

Background and Objective

- The three-year family medicine residency program is comprised of twelve residents per class, a dozen full-time physicians, and two academic ambulatory care pharmacists. Medical residents impact numerous patients in the community through services provided at an outpatient clinic and a level one trauma center. The inpatient pharmacy team is comprised of two-dozen pharmacists and four pharmacy residents. Medical and pharmacy students rotate at both practice sites throughout the year.
- The residency program did not have a formal pharmacotherapy curriculum, although the need for such education has historically been advocated.¹ Additionally, there is limited accreditation guidance on the scope of drug knowledge that family medicine residents should develop throughout post graduate medical education training.
- Faculty family physicians requested pharmacists develop and deliver complementary medication-focused education to medical residents across two practice settings to reinforce management of common disease states.
- The primary objective was to develop a pharmacotherapy curriculum for family medicine residents that integrated evidence-based education into the existing programmatic framework.

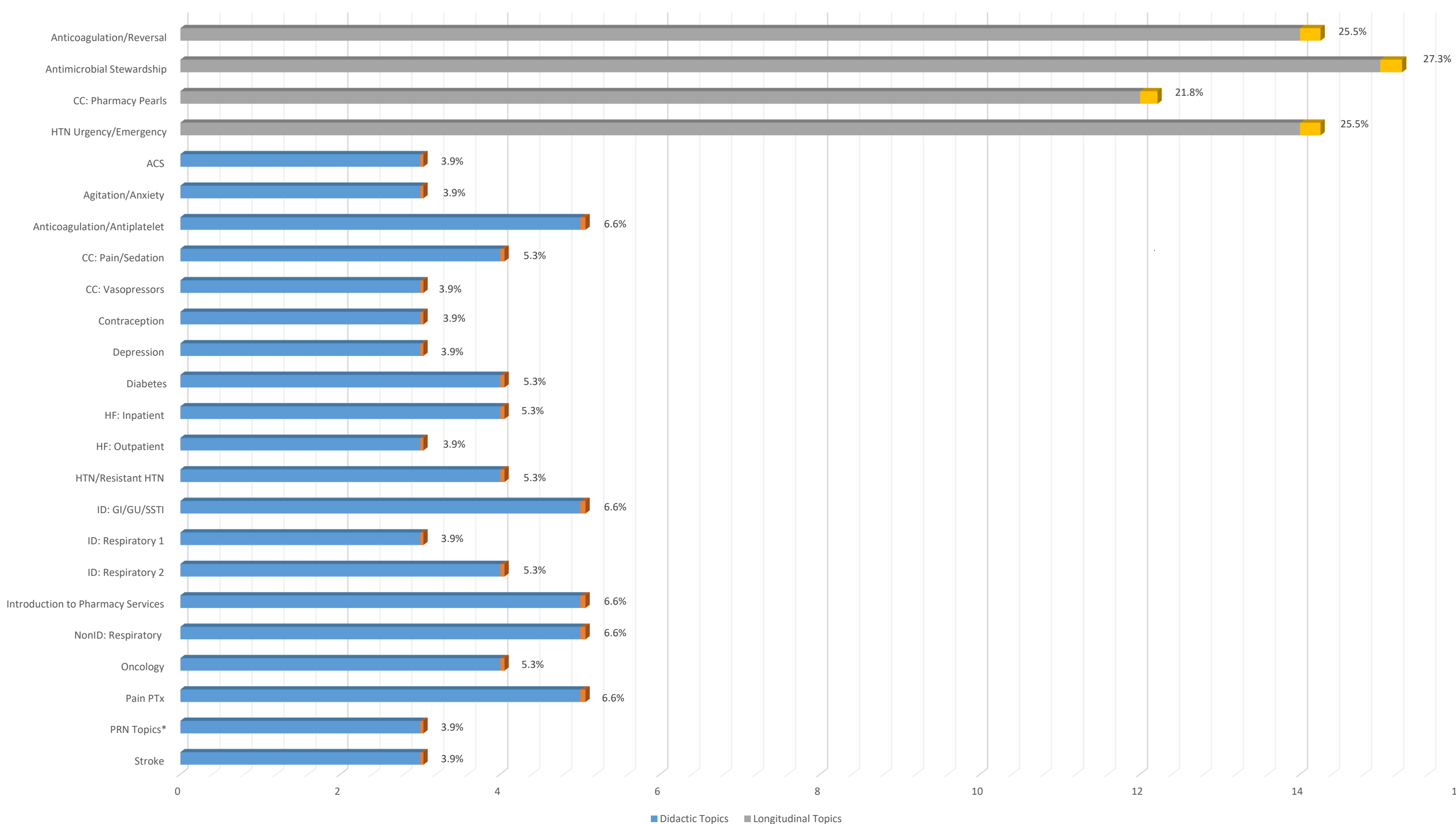
Methods

- The curriculum was informed by medical coding and literature identifying prevalent conditions managed by the family medicine residents.
- Pharmacists and faculty family physicians collaborated to develop, schedule, and deliver monthly pharmacotherapy education to medical residents in two unique formats and settings.
- Inpatient education entailed 30-minute in-person informal longitudinal sessions encompassing a flipped classroom model with interactive game-based learning and patient case scenarios. Outpatient education entailed 45-minute in-person and virtually delivered formal didactic presentations focused on guideline directed therapy and patient case scenarios.
- All educational content was repeated to expose medical residents to information 2-3 times throughout the three-year training program.
- Professional framework² and standards^{3,4} guided alignment of educational development and delivery by pharmacy team members.

