

# Relationship between resistance, antibiotic policies, and clinical guidelines in the community ?

## Government interventions on Antibiotic Policy in Belgium\*

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\* **disclaimer:** although I have tried to produce an unbiased report, this is not an official account. Refer to <http://www.health.fgov.be/antibiotics/> and <http://www.inami.be> for official documents.

# Government interventions ...

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- why ?
- actions oriented towards the public
  - campaigns 2000-2002
  - campaigns 2004-2006
- actions oriented towards the GP's
  - guidelines
  - reimbursement changes
- where are we now ?

# The 1st round campaigns (2000-2002) : What were the messages ? ...

antibiotica - Mozilla Firefox

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http://www.red-antibiotica.org/

[Français](#) | [Deutsch](#) | [English](#) (for professionals)

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"Volksgezondheid, Veiligheid Voedselketen en Leefmilieu"

**antibiotica**  
**minder vaak**  
en  
**beter**  
gebruiken

laatste herziening maart 2004

**tegang brochure** Om meer te weten

TV spot

**folder** **ANTIBIOTICA** minder vaak en beter gebruiken **NEW!** **Vragen en Antwoorden**

less...

<http://www.red-antibiotica.org>

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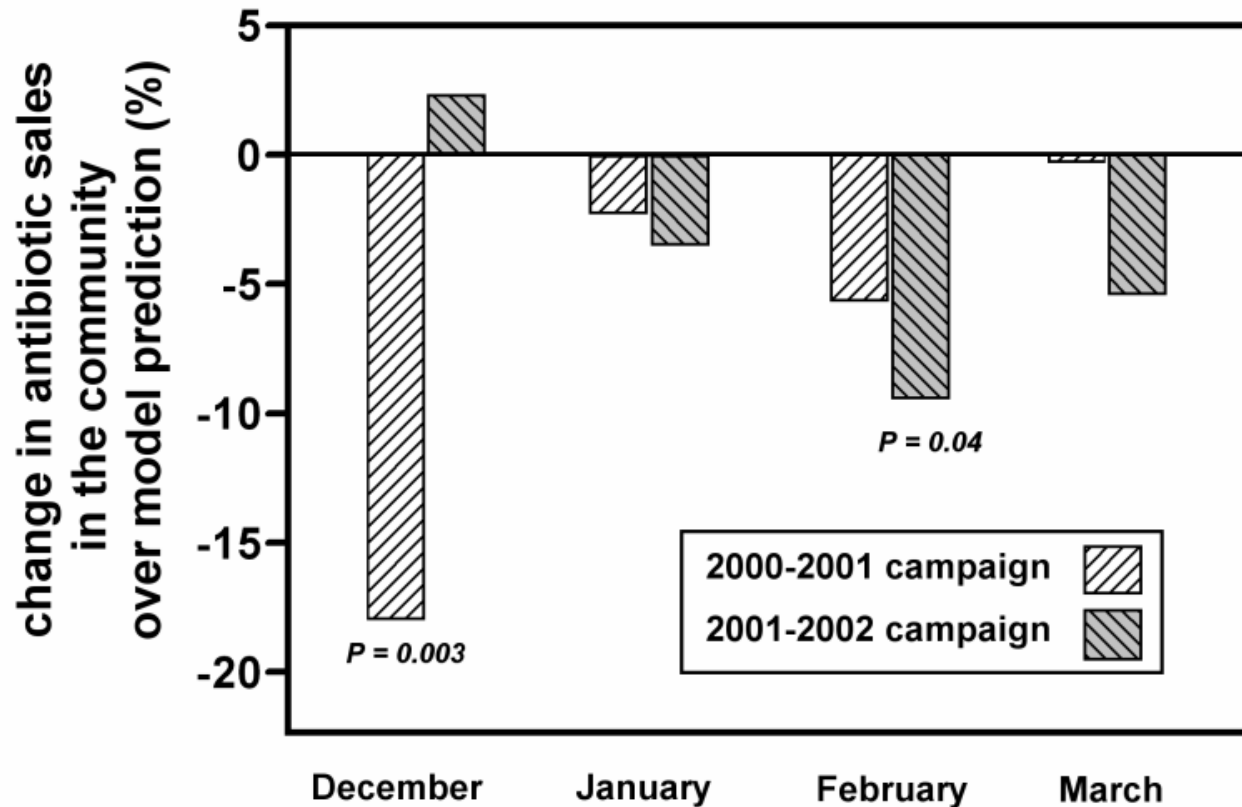
TV spot

folder ANTIBIOTICA minder vaak en beter gebruiken NEW! Vragen en Antwoorden

and better ...

