

Update on current SAPG initiatives to reduce unnecessary use of antibiotics

William Malcolm

Pharmaceutical Adviser,
Health Protection Scotland
NHS National Services Scotland

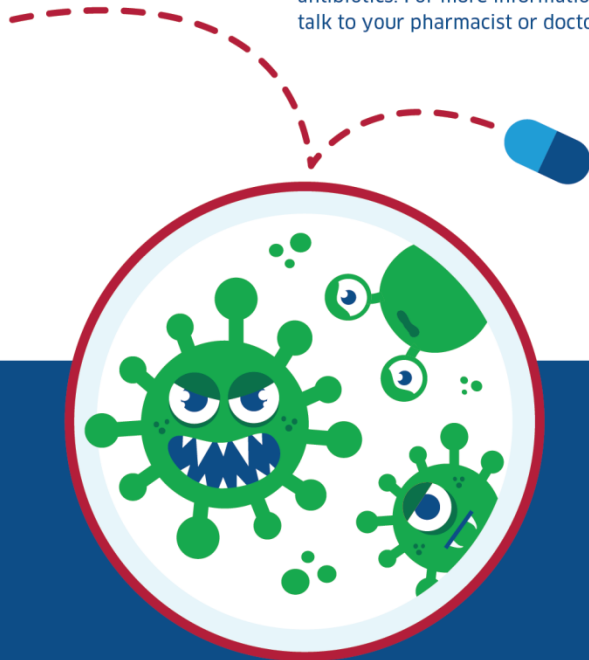
SAPG Event 1st November 2016

Optimising antimicrobial prescribing in primary care

Stop Antibiotic Resistance

Bacteria are becoming resistant to **antibiotics**.
Keep **antibiotics** working for serious infections.

The best way to treat common colds, coughs or sore throats is plenty of fluids, rest and painkillers if needed, not antibiotics. For more information, or if you are worried, talk to your pharmacist or doctor



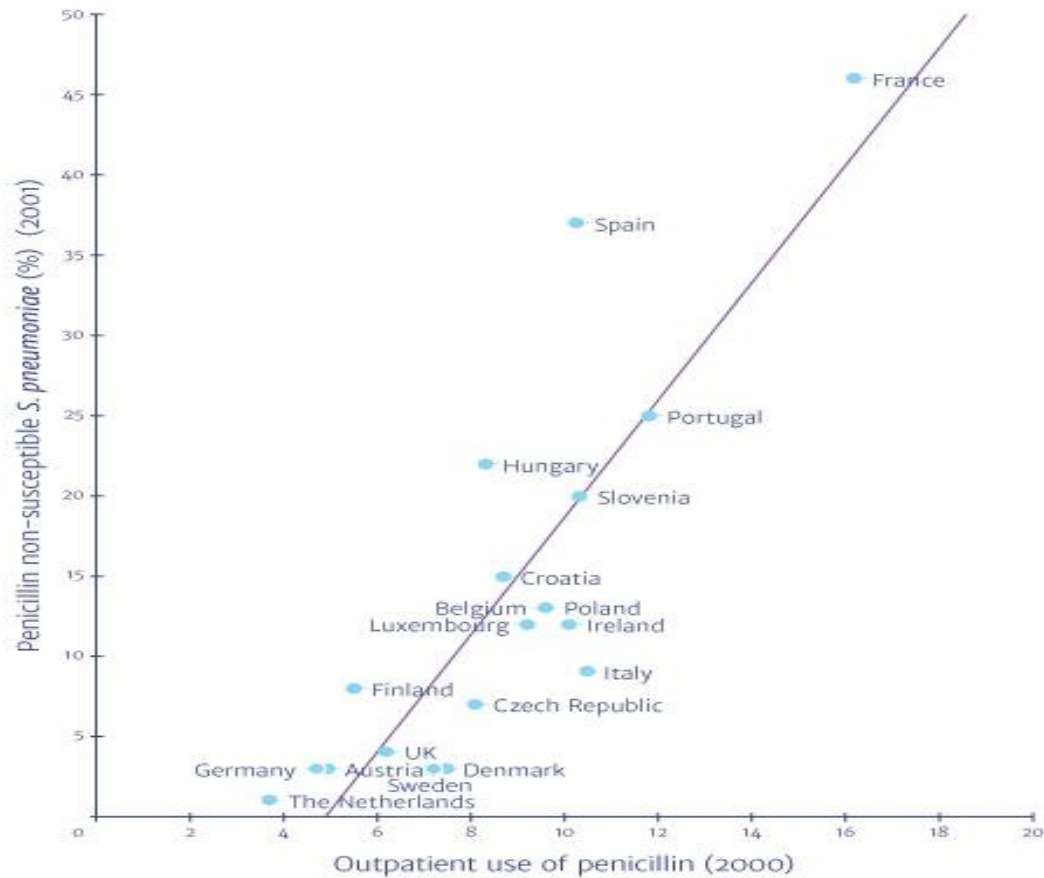
Find out how you can help at Antibioticguardian.com

- “Our mission is not to prescribe as few antibiotics as possible, but to identify that small group of patients who really need antibiotic treatment and to explain, reassure and educate the large group of patients who don’t.”

Van Duijn et al. *Br J Gen Pract.*

2007 Jul;57(540):561-8.

THERE IS A HIGH CORRELATION BETWEEN ANTIBIOTIC USE AND RESISTANCE



Source: Goossens H, Ferech M, Vander Stichele R, et al. Outpatient antibiotic use in Europe and association with resistance: a cross-national database study. *Lancet* 2005; 365(9459): 579-87.

Primary care antibiotic use where are we now?

Antimicrobial use and resistance in Humans 2015



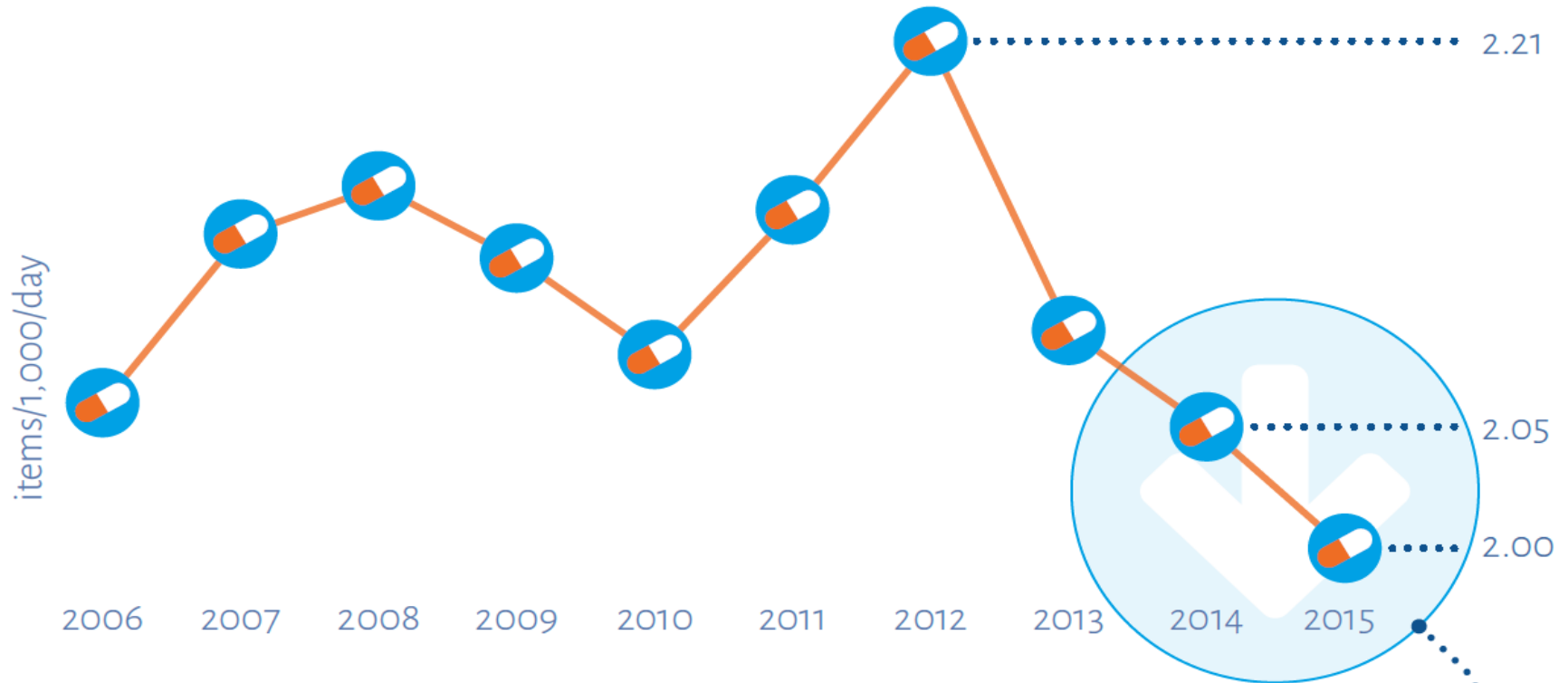
Scottish
Antimicrobial Use
and Resistance
in Humans
in 2015

