



European Antibiotic Awareness Day: Promoting prudent antibiotic use in Europe

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ECDC – European Centre for Disease Prevention and Control



- An agency of the European Union, located in Stockholm, Sweden
- Founded in 2005; nearly 300 employees in 2016
- Mandate to 'identify, assess and communicate current and emerging threats to human health from communicable diseases'
- European Union (EU) (28) and European Economic Area (EEA) (3) = 31 countries with a total of more than 500 million people

This presentation

1. What is **European Antibiotic Awareness Day (EAAD)**?
2. Data on antibiotic use in Europe and the level of awareness of Europeans
3. Key targets, messages and material of the initiative
4. New toolkit for hospital settings
5. How to support the initiative and forward look

What is European Antibiotic Awareness Day?



- European Antibiotic Awareness Day (EAAD) is a European health initiative marked across Europe on 18 November each year
- To raise awareness and promote prudent use of antibiotics
- The campaign builds on successful national campaigns to raise awareness about the threat to human health of antibiotic resistance and communicate about prudent antibiotic use
- EAAD was launched in 2008 with support from the European Commission, European Parliament, EU Member States and non-governmental health stakeholders across the EU

European Antibiotic Awareness Day: objectives

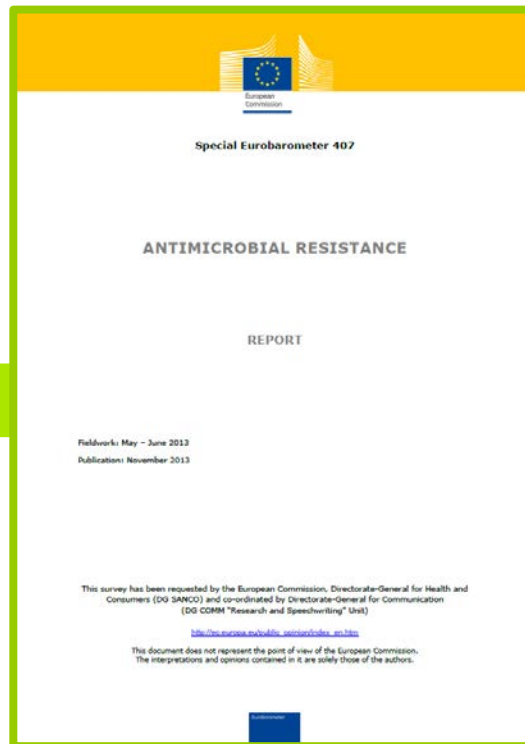
- Support national activities aimed at raising awareness of prudent antibiotic use among the general public as well as particular target audiences such as primary care prescribers and hospital prescribers
- Support national activities aiming at maintaining the efficacy of antibiotics and slowing down the emergence and spread of resistant bacteria.

European Antibiotic Awareness Day (EAAD) provides a platform and support to national campaigns about prudent antibiotic use in the community and in hospitals.

Special Eurobarometer "Antimicrobial Resistance", 2010, 2013 & 2016



Special Eurobarometer 338
"Antimicrobial resistance"
Nov-Dec 2009



Special Eurobarometer 407
"Antimicrobial resistance"
May-June 2013



Special Eurobarometer 445
"Antimicrobial resistance"
April 2016

http://ec.europa.eu/dgs/health_food-safety/amr/projects/index_en.htm
"Related information", "Eurobarometers"

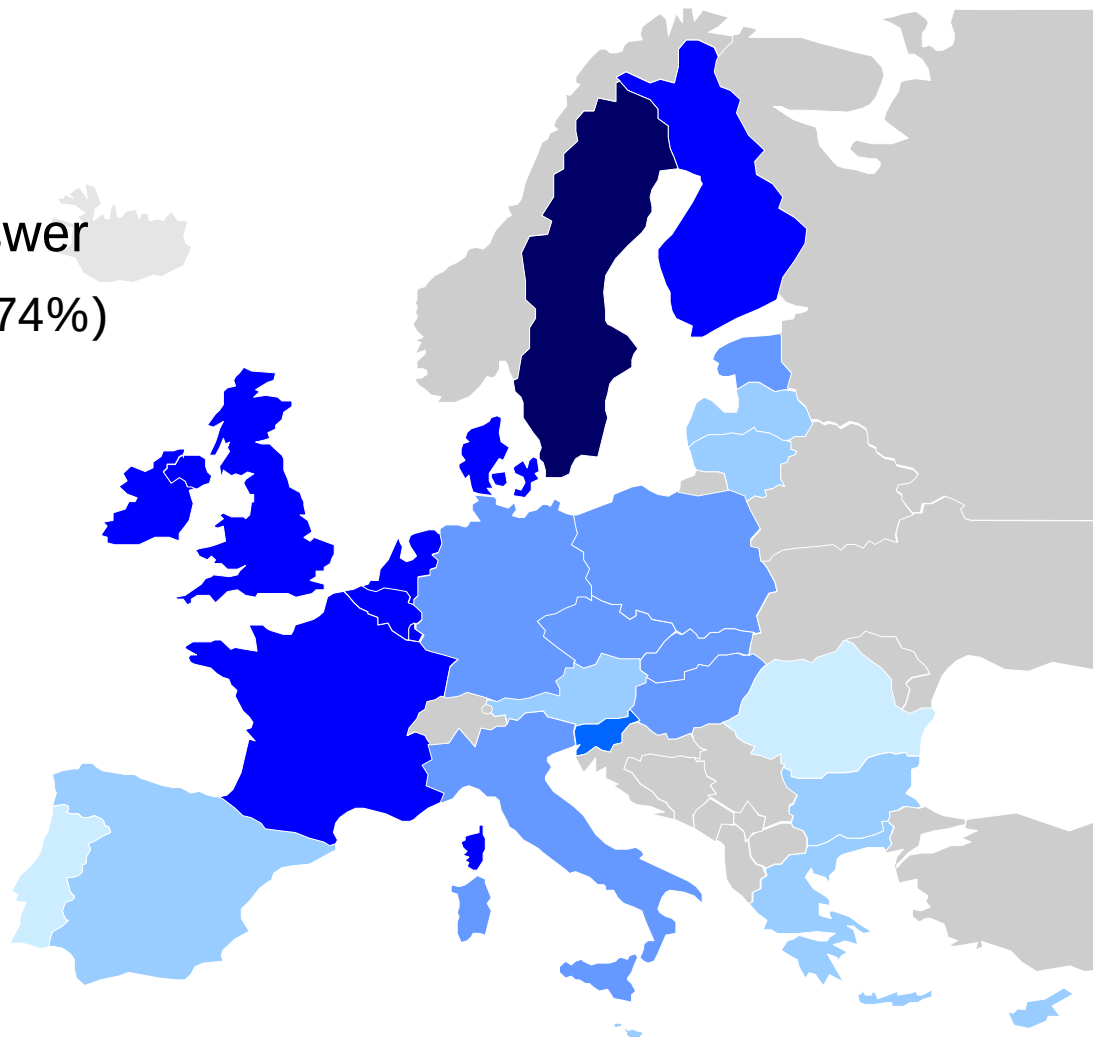
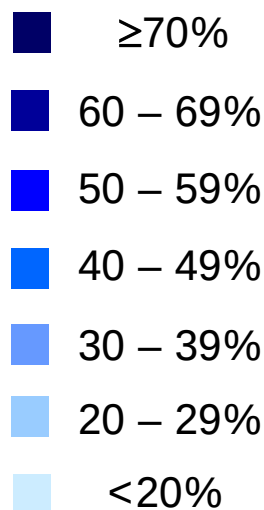
Special Eurobarometer opinion poll, May-June 2013



Antibiotics kill viruses.

