

# Antimicrobial Stewardship Knowledge, Attitudes, and Practices (KAP) Among Nurses



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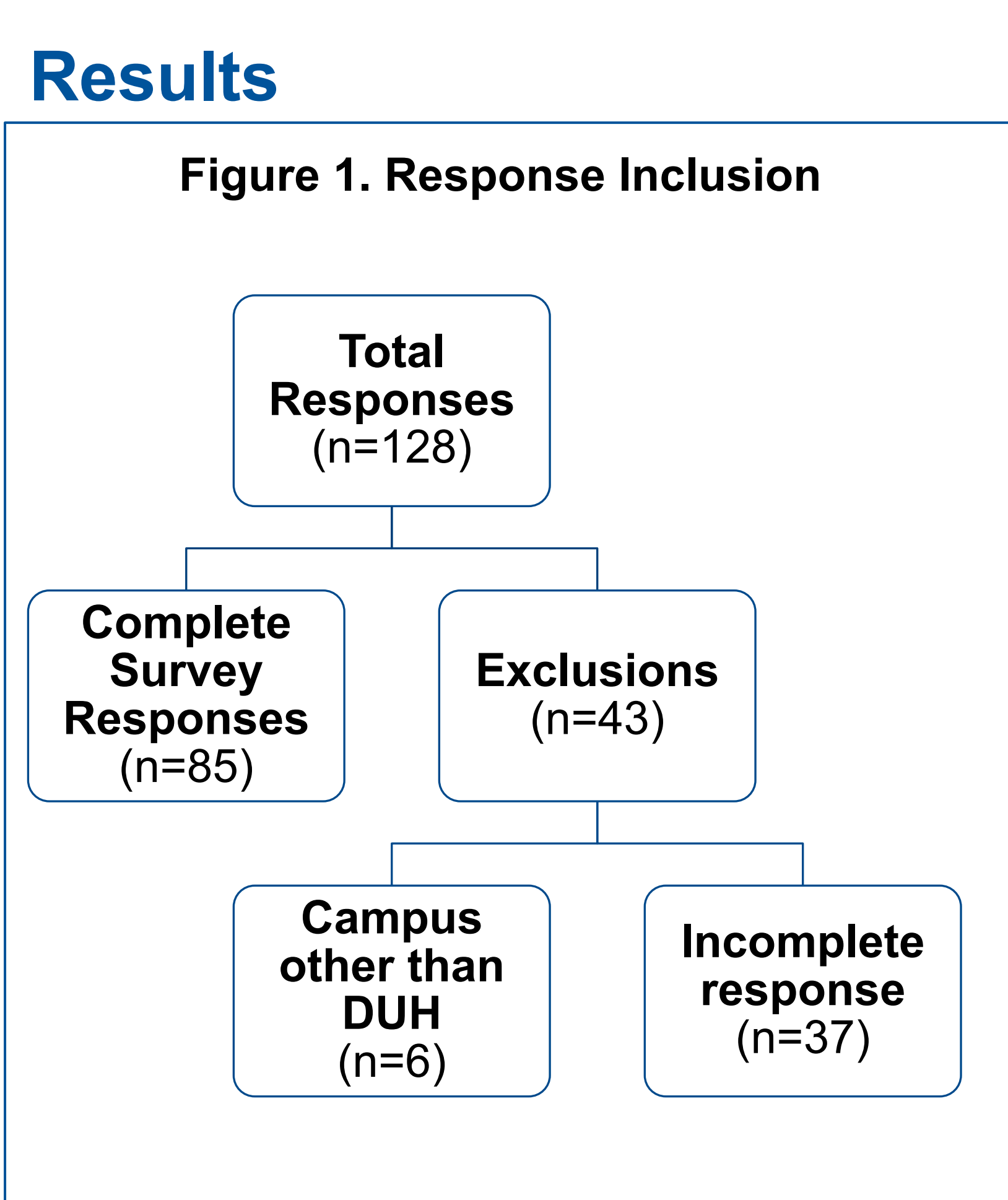


### Background

- Nurses are underutilized members of the antimicrobial stewardship (AS) team, but further education and training are needed to optimize their role
- Knowledge, Attitudes, and Practices (KAP) surveys have been performed among a variety of provider types, but less is known about KAP among nurses
- MAIN AIM: To characterize current educational needs surrounding AS to further inform the design of future, nursing-driven, AS initiatives

