

# Strategies on Control of MDRO in Europe

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# Outline



- Problems of antibiotic (ab)use and resistance in Europe
- Towards a European antibiotic policy
  - First steps
  - Member States initiatives
- National and European campaigns
  - On prudent antibiotic use
  - On hand hygiene in hospitals
- Towards a Global policy
  - Transatlantic Task Force for Antimicrobial Resistance (TATFAR)
  - World Health Day, April 7th 2011



**"If you cannot  
measure it,  
you cannot  
improve it"**

**Lord  
Kelvin,  
1824-1907**



# ESAC: European Surveillance of Antimicrobial Consumption

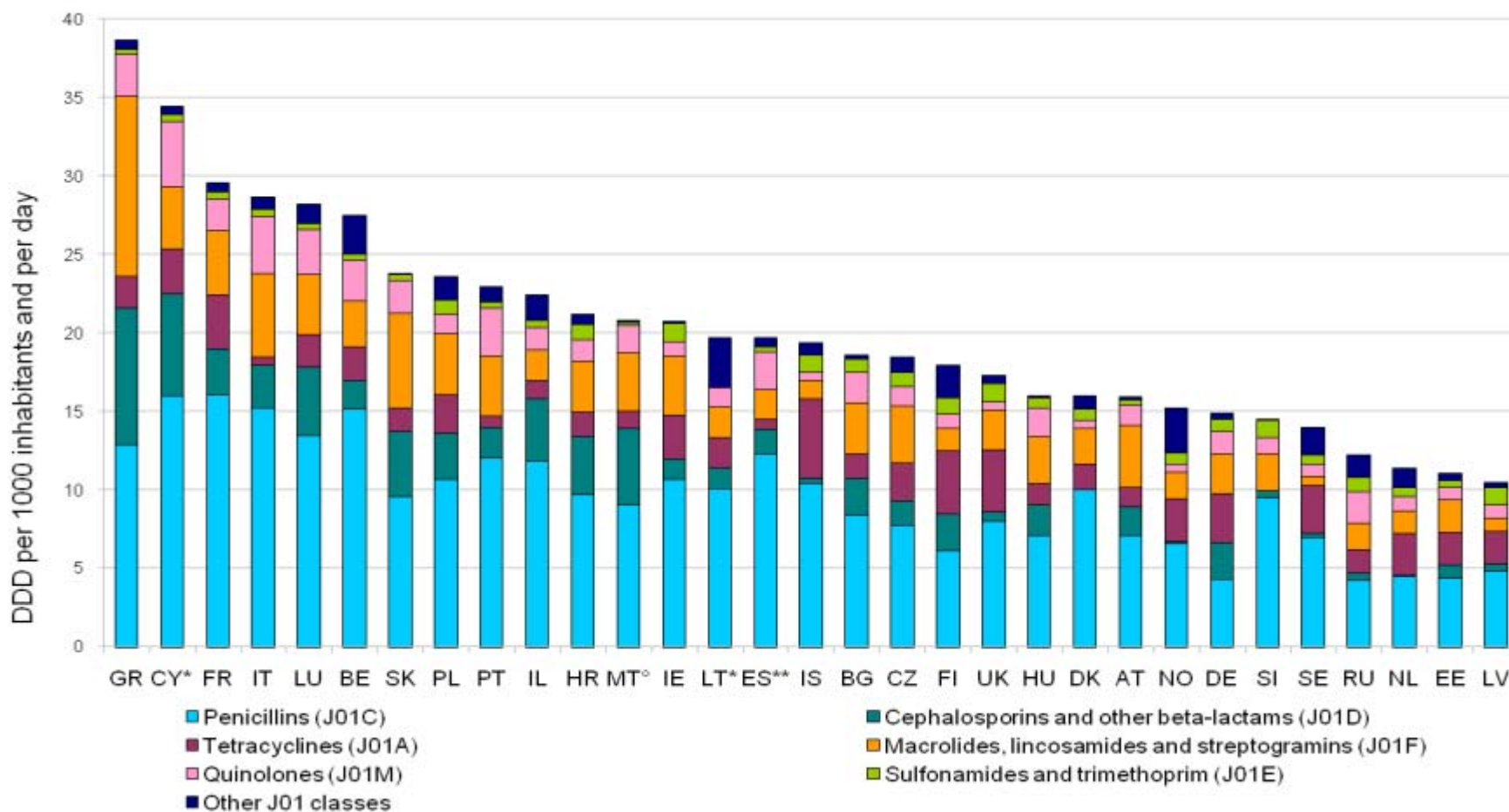


- Launched in November 2001 (Belgian EU Presidency)
- ESAC is an international network of surveillance systems, aiming to maintain a continuous, comprehensive and comparable database on antimicrobial consumption for all Member States candidate countries and EFTA-EEA countries
- Coordinator: Herman Goossens (UA)
- Funding organisation: DG SANCO of EC (2001-2007) and ECDC (2007-2011)
- Transfer to ECDC (Stockholm) in July 2011





# Total outpatient antibiotic use in DID in 31 European countries in 2009

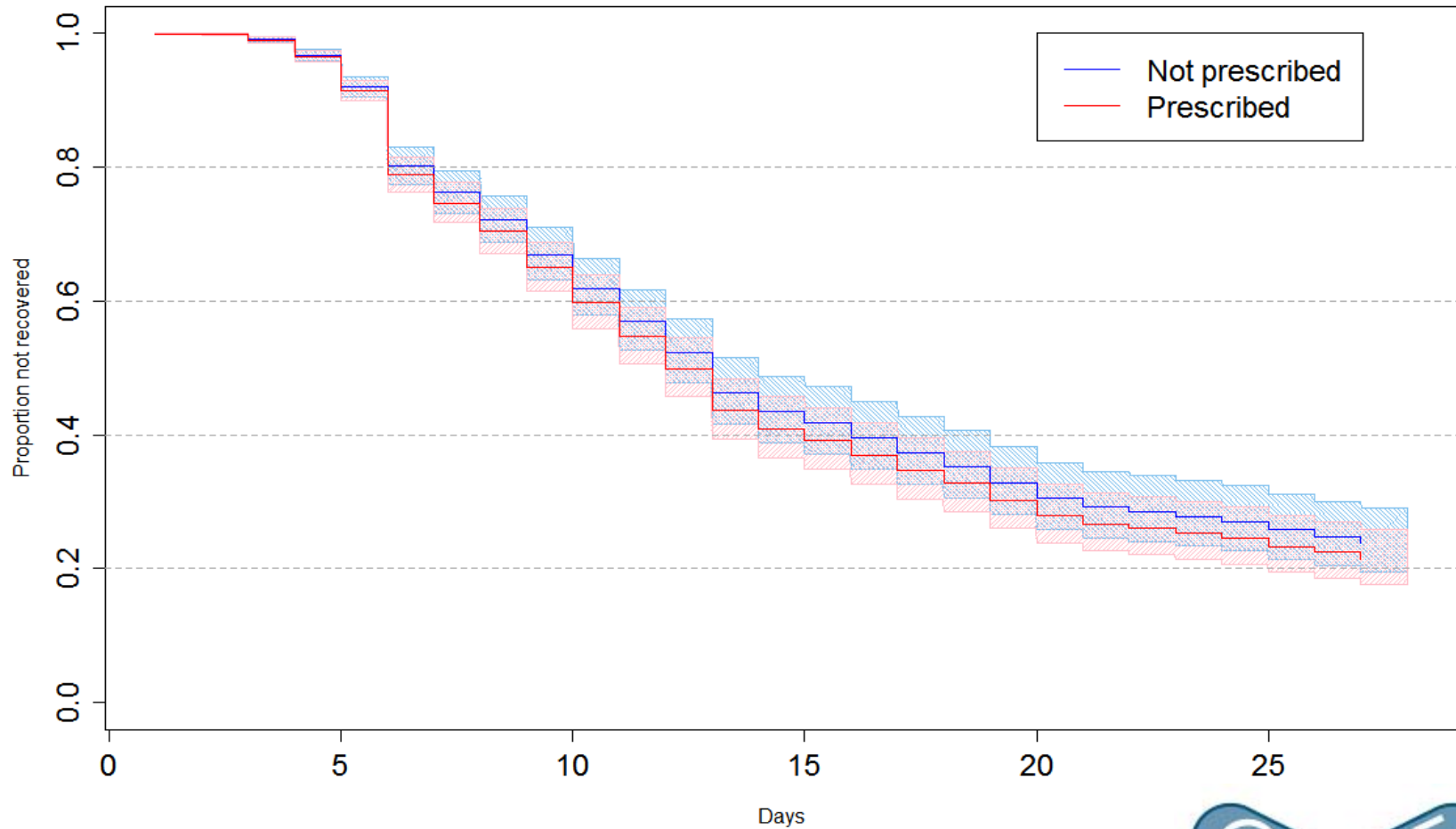


\* Total care : LT, CY  
° MT : 2008 data

Source: ESAC



# No statistical Differences in Recovery between those Prescribed Antibiotics and Those Not Prescribed Antibiotics CA-LRTI (survival analysis)



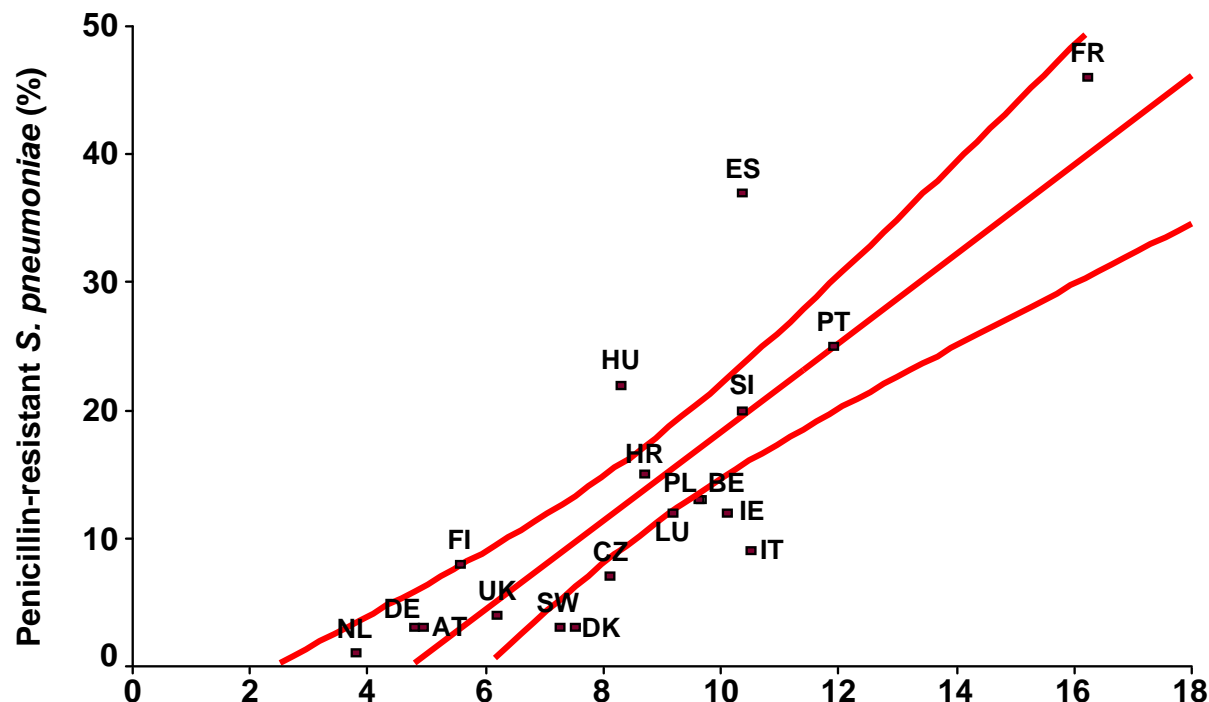
Butler et al., BMJ 2009



Genomics to combat Resistance against Antibiotics in Community-acquired LRTI in Europe



# Correlation Between Penicillin Use and Prevalence of Penicillin-resistant *S. pneumoniae*

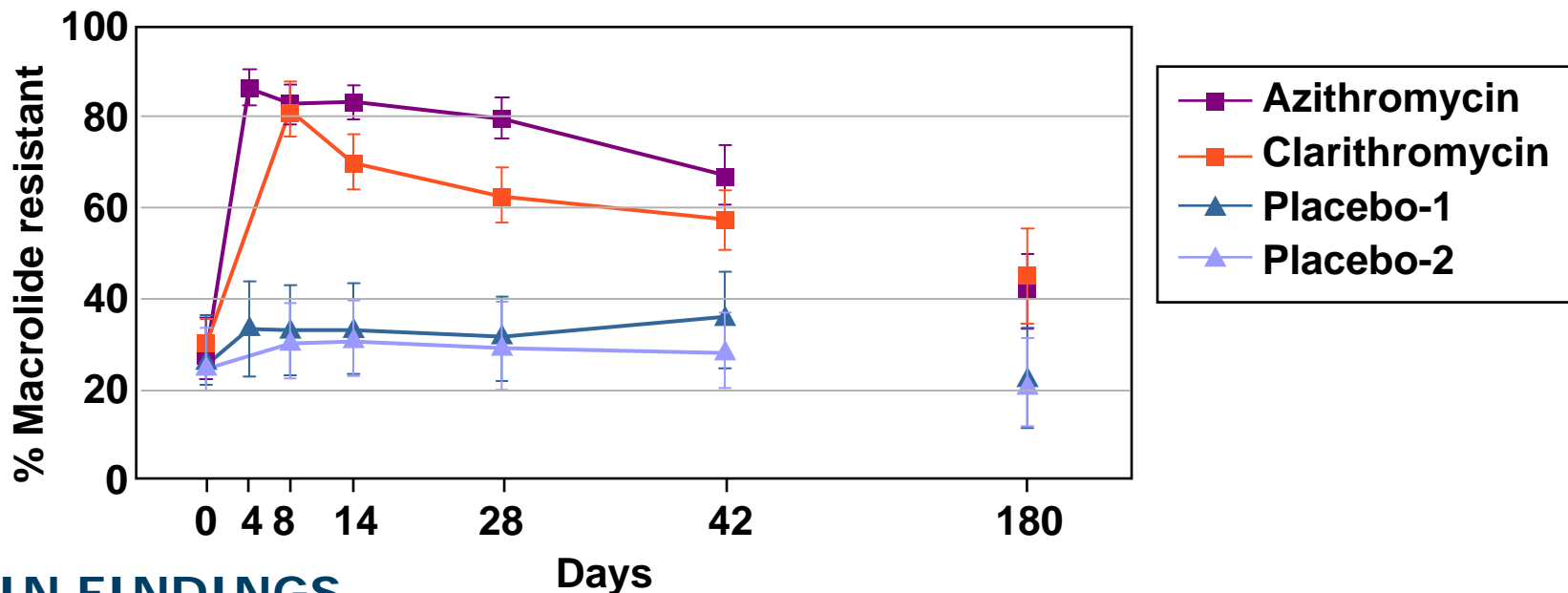


Consumption of Penicillin (J01C) in DID, AC 2000

Organism year of isolation [source of information]	Antibiotic resistance	Antibiotic use - ATC group (year of data)	No. of countries	Spearman correlation (r) (confidence interval)	P-value
<i>S. pneumoniae</i> 2001 [7]	Penicillin	Penicillin – J01C (2000)	19	0.84 (0.62-0.94)	<0.001



