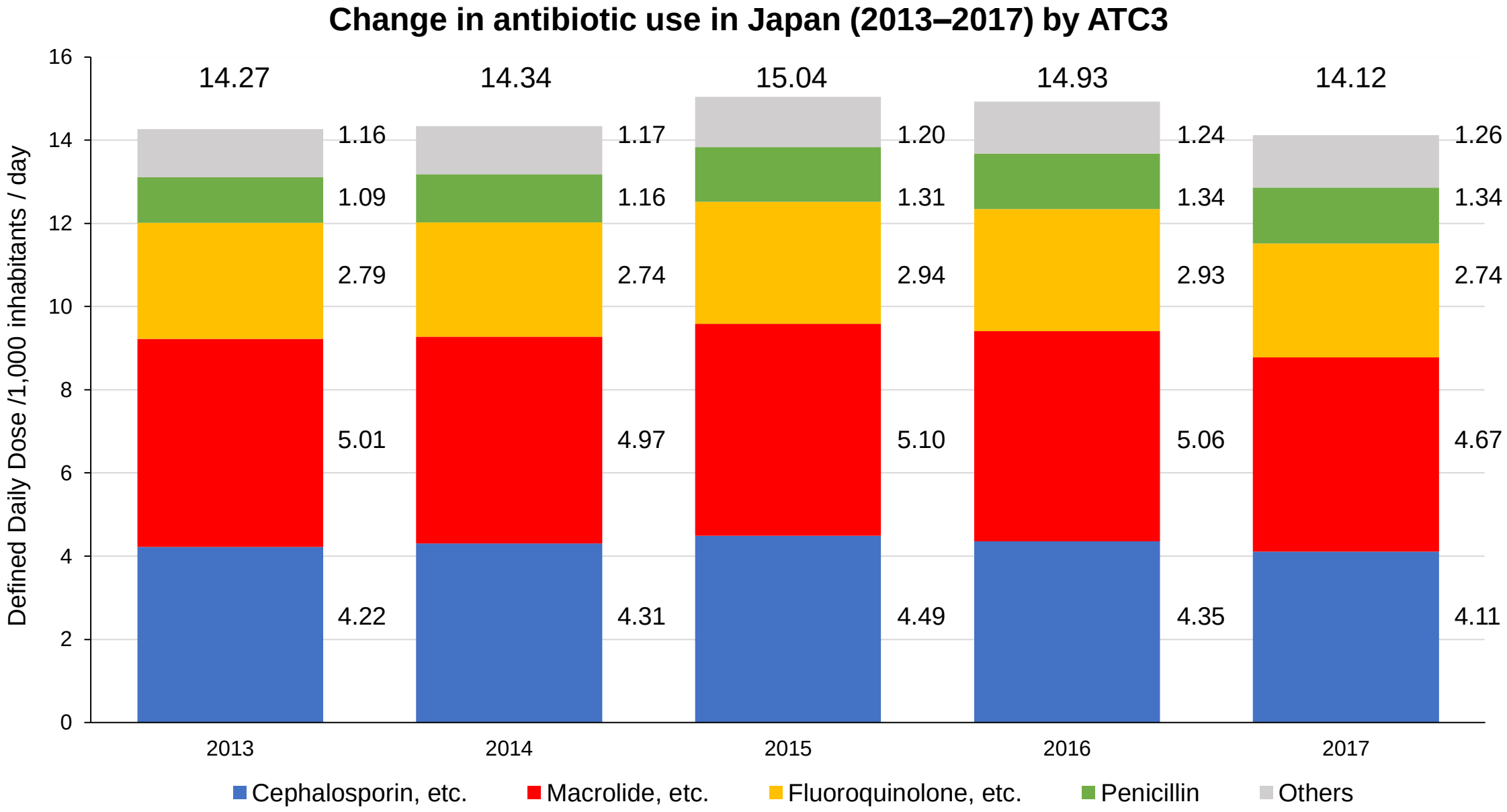
・ Data for facilities closed within each year are not included.

・ Surveillance categorized as medical or dental is from 2015, when electronic claims became widespread among dentists (see page 9).

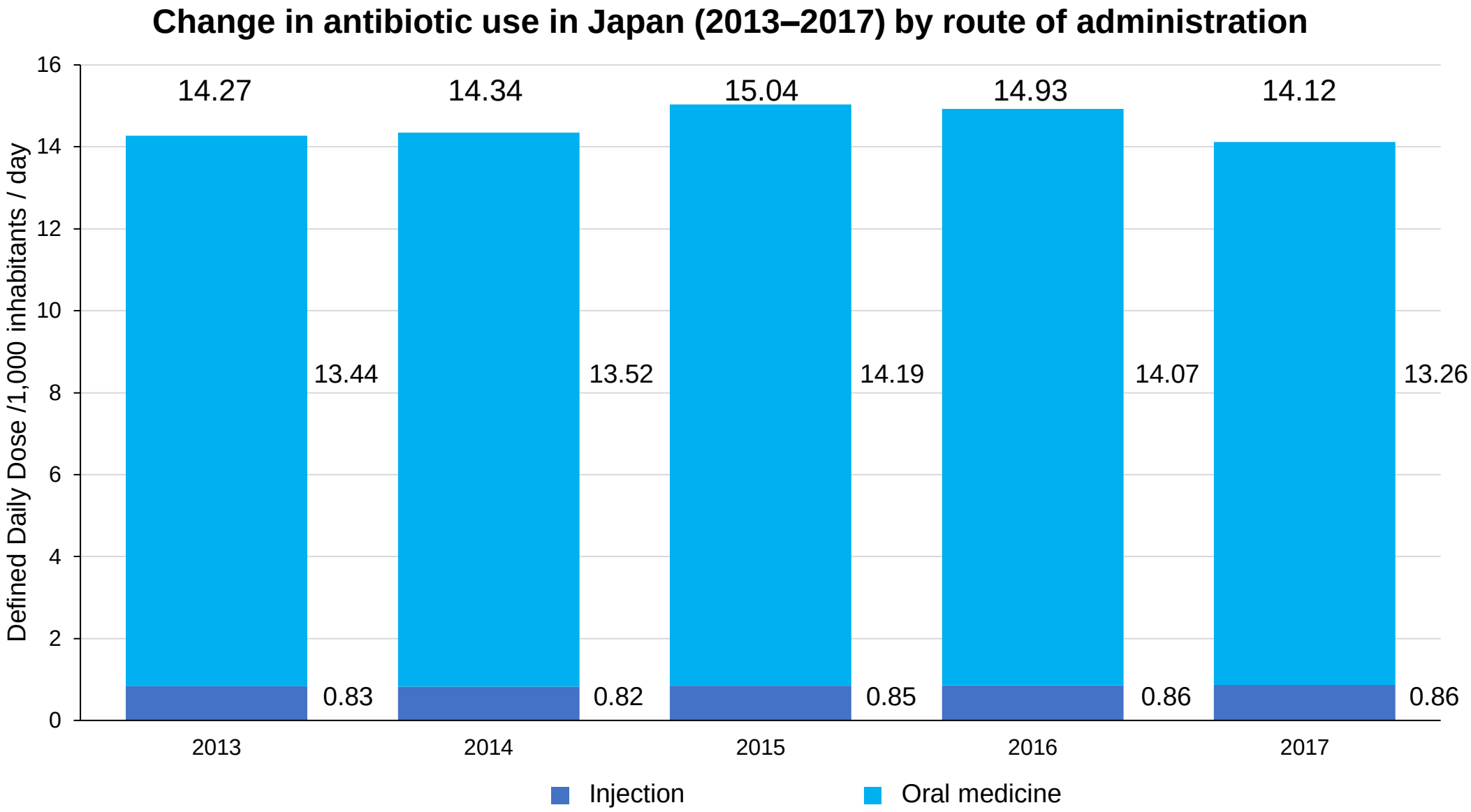
・ The data were surveyed in accordance with the study below.