Annual report

- <https://www.isdscotland.org/Health-Topics/Prescribing-and-Medicines/Publications/2016-08-30/2016-08-30-SAPG-2015-Report.pdf?63601320982>

- Published: 30th August 2016

NHS Scotland: Use of antibiotics in primary care items/1000/day 2006-2015



2.4% reduction in items per 1,000 population per day since **2014**

88,490 items fewer since **2014**

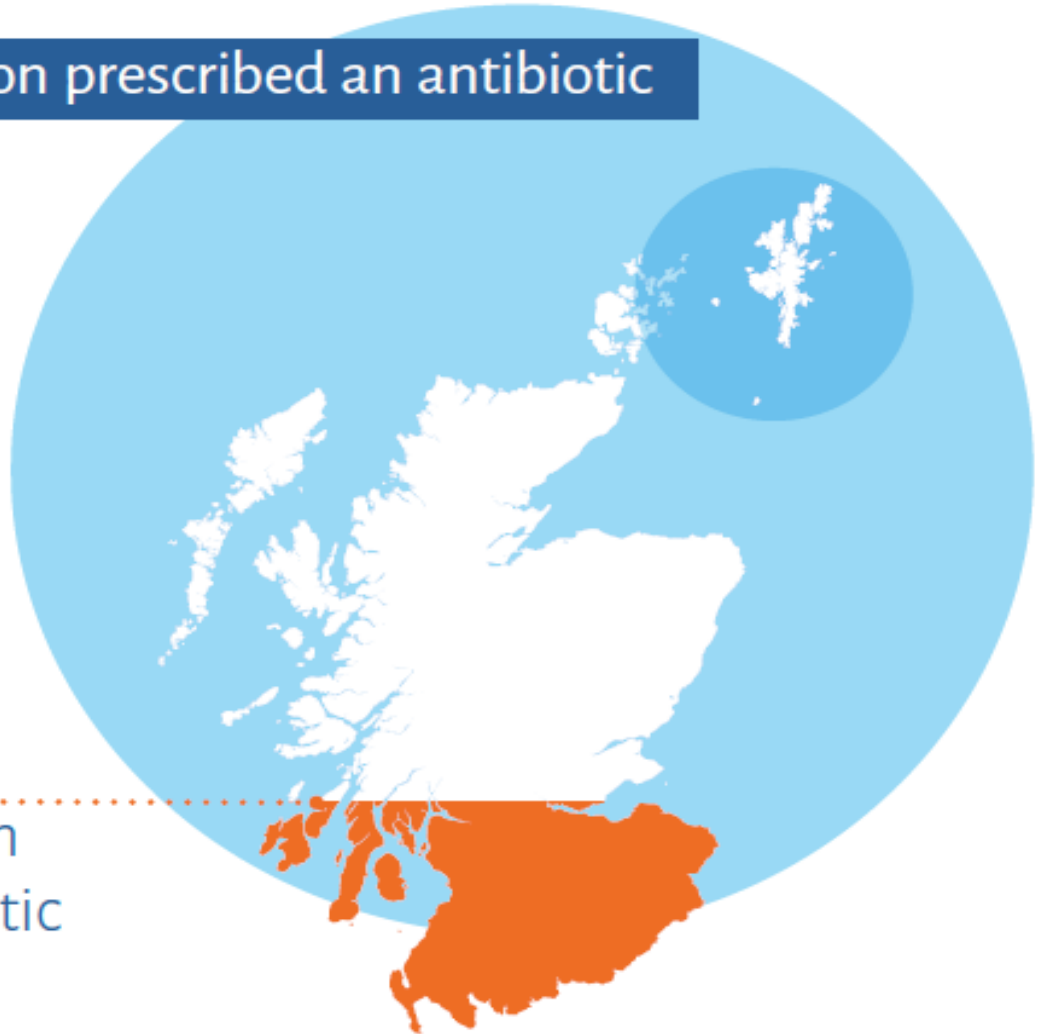
3rd year of successive **reductions**



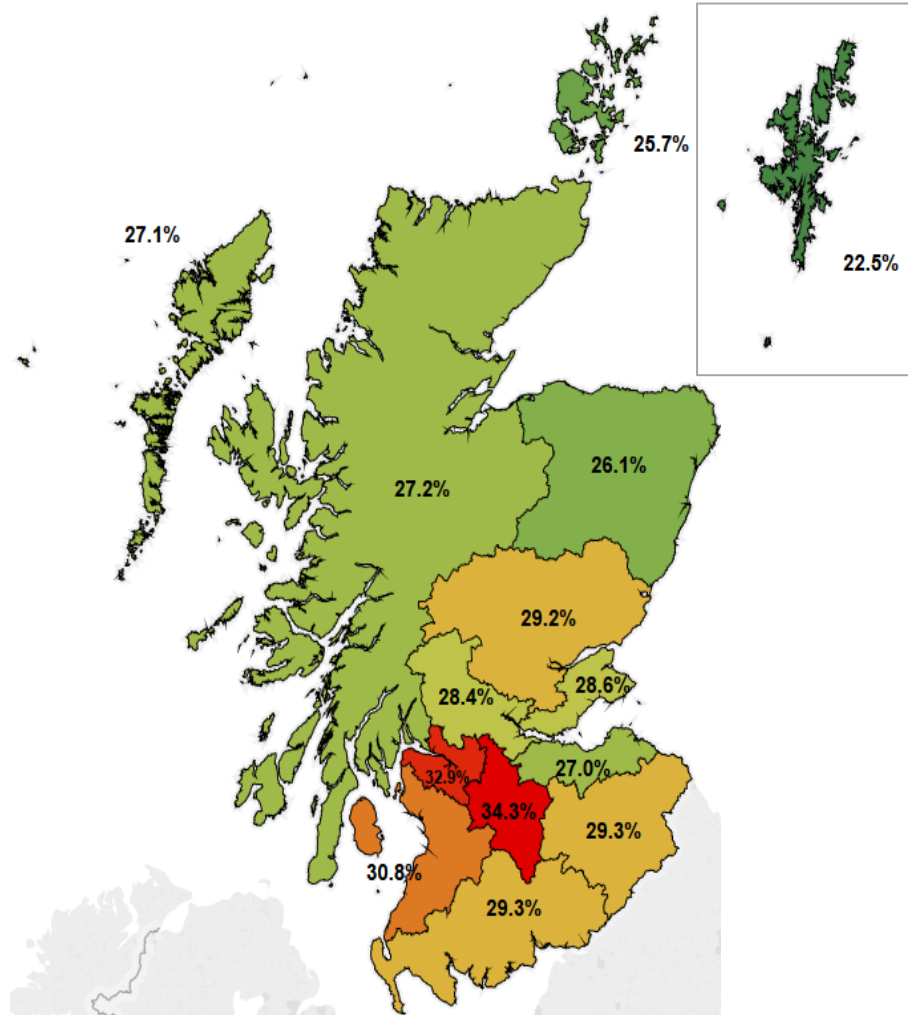
NHS Scotland: Proportion of population receiving antibiotics in primary care 2015