True or false?

% respondents with correct answer
(i.e., "false"): 40% (range: 15 – 74%)



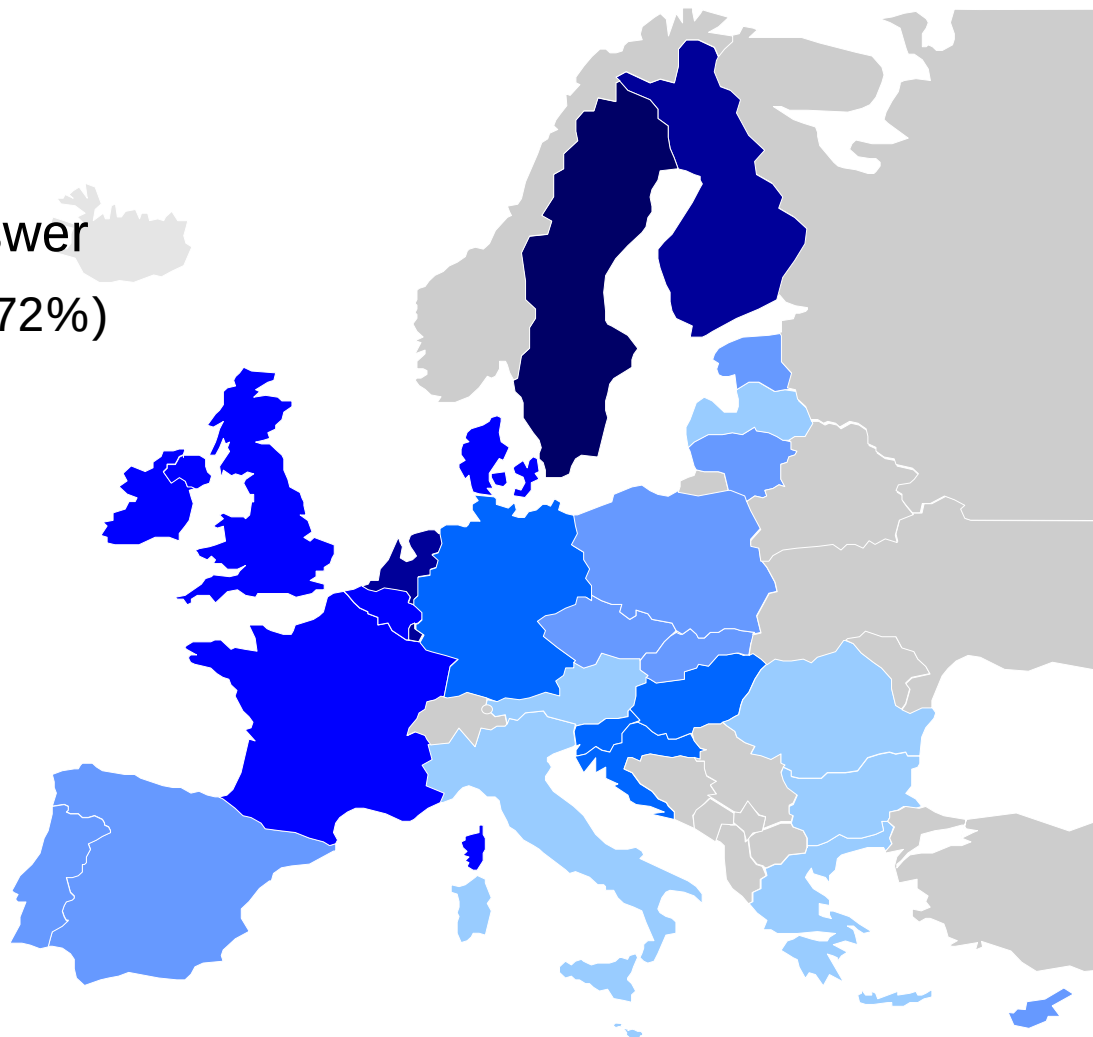
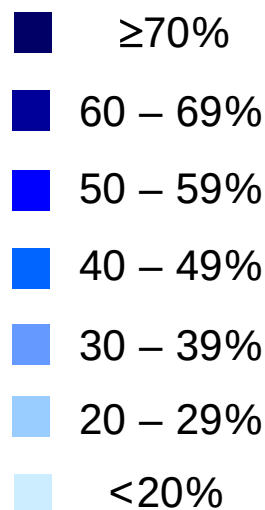
Special Eurobarometer opinion poll, April 2016



Antibiotics kill viruses.

True or false?

% respondents with correct answer
(i.e., "false"): 43% (range: 20 – 72%)