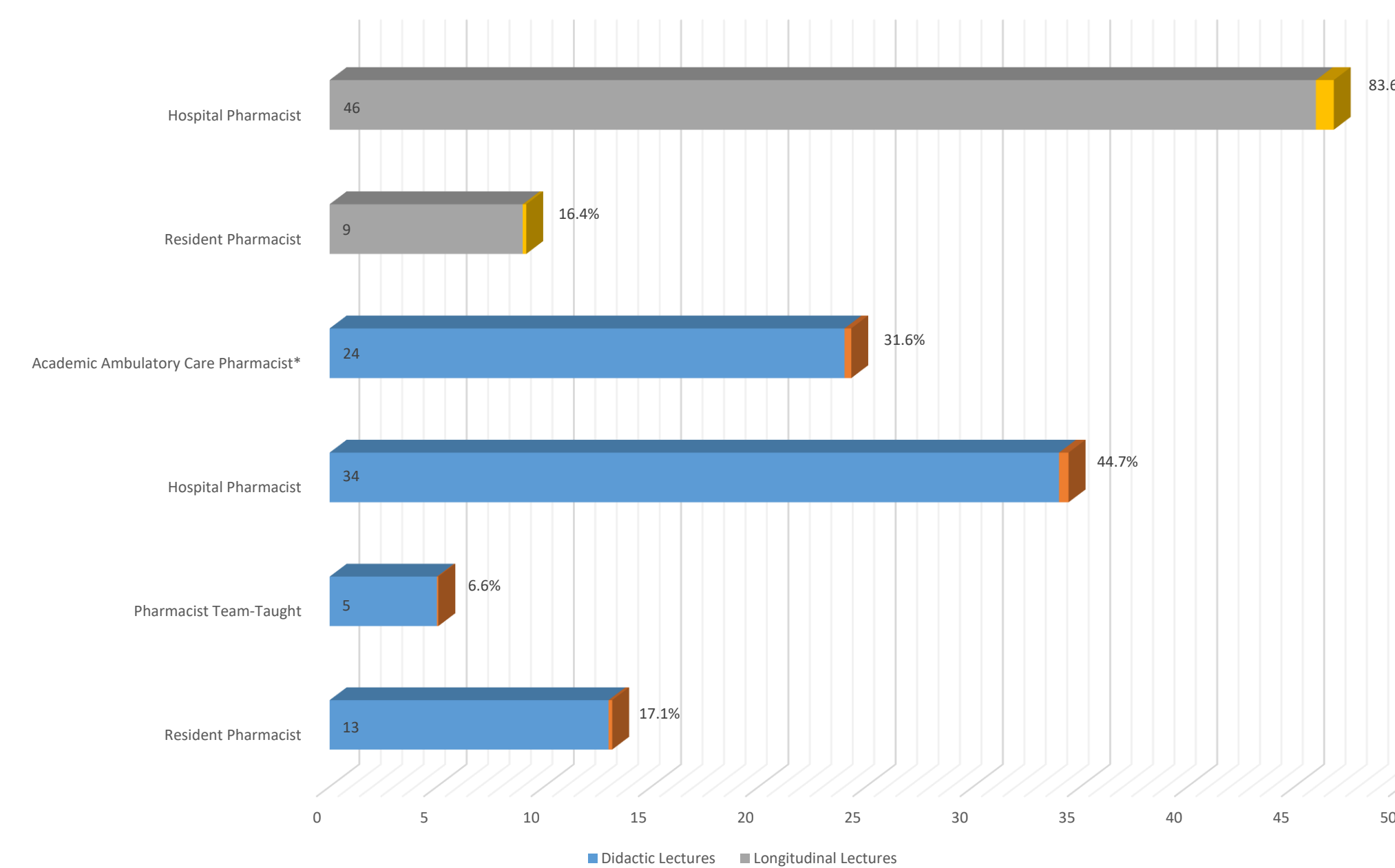
Results

- Fifty-five longitudinal sessions covering four unique categories were delivered to 84 family medicine residents by individual hospital and resident pharmacists.
- Seventy-six didactic lectures covering twenty unique categories were delivered to 101 family medicine residents by individual hospital, resident, academic ambulatory care pharmacists, or were team taught by pharmacists from both practice settings. *Experiential pharmacy students were involved in delivering all education provided by academic ambulatory care pharmacists.

Education Distribution



Lecture Distribution



Conclusions

- Creation and delivery of the curriculum across practice sites required extensive pharmacist collaboration.
- Education afforded medical residents heightened visibility and awareness of pharmacist contributions to patient care and strengthened collaboration and interprofessional relationships between pharmacists and medical residents.
- Additionally, medical residents gained drug therapy troubleshooting knowledge through pharmacist demonstrated application of drug databases and formularies to clinical practice.

Future Considerations

- Pharmacotherapy curriculum should be designed to complement the patient population served and address the needs of graduate medical program learners and interprofessional team members.
- Adequate administrative staff should be dedicated across sites to schedule, cycle, coordinate lecture content and lecturers, manage modes of delivery, and formally evaluate residents to gauge perceived educational value.
- The lecture schedule should include reserved dates for flexibility to adapt the curriculum to evolving learner needs.
- Residency programs should establish desired educational outcomes and measurability, determine if education is required or supplemental learning, and consider various modalities of content delivery (e.g., live in-person and/or virtual, recorded, etc.).
- Pharmacists should utilize pertinent professional frameworks and standards to guide curriculum development and education delivery and to assess achievement of pre-determined goals.

CC (critical care), HF (heart failure), HTN (hypertension), ID (infectious disease), GI (gastrointestinal), GU (genitourinary), SSTI (skin soft tissue infections), PRN (as needed), PTx (pharmacotherapy).
 *Retail pharmacy pearls, evidence-based assessment of gastric acid suppressing agents, medication-related electrolyte abnormalities and fluid resuscitation, diabetic ketoacidosis, and hyperglycemic hyperosmolar state.