DELIBERATIVE POLLING® ON ANTIMICROBIAL RESISTANCE

COUNTRY REPORT

INDIA

JUNE 2026

Stanford Deliberative Democracy Lab
Center on Democracy, Development and the Rule of Law

The Trinity Challenge

Executive Summary

In collaboration with The Trinity Challenge, the Stanford Deliberative Democracy lab conducted a Deliberative Poll on Antimicrobial Resistance (AMR) with a focus on antibiotics. This poll was conducted to understand the opinions of citizens in six selected middle-income countries (MICs) regarding key policy proposals aimed at combating AMR.

Indian participants overwhelmingly favored infection prevention and upstream public health investments as the most effective response to antimicrobial resistance (AMR). The top proposals focused on universal access to clean water and sanitation (WASH), school-based hand hygiene and infection prevention education, expanded vaccination (especially full childhood coverage), and ensuring clean water for hand hygiene in healthcare facilities. Awareness campaigns on unnecessary antibiotic use and vaccine hesitancy also received strong support, while surveillance and regulatory measures were less emphasized.

These trends likely stem from India's high infectious disease burden and persistent gaps in sanitation and healthcare access, leading participants to view prevention as the most practical way to reduce antibiotic use and resistance. Deliberation also increased AMR knowledge and reinforced confidence in collective, community-level solutions over purely technical fixes.

Top 5 Policy Proposals Supported by Participants in India

Rank	Policy Proposal
1	Everyone should have access to clean water and safe sanitation (WASH) in their community and health system.
2	Hand hygiene and infection prevention should be part of the standard curriculum in schools from the start of schooling through to graduation.
3	National governments should prioritise infection prevention tools (clean water, safe sanitation and vaccination) to reduce the burden of infectious diseases.

4	Specific government funding should go to healthcare facilities to ensure that all have access to clean water for hand hygiene.
5	Immunization for WHO-recommended childhood vaccination should be scaled up towards universal/full coverage, to capture all children.

After deliberation, Indian participants strongly favored infection prevention as the core strategy for addressing antimicrobial resistance. Near-universal support for clean water, sanitation (WASH), and hand hygiene reflects the belief that these are basic public goods and essential to reducing infections before antibiotics are needed. Proposals to fund clean water access in healthcare facilities and tie hospital accreditation to hygiene standards resonated, signaling concern about structural gaps in sanitation and infection control.

Education and vaccination were also central. Participants endorsed integrating hand hygiene into school curricula and scaling up universal childhood immunization, viewing these as durable, upstream interventions that shape behavior and prevent outbreaks. Finally, Indians supported complementary stewardship measures, such as farm biosecurity, safe antibiotic waste disposal, and public awareness campaigns, favoring systemic prevention and regulation over narrow restrictions on antibiotic access.

Section I: Introduction and Methodology

A. Introduction

India faces one of the world's heaviest burdens of antimicrobial resistance (AMR), with recent estimates attributing roughly close to 1 million deaths per year to drug-resistant infections. By 2023, approximately one in three bacterial infections in human clinical settings showed resistance to commonly used antibiotics, undermining the effectiveness of routine treatments. Rising resistance has been documented most prominently in *Escherichia coli, Klebsiella pneumoniae*, and other priority pathogens, alongside widespread pre-emptive antibiotic use for suspected rather than confirmed infections. Widespread antibiotic use persists despite known risks: As one participant noted, "generally as I have seen in India [if] a person has fever for more than three days, doctors prescribe antibiotics… [despite] knowing it's not good."

Antibiotic pressure extends well beyond human medicine. Extensive use in livestock, poultry, and aquaculture, often for disease prevention and productivity rather than therapeutic necessity, adds further selective pressure, linking human, animal, and environmental reservoirs into a tightly interconnected AMR ecosystem in which resistance can readily emerge and circulate.

India's health system structure intensifies these challenges. Care delivery is highly fragmented, with a large private sector and heavy reliance on informal or semi-formal providers, particularly in rural and peri-urban areas. Uneven access to trained physicians, diagnostics, and laboratories, combined with high out-of-pocket costs, shapes care-seeking behavior and frequently positions antibiotics as a substitute for diagnostic certainty. Pharmacies often function as the first point of care, making strict prescription-only approaches difficult to enforce and potentially harmful without parallel investments in access, prevention, and education.