Proportion of population prescribed an antibiotic

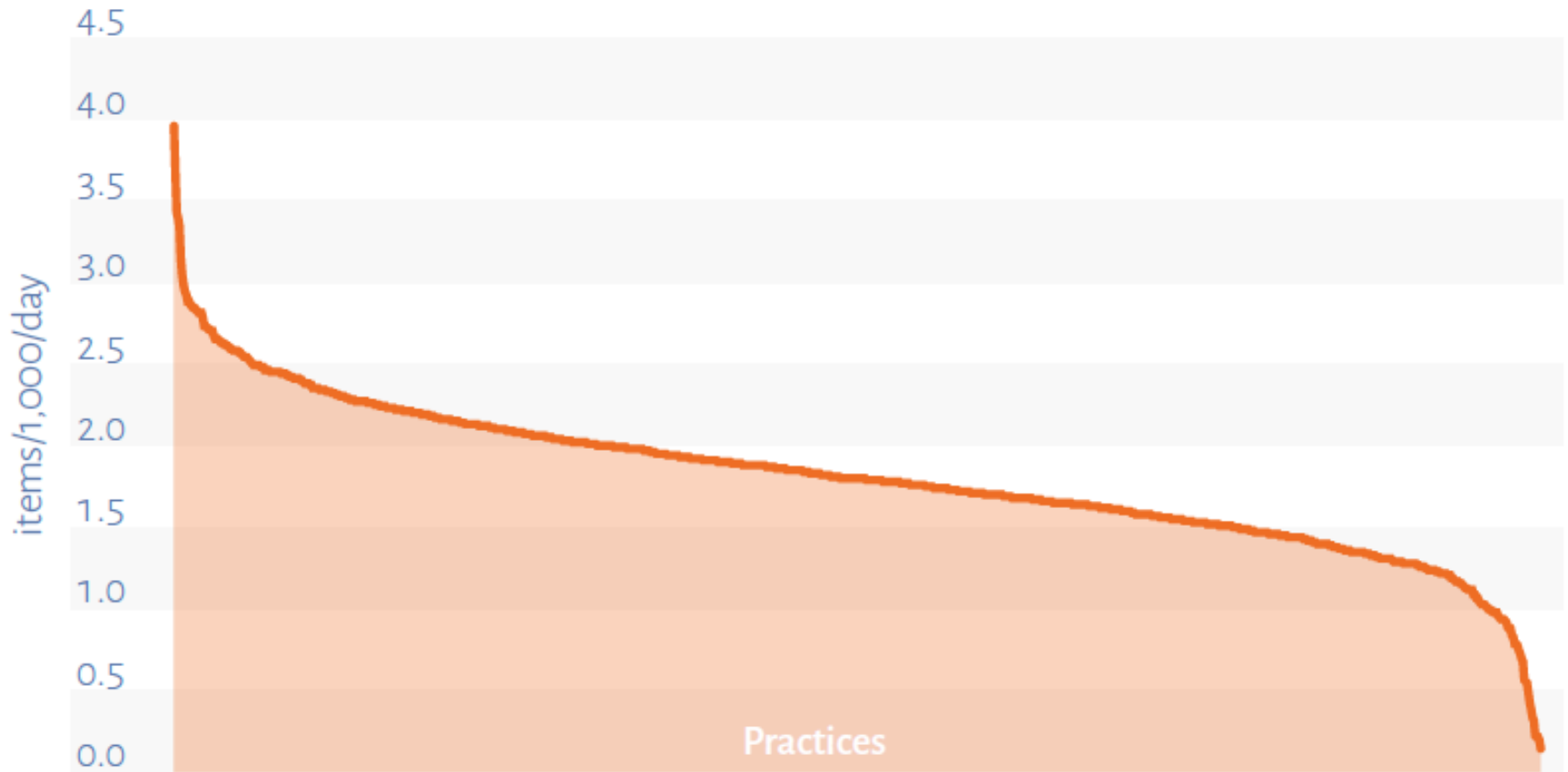
29.6%
of Scottish population
prescribed an antibiotic



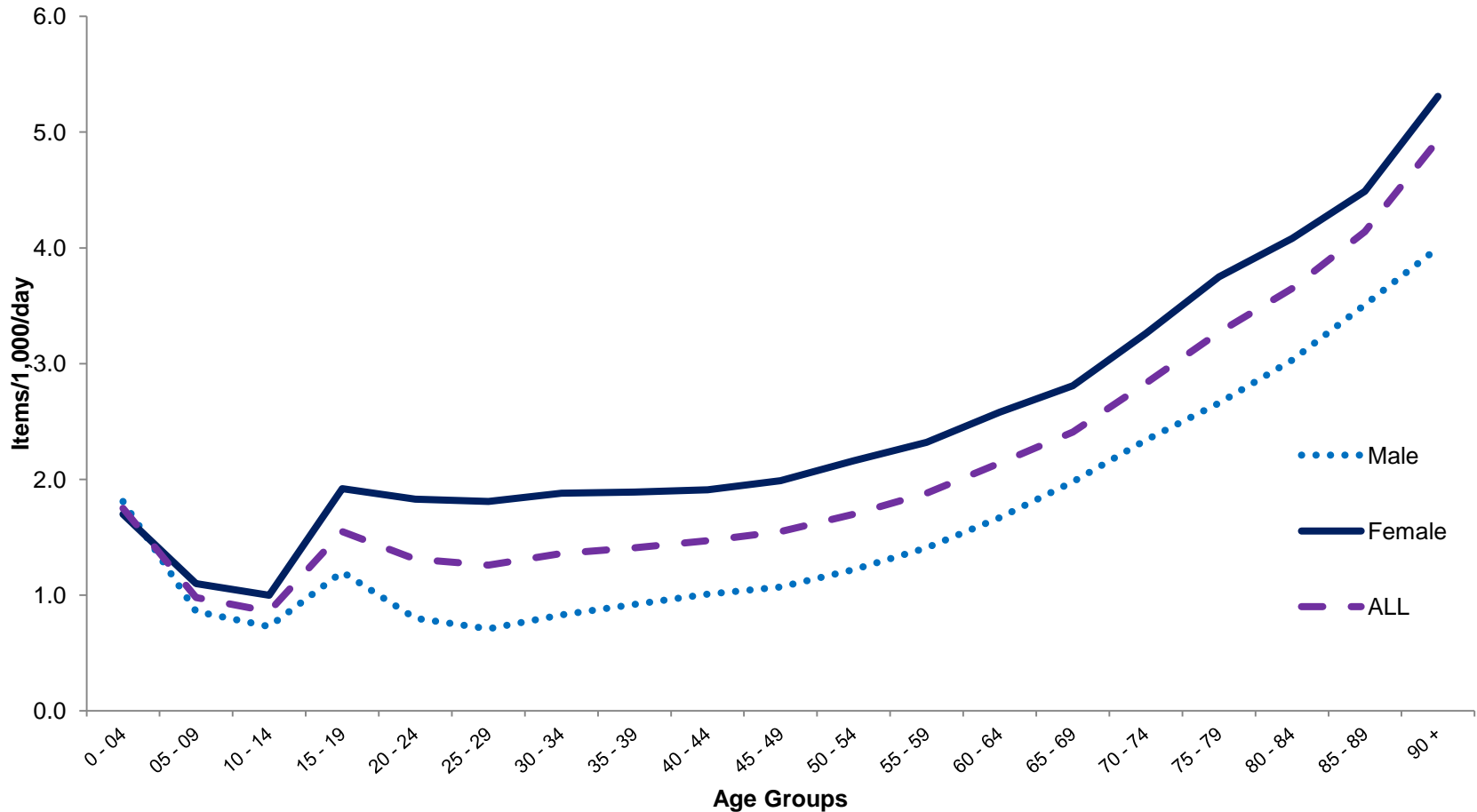
NHS Scotland: Percentage of population receiving at least one antibiotic, variability across NHS boards



NHS Scotland: Use of antibiotics in primary care items/1000/day 2015 – variability across practices

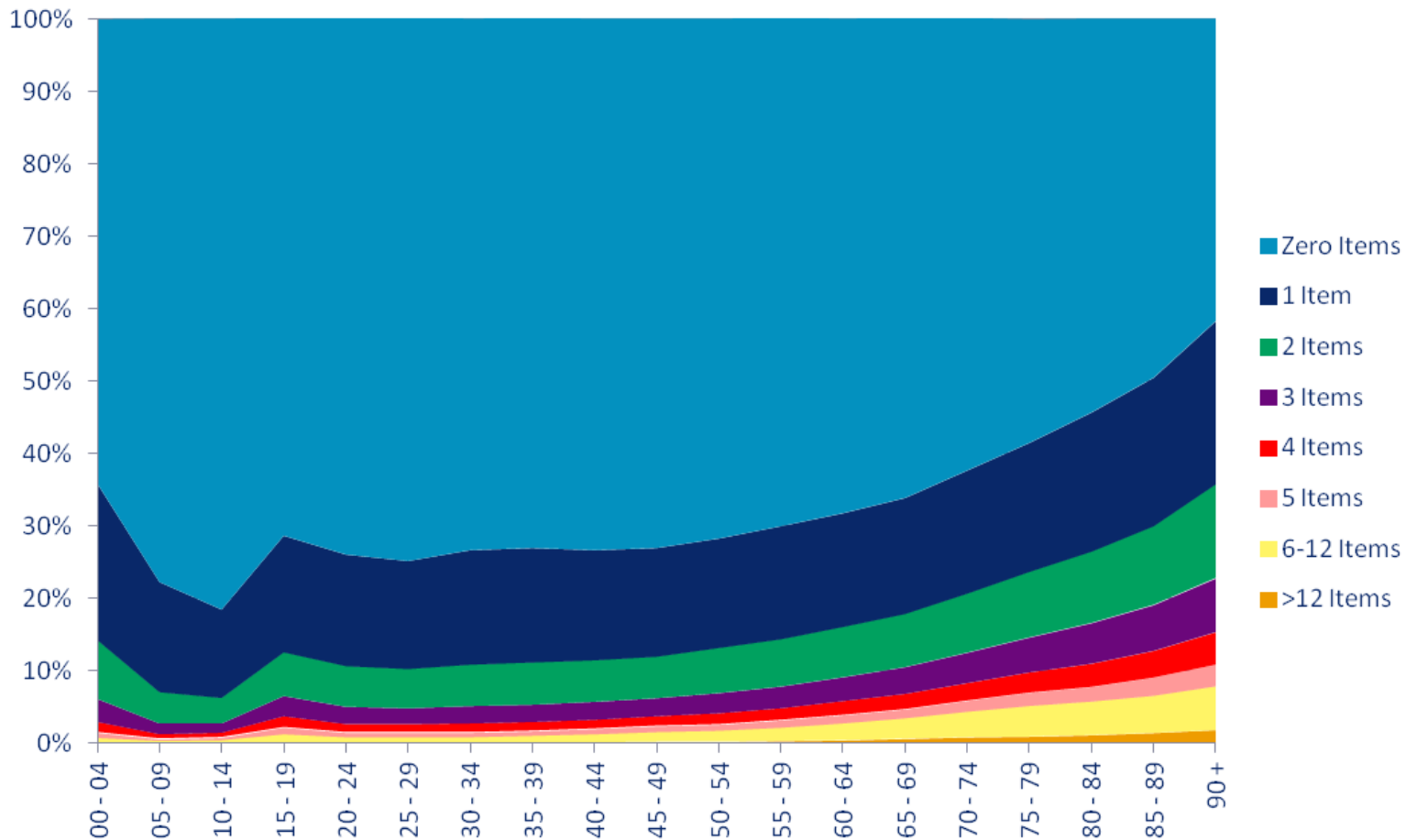


NHS Scotland: Use of antibiotics in primary care by age and gender, items/1000/day 2015