# Temporal Changes in Proportion of Macrolide-resistant Oral Streptococci

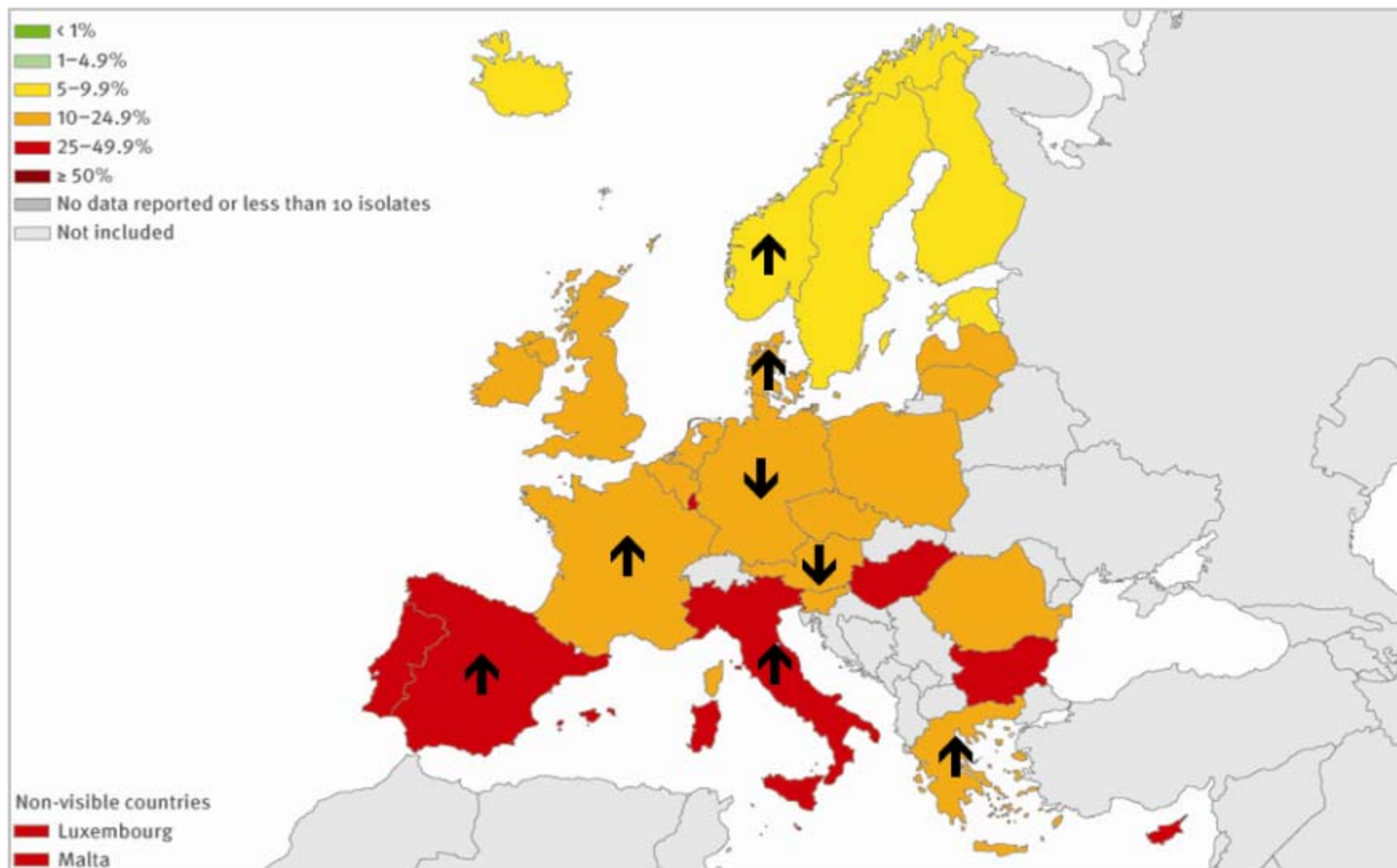


## MAIN FINDINGS

- Mean pre-antibiotic (Day 0) carriage of macrolide-resistant streptococci was 28%
- Use of both macrolides resulted in a huge increase in resistant streptococci, which persisted for at least 6 months ( $P \leq 0.01$ )
- In the azithromycin group, resistance remained at a higher level than in the clarithromycin group during mid-time points ( $P \leq 0.001$ )



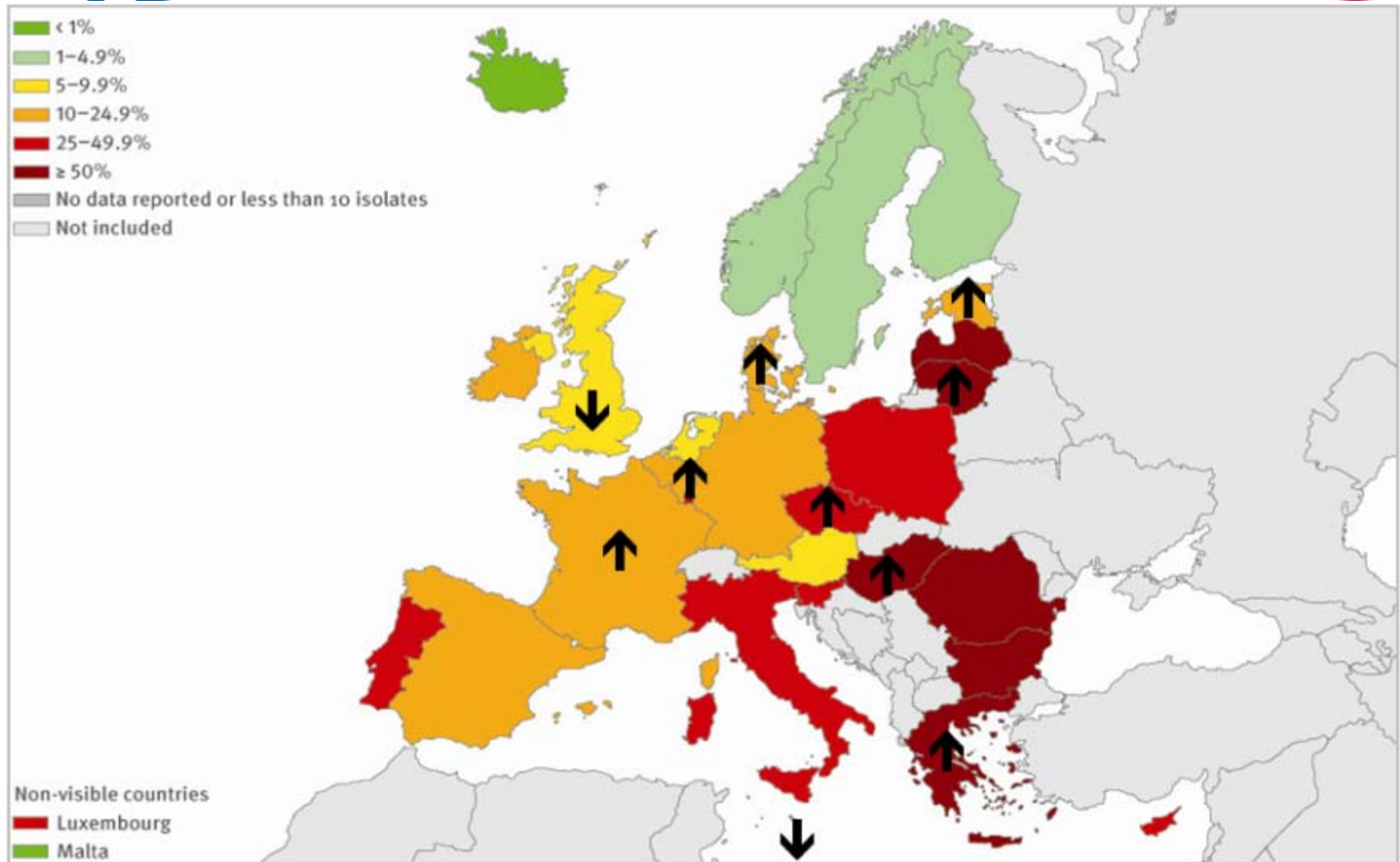
# *E. coli*: Proportion of Invasive FQ Resistant Isolates, 2009



The symbols ↑ and ↓ indicate a significant increasing or decreasing trend for the period 2006-2009



# *K.pneumoniae*: Proportion of Invasive Cephalo-3 Resistant Isolates, 2009



The symbols ↑ and ↓ indicate a significant increasing or decreasing trend for the period 2006-2009

# VD *K.pneumoniae*: Proportion of Invasive Carbapenem Resistant Isolates, 2009





# Emergence of NDM-1 Producing *Enterobacteriaceae* in Europe



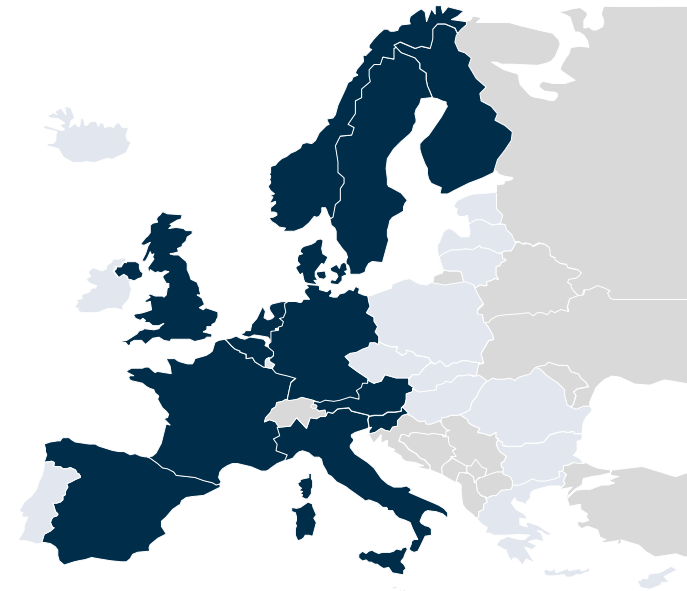
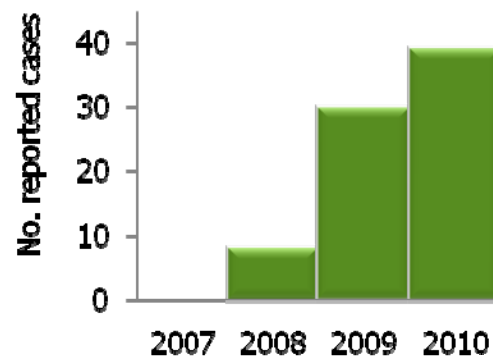
- ECDC conducted a questionnaire survey in all EU Member States, Iceland and Norway
- By 4 October 2010, a total of 77 cases were reported from 13 countries in 2008-2010

NDM-1-producing *Enterobacteriaceae* cases reported (as of 4 October 2010):