Economic incentives further reinforce antimicrobial resistance (AMR) pressures in India. High out-of-pocket costs for medical consultations, limited insurance coverage for outpatient care, and demand for rapid symptom relief encourage early and often unnecessary antibiotic use. At the same time, the expansion of intensive poultry and livestock production increases antibiotic consumption in agriculture, amplifying risks through food chains and environmental contamination. These dynamics are compounded by persistent concerns over substandard and counterfeit medicines and weak regulatory enforcement in informal markets, as one deliberator observed: "Over the counter sales from informal sellers are a serious problem."

This creates a bifurcated system in which low-cost, poorly regulated antibiotics are overused early, while effective second-line treatments become prohibitively expensive once resistance develops. Resistance-driven treatment escalation also renders hospital-level antibiotics increasingly unaffordable, reflected through a participant who voiced that, "if you want any type of antibiotics you [can] just spend at least five to ten thousand rupees or just go back to your home and smile." Taken together, AMR in India reflects a systemic outcome of economic constraints, regulatory gaps, and uneven health system capacity, underscoring the importance of prevention, awareness, and quality control in the country's policy response.

B. Deliberative Polling Methodology

Deliberative Polling is a method that measures what public opinion would be if citizens were given balanced information and the opportunity to deliberate before expressing their views. Participants engage with expert-vetted materials, moderated group discussions, and Q&A sessions, allowing them to reflect on policy trade-offs rather than respond to surface-level impressions. This approach is especially valuable for addressing antimicrobial resistance (AMR) in India, the largest lower-middle income country in Asia. Indian AMR is driven by complex factors such as over-the-counter antibiotic access, informal healthcare, agricultural use, and gaps in sanitation and infection prevention. By helping diverse participants connect everyday experiences to long-term resistance risks, Deliberative Polling reveals which AMR policies, such as regulation, prevention, or public education, gain support once the public understands the stakes, improving the legitimacy and effectiveness of health policymaking in India.

For India's deliberative poll, recruitment was handled by YouGov, a professional survey firm. YouGov attempted to assemble a nationally representative sample of Indian citizens through stratified random sampling and online recruitment. The sample was split into a treatment group that participated in the deliberation and a control group that did not deliberate but answered the same questions for comparison.

In India, 231 people participated in the deliberative event (treatment group), while 160 people comprised the control sample. Participants in the treatment group engaged in moderated discussions conducted in Hindi over multiple sessions in mid-2024. The deliberation agenda included expert presentations on AMR and breakout discussions on specific proposals, ensuring that participants could ask questions and consider various perspectives. The process spanned a full weekend, with an introductory session, three thematic discussion sessions, and a concluding plenary. This format mirrored the approach used in the other five countries participating in the global project, adjusted for local context.

Section II: Participant Demographics

The tables below present key demographics of the participants who took part in the Indian AMR deliberation (treatment group).

Distribution of Deliberation Participants by Gender

Gender	Amount	Percentage
Male	156	67.5%
Female	75	32.5%

Distribution of Deliberation Participants by Age

Age Group	Amount	Percentage
18–24	74	32.0%
25–34	76	32.9%
35–44	45	19.5%
45–54	23	10.0%
55+	13	5.6%

Distribution of Deliberation Participants by Education Level

Education Level	Amount	Percentage
Primary or less	15	6.3%
Secondary	149	64.4%
Post-secondary/Vocational	14	6.3%
Tertiary (Bachelor+)	53	23.1%

Distribution of Deliberation Participants by Urbanicity

Location	Amount	Percentage
Urban/Suburban	142	88.7%
Rural	46	11.3%

We noticed a significant imbalance between the proportion of males and females in our sample of Indian participants, even after weighting. While this does not reflect the proportion in the broader population, we found that it may be a result of the proportion of Indian males and females who use social media. Thus, online recruitment efforts may have skewed the recruited sample proportions. According to the Datareportal 2024 report on digital behavior in India, 74.5% of Indian Facebook users are male compared to 25.5% female users, 67.2% of Indian Instagram users are male compared to 32.8% female users, and 85.6% of Indian Twitter users are male compared to 14.4% female users (Digital 2024: India).

