



ReAct's vision

Current and future generations of people around the globe will have access to effective prevention and treatment of bacterial infections as part of their right to health



“It is not difficult to make microbes resistant to penicillin

“The time may come when penicillin can be bought by anyone in the shops. Then there is the danger that the ignorant man may easily underdose himself and by exposing his microbes to non-lethal quantities of the drug make them resistant.”

Alexander Fleming's Nobel Lecture, 1945

René Dubos: A Harbinger of Microbial Resistance to Antibiotics

By CAROL L. MOBERG



1941

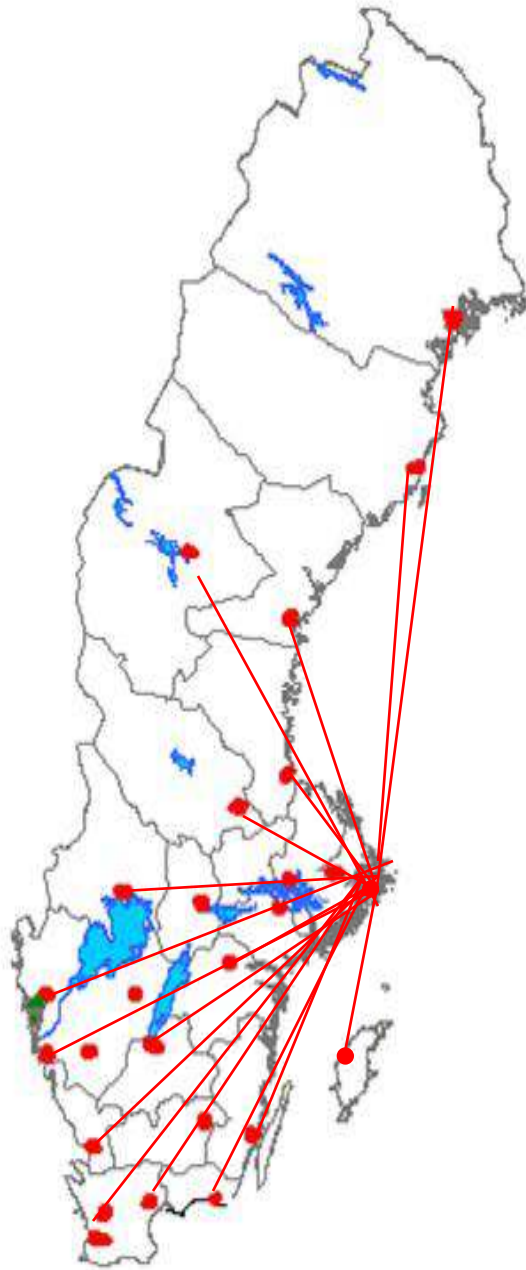
To appear in the form of the book "The World of René Dubos"

We should seek a more **peaceful coexistence** with pathogens.....

Antibiotics that are used as prophylaxis or as **“growth factors”** would allow antibiotic resistance and new diseases to breed.....

Hospitals are bacteriologically **dirty places....**

The relative protection from disease afforded by antibiotics is bought at the cost of a **huge ransom.....**



Strama

The Swedish Strategic programme against antibiotic resistance

National coordinating group

Local groups in all counties of Sweden (n= 30)

