Antimicrobial Resistance

Summary Points

- The rate of total number of prescribed antibiotics in Bristol, North Somerset, South Gloucestershire (BNSSG) ICB is lower than the national average and fourth lowest of all ICB's
- The percentage of broad-spectrum antibiotics prescribed in BNSSG ICB is higher than the England average
- Rates of MRSA in the BNSSG ICB are the second highest of all ICB's in England and significantly higher than the national average

Introduction

Antimicrobial resistance arises when the micro-organisms that cause infection survive exposure to a medicine that would normally kill them - this is a particular concern with antibiotics.

Many of the medical advances in recent years need antibiotics to prevent and treat the bacterial infections that can be caused by the treatment. Without effective antibiotics, even minor surgery and routine operations become high risk procedures[1]. For many years now we have not seen any new antibiotics being developed so are reliant on the existing ones working. We have seen increasing demand for antibiotics worldwide both in human, animal and agriculture. Sometimes these antibiotics are not used appropriately; used when there is no bacterial infection (antibiotics do not work on viral infections), the wrong antibiotic being used, or courses of treatment not being fully completed. We are seeing bacterial infections emerge, such as Tuberculosis and Gonorrhea, which are now resistant to the many antibiotics and this is a significant risk in keeping people well.

Local NHS guidance on the use of antibiotics in primary care helps prescribers to choose the most appropriate and encourages the use of narrow-spectrum antibiotics rather than broad-spectrum[2].

Data sets are primarily reported at Bristol, North Somerset and South Gloucestershire (BNSSG) Integrated Care Board (ICB) level but where available this report also includes local authority data.

Prescribed antibiotics

In terms of rates for the total number of prescribed antibiotics, Bristol, North Somerset and South Gloucestershire ICB has been consistently lower (better) than nationally since 2018. The twelve month rolling total number of prescribed antibiotic items at March 2025 for the ICB was 0.72 antibiotic items[3], lower than the England average of 0.89 prescribed antibiotic items. Figure 1 overleaf highlights continual improvement in prescribing between 2018 and July 2021, before a period of increased prescribing peaking in October 2023, followed by a gradual decrease in prescribing up to the latest data point of March 2025. The ICB and England profile rates have

[1] www.gov.uk/government/collections/antimicrobial-resistance-amr-information-and-resources

[2] Cephalosporin, quinolone and co-amoxiclav, which are associated with an increased risk of Clostridium difficile (C. diff) infection and antimicrobial resistance.

[3] Prescribed antibiotic items per STAR-PU (Specific Therapeutic group Age-sex weightings Related Prescribing Unit).

mirrored each other over the last seven years but the gap has widened since October 2021 indicating a bigger national increase in prescribing.

BNSSG has the fourth lowest prescribing rate of all ICB's, just higher than North Central London ICB (0.66 per STAR-PU), North West London ICB (0.67) and Sussex ICB (0.70). Staffordshire and Stoke on Trent ICB has the highest rate at 1.18 antibiotic items per STAR-PU.