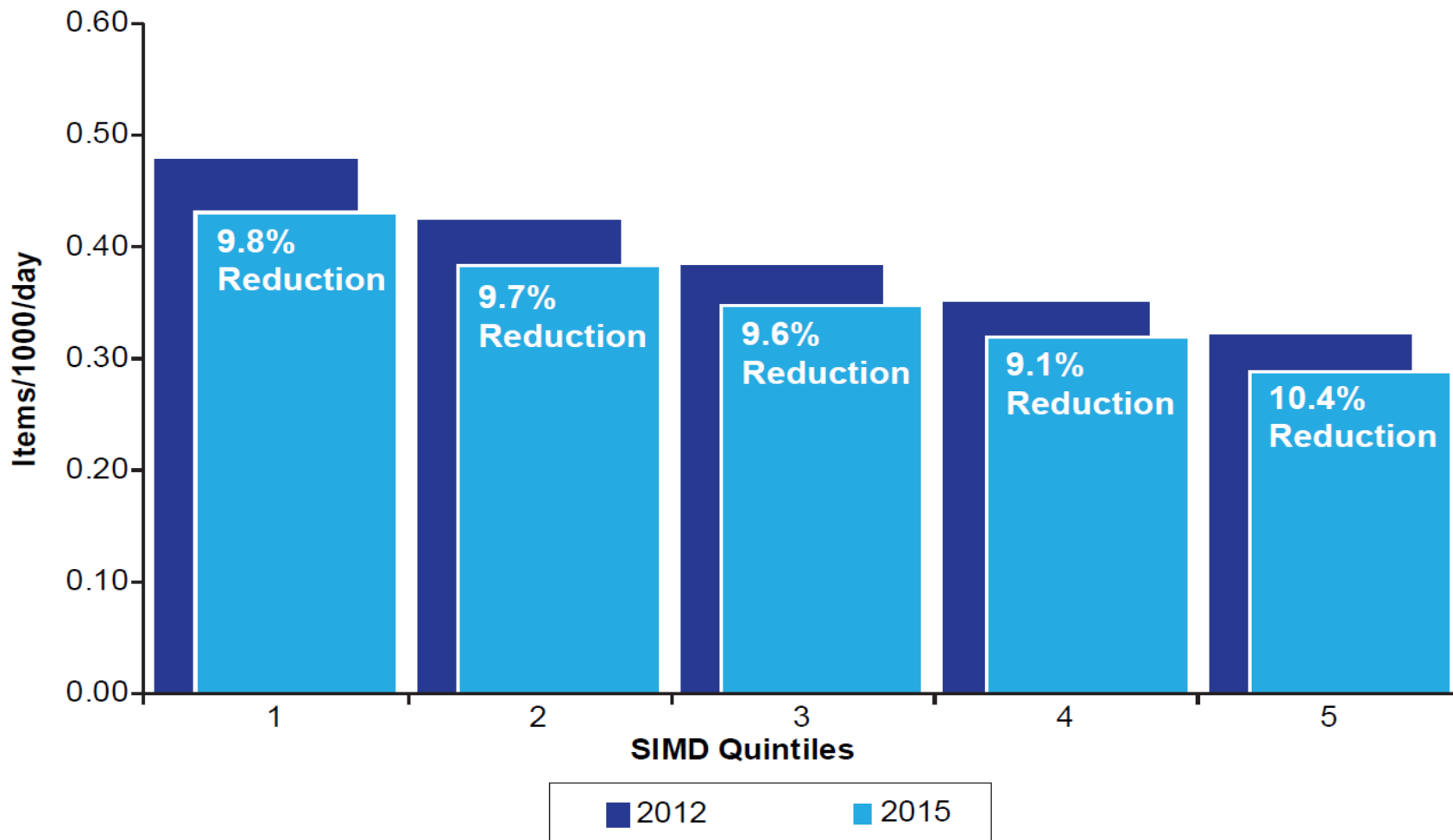


NHS Scotland: Primary care antibiotic use, proportion of age population prescribed antibiotics 2015

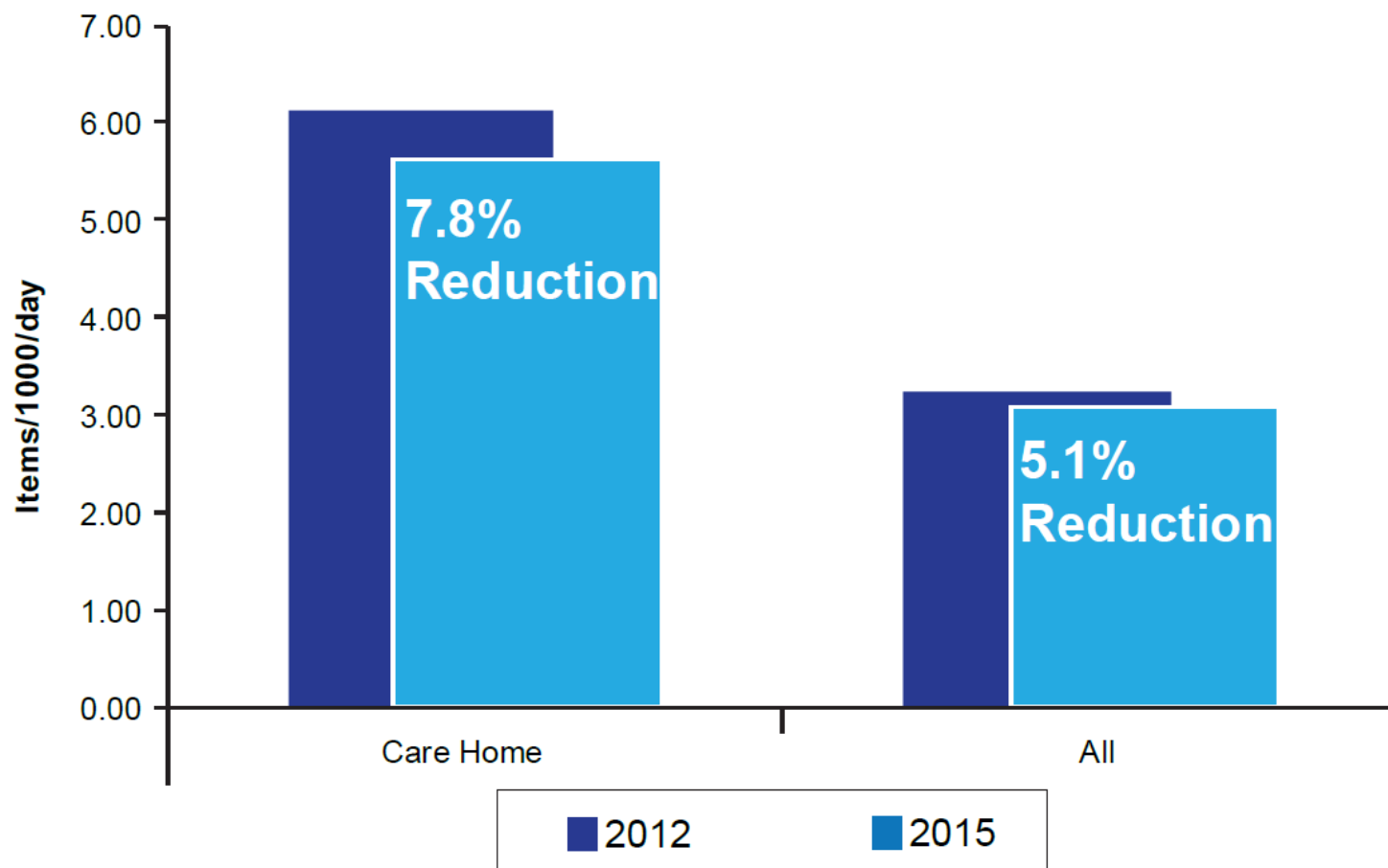
Scottish Population by number of dispensed antibacterial items dispensed in 2015



