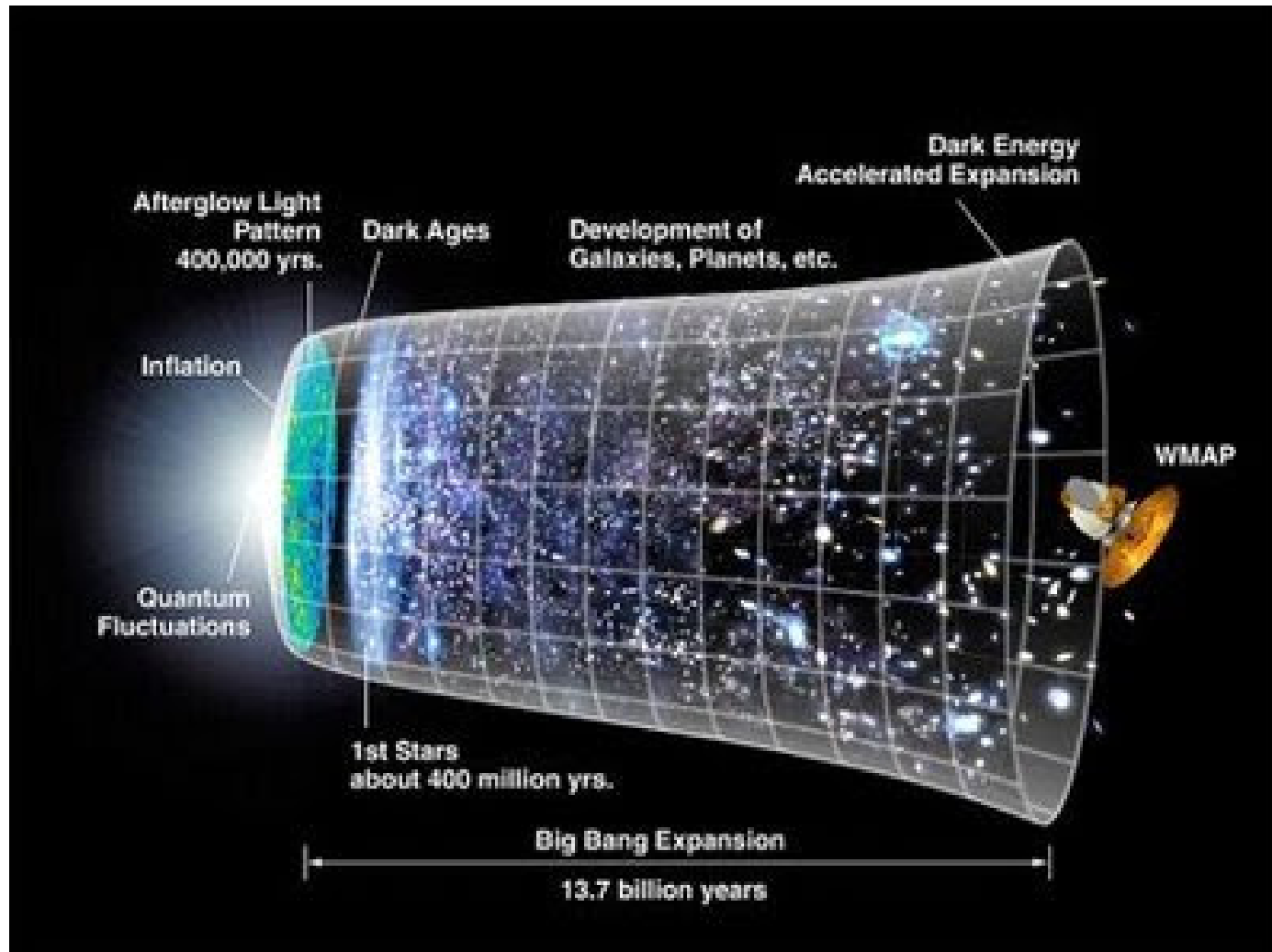


Resistensresan

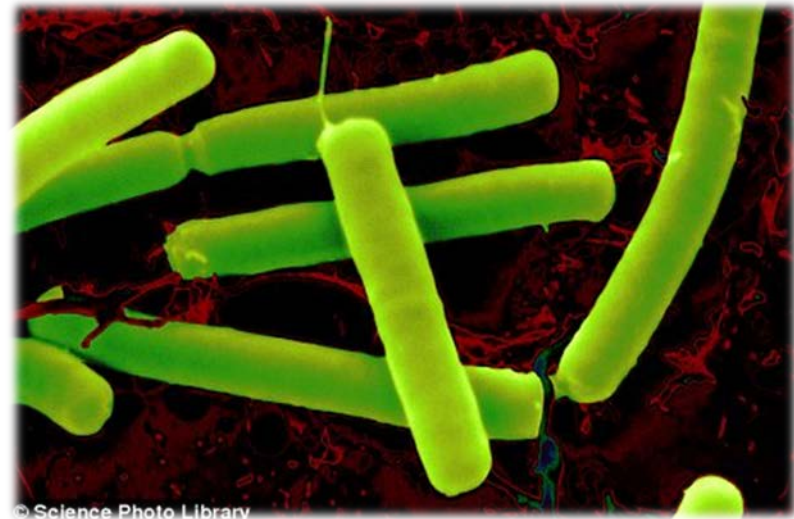
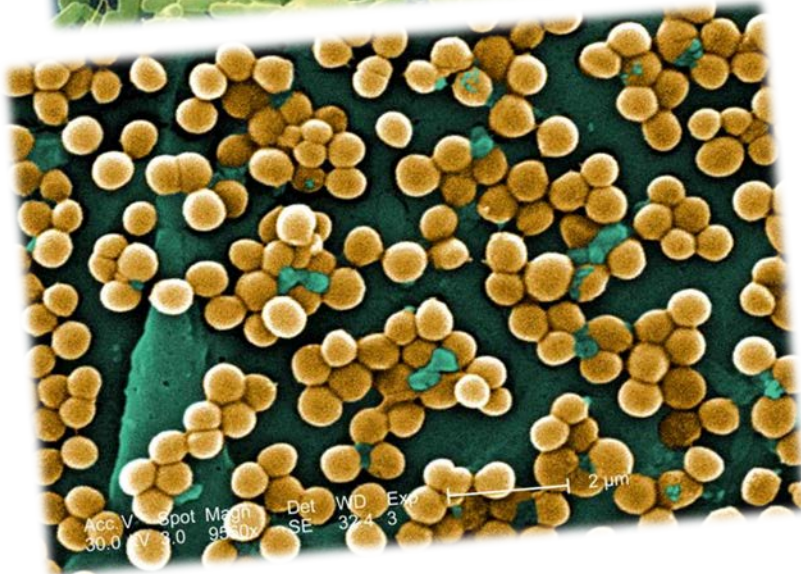