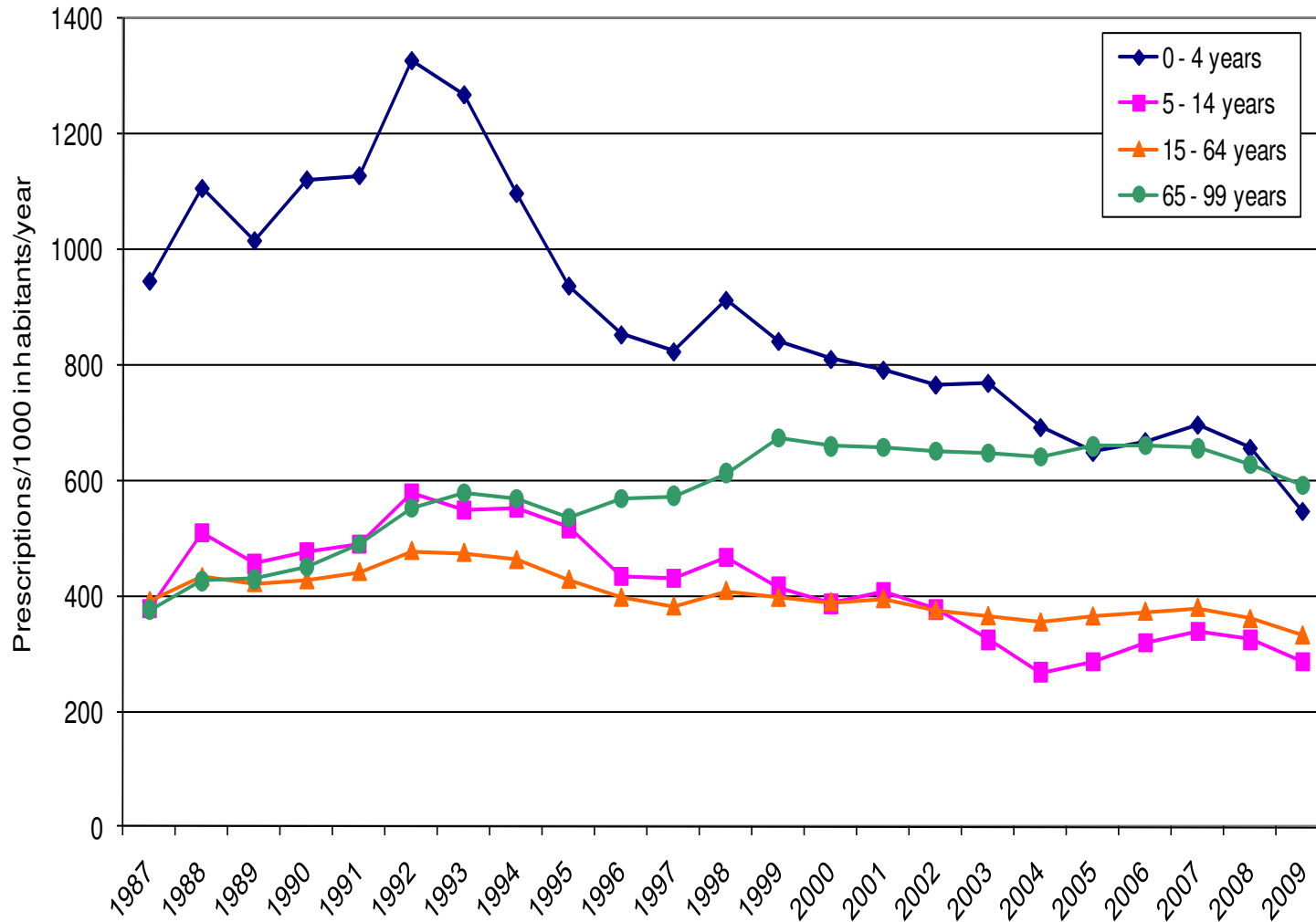
www.strama.se

**Guidelines must
be implemented !**

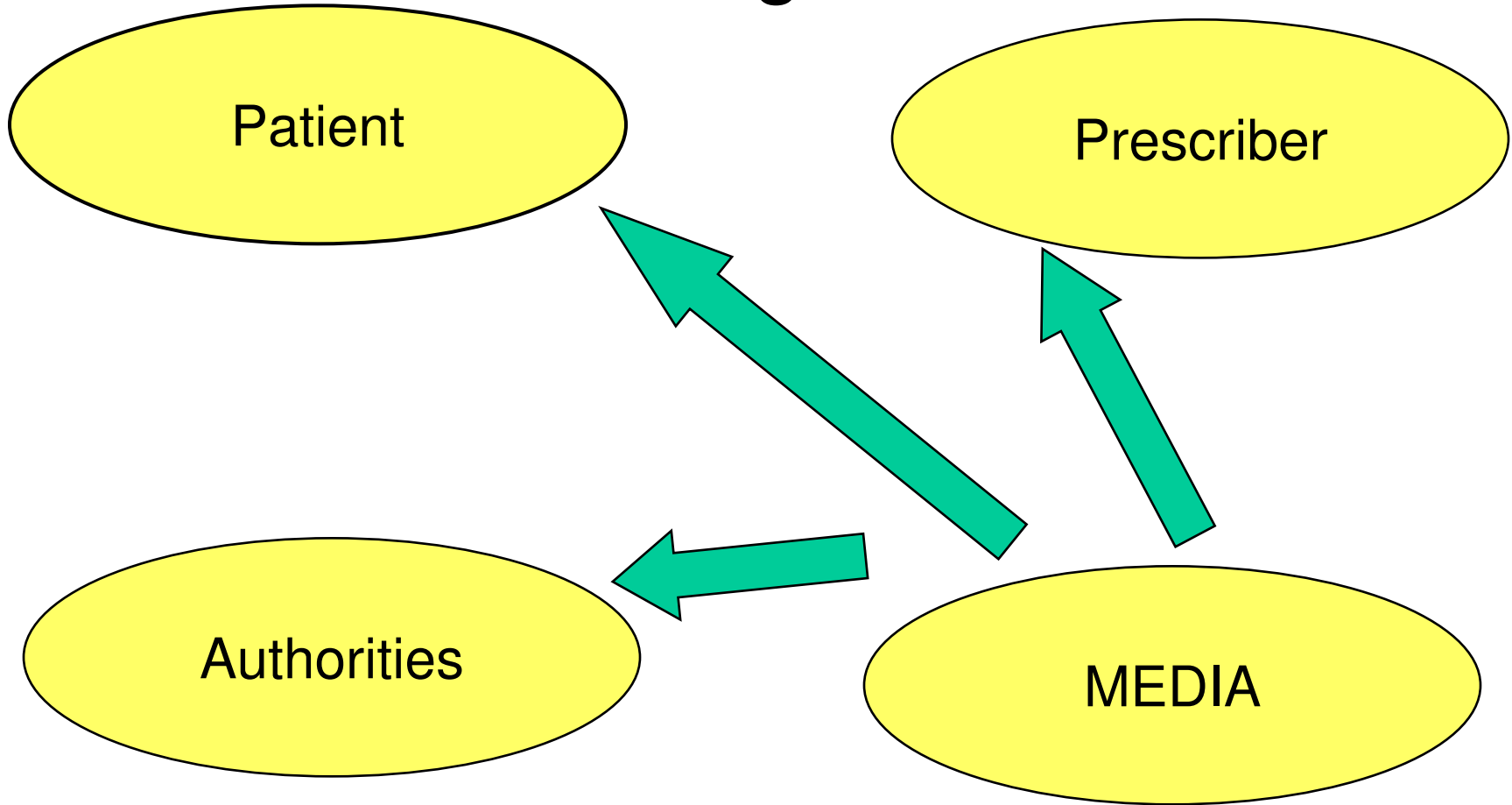


Antibiotic consumption (J01 exkl methenamine) in different age groups Community care in Sweden 1987 - 2009, prescriptions per 1000 inhabitants and year

Data source: The National Board of Health and Welfare and The National Corp. of Swedish Pharmacies

