

GCCMID Dubai, May 2016

Worldwide initiative to control AMR and role of antimicrobial stewardship

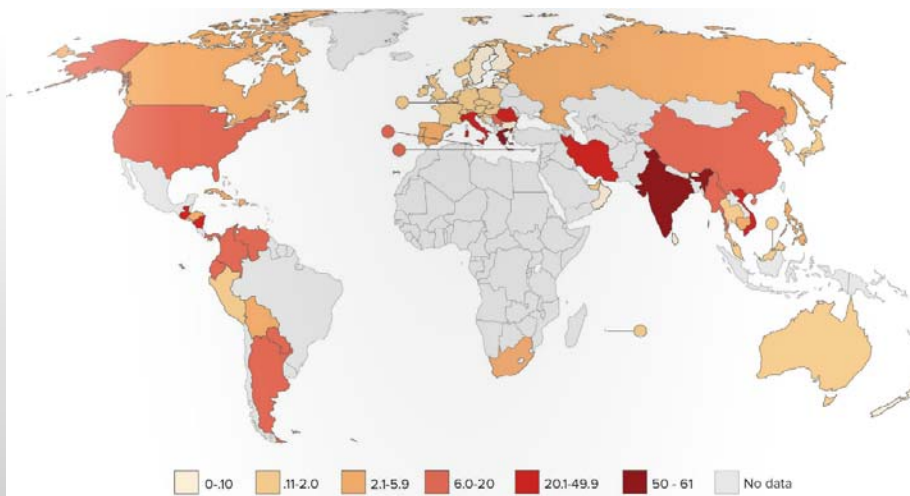
U. Theuretzbacher – Center for Anti-Infective Agents, Vienna, Austria

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Extensively resistant Gram-negatives

Percentage of carbapenem-resistant Klebsiella, 2011-2014



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CDDEP 2015, WHO 2014, PAHO





ReAct

CDC's Antibiotic Resistance Threat Report
GET THE REPORT »

Estimated minimum number of illnesses and deaths caused annually by antibiotic resistance*:
At least **2,049,442** illnesses,
23,000 deaths

*bacteria and fungus included in this report

apocalypse

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From discussion to action



norden

ND/BB ENABLE

TATFAR

DRIVE AB RE-INVESTMENT IN R&D AND RESPONSIBLE ANTIBIOTIC USE

CHATHAM HOUSE The Royal Institute of International Affairs

Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations

ANTIBIOTIC RESISTANCE THREATS in the United States, 2013

imi Innovative Medicines Initiative

World Health Organization

jpiamr Joint Programming Initiative in Antimicrobial Research

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

ReAct Action on Antibiotic Resistance

Global Antibiotic Resistance Partnership

G7 GERMANY 2015 | Schloss Elmau

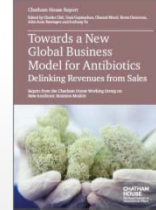
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Convergence of principles



- Better use of existing antibiotics
- Prevention, infection control
- Surveillance
- Education, training
- Stimulate R&D of new antibiotics: innovation + sustainable use and equitable access provisions
- Global collaboration and coordination

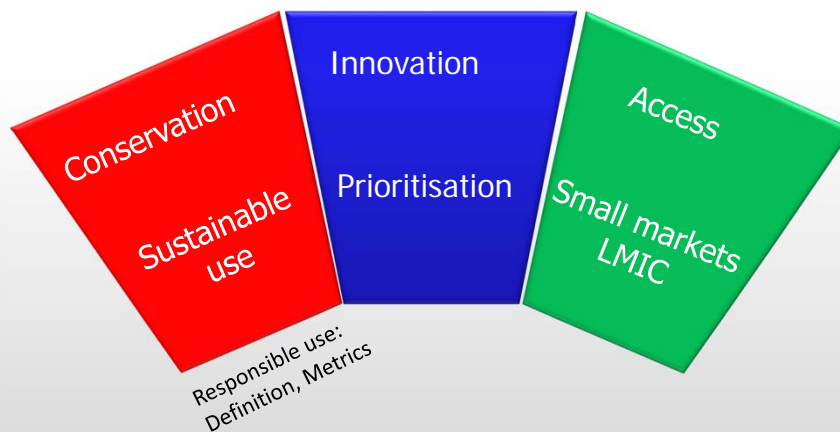


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New economic models

www.drive-ab.eu



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WHO – Global Action Plan AMR