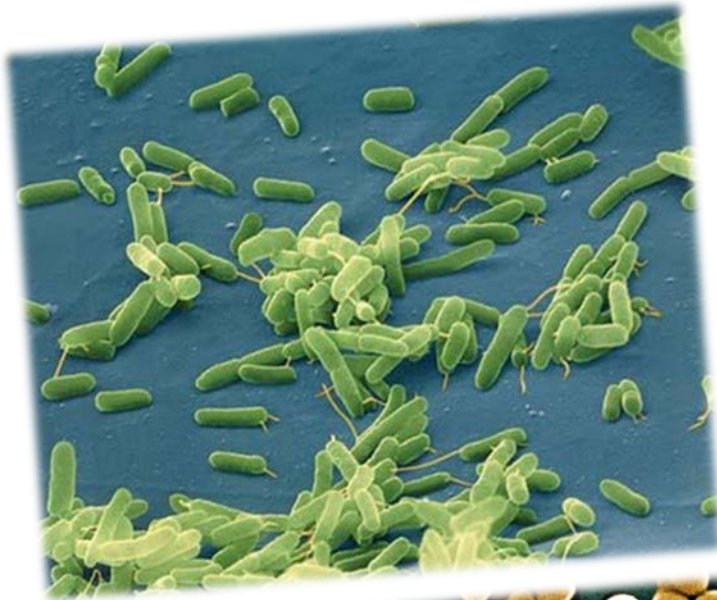
Andreas Lägermo
Strama-koordinator/ Hygiensjuksköterska
Landstinget i Jönköpings län



I begynnelsen...