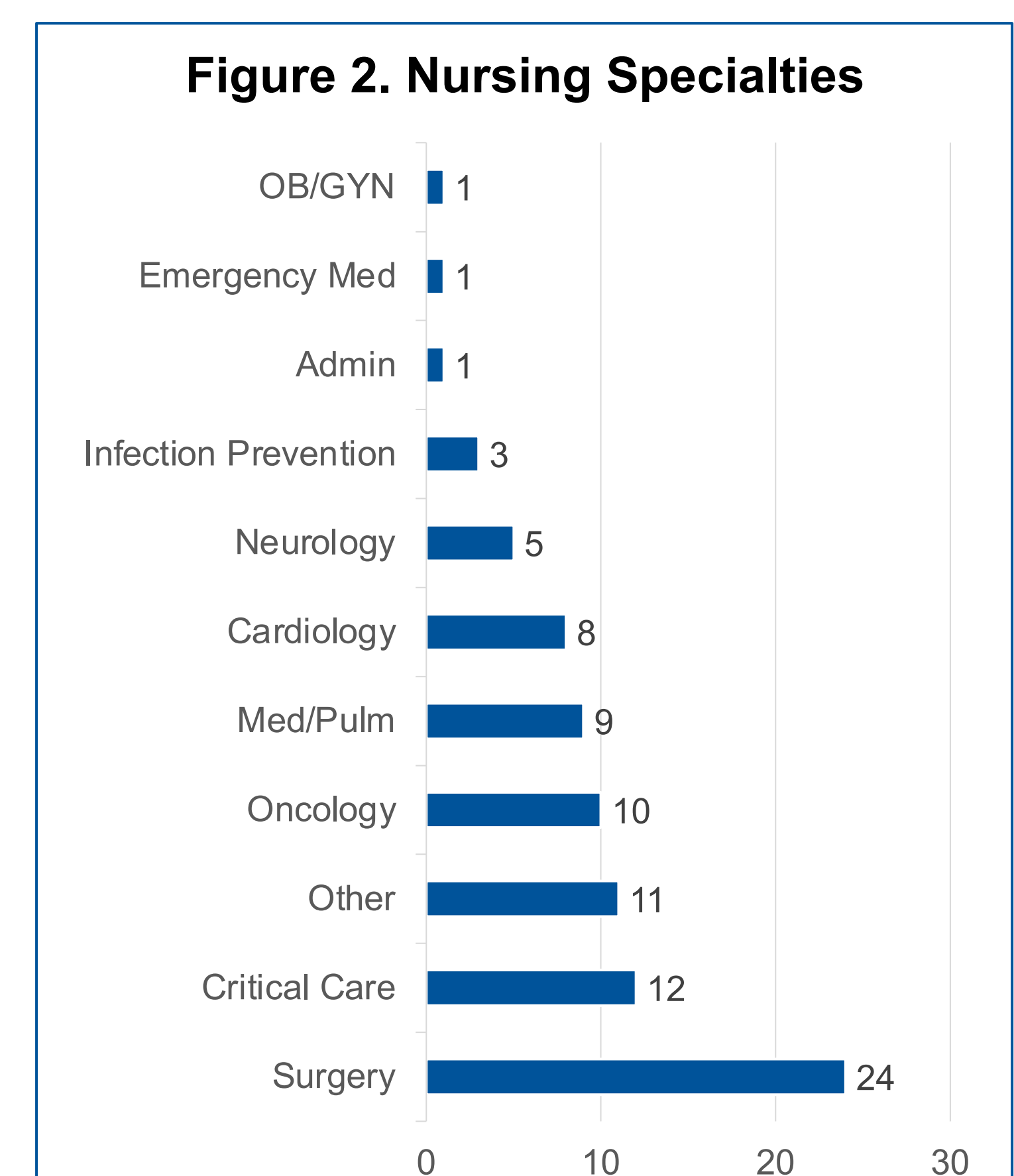
### Methods

- We designed an electronic, 24-question KAP survey in conjunction with relevant nursing and infection prevention (IP) champions
- Nine knowledge-based questions focused on four key AS domains:
  - Administration of beta-lactams first in patients presenting with sepsis
  - Intravenous (IV) to oral (PO) transition
  - Urinary tract infections (UTIs)
  - Penicillin allergies
- We collected voluntary responses via Qualtrics from January 9-March 31, 2023
- Surveys were distributed via email link to nurses practicing at Duke University Hospital (DUH), with periodic reminders to enhance survey response rates
- Incentives included a chance to win a meal voucher



#### Table 1. Survey Participant Demographics

Category	n (%)
<b>Degree</b>	
Associates or Diploma	8 (9)
Bachelors	63 (74)
Masters or higher	14 (17)
<b>Years in Nursing, median (IQR)</b>	9 (3-17)
<b>Shift</b>	
Dayshift	59 (69)
Nightshift	15 (18)
Rotating	11 (13)
<b>Primary Role</b>	
Staff Nurse	56 (66)
Charge Nurse	10 (12)
Nurse Manager (including ANMs)	16 (19)
Other	3 (3)