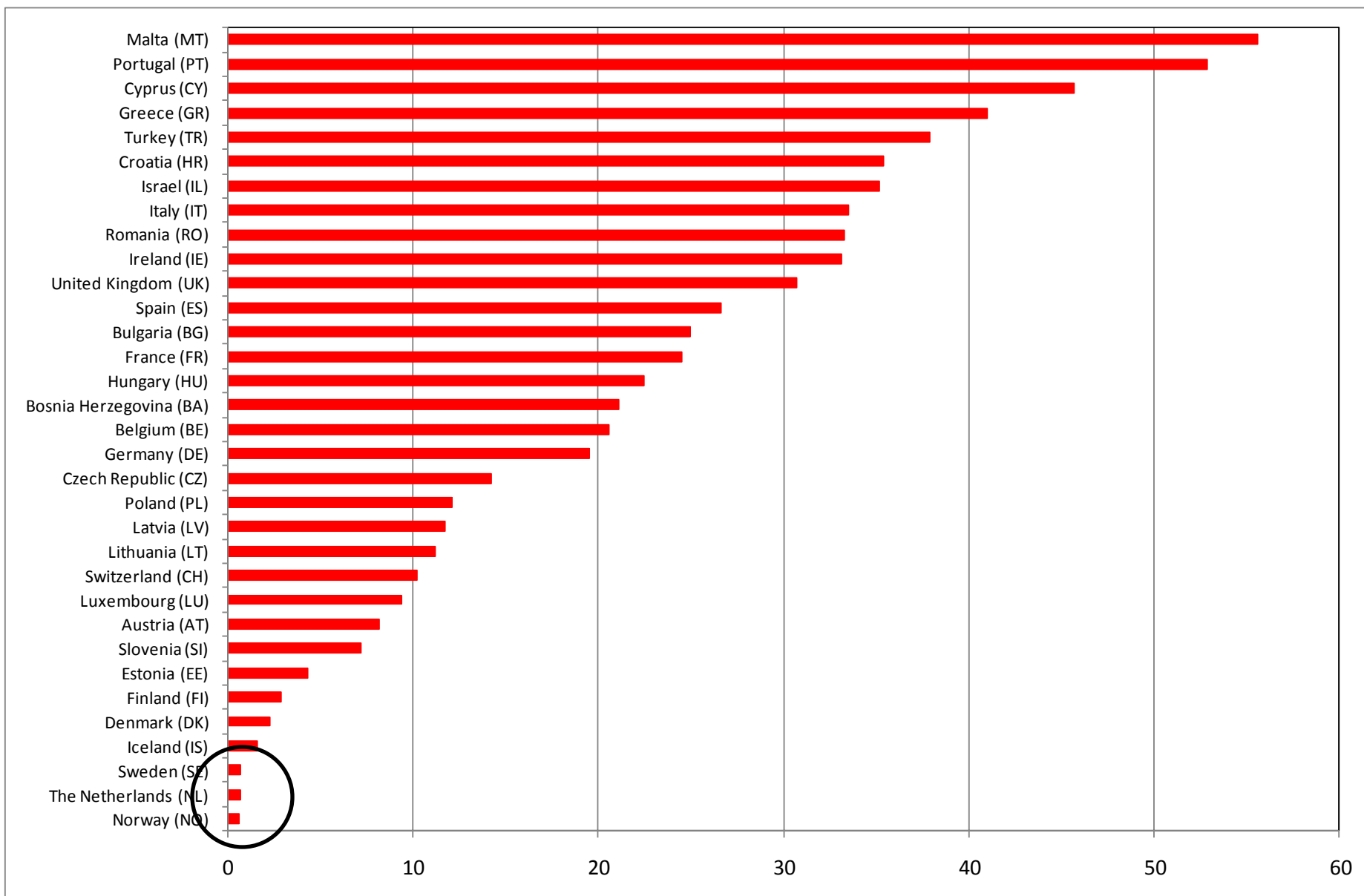


Awareness raising of all stakeholders through news media



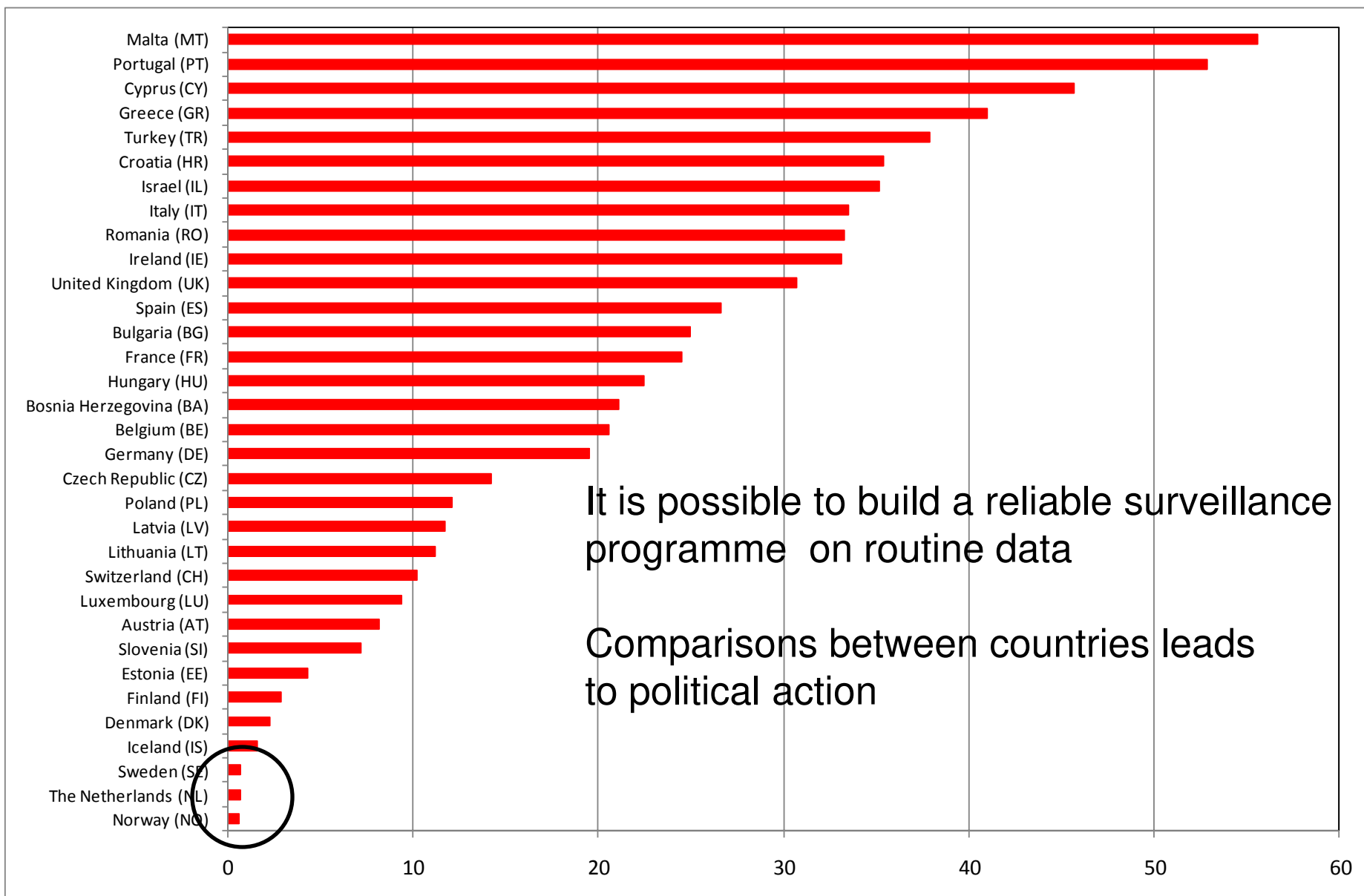
Percent MRSA of all isolates of *S. aureus* from blood in the EU 2008

