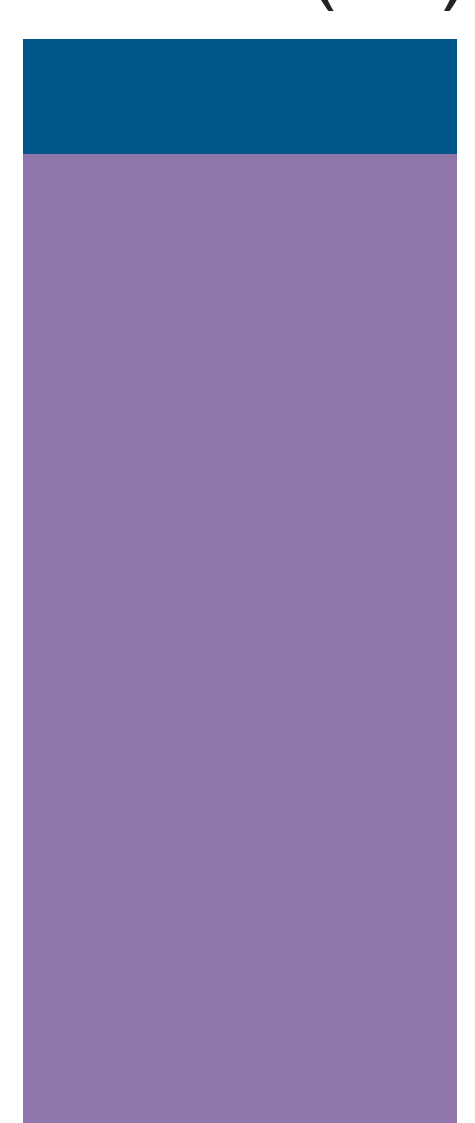


## Study Purpose

Assess pharmacotherapeutic APPE readiness at the programmatic level utilizing the 2019 ACCP Pharmacotherapy Didactic Curriculum Toolkit and feedback from core rotation preceptors. Results serve as a foundational resource for curriculum review and revision.

### Survey Design

■ Tier 2 (11)  
■ Tier 1 (94)



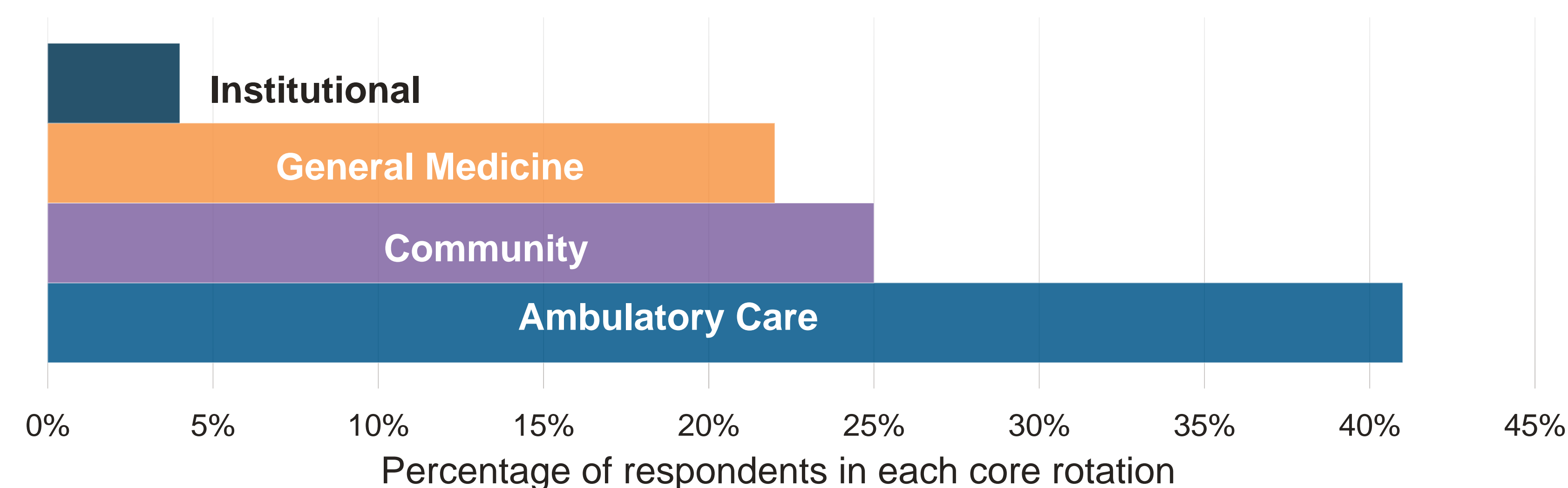
- All tier 1 topics were included
- Select tier 2 topics were included based on the expected competencies of pharmacists in our region upon graduation
- Response options: APPE Ready, Not-APPE Ready, or Not applicable to the rotation
- APPE ready was defined as the students' ability to competently provide collaborative, patient-centered care at the start of their rotation
- Comments were solicited for "not APPE ready" responses

