

1<sup>er</sup> au 3 juin 2022  
XXXII<sup>e</sup> Congrès National de la Société  
Française d'Hygiène Hospitalière



Lyon

# Applying an antimicrobial stewardship competency framework in nurse education and practice

French Society for Hospital Hygiene Annual Congress, Lyon 2022

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**Enrique Castro-Sánchez**

I have no link of interest.

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**AMS** has been described as:

***'a collection of co-ordinated interprofessional focused strategies to optimise antibiotic use by ensuring that every patient receives an antibiotic only when it is clinically indicated and then receives the appropriate antibiotic, at the right dose, duration and route of administration'***  
***(Manning et al 2015).***

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**Governments**  
*healthcare system leaders,*  
*and private actors* **should**

*expand funding and opportunities to*  
*increase the*

**ESSENTIAL**  
*health workers*

*on the* **frontline** *of fighting resistance*

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**NHS**

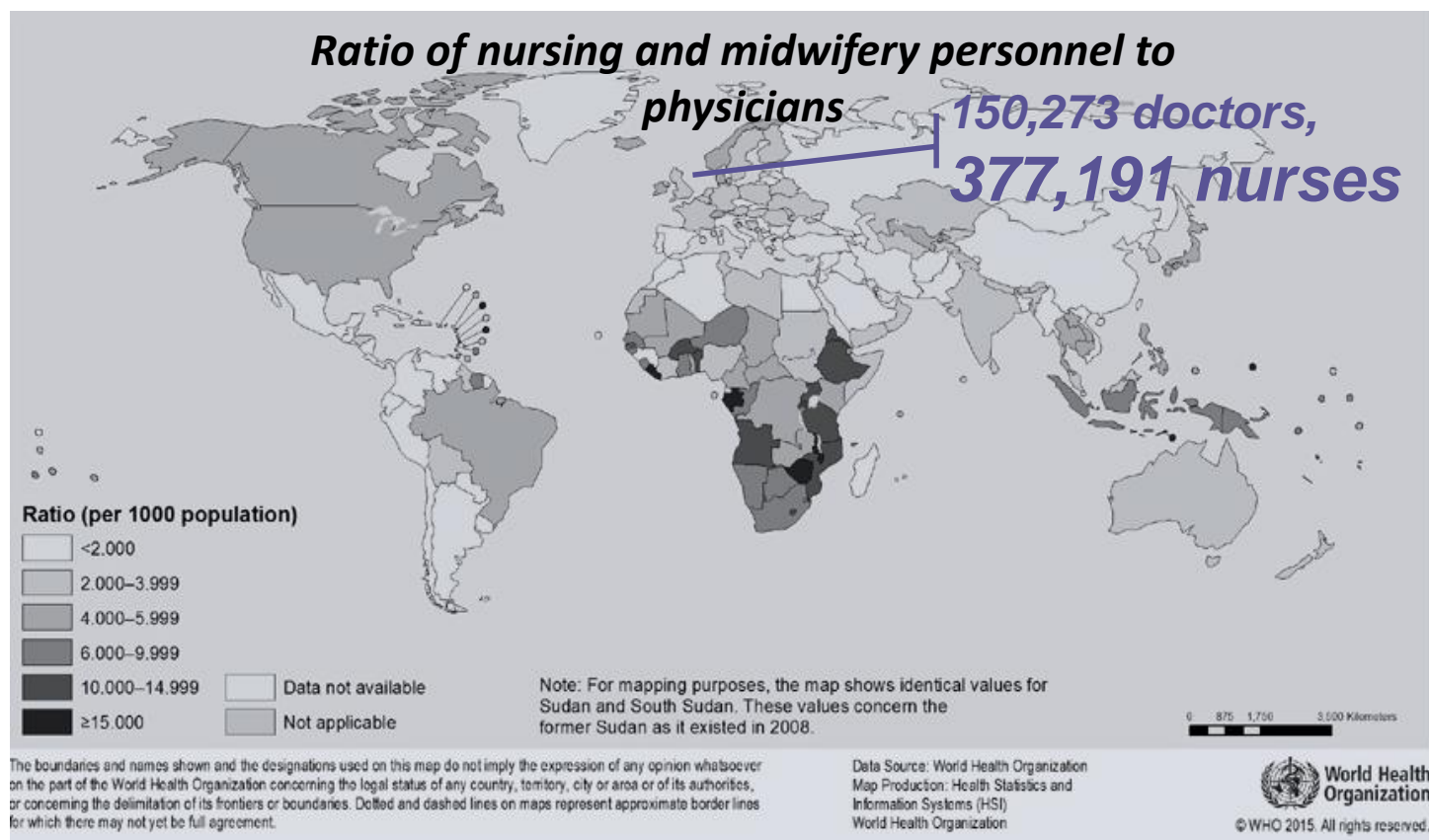
**National Institute for  
Health Research**