■ Yes

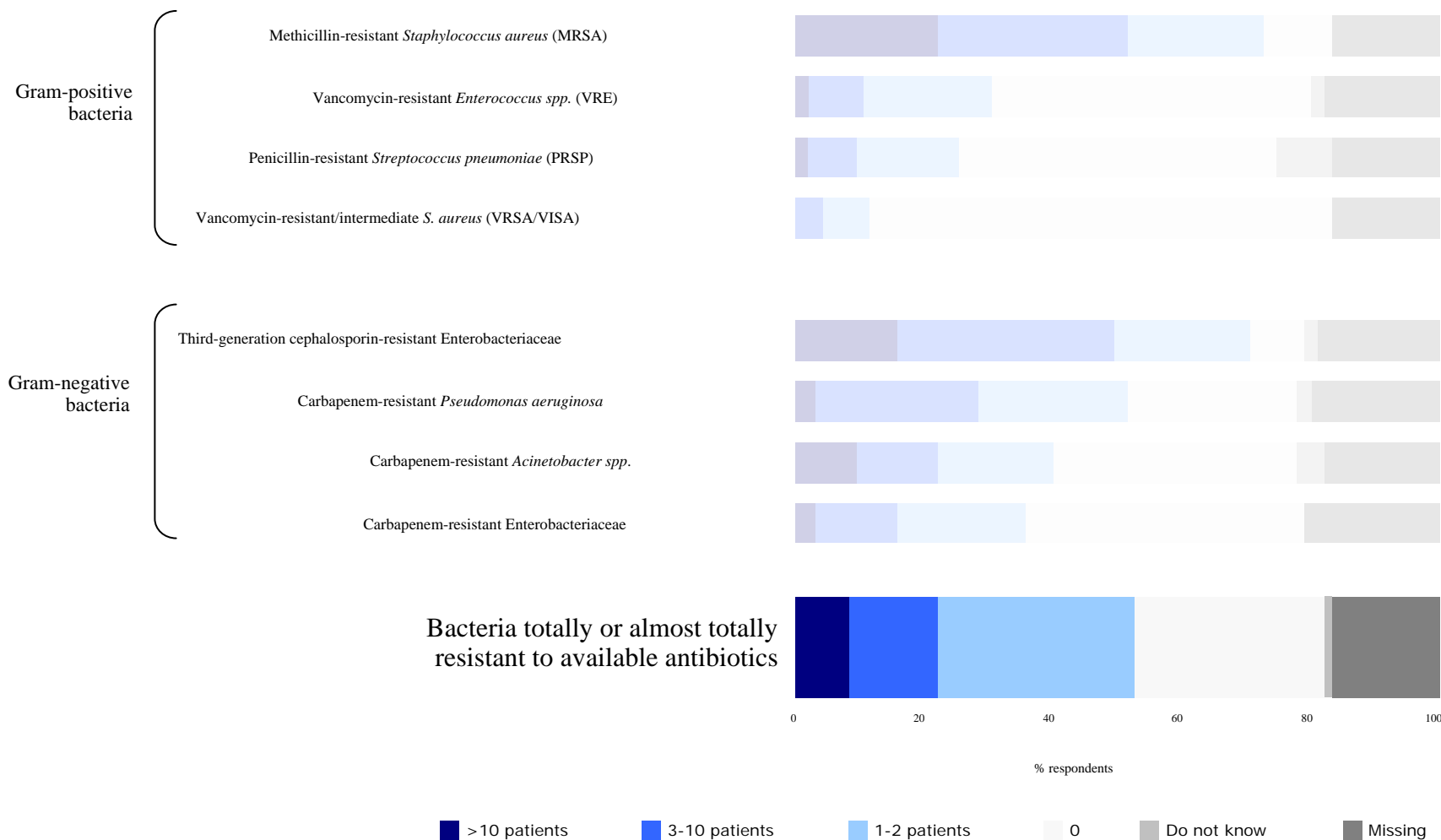
■ No

■ Not covered by survey



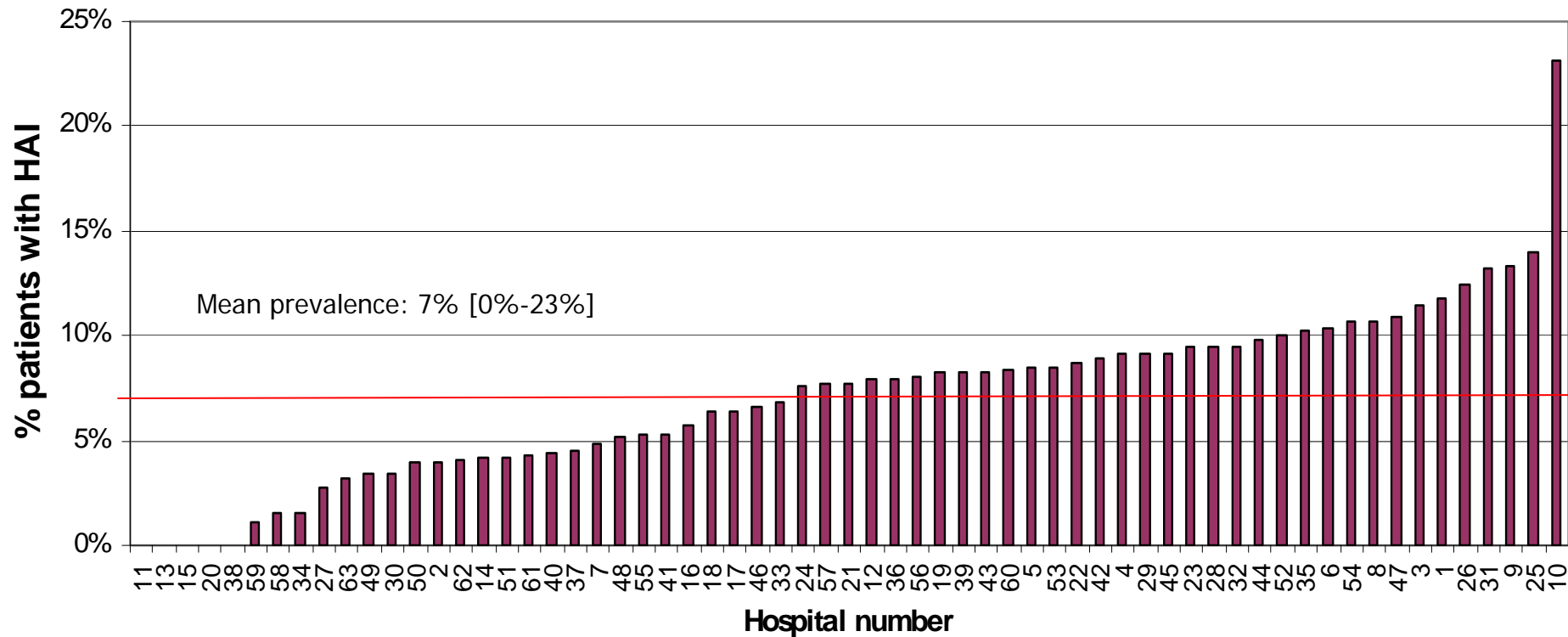


# Survey Results on ICU Patients Infected with Resistant Bacteria



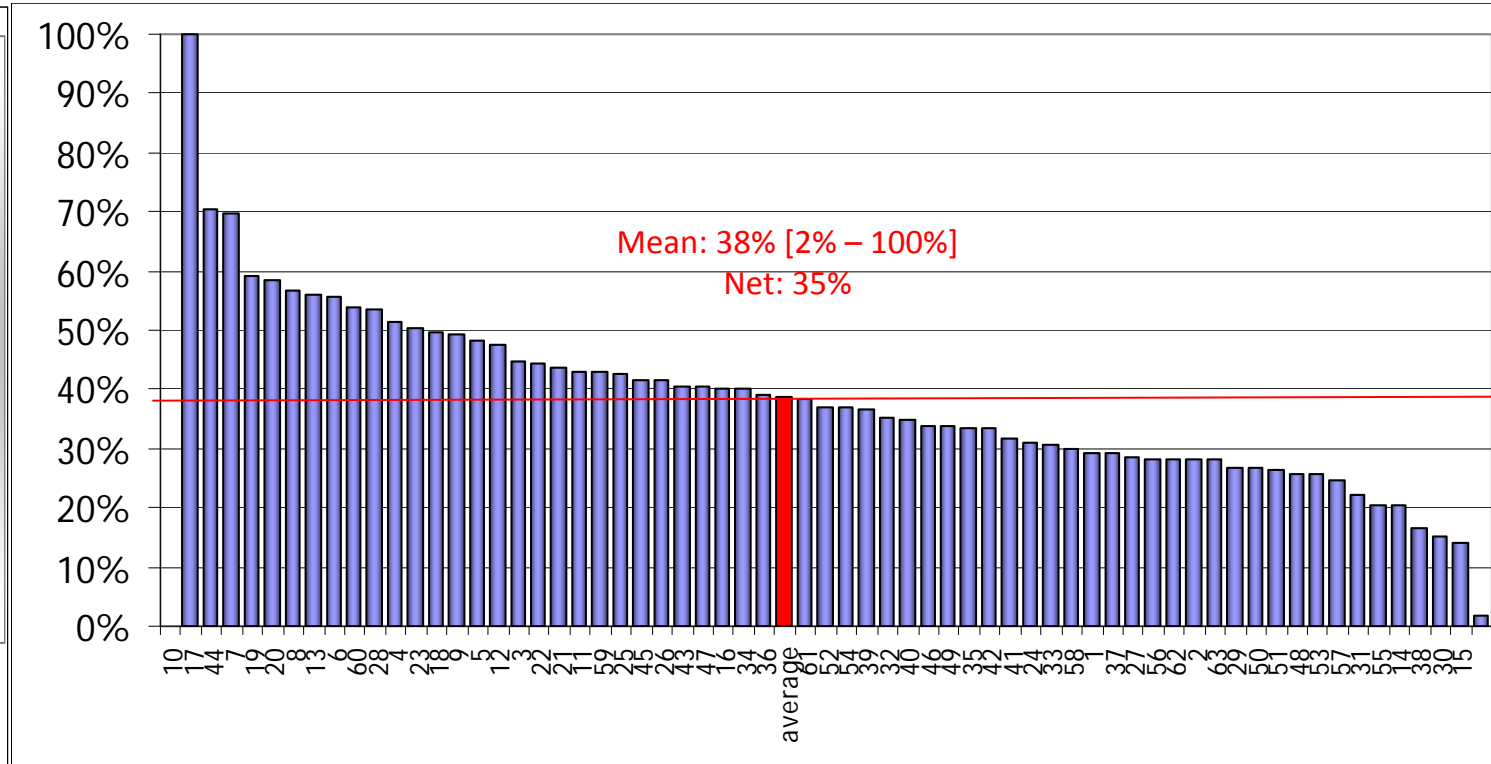
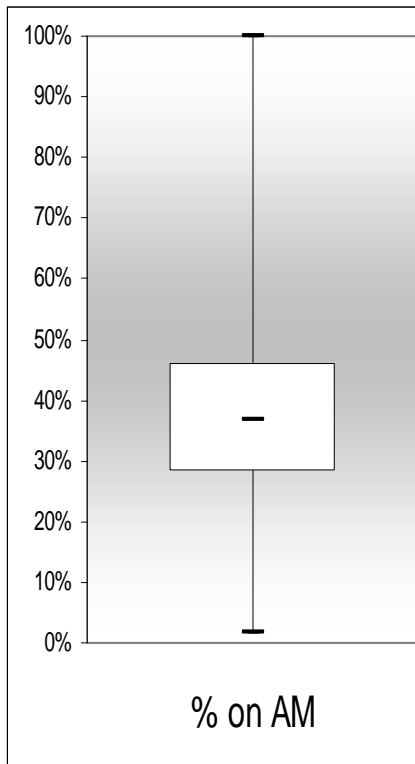


# Prevalence of HAI by Hospital





# Prevalence of AM Use by Hospital







# Society's Failure



- Antibiotic sales in the community represent  $> 90\%$  of all antibiotic use and is, therefore, an important component in the selection pressure
- The largest use of these antibiotics is towards minor respiratory tract infections which are often self-limiting and self-healing and for which AB real usefulness is dubious
  - pharyngitis
  - bronchitis
  - flu-like syndrome, ...
- Antibiotic use will select for antibiotic resistance



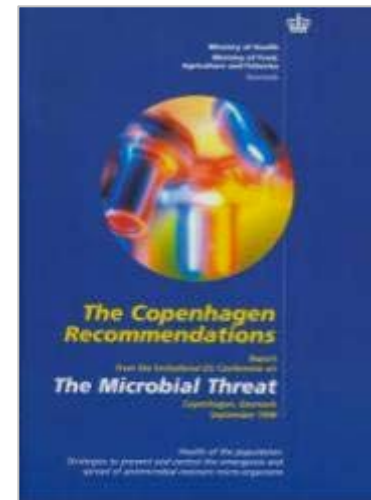


# Outline



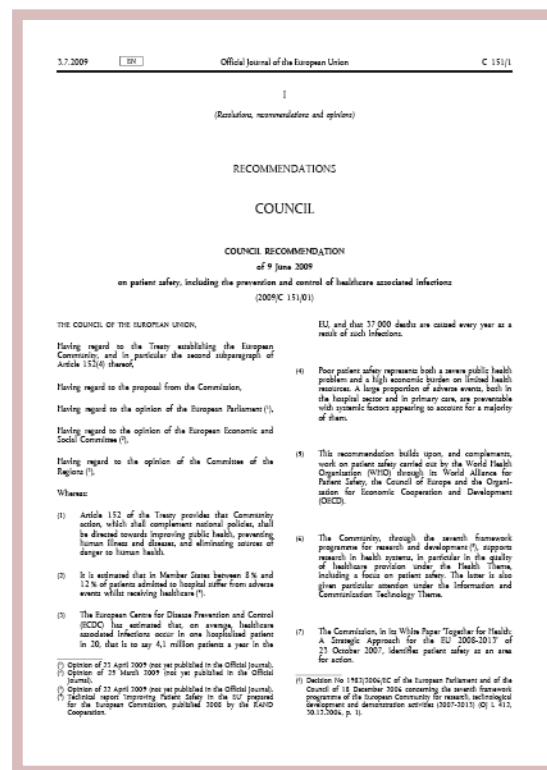
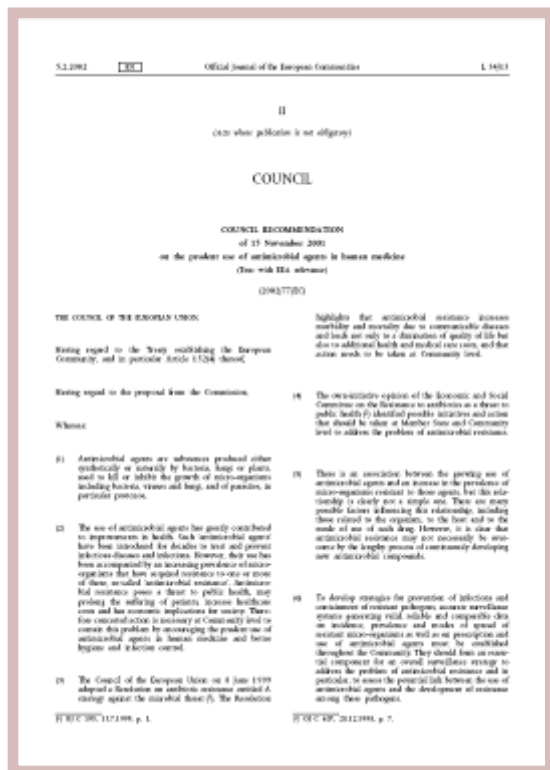
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- July 1998: "Opinion of the Economic & Social Committee on Resistance to Antibiotics as a Threat to Public Health"
- September 1998: EU Conference on the Microbial Threat, Copenhagen & **"Copenhagen Recommendations"**  
<http://www.im.dk/publikationer/micro98/index.htm>
- May 1999: "Opinion of the Scientific Steering Committee on Antimicrobial Resistance"





# Council Recommendations on the prudent use of antimicrobial agents (2001), and on healthcare associated infections (2009)

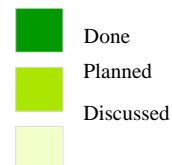
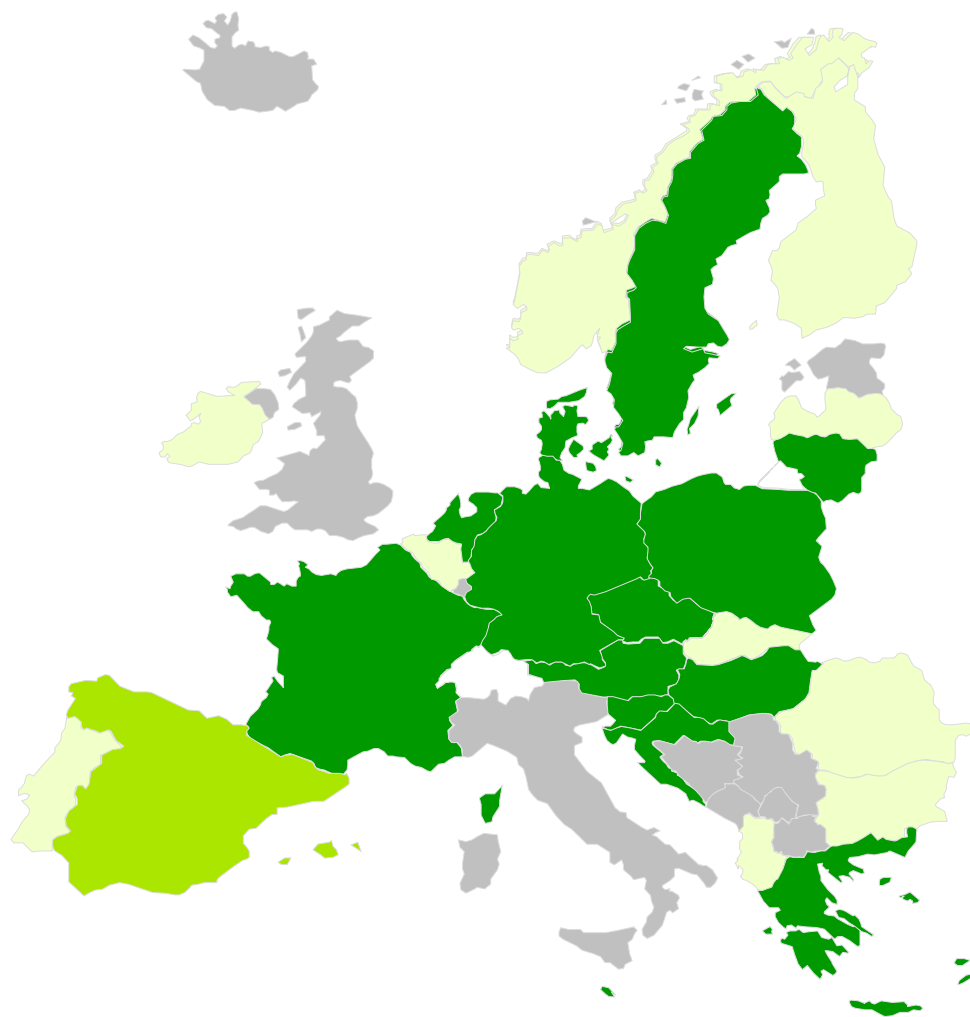


Council Recommendation of 15 November 2001 on the prudent use of antimicrobial agents in human medicine (2002/77/EC)

Council Recommendation of 9 June 2009 on patient safety, including the prevention and control of healthcare associated infections (2009/C 151/01)



# Country Visits Organised by ECDC to Discuss Implementation of Council Recommendations, 2006-2011



Country visits  
to discuss AMR issues  
(as of February 2011)

Based on Council Recommendation of  
15 November 2001 on the prudent  
use of antimicrobial agents in  
human medicine (2002/77/EC)

Reports (observations, conclusions,  
suggestions, examples of best  
practice

14 initial visits (see map)

5 follow-up visits (Czech Rep., Greece  
x 2 and Hungary x 2)

5 visits budgeted for 2011



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# Belgian National Public Campaigns

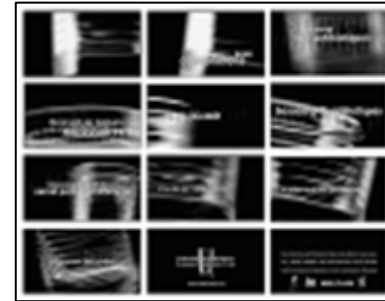


- **When:** since November 2000, annually during winter season
- **Organised by:** BAPCOC (Belgian Antibiotic Policy Coordination Committee)
- **Budget:**
  - 400,000 EUR/annual campaign
- **Interventions targeting the public:**
  - Ads on TV, radio and newspaper
  - Information booklets
  - Folders
  - Posters
  - Internet campaigns: [www.antibiotics-info.be](http://www.antibiotics-info.be)

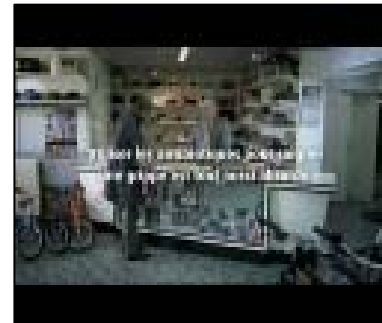
# BAPCOC Organised Three Different Awareness Campaigns



2000 – 2003 (3 winters)



2004 – 2008 (4 winters)



2008 – ... (launched 18.11.08)





## OPGELET VOOR DE NEVENWERKINGEN

Als je antibiotica gebruikt, kunnen er ook bijwerkingen optreden. Antibiotica vullen namelijk niet alleen de schadelijke bacteriën aan. Ook de nuttige moeten eraan geloven. Raadpleeg je arts indien je klachten blijven duren.

### Allergische reacties

Een allergische reactie op antibiotica kan jeuk of huiduitslag veroorzaken. Gelukkig komen ernstige gevallen zelden voor.

### Diarree

Antibiotica kunnen het normale evenwicht verstoren in je darmen. Met diarree als gevolg.

### Maaglast

Tijdens de behandeling met antibiotica kan je last hebben van een zwaar gevoel in de maag. Mogelijk verlies je ook je eetlust of is je smaakzin verstoord.

### Schimmelinfecties

Een behandeling met antibiotica verhoogt ook de kans op schimmelinfecties van huid en slijmvliezen. Niet witteries bij vrouwen of wit beslag in de mond als gevolg.

