

Written Evidence on the Effectiveness of UK Aid

On behalf of the Global Antibiotic Research and Development Partnership (GARDP - www.gardp.org), we are pleased to submit this written evidence and contribute to the International Development Committee's inquiry into the effectiveness of UK Aid and the Government's Integrated Security, Defence and Foreign Policy Review.

GARDP is a not-for-profit organization developing new treatments for drug-resistant infections that pose the greatest threat to health. Established by the World Health Organization (WHO) and the Drugs for Neglected Diseases *initiative* (DNDi) in 2016, GARDP is a core element of WHO's Global Action Plan on Antimicrobial Resistance. We were created to ensure that everyone who needs antibiotics receives effective and affordable treatment, no matter where they live and aim to develop five new treatments by 2025 to fight drug-resistant infections, focusing on sexually transmitted infections, sepsis in newborns and infections in hospitalized adults and children. GARDP is funded by the governments of Germany, Luxembourg, Monaco, Netherlands, South Africa, Switzerland, the United Kingdom, as well as Médecins Sans Frontières and private foundations.

The five new treatments GARDP is developing are focused on the drug-resistant bacteria identified by WHO as posing the greatest threat to health and urgently requiring new antibiotics. We are calling on governments, philanthropic, private and public organizations to fund this ambitious programme and require GBP 435 million to do so. The UK has, to date, funded GARDP through DFID funding during its incubation period at DNDi and for specific programmes for a total of GBP 13.5M over 6 years. GARDP's partnership with the UK to address AMR is a priority from both a domestic and international perspective. The UK Government's contribution to GARDP is designated as official development assistance (ODA).

Health Security and Antimicrobial Resistance

Antimicrobial resistance (AMR) occurs when microbes, including bacteria, viruses, fungi and parasites, no longer respond to the drugs that would normally kill them, such as antibiotics. This leaves us powerless to treat what are often routine infections. The World Bank has warned that AMR could be as damaging to the global economy as the 2008 financial crisis, where 28.3 million more people will fall into extreme poverty and global healthcare costs will increase by up to \$1 trillion per year.

The discovery of antibiotics transformed our world. Thanks to the arrival of these powerful medicines, once-deadly infections such as pneumonia and sepsis caused by bacterial infection are now treatable, and life-saving medical procedures such as surgery and cancer chemotherapy can be carried out safely. In the space of a century, millions of lives have been saved and well-being radically improved. We have become so reliant on antibiotics that life without them is unthinkable – and yet, this is fast becoming today's reality. Antibiotics have been used so extensively and inappropriately that many are losing their ability to defeat bacteria. Every year, drug-resistant superbugs are responsible for 700,000 deaths worldwide; without urgent action, this number will increase exponentially.

Just like COVID-19, antibiotic resistance is a health security crisis that moves silently within populations and knows no boundaries. This is a global concern where no single country, company or organization can fight drug resistance alone. Resistant bacteria can spread with ease across

countries and regions. They can infect anyone, of any age, but it is the most vulnerable – women, children, people with weakened immune systems, those living in countries with weaker health systems, and the elderly – who are hit first and hardest.

The coronavirus disease (COVID-19) pandemic has shown how a virus can disrupt health systems, economies and threaten vulnerable populations. It has also highlighted the critical importance of pandemic preparedness particularly the need to invest in R&D for new diagnostics, treatments and vaccines.

GARDP recently announced a collaboration to accelerate the development of, and access to, an antibiotic for serious bacterial infections (SBIs). SBIs are among the major causes of death and disability for people of all ages in hospitals and healthcare settings and drug-resistance is making these infections increasingly difficult to treat. WHO has identified carbapenem-resistant *Enterobacteriaceae*, *Acinetobacter baumannii* and *Pseudomonas aeruginosa* as ‘critical-level’ pathogens posing the greatest threat to global health and urgently requiring new treatments and GARDP is responding to that by launching its first clinical project on SBIs in adults and children with limited or no treatment options at present.

Bacterial infections are an important co-morbidity during normal times / non-pandemic settings, and the link that is emerging during the current crisis, where some patients may be succumbing to opportunistic bacterial infections in intensive care units, is very troubling. Antibiotics are in high demand and their increased use, coupled with disrupted supply chains, could lead to critical shortages. Longer term, the pandemic’s economic fallout must not divert resources away from antibiotic research and development, which is already drastically underfunded.

