

1. **resistance** (noun) – ability to fight off, ability to counteract/withstand, immunity from.
2. **brace** for (verb) – prepare, get ready, gear up (for something unpleasant/difficult).
3. **economic shock** (noun) – in economics, a shock is an unexpected or unpredictable event that affects an economy, either positively or negatively.
4. **fall-out** (noun) – adverse results; repercussions, after-effects.
5. **in perspective** (noun) – judge a particular thing's real importance by considering it in relation to everything else
6. **decade** (noun) – a period of ten years.
7. **spike** (verb) – increase, raise.
8. **scenario** (noun) – course of events, situation.
9. **eventuality** (noun) – event, incident, occurrence/outcome.
10. **modest** (adjective) – moderate, fair, tolerable/acceptable.
11. **antibiotic** (noun) – a chemical substance/drug used to destroy or inhibit the growth of bacteria that causes infectious diseases.
12. **apocalypse** (noun) – an event involving destruction or damage.
13. **contour** (noun) – outline, shape, form.
14. **sepsis** (noun) – the body's overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure, and death.
15. **pneumonia** (noun) – pneumonia is an infection of the lungs. It is treatable and preventable. However, pneumonia is the leading cause of death among children under five.
16. **call for** (phrasal verb) – require, publicly ask/necessitate, demand.
17. **phase out** (verb) – discontinue, stop using, run down.
18. **husbandry** (noun) – management, agronomics; Animal Husbandry is the branch of agriculture concerned with the rearing (breed/raise) and care of animals that are raised for food, fibre or other purposes of benefit to humans.

## The cost of antimicrobial resistance

### India must brace for the economic shocks from uncontrolled antimicrobial resistance

Even though **antimicrobial resistance** is acknowledged by policymakers as a major health crisis, few have considered its economic impact. Now, a report from the Interagency Coordination Group on Antimicrobial Resistance (IACG) puts the financial fall-out in perspective. Titled “**No Time to Wait: Securing The Future From Drug Resistant Infections**”, it says in about three decades from now uncontrolled antimicrobial resistance will cause global economic shocks on the scale of the 2008-09 financial crisis. With nearly 10 million people estimated to die annually from resistant infections by 2050, health-care costs and the cost of food production will spike, while income inequality will widen. In the worst-case scenario, the world will lose 3.8% of its annual GDP by 2050, while 24 million people will be pushed into extreme poverty by 2030. Nations must acknowledge this

eventuality, the IACG says, and act to fight it. For high- and mid-income nations, the price of prevention, at \$2 per head a year, is extremely affordable. For poorer countries, the price is higher but still modest compared to the costs of an antibiotic apocalypse.

India first published almost nine years ago the broad contours of a plan to fight antimicrobial resistance. The difficulty has been in implementing it, given the twin challenges of antibiotic overuse and underuse. On the one hand, many Indians still die of diseases like sepsis and pneumonia because they don't get the right drug at the right time. On the other hand, a poorly regulated pharmaceutical industry means that antibiotics are freely available to those who can afford them. The IACG report acknowledges these obstacles, and calls for efforts to overcome them. Some steps can be initiated right away, it says, such as phasing out critical human-use antibiotics in the animal husbandry sector, such as quinolones. But these steps cannot be driven by regulation alone. A multi-stakeholder approach, involving private industry, philanthropic groups and citizen activists is needed. Private pharmaceutical industries must take it upon themselves to distribute drugs in a responsible manner. Philanthropic charities must fund the development of new antibiotics, while citizen activists must drive awareness. These stakeholders must appreciate that the only way to postpone resistance is through improved hygiene and vaccinations. It is a formidable task as India still struggles with low immunisation rates and drinking water contamination. But it must consider the consequences of a failure. While the 2008-09 financial crisis caused global hardships, its effects began to wear off by 2011. Once crucial antibiotics are lost to humankind, they may be lost for decades.