- Research grant from the Ministry of Health, Labour and Welfare of Japan (H29-shinkougyousei-shitei-005).
- Research on the implementation of the AMR Action Plan (Chief Norio Ohmagari)

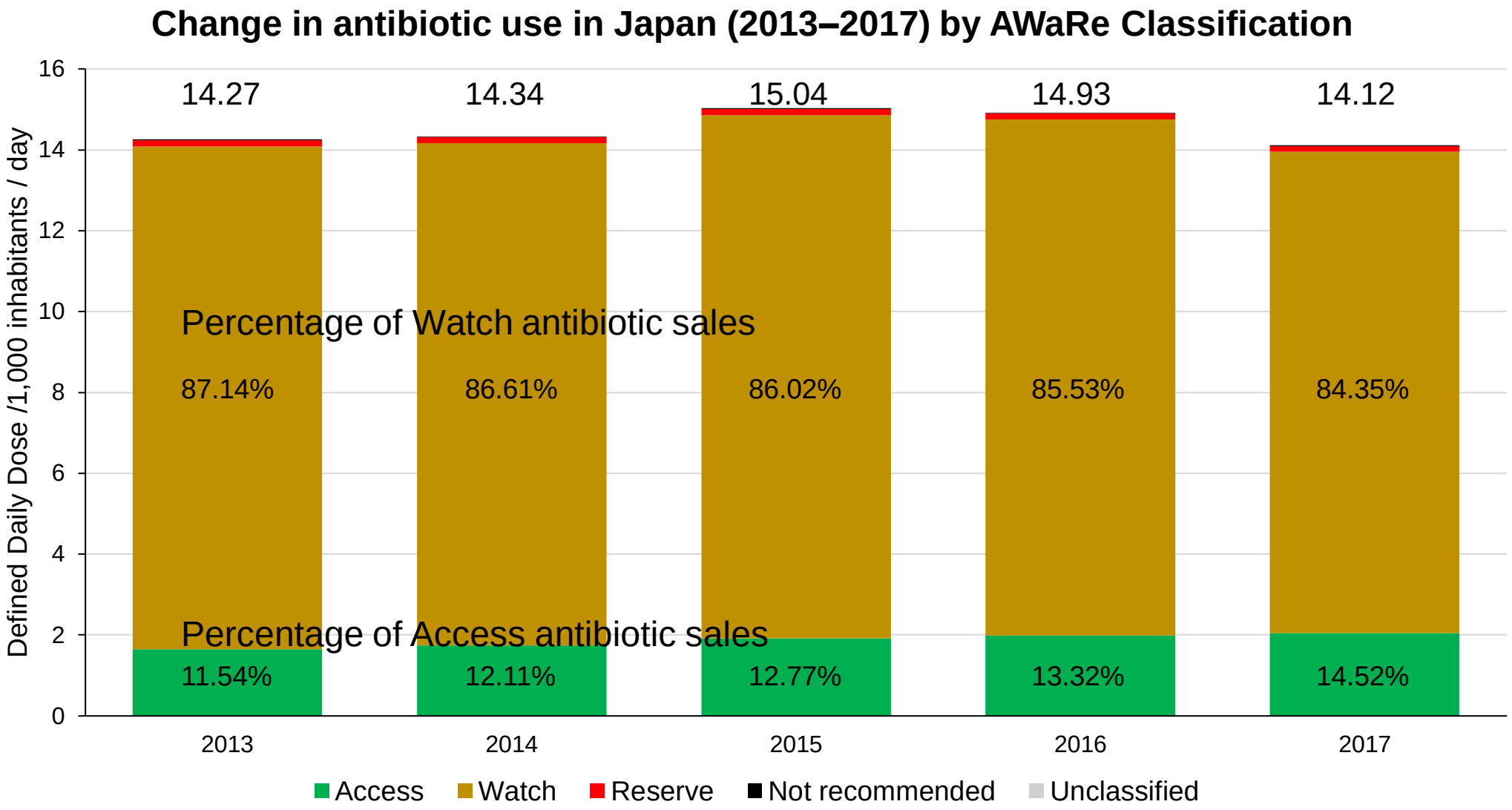
Oral medicine + Injection



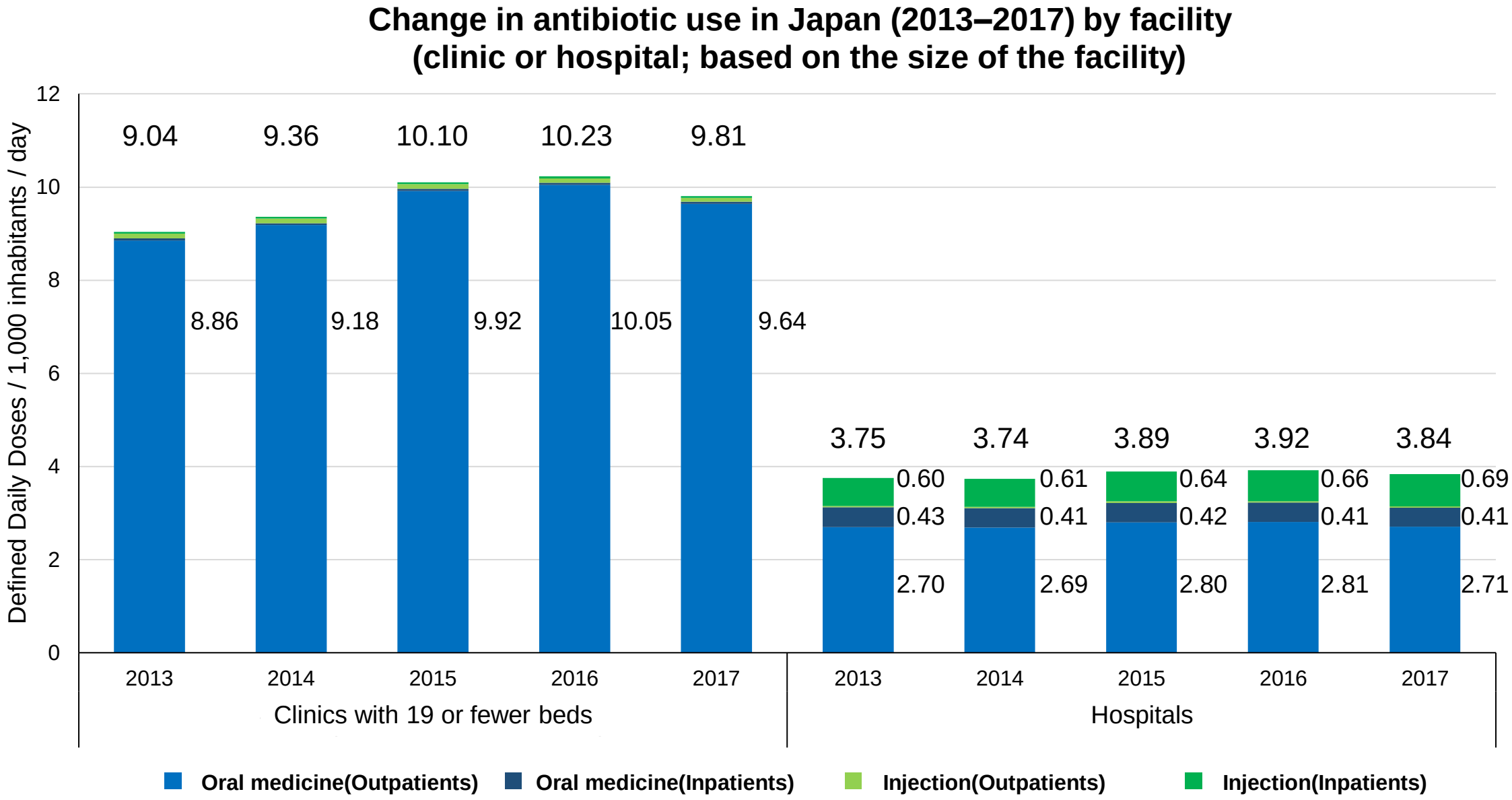
Oral medicine + Injection



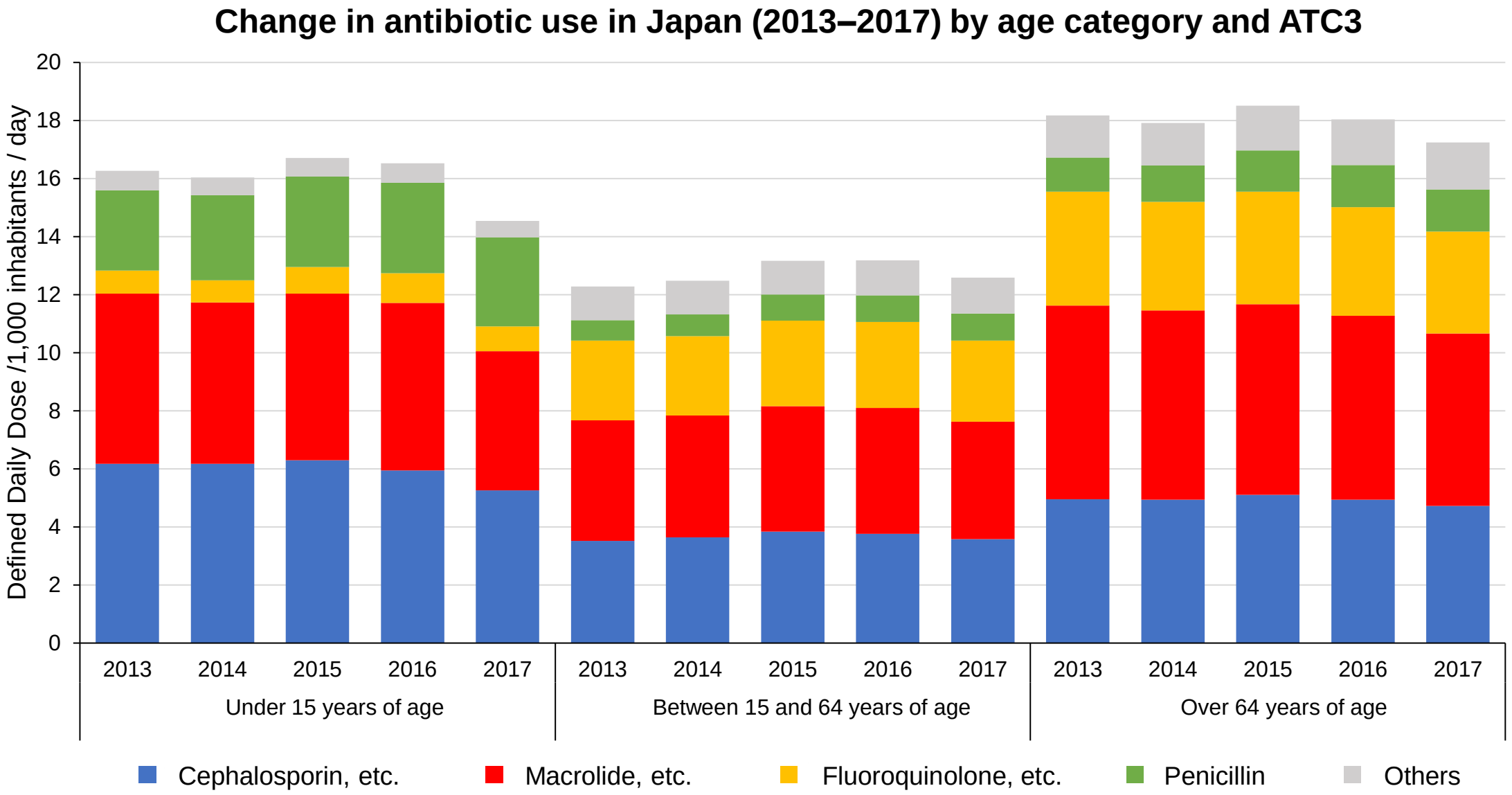
Oral medicine + Injection



