



Diagnostics

Addressing the global public health threat of AMR
If it's so obvious, what's delaying progress?

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The need

The problem

- Dx provide benefit in effective treatment of patients and enable better stewardship of health system resources. The translation of ideas for Dx is not realised.

Scale of the problem

- Problem affects all health systems; consequences are most impacting on resource-poor systems

The gaps/challenges hindering progress

- sustainability of *innovation* → *use* is a major problem
- the value of Dx is not fully understood or represented
- misalignment between capability and utility
- value is often not accrued at point of cost
- Innovation processes need to also include end-users and service innovations, the local evidence base needs to be expanded, and guidelines and evaluation processes need to be harmonised
- Need a seamless supply chain and a strengthened health system with implementation and delivery capacity for diagnostic innovation

Opportunity

Addressing the problem

- bring focus and understanding of the **barriers prevent invention, development and deployment** of useful Dx

The desired result

- **New Dx** used in breadth of health systems improving patient outcomes (against rising tide of drug resistance in infectious diseases)
- An effective ecosystem for **inventing, developing and deploying Dx**

Why is Wellcome interested in addressing the problem?

- The needs case and specific wants have been well articulated by others but **there is insufficient progress**

Why now?

- Pressures on health systems can be relieved through effective use of Dx.
- Dx are a critical component of achieving equitable access and stewardship globally.

Diagnostics need to be considered in context

Clinical context

- What is the job to be done

Human factors

- Physician behavior
- Patient attitudes
- Risk tolerance

Health system context

- How are diagnostics taken up and used
- When, and to whom, do costs and benefits accrue
- How is stewardship valued

Tackling drug resistant infections

- There is no single, universal diagnostic approach to will solve AMR
- Technological problem is secondary to the “job to be done”
- Demands a patient-centric approach

Diagnostic strategies - implications

- Should frame information needs
- Require Tx/Dx integration
- Create a path to value stewardship
- Reimbursement, uptake and use are critical to address
 - Need to better identify barriers and identify tools for overcoming them

What can be done

- Demonstrate the value of diagnostics to health systems and purchasers – both economic and clinical value.
- Can serve as coordinated international advocacy.
- Develop new ways for diagnostics to be delivered into care pathways, and trail blaze Dx development which can be used in low and middle-income countries (LMICs).



Thank you

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