<http://www.red-antibiotica.org>

# Success of this 1st round of public campaigns ...



- significant reduction of AB sales measured as DDD (about 5-10 %) during the influenza epidemic periods (sales = prescriptions in Belgium)
- no significant-side effect detected
- cost-effective for public health

Bauraind *et al.*, JAMA 2004; 292:2468-70;  
more details on <http://www.antibiotiques.org/english/>

# The 2d round of campaigns: antibiotics are useless...

cyclist breeches  
are what you  
need in case of  
flu...

## EEN KOERSBROEK BIJ GRIEP IS EVEN EFFICIËNT ALS ANTIBIOTICA.



Absurd denkt u? Niet als we u vertellen dat antibiotica niet werken bij griep, verkoudheid en acute bronchitis. Dat is de kernboodschap van de campagne van de FOD Volksgezondheid, Veiligheid van de voedselketen en Leefmilieu, gerealiseerd door BAPCOC (Belgian Antibiotic Policy Coordination Committee). Er wordt nog te veel antibiotica geslikt in België en daar wil deze campagne wat aan doen. De 2 TV-spots, die u via deze pagina kan bekijken, maken op een amusante manier duidelijk dat het gebruik van antibiotica in sommige gevallen totaal nutteloos is. Net als een koersbroek aantrekken om griep te bestrijden of een telefoonkaart kopen om een acute bronchitis te genezen. Deze campagne loopt vanaf 5 oktober 2005 op verschillende Belgische TV-zenders.

<http://www.antibiotics-info.be/>

get a (full) telephone  
card and you will feel  
better...

# Guidelines (for GP's)...

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- From the Belgian Antibiotic Policy Coordination Committee

- acute otitis media (11/2001)
- acute sore throat (11/2001)
- acute cystitis in women (11/2001)
- acute pyelonephritis (8/2002)
- acute rhinosinusitis (11/2004)

<http://www.health.fgov.be/antibiotics/>

- From the National Institute for Sickness and Invalidity Insurance

- upper and lower respiratory tract infections (10/2000)
- acute enteric and urogenital infections (10/2001)

<http://www.inami.be>

- analysis of the available literature
- ranking of evidence level (RCT, meta-analyses, expert opinion)
- analysis and recommendations by a Jury

## Other (more compulsory) actions ...

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### Antibiotic Feedback ...

- provide GP's (and some specialists) in formations about their individual prescriptions in comparison with those of colleagues (local groups, county, country ...)
- together with indicators of quality, based on approved guidelines
  - improvement by comparison with peers
  - detection of major outliers ...

<http://www.inami.be>



# Feedback: exemples

## Amoxicilline-acide clavulanique (\*)

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Selon les recommandations de bonne pratique (RBP), les indications de prescription de l'amoxicilline-clavulanate sont les suivantes :

- **pour les pneumonies acquises en dehors de l'hopital (CAP)** chez les patients avec comorbidité ou ayant récemment pris des antibiotiques (première intention).
- **morsures (première intention)**

En seconde intention dans les exacerbations sévères de BPCO qui ne répondent pas à l'amoxicilline après 48hs.

Ces indications représentent une très faible proportion des cas rencontrés dans une patientèle moyenne. Parmi les 243 patients pour lesquels vous avez prescrit des antibiotiques en 2003, **15% (n=36)** ont reçu une prescription d'amoxicilline-clavulanate (figure 1 - 2ème boxplot)

## Quinolones (\*)

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Selon les RBP, les quinolones ont une place en première intention pour traiter les adultes :

- exceptionnellement, en cas de **diarrhée sévère** [7] (éventuellement pour le patient à risque)
- en cas de **pyélonéphrite aiguë**
- en cas de **prostatite, orchi-épididymite**
- dans certaines **MST**

Il s'agit toujours d'un faible pourcentage dans une patientèle moyenne.

