

Press Release: New Study Finds that Antimicrobial Resistance (AMR) will cost the U.S. \$655 billion by 2045.¹

Study finds:

- *Annual costs to treat AMR will rise from \$31B per year in 2025, to \$52B by 2045*
- *AMR currently takes up 2% of hospital bed capacity and under current growth rates, is projected to require a 68% increase in bed capacity by 2045.²*

Washington, DC – October 23rd, 2026.

In a first of its kind analysis, Vital Transformation has conducted a study showing that antimicrobial resistance (AMR) will cost the US economy \$655 billion by 2045 if new treatments and policies are not enacted — its cost impact is growing at 3% per year. The study's findings were presented today in a podium presentation at the ID Week conference held in Washington, DC.

A retrospective analysis conducted by Vital Transformation assessed the direct clinical and economic impact of AMR among hospitalized patients with **sepsis, pneumonia, and complicated urinary tract infection (cUTI)**. The analysis used longitudinal electronic health records from Vanderbilt University Medical Center (2016–2024), covering a cohort of **50,189 patients**. Vanderbilt's catchment area reflects a broad section of the southern U.S., with a mix of urban and rural populations, making it unique in being demographically representative of the US at large.

According to Vital Transformation CEO Duane Schulthess, who gave today's presentation, "There have been many studies published from a public health standpoint that have presented the overall impact of AMR and it's increasing frequency, but this is the first study which we're aware that quantifies with such clarity the incredibly huge impact AMR is having on the cost of treatment, and the fact those costs are growing at 3% per year."

AMR substantially increases resource utilization. Across the three infections studied, AMR is associated with longer hospital stays, higher costs, and increased readmissions. Hospital stay accounts for approximately **83% of total hospital costs** for AMR patients. The study estimates that AMR-related infections currently consume approximately **2 million hospital bed-days annually in the US**, potentially increasing to **3.5 million days by 2045**.

¹ Calculated as the net present value, with a 10% cost of capital.

² 95% CI [38%, 105%].

As well, mortality remains substantial across all indications:

- **Sepsis:** ~34% mortality
- **Pneumonia:** ~33% mortality
- **cUTI:** ~24% mortality

A significant proportion of deaths occur within the first two weeks of infection, highlighting the importance of early and effective treatment.

Also, AMR increases hospital readmission rates associated with these infections by about 1/3 (33%) compared to non-AMR infections. This means that Hospital Readmission Rates increase by roughly 7%-points due to AMR alone.

According to Emily Wheeler, Vice President of Infectious Disease Policy at the Biotechnology Innovation Organization (BIO) which was one of the sponsors of the research, “This new study outlines the need for congress to pass the updated and reintroduced [PASTEUR Act](#) (Pioneering Antimicrobial Subscriptions To End Upsurging Resistance Act), to stabilize the broken antibiotic marketplace. It would establish a new federally funded subscription-style model, ensuring treatment access for patients who need them while providing companies with predictable returns to sustain research and development.”

The PPT of the results which was presented at today’s ID Week podium session will be made available at [Vital Transformation](#) [\[insert link\]](#) when released by the conference organizers. In addition to BIO, the sponsors of the study included Pfizer Inc., Merck & Co., GSK plc, The Alliance for Aging Research, and the Pharmaceutical Research and Manufacturers of America (PhRMA).

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About Vital Transformation

Vital Transformation understands the implications of new medical procedures, technologies, and policies. We measure their impact on current clinical practices in close collaboration with health care professionals, researchers, and regulators. Through our web platform, client network and Vital Health Podcast series, we communicate our findings with international decision makers and stakeholders.