The Global Impact of Antimicrobial Resistance

By William Hall
What is the Review on AMR?

- Assessing the economic cost of AMR
- Recommending solutions to governments
- Alongside others, building an international consensus for action

Jim O’Neill, Review Chair
Current cost of AMR

A lack of high quality global surveillance data means the exact impact of AMR is not as well understood as it should be.

However the information we do have from the US Centre for Disease Control, European Union, and others, paint a very worrying picture.
Financial and Human Cost

- 23,000 people die annually in the US already
- 700,000 people die worldwide
- Both of these are conservative estimates
- Estimated to cost the US health care system 20 billion USD a year
Projected future cost

Our projected cost of AMR is based on research that we commissioned from RAND and KPMG
Economic cost of resistance

KPMG
• Resistance rates will rise to 40%
• Hospital acquired infection rates to double

RAND
• Resistance rates rise to 100% in 10 years

All models are wrong but some are useful
George E.P. Box
How AMR compares to other causes of death

- AMR in 2050: 10 million
- AMR now: 700,000 (low estimate)
- Cancer: 8.2 million
- Cholera: 100,000 – 120,000
- Diabetes: 1.5 million
- Diarrhoeal disease: 1.4 million
- Measles: 130,000
- Road traffic accidents: 1.2 million
- Tetanus: 60,000

Review on Antimicrobial Resistance
Tackling drug-resistant infections globally
Economic cost

Total GDP loss
$100.2 trillion

The Review  Cost of AMR now  Projected cost  Solutions  Next Steps
Our solutions to find new antibiotics

- Fund early stage research
- Market entry rewards
- Harmonise regulation, facilitate public trials and reduce duplication
Developing New Diagnostics

- Diagnostics are more expensive than empirical prescribing
- Difficult to show cost and clinical effectiveness
- Difficulty raising capital
Agriculture and the Environment

• Global target to reduce antibiotic use in food production

• Minimum standards to reduce the amount of active ingredients reaching the environment in production

• Improvement in global surveillance
Next steps for Review

1. Vaccines and alternatives – mid February

2. Health infrastructure – March

3. Final report – May
If you are interested to know more please see our reports at AMR-Review.org, where you will also be able to sign up to be on our mailing list.

Or e-mail me on Will.Hall@amr-review.org