# Antibiotic resistance surges in England with 14% rise in serious infections in 2023



Antibiotic resistance is emerging as one of the most pressing public health challenges of our time, presenting a grave concern that many may not fully appreciate until they find themselves facing a dire situation. It prompts a fundamental question: what happens if the antibiotics we rely upon cease to be effective? This is a reality already confronting a growing number of individuals and is poised to become a more widespread issue if we do not take immediate action.

The history of antibiotics has shaped our medical landscape profoundly since their introduction over a century ago, transforming encounters with infections from potentially lethal events to manageable conditions through simple prescriptions. However, this paradigm is rapidly changing. Bacteria possess a remarkable ability to adapt and evolve, with resistance mechanisms developing at an alarming rate. This process is exacerbated by misuse and overuse of antibiotics in both humans and animals and environmental factors. Data from the UK Health Security Agency (UKHSA) reveals a disconcerting rise in antibiotic-resistant infections, with 66,730 serious cases recorded in England in 2023, a substantial increase from the 58,224 cases noted in 2022, which had already marked a 4% rise from the previous year.

The statistics illuminate a sobering trend. Globally, an estimated one million deaths each year are attributed to antibiotic-resistant infections, a figure that could soar to eight million by 2050 if the current course remains unchecked. The impact is particularly severe among older populations, where untreated infections can escalate into systemic issues, including sepsis and multi-organ failure. In 2022, there were 2,202 reported deaths directly attributable to antibiotic resistance in England, underscoring the urgency of addressing this health crisis.

The UK government has recognised the gravity of the situation, placing tackling antibiotic resistance at the forefront of its public health agenda. The recent release of the National Action Plan in May 2024 outlines ambitious commitments to curtail unnecessary antibiotic use in both humans and animals, enhance the monitoring of drug-resistant infections, and incentivise the pharmaceutical industry towards the development of innovative treatments. This comprehensive strategy acknowledges the growing complexities of antibiotic resistance and aims to foster a proactive approach in addressing the multifaceted dimensions of the problem.

However, such a crucial challenge cannot rest solely on the shoulders of government and healthcare professionals. Public engagement and personal responsibility play pivotal roles in mitigating antibiotic resistance. Research conducted by the UKHSA indicates that, while nearly half of the British public express concern about antibiotic resistance, misconceptions about its implications and personal responsibility remain widespread. Many believe there is little they can do to influence the situation, misconceptions that are being counteracted by awareness campaigns featuring informative mascots like 'Andi Biotic.' This initiative seeks to educate the public on the proper use of antibiotics, including refraining from using them for viral infections such as colds and flu, as well as the importance of adhering strictly to prescribed treatments.

The rising tide of antibiotic-resistant infections, particularly in urban centres like London, reflects broader societal patterns. Recent data highlights ethnic disparities, with Asian ethnic groups exhibiting notably higher rates of resistance. This awareness is crucial, as it informs targeted public health strategies and addresses the community-specific factors that may contribute to the alarming rates of resistance.

Moving forward, the need for a multi-faceted approach is paramount. The UKHSA's ongoing efforts encompass improving diagnostic practices, reinforcing public health directives, and enhancing infection prevention protocols. Their recent updates emphasise a commitment to reducing the burden of antimicrobial resistance, showcasing that both proactive and reactive measures are crucial in addressing this looming crisis.

As we navigate this complex and evolving landscape, it is imperative that everyone—individuals, healthcare providers, and policymakers—remains vigilant and engaged in tackling antibiotic resistance. Collective action, informed by robust public health strategies and individual responsibility, holds the key to preserving the efficacy of antibiotics for future generations.

