



School Education in Europe What are children being taught about antibiotic use and hygiene?



DM Lecky¹, P Kostkova² and CAM McNulty¹ on behalf of the e-Bug working group

¹ Health Protection Agency, Primary Care Unit, Microbiology Department, Gloucestershire Royal Hospital, Great Western Road, Gloucester, GL1 3NN
² City Health Research Centre (CeRC), Institute of Health Sciences, Gloucester Building, City University, Northampton Square, London, EC1V 0HB

INTRODUCTION

- Antimicrobial resistance is a serious global issue of increasing concern
- In the UK alone, the number of deaths associated with MRSA has risen from 51 in 1993 to 1,629 in 2005
- Increasing antibiotic use has been attributed to the increase in bacterial resistance
- Antibiotic use across Europe is extremely variable with sales shifting more than 4-fold between countries
- A recent UK survey showed that 30% of adults wrongly believed that antibiotics can be used to successfully treat the flu and common cold.
- In many European countries, antibiotic prescription rates are highest in children
- Respiratory and gastrointestinal infections being the major cause of childhood illness in schools.
- Research has shown that the implementation of proper hand hygiene practices has reduced absenteeism within the school environment.
- The e-Bug project is a European-wide DG SANCO funded antibiotic and hygiene teaching resource.

Aims

- To examine the educational structure across each associate partner country

Belgium (BE)	Greece (EL)
Czech Republic (CZ)	Italy (IT)
Denmark (DE)	Poland (PL)
France (FR)	Portugal (PT)
Great Britain (GB)	Spain (ES)
- To assess what children are being taught in school with regards to
 - good and bad microbes
 - hand hygiene
 - respiratory hygiene
 - antibiotic use

Acknowledgements

The e-Bug working group would like to thank everyone from the various Ministries of Education and Health for their time and dedication and the teacher who took their time to fill out the questionnaires.

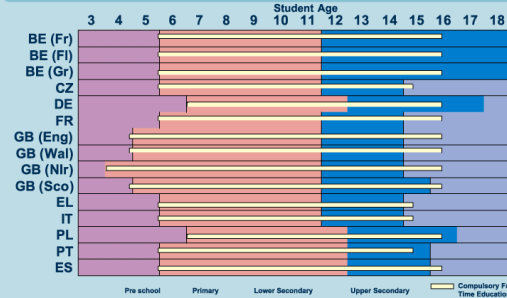
References

Hammond, B., Ali, Y., Fendler, E., Dolan, M., Donovan, S. (2000) Effect of hand sanitizer use on elementary school absenteeism. AJIC 28:5 340-346

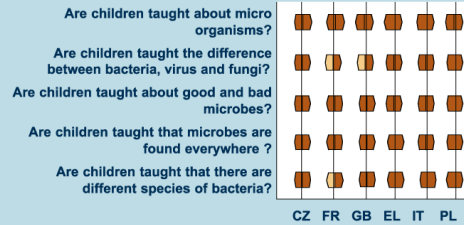
Eurydice (2005) Key data on Education in Europe 2005. the EURYDICE research group (ECSC-EC-EAEC, Brussels, Luxembourg): <http://europa.eu.int>

RESULTS

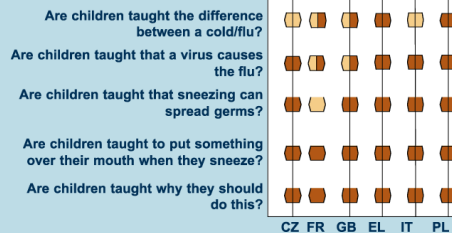
The structure of the education systems from pre-primary through upper secondary school



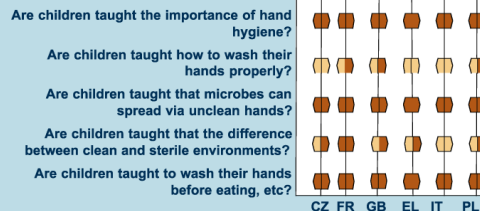
Curriculum content in relation to micro-organisms



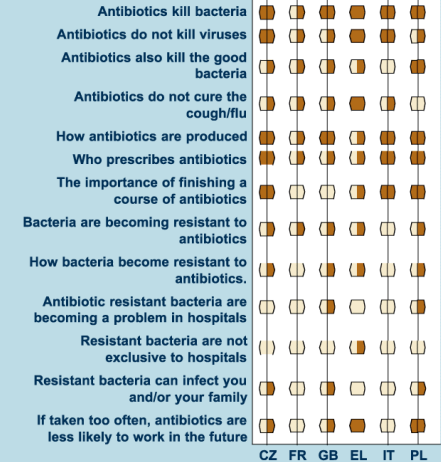
Curriculum content in relation to respiratory hygiene



Curriculum content in relation to hand hygiene



Curriculum content in relation to antibiotics



IN SUMMARY

- 100% of countries' include structured hand hygiene in the curriculum of both primary and secondary schools
- The curricula in all partner countries adequately cover the topic of human health and hygiene
- Limited information is provided on prudent antibiotic use and bacterial resistance
- Only two countries highlight that antibiotic resistance is a problem in hospitals
- Greece is the only country highlighting that antibiotic resistant bacteria are not exclusive to hospitals
- Educational resources reinforcing teaching and implementing national advice to the public campaigns are either limited or do not exist.
- Evaluation on the impact of school education on attitude and behaviour change is also limited throughout Europe

CONCLUSION

- Not enough is currently being done across Europe to educate children on the importance of appropriate antibiotic use and antibiotic resistant bacteria.
- There is a current need for more educational resource which emphasise these issues
- The data from this research will be used to develop e-Bug: a pan-European antibiotic and hygiene teaching resource.