Oral medicine + Injection

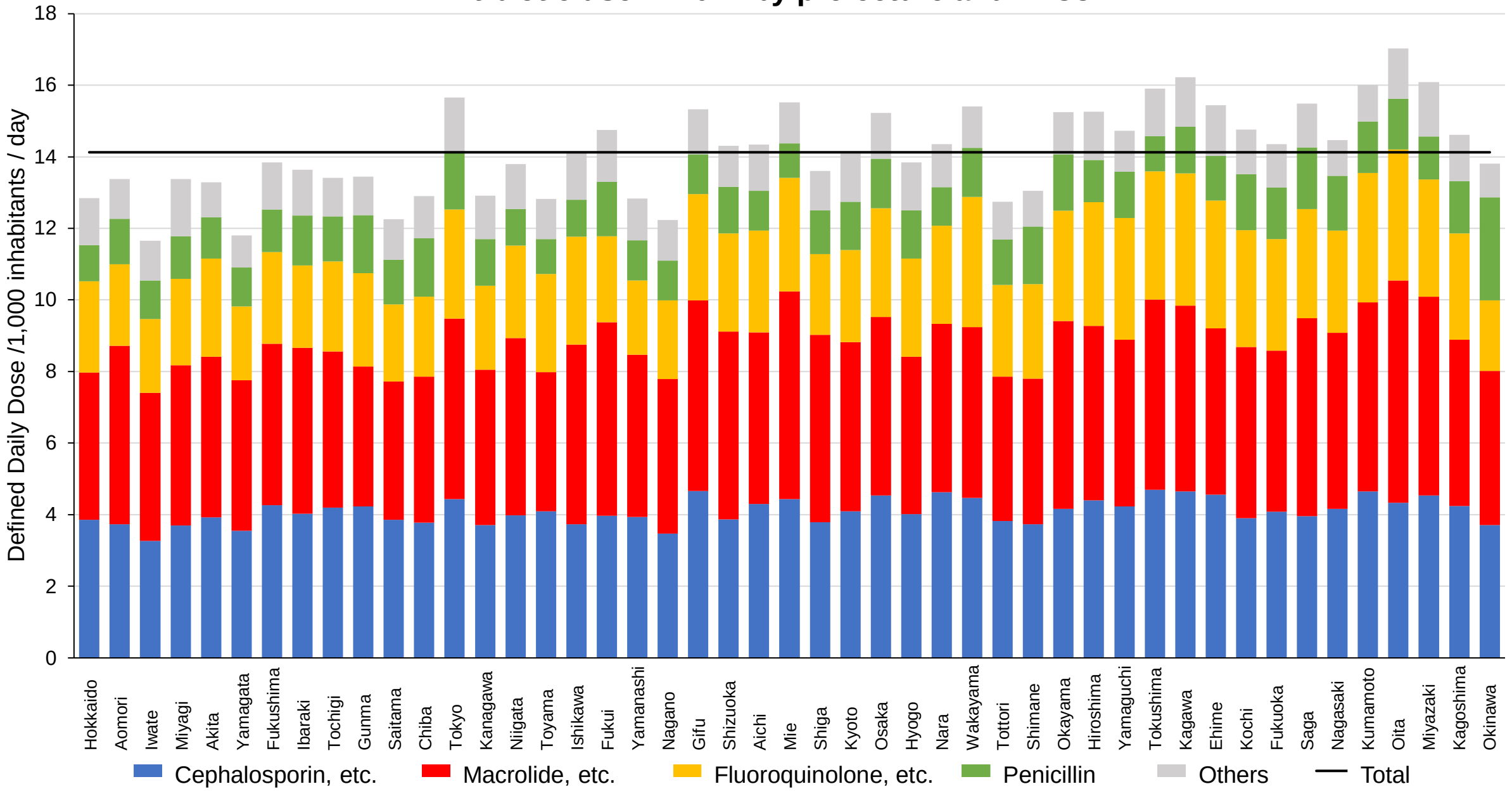


Oral medicine + Injection



Oral medicine + Injection

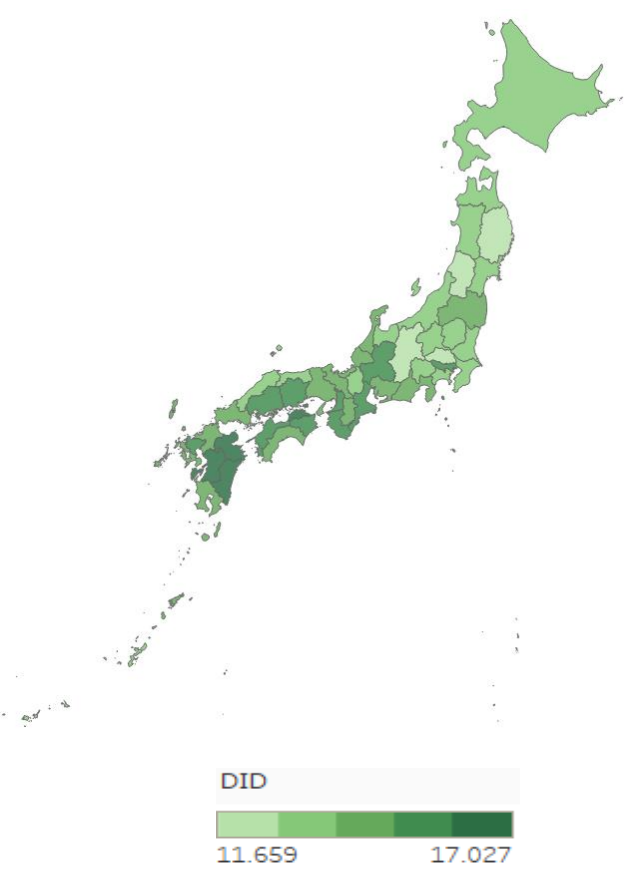
Antibiotic use in 2017 by prefecture and ATC3