### Risicogroepen

Sommige mensen moeten extra voorzichtig zijn wanneer ze antibiotica nemen. Denk maar aan zwangere vrouwen of vrouwen die borstvoeding geven. Ook mensen met een nierziekte of een leverziekte moeten extra opletten. Behoor je tot deze risicogroepen, meld het dan beslist aan je arts.

## PRAAT EROVER MET JE ARTS OF APOTHEKER.

Als je ziek bent, vraag je advies aan je arts of apotheker. Niet meer dan correct. Maar in deze folder lees je dat antibiotica niet altijd de correcte oplossing zijn bij winterkwalen. Stel je daarom beslist deze vragen bij je doktersbezoek.

- Wat schrijft mijn arts voor? Zijn het antibiotica?
- Gaan antibiotica effect hebben op mijn klachten?
- Welke dosissen en tijdstippen moet ik respecteren?

Coördinatie en wetenschappelijk ondersteuning:  
Belgische Commissie voor de Coördinatie van het  
Antibioticabeleid | [bapcoc@health.fgov.be](mailto:bapcoc@health.fgov.be)

Een initiatief van de Federale Overheidsdienst  
Volksgezondheid, Veiligheid van de Voedselketen en  
Leefmilieu. Met de steun van het RIZIV.

Europees  
Antibioticabeleid

Coördinatie  
Antibioticabeleid

BAPCOC  
Belgische Apothekers Vereniging

ANTIBIOTICA HEBBEN GEEN ZIN BIJ

# OPGELET: ALLEEN GEBRUIKEN INDIEN NODIG.

ANTIBIOTICA HEBBEN GEEN ZIN BIJ GRIEP, BRONCHITIS OF EEN VERKOUDHEID.

## BAAT HET NIET, DAN SCHAADT HET WEL

### Tijd geneest

Antibiotica zijn een mooie uitvinding. Tenminste, als ze correct gebruikt worden. Zo helpen ze niet bij griep, verkoudheid, acute bronchitis en de meeste vormen van keel- en oorsteking. Deze infecties worden veroorzaakt door virussen en/of wegezen er spontaan van na enkele dagen. Hiervoor antibiotica gebruiken, heeft overal zin als de hele dag met zwembadjes rondlopen.

### Wanneer zijn antibiotica dan wel nodig?

Antibiotica zijn enkel nodig als we ernstig ziek zijn door bacteriën. Bacteriën zijn minuscule kleine levende wezens die zich zeer snel kunnen vermultipliceren. Niet alle bacteriën zijn schadelijk voor de mens; sommige zijn zelfs nuttig. Bacteriën kunnen echter ook onder andere longontsteking, hersenvliesontsteking, wondinfecties en enkele ernstige vormen van keel- en oorsteking veroorzaken. Dan is een behandeling met antibiotica nodig om ons afweersysteem te helpen deze schadelijke bacteriën te vernietigen.

Infecties zoals griep, bronchitis of een verkoudheid genezen spontaan.

### Hebben kinderen vaker antibiotica nodig dan volwassenen?

Ja en nee. Kinderen zijn vaker ziek, dus ook wat vaker ernstig ziek. Maar ook bij kinderen helpen antibiotica niet bij griep, verkoudheid, acute bronchitis en de meeste vormen van keel- en oorsteking. Bovendien ontbreken je kinderen de kans om hun eigen afweersysteem op te bouwen en aan te scherpen door onnodig antibiotica te geven.

## ANTIBIOTICA OF NIET? EN WAT DAN WEL?

Je arts is de geschikte persoon om de juiste behandeling in te stellen. Soms moet eerst een bloedtaaf of uitstrijkje van de keel onderzocht worden.

Antibiotica doen niets aan virale infecties en hebben nauwelijks effect op gewone bacteriële infecties. Deze genezen spontaan. De symptomen kunnen wel bestreden worden zodat de ziekte zich beter voelt. Bij ernstige infecties veroorzaakt door bacteriën is een behandeling met antibiotica wel noodzakelijk.

ZIEKTE	GEWENSMIDDELEN	AANBEVELINGEN
Griep	Pyrexolien, koortswerende middelen	Rust, vaccinatie ter preventie
Struikel	Pyrexolien, koortswerende middelen	Stomen met warm water
Diarree	Soms antidiarree-middelen	Voldoende drinken, goede hygiëne
Verkoedheid	Pyrexolien	Takel vermijden
Acute bronchitis	Pyrexolien	Takel vermijden
Keelontsteking	Pyrexolien	Takel vermijden
Oorsteking	Pyrexolien, koortswerende middelen	Rust
Longontsteking	Antibiotica	Ernstig, goed op te volgen door arts, opname in ziekenhuis
Bacteriële hersenvliesontsteking	Antibiotica	Ernstig, goed op te volgen door arts, opname in ziekenhuis

## BELANGRIJK: GEBRUIK ANTIBIOTICA ALTIJD CORRECT

Als je arts antibiotica voorschrijft, is het belangrijk dat je de voorgeschreven behandeling nauwkeurig volgt. Alleen zo ben je zeker dat alle bacteriën vernietigd zullen worden en vermijdt je de selectie van resistente bacteriën (de resistentie).

### Volstrege

1. **Respecteer de dosissen en de tijdstippen.**  
Sta nooit een innams over en gebruik de voorgeschreven hoeveelheden.
2. **Stop niet vroeger dan voorgeschreven.**  
Maak je antibiotica kuur volledig af. Ook als je je na een paar dagen al beter voelt. Dat is nodig omdat de bacteriën slechts geleidelijk worden vernietigd.
3. **Bewaer ze niet.**  
Hou nooit restjes antibiotica bij voor een volgende keer. Breng ze naar je apotheker.

## WAT IS RESISTENTIE?

Door het niet correct gebruik van antibiotica, neemt het aandeel toe van bacteriën die weerstand kunnen bieden tegen antibiotica. Deze bacteriën zijn niet met andere woorden vatbaar of gevoelig voor antibiotica. Ze kunnen ernstige ziekten niet meer even effectief en doeltreffend behandeld worden als voorheen. Ook heelkundige ingrepen van wondzorg tot transplantaties worden risicovol als antibiotica niet meer werken.

# OPGELET: ALLEEN GEBRUIKEN INDIEN NODIG.

ANTIBIOTICA HEBBEN GEEN ZIN BIJ GRIEP, BRONCHITIS OF EEN VERKOUDHEID

## PRAAT EROVER MET JE ARTS OF APOTHEKER

Wanneer heb ik antibiotica nodig? Antibiotica zijn medicijnen die werken tegen bacteriële infecties. Ze zijn niet effectief tegen virale infecties zoals griep, verkoudheid, acute bronchitis en de meeste vormen van keel- en oorsteking. Antibiotica kunnen wel nodig zijn bij ernstige bacteriële infecties, zoals longontsteking, hersenvliesontsteking, wondinfecties en enkele ernstige vormen van keel- en oorsteking. Het is belangrijk om antibiotica alleen te gebruiken wanneer dat nodig is, en ze correct te gebruiken. Praat erover met je arts of apotheker.

OP INFO OP [WWW.GEBRUIKANTIBIOTICACORRECT.BE](http://www.gebruikantibioticacorrect.be)

DESE FOLDER WERKT SAMEN MET DE BELGISCHE COÖRDINATIE VAN HET ANTIBIOTICABELEID (BAPCOC) EN DE BELGISCHE APOTHEKERS VERENIGING (BAPCOC).







18 November  
Europese Antibioticadag  
Een Europees gezondheidsinitiatief

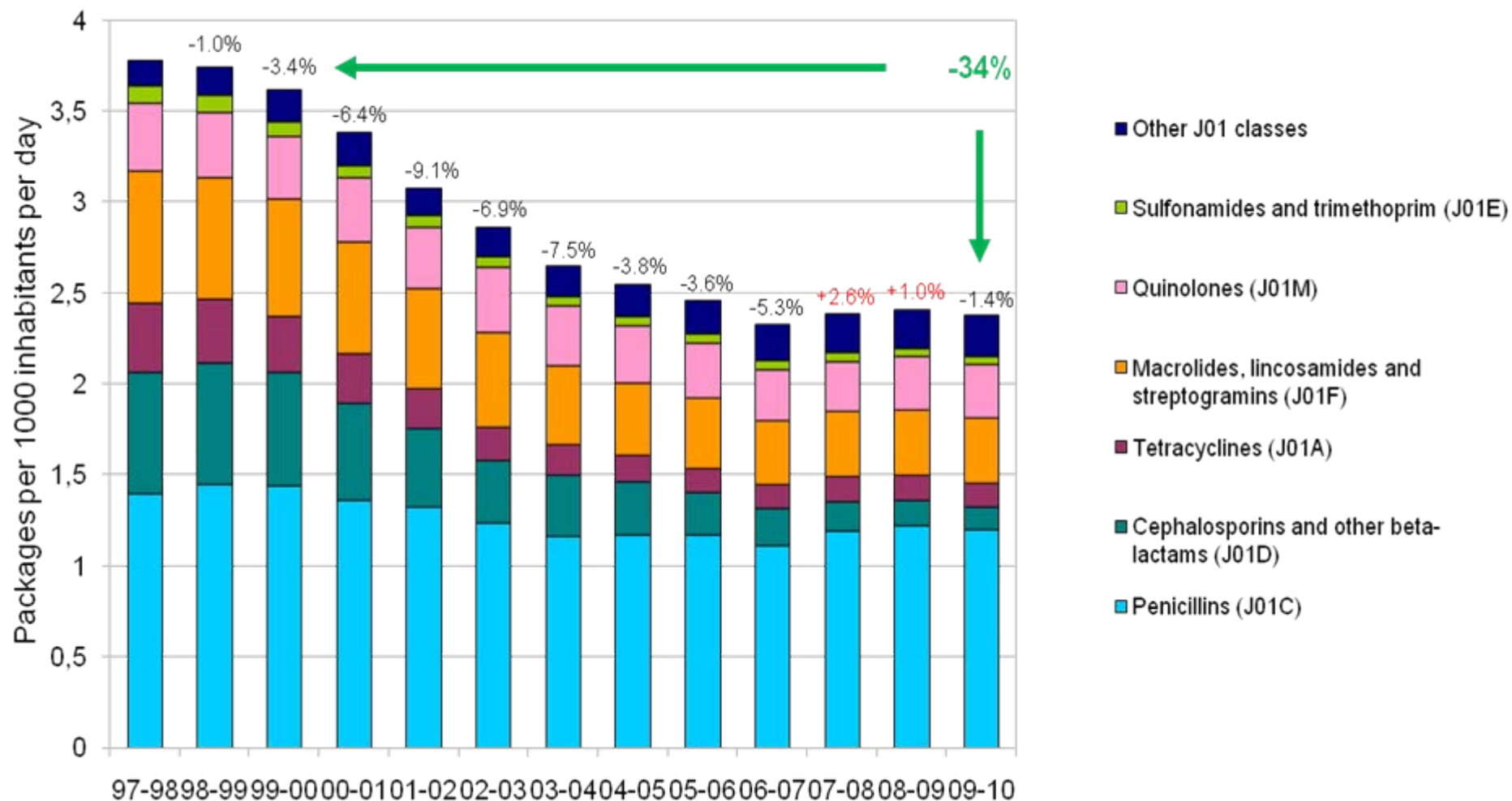
**PLEASE NOTE: ONLY USE WHEN NECESSARY.**  
ANTIBIOTICS DON'T HELP WITH THE FLU, BRONCHITIS OR A COLD.





# Belgian Campaigns 2002-2010

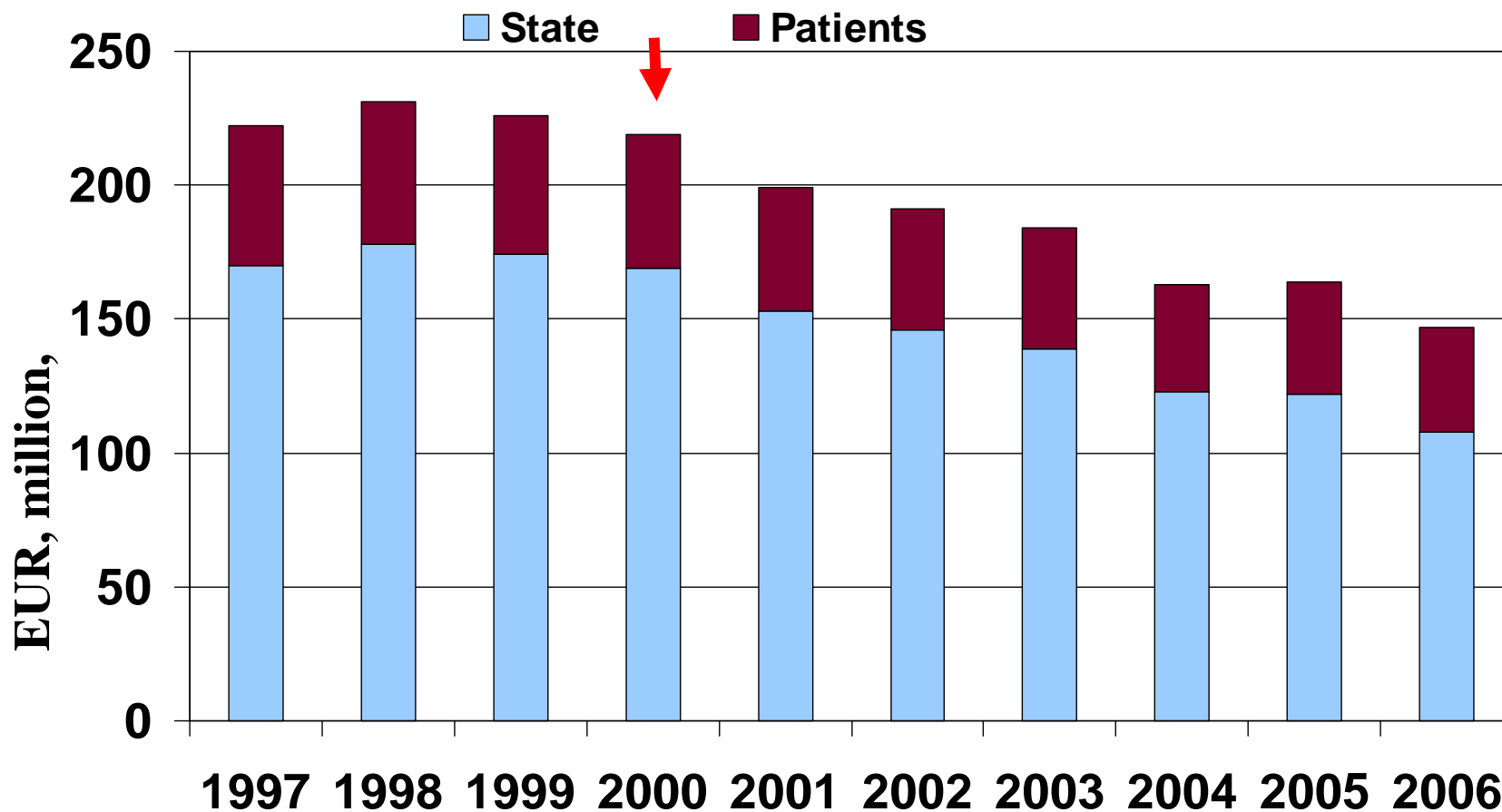
Outpatient antibiotic use in Belgium in packages per 1,000 inhabitants per day – July - June