**12 900 000**  
*health-care workers  
by 2035*

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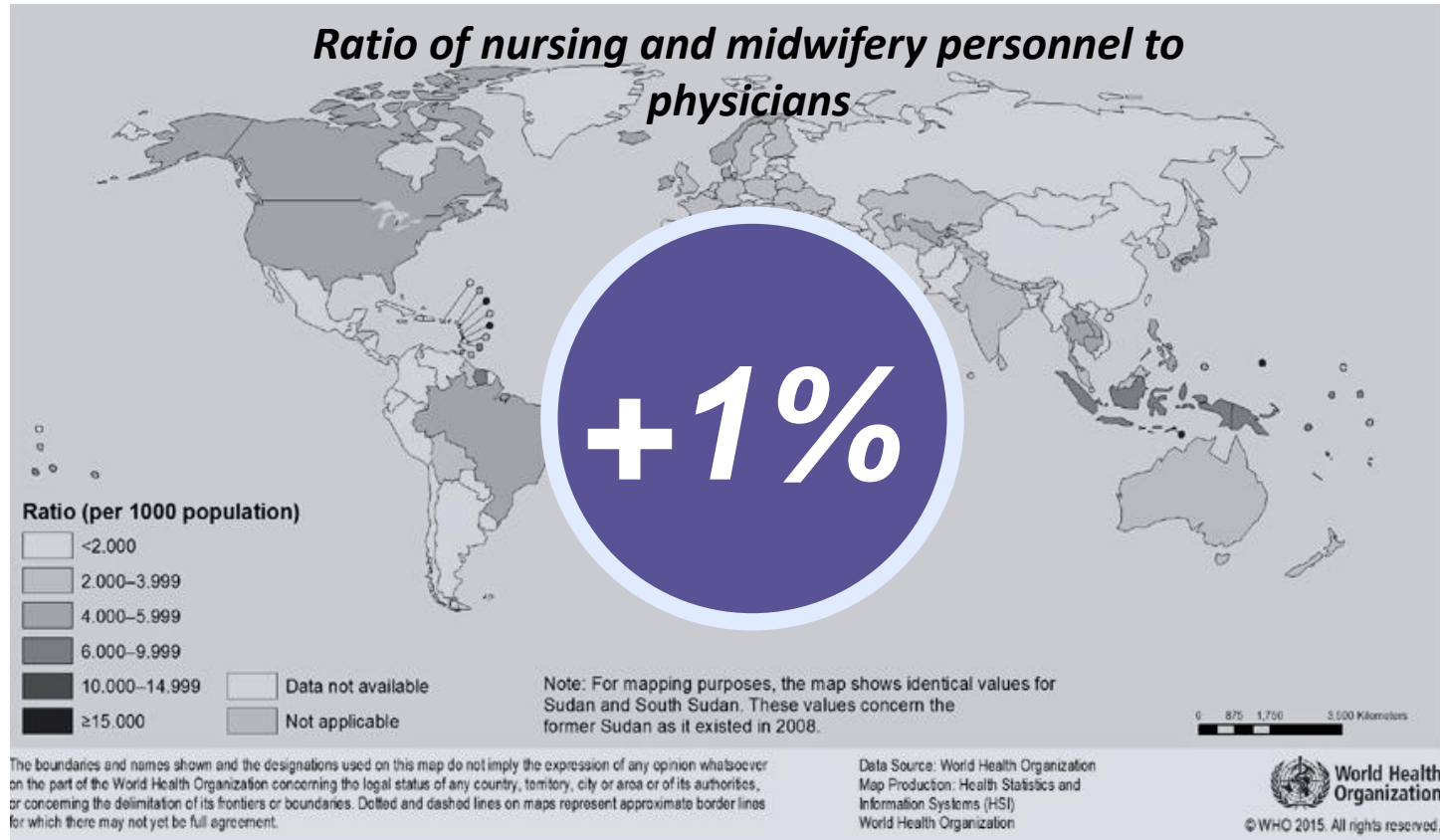
<http://www.nhsconfed.org/resources/key-statistics-on-the-nhs>

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## Ratio of nursing and midwifery personnel to physicians



<http://www.nhsconfed.org/resources/key-statistics-on-the-nhs>

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## Do nurses think they should 'do' AMS?