Parmi les 243 patients pour lesquels vous avez prescrit des antibiotiques en 2003, **33% (n=79)** ont reçu une prescription de quinolones (figure 1 - 4ème boxplot)

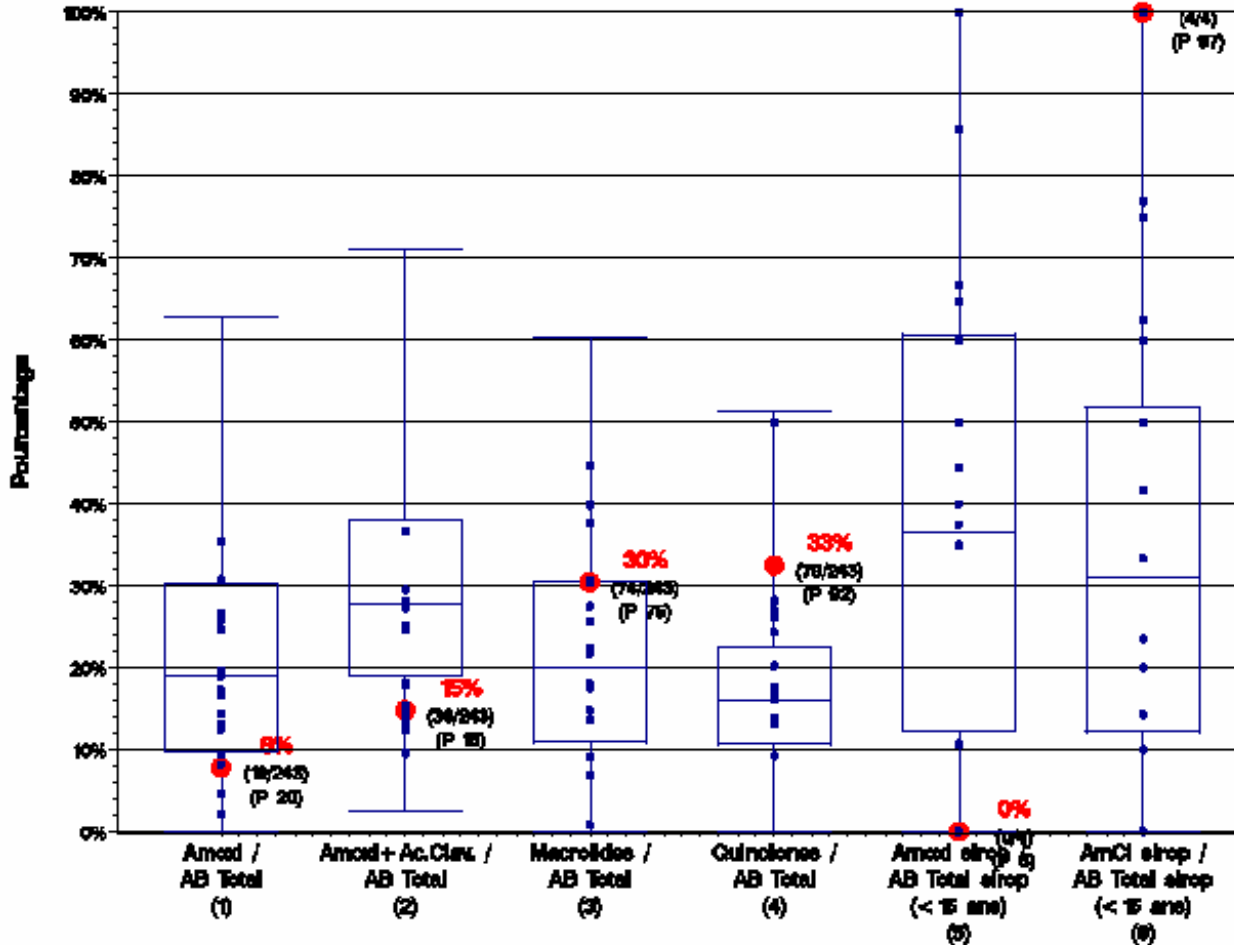
(\*) Ce message a été approuvé par la Commission de coordination pour la politique antibiotique (BAPCOC, voir [www.health.fgov.be/antibiotics/cabf.htm](http://www.health.fgov.be/antibiotics/cabf.htm)).