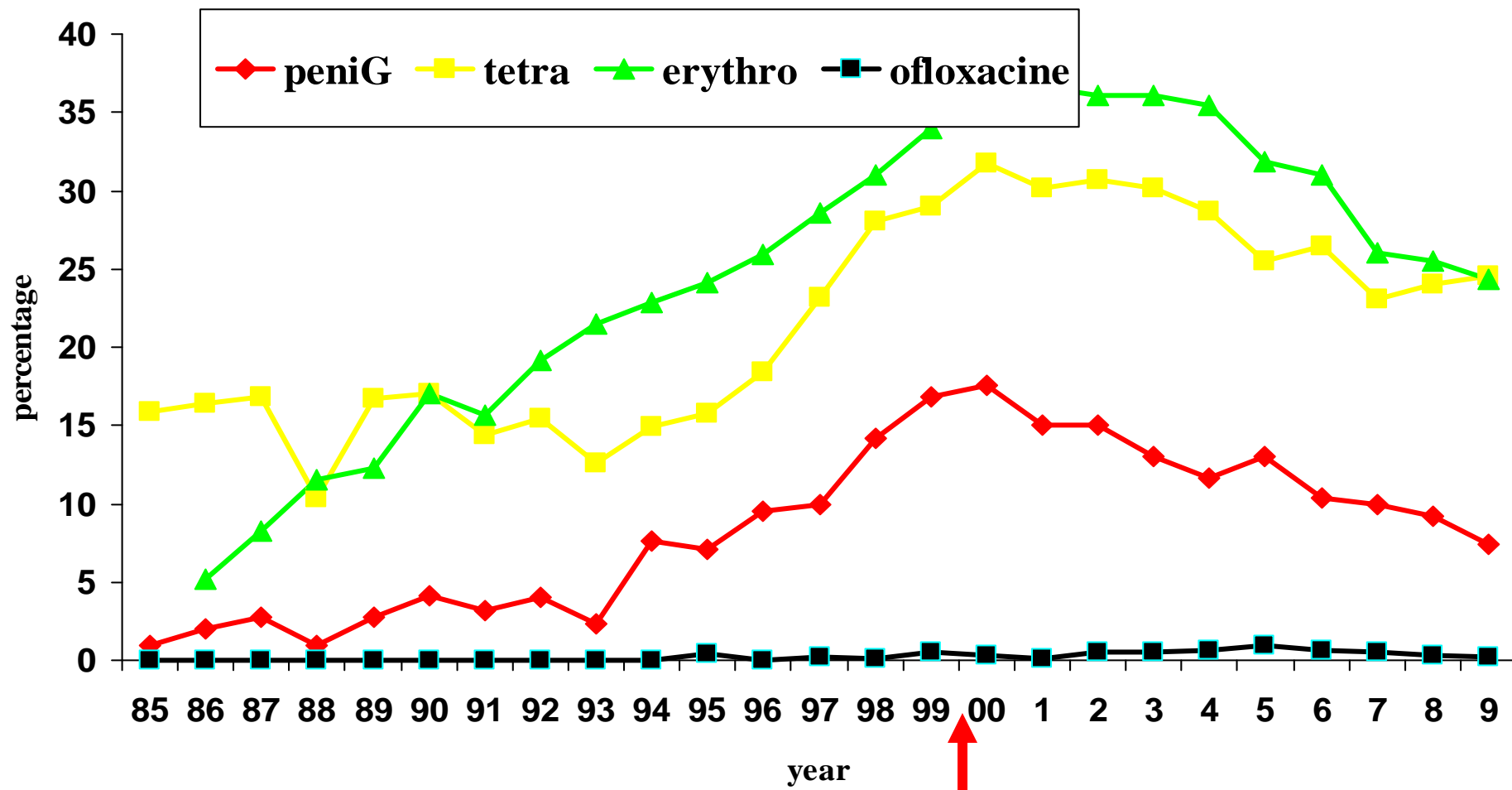
# Belgian Campaigns 2002-2007

Outpatient antibiotic Use in Belgium in EUR,  
January - December





# Antibiotic Resistance of *S. pneumoniae* in Belgium 1985 - 2009

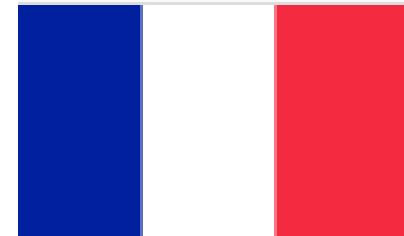


National Reference Centre *S. pneumoniae* (University Leuven)





# French Awareness Campaigns

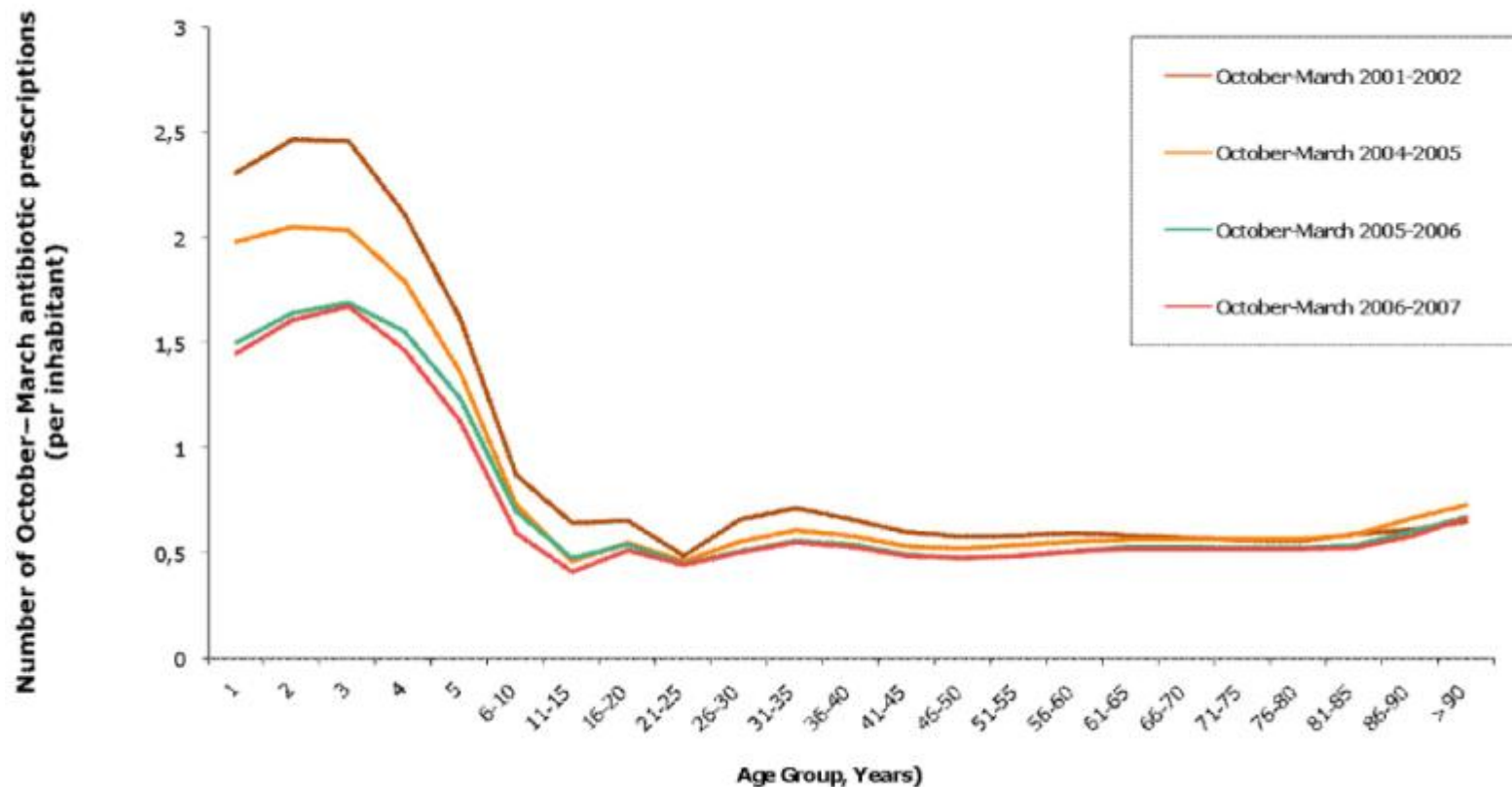


- **When:** since November 2002, annually during winter season
- **Organised by:** French Social Insurance System
- **Budget:**
  - 4 million EUR/annual campaign
- **Interventions targeting the public:**
  - Ads on TV, radio and newspaper
  - Information leaflets
  - Folders
  - Travelling exhibition around France
  - Internet campaigns:  
[www.antibiotiquespasautomatiques.com](http://www.antibiotiquespasautomatiques.com)



# French Campaigns 2002-2007

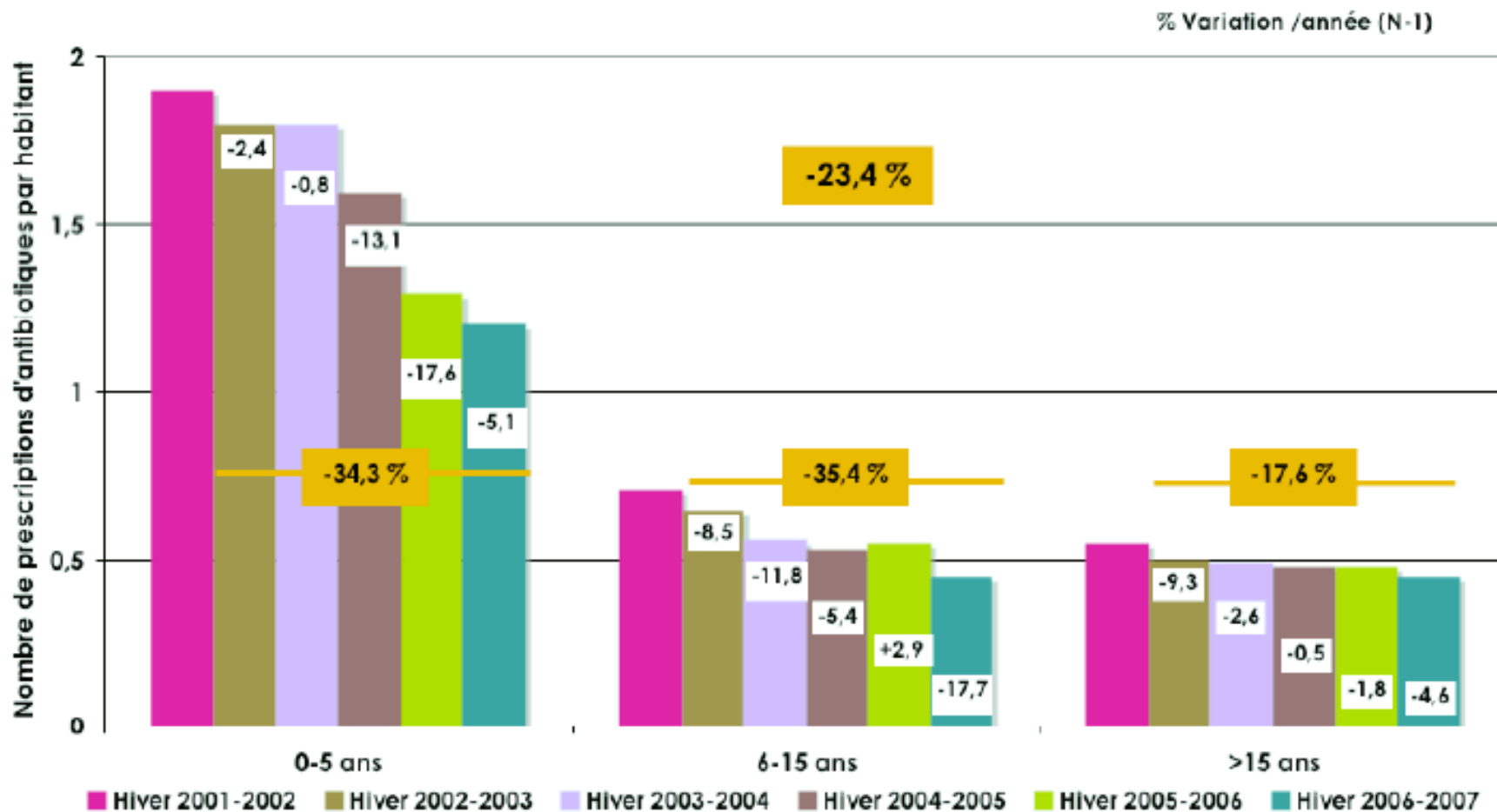
## Outpatient antibiotic use in France in prescriptions per inhabitant – October to March



Sabuncu et al., PloS Medicine; June 2009



# Antibiotic Use by Age Group in France





# Conclusions



- National public campaigns have been very successful to reduce antibiotic use and resistance in Belgium and France
- Huge cost savings: for 1 € invested, about 8 were saved
  - Belgium: 250 million EUR 2000-2010
  - France: 845 million EUR 2002-2010
- Decrease of antibiotic use amplified by the effect of the 7 valent conjugated pneumococcal vaccine
- In both countries actions were also directed towards the prescribers:
  - academic detailing
  - distribution of guidelines
  - individual feed-back of antibiotic prescriptions
  - promotion of streptococcal antigen tests (only France)

**The burden of antibiotic resistance warrants a multifaceted approach**



18 November 2008

# EUROPEAN ANTIBIOTIC AWARENESS DAY



A European Health Initiative





# European Antibiotic Awareness Day, 18 November 2008



- Establishment of Technical Advisory Committee (national experts, Commission, WHO EURO, CPME, ESCMID)
- Focus on awareness raising amongst general public about not using antibiotics when not necessary, e.g. for colds and flu
- Based on successful national campaigns (Belgium and France)



# Slogans & logos



**COLD? FLU?  
TAKE CARE  
NOT ANTIBIOTICS**



A European Health Initiative



**COLD? FLU?  
GET WELL  
WITHOUT ANTIBIOTICS**



A European Health Initiative



**COLD? FLU?  
TAKE CARE  
NOT ANTIBIOTICS**



A European Health Initiative





## Europæisk antibiotikadag

Et europæisk sundhedsinitiativ



## EUROPEAN ANTIBIOTIC AWARENESS DAY

A European Health Initiative



## Europese Antibioticadag

Een Europees gezondheidsinitiatief



## Día Europeo para el Uso Prudente de los Antibióticos

Una iniciativa europea para la salud



## Journée Européenne d'Information sur les Antibiotiques

Une initiative européenne en matière de santé



## Jum Ewropew għall-Għarfien dwar l-Antibijotiċi

Inizjattiva Ewropea għas-Saħħa



## Europejski Dzień Wiedzy o Antybiotykach

Europejska inicjatywa zdrowotna



## Europeiska Antibiotikadagen

Ett folkhälsoinitiativ från EU



## Európai Antibiotikum Nap

Európai egészségügyi kezdeményezés



## Ziua Europeană a Informării despre Antibiotice

O inițiativă europeană în domeniul sănătății



## Ευρωπαϊκή Ημέρα Αντιβιοτικών

Μια πρωτοβουλία της Ευρωπαϊκής  
Ένωσης για την υγεία





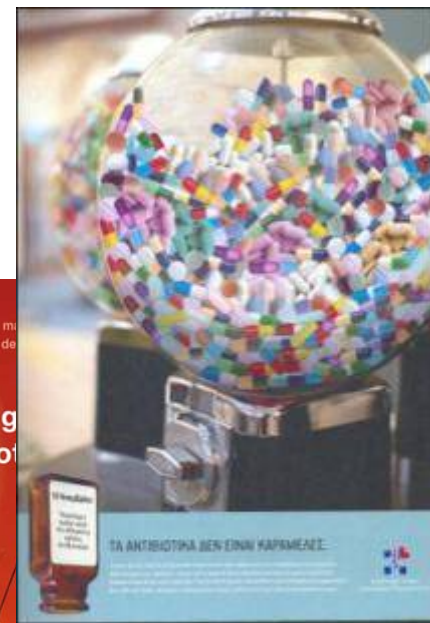


# Images from National Campaigns on Prudent Use of Antibiotics





# Images from National Campaigns: Belgium, Cyprus, Poland, England, Luxembourg, Greece





**COLD? FLU?**



**GET WELL  
WITHOUT  
ANTIBIOTICS**

18 November  
2009

For more information, visit  
[antibiotic.ecdc.europa.eu](http://antibiotic.ecdc.europa.eu)

EUROPEAN  
ANTIBIOTIC  
AWARENESS DAY

A European Health Initiative





# EAAD, 2008-2011



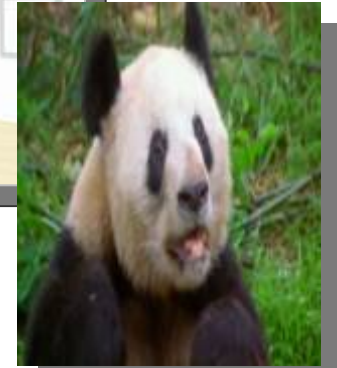
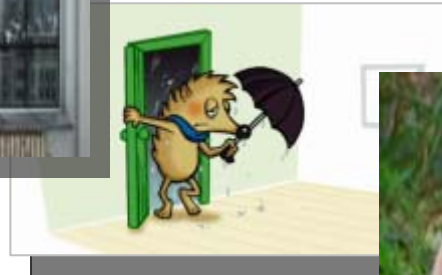
## 2008