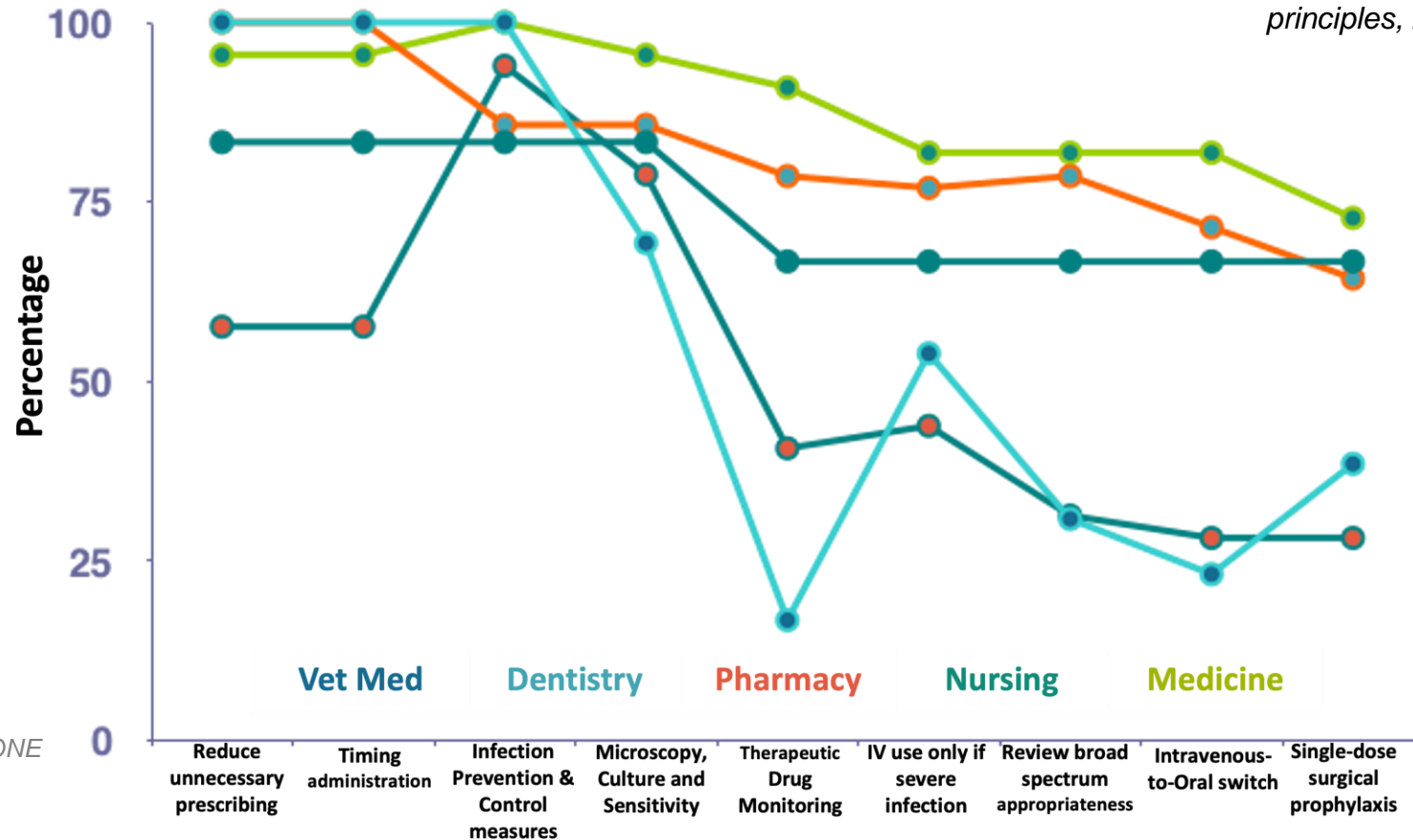
	Heard about AMS	Willing to participate in AMS
Anaesthetists	38%	51%
Pharmacists	80%	100%
Physicians	64%	55%
Surgeons	37%	48%
<b>Nurses</b>	<b>22%</b>	<b>43%</b>