<http://www.inami.be>

# Feedback: examples

**Figure 1 : Pourcentage de patients traités par différents types d'antibiotiques sélectionnés parmi le total des patients avec au moins une prescription d'antibiotique**

Prescriptions au groupe contact total (pour boxplot 5 et 6 : uniquement enfants <= 15 ans):  
 huisarts, membres du GLEM et distribution en percentiles de tous les généralistes (points 2008 - généralistes - GLEM)



- you are here
- other local colleagues

Belgian data:

99 percentile

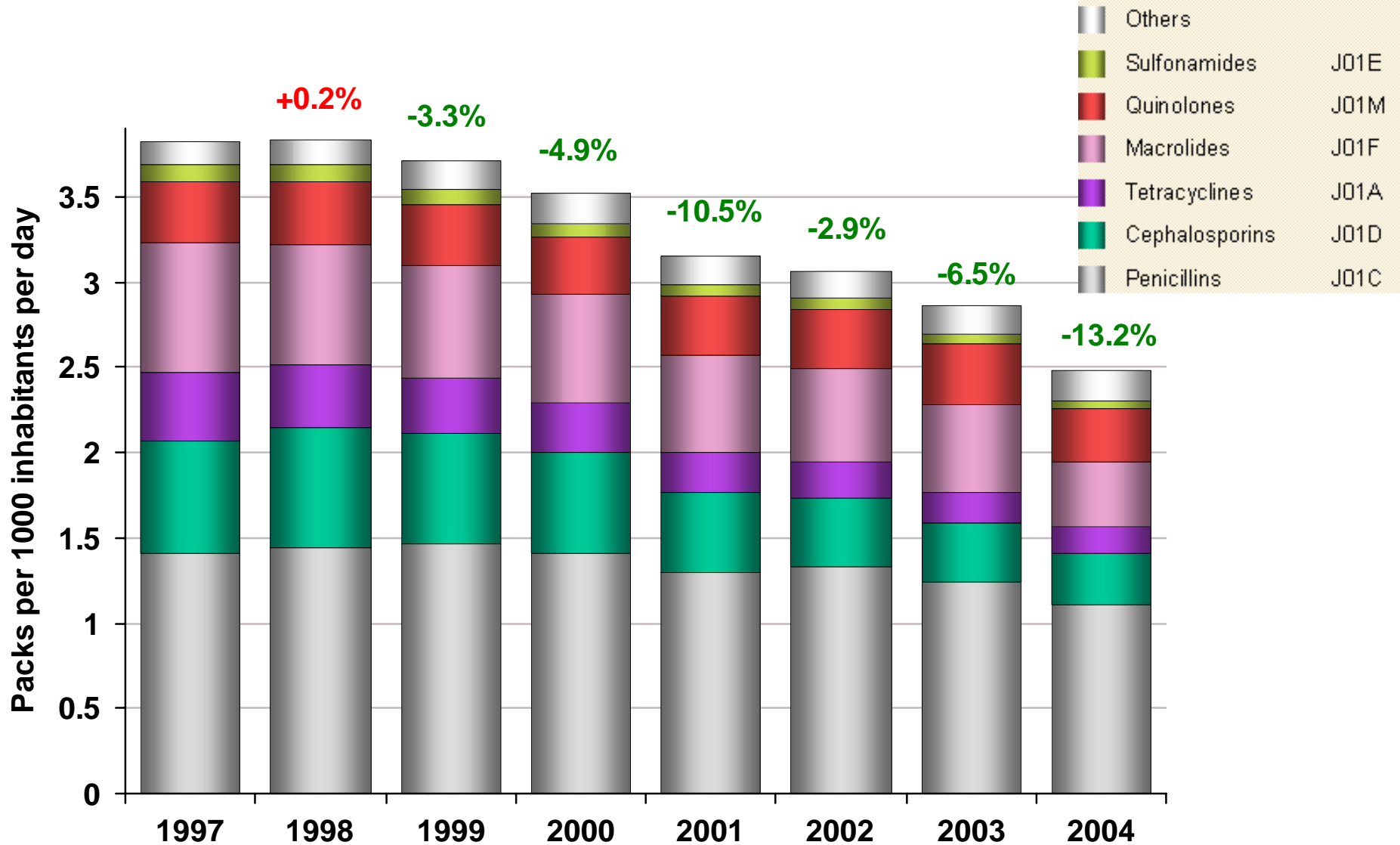
25-75% interval

# Are all these actions effective ?

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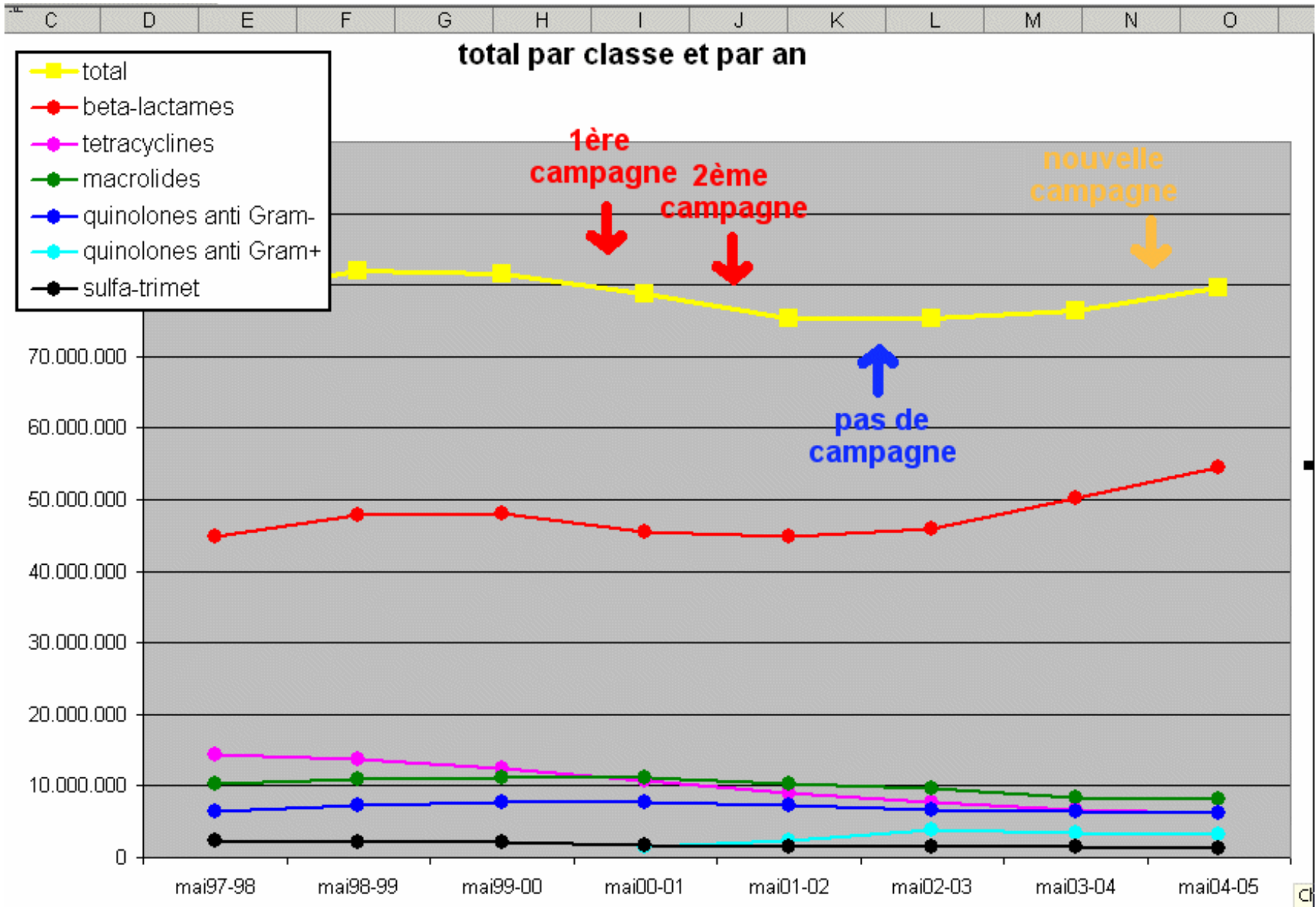
- global antibiotic usage
- curbing resistance
- quality of service to patients
- cost containment

