



Zavod za zdravstveno zavarovanje Slovenije

AMBULATORY USE OF ANTIBIOTICS FOR CHILDREN IN SLOVENIA

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Dpt. for medicinal products

Health Insurance Institute

ESSOP 2009

Maribor, 2 October 2009



Methodology

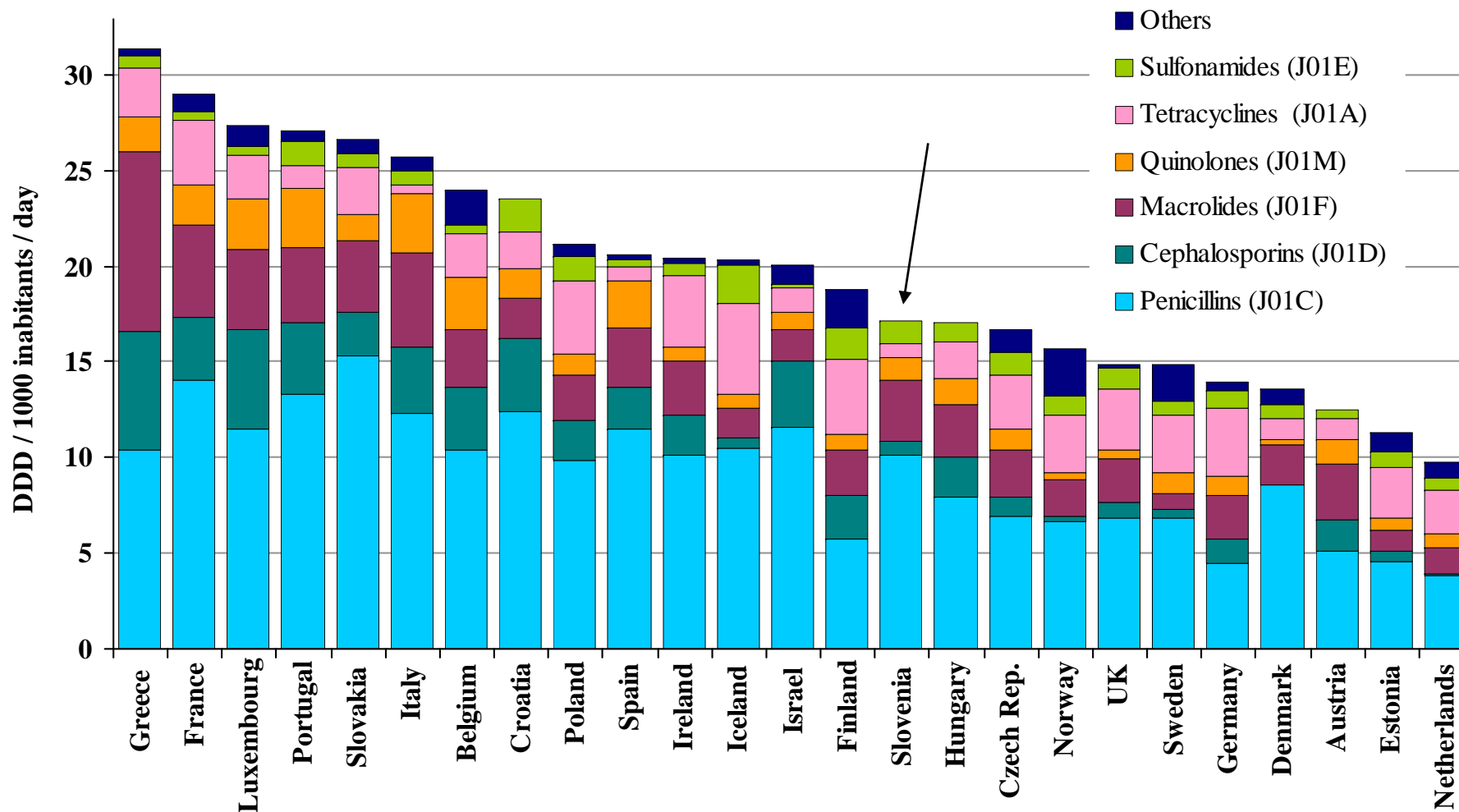
- Drug consumption data presented in
 - Defined daily doses (DDD)/1000 inh./day or
 - Prescriptions (Rp)/1000 inh.
- Children: < 19 years
- Adults: > 19 years
- All (reliable) prescription data: since 2001
- Slovenia + 10 health insurance regions
- 2 million inhabitants



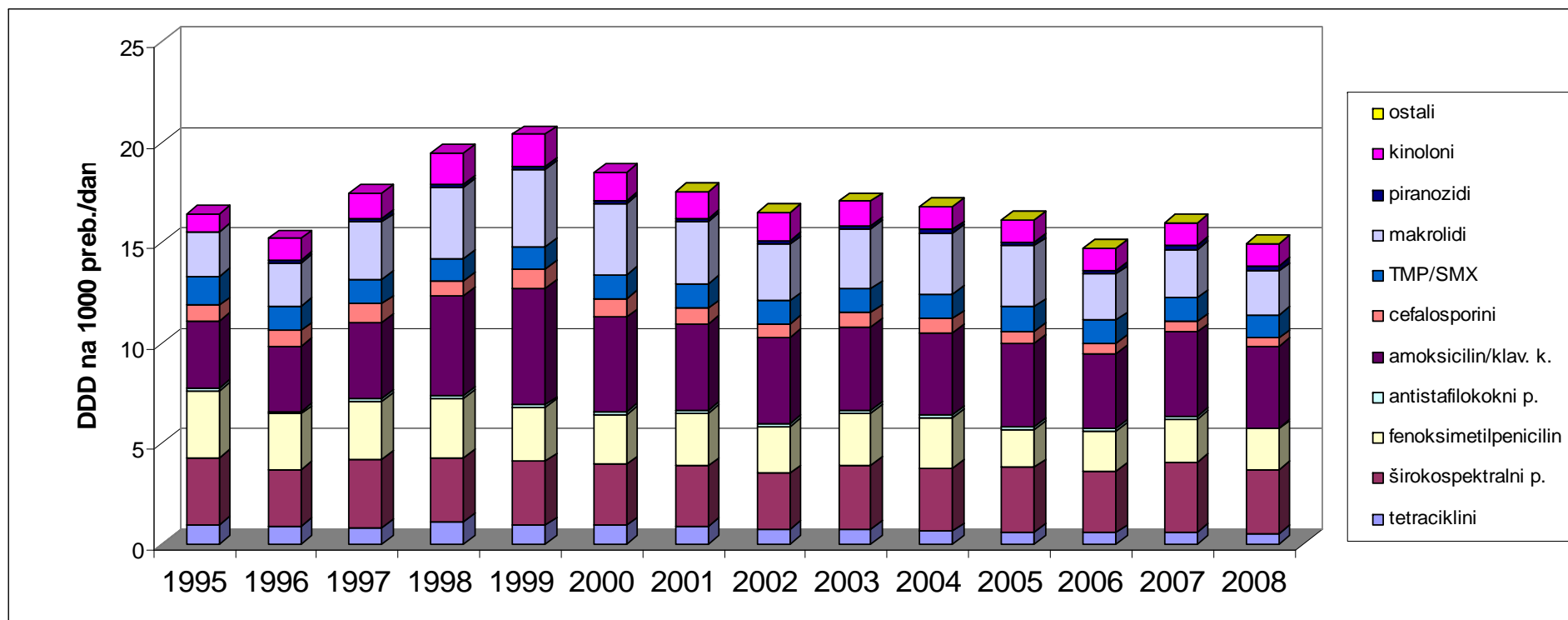
Some drug and health expenditures data for Slovenia in 2008