## **This is not AMS, it's 'essential nursing care'**

- 01** Minimise unnecessary prescribing of antimicrobials
- 02** Ensure adequate timing of antimicrobial administration
- 03** Adopt necessary infection prevention and control measures
- 04** Obtain biological samples for microscopy, culture and sensitivity
- 05** Therapeutic drug monitoring, following adequate and/or adjusted dosing
- 06** Intravenous administration only in severely ill, unable to tolerate oral treatment
- 07** Review micro results daily, de-escalate to narrow-spectrum promptly
- 08** Review intravenous treatment daily, switch to oral route promptly
- 09** Require single dose surgical prophylaxis regimens as appropriate

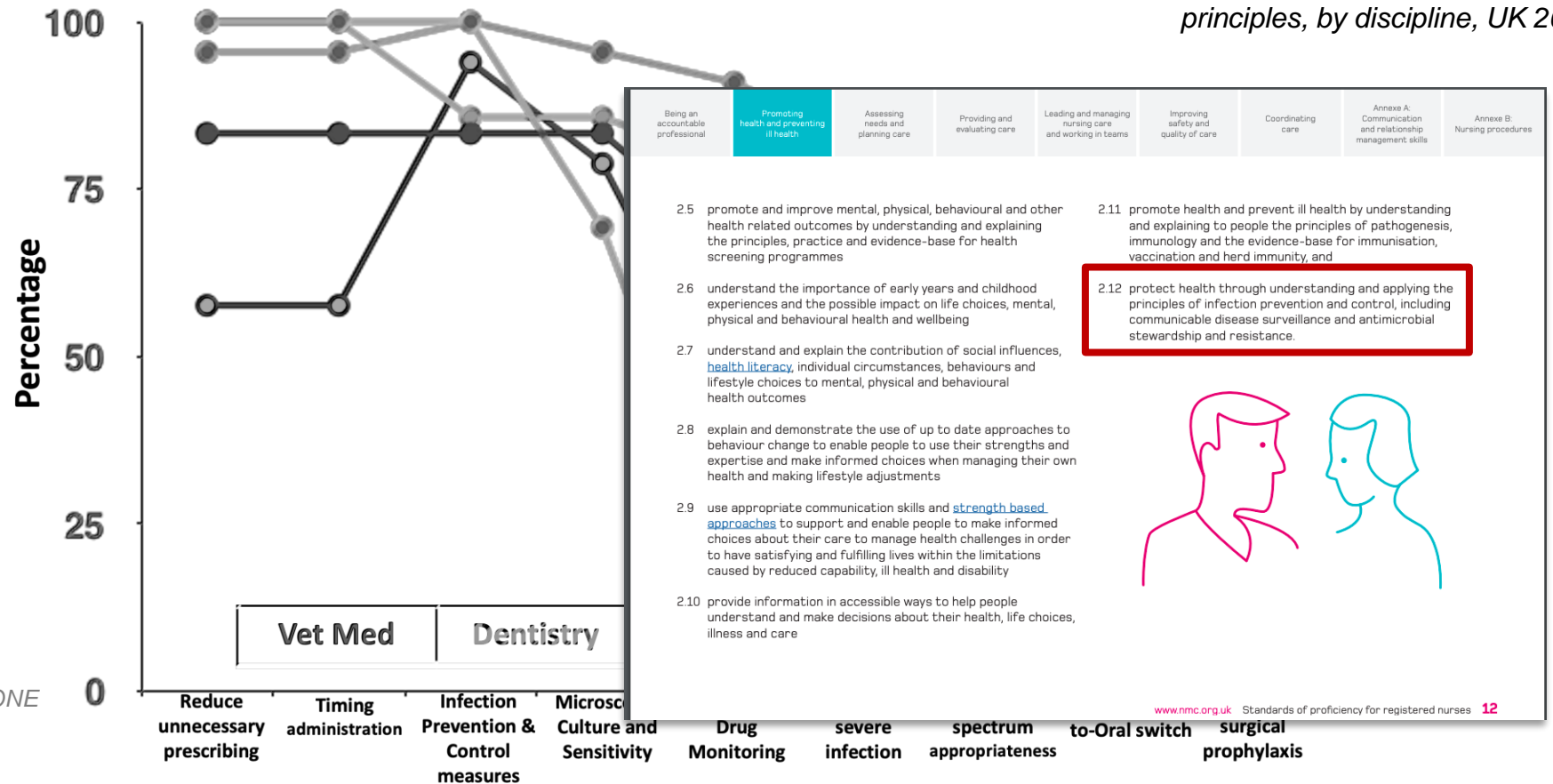
## Do nurses 'know' what they should do in AMS?