Materials for general public  
32 countries participated



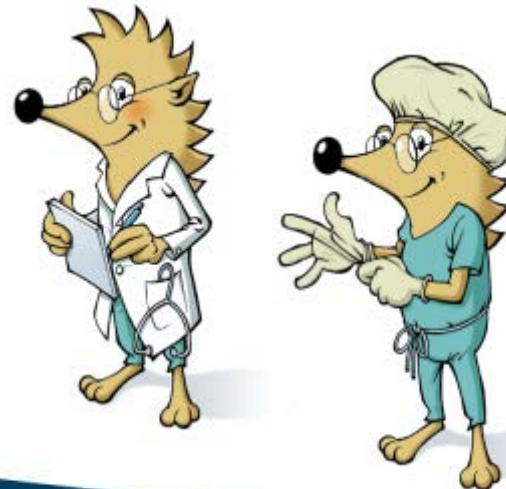
## 2009

- Article in Eurosurveillance
- Materials for primary care prescribers
- Website translated in all EU languages, three TV spots developed
- 34 countries participated



## 2010

- 36 countries participated
- Materials for hospital prescribers
- Matched Get Smart week in the United States and the campaign in Canada



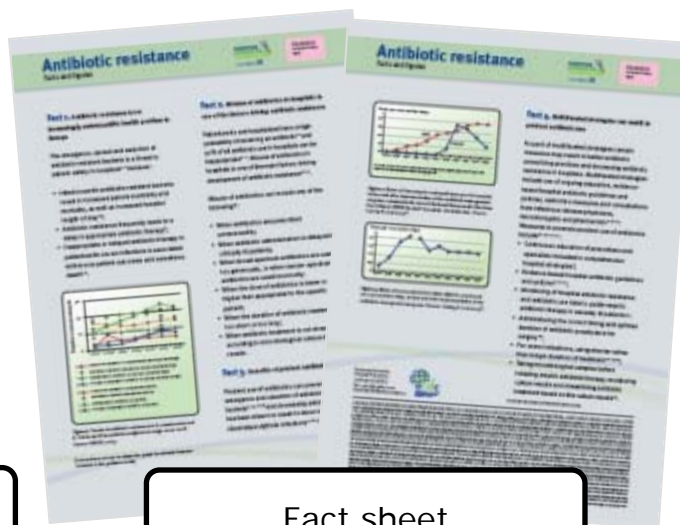




# Toolkit for Hospital Prescribers



Advertorial



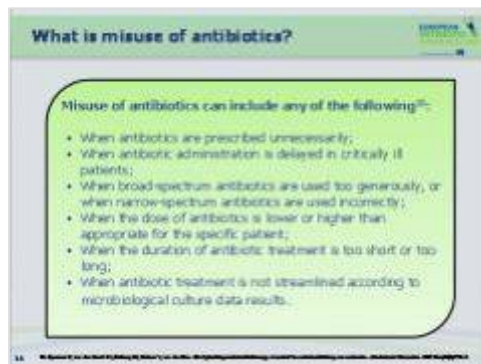
Fact sheet



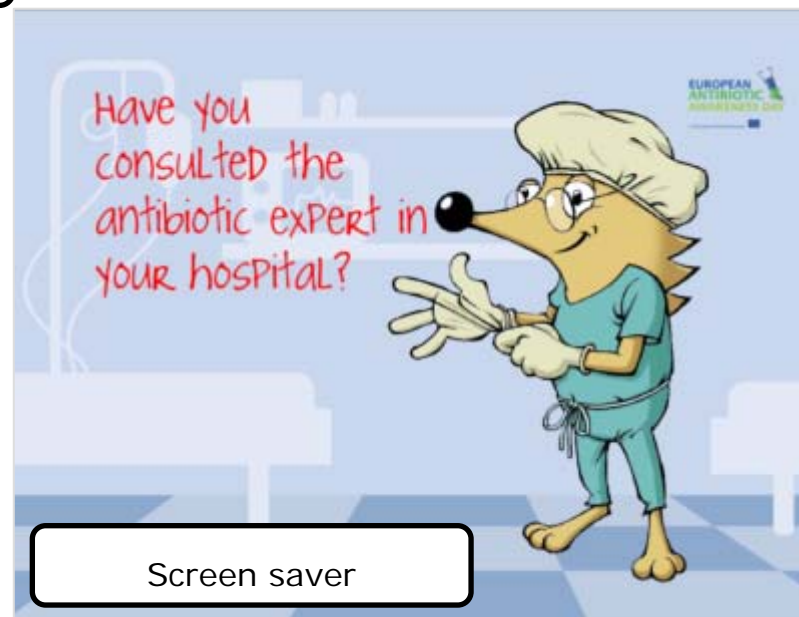
Web banner



Check list



PPT Presentation



Screen saver



# EAAD 2010

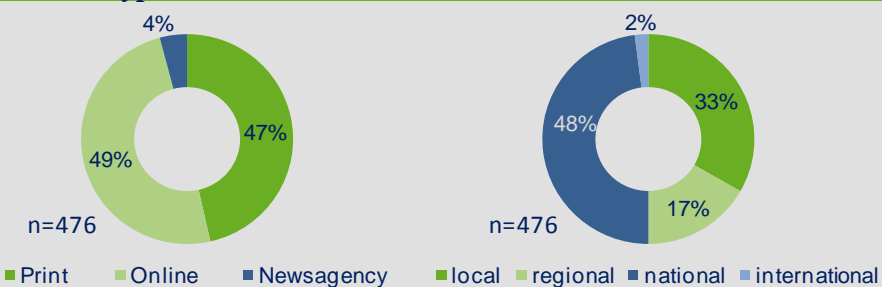
## Media coverage



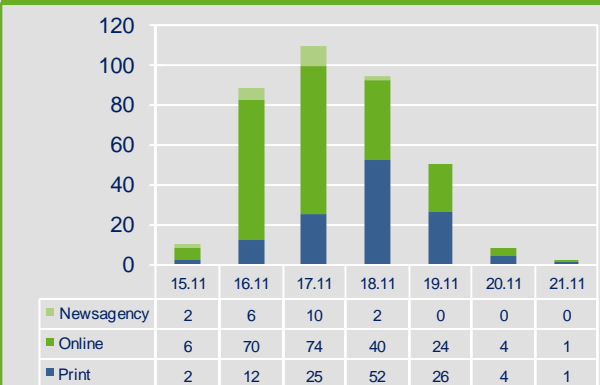
### Key Figures

- Number of clippings 476
- Reach (print) 51,334,208
- Circulation (print) 17,152,770
- Visits (online) 54,241,600

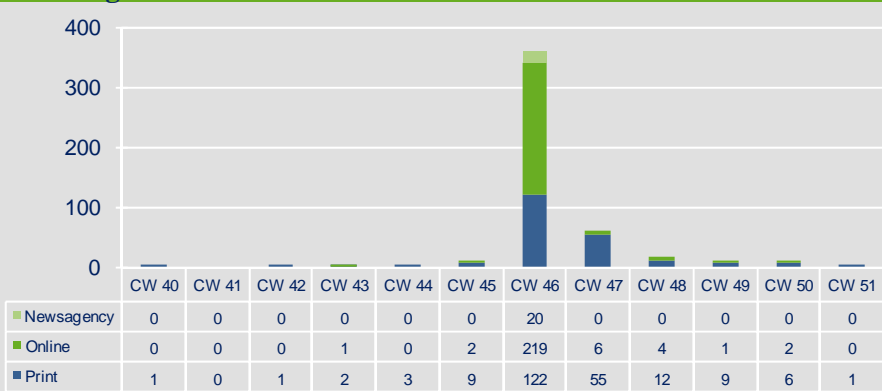
### Media Type Media Distribution



### Peak Week 46



### Coverage in the Course of Time





# Eurobarometer Opinion Poll, November-December 2009



Antibiotics kill viruses. True or false?

% respondents with correct answer

(i.e., "false"): 36% (range: 14 – 73%)

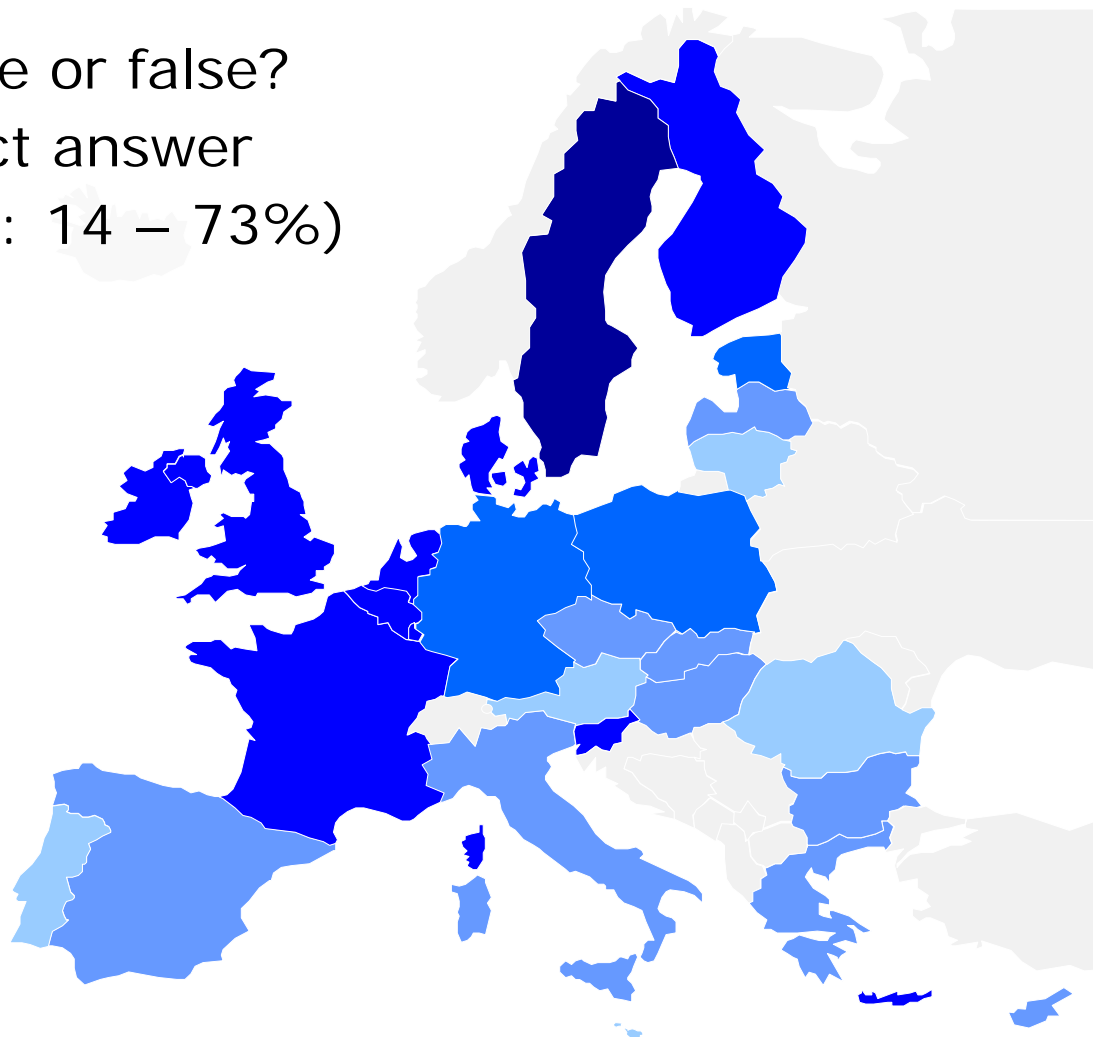
61 – 73%

41 – 60%

31 – 40%

21 – 30%

14 – 20%





# Why is the EAAD so successful ?



- Strong upfront political support and commitment at European and national level;
- Planning well ahead;
- Building on existing success stories of countries;
- Early establishment of a Technical Advisory Committee with dedicated experts;
- Briefing of national communications contact points prior to the campaign and sharing contact information;
- Initiation of a broad stakeholder contact programme to inform interest groups and invite contributions;
- Good support from professional organisations,
- Development of campaign key messages and visuals with the support of experts in social marketing.

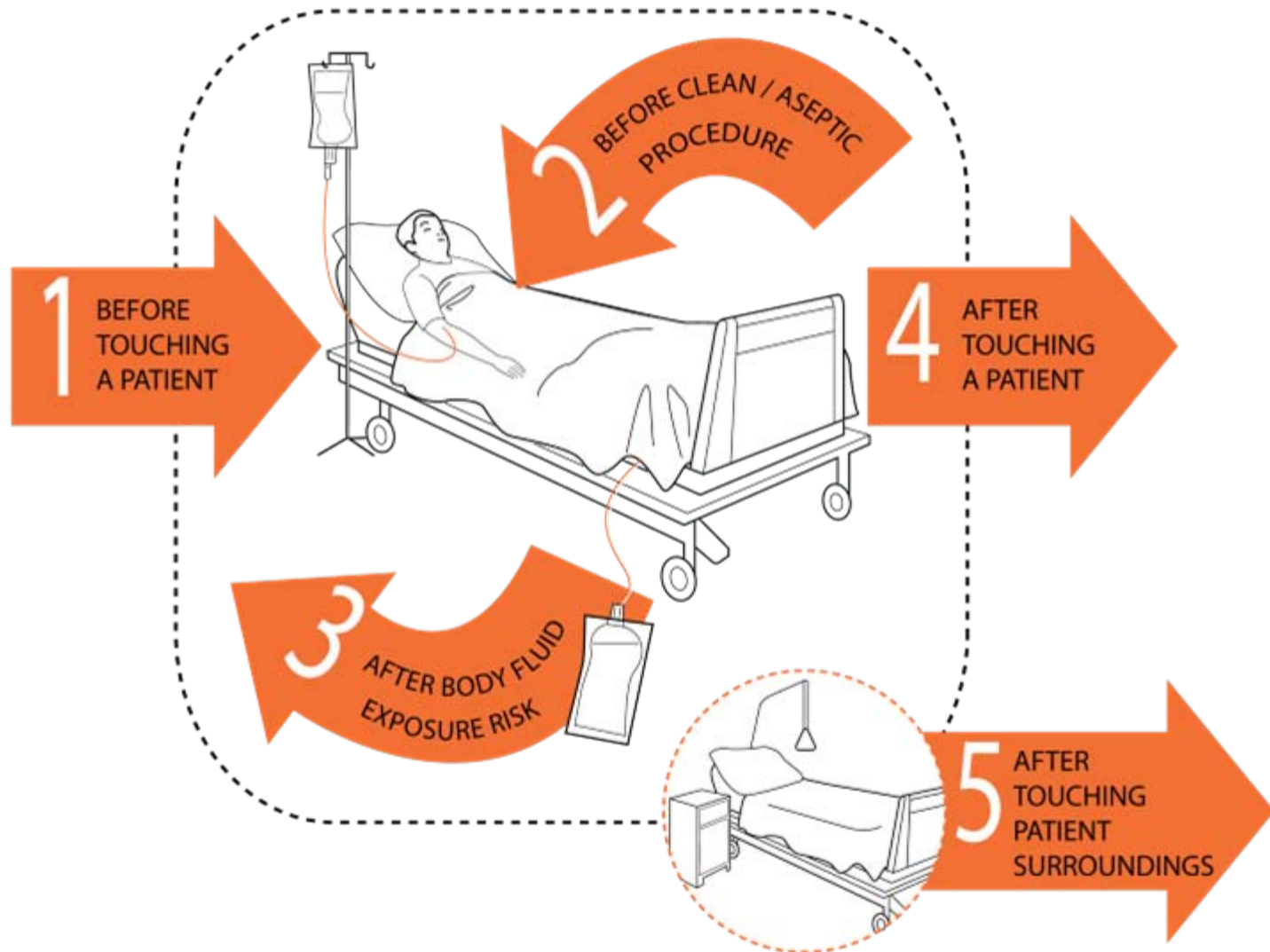


## FIRST GLOBAL PATIENT SAFETY CHALLENGE



To reduce  
health care-associated infections  
**Hand hygiene as the cornerstone**