Participants ranged from 18 to over 70 years old, but the sample was heavily weighted toward young adults: 64.9% were under age 35 (32.0% aged 18–24 and 32.9% aged 25–34), while only 15.6% were aged 45 or older. This age distribution reflects the online recruitment strategy and higher digital participation among younger Indians. In terms of education, the Indian sample was dominated by secondary schooling. About 64.4% had secondary education as their highest level. Geographically, participants were predominantly urban: 88.7% lived in urban or suburban areas, while 11.3% were from town or rural settings, indicating more limited rural representation relative to the national population.

Section III: Deliberation Analysis

A. Top 10 Proposals in India

In the post-deliberation survey, Indian participants rated 45 policy proposals on a 0–10 scale (from “strongly oppose” to “strongly support”). These represent the initiatives that participants most robustly endorsed once they had discussed and learned about AMR.

1. Everyone should have access to clean water and safe sanitation (WASH) in their community and health system.
2. Hand hygiene and infection prevention should be part of the standard curriculum from the start of schooling through graduation.
3. National governments should prioritise infection-prevention tools (clean water, safe sanitation, and vaccination) to reduce infectious disease burden.
4. Specific government funding should ensure all healthcare facilities have clean water for hand hygiene.
5. WHO-recommended childhood immunization should be scaled up to universal coverage to capture all children.
6. Awareness campaigns should focus on the risks and harms of unnecessary antibiotic use for humans, food security, and the environment.
7. National governments should increase funding for campaigns addressing vaccine hesitancy and improving understanding of vaccination behaviors.
8. Farms should ensure strong infection prevention and biosecurity practices.
9. Hospital accreditation should be linked to infection prevention, such as incorporating hand-washing rates.
10. National certification standards should regulate antibiotic manufacturing waste and outflow, with penalties for noncompliance.

B. Proposal Analysis

1. Universal Access to Clean Water and Sanitation (WASH)

The most supported proposal among Indian participants was ensuring that all citizens have access to clean water and safe sanitation in their community and health system. Support for this proposal was deeply significant and remained consistently high throughout the deliberation, beginning at an average support of 9.24/10 pre-deliberation to 9.48/10 post-deliberation. Participants treated WASH as a foundational public health measure rather than a contested policy option, and there was no meaningful opposition or decline in support.

Participants supported the proposal because they clearly understood WASH as a preventive intervention that reduces disease and, consequently, the need for antibiotics. Unsafe water and poor sanitation were repeatedly linked to the spread of infectious diseases, which participants saw as a direct driver of antibiotic use and misuse. One participant summarized this logic succinctly: “if people have access to clean water, there won't be any need for any sickness and they won't be made for antibiotics.” This quote reflects a broader consensus that prevention through basic infrastructure is more effective than relying on downstream medical treatment. Responsibility for

implementation was placed on the government, with participants framing WASH as a state obligation tied to public welfare.

2. Hygiene and Infection Prevention in School Curriculum

The second most supported proposal among Indian participants was the integration of hand hygiene and infection prevention into the standard school curriculum, beginning in early schooling and continuing through graduation. Support for this proposal increased from an already high 8.82 out of 10 pre-deliberation to 9.31 post-deliberation, indicating that discussion and exposure to evidence further strengthened participants' endorsement. Schools were widely viewed as a strategic site for early intervention, particularly given India's high infectious disease burden and the long-term benefits of instilling preventive behaviors at a young age.

Proponents emphasized that children are especially receptive learners and can function as agents of change by transferring hygiene knowledge and practices into their households and communities. One Indian participant highlighted that the most effective interventions would target "education institutes as well as social media," noting that awareness campaigns in these spaces "can influence people very easily." Many participants argued that schools have a responsibility to teach hygiene precisely because not all children receive this education at home. The COVID-19 pandemic was frequently cited as a powerful reminder of the importance of sustained hygiene practices and the risks of complacency once acute crises subside.