*Frequency of antimicrobial stewardship principles, by discipline, UK 2013*

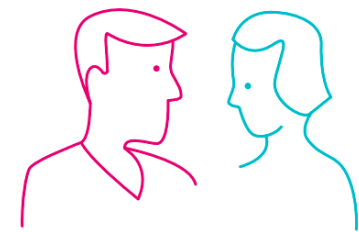


## Do nurses 'know' what they should do in AMS?

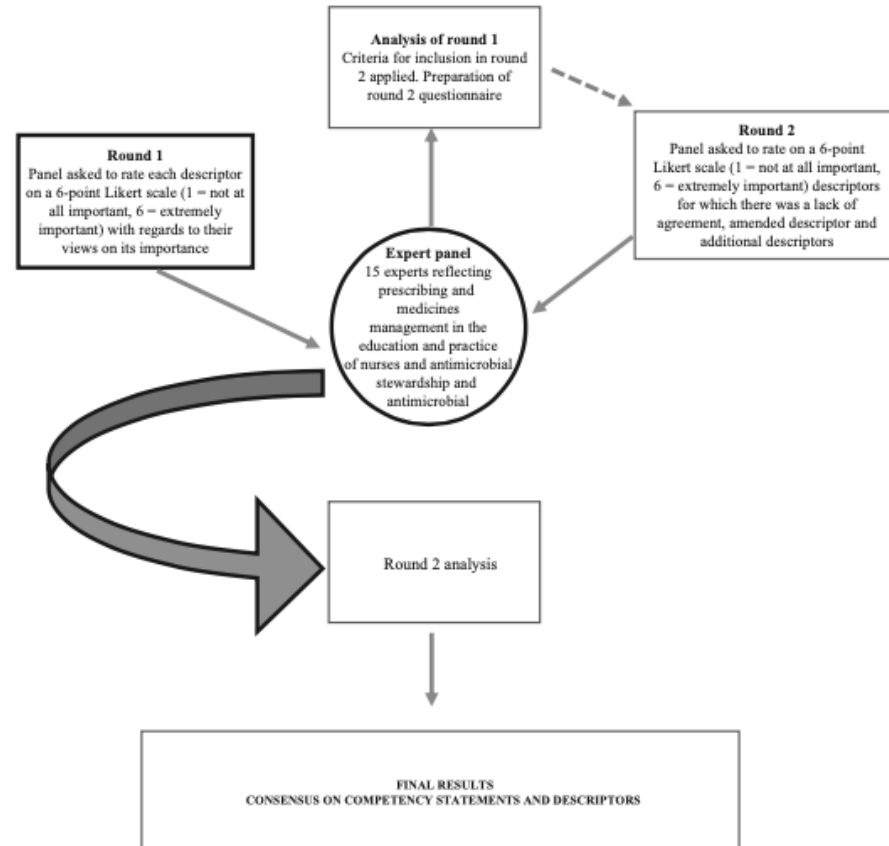
Frequency of antimicrobial stewardship principles, by discipline, UK 2013