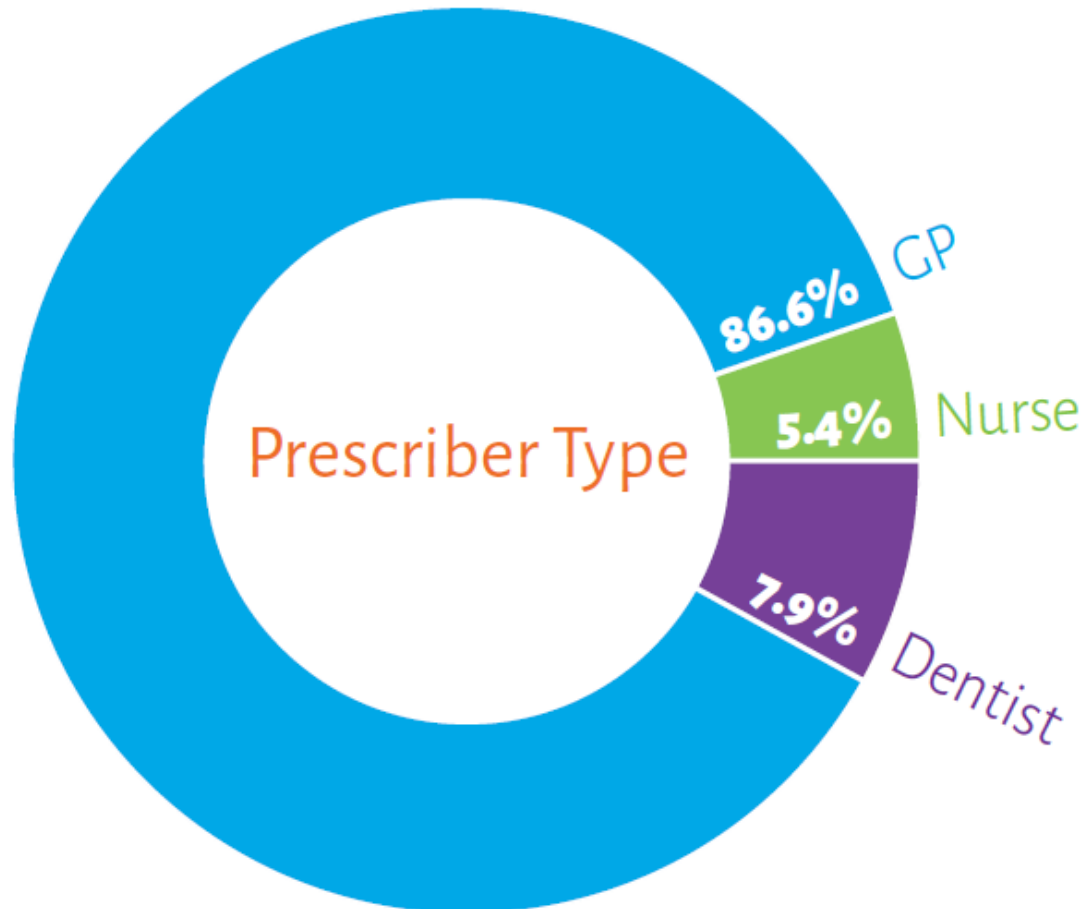
NHS Scotland: Rate of antibiotic prescribing by SIMD Quintiles (1=most deprived, 5=least deprived), per 1000 national population in 2012 and 2015



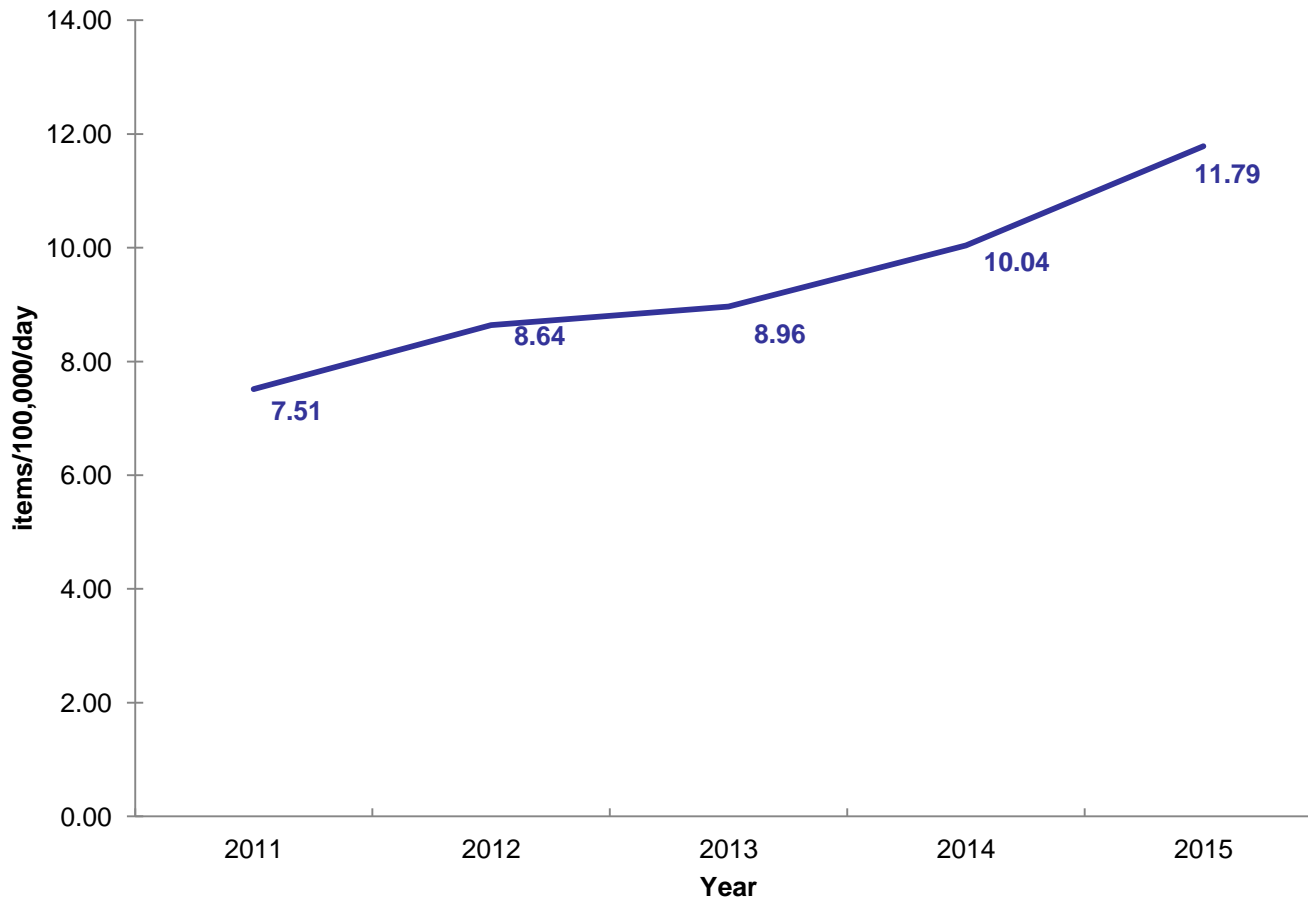
NHS Scotland: Antibiotic prescribing for those aged 65 years and over in care homes and non-care homes in 2012 and 2015



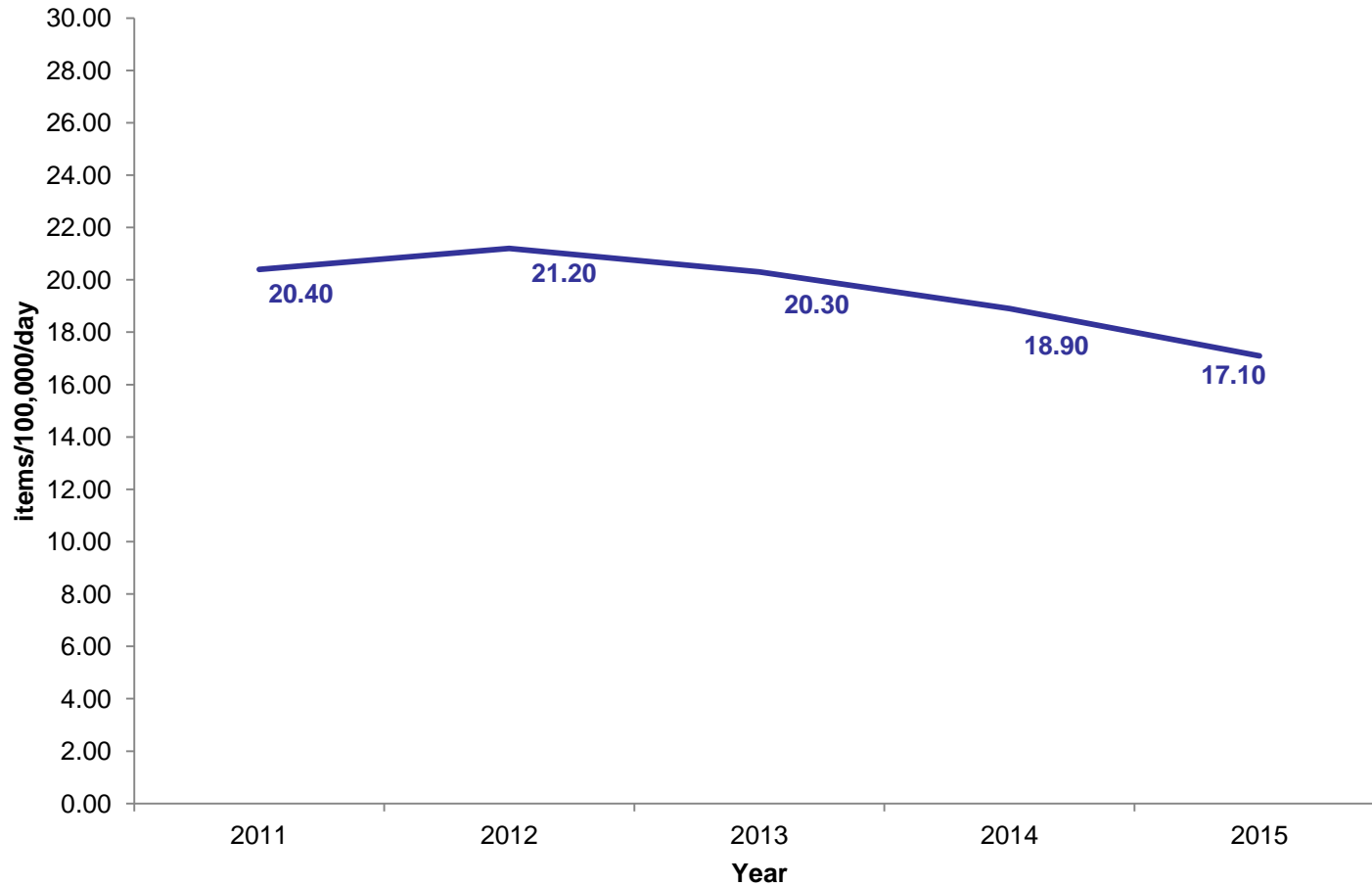
NHS Scotland: Proportion of antibiotics in primary care by prescriber type 2015