# Antibiotic use in PID, 1997-2004

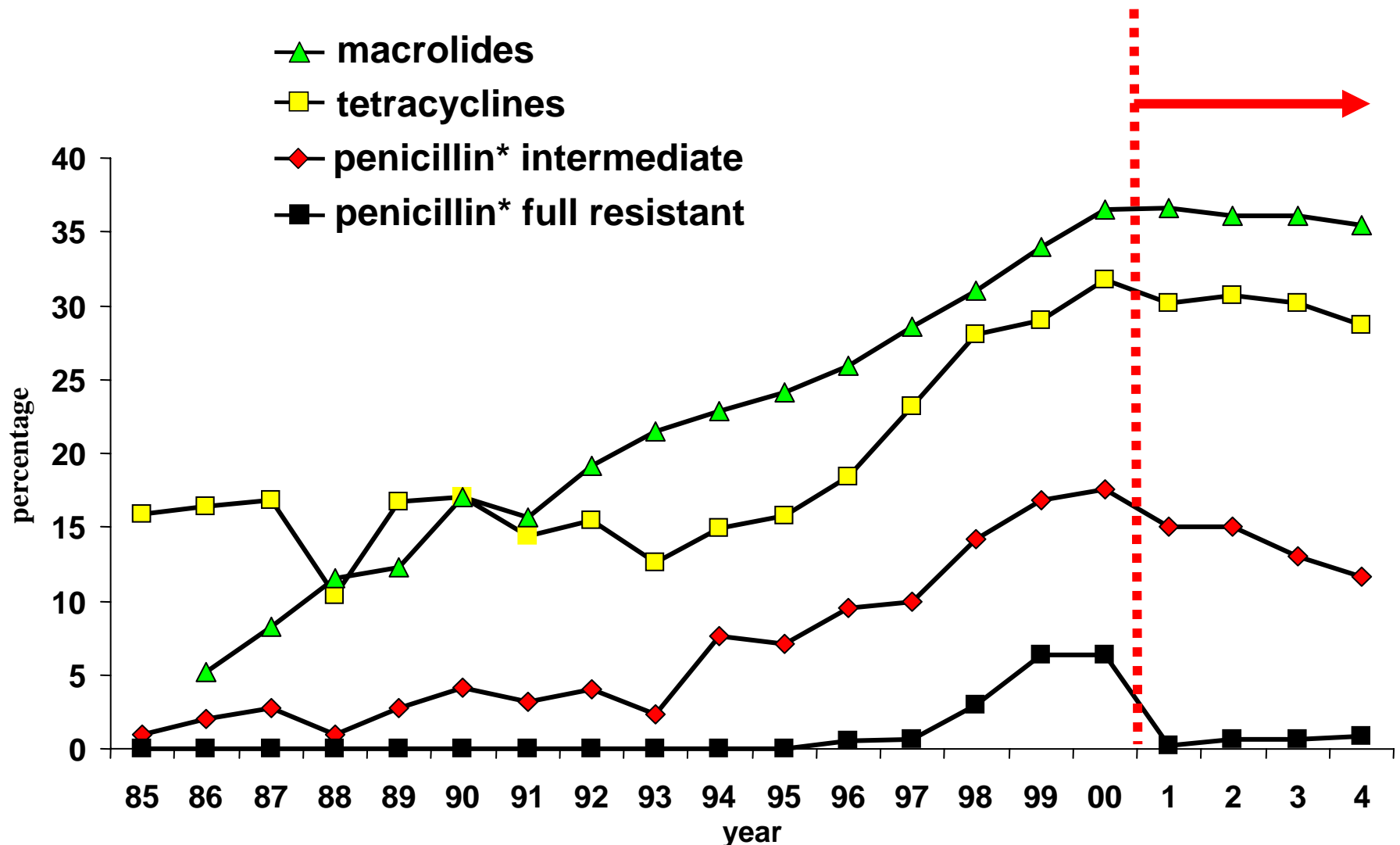


H. Goossens, presentation to Press – 5 Dec 2005  
<https://portal.health.fgov.be/pls/portal/url/ITEM/072F37E443067217E0440003BA383584>