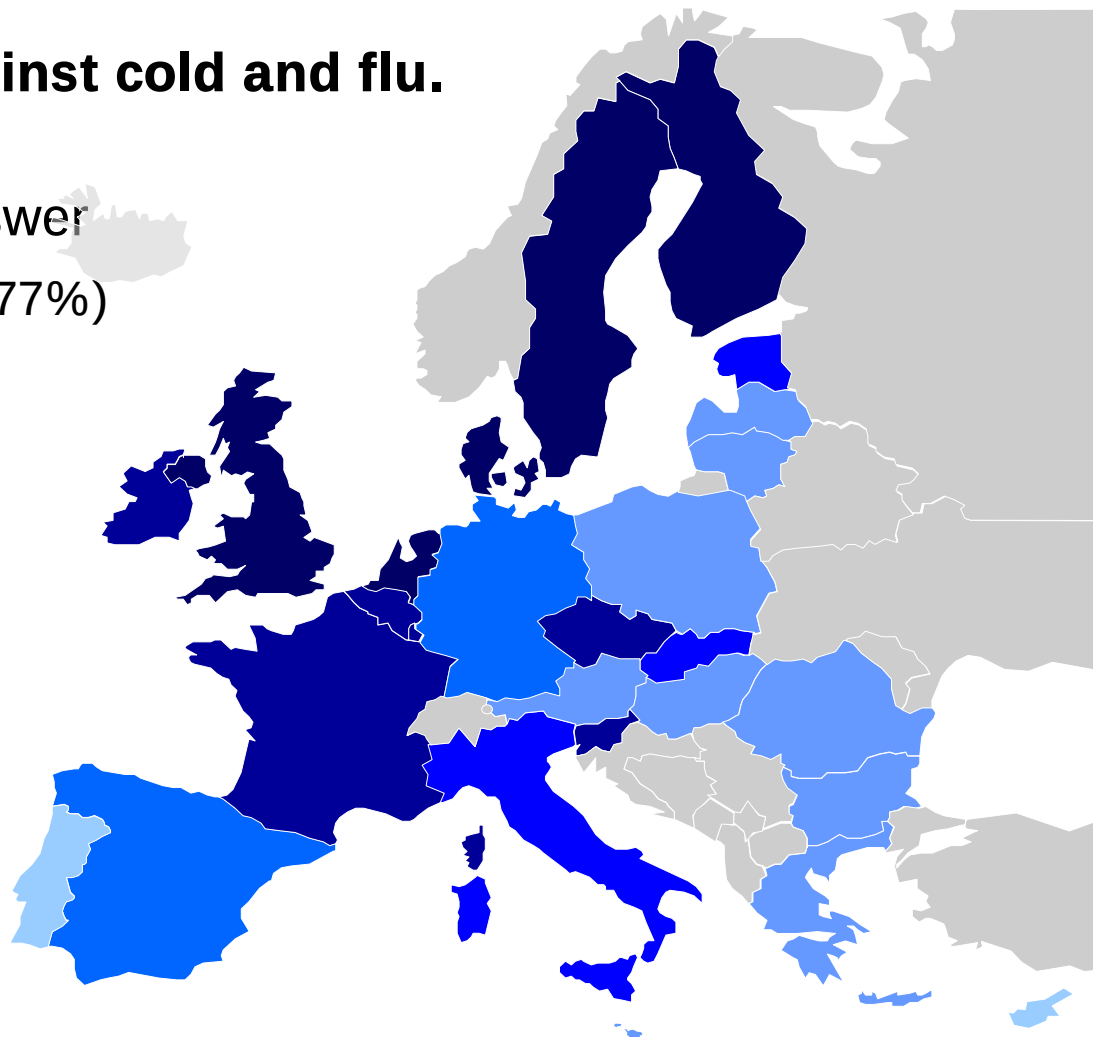
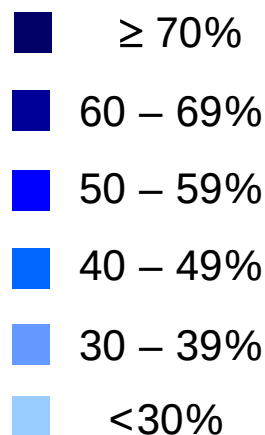


Special Eurobarometer opinion poll, May-June 2013



Antibiotics are effective against cold and flu. True or false?

% respondents with correct answer
(i.e., "false"): 52% (range: 24 – 77%)

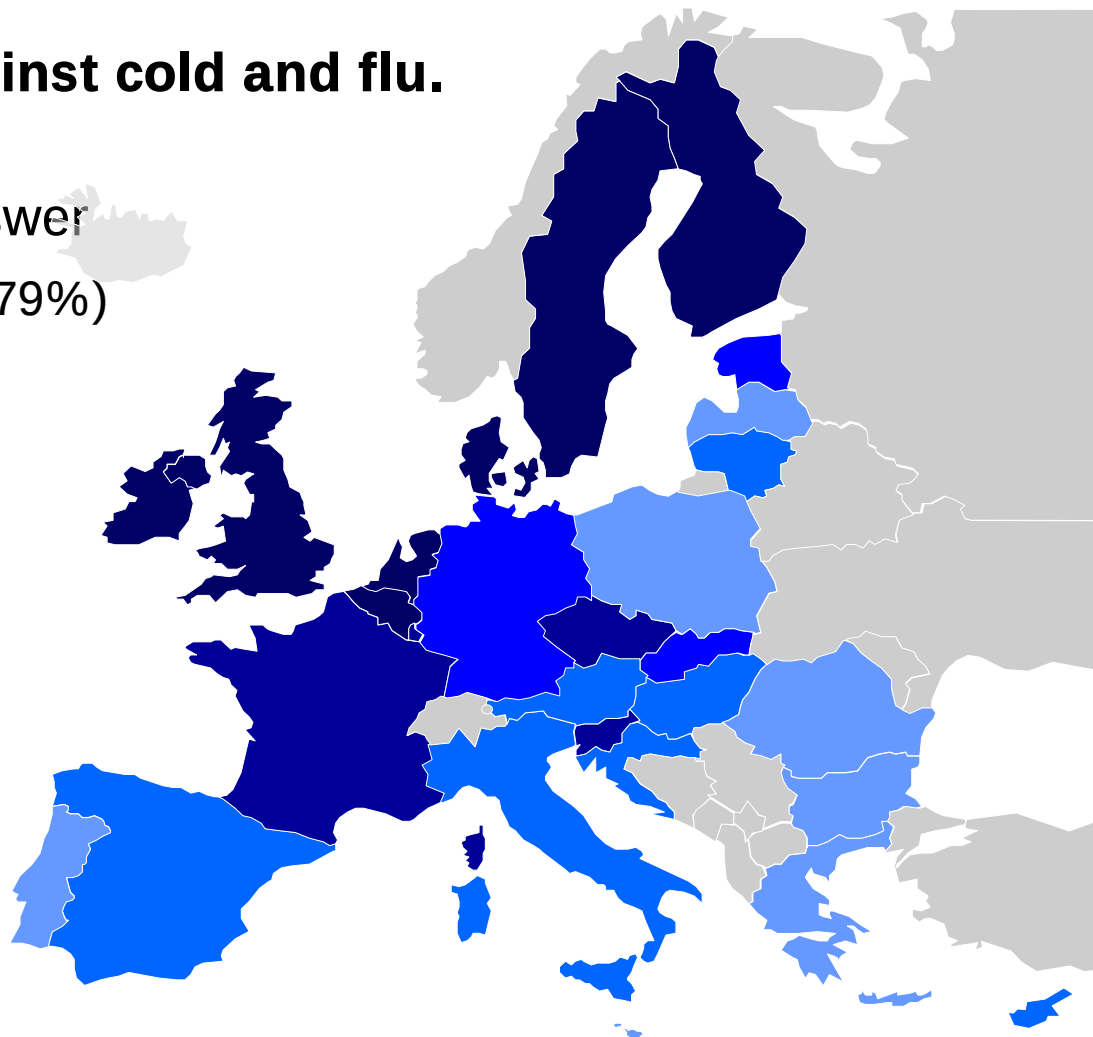
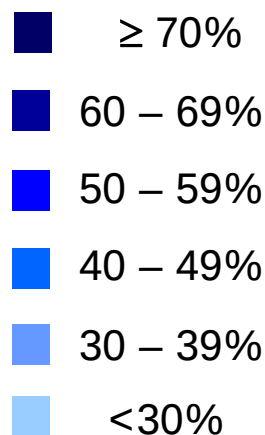


Special Eurobarometer opinion poll, April 2016



Antibiotics are effective against cold and flu. True or false?