### Reference Map

1. Paragraphs 1, 2, 3, 4
2. Paragraphs 1, 2, 3
3. Paragraph 2
4. Paragraphs 2, 3
5. Paragraphs 3, 6
6. Paragraph 5
7. Paragraph 6

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.express.co.uk/news/uk/2058941/ticking-health-timebomb-looming-uk> - Please view link - unable to able to access data
2. <https://www.gov.uk/government/news/antibiotic-resistant-infections-continue-to-rise> - In 2023, the UK Health Security Agency (UKHSA) reported an estimated 66,730 serious antibiotic-resistant infections in England, surpassing pre-pandemic levels. The majority of these infections were caused by E. coli, a common pathogen responsible for urinary tract infections, diarrhoea, vomiting, and fever. Antibiotic-resistant bacteria are less likely to respond to treatment, leading to serious complications, including bloodstream infections, sepsis, and hospitalisation. Individuals with antibiotic-resistant infections are more likely to die within 30 days compared to those with antibiotic-sensitive infections. The UKHSA emphasizes the importance of appropriate antibiotic use to limit the emergence of resistance.
3. <https://www.gov.uk/government/news/antibiotic-resistant-infections-and-associated-deaths-increase> - The UK Health Security Agency (UKHSA) announced that in 2022, an estimated 58,224 people in England had an antibiotic-resistant infection, marking a 4% increase from 2021. Deaths due to severe antibiotic-resistant infections also rose from 2,110 in 2021 to 2,202 in 2022. The report highlights a concerning trend of increasing antibiotic resistance following declines during the pandemic, with more dangerous strains of bacteria spreading in communities and hospitals. The UKHSA urges the public to use antibiotics responsibly to prevent further resistance.
4. <https://www.gov.uk/government/publications/ukhsa-advisory-board-antimicrobial-resistance> - The UK Health Security Agency (UKHSA) presented an update on antimicrobial resistance (AMR) to its Advisory Board in September 2023. The report highlighted that in 2023, the burden of AMR surpassed 2019 levels by 3.5%. The rise in AMR burden followed an initial reduction at the beginning of the pandemic, with year-on-year increases of resistant bacteraemia reported since 2021. The report also noted regional variations in AMR burden, with the highest rate in the London region, and ethnic disparities, with the highest percentage of resistance reported in Asian ethnic groups (39.4%).
5. <https://www.gov.uk/government/publications/ukhsa-advisory-board-update-on-preparedness-and-response-for-infectious-diseases> - In January 2025, the UK Health Security Agency (UKHSA) provided an update on preparedness and response for infectious diseases to its Advisory Board. The report detailed that in 2023, the burden of antimicrobial resistance (AMR) surpassed 2019 levels by 3.5%. The rise in AMR burden followed an initial reduction at the beginning of the pandemic, with year-on-year increases of resistant bacteraemia reported since 2021. The report also highlighted regional variations in AMR burden, with the highest rate in the London region, and ethnic disparities, with the highest percentage of resistance reported in Asian ethnic groups (39.4%).
6. <https://www.gov.uk/government/publications/uk-health-security-agency-business-plan-2024-to-2025> - The UK Health Security Agency (UKHSA) Business Plan for 2024 to 2025 outlines strategic priorities, including reducing the impact of infectious diseases and antimicrobial resistance (AMR). The plan details activities such as providing public health services for acute respiratory infections, supporting improvements in diagnosis and surveillance of acquired respiratory diseases, and monitoring the effectiveness of interventions. The plan also emphasizes the importance of infection prevention and control in community and high-risk settings, building the evidence base, developing guidance, and translating data into policy and action.
7. <https://ukhsa.blog.gov.uk/2024/05/08/what-is-ukhsa-doing-about-antibiotic-resistance/> - The UK Health Security Agency (UKHSA) blog post from May 2024 discusses the agency's efforts to combat antibiotic resistance. The post highlights the 2024 to 2029 National Action Plan, which commits the UK to restricting the unnecessary use of antimicrobials in humans and animals, strengthening surveillance of drug-resistant infections, and incentivizing industry to develop new treatments. UKHSA's role includes overseeing human health surveillance, tracking and analyzing resistance, developing evidence-based interventions, implementing public health campaigns, and embedding infection prevention and control in healthcare settings.