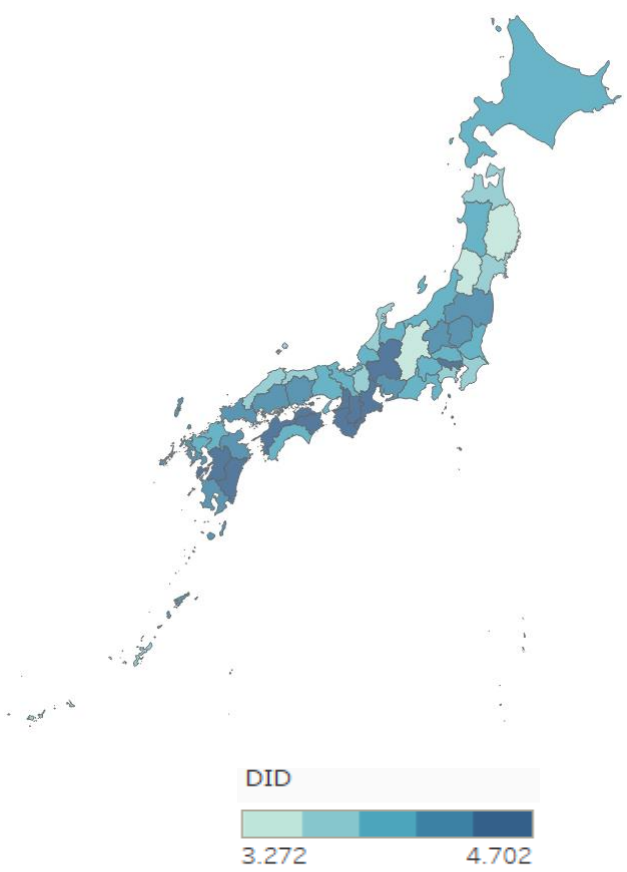
Oral medicine + Injection

Mapping of the antibiotic use in 2017 by prefecture and ATC3

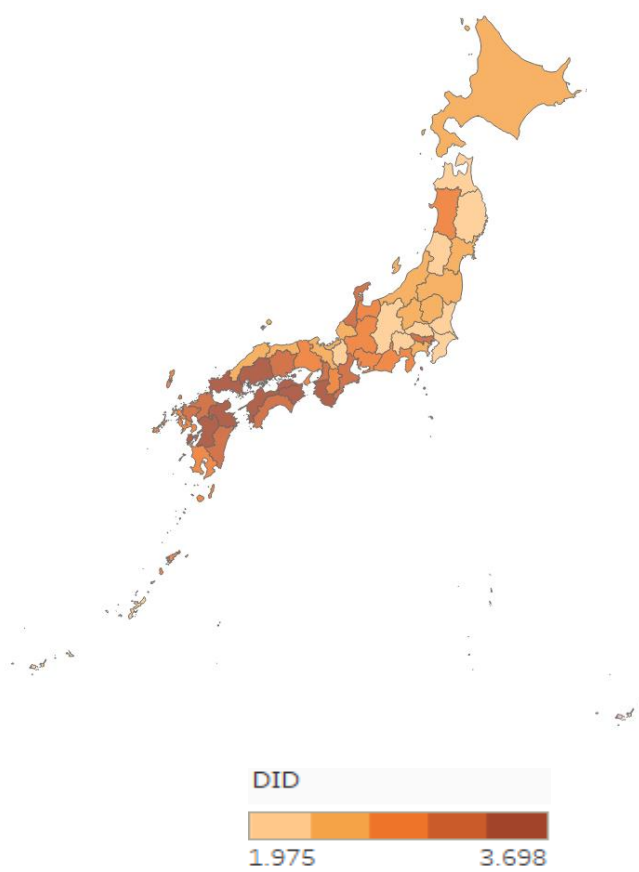
Total



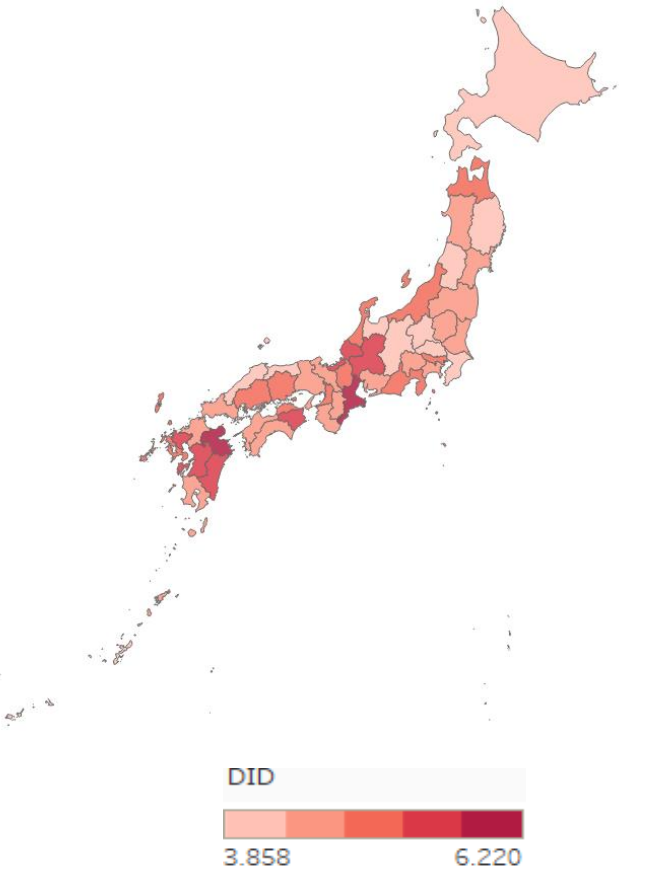
Cephalosporin, etc.



Fluoroquinolone, etc.