No. of brand name drugs on the list	1768
No. of INN on the list	571
No. of prescriptions per capita	7,6
No. of packs per capita	17,6
Public prescription drug expenditures per capita (EUR)	148
Public + private prescript. drug expenditures/capita (EUR)	217
Total health care expenditures in GDP (%)	8,1
Public health care expenditures in GDP (%)	5,8
Total health care expenditures per capita (EUR)	1486
Public health care expenditures per capita (EUR)	1064

Outpatient antibiotic consumption in 25 European countries in 2003

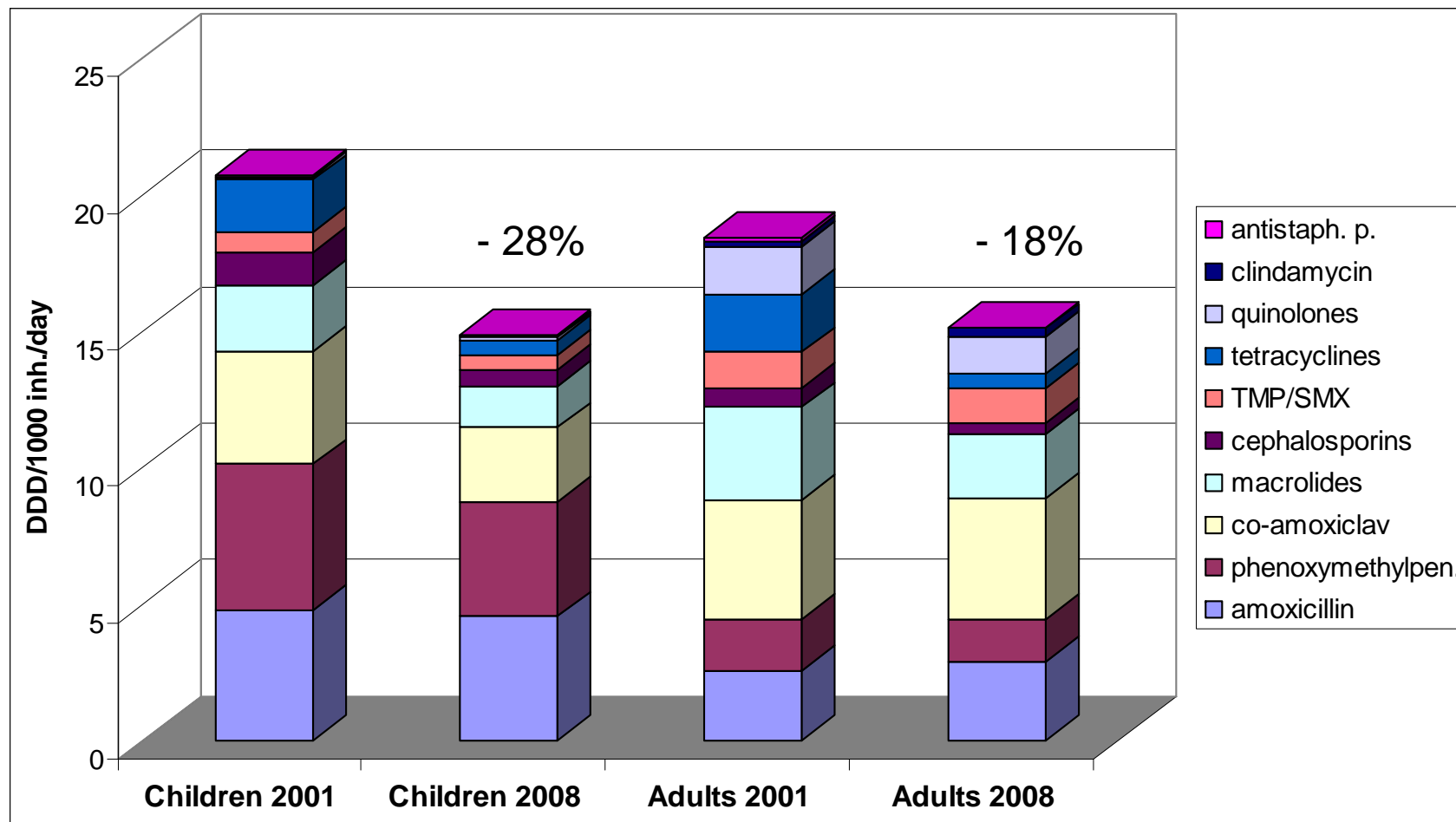


Consumption of antibiotics (ATC J01) in Slovenia in DDD/1000 inh./day in 1995-2008