# Same data but in DDD ...



# Did we solve the *S. pneumoniae* resistance problem ?



H. Goossens, presentation to Press – 5 Dec 2005

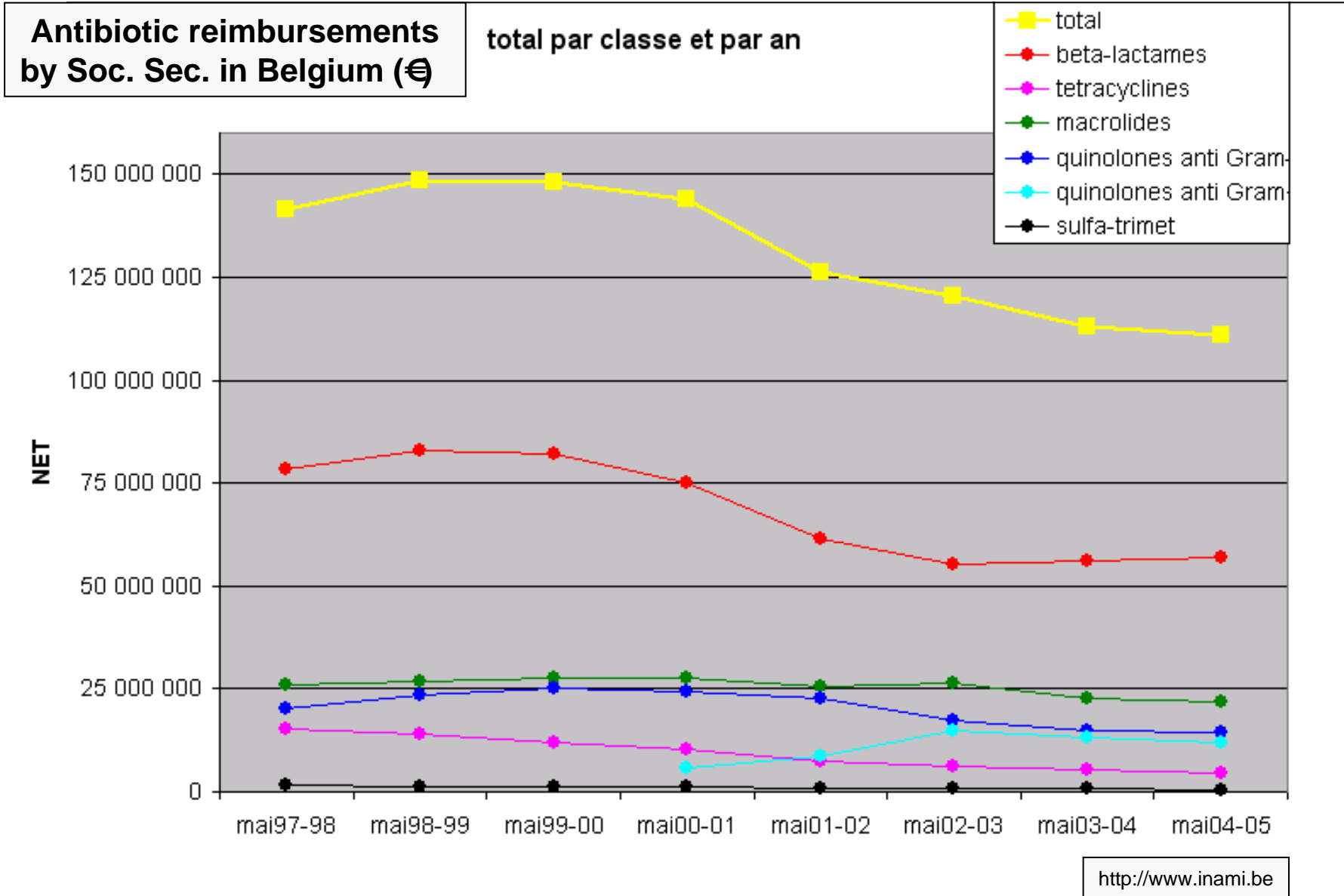
<https://portal.health.fgov.be/pls/portal/url/ITEM/072F37E443067217E0440003BA383584>