NHS Scotland: Antibiotic use by nurse prescribers items/100,000/day, 2011-2015

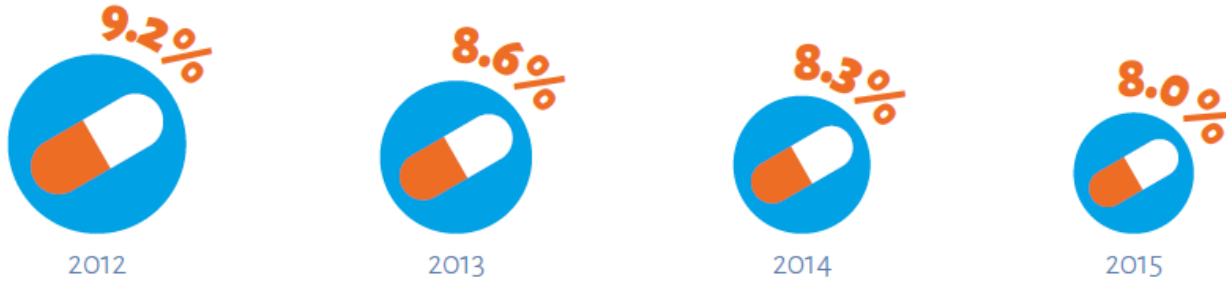


NHS Scotland: Antibiotic use by dentists items/100,000/day, 2011-2015



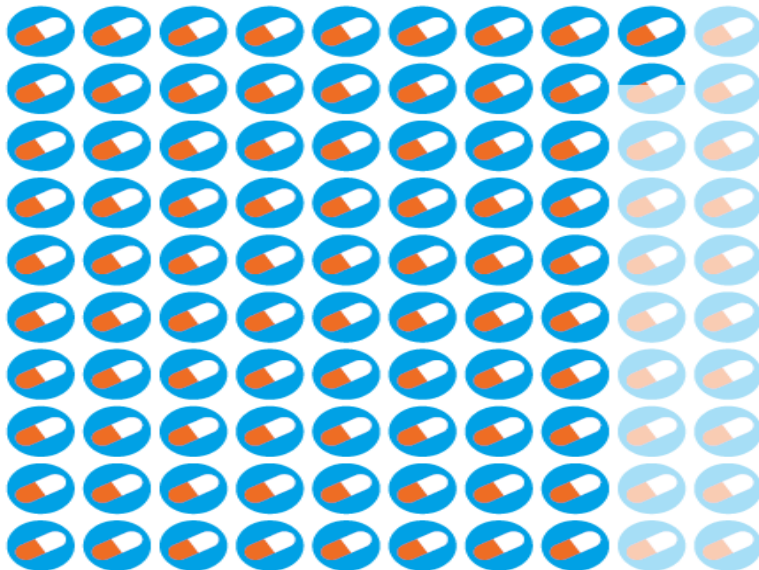
NHS Scotland: Use of antibiotics associated with a higher risk of CDI in primary care

Proportion of total use: 2012-2015



NHS Scotland: Use of recommended first line antibiotics in primary care 2015

Recommended antibacterials



recommended antibacterials
make up **81.4%**
of all antibacterial prescribing

National Quality Indicator

NHS Scotland: National Quality Indicator



Antibiotic use, expressed in items/1000/day
in at least 50% of practices in each NHS board
will be at or below the 25th percentile of Scottish practices or will have
made the minimum acceptable reduction toward that level

Introduced in 2013

Based on National Therapeutic Indicators approach (best in class as target)

Baseline Jan - March 2013

Feasibility of C-reactive protein testing in primary care

**Scottish Reduction in
Antimicrobial Prescribing
programme
ScRAP**

Feedback of Antibiotic Prescribing in Primary Care FAPPC

FAPPC

- Repeated feedback of prescribing information with action orientated goal setting message
- Phased implementation in 4 NHS boards
- 50% practices
- Quarterly report (email)
 - Some indicators change each quarter
- Cover letter from CMO and SAPG chair

Antibiotic Prescribing

Feedback for your practice

Report Date: August 2016

Why is this report being sent to the practice?

Antibiotics are medicine's miracle. They save, extend and improve quality of life and have revolutionised medical practice in the 20th century. Medicine as it is known today would not be possible without antibiotics. However the bacteria that cause infections are becoming increasingly resistant to antibiotics. Antimicrobial resistance is one of the major health problems of the 21st century. The possibility of a post-antibiotic era where once again people die from simple infections is real.

Antibiotic resistance cannot be completely prevented but there are actions we can take to slow the development of resistance. Very few antibiotics are in development and it is important to look after those that are currently available. One of the key actions is to minimise the unnecessary use of antibiotics.

This information is provided to you by NHS National Services Scotland in collaboration with the Scottish Antimicrobial Prescribing Group who co-ordinate and deliver the framework for antimicrobial stewardship to enhance the quality of antimicrobial prescribing and management in Scotland. The report is based on antibiotic prescriptions prescribed by your practice and subsequently dispensed in the period up to and including 31st March 2016.

This report contains information about your practice for the following set of antibiotic prescribing indicators:

- Indicator 1 : Use of Antibiotics in All Ages
- Indicator 2 : Use of three day courses of trimethoprim in adult females
- Indicator 3 : Repeated use of antibiotics for urinary tract infection (UTI) or presumed UTI

Each indicator measures the antibiotic prescribing in your practice and compares this to a benchmark for NISS Lothian and across Scotland as a whole. These benchmarks are the 25th percentile i.e. the antibiotic prescribing rate achieved or bettered by the quarter of practices with the lowest prescribing rate in NHS Lothian and across Scotland as a whole. These benchmarks have been calculated for each of the 16 quarters presented in the charts.

What should I do now?

We understand how busy GPs are every day. However there is potential and potentially preventable harm to your patients now and in the future from untreatable infections. It is important to take some time to read this report and reflect on how your practice's prescribing compares to the local and national benchmarks. If your practice's prescribing rate is above the benchmark consider how you might make a change. If your practice is at or below the benchmark congratulate yourselves and keep up the good work but acknowledge there may still be some room for improvement.

We suggest you take specific action such as:

- Printing out the report to read.
- Discussing this report and what it means for the practice with all your colleagues, perhaps at a practice meeting.
- Agreeing with your partners what you could change, for example could you review the practice policy on telephone consultations for antibiotics or make a plan to use some of the resources below to work with patients to reduce antibiotic prescribing.
- Consider liaising with your local medicines management advisers for further information on your antimicrobial prescribing or support for improving antibiotic use.

What resources are available to support me?

The Scottish Antimicrobial Prescribing Group (SAPG) [web-link 1](#) co-ordinates the national framework for antimicrobial stewardship to enhance the quality of antibiotic use and infection management. SAPG have produced and promote resources to support prescribers to improve use of antibiotics. This includes a range of guidance on UTI ([web-link 2](#)).

The Scottish Reduction in Antimicrobial Prescribing (ScRAP) programme, is a facilitated education programme to help prescribers to reduce unnecessary prescribing of antibiotics, available at [web-link 3](#).

SAPG audit tool to enable prescribers to undertake qualitative audit of primary care management of commonly encountered infections is available at [web-link 4](#).