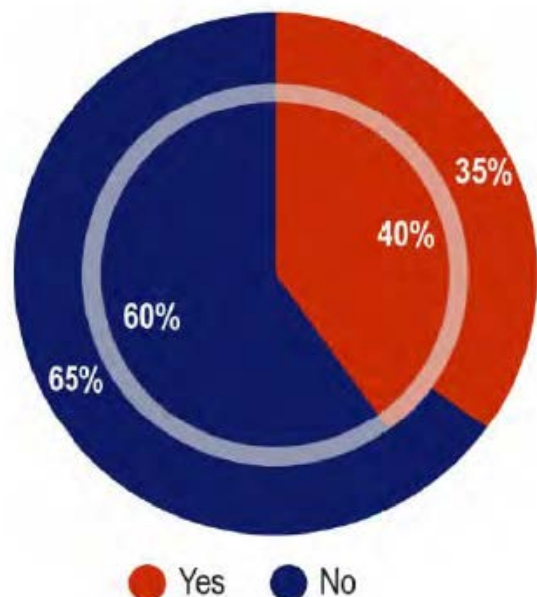
% respondents with correct answer
(i.e., "false"): 56% (range: 30 – 79%)



Behaviour of European citizens, 2009-2013: oral antibiotics vs. smoking

Taking antibiotics

(orally, in the last 12 months)

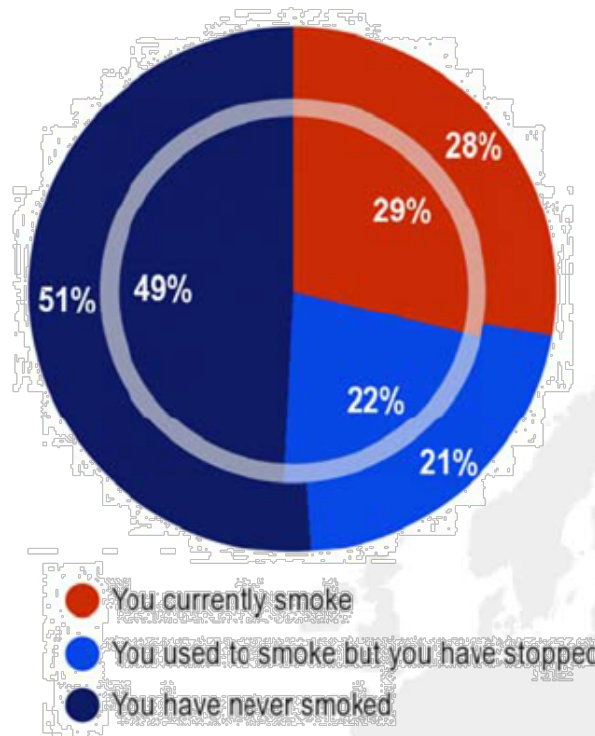


Inner pie : 2009 (EB72.5 11-12)

Outer pie : 2013 (EB79.4 05-06)

Smoking

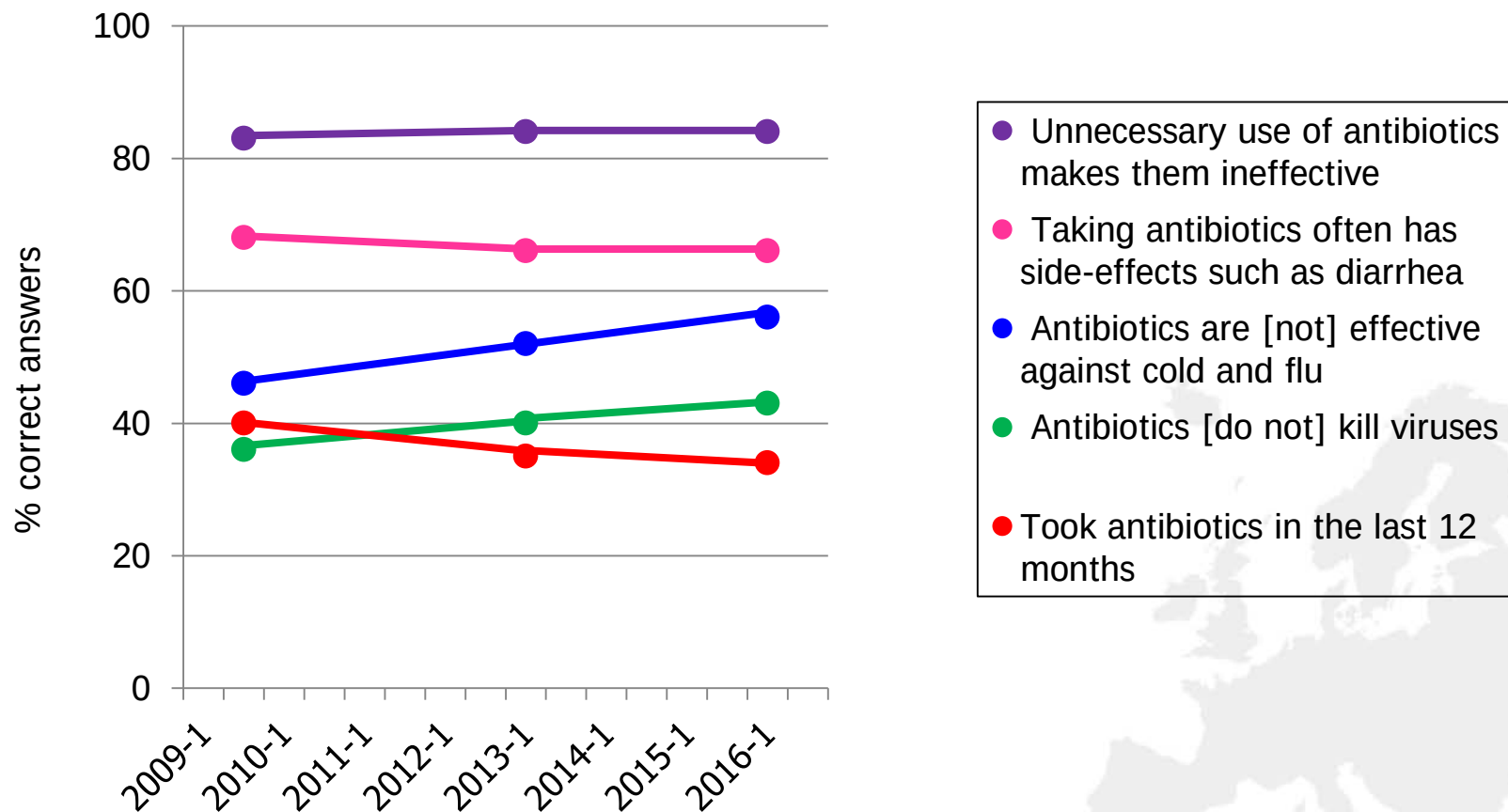
(cigarettes, cigars or a pipe)