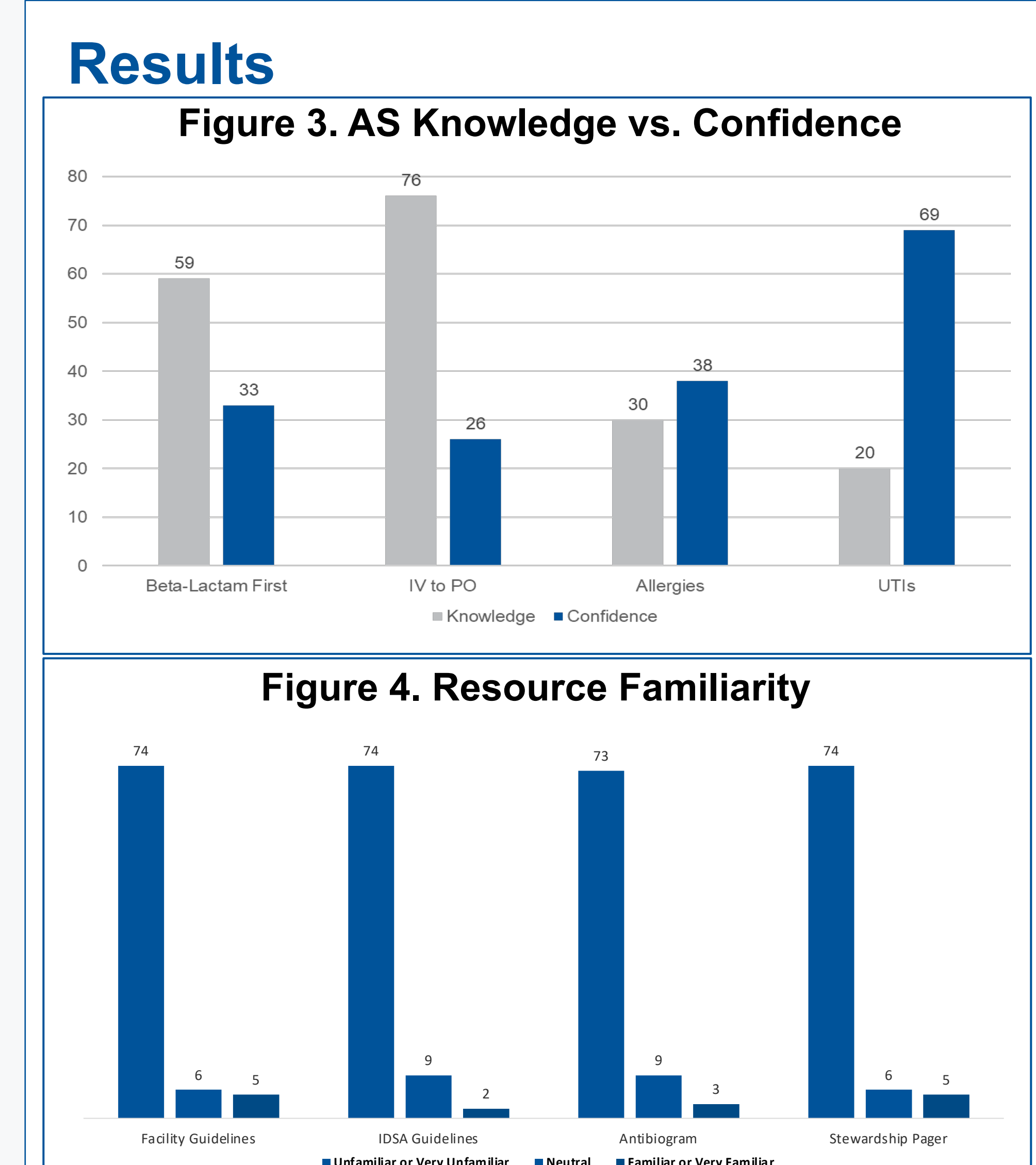


#### Table 2. National and Local Attitudes and Practices

Statement	Nationally Agree or Strongly Agree, n (%)	At DUH Agree or Strongly Agree, n (%)
Antimicrobial resistance is a significant problem.	78 (92)	30 (35)
Antimicrobial use can harm patients.	59 (69)	22 (26)
Antimicrobials are overused.	58 (68)	52 (61)
Selecting broad-spectrum antimicrobials when narrower spectrum antimicrobials are available contributes to antimicrobial resistance.	68 (80)	57 (67)
Antimicrobial resistance can be reduced by improving infection control practices.	79 (93)	78 (92)
Development of new antimicrobials will keep up with increasing resistance.	43 (51)	---
Antimicrobial stewardship programs improve patient care and safety.	73 (86)	71 (84)

#### Table 3. Nursing Role in Antimicrobial Stewardship

Statement	Strongly Agree or Agree, n (%)
When giving a patient an antimicrobial, I know why the patient is receiving the medication.	76 (89)
It is my responsibility to contribute to appropriate antimicrobial use at my hospital.	74 (87)
I would like more education on the appropriate use of antimicrobials.	72 (85)
Strong knowledge of antimicrobials is important in my role.	78 (92)



### Conclusions

- Nurses believe they should contribute to appropriate antimicrobial use and desire more education on AS
- Attitudes surrounding antimicrobial stewardship among nurses differed from a national versus local perspective
- Further education is needed:
  - To improve confidence in assessing the management of urinary tract infections and penicillin allergies
  - Regarding readily available resources for consultation
- Next steps include establishing an education plan and a targeted, nursing-driven, AS initiative