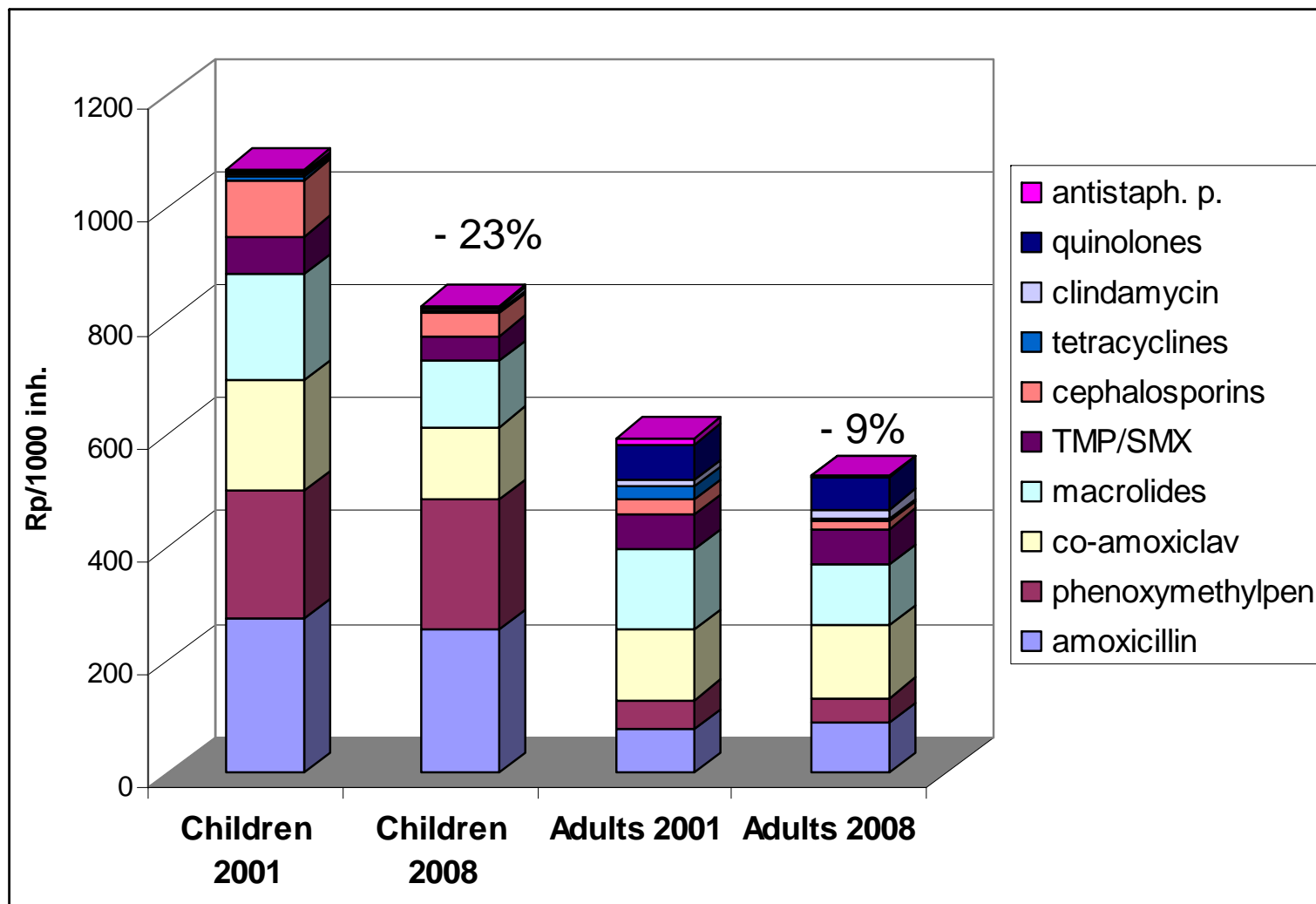


Children vs. adults 2001, 2008

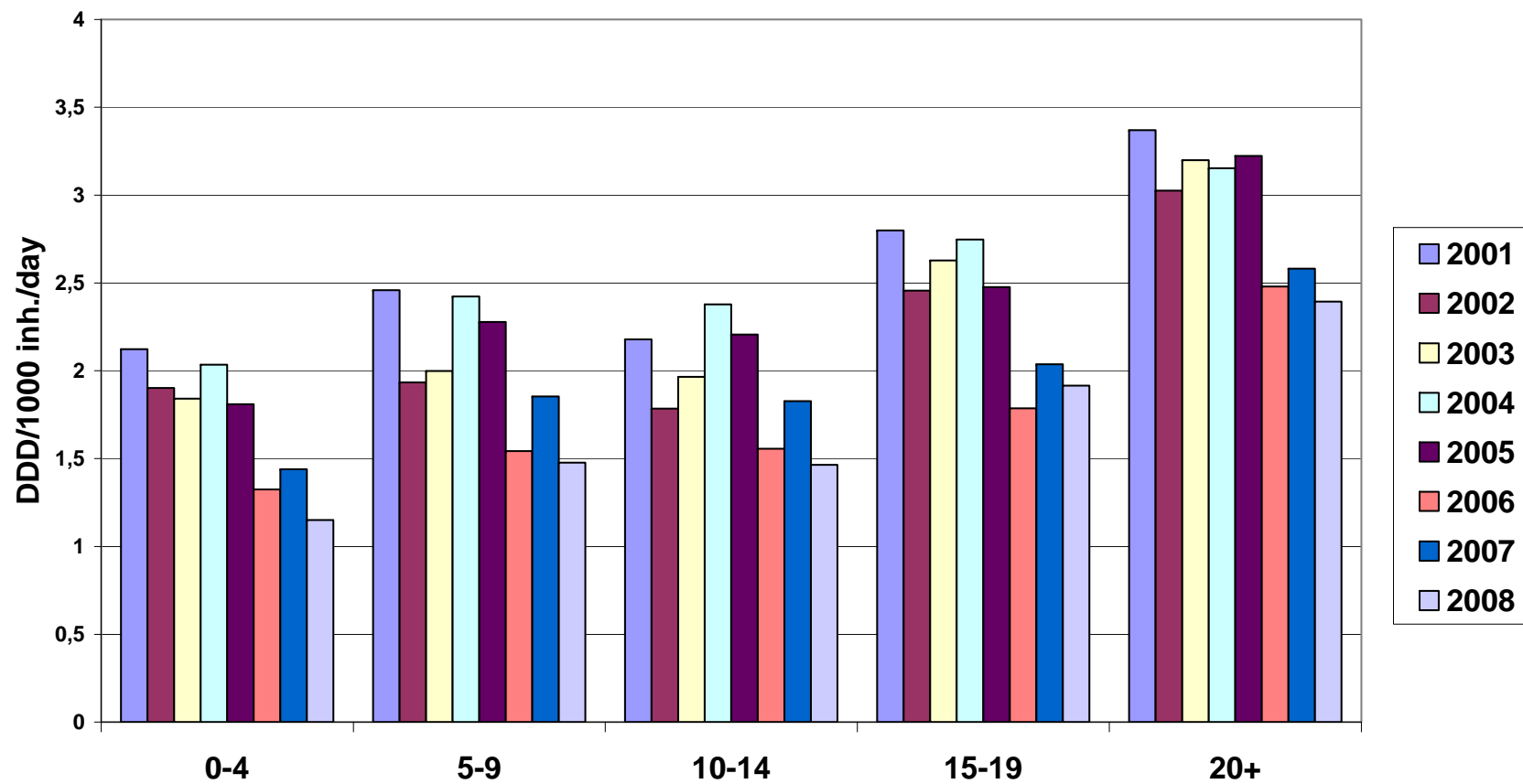
DDD/1000 inh./day



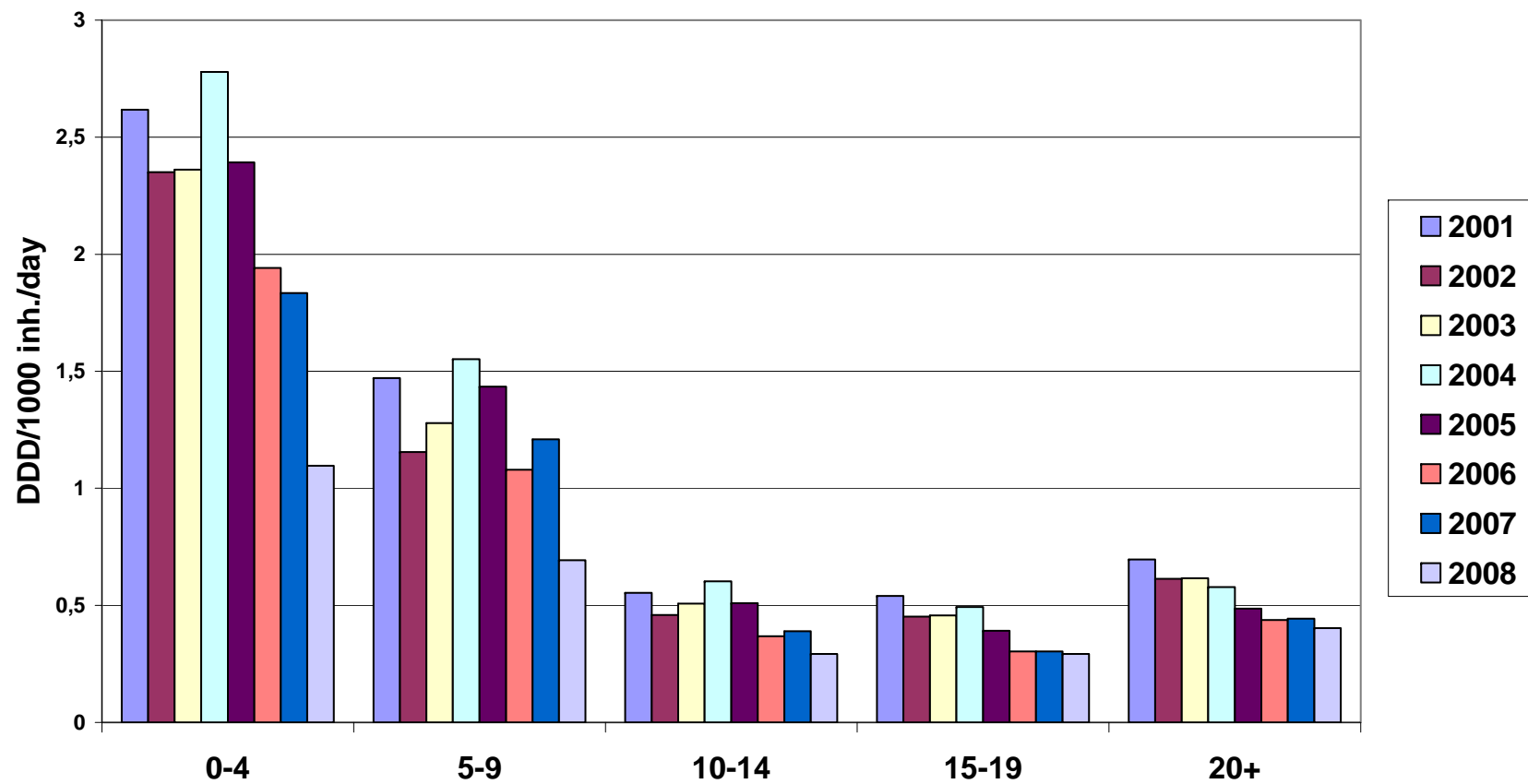