- Improve awareness and understanding
- Strengthen knowledge through surveillance and research
- Reduce incidence of infection
- **Optimize the use of antimicrobial medicines**
- Ensure sustainable investment in R&D



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European Commission Action Plan

- Appropriate use of antimicrobials
 - identify the **key factors that drive the sales and non-prudent use** of antibiotics in human medicine, enforce of the **legal prescription-only** requirement in the EU, document best practices
 - EMA: enforcing of a 'prescription only' policy for antibacterials, update product information
- Strengthen the regulatory framework on **veterinary medicines** and on medicated feed
- Strengthen **infection prevention and control** in healthcare settings
- Develop and/or strengthen **multilateral and bilateral commitments** for the prevention and control of AMR in all sectors
- Strengthen **surveillance systems** on AMR and antimicrobial consumption in human medicine
- **Communication, education and training**: Survey and comparative effectiveness research



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Towards EU guidelines



Preparation of EU guidelines on prudent use of antimicrobials in human health

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One Health Approach



- Broad support for an EU One Health approach
- Setting targets in the EU and in National Action Plans are important
- Ban on the preventive use of antibiotics in animals and firm restrictions on antibiotics that are of critical importance to human health
- Framing of AMR as a health security issue
- Economic benefits and costs of AMR should be addressed

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National Action Plan, USA

- Centers for Medicare and Medicaid Services
 - Will require antibiotic stewardship aligned with CDC's core and new infection control standards in inpatient settings and long-term care facilities
- FDA
 - Remove all growth-promotion uses of medically important antibiotics by the end of 2016
 - Use of medically important antimicrobial drugs under veterinary supervision
- CDC
 - Antimicrobial Use Measure: risk-adjusted summary measure of antibiotic use in hospitals, benchmark for hospitals and health systems to use in antimicrobial stewardship programs
- Departments of Defense
 - Multidrug-resistant organism Repository and Surveillance Network

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CDC: Core elements of a stewardship program

- **Leadership Commitment:** Dedicating necessary human, financial and information technology resources.
- **Accountability:** Appointing a single leader responsible for program outcomes. Experience with successful programs show that a physician leader is effective.
- **Drug Expertise:** Appointing a single pharmacist leader responsible for working to improve antibiotic use.
- **Action:** Implementing at least one recommended action, such as systemic evaluation of ongoing treatment need after a set period of initial treatment (i.e. "antibiotic time out" after 48 hours).
- **Tracking:** Monitoring antibiotic prescribing and resistance patterns.
- **Reporting:** Regular reporting information on antibiotic use and resistance to doctors, nurses and relevant staff.
- **Education:** Educating clinicians about resistance and optimal prescribing.

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CDC: Core elements of a stewardship program

Policies that support optimal antibiotic use

- Document dose, duration, and indication
- Develop and implement facility specific treatment recommendations
- Antibiotic "Time outs"
- Prior authorization
- Prospective audit and feedback

National Action Plan UK

- Reward excellence and quality improvement in the NHS
 - NHS will offer hospitals incentive funding to support **expert pharmacists and clinicians** review and reduce inappropriate prescribing
 - **Clinical commissioning groups** are being supported to reduce the number of antibiotics prescribed in primary care
 - Hospital trusts will receive payments for gathering and sharing evidence of **antibiotic consumption** and review within 72 hours of the beginning of treatment.
Reducing the use of specific types of drug

National Action Plan Norway

A multisectorial and comprehensive strategy

Strategy

National Strategy against
Antibiotic Resistance
2015–2020

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National Action Plan South Africa

Pillars of the South African AMR Strategy Framework

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Antibiotic resistance is highest priority

- G7 Summit, May, Japan
- World Health Assembly, May, Geneva
- G-20 Summit, September, China
- G7 Health Ministers' Meeting, September, Japan
- UN General Assembly Meeting, September, New York

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Why responsible and sustainable use?

- Rate of XDR and PDR Gram-negative pathogens increases
- No new antibiotics in development against XDR, PDR
- Reduced therapeutic options to treat infections
- Higher risk in other medical fields (cancer treatments, surgery,...)
- Economic loss

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