De första invånarna



Bebor hela planeten...

Vi behöver bakterier!

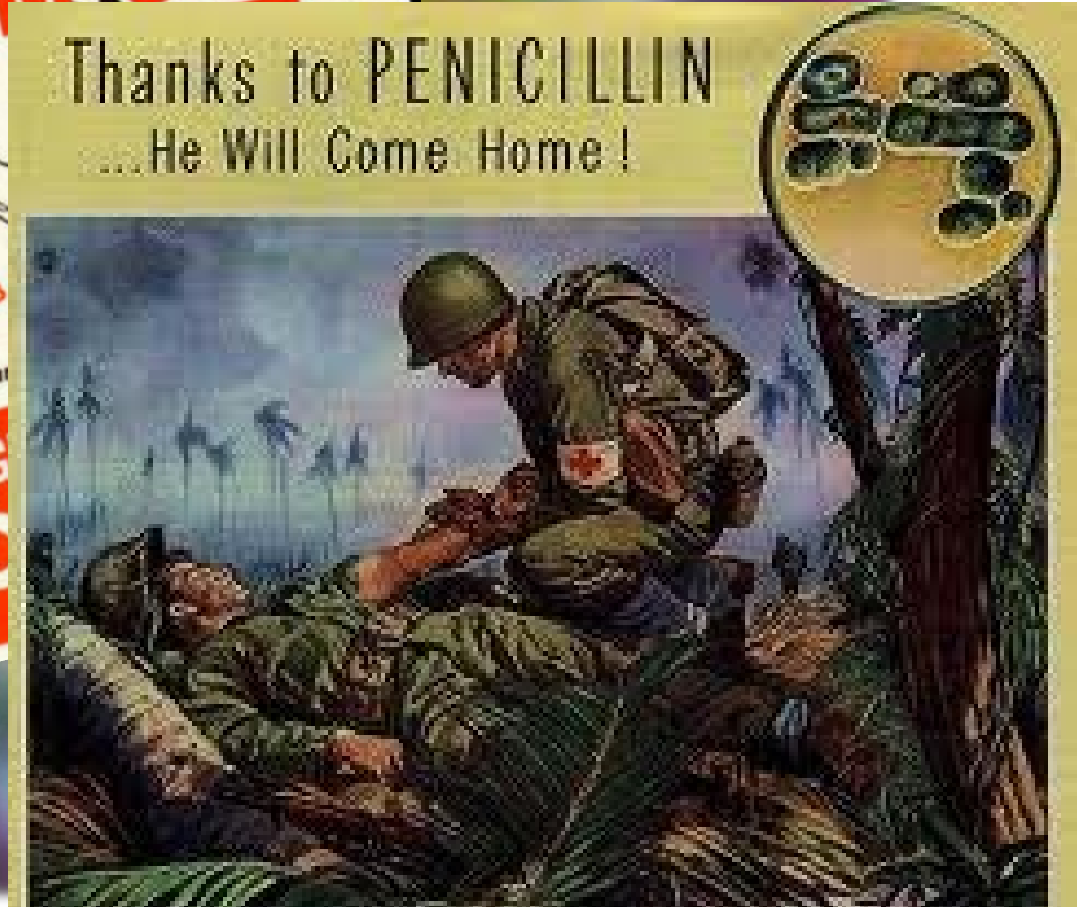


Bevara normalfloran...



...där den hör hemma!