3. Prioritize Infection Prevention Nationally

Participants strongly supported prioritizing infection prevention tools, viewing clean water as the most critical component. Several argued that without it, other public health programs are rendered ineffective, with one stating, "if we still use unclean water, those programs from the government or the WHO about vaccination and anti-microbials are useless." This preventative approach was described as a cost-effective, "long-term investment" that would reduce the burden of infectious diseases and decrease mortality rates in both humans and animals. A key benefit identified by many was that preventing infections through clean water and vaccination would reduce the need for antibiotics.

While there was broad agreement on the importance of prevention, some participants raised concerns. The cost of purchasing and distributing supplies was noted as a potential barrier, along with the need to "educate the public on the correct usage." A few participants questioned the emphasis on vaccination, suggesting that good nutrition was a better path to health. Others pointed to systemic issues like corruption, arguing that the main problem is not a lack of investment but the "misuse of what is invested."

4. Clean Water for Healthcare Facilities

Participants supported specific government funding to ensure healthcare facilities have clean water for hand hygiene. They described hospitals as places with a high risk of infection transmission and stressed the importance of hygiene to protect patients, particularly vulnerable individuals like. One participant put it strikingly, "Imagine carrying a newborn baby with contaminated hands." Several participants reported that many hospitals, especially public or rural ones, currently lack basic amenities. One stated, "when you go to some hospitals, particularly general hospitals, most of them don't even have hand washers in their bathrooms." Another observed that hygiene practices have lapsed since the pandemic, noting that “it is now a matter of shaking hands and hugging. So they forgot about it like everything else."

Concerns about this proposal centered on implementation in under-resourced settings. Participants pointed out that rural clinics are often understaffed, and workers may not have "time to concentrate on hygiene." Securing adequate government support to improve infrastructure was also seen as a significant challenge. One participant suggested that programs focused only on facilities might not be effective without also engaging the broader community.

5. Universal Childhood Vaccination

There was overwhelming support for scaling up childhood immunization to achieve universal coverage. Participants viewed it as a fundamental tool for public health, stating it has been “proven to significantly reduce morbidity and mortality caused by infectious diseases.” The primary benefits cited were protecting children from illness, disability, and death, reducing child mortality rates, and building a strong immune foundation for the future. Many saw it as a crucial way to “reduce the need for antibiotics.” Despite acknowledging that immunization is expensive, participants felt it was a worthwhile investment because “prevention is better than treating or recovering from something that has already happened.”

However, several significant barriers were identified. The high cost of vaccines was a primary concern, with one participant noting it “discourages some people from getting their children immunized.” Logistical challenges, such as ensuring equitable distribution across large and remote areas, were frequently mentioned. Participants also highlighted parental hesitancy, driven by fears of side effects and misinformation, which can “make parents worry about whether or not their child needs to be immunized.” A few participants expressed personal skepticism, with one arguing it is better to “focus on

improving nutrition and strengthening the children's own immune systems." To overcome these challenges, participants emphasized that government funding is necessary and that public education is needed to build trust and awareness.

6. Public Awareness Campaigns

This proposal called for expanding public awareness campaigns on the human, environmental, and food-system harms of unnecessary antibiotic use, with a strong emphasis on discouraging non-prescription consumption. Support for this proposal remained high and stable before and after deliberation, reflecting broad agreement that behavioral misuse—rather than access alone—is a core driver of antimicrobial resistance (AMR).

Participants supported this approach because they viewed awareness as a community-level responsibility, not solely a task for governments or hospitals. Several emphasized the role of trusted local actors in changing behavior, especially in rural areas: "NGOs should increase awareness in rural areas so people do not consume the wrong antibiotics," and "Self help groups and anganwadi workers should be made part of this movement." These quotes suggest that participants saw information deficits—rather than willful negligence—as a key cause of misuse, and believed that locally embedded messengers could shift norms around prescriptions and dosage adherence.

In the context of India, this emphasis reflects persistent gaps in healthcare access, widespread over-the-counter antibiotic availability, and high trust in informal or community health networks. Participants repeatedly stressed collective responsibility—"it's not only for government… it is everyone's responsibility"—indicating that effective AMR responses must align public education with India's decentralized health landscape, where community workers often shape everyday medical decisions more than formal institutions.