Data from the European Antimicrobial Surveillance System, EARSS



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Data from the European Antimicrobial Surveillance System, EARSS



It is possible to build a reliable surveillance programme on routine data

Comparisons between countries leads to political action

2001

WHO/CDS/CSR/DRS/2001.2
DRAFT GENERAL
ORIGINAL: ENGLISH

WHO Global Strategy Containing of Antimicrobial Resistance



World Health Organization

2005

FIFTY-EIGHTH WORLD HEALTH ASSEMBLY

WHA58.27

Agenda item 13.10

25 May 2005

Improving the containment of antimicrobial resistance

The Fifty-eighth World Health Assembly,

Having considered the report on rational use of medicines by prescribers and patients;

Acknowledging that the containment of antimicrobial resistance is a prerequisite for attaining several of the internationally agreed health-related goals contained in the United Nations Millennium Declaration;

Recalling the recommendations of the Second International Conference on Improving Use of Medicines (Chiang Mai, Thailand, 2004);

Recalling also the findings of relevant WHO reports, including "Priority medicines for Europe and the world"¹ and the Copenhagen Recommendation from the European Union conference on "The Microbial Threat" (Copenhagen, 1998);

Aware that the spread of antimicrobial resistance recognizes no national boundaries and has reached proportions that require urgent action at national, regional and global levels, especially in view of the decreasing development of new antimicrobial agents;

Recalling previous resolutions WHA39.27 and WHA47.13 on the rational use of drugs, WHA51.17 on antimicrobial resistance, and WHA54.14 on global health security;

Recognizing the efforts of WHO in collaboration with governments, universities, the private sector and nongovernmental organizations to contain antimicrobial resistance, thereby contributing to prevention of the spread of infectious diseases;

Noting that, despite some progress, the strategy for containment of antimicrobial resistance has not been widely implemented;²

Wishing to intensify efforts to contain antimicrobial resistance and to promote rational use of antimicrobial agents by providers and consumers in order to improve global health security;

¹ Document WHO/EDM/PAR/2004.7.

² Document WHO/CDS/CSR/DRS/2001.2.