Children vs. adults Rp/1000 inh. in 2001-8



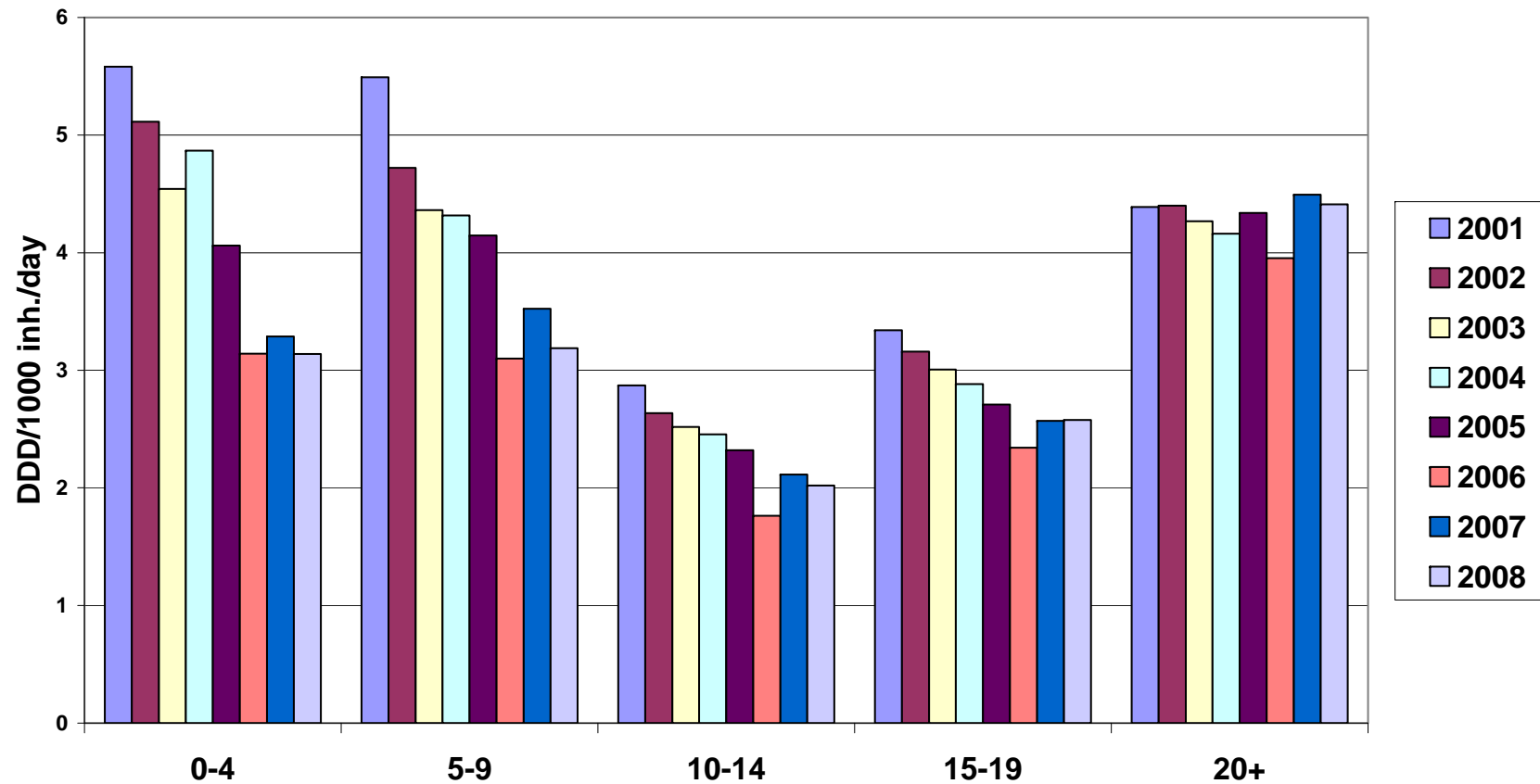
Macrolides per age groups DDD/1000 inh./day in 2001-8