Inner pie : EB72.3 Oct. 2009

Outer pie : EB77.1 Feb.-Mar. 2012

Special Eurobarometer "Antimicrobial Resistance", 2010, 2013 & 2016

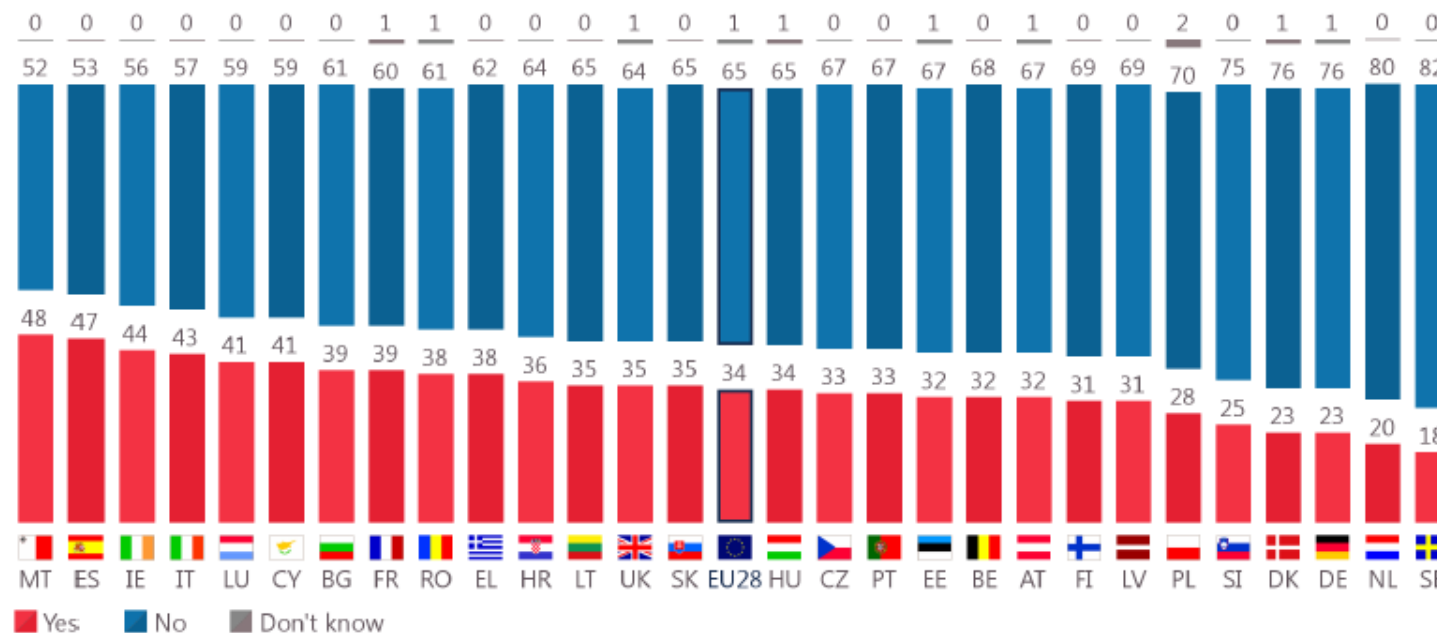


Use of antibiotics during the last year, 2016



QB1 Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months?

(%)



Total base (N=27,969)

ES		47	▲ 9
IT		43	▲ 7
HU		34	▲ 5
HR		36	▲ 4
BG		39	▲ 2
EL		38	▲ 2
PL		28	▲ 2
IE		44	▲ 1
MT		48	=
CZ		33	=
EU28		34	▼ 1
AT		32	▼ 1
LU		41	▼ 2
EE		32	▼ 3
SI		25	▼ 3
LT		35	▼ 4
DE		23	▼ 4
FR		39	▼ 5
PT		33	▼ 5
FI		31	▼ 5
CY		41	▼ 6
UK		35	▼ 6
SK		35	▼ 6
BE		32	▼ 6
SE		18	▼ 6
LV		31	▼ 8
DK		23	▼ 8
NL		20	▼ 8
RO		38	▼ 9

Defined daily doses (DDD) per 1000 inh. and per day

Country	2015	Trends in antimicrobial consumption, 2011–2015
Netherlands	10.7	↓
Estonia	11.6	
Sweden	12.3	↓
Latvia	13.3	
Austria	14.0	
Germany	14.3	
Slovenia	14.5	
Norway	15.8	
Denmark	16.1	
Lithuania	16.7	
Hungary	17.0	
Finland	17.2	↓
Czech Republic	19.6	
Iceland	19.9	
United Kingdom	20.1	
Portugal (a)	21.3†	
Bulgaria	21.4	
Croatia	21.8	
Malta	22.2	
Spain	22.2†	
EU/EEA	22.4	
Slovakia	24.5	
Ireland	25.6	
Poland (a)	26.2	
Luxembourg	26.3	
Italy	27.5	
Belgium	29.2	
France	29.9	
Cyprus	31.1*	
Romania	33.3*	
Greece	36.1	

Packages per 1000 inh. and per day

Country	2015	Trends in consumption of antibiotics, 2011–2015
Sweden	0.99	↓
Denmark	1.58	↓
Estonia	1.68	↓
Latvia	1.71	
Austria	1.73	
Finland	1.79	↓
Slovenia	1.94	
Spain	1.95†	↓
Lithuania (a)(b)	1.98	
Czech Republic	2.00	
Iceland (a)(b)	2.09	
Portugal	2.14†	
Luxembourg	2.48	↓
Ireland	2.53	
Croatia	2.65	
Belgium	2.76	
Bulgaria	3.01	
Slovakia (a)(b)	3.05	
EU/EEA	3.13	
Italy	3.65	
Greece	3.89	
France	4.74	

* Total care data, including the hospital sector.
† Reimbursement data (i.e. not including consumption without a prescription and other non-reimbursed courses).

(a) Countries that changed the type of reported data (reimbursement versus sales data) between 2011 and 2015.

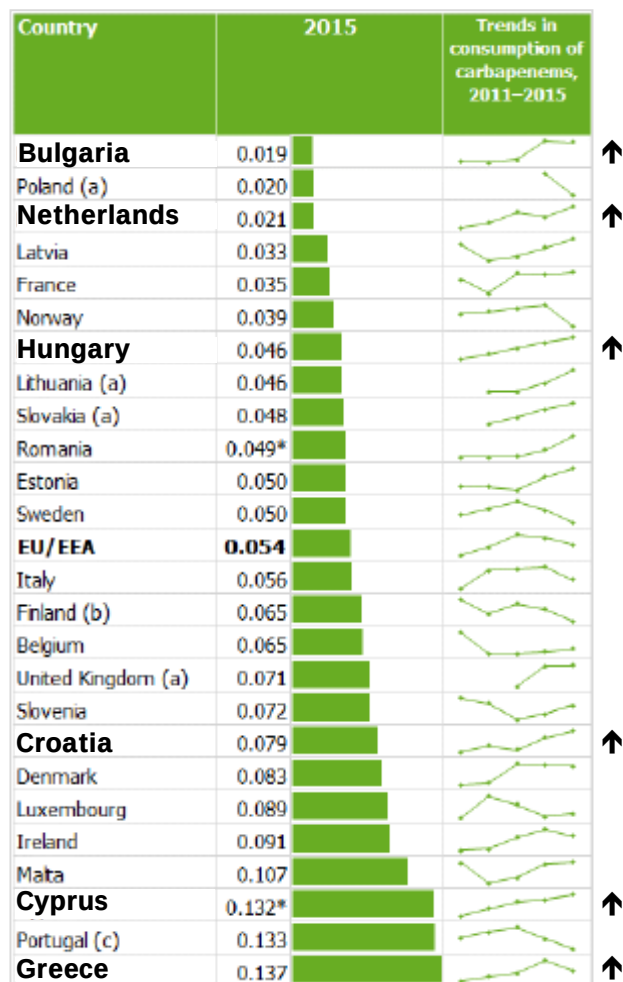
(b) Countries that did not report data for all years during the period 2011–2015.