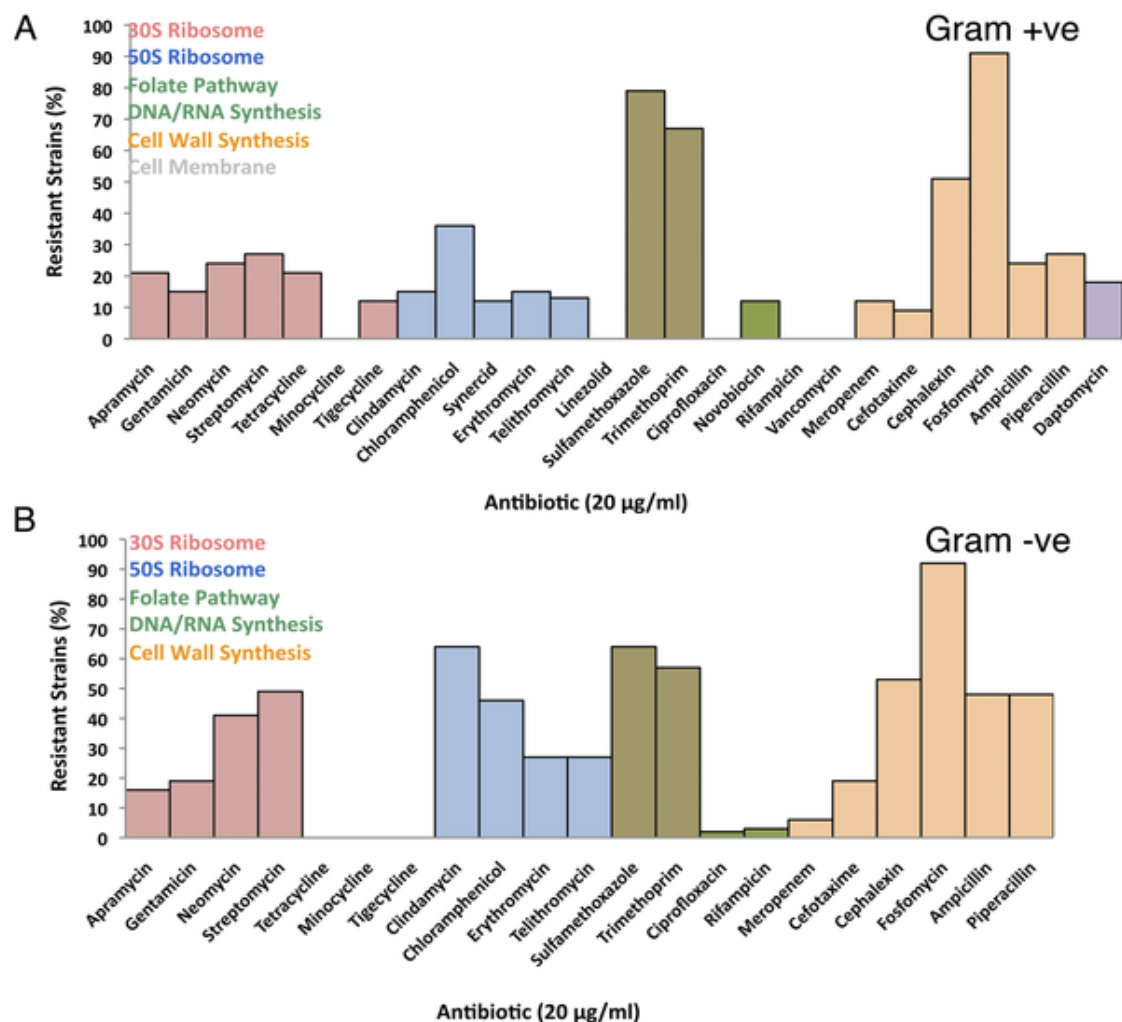




Resistens –ett nytt fenomen?



Figure 2. Resistance levels of Lechuguilla cave bacteria at 20 μ g/ml against various antibiotics: (top) Gram-positive strains (bottom) Gram-negative strains.



Bhullar K, Waglechner N, Pawlowski A, Koteva K, et al. (2012) Antibiotic Resistance Is Prevalent in an Isolated Cave Microbiome. PLoS ONE 7(4): e34953. doi:10.1371/journal.pone.0034953
<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0034953>

Resistens –ett begränsat fenomen?



Sjölund M, Bonnedahl J, Hernandez J, Bengtsson S, Cederbrant G, Pinhassi J, et al. Dissemination of multidrug-resistant bacteria into the Arctic. *Emerg Infect Dis* [serial on the Internet]. 2008 Jan



Carlsson, G. et al. Environ. Toxicol. Chem. 28, 2656-2662 (2009).



Varför ökar antibiotikaresistensen?

- Högt antibiotiketryck globalt
 - ✓ Människa & djur
- Import från utlandet / semestersmitta
 - ✓ Mat & sjukvård
- Horisontell spridning (bakterier byter gener)
- Smittspridning mellan människor



Bokstavsbakterier

MRSA

VRE

ESBL

ESBL -CARBA

Pneumokocker
Gonorré
TBC
Pseudomonas
...med flera...