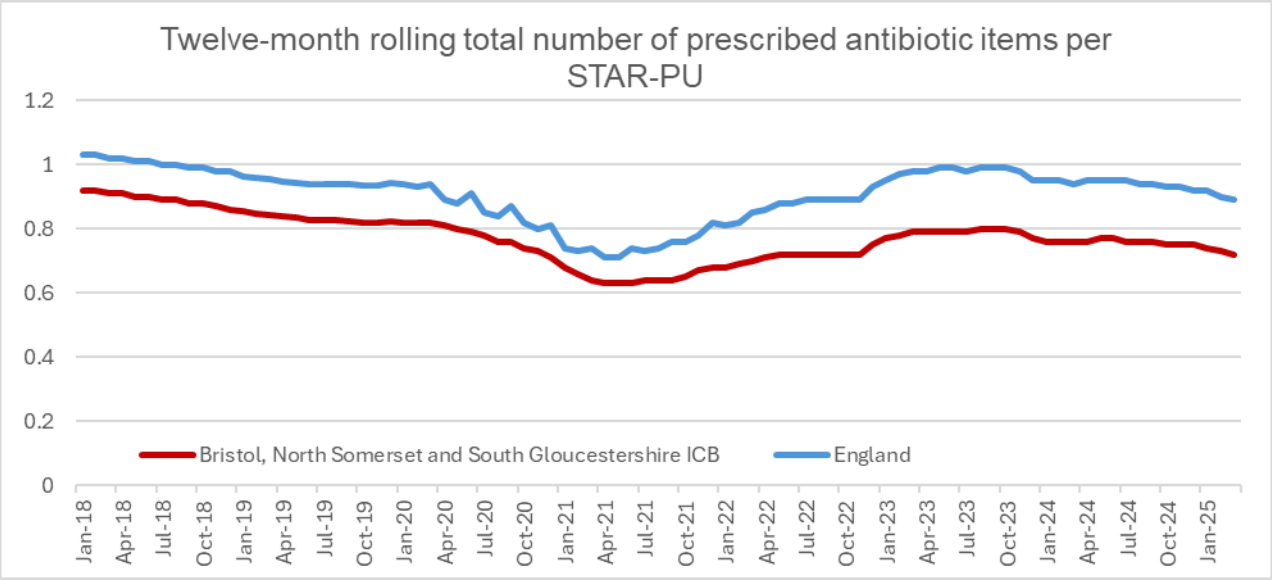

Figure 1: Twelve-month rolling total number of prescribed antibiotic items per STAR PU (Specific Therapeutic group Age sex weightings Related Prescribing Unit). Source: PHOF, Sep 2025

For broad-spectrum antibiotics the most recent data for March 2025 shows that the percentage prescribed in Bristol, North Somerset, South Gloucestershire (BNSSG) ICB is higher (worse) than the England average. During 2019 and 2020 performance was very similar but a gap opened up during 2021 until midway through 2022 when the gap reduced – see Figure 2. Improved prescribing practice of antibiotics including broad spectrum antibiotics needs to be maintained so that the right people receive the right antibiotics at the right time.

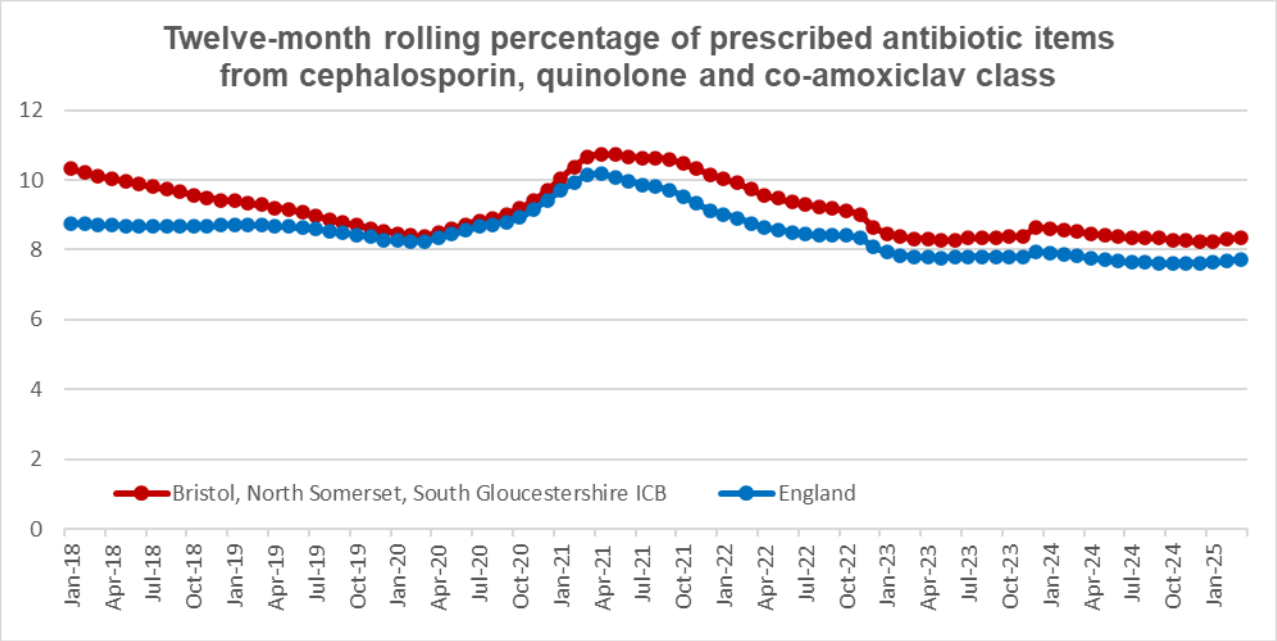

Figure 2: % Prescribed antibiotics (broad spectrum) (Jan 2018 – Mar 2025). Source: PHOF, Sep 2025

BNSSG has not managed to maintain a reduction in care associated infections and some are significantly higher that both SW and England levels. Infections from "C.diff" had been falling in BNSSG until 2020/21 when infections started to rise again. Infections rose to a crude rate of 33.8 per 100,000 in July 2021 before gradually decreasing over the following two years and then increasing again to its peak rate of 37.0 per 100,000 in December 2024. Since then the rate has slowly decreased to the latest rate of 33.3 per 100,000 in June 2025, which is similar to the national average (32.5) – Figure 3.