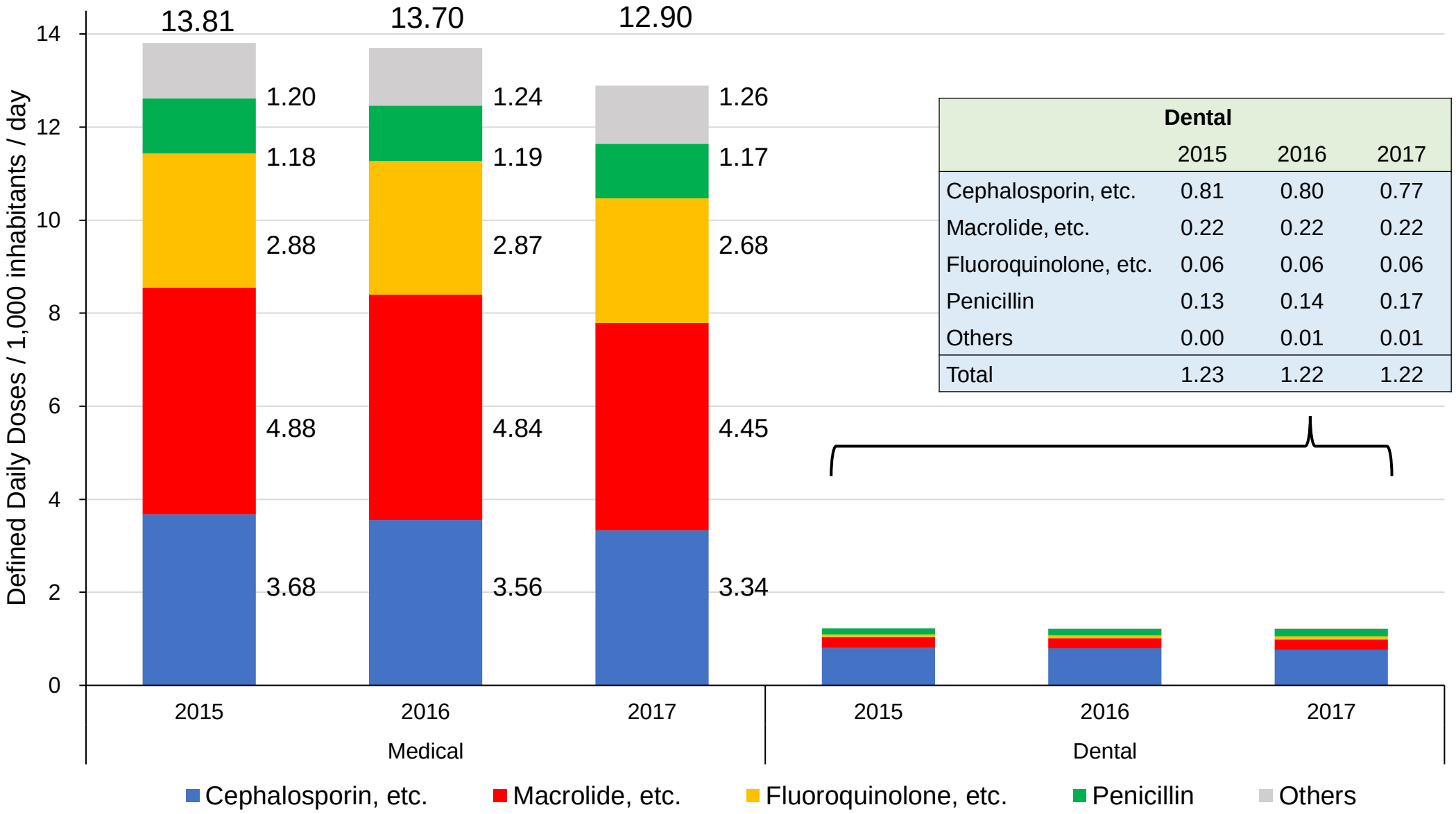


Macrolide, etc.



Oral medicine + Injection

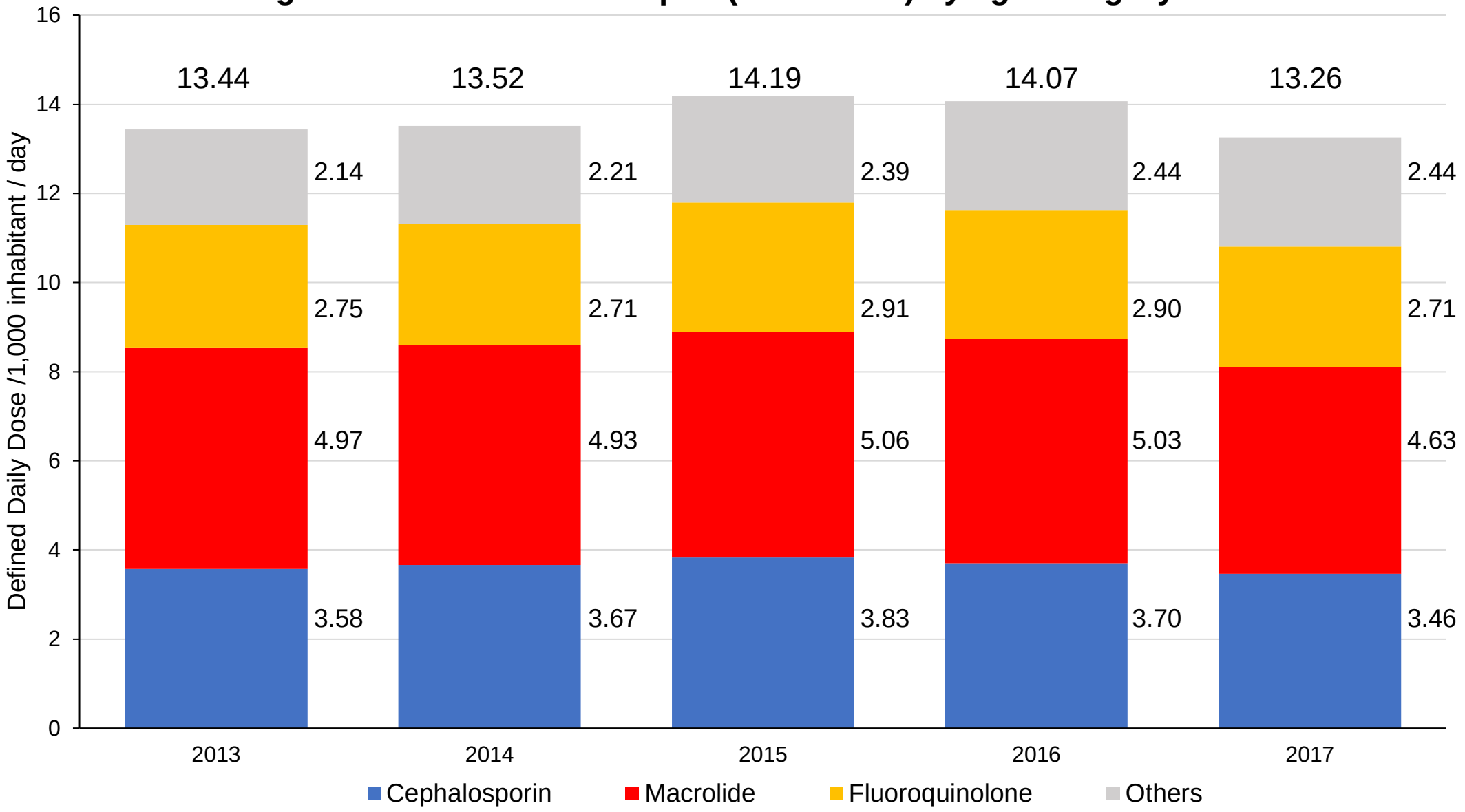
Change in antibiotic use in Japan 2015–2017 by classification as medical or dental and by ATC3



Dental	2015	2016	2017
Cephalosporin, etc.	0.81	0.80	0.77
Macrolide, etc.	0.22	0.22	0.22
Fluoroquinolone, etc.	0.06	0.06	0.06
Penicillin	0.13	0.14	0.17
Others	0.00	0.01	0.01
Total	1.23	1.22	1.22