ReAct -a multidisciplinary international network

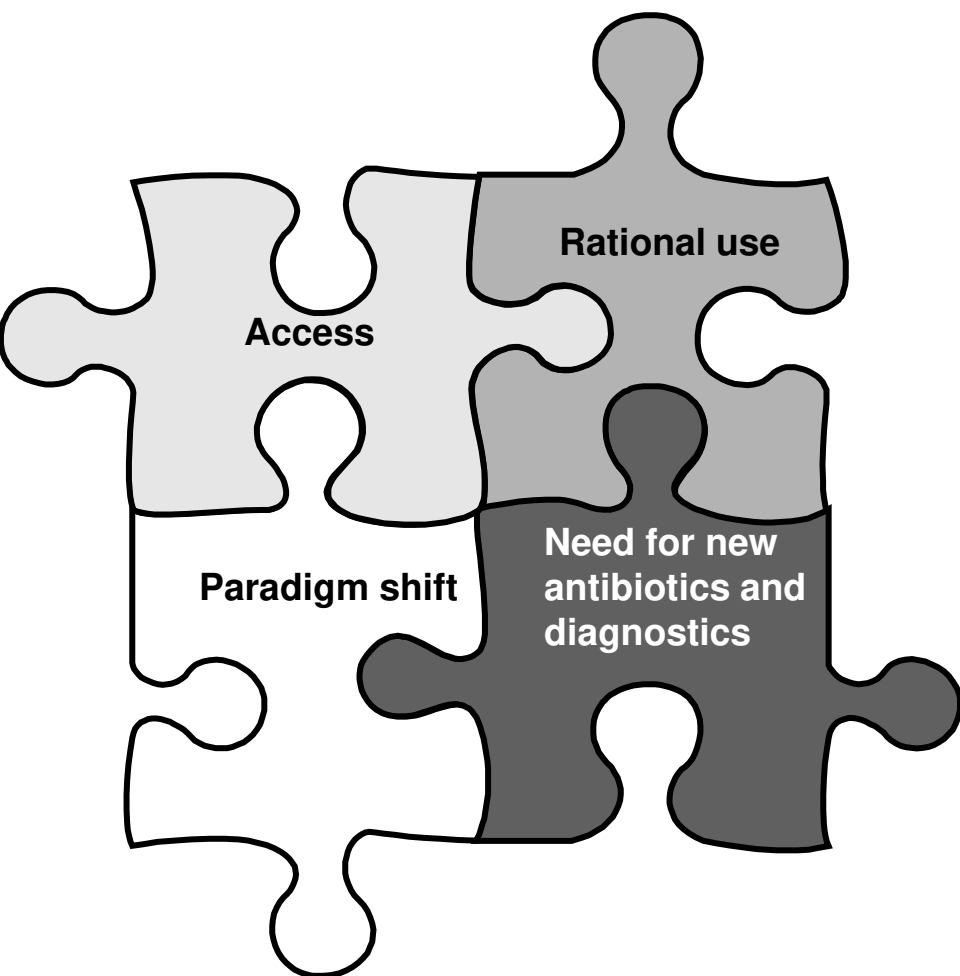
Founding organisations

- **The Swedish Strategic Programme Against antibiotic resistance (Strama)**
- **The Dag Hammarskjöld Foundation**
- **Karolinska Institute, Division of International Health**

ReAct

- Funded by the Swedish International Development Cooperation Agency (Sida) and Uppsala University
- Office for overall coordination in Uppsala, Sweden
- International secretariat with members presently in USA, India, Australia and Ecuador

The need for a broad approach



The changes needed are most likely to occur through an interaction between civil society and consumer organisations, health policy reformers and institutions and networks that generate and analyse health-related knowledge.

Antibiotic Resistance

The interface between science, politics and people



Scientific
Technical

Social
Political

A multidisciplinary international network

Global advocacy and communication

Making the *impact* of antibiotic resistance and the need for new drugs more visible to policy makers and the public

Explore ways to stimulate needs-driven research and development of new antibacterials

Catalyse national and regional collaboration

Stimulate, organize and support *political, professional and community action* to combat antibiotic resistance

Paradigm shift

Promote *new ways* of approaching the problem of antibiotic resistance. including emphasis on the balance between microbes and man and changing the war metaphor.



www.reactgroup.org



*International Network for the
Demographic Evaluation of Populations
and Their Health in developing countries –
INDEPTH*



Currently 37 sites in 19 countries
24 sites in Africa
9 sites in Asia
1 site in Oceania

**Over 2,000,000 people
under surveillance**

*Countries with Demographic Surveillance System (DSS)
Field Sites participating in the INDEPTH Network*

INDEPTH-ReAct collaboration

- Joint workshop held on 30 October 2009
- Brought together 25 participants from 14 HDSS sites in 12 countries and 14 participants from other organisations
- Strong interest to create an antibiotic resistance working group
- Follow-up workshop planned for April 2010



TECHNICAL REPORT

The bacterial challenge: time to react

A call to narrow the gap between
multidrug-resistant bacteria in the EU and
the development of new antibacterial agents

www.ecdc.europa.eu
www.emea.europa.eu



Burden of multidrug-resistant bacteria in the EU

Attributable deaths	approx.	25,000 / year
Extra hospital days	approx.	2.5 million / year
Total costs	approx.	€ 1.5 billion / year