# Hygiène des mains

## Quand ?

### Les 5 indications



#### AVANT contact patient



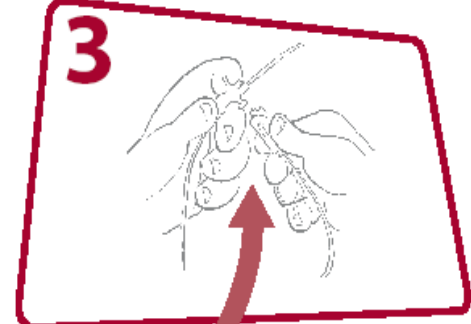
**1**  
 Avant tout contact direct avec un patient  
 Un contact social court (par ex. serrer la main)  
 est probablement associé à un risque de transmission  
 moindre

#### APRES contact patient



**2**  
 En quittant un patient après un ou des contacts directs

#### AVANT acte propre/invasif



**3**  
 Immédiatement avant un soin propre  
 Immédiatement avant un geste invasif

► Port de gants si risque d'exposition à des  
 liquides biologiques ou des muqueuses

#### APRES exposition aux liquides biologiques



**4**  
 Après un acte comportant un risque  
 d'exposition à des liquides biologiques qui  
 normalement s'anticipe par le port de gants

► En cas d'exposition accidentelle à des liquides biologi-  
 ques ou des muqueuses, lavage des mains suivi d'une  
 friction à la solution hydro-alcoolique

#### APRES contact avec l'environnement du patient



**5**  
 Après avoir touché des objets ou des surfaces  
 à proximité immédiate du patient

► L'environnement peut avoir été contaminé par  
 le patient ou lors d'un soin précédent

En cas de souillures visibles,  
 se laver les mains, les sécher  
 puis les désinfecter  
 avec la solution hydro-alcoolique







## Nation-wide campaign:

- **2004:** preparation of first campaign by working group of federal platform of hospital hygiene with the financial support of the ministry of Health
- **Objective:** Raising awareness on good hand hygiene practices and promote use of alcohol handrubs
- **Target population:**
  - **HCW** having contact with patients in hospitals
  - And hospitalised **patients**
  - In acute, chronic and psychiatric hospitals



# Methodology:

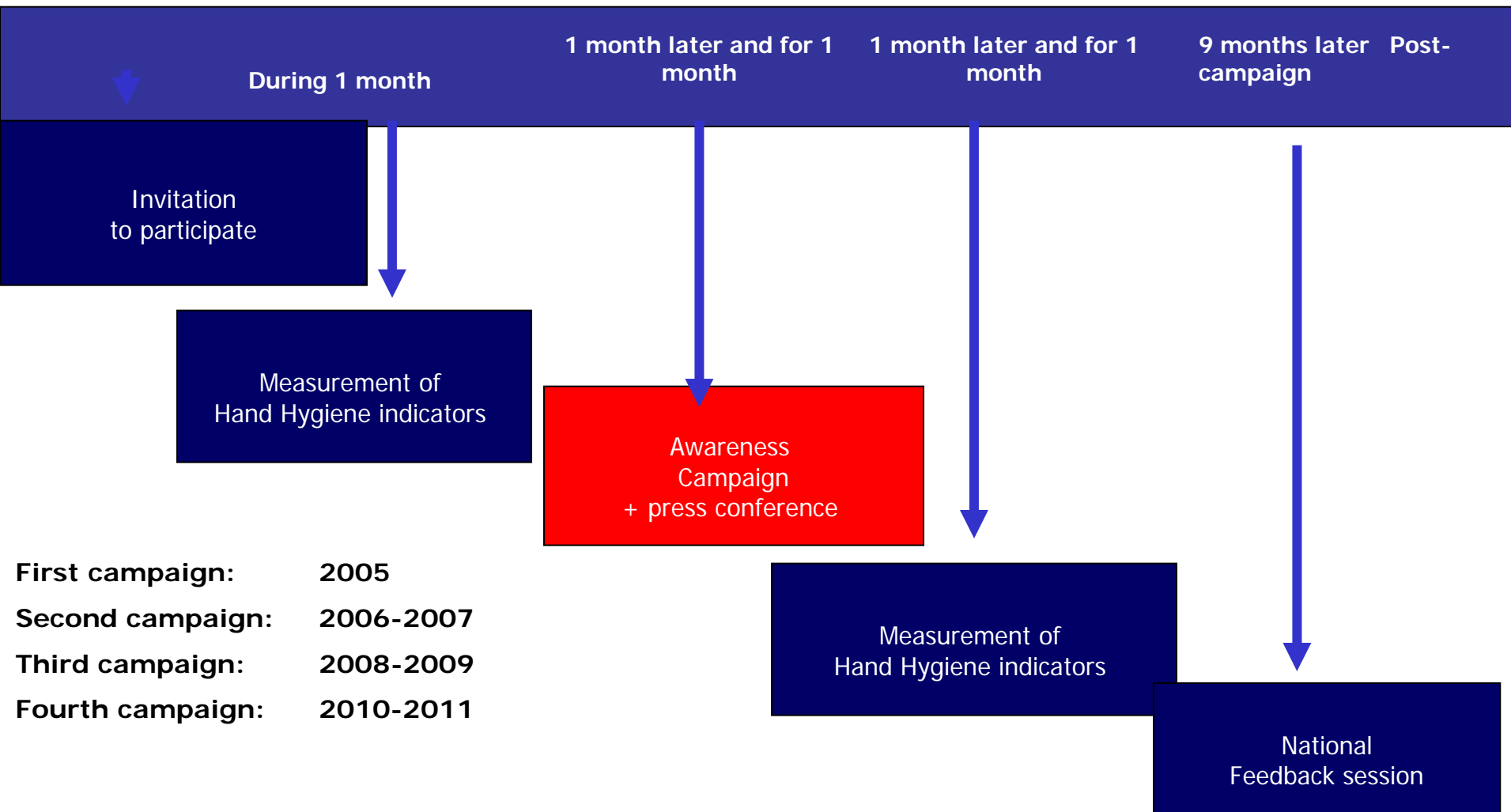
## Two components



1. **Awareness campaign** with standardised material to improve Hand Hygiene compliance distributed to participating institutions
2. **Measuring** impact of the campaign
  - Hand Hygiene compliance (soap and/or alcohol / Hand Hygiene opportunities)
  - Alcohol rub consumption (liters alcohol rub / 10,000 patient days)
  - Respect of basic hygiene conditions (optional, only 3rd campaign)



# Planning of Campaigns



# Awareness Campaigns: Multi Modal

- Reminders (posters) in accordance with the WHO guidelines
- Education of Healthcare workers
  - Standardised powerpoint presentation
  - Interactive quiz
- Distribution of gadgets for Healthcare workers or patients
- Promotion of hand rub (posters, black light)
- Implication of patients (leaflets, gadget)
- Feedback of measurement results before and after campaign



# Campaign Messages and Targets Varied!



- **First campaign:**
  - Hand hygiene, just do it ... and with alcohol rubs
- **Second campaign:**
  - Hand hygiene, do it correctly
- **Third campaign:**
  - Do not wear jewellery or artificial nails and keep your nails clean
  - Use gloves correctly
- **Fourth campaign:**
  - Patient empowerment: "Did you disinfect your hands" to increase the compliance before patient contact and to try to exceed the 70% compliance after campaign



# Distribution of Average Hand Hygiene Compliance



N hop

n=148

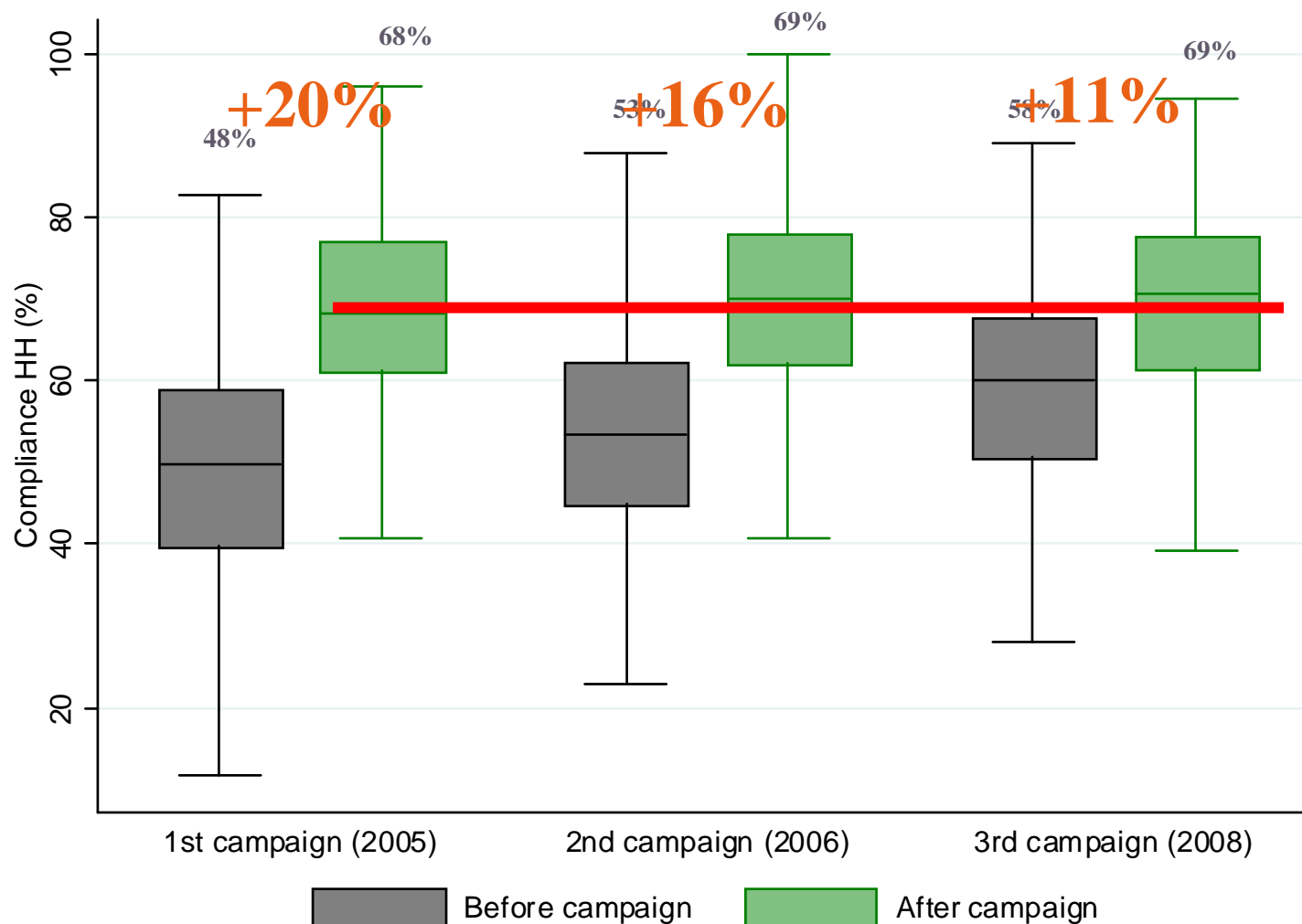
n=127

n=178

n=158

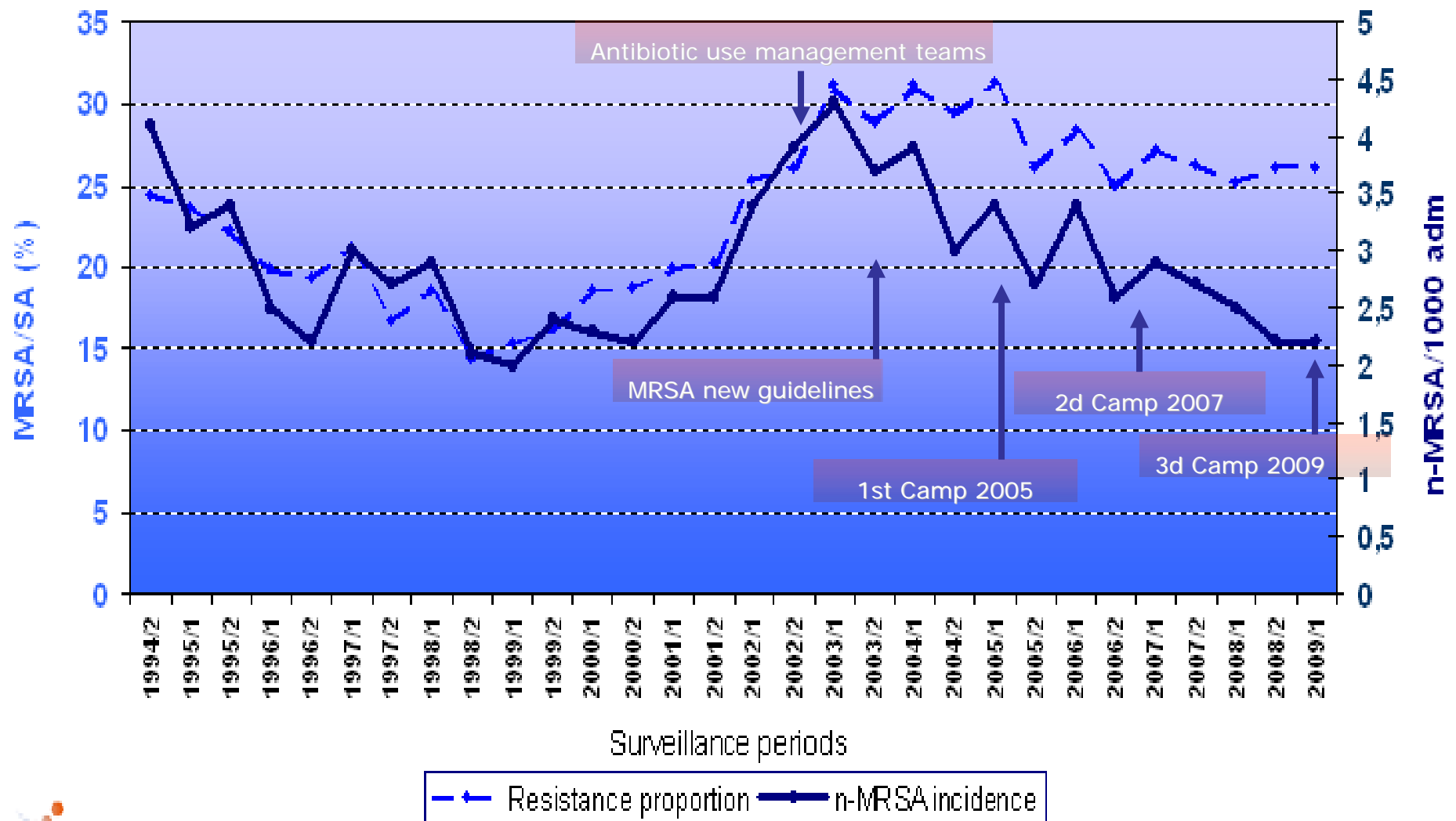
n=168

n=145



# MRSA in Belgian acute care hospitals: proportion of *S.aureus* clinical isolates and incidence of nosocomial acquisition