# Quality of service to patients ?



All we can say, so far is that the (limited) changes seen have not been accompanied by detectable increases in infectious diseases-related morbidities or mortalities ...

# Cost containment ? ...





# Could Belgium do better ? (and does it need to ?)

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- we still use a lot of amoxiclav  
(about 50 % of all  $\beta$ -lactams and about 1.6 x the amount of amoxicilline)
  - ➔ "first choices", as mentioned in guidelines, are not followed
- there is still a very large (2-3 fold) seasonal variation in relation of flu epidemics (vs. almost no variat. in Holland...)
  - ➔ the "message" does not go through...
- in DDD, Belgians are still "high level" consumers  
( $\approx$  21 per 1,000 inhab. and per day; UK  $\approx$  14; The Netherlands  $\approx$  9...)
  - ➔ are we different and why ?

## The doctor's view (and dilemma) ...\*

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- the "Belgian" socio-cultural environment is such ...
- I want to preserve my relation with the patient ...
- the employer (the kindergarten...) presses for prescription...
- I have difficulty ascertaining the diagnostic ...
- patients won't wait ..
- I simply have no time to loose with my patients...
- guidelines are ill-adapted and not correctly updated ...
- I don't see resistance in my patients...
- If I don't prescribe, the hospital (or another GP) will criticize me, and will prescribe...
- Industry is pressing me ...
- all these campaigns aim only at saving money for the Social Security ...

\* from literature survey (Tulkens et al., in prepar.)

# Future (concerted) actions ? \*

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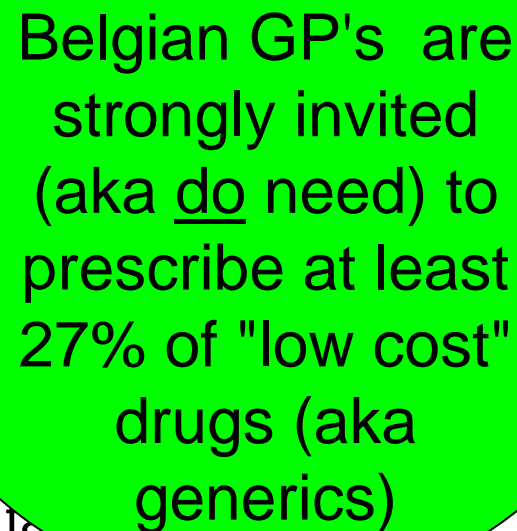
- towards the public:
  - make better focused public campaigns (and make them more credible)
- towards GP's
  - reinforce the positive aspect of the guidelines and update them regularly ...
  - try to understand their position and do address their problems
- towards Industry
  - control, in a positive fashion, advertisement to professionals
  - set price-volume contracts and/or renewed economic framework
- towards the Regulatory
  - revise SPC's on a timely and regular fashion in relation to epidemiology and "good practice"
  - do not allow generics to use "old" SPCs and/or to deviate from "good practice"

\* those are my ideas ... but some are shared by others...

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- towards Industry
  - control, in a positive fashion, advertising
  - set price-volume contracts and/or other incentives
- towards the Regulatory
  - revise SPC's on a timely and regular basis taking into account epidemiology and "good practice"
  - do not allow generics to use "old" SPCs and/or to deviate from "good practice"



Belgian GP's are strongly invited (aka do need) to prescribe at least 27% of "low cost" drugs (aka generics)

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# Conclusions ...

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**TOUGH ENOUGH**

All that needs to be addressed...