Pipeline Analysis

90 agents with direct activity
on multidrug-resistant bacteria

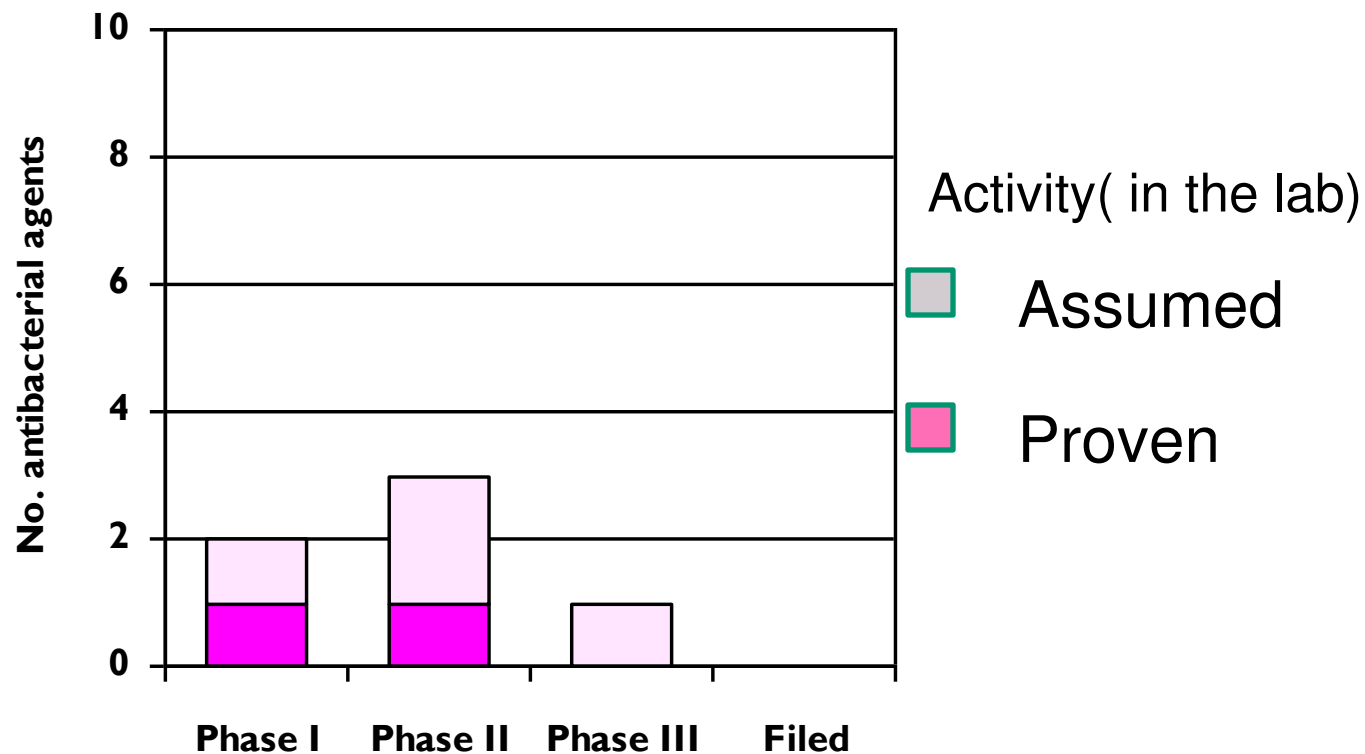
66 agents were new active
substances

15 “**novel**” agents with
systemic administration

The bacterial challenge - time to react

Joint Technical Report from ECDC and EMEA

The antibacterial pipeline against selected multiresistant Gramnegative bacteria



Treatment options: The new kids on the block?



Cephalosporins?
Penicillins?

Polymyxins?

Carbapenems?





Activities during the Swedish EU presidency 2009

Innovative Incentives for Effective Antibacterials,
a conference focusing on the need to develop new
pharmaceuticals against infectious diseases





UPPSALA
UNIVERSITET

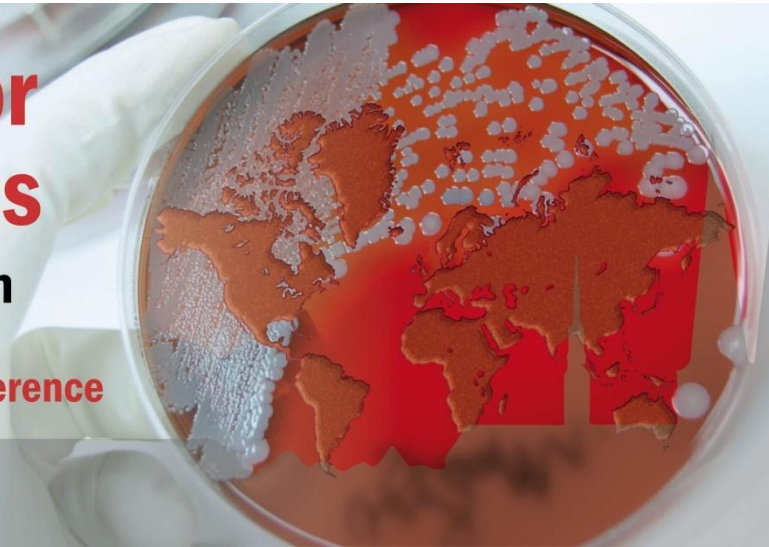
ReAct
Action on Antibiotic Resistance

The Global Need for Effective Antibiotics

- moving towards concerted action

ReAct Conference

6th – 8th September, 2010 Uppsala, Sweden



ReAct
Action on Antibiotic Resistance



Activities during the Swedish EU presidency 2009

Establishment of a transatlantic taskforce on urgent antimicrobial resistance issues