Consumption of antibiotics for systemic use (ATC group J01) in the community, EU/EEA, 2011-2015

Consumption of last-line antibiotics in the hospital sector, EU/EEA, 2011-2015 (2)

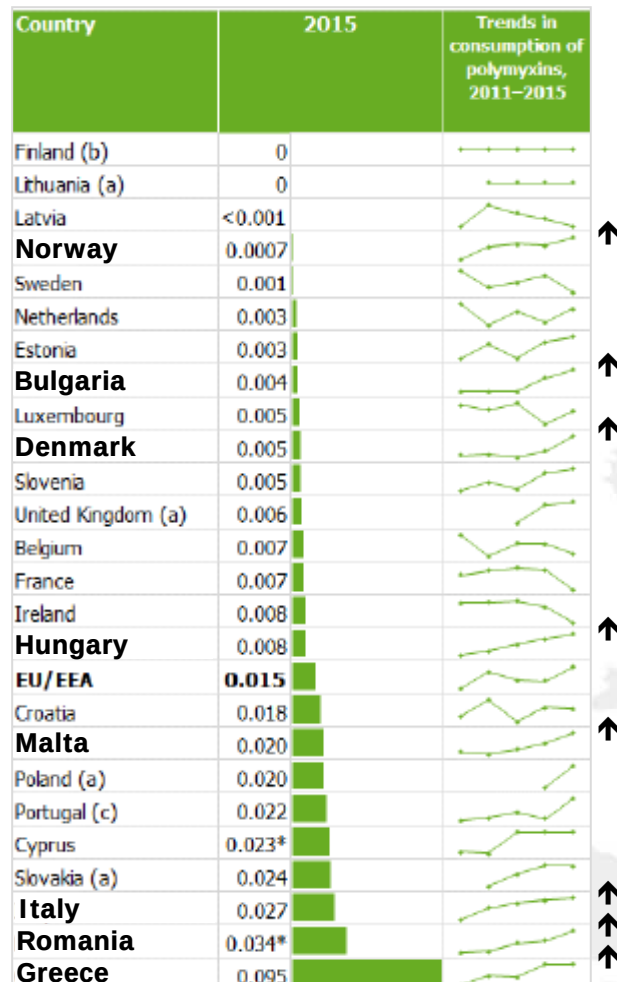
Carbapenems

(DDD per 1000 inh. and per day)



Polymyxins (mainly colistin)

(DDD per 1000 inh. and per day)



* Cyprus and Romania: total care data, including consumption in the community. These data were not used to calculate the EU/EEA population-weighted average.

(a) These countries did not report data for all years during the period 2011-2015.

(b) Finland: data include consumption in remote primary healthcare centres and nursing homes.

(c) Portugal: data relate to public hospitals only.

ECDC POLICY BRIEFING

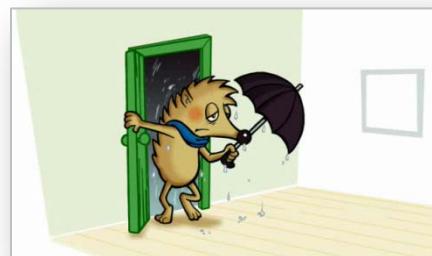


**Last-line antibiotics are failing:
options to address this urgent threat to
patients and healthcare systems**

European Antibiotic Awareness Day, 2008-2017

- 2008 **Toolkit for the general public**
32 countries participated
- 2009 **Toolkit for primary care prescribers**
- 2010 **Toolkit for hospital prescribers and hospitals**

Matched Get Smart week in the U.S. and the campaign in Canada
- 2011 Patient stories and Euronews movie
Social media guidance
37 countries participated
- 2012 Collaboration with WHO/Europe:
43 countries participated
First EAAD Twitter chat
Australia becomes a partner
- 2013 Start work on self-medication with antibiotics, with PGEU and CPME
Training module and pilot course
- 2014 **Revised toolkit for the general public on self-medication with antibiotics**
New Zealand becomes a partner
European Twitter chat + Global Twitter conversation
- 2015 Participation in the first WAAW
- 2016 Start work on the update of the toolkit for hospital prescribers with professional organisations
Policy briefing on AMR, translated in all EU languages
- 2017 **Updated toolkit for hospital prescribers**
Event marking the 10th European Antibiotic Awareness Day



COLD? FLU?



GET WELL WITHOUT ANTIBIOTICS



For more information, visit antibiotic.ecdc.europa.eu

Images from national campaigns on prudent use of antibiotics



Toolkit on self-medication with antibiotics

- Key messages
- Template letters to pharmacists and primary care prescribers
- Posters
- Animation
- Visual for pharmacy bag



Antibiotika.
Bewusst einnehmen –
und niemals gegen
Erkältungen und Grippe.

**EUROPÄISCHER
ANTIBIOTIKATAG**
EINE EUROPÄISCHE INITIATIVE
FÜR DIE GESUNDHEIT



Campaign targets developed so far



New! Toolkit for hospital settings: to be launched this year

- Update of the 2010 toolkit – **expansion** of the target audiences
- **Literature search** of published guidelines, systematic reviews and original articles for the object of interest.
- **Consultation** with Technical Advisory Committee (TAC) members, including national representatives designated by the ECDC National Focal Points (NFPs) for Antimicrobial Resistance and NFPs for Communication, European Commission and WHO/Europe representatives, and health stakeholders mainly representing health professionals organisations.
- **Focus groups** in 6 countries (*following social marketing approach*)
- **Timing of the launch:** *to the countries in April 2017 publicly on the website as from October 2017 and translated in all EU/EEA languages*

What is in the new toolkit?

- **Key messages**
- **Infographic** on antibiotic stewardship (all target audiences)
- **Letters** for hospital managers, hospital prescribers, nurses, hospital pharmacists, hospital pharmaceutical committees / hospital antibiotic stewardship committees, infectious disease specialists, clinical microbiologists
- **Presentation** (all target audiences)
- **Leaflets** for hospital prescribers, infection control teams, nurses, for long-term care facilities
- **Checklists** for hospital pharmacists, junior doctors, microbiologists
- **Posters** for intensivists, emergency departments
- **Factsheet** for hospital pharmaceutical committees / hospital antibiotic stewardship committees
- **Template social media info cards** / fact cards / support cards

Key messages are the cornerstone of any communication campaign. They provide a set of water-tight statements, each of which is accompanied by a reference, that will be used as basis for the content of the template materials.

Antibiotics – be responsible

The emergence and spread of antibiotic resistance, in other words the ability of bacteria to resist the action of an antibiotic, is a global problem.

Antibiotic resistance threatens patient health and safety in all healthcare settings in Europe, and the emergence of multi-drug resistant bacteria is particularly concerning.

Up to half of all antibiotic use in hospitals is unnecessary or inappropriate.

50%



In hospitals, promoting prudent antibiotic use is done through antibiotic stewardship programmes. These programmes consist of a set of multifaceted actions that can include:

Antibiotics are often prescribed to patients in hospitals without explaining the importance of prudent antibiotic use. Promoting prudent antibiotic use is both a patient safety and a public health priority.