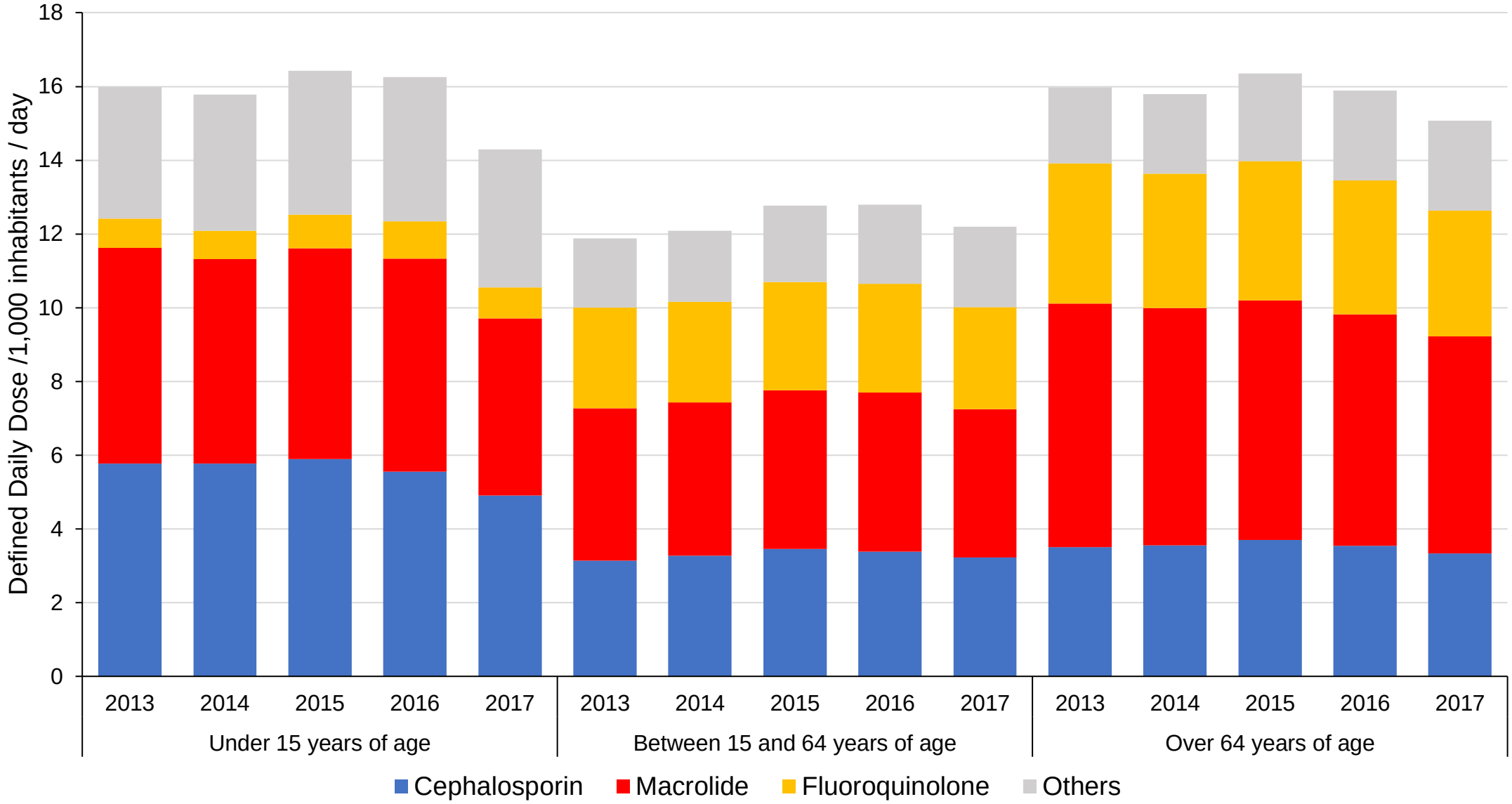
Oral medicine

Change in antibiotic use in Japan (2013–2017) by age category and ATC4



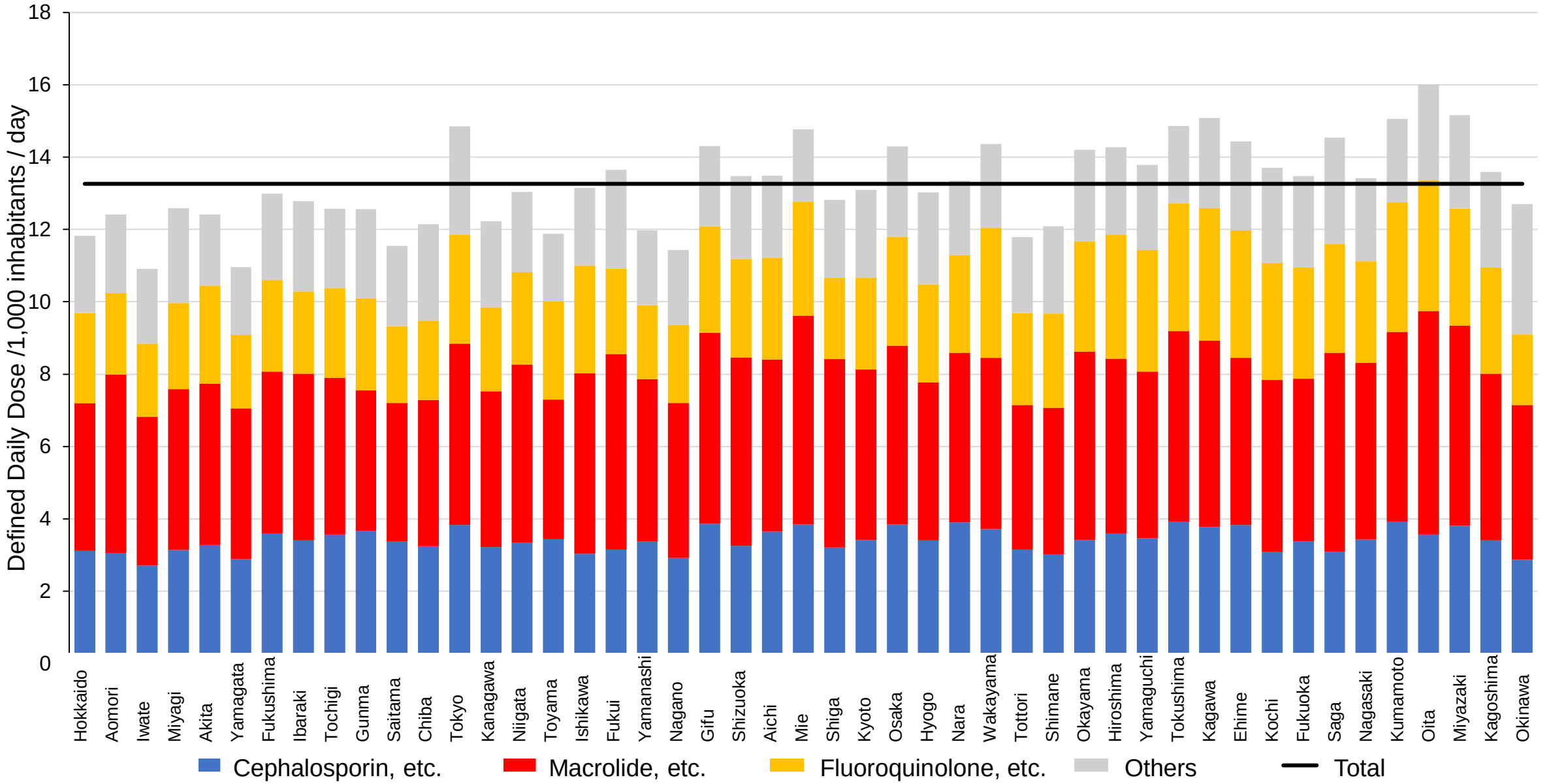
Oral medicine

Change in antibiotic use in Japan (2013–2017) by age category and ATC4



Oral medicine