7. Increase Funding for Vaccine Awareness

There was broad support for national governments increasing funding for vaccine awareness campaigns. Participants saw this as a crucial government responsibility, arguing that "awareness is a very important issue" for public health. A primary driver for this support was the need to combat widespread misinformation, which participants noted had intensified since the COVID-19 pandemic. They described how "the spread of hoaxes about microchips and other misinformation" and "fake news" have fueled fear and distrust, leading to the re-emergence of eradicated diseases like polio and measles.

Many participants believed that “effective campaigns can foster trust in all these vaccines and the Health Care system at large.” This was seen as necessary to counter a “deep public distrust of the government itself” and skepticism about the motivations behind vaccination programs. Participants also highlighted a fundamental lack of public education, stating that “many people don't even have knowledge about vaccines that much.” They argued campaigns are needed to explain that vaccines are a “preventive thing which will help, which will prevent the disease to happen” and can also “reduce the use of antibiotics in the long term.”

To be effective, participants suggested campaigns must be tailored and use trusted messengers. They recommended involving “competent institutions and individuals,” including “religious leaders, traditional rulers,” community health workers, and influencers, as relying solely on the government “might be insufficient.” Outreach should use a variety of channels, from social media and television to direct community engagement like seminars and door-to-door visits. The content of these campaigns should be transparent, explaining potential side effects and providing “proven scientific results” to build confidence.

A minority of participants expressed reservations. Some were “pessimistic when it comes to the government,” fearing that increased funding would lead to corruption or become a “political investment.” To mitigate this, one person suggested a “monitoring team who are not going to be biased.” Others argued that funding should prioritize vaccine access over awareness, as it is “more about funding to get the vaccines to these countries than raising awareness.” A few participants also suggested that awareness campaigns alone are insufficient and that mandates may be necessary because some people only act when “forced.”

8. Strengthen Farm Infection Prevention

The proposal that farms should ensure strong infection prevention and biosecurity received broad and increasing support from participants, with mean approval rising from 8.73 pre-deliberation to 9.05 post-deliberation. Participants viewed farm-level biosecurity as a foundational public-health measure, particularly given the role of agriculture in zoonotic disease transmission and antimicrobial resistance.

Support was driven by concerns that environmental contamination and poor waste management on farms directly undermine human health protections. As one participant noted, “Bioproduction waste contaminates the environment,” while another emphasized that downstream interventions are ineffective if upstream food systems remain unsafe: “There’s no point in getting vaccinated, taking precautions and taking care of ourselves

if the food is coming contaminated, right?" Participants argued that improved biosecurity—such as clean farm environments, proper waste disposal, safe water sources, separating sick animals, and locating farms away from residential areas—would reduce disease spread and lower reliance on antibiotics. At the same time, they acknowledged implementation challenges, particularly the high costs for small-scale farmers and difficulties in monitoring numerous small farms, underscoring the need for farmer education, financial support, and strict, non-corrupt government oversight to ensure compliance.

9. Hospital Accreditation

The proposal that hospital accreditation should be linked to infection-prevention performance, for example, incorporating hand-hygiene compliance rates and systematic monitoring of antibiotic use into accreditation criteria, received strong and rising support among participants. Mean support increased from 8.69 pre-deliberation to 9.05 post-deliberation, indicating that learning and discussion reinforced the view that infection prevention should be institutionally enforced rather than left to voluntary compliance or individual behavior.

Participants supported this proposal because it creates accountability and standardization within healthcare systems. Tying accreditation to measurable practices like hand-washing rates was seen as a way to ensure that infection prevention is treated as a core institutional responsibility, not an optional best practice. As one participant emphasized, "Monitoring is necessary so that there is a proper record of antibiotic use," underscoring that even though Indian participants generally ranked surveillance-based proposals lower than infection-prevention measures, they still viewed monitoring and documentation as essential prerequisites for responsible antibiotic stewardship.

10. Regulate Antibiotic Manufacturing

The proposal that national certification standards should govern the manufacture of antibiotics in all countries, including strict requirements for safe waste and effluent disposal with penalties for noncompliance, was widely supported by participants. Mean support increased from 8.73 pre-deliberation to 9.03 post-deliberation, indicating that deliberation reinforced concern about the environmental dimensions of antimicrobial resistance.

