

Special Report **FT Health: Communicable Diseases****Disease control and prevention**

How to spread the word about antibiotic resistance

The FT is working with the Wellcome Trust to raise awareness of a growing threat



A Petri dish of drug-resistant bacteria. Such microbes pose a growing threat to public health © Richard Drew/AP

Clive Cookson OCTOBER 19 2020

For most health professionals working with communicable diseases, the greatest fear for the future is antimicrobial drug resistance. [AMR](#) already kills an estimated 700,000 people a year and could claim as many as 10m lives a year by 2050, according to a memorable series of reports for the UK government by the economist [Jim O'Neill](#).

Covid-19 can easily be seen as a setback for the AMR campaign, both because the pandemic is a distraction and because it has led many doctors to prescribe large quantities of [antibiotics to coronavirus patients](#) in the hope that they will suppress secondary bacterial infections, particularly in the lungs. But it is precisely such wholesale use of antibiotics that is enabling bacteria to evolve resistance to them.

A more positive view is that the pandemic has made people so much more aware of infectious diseases that it should be possible to turn the world's attention to the threat posed by bacteria as well as viruses.

To take advantage of the opportunity, the Financial Times plans with support from the [Wellcome Trust](#) to make a video that puts across the problem of growing antibiotic resistance — and possible solutions — to the public. We held a workshop last month to look at the challenges involved in communicating about AMR.

Clinicians and researchers warned us not to underestimate public ignorance about AMR's causes, which goes deeper than confusion between viruses — non-cellular infectious agents that can only reproduce inside living organisms — and bacteria, which are single-cell microbes capable of independent existence.

Professor Nick Feasey of the Liverpool School of Tropical Medicine said: “Most people in rural Malawi have no concept of the germ theory of disease.”

But, he added, there is a common misunderstanding in the UK too about the fundamental nature of AMR. Many people think wrongly that resistance occurs in human cells rather than in the microbes infecting them.

Becky McCall, a medical journalist researching AMR through storytelling at the Institute of Health Informatics at University College London, made a similar point. “Most people in my focus group thought that AMR is something that happens to your body. It becomes [resistant] to the drugs,” she said.

Prof Feasey objected to the widespread warlike image of humanity fighting a war against microbes. Better to think of ways of restoring a more natural balance between humanity and bacteria, he said.

Current messages about antimicrobial resistance often focus on projections and catastrophic warnings of a future superbug “apocalypse”. However, Wellcome's [research on public attitudes](#) to AMR has found this to be less effective than focusing on the current impact. Projections many years ahead lead people to think of AMR as an important issue but not one that demands immediate action.

“The projections in Jim O'Neill's report of 10m deaths a year in 2050 tend to be dismissed [by the public] as hyperbolic,” said Jeremy Knox, Wellcome's policy and advocacy lead on drug-resistant infections. “They are startling figures but they do not promote engagement.”

Tim Jinks, head of Wellcome's drug resistant infections priority programme, pointed out that, while people usually think of antibiotic overprescribing in primary care, with general practitioners handing out drugs to patients with sore throats who do not need them, the harmful effects of AMR are felt today mainly in hospitals.

“We need people to realise that it is already causing shocking outcomes in the world’s hospitals — in neonatal units, intensive care and elsewhere,” said Alison Holmes, professor of infectious diseases at Imperial College London.



A family visits a patient at an intensive care unit in Australia. Antimicrobial resistance is already complicating treatment in ICUs © Ian Waldie/Getty Images

While Covid-19 is a fast-moving pandemic driven by a single virus, AMR is a slow-moving pandemic driven by multiple pathogens. That makes it far harder for researchers to come up with effective new treatments that will be effective against a broad spectrum of the bacteria that are evolving resistance to existing antibiotics.

Adding to the problem is the failure by governments and the pharmaceutical market to provide sufficient financial incentives for companies to restock the world’s medicine chest, which has not been replenished with new antibiotics for decades.

Policymakers have discussed various ways to fix the market failure. “I have tried to stop talking about ‘pull incentives’,” said Jeremy Knox, Wellcome’s policy and advocacy lead on drug-resistant infections. “Governments get it but it has become a loaded phrase, with suggestions of bunging lots of money at big pharma.

“It’s about establishing dependable and fair incentives for innovators,” he continued. “We should pay for the insurance value of antibiotics, for having them available for use in a small number of patients rather than in volume.”

Anand Anandkumar, chief executive of Bugworks, an Indian start-up developing new antibiotics, said antibiotics should be regarded as essential public infrastructure.

“Antibiotics are the entire edifice of modern medicine — and today it is crumbling.”

“I think we should be talking about preserving a precious resource for humanity,” agreed Prof Holmes.

How the FT video team — and [Nina Dunn](#), the video designer working with them on the project — will present the challenge of AMR remains to be seen. But it is sure to be visually arresting. Stay tuned.

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