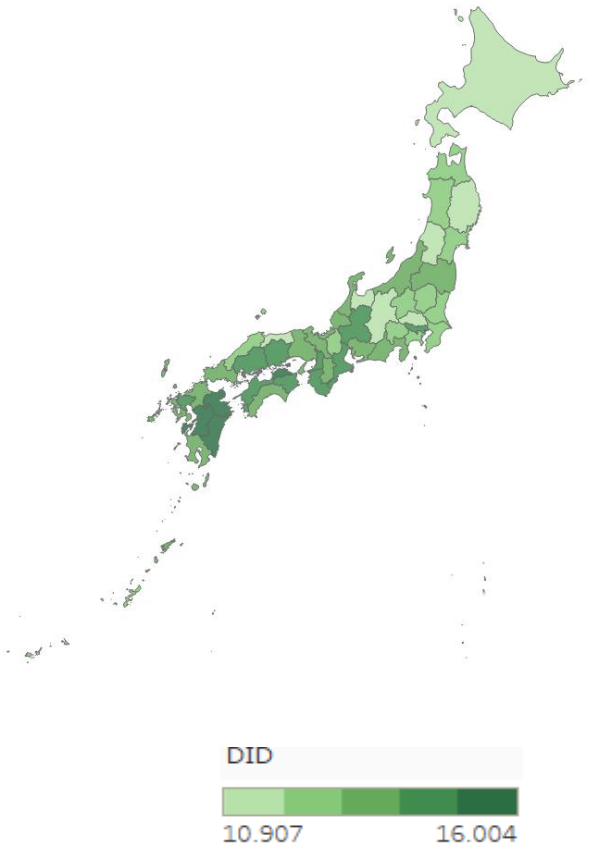
Antibiotic use in 2017 by prefecture and ATC4



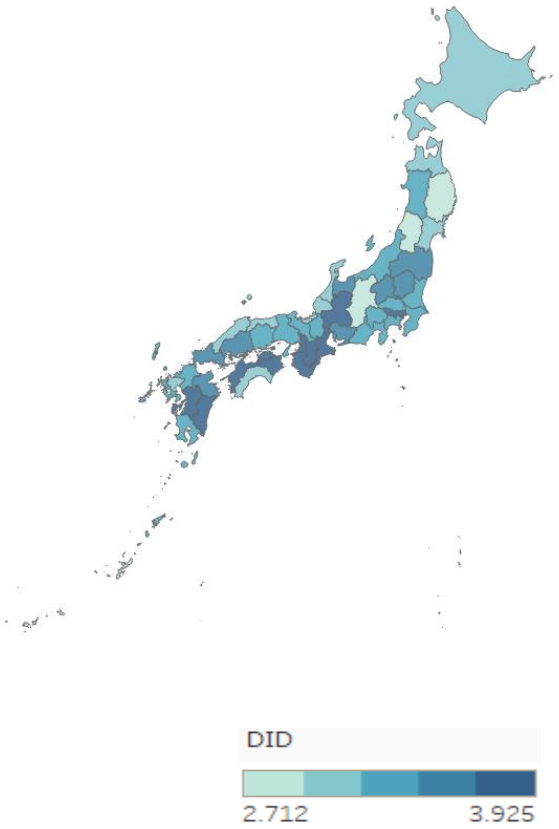
Oral medicine

Mapping of the antibiotic use in 2017 by prefecture and ATC4

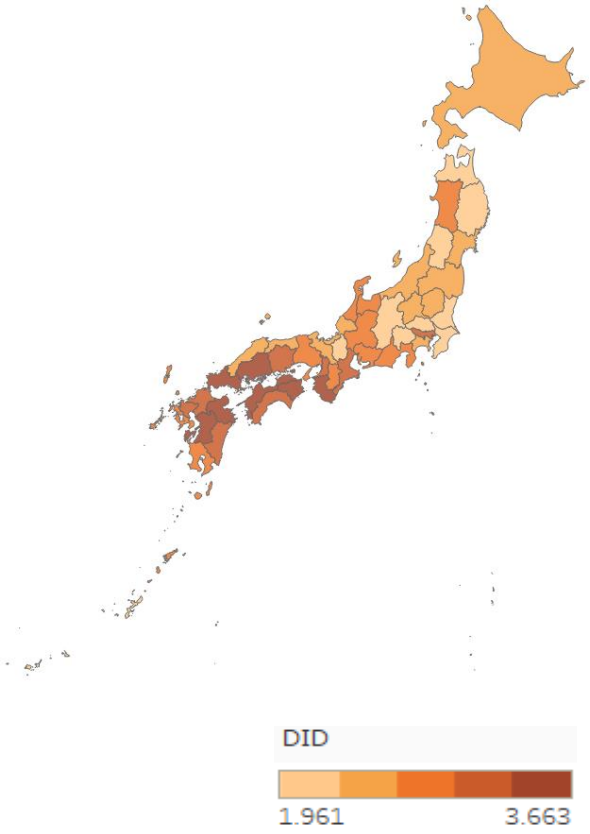
Total



Cephalosporin



Fluoroquinolone



Macrolide