Being an accountable professional	Promoting health and preventing ill health	Assessing needs and planning care	Providing and evaluating care	Leading and managing nursing care and working in teams	Improving safety and quality of care	Coordinating care	Annexe A: Communication and relationship management skills	Annexe B: Nursing procedures
2.5 promote and improve mental, physical, behavioural and other health related outcomes by understanding and explaining the principles, practice and evidence-base for health screening programmes	2.11 promote health and prevent ill health by understanding and explaining to people the principles of pathogenesis, immunology and the evidence-base for immunisation, vaccination and herd immunity, and							
2.6 understand the importance of early years and childhood experiences and the possible impact on life choices, mental, physical and behavioural health and wellbeing	2.12 protect health through understanding and applying the principles of infection prevention and control, including communicable disease surveillance and antimicrobial stewardship and resistance.							
2.7 understand and explain the contribution of social influences, <a href="#">health literacy</a> , individual circumstances, behaviours and lifestyle choices to mental, physical and behavioural health outcomes								
2.8 explain and demonstrate the use of up to date approaches to behaviour change to enable people to use their strengths and expertise and make informed choices when managing their own health and making lifestyle adjustments								
2.9 use appropriate communication skills and <a href="#">strength based approaches</a> to support and enable people to make informed choices about their care to manage health challenges in order to have satisfying and fulfilling lives within the limitations caused by reduced capability, ill health and disability								
2.10 provide information in accessible ways to help people understand and make decisions about their health, life choices, illness and care								



## Methods: Delphi technique (formal consensus method using experts)



- 2 online surveys rounds
- Feb-March 2019
- 15 international individuals from 8 countries (Brazil, UK, South Africa, US, Canada, Norway, Thailand, France)
- Expertise in prescribing and medicines management in the education and practice of nurses; and antimicrobial stewardship.

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## Results

Consensus with consistently high levels of agreement on six competency domains (comprising 63 competency descriptors):

- Infection prevention and control
- Antimicrobials and antimicrobial resistance
- The diagnosis of infection and use of antibiotics
- Antimicrobial prescribing practice
- Person centred care
- Interprofessional collaborative practice

## Results- Infection Prevention and Control

### Competency statement:

All qualified healthcare professionals must understand the core knowledge underpinning infection prevention and control, and use this knowledge appropriately to prevent the spread of infection.

### *Descriptors (selected)*

- Describing what a micro-organism is.
- Describing the different types of organisms that may cause infections.
- Explaining what an antimicrobial resistant organism is.
- Explaining 'Chain of Infection'.
- Defining components required for infection transmission
- Describing routes of transmission

## Results- Person-Centred Care

### Competency statement:

All qualified healthcare professionals must seek out, integrate and value the input and engagement of the patient/carer as a partner in designing and implementing care.

### *Descriptors (selected)*

- Support participation of patients/carers.
- Share information with patients/carers in respectful and understandable manner to encourage discussion and decision-making.
- Ensure that appropriate education and support is provided by learners to patients/carers.
- Listen respectfully to needs of all parties in shaping and delivering care or services.
- Discuss expectations/demands of antimicrobials and need to use them appropriately.

## Results- Interprofessional collaborative Practice

### Competency statement:

All qualified healthcare professionals need to understand how different professions collaborate in relation to how they contribute to AS.

### *Descriptors (selected)*

- Understand roles, responsibilities, and competencies of other health professionals in antimicrobial treatment policy decisions.
- Explain why it is important that healthcare professionals, have common understanding of antimicrobial treatment policy decisions, the quantity of antimicrobial use, and effective patient/client outcomes.
- Establish collaborative communication principles and actively listen to others involved in delivery of antimicrobial therapy.

## Evaluation (n = 33 UK universities)

Domain	Highest % descriptor	Lowest % descriptor
Domain 1: Infection prevention and control	100	72.7
Domain 2: Antimicrobials and antimicrobial resistance	97	51.5
Domain 3: The diagnosis of infection and the use of antibiotics	84.4	37.5
Domain 4: Antimicrobial prescribing practice	96.8	34.4
Domain 5: Person-centred care	93.8	62.5
Domain 6: Interprofessional Collaborative Practice	100	58.1

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## Further steps

- Endorsed by scientific and professional societies including National Institute for Health and Care Excellence (NICE)
- Identified as educational resource to support the delivery of the UK's five-year national action plan (Her Majesty's (HM) 2019) to tackle the growing problem of AMR

### ANTIMICROBIAL STEWARDSHIP FOR NURSING PRACTICE

MOLLY COURTENAY AND ENRIQUE CASTRO-SÁNCHEZ

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Now published!



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