

Jacqueline Sneddon<sup>1</sup>, Gill Walker<sup>2</sup>, Willie McGregor<sup>2</sup> & Jo McEwen<sup>3</sup>

1) Healthcare Improvement Scotland 2) NHS Education for Scotland 3) NHS Tayside

## Background

Nurses and Midwives play a crucial role in antimicrobial stewardship but this role is not fully developed in practice.

This project aimed to scope the understanding of antimicrobial stewardship in nursing and midwifery to identify the training and support required for effective engagement, to inform development of an education resource.

## Methods

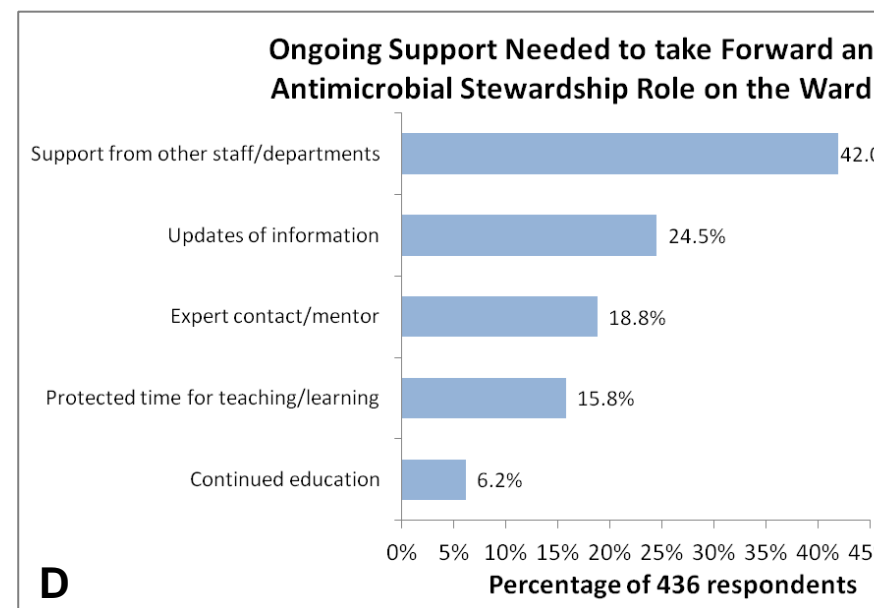
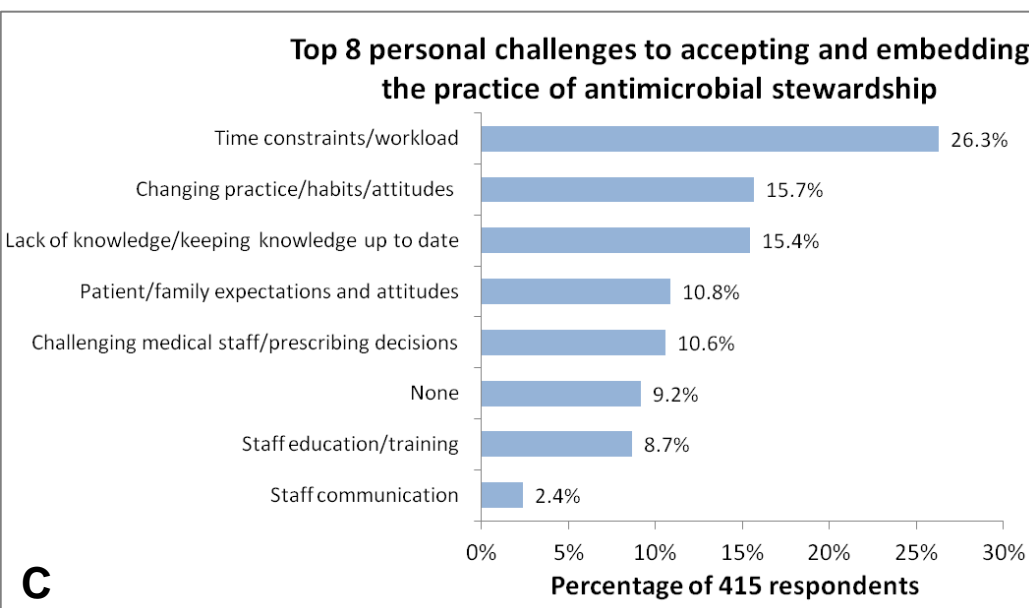
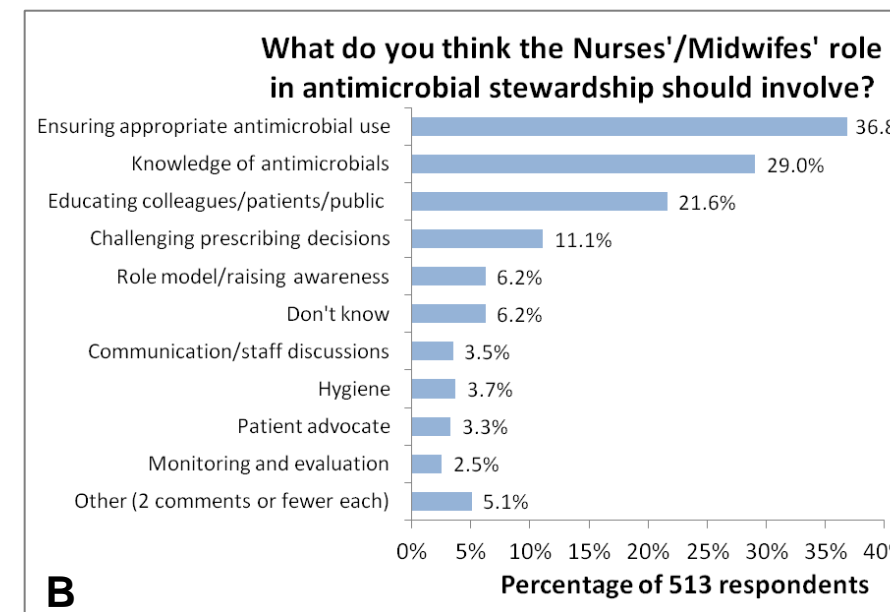
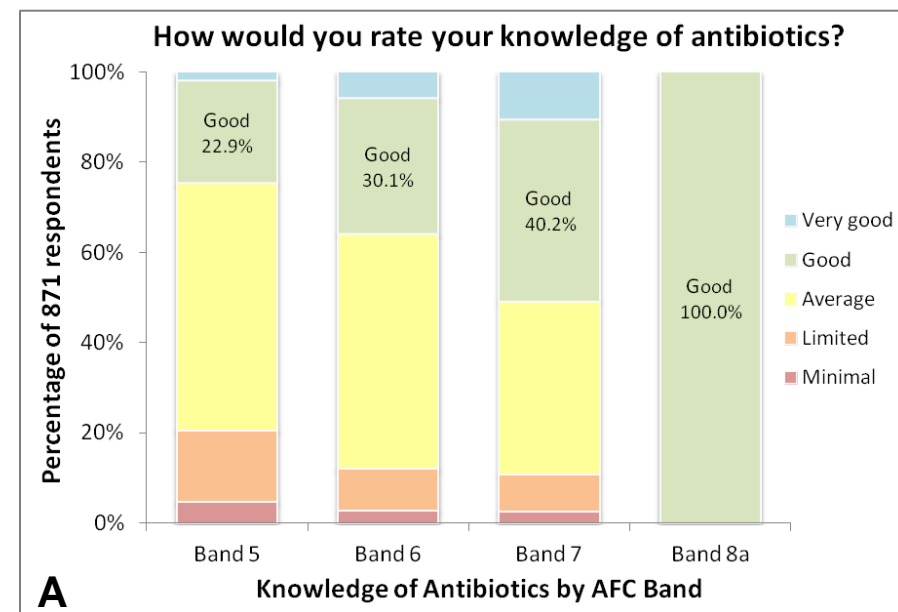
- A steering group developed and disseminated an online survey to nurses and midwives across all health boards in Scotland, in all care settings.
- An online education resource to meet the identified learning needs was developed and piloted in four health boards. Lessons from the pilot informed a national communication strategy and implementation in the remaining boards.