We know that antimicrobial resistance is a health security issue in its own right which, unaddressed, will continue to get worse and that there is a critical need to support R&D, access and stewardship efforts. However, with COVID-19 the role of antibiotics as the bedrock of the health system has become even more important. GARDP will focus its efforts on accelerating new treatments that will eventually support or replace those being used during the current pandemic and provide treatments for secondary and hospital-associated bacterial infections, including during future pandemics, such as complicated urinary tract infections, hospital-acquired pneumonia and sepsis.

Timeline of global activity and events related to AMR

- 2015: WHO releases the Global Action Plan on Antimicrobial Resistance, calling for governments to develop National Action Plans.
- 2016: the United Nations General Assembly holds the first high-level meeting on AMR, passing a political declaration for action
- WHO and DNDi agreed to found GARDP
- Tackling Drug-Resistant Infections Globally: Final report and recommendations, chaired by Lord Jim O’Neill, is published
- 2017: AMR is prioritised by the G20, under the German Presidency. GARDP has been named in all health ministers’ communiqués since 2017
- 2018: 100 countries have drawn up a national action plan on AMR, and a further 67 have plans in progress
- 2019: The Interagency Coordination Group (IACG) on AMR launches its report, *No Time to Wait: Securing the Future from Drug-Resistant Infections*
- The World Health Assembly Adopts a Resolution on AMR

- 2020: Lancet Infectious Diseases Commission Report concludes efforts have been inconsistent, and sustained funding for globally harmonised targets to monitor progress is still urgently needed

The UK and GARDP's Response

In response to the growing crisis, GARDP has set its “5 BY 25” goal, which seeks to develop five new treatments by 2025 to tackle drug-resistant infections that pose the greatest threat to global health and economic security. It is an ambitious goal, but one that we can achieve if we act now, collectively and with urgency.

For many years, UK Aid (through DFID) has contributed to investments across R&D for new and improved tools (drugs and diagnostics) and implementation of treatment and prevention programmes. These new health tools are critical components for progress towards achieving the Sustainable Development Goals, and particularly SDG3 to ensure healthy lives and promote well-being for all at all ages, and the specific target of by 2030, end[ing] the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat[ing] hepatitis, water-borne diseases and other communicable diseases. DFID's strategic approach has made a lasting impact in the global health landscape. It has helped cement the UK role as a key leader and champion of global health and, more recently, other government departments are further reinforcing this leadership role, particularly in the AMR space.

In 2019, the UK Collaborative on Development Research (UKCDR) published a report: Antimicrobial Resistance in International Development: UK Research Funding Landscape. The report analysed information on joint initiatives by leading global research funders based in the UK related to combatting AMR in low and middle-income countries (LMICs). The report found that the UK plays a leading role in international development efforts to combat AMR in LMICs through R&D and that UK and co-funded international development research-related initiatives on AMR such as DFID's support for development of new products including through Product Development Partnerships (PDPs), or the Global AMR Innovation Fund (GAMRIF), a part of DHSC's Global Health Security programme. With regards to research agendas and priorities specifically for LMICs and international development and how the UK is responding, the report highlighted that the UK and LMICs do share common research gaps and priorities but also have divergent needs and that solutions to these may vary across country contexts.

This is reflected in how Overseas Development Assistance (ODA) funding is used to support R&D for antibiotics. GAMRIF is an R&D fund with the goal of fostering innovations to tackle AMR for the benefit of people in LMICs. GAMRIF targets neglected and underinvested areas of AMR R&D in humans, animals and the environment. Through international collaboration, GAMRIF also aims to stimulate investment in AMR R&D globally from governments and the private sector.

The UK has also shown global leadership in AMR for a number of years. There have been investments and strategies, and a strong focus on policy from the Chief Medical Officer for England – now the UK's Special Envoy on AMR - to put AMR on the global agenda. In recent years there was a deliberate strategy to focus on previously neglected bacterial diseases and antibiotic resistance.

GARDP fully supports the immediate objectives under initiatives such as the Access to Covid-19 Tools (ACT) Accelerator are to prevent further illness, deaths, and social and economic devastation from the current COVID-19 outbreak. Over the longer term, investments should also help to put in place a pandemic response system that is fit for purpose in handling the inevitable outbreaks of the future.

Given what we know about the use of antibiotics during the current (and future) pandemics, as well as the well-established knowledge of the “slow-moving” pandemic of AMR, these longer-term preparations must involve antibiotics.