The TARGET antibiotics toolkit produced by the Royal College of General Practitioners is a set of resources that the whole practice can use flexibly, either as standalone interventions or in an integrated package (which is recommended) to support prescribers' and patients' available at [web-link 5](#). A specific on-line learning module on urinary tract infections is available at [web-link 6](#).

PHE guidance on diagnosis of UTI provides a useful flowchart at [web-link 7](#).

The SIGN Guideline on Management of suspected bacterial UTI in adults provides a useful review of the evidence and is available at [web-link 8](#).

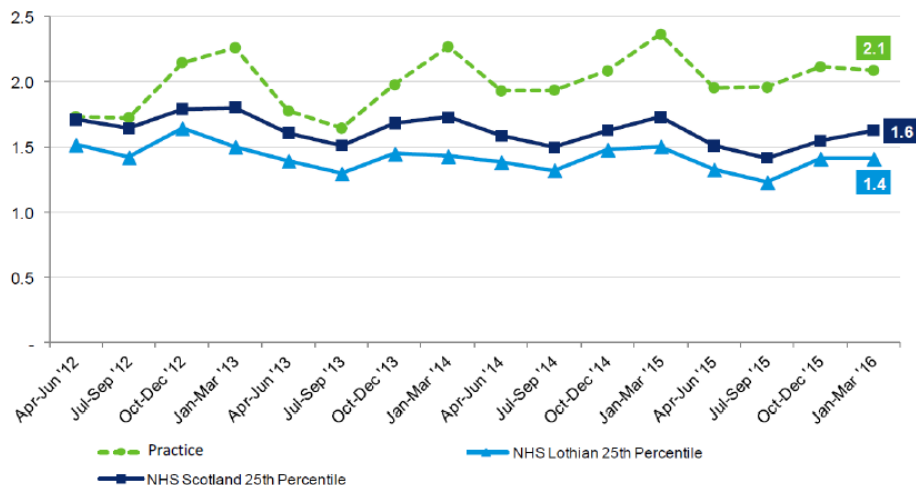
What will the next set of reports focus on?

We will be sending you feedback on a range of antibiotic indicators every quarter. You will receive your next report in October 2016 when the focus will be on antibiotics with a high risk of *Clostridium difficile* infection. Antibiotics commonly used for skin and soft tissue infections will be included in the indicators in January 2017.

For further information, please contact us at nss.antibioticprescribing@nhs.net.

Indicator 1: Use of Antibiotics in All Ages

Number of Antibiotic Prescriptions Dispensed per 1,000 Patients per Day



What does this indicator measure?

This indicator measures the number of antibiotics prescribed and subsequently dispensed per 1,000 patients per day for all patients in your practice. The benchmarks for NHS Lothian and all Scotland are provided for comparison.

Why does this matter?

Antibiotics are vital for treatment of bacterial infections. Over 80% of antibiotic use is within primary care. The main driver for the development of antimicrobial resistance (AMR) is exposure to antibiotics and resistance is greatest where use is greatest. Resistance is a natural consequence of using antibiotics but overuse and inappropriate use can unnecessarily increase the rate of development of resistance. There are few new antibiotics under development so it is vital the effectiveness of the currently available treatments is preserved. A post-antibiotic age where bacteria are resistant to antibiotics, leading to many routine healthcare procedures becoming impossible or more dangerous is now a real possibility.

What can you do?

The two commonest reasons for prescribing antibiotics are self-limiting respiratory tract infections (RTI) and urinary tract infection (UTI) or urinary symptoms. 60% of all antibiotic prescriptions are for RTI, but there is good evidence that antibiotics have limited effects in most people consulting with one. NICE Guidance for the management of RTI is at [web-link 9](#) although the rest of this report focuses on UTI.

Our mission is not to prescribe as few antibiotics as possible, but to identify that small group of patients who really need antibiotic treatment and to explain, reassure and educate the large group of patients who do not. You could consider the ScRAP programme ([web-link 3](#)) or use the SAPG tool to understand more about how you are using antibiotics ([web-link 4](#)) or use the TARGET resources such as letters for patients and materials for waiting areas produced by the Royal College of GPs in your practice ([web-link 5](#)).

Round 1 (April 2016)

Total antibiotic use (all ages)

Antibiotic use in 0-4 years

Antibiotic use in ≥ 65 years

Round 2 (August 2016)

Total antibiotic use (all ages)

Three day courses of trimethoprim in adult females

Repeated use for UTI

Round 3 (October 2016)

Total antibiotic use (all ages)

Broad spectrum antibiotics which increase CDI risk

Round 4 (January 2017)

Total antibiotic use (all ages)

Antibiotics for skin and soft tissue infection

From surveillance to improved outcomes for patients

UK Five Year Antimicrobial Resistance Strategy 2013 to 2018

3 Strategic Aims

- i. ~~improve the knowledge and understanding of AMR through better use of~~
Surveillance data that focus on bacterial resistance, the epidemiology of bacterial infections, drug utilisation and clinical outcome are essential to monitor resistance trends. These data will help assess the impact of rational prescribing programmes for both current and new antibacterial agents in humans and animals.
- 5 ~~better access to and use of surveillance data~~ in human and animal sectors through new arrangements that facilitate greater consistency and standardisation of the data collected across the system and encourage improved data linkage (supports strategic aims i and ii),