## References:

1) [http://www.nes.scot.nhs.uk/media/3239839/final\\_antimicrobial\\_stewardship\\_print\\_wkb\\_jan\\_2016.pdf](http://www.nes.scot.nhs.uk/media/3239839/final_antimicrobial_stewardship_print_wkb_jan_2016.pdf)

## Results

- There were 901 respondents across 171 work settings: 55% worked in acute settings and the rest in community care. Respondents were evenly split across grades (bands) 5, 6 and 7, with a few at 8a. 79% had been qualified for over 10 years.



- Over 40% felt they needed support from colleagues to become more involved (Fig D).
- The antimicrobial stewardship workbook<sup>1</sup> (Fig E) covers background on antimicrobials, basic microbiology and practical application of stewardship relevant to Nurses and Midwives. The Project Manager helped four pilot boards link the resource to existing education, development and re-validation programmes, to conduct drop-in sessions, and this learning will assist remaining boards to implement the workbook.

- 22% of respondents knew the term 'antimicrobial stewardship' and 36% rated their knowledge of antibiotics as good or very good and this improved with seniority (Fig A).

- 74% thought education on antimicrobial stewardship should commence during undergraduate training and over a third thought that part of their role was to ensure appropriate use of antimicrobials (Fig B).

- The main challenge to Nurses' and Midwives' involvement in stewardship was workload pressures (Fig C).

WORKBOOK CONTENTS		
Contents	Page	
Target Audience	3	
How to Use the Workbook	4	
NMC Revalidation	5	
KSF Mapping	6	
<b>Section 1: Introduction to Antimicrobial Stewardship</b>		
Introduction to Antimicrobial Stewardship	7	
Antimicrobial Prescribing and Stewardship Videos	8	
Role of the nurse in Antimicrobial Stewardship Video	8	
<b>Section 2: Antimicrobial Stewardship in Practice</b>		
Antimicrobial Stewardship in Practice	9	
Antimicrobial Stewardship in Scotland	9	
HAI Standards	10	
Antimicrobial Management Teams (AMT)	11	
Scottish Patient Safety Programme (SPSP)	12	
Responsibility and Accountability	13	
The Role of the Nurse in Antimicrobial Management	14	
<b>Section 3: Bacteria, Resistance and Antibiotics</b>		
Bacteria, Resistance and Antibiotics - The Basics	15	
Different Types of Bacteria	16	
Where Do We Find Microbes and Microbial Infection?	19	
Antimicrobial Resistance	22	
How Does Antimicrobial Resistance Develop?	23	
Antibiotics and How They Work	24	
Antibiotics and How They Work: Common side effects	25	
<b>Section 4: Diagnosis and Assessment of Infection</b>		
Microbiology Investigations	29	
Avoiding Contamination of Blood Cultures	31	
Testing for Antimicrobial Susceptibility	32	
Antimicrobial Prescribing Practice	33	
Local Antimicrobial Prescribing Policy	34	
Patient Education, Awareness and Involvement	39	
Review of Antimicrobial Prescriptions	41	
<b>Section 5: Considerations for Hospital Practice</b>		
Considerations for Hospital Practice	43	
IV to Oral Switch Therapy (IVOST)	44	
Sign 104 guidelines - Antibiotic Prophylaxis in Surgery	47	
Gentamicin and Vancomycin	50	
Sepsis Management	51	
Resources and Reading List	53	
Acknowledgements	55	
Evaluation and Written Reflective Account	56	
Certificate of Achievement	57	

## Conclusions

The survey of Nurses and Midwives in Scotland suggested there is a need for education and training on antimicrobial stewardship starting at undergraduate level. An online education resource to meet the identified learning needs has been developed and implemented to improve multi-professional antimicrobial stewardship practice at the point of care.