WHO Raises Alarm Over Antibiotic Resistance: Why India Is Especially Vulnerable

A new WHO report shows that in 2023, one in six laboratory-confirmed bacterial infections worldwide was resistant to antibiotic treatment, marking a sharp global rise in drug-resistant infections.

The World Health Organization (WHO) on October 13, 2025, released a stark warning: One in six laboratory-confirmed bacterial infections causing common infections in people globally in 2023 was resistant to antibiotic treatments. The report also notes that, between 2018 and 2023, antibiotic resistance rose in over 40% of the pathogen-antibiotic combinations monitored, with an average annual increase of 5-15%. This is the first time WHO has presented such comprehensive surveillance data on global AMR based on multiple countries' reporting via its Global Antimicrobial Resistance and Use Surveillance System (GLASS).

Some of the worrying highlights from the WHO release and related media reports include:

- In South-East Asia and the Eastern Mediterranean, resistance is particularly severe: about one in three infections in these regions are now resistant.
- Globally, "superbug" infections in hospitals are rising sharply, especially in countries with weaker healthcare or diagnostic systems.
- The WHO report warns that this pattern is "unevenly distributed" as communities with less access to quality care and diagnostics are more vulnerable to the consequences of resistance.

In short, antibiotics we have long considered routine are losing effectiveness, and new ones are not keeping pace with the evolution of resistant bacteria.

Understanding Antibiotic/Antimicrobial Resistance (AMR)

What is antibiotic resistance?

Antibiotic (or more broadly antimicrobial) resistance occurs when bacteria, viruses, fungi or parasites evolve to survive treatments that used to kill them. This resistance may arise due to natural mutations or by acquiring resistance genes from other organisms. Overuse, misuse, or incorrect dosing of antimicrobials accelerates this process.

As resistant pathogens proliferate, standard treatments become ineffective, infections last longer, and the risk of spread increases. Worse, options for "last-resort" drugs are limited or expensive, and development of new antibiotics has lagged.

Why India is especially vulnerable

India confronts a particularly complex AMR environment, due to several overlapping factors:

- **High infectious disease burden:** India already has one of the highest burdens of bacterial diseases globally, which leads to greater antibiotic use.
- **Unregulated antibiotic access and misuse:** Over-the-counter sales, self-medication, and incomplete antibiotic courses are common. These practices create selective pressure for resistant strains.
- **Weak enforcement and regulation:** Although India has a National Action Plan on Antimicrobial Resistance (NAP-AMR) (launched in 2017) and participates in GLASS, the implementation across states has been uneven, with financial, coordination and enforcement constraints.
- **Environmental contamination:** Antibiotics and resistant organisms find their way into rivers, soil and wastewater from pharmaceutical manufacturing, hospital effluents, and agricultural run-off, spreading resistance genes in the environment.
- **Data and surveillance gaps:** Many regions lack robust microbiological labs or antibiotic-resistance tracking, making it harder to detect and respond early.

A revealing statistic: In India in 2019, about 297,000 deaths were estimated to be directly attributable to AMR, with over 1,042,500 deaths associated with it (i.e. contributing factor).

In India, five pathogens are especially concerning: *Escherichia coli* (around 152,700 deaths associated), *Klebsiella pneumoniae* (around 123,200), *Staphylococcus aureus* (around 111,400), *Acinetobacter baumannii* (around 103,500), and *Mycobacterium tuberculosis* (around 98,600).

At many hospital labs under the ICMR AMR surveillance network, alarming levels of resistance have been recorded (for example, approximately 80% carbapenem resistance in Acinetobacter).

Consequences Of AMR: High Stakes Involved

- **Treatment failures and higher mortality:** Infections that were once easy to treat can become life-threatening or incurable.
- **Longer hospital stays and higher costs:** Resistant infections often require more intensive, prolonged, and expensive care.
- **Threat to routine medical procedures:** Surgeries, chemotherapy, organ transplants and childbirth depend on effective antibiotics. If these medicines stop working, risk from even minor infections increases.
- **Impact on vulnerable populations:** In low-income or rural settings with weak health infrastructure, the burden is disproportionately higher.
- **Global spillover risk:** In a connected world, resistant strains can cross borders, making AMR a global health security threat.

India's Response To AMR: Key Challenges Ahead

India's response to the rising global AMR crisis includes these key initiatives:

- **National Programme On AMR Containment:** Under NCDC (National Centre for Disease Control), India coordinates national surveillance, external quality assessment, and pathogen reporting to WHO GLASS. (National Centre for Disease Control)
- **State Action Plans:** States are encouraged to develop their plans based on the national model.
- **Laboratory Network Growth:** India's surveillance network includes labs trained in antibiotic susceptibility testing (e.g. broth microdilution, agar dilution).
- **Policy And Stewardship Measures:** Promotion of rational antibiotic use in hospitals, restricting over-the-counter sales, and capacity-building of prescribers.

However, multiple challenges remain:

- Insufficient funding and logistical support for many states.
- Fragmented coordination across human health, animal health, environment (One Health approach) is weak.
- Lack of awareness among public and private sector prescribers about AMR protocols.
- Gaps in data from rural areas and limited lab capacity in many districts.
- Difficult control over antibiotic pollution from pharmaceutical industries and hospital waste.

What Must Be Done: Tips For You

For all citizens, the following approaches can help:

- Use antibiotics only when prescribed by a qualified doctor.
- Never demand antibiotics for viral illnesses.
- Complete full course even if symptoms improve early.
- Do not share or use leftover antibiotics.
- Maintain hygiene (handwashing, safe food) to reduce infection risk.
- Support vaccination to prevent infections and reduce antibiotic need.

The new WHO report is a clarion call, because antibiotic resistance is no longer a looming threat. It's here, and escalating rapidly. When one in six bacterial infections globally resist treatment, many of the "backbone" tools of modern medicine begin to erode.

India, with its high infectious disease burden and systemic challenges, is confronting this crisis on multiple fronts. The path forward demands coordinated action across government, industry, health systems, and communities. We still have time, but the window is narrowing. The more prudently we use antibiotics, strengthen surveillance, and invest in alternatives, the more we can preserve their power for future generations.

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