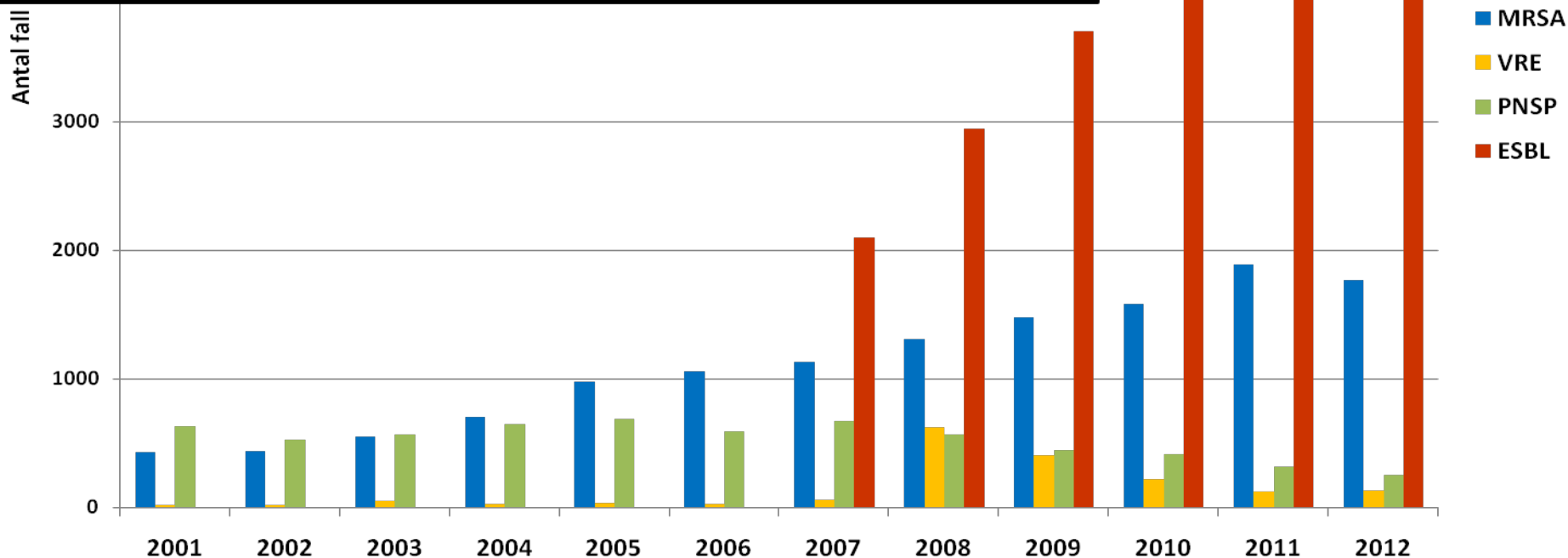


Antal anmälda fall av resistent bakterier i riket enligt Sml
2001 - 20121108. (Källa Smittskyddsinstitutet)

Resistensutveckling:

ESBL_{CARBA} = Pc, Cefalosporin, Tienam/Meronem

NDM-1 = Indiska superresistenta stammar



Resa mot resistens

CCUS
ries in

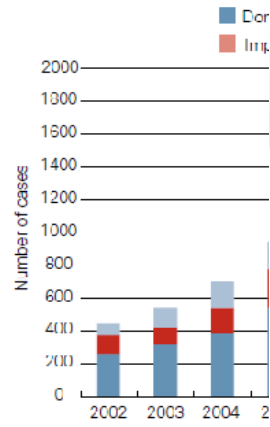


FIGURE 4.2. Number of MRS, 2011 by country of infection. "Domestic" indicate several me most likely mentioned first.