Figure 1. Toolkit Topics Included in Survey

### Respondents

- 67 preceptors who accepted at least 3 APPE students on a core rotation over the past two years were invited to participate
- 47% (N = 32)** of active core preceptors completed the entire survey

Figure 2. Respondent Rotation Type



- 49% of respondents indicated they precept 5-8 APPE students per year
- 51% of respondents have been preceptors for ≤5 years

### Outcomes

- There were **21 topics** where ≥20% of preceptors perceived that students were not APPE ready
  - Tier 2 topics represented 33%** (n = 7) of the not-APPE ready topics
- Responses and comments indicated that APPE readiness was **generally lower for inpatient heavy topics**

Table 1. Not-APPE Ready Topics

Tier	% Not ready at the beginning of rotation	Topics	Tier	% Not ready at the beginning of rotation	Topics
1	44.8%	Renal, Fluid, and Electrolyte Conditions - Electrolyte disorders (potassium, calcium, phosphorus, magnesium)			
1	41.4%	Cardiovascular Conditions - Arrhythmias, atrial (e.g., atrial fibrillation)			
1	37.9%	Cardiovascular Conditions - Venous thromboembolism, prevention and treatment	2	27.6%	Gastrointestinal Conditions - Cirrhosis, end-stage liver disease, and complications
1	37.9%	Hematologic Conditions - Anemias (e.g., iron deficiency, vitamin B12 deficiency, folic acid deficiency, chronic disease/inflammation)	2	24.1%	Cardiovascular Conditions - Hypertensive crises
1	34.5%	Endocrine Conditions - Diabetes, type 1	2	24.1%	Cardiovascular Conditions - Stroke (ischemic, hemorrhagic, and transient ischemic attack)
1	34.5%	Hematologic Conditions - Drug-induced hematologic disorders (including heparin-induced thrombocytopenia)	2	24.1%	Endocrine Conditions - Hyperglycemic crises (diabetic ketoacidosis [DKA], hyperosmolar hyperglycemic state [HHS])
1	31.0%	Gastrointestinal Conditions - Drug-induced hepatic disorders	2	20.7%	Acute coronary syndromes (ST-elevation myocardial infarction [STEMI], non-ST elevation myocardial infarction [NSTEMI], unstable angina)
1	27.6%	Cardiovascular Conditions - Ischemic heart disease			
1	27.6%	Psychiatric and Behavioral Conditions - Alcohol use disorder (including alcohol withdrawal)			
1	27.6%	Psychiatric and Behavioral Conditions - Opioid use disorder (including opioid withdrawal)			
1	24.1%	Nutritional Conditions - Nutrient deficiency and excess (including vitamins and trace minerals)	2	20.7%	Critically Ill Patients- Sepsis and septic shock
1	20.7%	Cardiovascular Conditions - Atherosclerotic cardiovascular disease, secondary prevention	2	20.7%	Renal, Fluid, and Electrolyte Conditions - Acute kidney injury (prerenal, intrinsic, and postrenal)
1	20.7%	Toxicologic Conditions - Acetaminophen toxicity			
1	20.7%	Special Populations - Geriatrics - Falls and fall-risk-increasing drugs (FRIDs)			

### Actions Taken

#### College Level

- Development of ISU specific toolkit with inpatient and outpatient foundational topics emphasized
- Standardized content mapping in annual course reviews

#### Coordinator/instructor Level

- Assess for appropriate placement, depth, and breadth of flagged topics
- Evaluate pedagogies and assessments utilized
- Consider intentional scaffolding throughout the curriculum

### Limitations

- This study did not control for the timing of the rotation during the APPE year (i.e., first APPE vs. last APPE)
- Other aspects of APPE readiness (ex., professionalism, Entrustable Professional Activities, etc.) were not measured in this survey

### Reference

- Flannery AH, Soric MM, Benavides S, et al. 2019 Update to the American College of Clinical Pharmacy Pharmacotherapy Didactic Curriculum Toolkit. *J Am Coll Clin Pharm.* 2020; 3: 455–464. <https://doi.org/10.1002/jac5.1178>