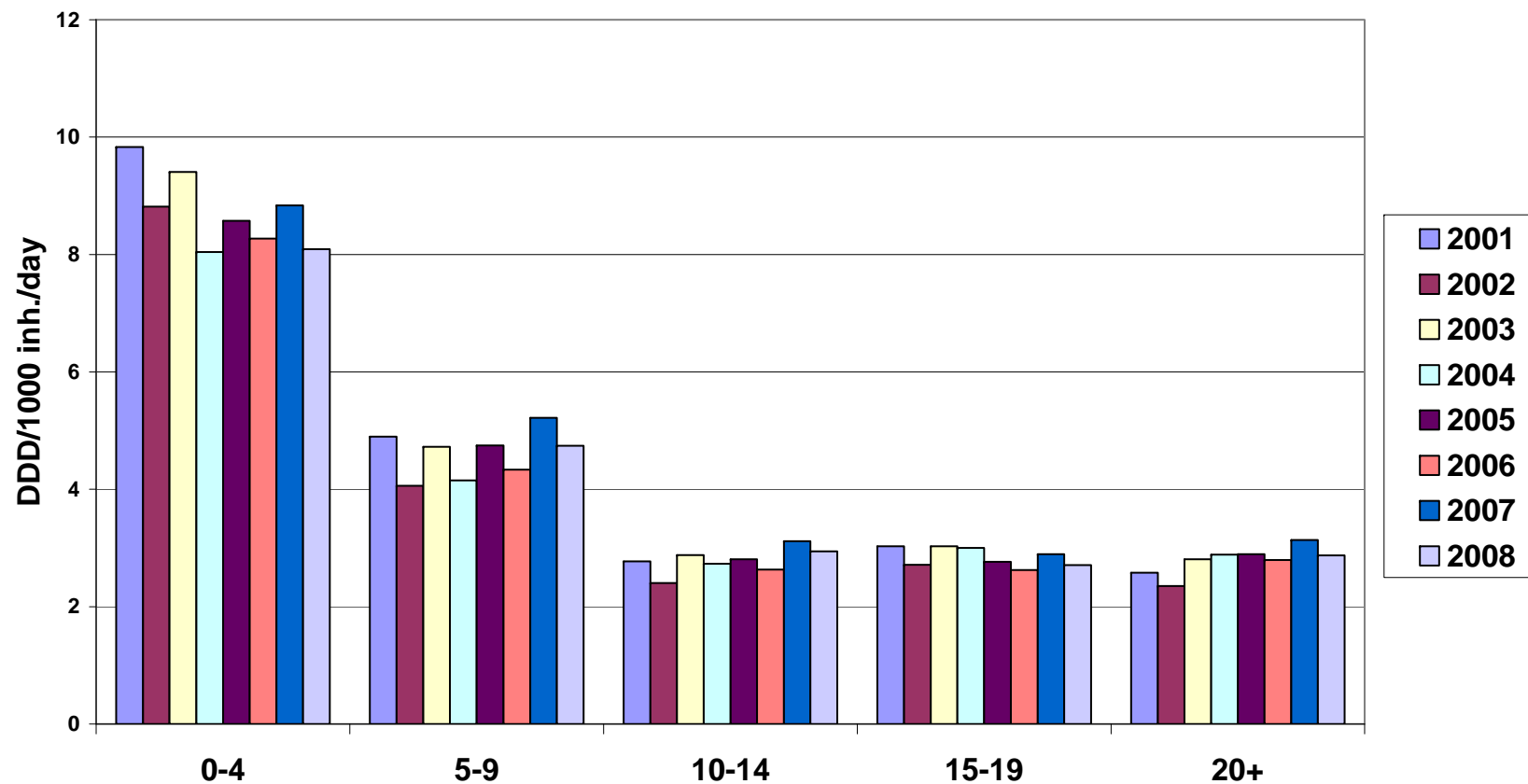
Cephalosporins per age groups DDD/1000 inh./day in 2001-8