1 Hospital-based teams, which include infectious disease specialists, clinical pharmacists and microbiologists, providing support to prescribers.



2 Proactive auditing of antibiotic prescriptions with feedback to team members.



3 Training and education for medical, pharmacy, laboratory, nursing, and non-clinical staff, as well as patients and their families.



4 Using evidence-based antibiotic guidelines and policies.



5 Using restricted prescriptions (e.g., pre-approval and post-authorization requirements for specific antibiotics)



6 Monitoring antibiotic resistance and use, and making this information available to prescribers.

Infographic

Antibiotics

– Misuse leads to antibiotic resistance

KEEP
ANTIBIOTICS
WORKING,
USE THEM
WISELY



Insert
national logo
here

More information on data sources and references can be found at <http://antibiotic.ecdc.europa.eu>

Antibiotics – handle with care!

Antibiotic prescribing – A checklist of reminders

- ☐ Have the appropriate cultures been collected before starting antibiotic therapy?
- ☐ Do the culture results necessitate starting antibiotic therapy or modifying ongoing the current antibiotic therapy?
- ☐ What is the optimal duration of antibiotic therapy for treating this type of infection in this patient? _____
- ☐ What is the appropriate antibiotic dose for treating this kind of infection in this patient? _____
- ☐ Does the choice of antibiotic therapy comply with your hospital's antibiotic resistance patterns (antibiogram)? _____
- ☐ Have you consulted your infectious disease physicians, microbiologists or pharmacist?

Check lists

Preview (1)

Antibiotic resistance

Facts and figures



Insert logo of national institution

Insert logo of national institution

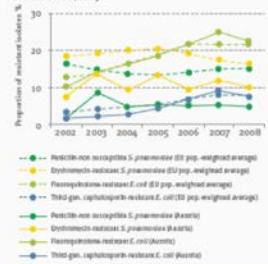
Fact 1.

Antibiotic resistance is an increasingly serious public health problem in Europe

The emergence, spread and selection of antibiotic-resistant bacteria is a threat to patient safety in hospitals¹⁻⁴ because:

- Infections with antibiotic-resistant bacteria result in increased patient morbidity and mortality, as well as increased hospital length of stay¹;
- Antibiotic resistance frequently leads to a delay in appropriate antibiotic therapy⁵;
- Inappropriate or delayed antibiotic therapy in patients with severe infections is associated with worse patient outcomes and sometimes death²⁻⁴.

Figure 1. Trends of antibiotic resistance in *S. pneumoniae* and *E. coli* as an EU population weighted average, 2002-2008. Source: EASS, 2009.



Fact 2.

Misuse of antibiotics in hospitals is one of the factors driving antibiotic resistance

Patients who are hospitalised have a high probability of receiving an antibiotic⁶ and 50% of all antibiotic use in hospitals can be inappropriate⁴. Misuse of antibiotics in hospitals is one of the main factors driving development of antibiotic resistance¹²⁻¹⁴.

Misuse of antibiotics can include any of the following⁴:

- When antibiotics are prescribed unnecessarily;
- When antibiotic administration is delayed in critically ill patients;
- When broad-spectrum antibiotics are used too generously, or when narrow-spectrum antibiotics are used incorrectly;
- When the dose of antibiotics is lower or higher than appropriate for the specific patient;
- When the duration of antibiotic treatment is too short or too long;
- When antibiotic treatment is not streamlined according to microbiological culture data results.



Fact sheets

As at December 2016

Preview (2)

Antibiotic resistance



Insert logo of national institution

Insert logo of national institution

Antibiotics – Misuse leads to antibiotic resistance

Dear [Hospital Manager],

Antibiotic resistance is one of the most important threats to patient safety in hospitals in Europe. Antibiotic-resistant bacteria have become an everyday occurrence in many European hospitals where they affect patient safety, and increase patient morbidity and mortality as well as the average length of stay in hospital.

As part of a European-wide initiative, we are contacting you to call for your support to fighting the alarming rise in antibiotic resistance across Europe. The European Centre for Disease Prevention and Control (ECDC) has, together with health authorities across the European Union, launched European Antibiotic Awareness Day, a European public health initiative which is marked annually on 10 November.

This year, the European Antibiotic Awareness Day campaign focuses on working with hospital prescribers, pharmaceutical committees, managers and pharmacists to reduce unnecessary antibiotic use in hospitals through supporting national campaigns.

Antibiotic resistance is, as you know, a phenomenon linked to the extent and the way in which antibiotics are used, and inappropriate use of antibiotics is the main driver of antibiotic resistance. Studies show that hospitalised patients have a high probability of receiving an antibiotic and up to 50% [Adapt to national figure] of all antibiotic use in hospitals can be inappropriate. Misuse of antibiotics can include a number of factors and has been shown to cause patients to become colonised or infected with antibiotic-resistant bacteria, such as methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE) and highly-resistant Gram-negative bacilli, as well as being associated with increased incidence of *Clostridium difficile* infections.

With antibiotic therapy being an important part of hospital care, and given the increase in antibiotic-resistant bacteria, your contribution to the promotion of prudent antibiotic use in your hospital would be invaluable.

In order to support you in promoting prudent antibiotic use in your hospital, we have prepared a number of information and educational materials. These include a factsheet detailing the main issues surrounding antibiotic resistance in hospital settings; a slide presentation which you may use in hospital trainings; and a checklist outlining the main considerations which prescribers may take into account.

The European Antibiotic Awareness Day website <http://antibiotic.ecdc.europa.eu> offers additional resources.

We would like to thank you in advance for your support and cooperation.

[Name]

Minister of Health, [Country]

KEEP
ANTIBIOTICS
WORKING.
USE THEM
WISELY

Letters



ppt



KEEP
ANTIBIOTICS
WORKING.
USE THEM
WISELY

Using antibiotics prudently

Hospital prescriber presentation

[Insert Name of presenter]
[Insert Name of hospital]

EUROPEAN ANTIBIOTIC AWARENESS DAY



A EUROPEAN
HEALTH INITIATIVE

English (en) ▼



Plan a campaign

For prescribers

Get informed

Get involved

Campaigns in Europe

News

About

Do not self-medicate with antibiotics

New infographic

Patient stories

EAAD 2015

What is antibiotic resistance?

EAAD 2015

Combating resistance to last-line antibiotics in the EU still a priority



TWEET #EAAD

[#EAAD Tweets](#)

WHAT'S NEW

EAAD video on antibiotic resistance 07 Nov 2016

What is your contribution to fighting antibiotic resistance? – share your video pledges 04 Nov 2016

European Antibiotic Awareness Day receives the European Health Award 2016 29 Sep 2016

How does antimicrobial resistance spread?



02:10

HD :: vimeo



What is antibiotic resistance and prudent antibiotic use? How to use antibiotics responsibly?

See patient stories, infographics, videos



Planning a campaign to promote responsible use of antibiotics?

Toolkits with template communication materials

How does antibiotic resistance spread?