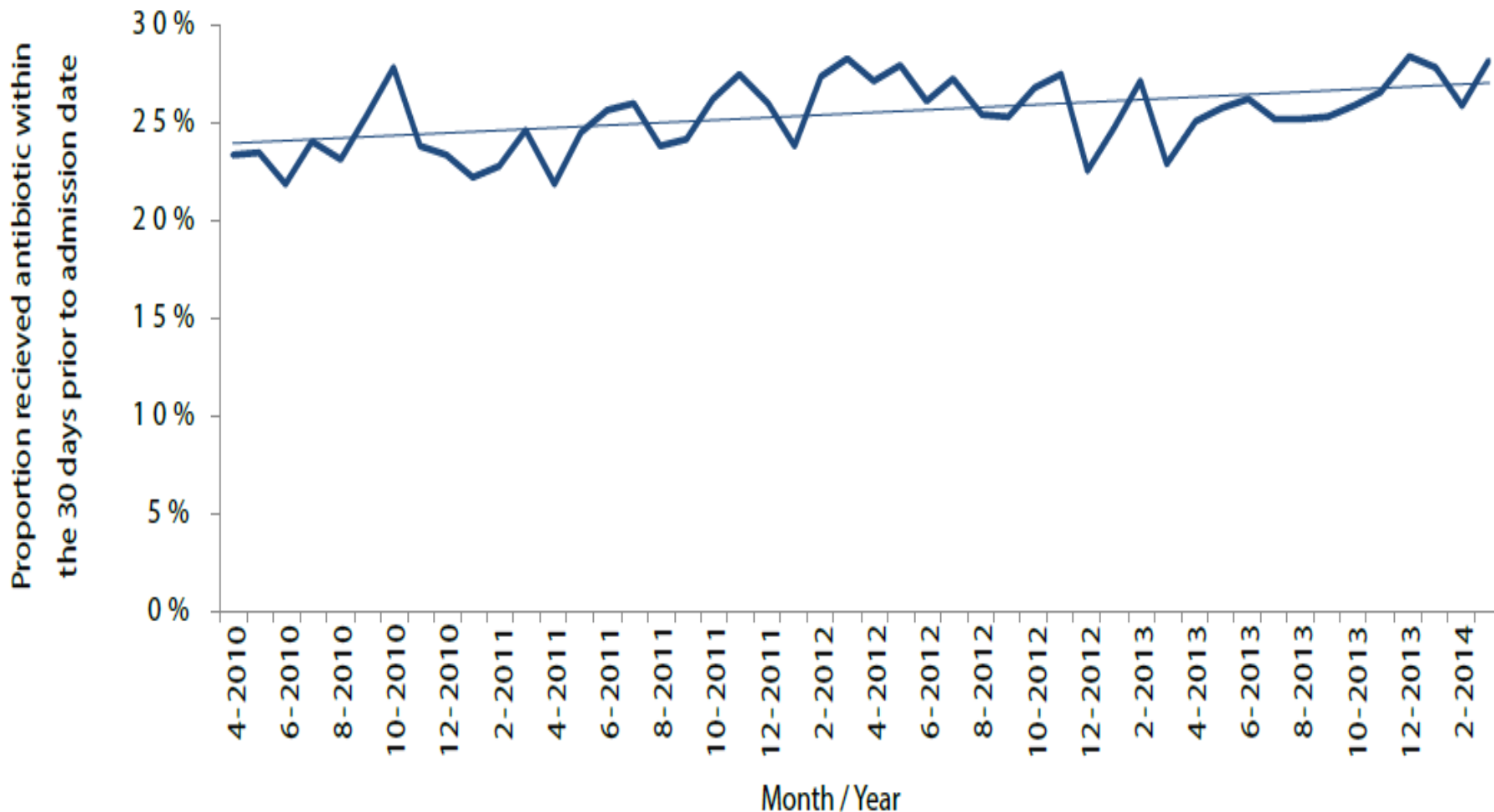


NHS Scotland Infection Intelligence Platform

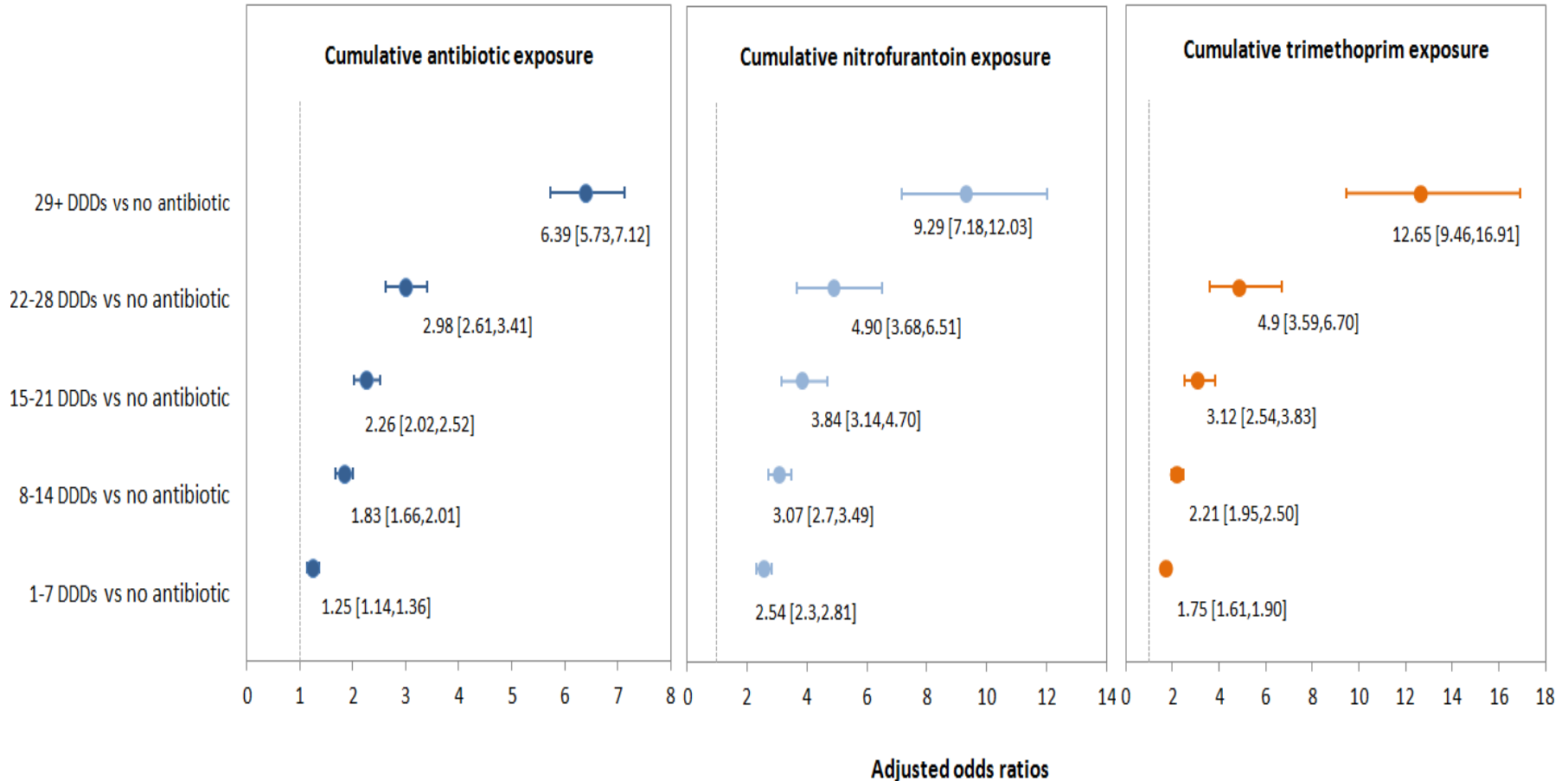


How has big data analytics improved patient care?

Are interventions to reduce unnecessary antibiotic use in respiratory infections having unintended consequences?

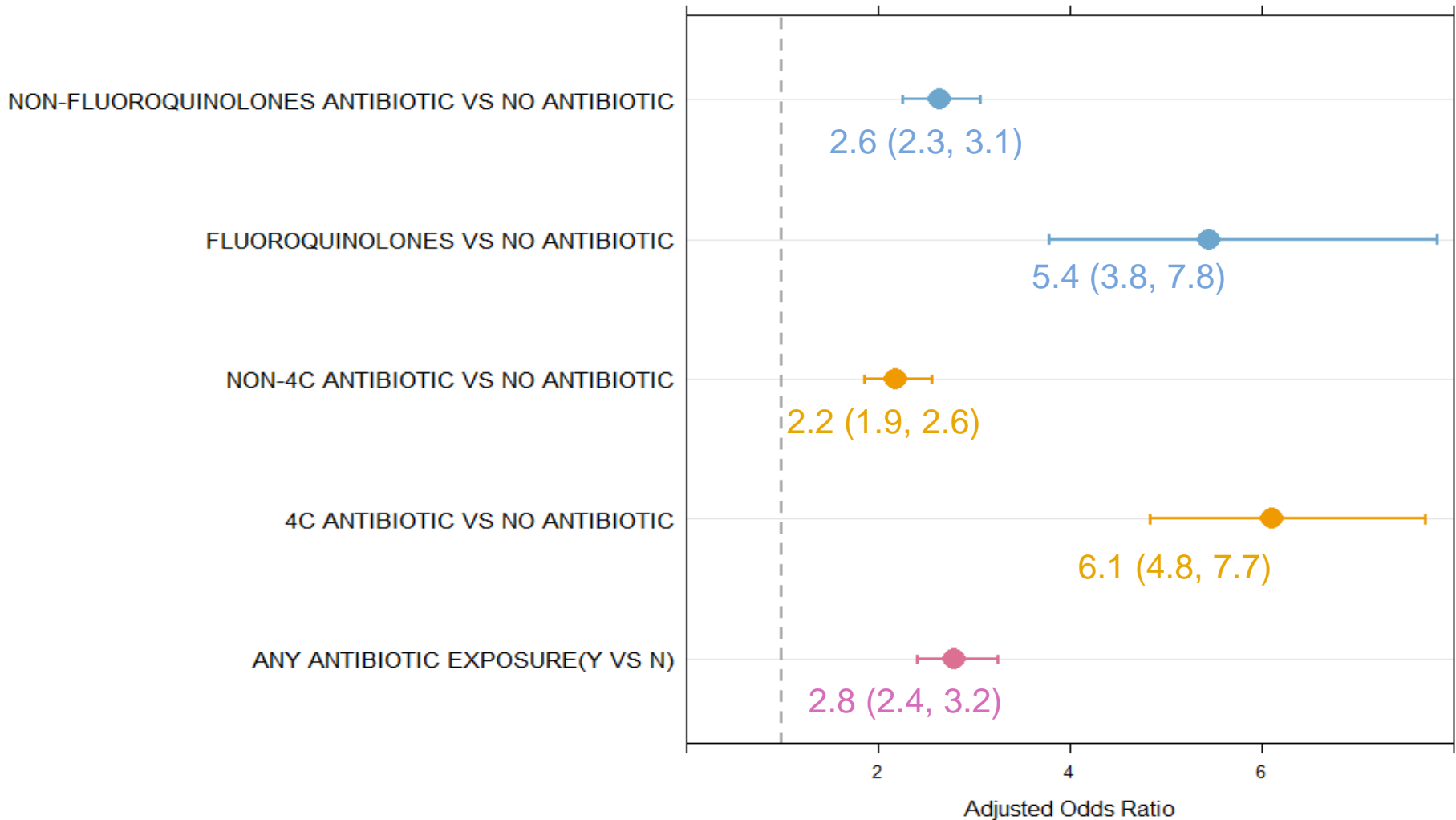


To what extent is use of antibiotics associated with resistance in urine samples?



Cumulative exposure in 6 months
multidrug resistant isolates compared to sensitive isolates

Understanding the association between community use of antibiotics and CDI – what is the risk?





h-37420691

Global pledge to stamp out... X

BBC Sign in

News Sport Weather iPlayer TV Radio More Search

NEWS Find local news

Home UK World Business Politics Tech Science **Health** Education Entertainment & Arts Video & Audio More

Health

Global pledge to stamp out drug-resistant infections

21 September 2016 | Health

Share



SPL

The 193 countries of the United Nations have agreed a landmark declaration to rid the world of drug-resistant infections or "superbugs".

Top Stories

UKIP MEP in hospital after 'altercation'

UKIP leadership hopeful Steven Woolfe says he is recovering in hospital after a reported fight at a meeting of the party's MEPs.

7 minutes ago

Haiti images show scale of destruction

21 minutes ago

Fracking given go-ahead by government

1 hour ago

Features



“the mic
fast org
and per
someor
the thou
respons
with the

S
h
es

l