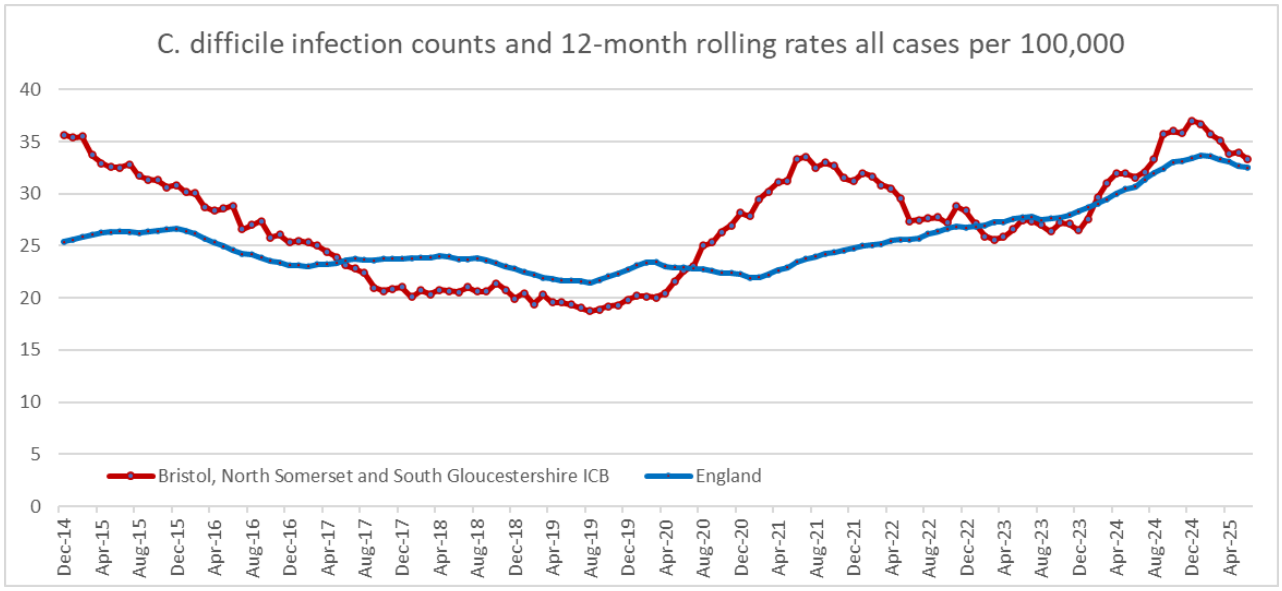

Figure 3: Rate of C.difficile infection in BNSSG (Nov 2014 – June 2025). Source: PHOF, Sep 2025

Methicillin-resistant staphylococcus aureus (MRSA) is a bacterial infection which is resistant to commonly used antibiotics. Rates of MRSA in the BNSSG ICB decreased between 2018 and 2022 following its peak in the Summer of 2017, but since April 2023 rates have gradually been increasing, mirroring the national picture. BNSSG continues to have a significantly higher rate of MRSA than the national average (Figure 4). As at June 2025, BNSSG has the second highest rate of all English ICB's.