Participants emphasized that unregulated pharmaceutical waste directly contributes to resistance development in the environment, framing disposal standards as a preventive necessity rather than a secondary regulatory issue. As one participant noted, "If waste is not regulated, it increases resistance in bacteria," while another stressed the need for

enforceable rules, stating, “There should be standards for disposal of antibiotic waste.” Others highlighted the long-term consequences of regulatory failure, warning that “Unregulated disposal means we have to develop new antibiotics again and again,” reflecting an understanding that environmental mismanagement accelerates resistance and undermines the sustainability of existing treatments.

C. Distinctive Patterns in Colombia’s Results

India stood out statistically in its strong emphasis on awareness and education–based proposals. Three of India’s top ten proposals focused on awareness and education, more than any other country in the study, making India the country where these approaches were most consistently prioritized. While education-related measures appeared across countries, they rarely dominated top rankings to the same extent, indicating a distinctive national pattern rather than a general global trend. This emphasis likely reflects India’s context of widespread antibiotic misuse, self-medication, and uneven access to formal healthcare. In such settings, participants viewed awareness and education as the most feasible and scalable tools for changing behavior where regulation and enforcement are limited.

Section IV: Knowledge Gains

Participants were tested on six knowledge questions about antibiotics and antimicrobial resistance (AMR) before and after deliberation. On average, the share of correct answers across the six questions increased by approximately 17.5 percentage points from pre- to post-deliberation among Indian participants. This placed India second overall in terms of knowledge gains. Nigerian participants showed the largest average increase, at 30.6 percentage points, while Tanzania, Colombia, Brazil, and Indonesia saw more modest gains, ranging from 3.6 to 7.1 percentage points. India’s more moderate gains likely reflect relatively high baseline awareness and a deliberative focus on practical application rather than technical detail. Participants expressed confidence in their understanding of AMR, suggesting deliberation reinforced and contextualized existing knowledge. For policy, this indicates that AMR efforts in India should prioritize translating awareness into action.

Section V: Political Efficacy

Deliberation produced a mixed but overall efficacy-enhancing pattern among Indian participants, combining gains in internal agency with more tempered views of external

political responsiveness. On one hand, Indians exhibited one of the strongest increases in personal and community-level efficacy across all six countries. Agreement with the statement “I have the ability to create change in my community” rose by 10 percentage points, from 77.9% to 87.9%, representing the largest positive shift observed for this item in the study.

Similarly, pessimism regarding influence over AMR declined substantially: agreement with “People like me can’t do much about antibiotic resistance” fell from 66.5% to 53.9% (–12.6 percentage points), indicating increased confidence that collective or individual action can address the problem. While this decline was smaller than the reductions observed in Colombia (–15.2 percentage points) and Brazil (–14.8 percentage points), it was larger than the shifts observed in Nigeria and Tanzania, indicating a comparatively strong, though not maximal, deliberative effect on political efficacy in the Indian context.

Political cynicism also decreased, as agreement with “People like me don’t have any say about what the government does” dropped by 13.4 percentage points, from 74.1% to 60.7%, marking one of the largest declines among participating countries and signaling improved perceptions of voice, even if limited. At the same time, external efficacy declined: belief that “Public officials care a lot about what people like me think” fell by 7.5 percentage points in India (66.1% to 58.6%), a pattern shared with Brazil (–5.7 pp) but contrasting sharply with Tanzania’s post-deliberation surge.

Taken together, these shifts suggest that deliberation in India strengthened self-efficacy and problem-specific agency while simultaneously encouraging a more realistic or skeptical appraisal of elite responsiveness, producing an efficacy profile rooted less in trust in officials and more in perceived bottom-up and community-level capacity.

Section VI: Demographic Differences

A. Age

India’s sample skewed relatively young, with 64.9% of deliberation participants under age 35 (32.0% aged 18–24 and 32.9% aged 25–34), while only 15.6% were aged 45 or older. Prior to deliberation, age was not a significant predictor of mean proposal rating for any proposals. After deliberation, for 4 out of 45 proposals, an increase of year in age was associated with increases in mean proposal ratings ranging from 0.016 to 0.031. Three of the proposals dealt with awareness and education: “Hand hygiene and infection prevention should be part of the standard curriculum in schools from the start of schooling through to graduation,” “Awareness campaigns should focus on the risks

and harms of taking unnecessary antibiotics on humans, food security, and the environment," and "National governments should increase funding for awareness campaigns into vaccine hesitancy and improving understanding about people's behaviours relating to vaccination."