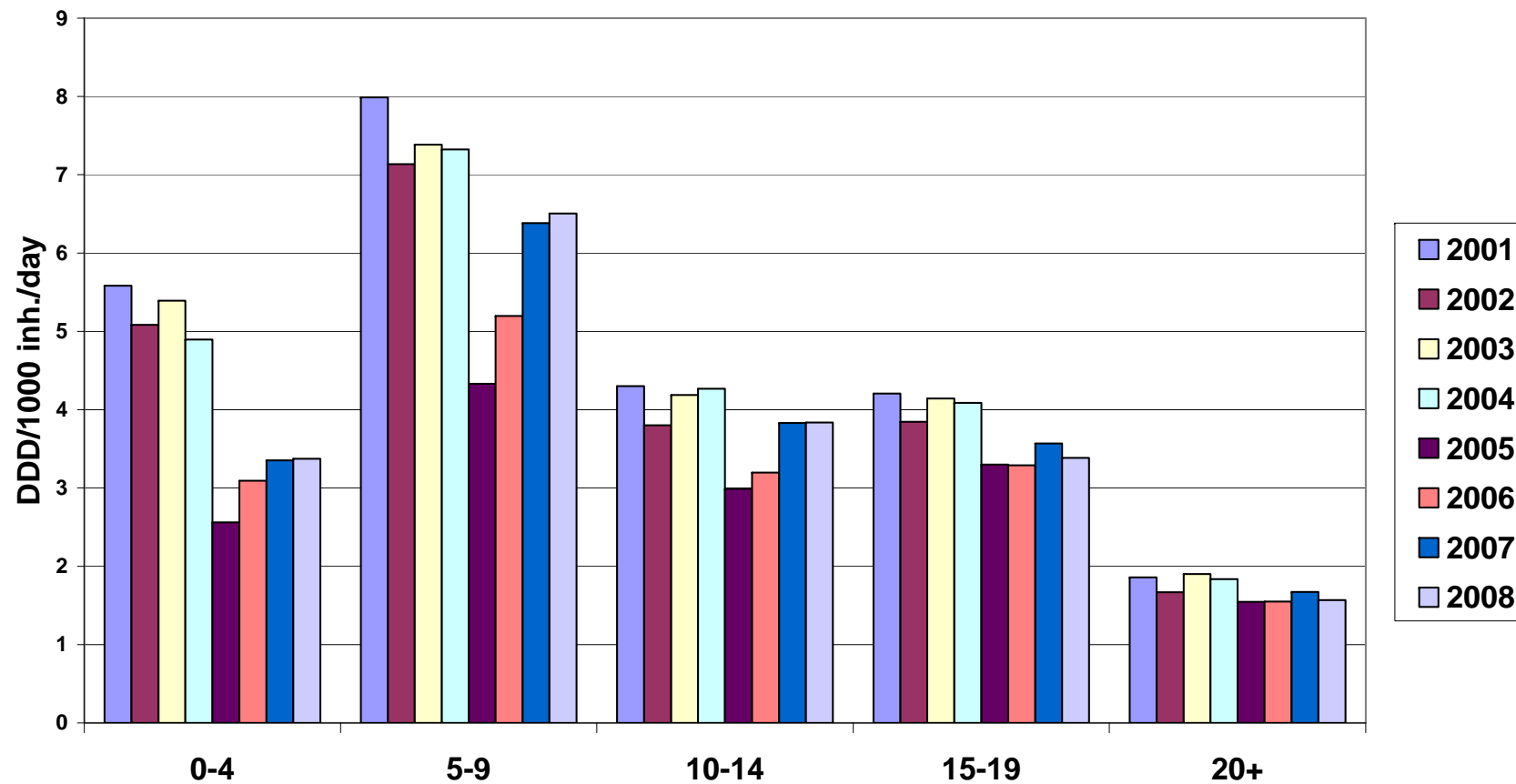
Co-amoxiclav per age groups DDD/1000 inh./day in 2001-8



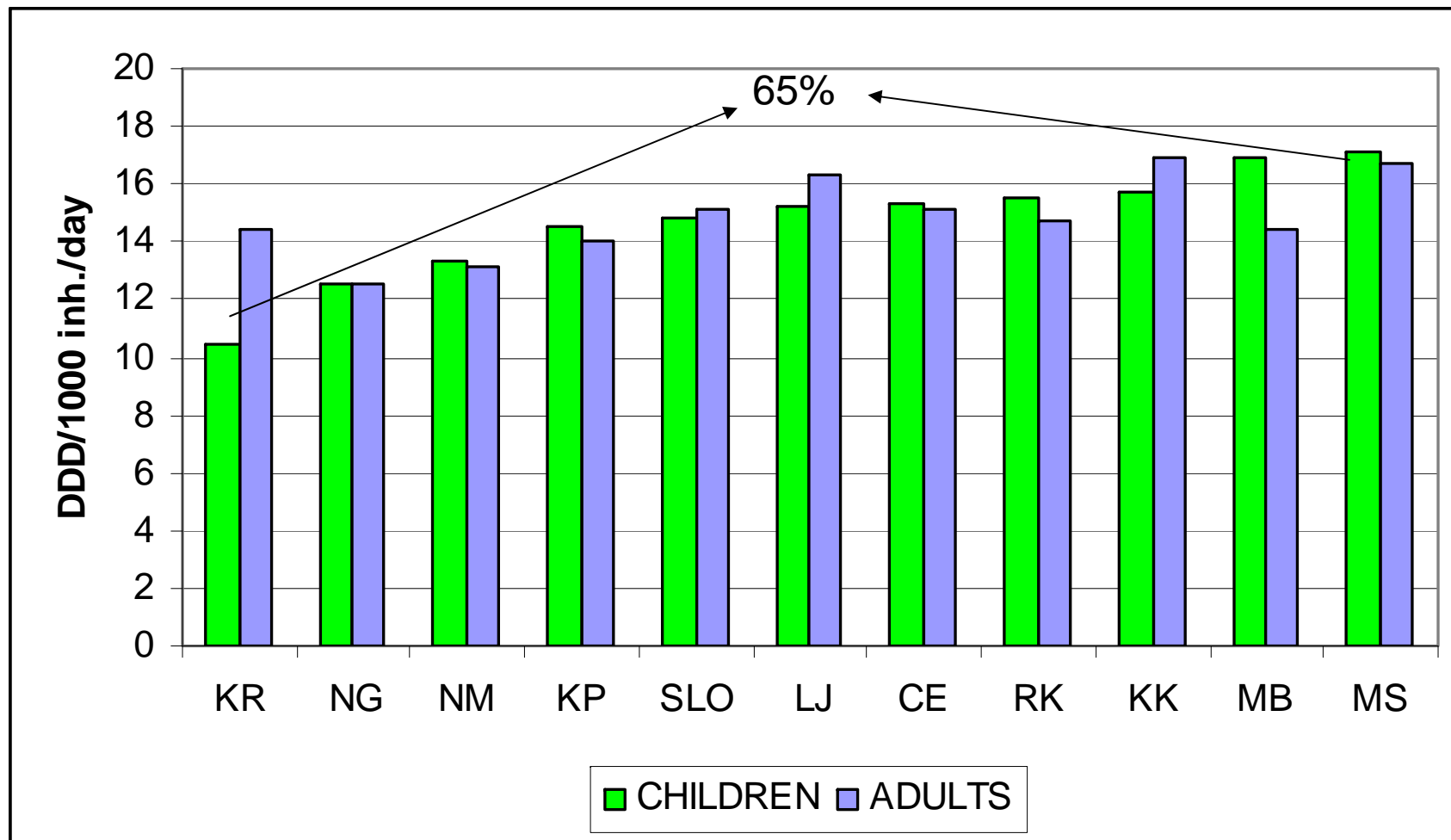
Amoxycillin per age groups DDD/1000 inh./day in 2001-8