Antibiotic resistance is the ability of bacteria to combat the action of one or more antibiotics. Humans and animals do not become resistant to antibiotic treatments, but bacteria carried by humans and animals can.



1 **Animals** may be treated with antibiotics and they can therefore carry antibiotic-resistant bacteria. 2 **Vegetables** may be contaminated with antibiotic-resistant bacteria from animal manure used as fertilizer. 3 **Antibiotic-resistant bacteria** can spread to humans through food and direct contact with animals.



In animal farming

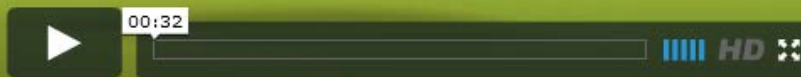
4 **Humans** sometimes receive antibiotics prescribed to treat infections. However, bacteria develop resistance to antibiotics as a natural, adaptive reaction. Antibiotic-resistant bacteria can then spread from the treated patient to other persons.

In the community

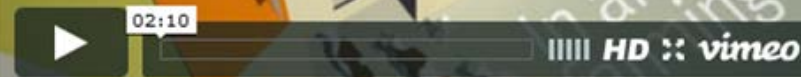
7 **Travellers** requiring hospital care while visiting a country with a high prevalence of antibiotic resistance may return with antibiotic-resistant bacteria. 8 **Even if not in contact with healthcare**, travellers may carry and import resistant bacteria acquired from food or the environment during travel.

Through travel

1/6 of Europeans are not aware that the misuse of antibiotics makes them less effective



How does antimicrobial resistance spread?



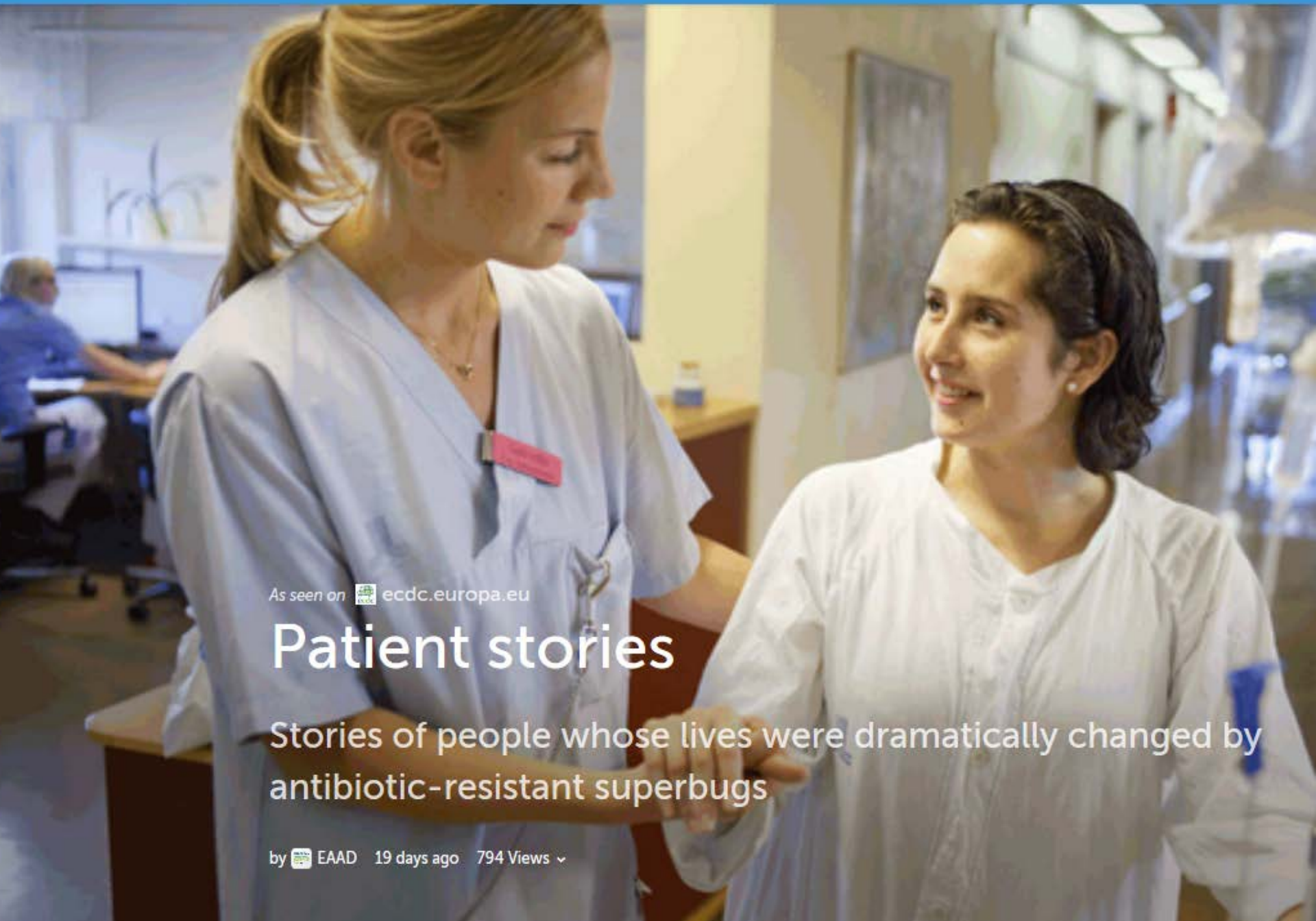
2016 Video pledges

From the following **organisations and individuals**:

- EDSA
- EPSA
- ERS
- MEP Piernicola Pedicini
- HCWH Europe
- Medicines for Europe
- IFAH-Europe
- CPME
- MedTech Europe
- Health First Europe
- CED
- UEMO



<http://ecdc.europa.eu/en/eaad/antibiotics-get-involved/video-pledges/Pages/video-pledge.aspx>



As seen on  ecdc.europa.eu

Patient stories

Stories of people whose lives were dramatically changed by antibiotic-resistant superbugs

by  EAAD 19 days ago 794 Views ▾

Several ways for your organisation to contribute to EAAD in 2017

1. Use the new toolkit translated in all languages
2. Attending the press event in Brussels on 15 November (date tbc) and contributing the discussions on site and with social media
3. Shooting a video pledge
4. Promoting EAAD to your national member organisations
5. Promoting participation to the Global Twitter activities
6. Re-tweeting and sharing messages posted by ECDC on Facebook before EAAD that are relevant to you
7. Adding a banner on your website & communicating via your organisation's newsletter

Expectations and forward look: 2017 and onwards

- What should EAAD look like in the future?
- Would you like to be more involved?
- In which additional ways can we collaborate?



Thank you!

EUROPEAN ANTIBIOTIC AWARENESS DAY



**A EUROPEAN
HEALTH INITIATIVE**

18 November 2017



E-mail: EAAD@ecdc.europa.eu
Website: <http://antibiotic.ecdc.europa.eu>
Facebook: [EAAD.EU](https://www.facebook.com/EAAD.EU)
Twitter: [@EAAD_EU \(#EAAD\)](https://twitter.com/EAAD_EU)
Global Twitter: [#AntibioticResistance](https://twitter.com/AntibioticResistance)