CDDEP THE CENTER FOR Disease Dynamics, Economics & Policy
WASHINGTON DC • NEW DELHI

September 06, 2018
FOR IMMEDIATE RELEASE

For more information and materials:
Jess Craig
communications@CDDEP.org

GOOD GOVERNANCE, CLEAN WATER, & SANITATION NECESSARY TO CURB GLOBAL ANTIBIOTIC RESISTANCE

New analysis shows countries with higher corruption and less spending on public health infrastructure have higher rates of antibiotic resistance

Washington DC - An international team of researchers from CDDEP, Australian National University and Cardiff University and the Monarch Institute has published a new study showing that the proliferation of disease-causing antibiotic resistant organisms is correlated with many social and environmental factors such as poor sanitation, unsafe water and higher incomes. The results have been published in Lancet Planetary Health.

The study, which was based on economic and public health data from 73 countries, found that better infrastructure and better governance were significantly associated with lower measures of antimicrobial resistance. Good governance includes lower corruption, political stability, rule of law, and absence of violence; while infrastructure measures include sanitation, safe water, internet accessibility, urbanization, and access to electricity. Improving sanitation, increasing access to clean water, and ensuring good governance, plus increasing public health expenditures, all need to be addressed to reduce global antimicrobial resistance, say the authors of the paper.

Although the use of antibiotics is commonly known to drive the emergence and maintenance of antimicrobial resistance, the team found that antibiotic consumption was not significantly associated with higher antimicrobial resistance. Reducing antibiotic consumption is insufficient to control antimicrobial resistance because contagion--the spread of resistant strains--seems to be the dominant factor.

"While reducing antibiotic consumption is important, we have to remember that resistance genes are already widely disseminated in the environment," according to Ramanan Laxminarayan, one of the study's authors. "Preventing transmission of resistant pathogens through investments in improved water and sanitation, and primary healthcare are central to our ability to tackle antimicrobial resistance."

"There are not magic bullets here," Laxminarayan said. "Any new antibiotic will run into the same challenges as existing ones and resistance will emerge rapidly unless we take the problems of improving the health system head on."

The article titled, “Anthropological and socioeconomic factors contributing to global antimicrobial resistance: a univariate and multivariable analysis” was published on September 1, 2018 in *The Lancet Planetary Health* and is available online here.

###

1400 Eye Street NW, Suite 500
Washington, DC 20005
p 202 939 3300 | **f** 202 328 5170
WWW.CDDEP.ORG

CDDEP THE CENTER FOR Disease Dynamics, Economics & Policy
WASHINGTON DC • NEW DELHI

About the Center for Disease Dynamics, Economics & Policy

The Center for Disease Dynamics, Economics & Policy (CDDEP) produces independent, multidisciplinary research to advance the health and wellbeing of human populations around the world. CDDEP projects are global in scope, spanning Africa, Asia, and North America and include scientific studies and policy engagement. The CDDEP team is experienced in addressing country-specific and regional issues, as well as the local and global aspects of global challenges, such as antibiotic resistance and pandemic influenza. CDDEP research is notable for innovative approaches to design and analysis, which are shared widely through publications, presentations and web-based programs. CDDEP has offices in Washington, D.C. and New Delhi and relies on a distinguished team of scientists, public health experts and economists.

1400 Eye Street NW, Suite 500
Washington, DC 20005
p 202 939 3300 | **f** 202 328 5170
WWW.CDDEP.ORG