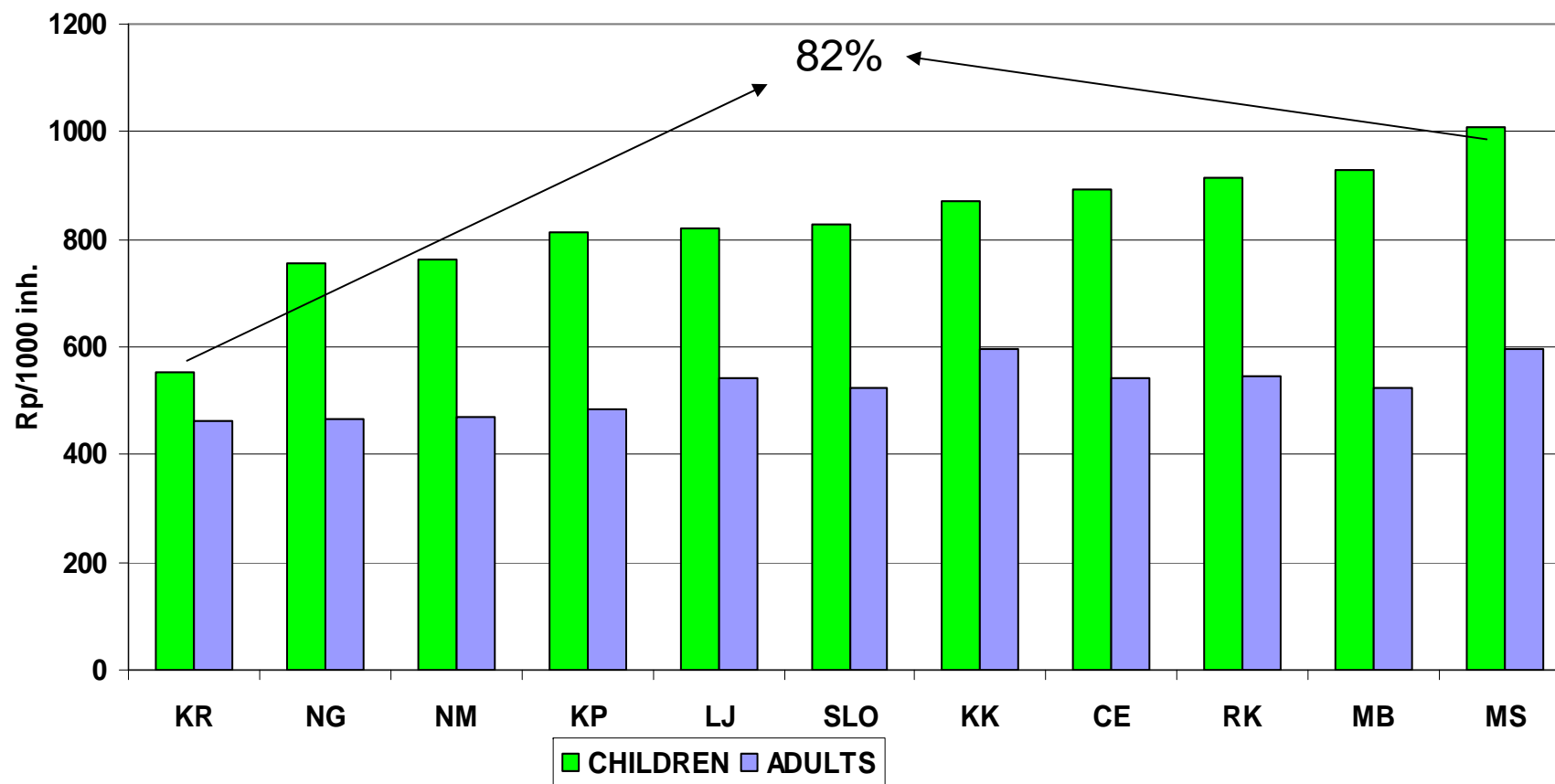
Phenoxymethylpenicillin per age groups DDD/1000 inh./day in 2001-8



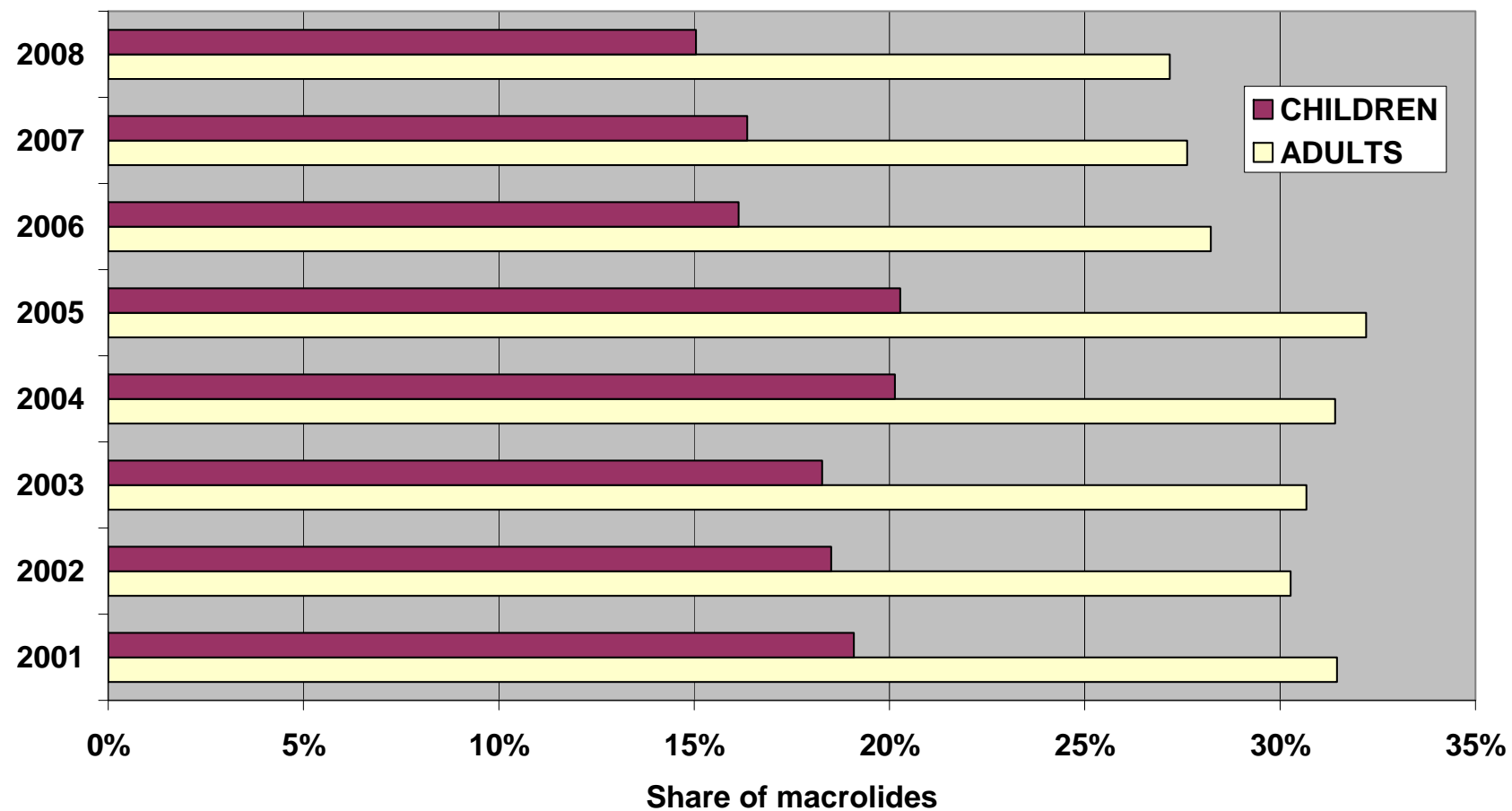
Children vs. adults: regions DDD/1000 inh./day in 2008