1994 - 2009







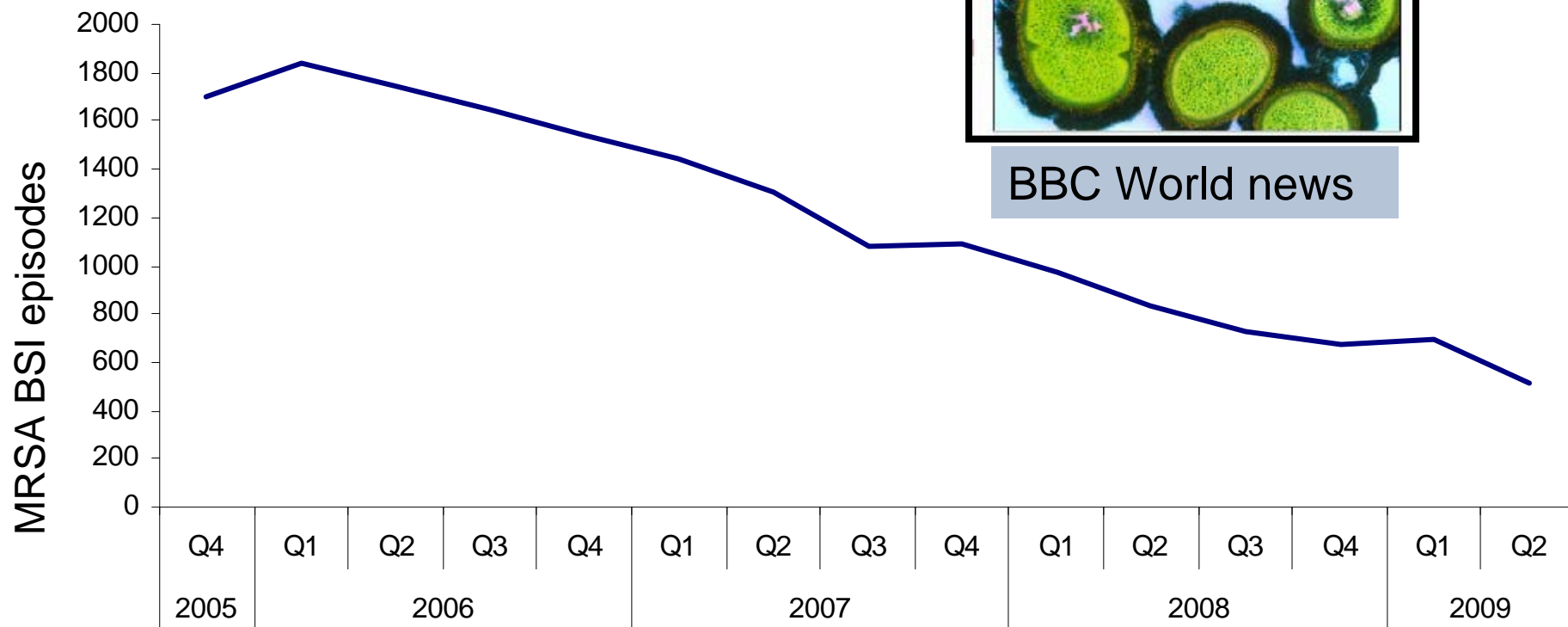
# Conclusion: Campaigns Were Successful



- High participation rate
  - Increase of Hand Hygiene compliance at short and long term
  - Alcohol rub widely used
- ➔ Key factors for success:
- Multi modal awareness campaign
  - Repetition of campaign
  - National implication
  - Political and financial support



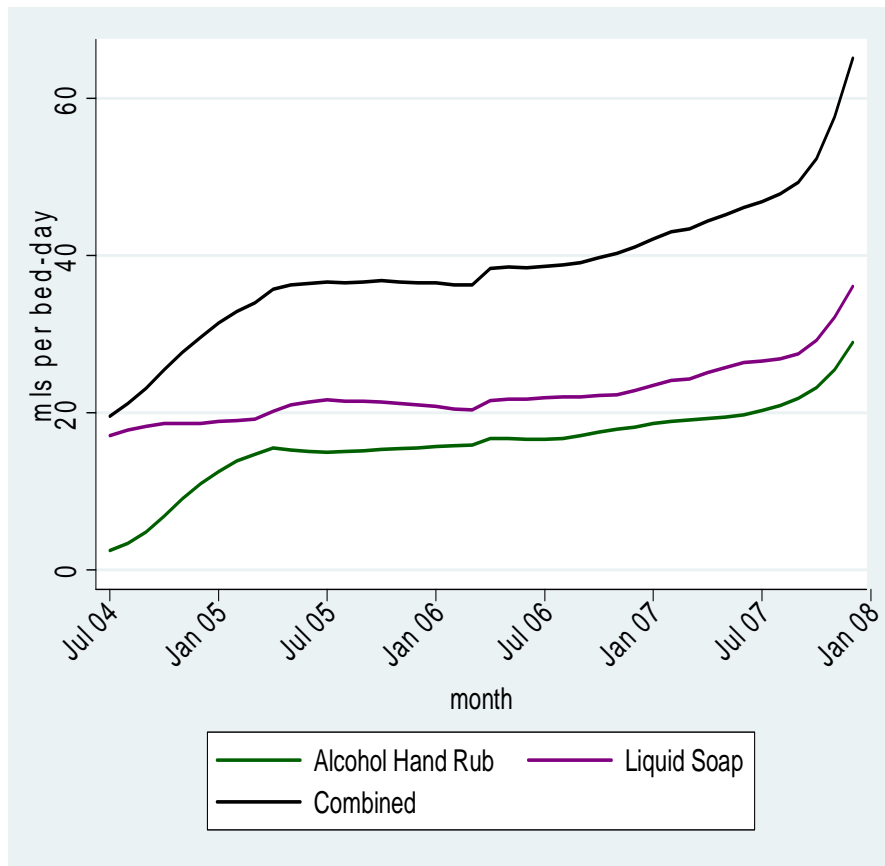
# Counts of MRSA Bacteraemia Oct 2005 to June 2009



A. Pearson and colleagues (HPA, Sept 2009)



## Estimated average procurement of Alcohol Hand Rub and Liquid Soap in mls per bed-day July 2004-December 2007 in 148 acute NHS Trusts

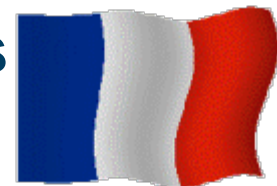


- 3-fold increase in combined use to 60 mls per pt-day
- Analysis shows highly significant association between each ml of AHR used and 1% drop fall in MRSA BSI

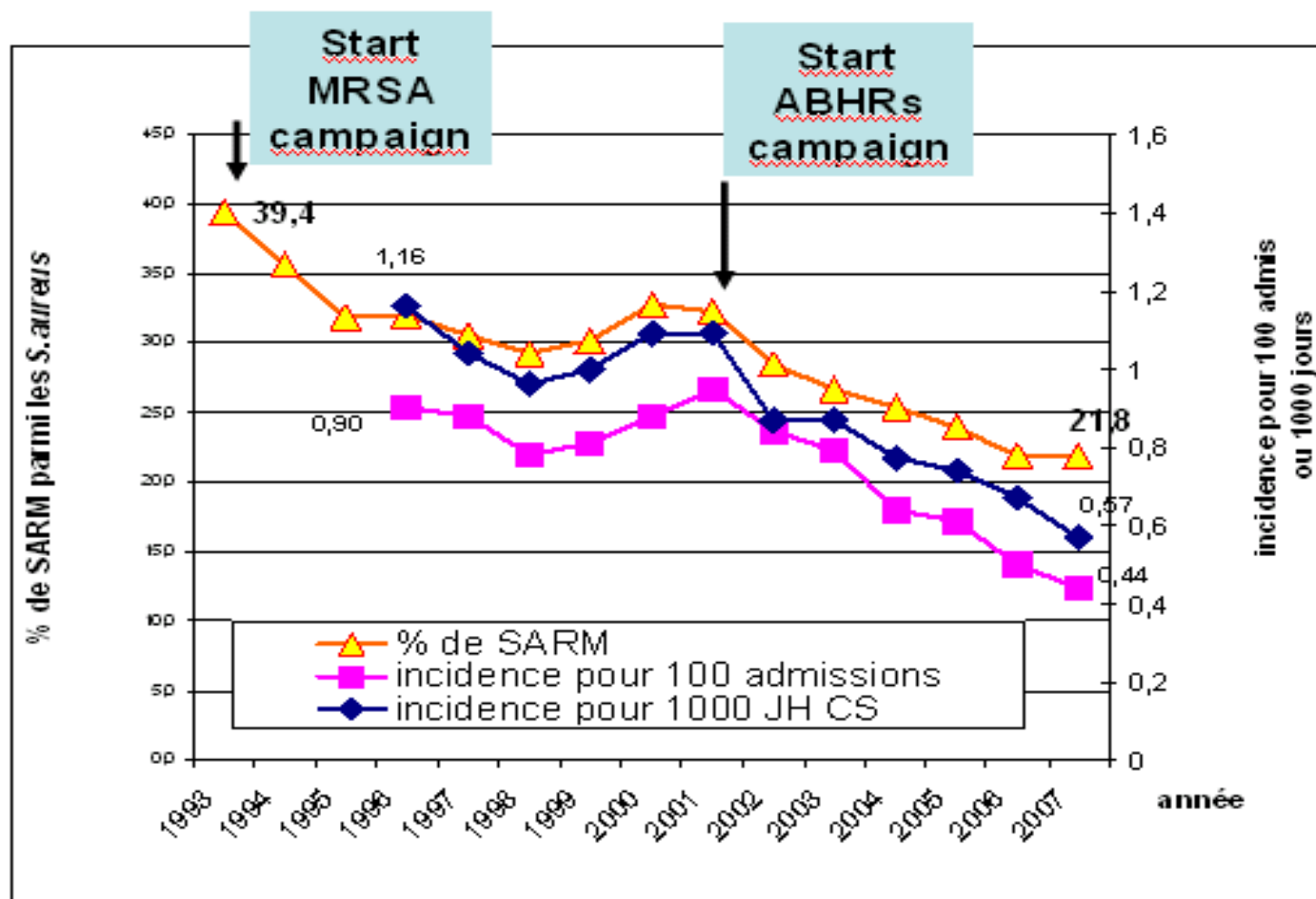
Stone S et al. ECCMID  
2009 (abstract O140)



# % MRSA and incidence per 100 admissions or 1000 days of hospitalisation.



Univ. hospitals of Paris (n=39) 1993-2007

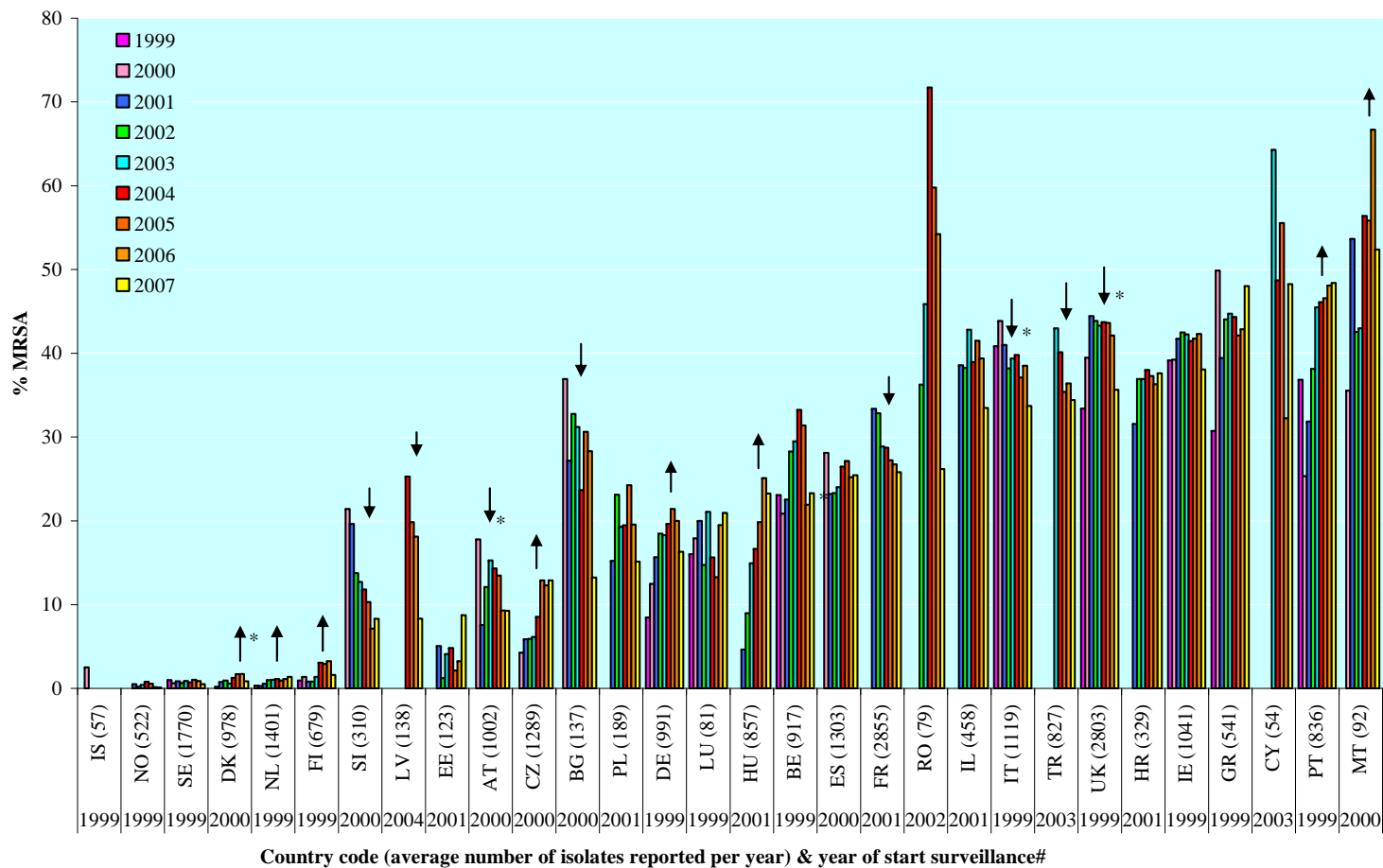




# Many Success Stories in Europe:



## MRSA Bacteraemia Trends in Europe, 2007



Courtesy: Grundmann et al. (EARSS)



# **Expert-Proposed European Strategies to Monitor and control Infection, Antibiotic Use and Resistance in Health-care Facilities**



- Initiate or continue hand hygiene campaigns and use hand hygiene as a quality indicator
- Collection and monitoring of structure-of-care quality indicators and indicators of good practice (e.g. consumption of alcohol solution)
- ECDC Point Prevalence Surveys on HAI and AB Use (completed in all Member States by November 2012; repeated at least once every 5 years)
- National LTCF resident safety programmes, external audits of LTCF and monitoring

Goossens, Lancet Infect Dis 2011, April 7th



# Outline



- Problems of antibiotic (ab)use and resistance in Europe
- Towards a European antibiotic policy
  - First steps
  - Member States initiatives
- National and European campaigns
  - On prudent antibiotic use
  - On hand hygiene in hospitals
- Towards a Global policy
  - Transatlantic Task Force for Antimicrobial Resistance (TATFAR)
  - World Health Day, April 7th 2011





# Trans Atlantic Task Force on Antimicrobial Resistance - TATFAR



## EU-US Summit Declaration – Washington 3 November 2009



The EU-US Summit Declaration called for the establishment of “...a transatlantic task force on urgent antimicrobial resistance issues focused 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, which could be better addressed by intensified cooperation between us”.



# Organisations - US



United States Department of Health and Human Services:



➤ Office of Global Health Affairs (OGHA)



➤ Centers for Disease Control and Prevention (CDC)



➤ Food and Drug Administration (FDA)



➤ National Institutes of Health, National Institute of Allergy and Infectious Diseases (NIAID/NIH)



# Organisations - EU



## ***European Commission:***

EC-Directorate General for Health and Consumers

EC-Directorate General for Research

European Centre for Disease Prevention and Control (ECDC)

European Medicines Agency (EMA)

European Food Safety Authority (EFSA)



## ***Council of the European Union:***

Represented by the TRIO Presidency (Spain, Belgium, Hungary)





# TATFAR Outcome and Timeline



The expected outcome of the TATFAR is a review of ongoing and planned activities and a proposal with suggestions for areas of future collaboration between the EU and the US.

September

Launch of EU interaction with third parties based on Commission website consultation

December

Interim draft reports from working groups (including input from public consultations)

31 March Final report

2010

2011

June  
TATFAR face to face meeting, US

October - November  
U.S. stakeholder meeting

January  
Final draft reports from working groups

March  
Face to face meeting, EU



And Now....



World Health Day, 7 April, 2011

# COMBAT DRUG RESISTANCE

**No action today,  
no cure tomorrow**





# Conclusion



“We have watched too passively as the treasury of drugs that has served us well has been stripped of its value. We urge our colleagues worldwide to take responsibility for the protection of this precious resource. There is no longer time for silence and complacency”.

Carlet J, Collignon P, Goldman D, Goossens H, Gyssens I, Harbarth S, Jarlier V, Levy S, N'Doye B, Pittet D, Richtmann R, Seto W, van der Meer J and Voss A.  
Lancet, 2011; April 7th





# Acknowledgement



Anne Simon and many other colleagues of the  
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ECDC, Stockholm