Agreed at the EU-US Summit on the 3rd of November. The task force is to focus on appropriate therapeutic use of antimicrobial drugs in the medical and veterinary communities, prevention of both healthcare- and community-associated drug-resistant infections, and strategies for improving the pipeline of new antimicrobial drugs





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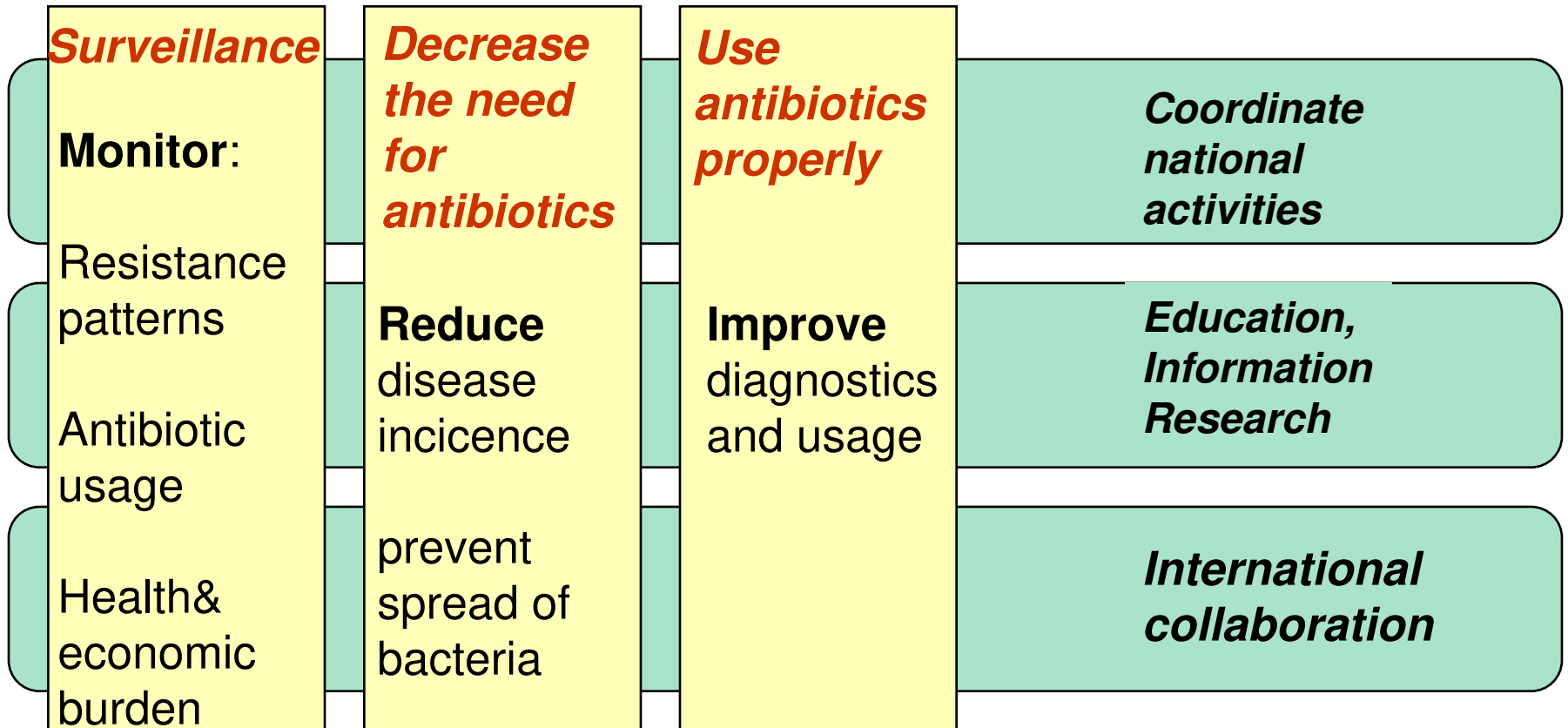
ACCION CONTRA LA RESISTENCIA BACTERIANA
latinoamérica



ReAct Latin America postgraduate course

- Master course targetting health care professionals in primary health care
- Bring existing local problems/questions into curriculum
- Address through education and implement in the local context
- Strengthen microbiology + clinical and behavioural sciences
- "Educommunication" vis-a-vis the public

Strategies for the Containment of Antibiotic Resistance



Never Give Up,
Faith moves Mountains!



www.humor.is

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