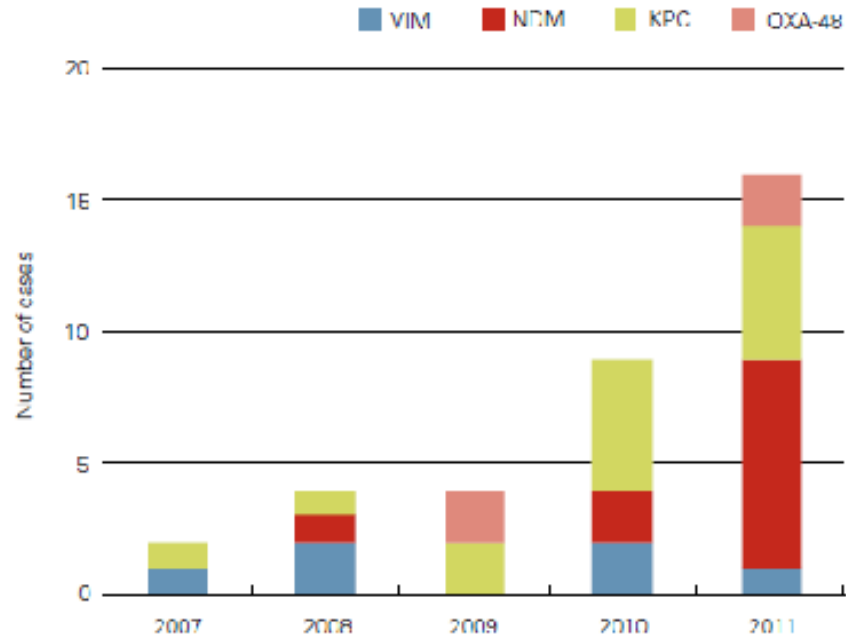


FIGURE 4.13. Numbers and types of ESBL_{CARB} in *Enterobacteriaceae* in Sweden 2007-2011.



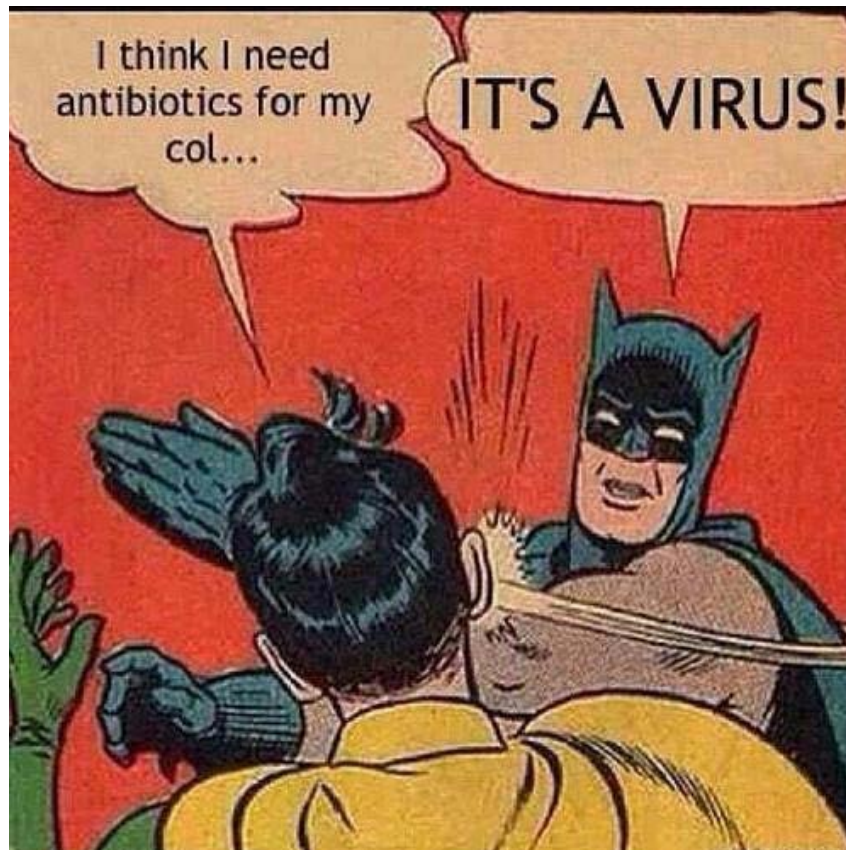
Resans slut?



Kan vi göra något nu?

- Korrekt antibiotikabruk
- Hygienrutiner
 - Personal & patienter
- Städ
- Tidig upptäckt av bärarskap/ infektion
- Isolering
- Begränsa förflyttningar
- Motverka överbeläggning/ underbemanning





TACK!