



The Global Antibiotic Resistance Partnership (GARP)

About GARP

The Global Antibiotic Resistance Partnership (GARP) works to establish country-led responses, formulated by working groups of national experts and policymakers, to the growing threat of antibiotic resistance in low- and middle-income countries. The ultimate aim is to develop proposals that constitute a national strategy for antibiotic use in both humans and animals, reaching for the greatest benefit and the lowest resistance levels.

Between 2008 and 2011, GARP Phase 1 was established in four countries: India, Kenya, South Africa and Vietnam. The expertise and capacity developed in these countries is helping to support the added Phase 2 countries, which are Mozambique, Nepal, Tanzania and Uganda. The GARP secretariat will continue to engage collaboratively with working groups and partner organizations in each member country, strengthening ties among countries and involving them in global initiatives beyond GARP.



Nationally representative GARP working groups have been constituted in each participating country, seated at academic and parastatal institutions and including members from all sectors and relevant professions. The working groups have developed national situation analyses specific to antibiotics, including access, resistance, supply chain, and use in human medicine and animal husbandry. From this baseline, they have begun working through a systematic, evidence-based policy development process, using both local and global evidence. Where local evidence is nonexistent, targeted research projects have been funded to provide pilot-level information and elucidate further issues and research directions.

GARP Phase 1 culminated in the 1st Global Forum on Bacterial Infections: Balancing Treatment Access and Antibiotic Resistance on October 3-5, 2011, in New Delhi, India. This international meeting brought together more than 400 delegates from 38 countries to share recent research and debate policy solutions for extending antibiotic access to those without it while at the same time maintaining a focus on antibiotic resistance.

GARP is a project of the Center for Disease Dynamics, Economics & Policy (CDDEP), funded by the Bill & Melinda Gates Foundation.

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GARP Research

Examples of Research from GARP Phase 1

- Assessing pharmacy and healthcare institution antibiotic dispensing patterns in rural Tumkur, Karnataka, in India.
- Connecting the use of antibiotics in livestock with the antibiotic resistance profile of bacteria in food animals destined for human consumption in Kenya.
- Surveying attitudes and practices related to antibiotics, as well as wholesale and retail drug prices, in public, private and mission hospitals in Kenya.
- With Ministry of Health collaboration, establishing an antibiotic use and resistance surveillance program in 19 hospitals in Vietnam.
- Identifying economic incentives, pharmacy practices and profitability associated with selling antibiotics in 15 urban and rural community pharmacies in Vietnam.
- Analyzing multidrug-resistant *Vibrio cholerae* O1 strains from epidemic cholera patients in Hanoi, Vietnam, between 2007 and 2010.
- Using an internet survey to gather information on colistin use around the world.
- Developing a pneumococcal disease model – PneuMOD – to predict the likely effects of interventions on disease burden and on antibiotic resistance.
- Creating a drug resistance index (DRI) that aggregates resistance and antibiotic use patterns to assess and communicate overall trends in antibiotic resistance over time.

About the Center for Disease Dynamics, Economics & Policy (CDDEP)

The Center for Disease Dynamics, Economics & Policy (CDDEP) combines expertise in economics, epidemiology, disease modeling, risk analysis, and statistics to produce evidence-based, actionable, policy-oriented studies.

The products of CDDEP's work go beyond academic research to models that inspire new strategies for analysis and encourage cross-fertilization between developed-country and developing-country research. Founded in 2010, CDDEP conducts research from bases in Washington, D.C. and New Delhi and collaborates with a distinguished team of academics and policy analysts around the world.