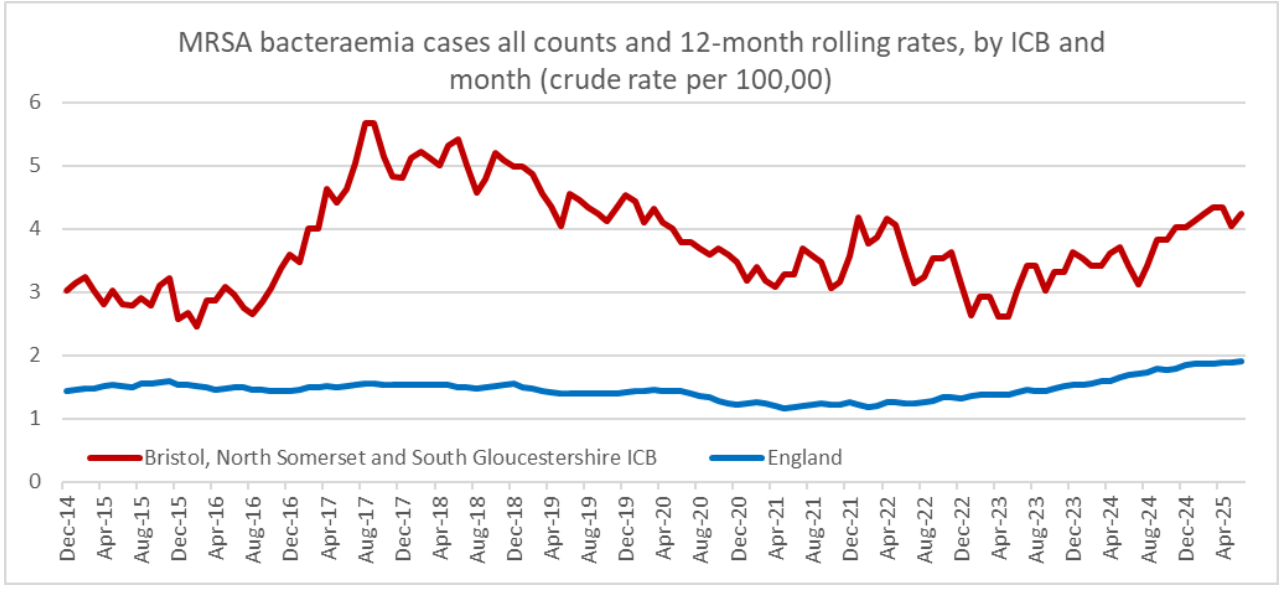

Figure 4: Rate of MRSA infections per 100,000 (Dec 2014 – Jun 2025). Source: PHOF, Sep 2025

Antibiotic Guardians

Antibiotic Guardians is a Public Health campaign to encourage improved behaviours around the use and prescription of antibiotics with the public and healthcare professionals. As at the end of December 2022 there were 23.6 Antibiotic Guardians per 100,000 population in BNSSG ICB (Figure 5). Although the England average has not been published to benchmark against, BNSSG places mid-quintile when compared with other ICB's.

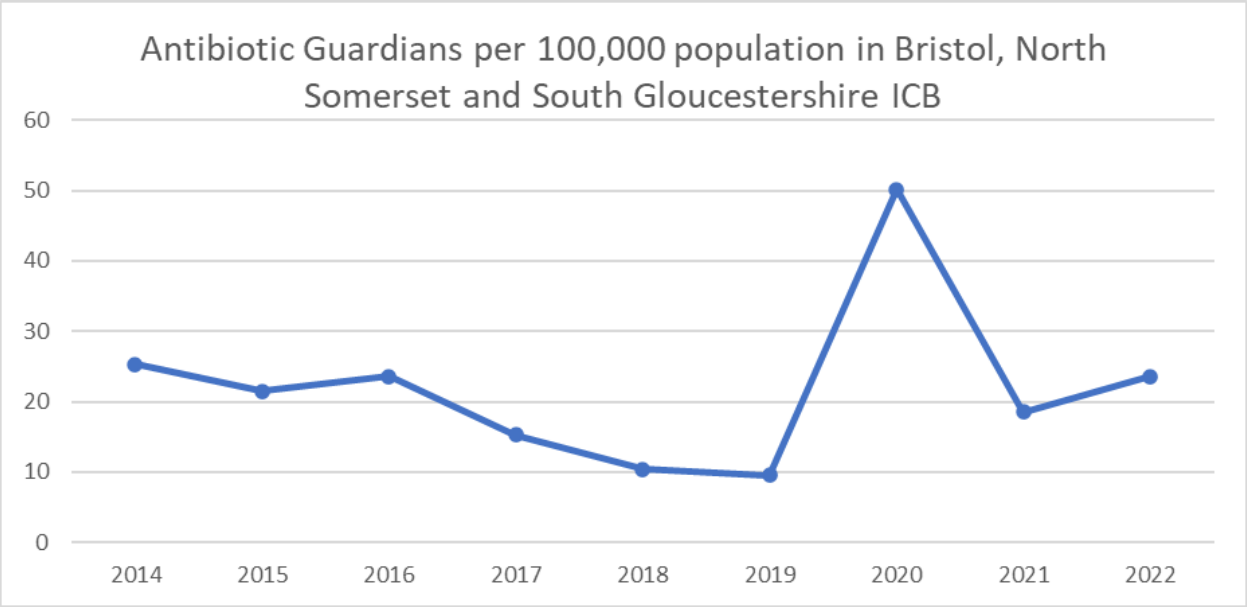

Figure 5: Antibiotic Guardians per 100,000 population (2014 – 2022). Source: PHOF, Sep 2025

Covid-19 impact:

Internationally, and within the UK, we saw a sharp increase in prescribed antibiotics particularly in the early months of the pandemic, this is likely to be due to a range of reasons; limited Covid-19 treatment options leading to antibiotics being used at times inappropriately for those with more severe covid, fewer in person clinical assessments of patients in the community (Primary Care and Dental) and, due to the scale of Covid-19 cases, a likely increase in secondary bacterial respiratory infections. There is however also evidence that due to the reduction in social mixing the incidence of some bacterial infections, where antibiotic prescribing is appropriate, was reduced such as scarlet fever in children.

Further data / links / consultations:

- Antimicrobial Resistance (AMR) local indicators

Date updated: September 2025

Next update due: September 2026