These patterns suggest that younger Indians may already internalize public-health framing through education and digital exposure, while deliberation played a stronger persuasive and reframing role for older cohorts by connecting AMR to lived experiences with healthcare access and sanitation. India's AMR strategies should leverage youth as diffusion nodes, using schools, universities, and digital platforms, while pairing this with deliberative, community-based outreach for older populations (e.g., primary health centers, village meetings), where structured discussion can meaningfully shift attitudes toward prevention-first policies.

B. Gender

Gender-based differences among Indian participants reveal both baseline divergence and post-deliberation convergence on key AMR prevention priorities. Before deliberation, women rated infection-prevention proposals more highly than men, particularly those linked to basic public health infrastructure. For example, women in India rated the proposal "Everyone should have access to clean water and safe sanitation (WASH) in their community and health system" 0.52 points higher on average than men prior to deliberation. Following deliberation, this gender gap closed, with no statistically significant difference between men's and women's ratings, indicating convergence once participants engaged with shared evidence and peer discussion.

Post-deliberation, however, gender differences re-emerged on child-focused health interventions. Women rated the proposal "Immunization for WHO-recommended childhood vaccination should be scaled up towards universal/full coverage, to capture all children" approximately 0.48 points higher than men, even though both groups assigned mean ratings above 9 out of 10, reflecting very strong overall support. This suggests that while deliberation equalized views on broad infrastructural goods like WASH, women maintained a relatively stronger emphasis on preventive interventions tied to caregiving roles and child health.

These findings must be interpreted in light of India's persistent gender imbalance in the sample (67.5% male, 32.5% female), which the report attributes to gendered patterns of social media use and online recruitment rather than true population preferences. For policy implications, India's AMR strategies should explicitly integrate women as frontline health communicators and policy stakeholders.

C. Education

In general, level of education was not a major differentiating factor for participants from India. Higher levels of education were not associated with higher average ratings for any of the proposals before deliberation. However, after deliberation, having a college education or higher was statistically significantly associated on average with a higher rating than having a high school education or lower by 0.82 points on average for the proposal, “Large-scale food suppliers – supermarkets, restaurant chains, intensive farming etc., – should be regulated to promote the use of food produced without routine antibiotics.”

D. Rural vs. Urban

Prior to deliberation, rural participants rated 3 out of 45 proposals higher on average than urban participants. The differences ranged from 0.90 to 1.25 on a 0 to 10 scale. After deliberation, rural participants rated 7 out of 45 proposals higher on average than urban participants. The differences ranged from 0.67 to 1.12, or an average of 0.88 on a 0 to 10 scale. These proposals were different from the set of three proposals with differences pre-deliberation.

These shifts likely reflect structural differences in healthcare access and exposure to infection risks across rural and urban contexts. Rural participants may place greater value on prevention-oriented and community-level interventions once deliberation clarifies how sanitation gaps, informal care, and limited regulation contribute to antibiotic misuse and resistance. From a policy perspective, India’s AMR strategies should prioritize infrastructure and infection-prevention investments in rural areas, such as clean water access, hygiene enforcement, and community health workers, while adopting more surveillance- and regulation-focused approaches in urban settings, where formal healthcare systems are more prevalent.

Section VII: Event Evaluation

Indian participants rated the deliberation process very positively. The briefing materials received a 8.68/10 rating for providing diverse perspectives, and the expert panels earned 8.88/10 for introducing different viewpoints. Importantly, participants reported low levels of pressure to agree. Across all countries, the statement, “I felt pressured to agree with others' ideas or arguments” only received a 4.35 average rating, suggesting that the deliberation platform successfully maintained balanced, civil discourse. The overall satisfaction rating of 8.95/10 for Indian participants indicates that deliberators found the process valuable and engaging."

This work was supported by Wellcome [226689] and Novo Nordisk Foundation [NNF24SA0092600].

To find out more, please visit:
https://deliberation.stanford.edu/
https://thetrinitychallenge.org/