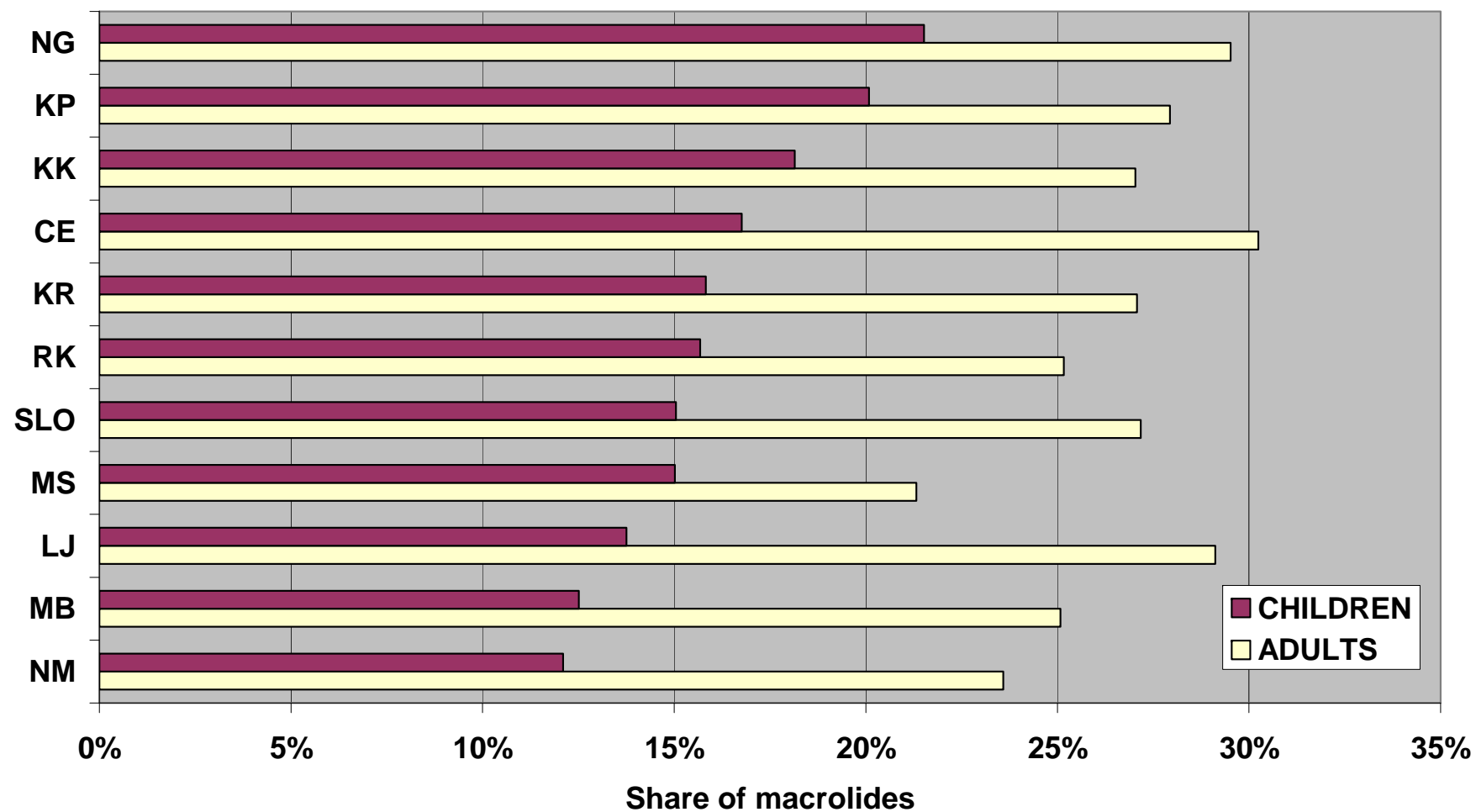
Children vs. adults: regions Rp/1000 inh. in 2008



Share of macrolides among “respiratory” AB Rp/1000 inh. in 2001-8



Share of macrolides among “respiratory” AB in regions Rp/1000 inh. in 2008





Conclusions

- Prescribing habits have changed
- AB prescribing is decreasing
- Anyway: increasing pneumococcal resistance to macrolides!
- So, there is an urgent need for even more restricted prescribing
- Huge regional differences!
- References are in Slovenia!



Strategies for prudent use of AB

- Education of prescribers and public (parents)
- Guidelines
- Pharmacotherapy groups
- Prescribing limitations
 - co-amoxiclav
 - quinolones incl. respiratory quinolones
 - macrolides
- Audits