

Postgraduate Pharmacy Education-A Call to Arms: Considerations for New and Expanding Programs

ASHP Midyear Meeting
Monday, December 5, 2011
1:30-3:00 pm



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Disclosures

The program chair and presenters for this continuing pharmacy education activity report no relevant financial relationships.



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Postgraduate Pharmacy Education: A Continual Opportunity for Pharmacy Academia

Lynette R. Bradley-Baker, RPh, PhD
Director of Professional Alliance Development
American Association of Colleges of Pharmacy



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"The Responsibility of Pharmaceutical Education for Scholarship, Graduate Education, Fellowships, and Postgraduate Professional Education and Training"

AACP Commission to Implement Change
in Pharmaceutical Education Position Paper IV, 1993



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Agenda

- Overview of Postgraduate Pharmacy Education (PPE)
- Current State of Pharmacy Residency Programs
- The Role of Schools and Colleges of Pharmacy in Pharmacy Residency Programs
- Expanding opportunities for Pharmacy Residency Programs



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Overview of Postgraduate Pharmacy Education (PPE)

- Postgraduate Pharmacy Education (PPE): a structured and systematic educational and training experience which generally occurs after licensure and which is directed toward some predetermined educational outcome relative to the knowledge and skills required for the deliver of pharmaceutical services
 - Fellowships
 - Graduate Education
 - Pharmacy Residencies



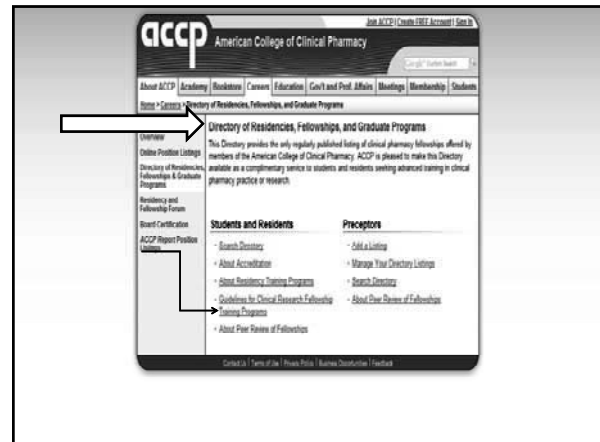
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Overview of Postgraduate Pharmacy Education (PPE)

- Fellowships
 - A directed, highly individualized, postgraduate program designed to prepare the participant to become an independent researcher
 - Pharmaceutical industry, pharmacy academia, managed care
 - Programs developed by various entities
 - Academic health centers, schools/colleges of pharmacy, pharmaceutical manufacturers
 - Number of schools/colleges of pharmacy participating in fellowships (Fall 2010):
 - Post-PharmD Fellowship: 18/120 (15%)
 - Post-PhD Fellowship: 46/120 (38%)
 - No accreditation body for fellowship programs
 - Typically 12-24 months in duration



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Overview of Postgraduate Pharmacy Education (PPE)

- Fellowships
 - Still considered a viable pathway to prepare clinical scientists
 - Major challenge is lack of consistent funding
 - Other competitors
 - NIH training programs (i.e., Clinical and Translational Science Award (CTSA) program)
 - Other NIH training programs
 - Graduate degrees in clinical research
 - Future directions
 - More schools/colleges of pharmacy should investigate the feasibility of establishing fellowship programs
 - Collaboration between education and practice is needed to identify new disciplines for fellowships
 - Clinical, social, and basic science pharmacy faculty and those from other professions working together



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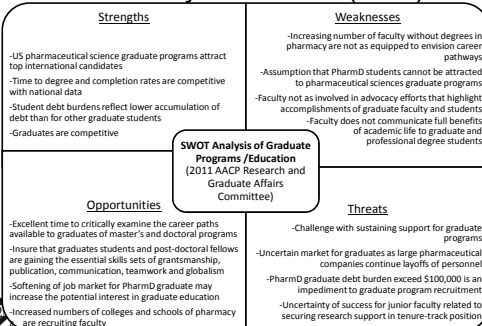
Overview of Postgraduate Pharmacy Education (PPE)

- Graduate Education
 - Research-intensive degrees that also provide curricular or experiential options
 - Graduates pursue careers in a variety of settings
 - Number of schools/colleges of pharmacy offering graduate degree programs (anticipated 2012-13)
 - Master of Science: 46%
 - Doctor of Philosophy: 50%
 - Viable option for PharmD students
 - Summer research opportunities
 - Dual degree programs



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Overview of Postgraduate Pharmacy Education (PPE)



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Overview of Postgraduate Pharmacy Education (PPE)

- Future Direction of Pharmacy Graduate Programs
 - New examination of career paths and pathways for graduates from master's and doctoral programs is warranted
 - Academic Institute to focus on the topic of graduate program quality assessment and improvement
 - Increase advocacy efforts
 - Collection of benchmark information on the meaningful assessment of program vitality and quality

Dr. Vincent Lau, AACP Chief Science Officer and Vice-President of Research and Graduate Education



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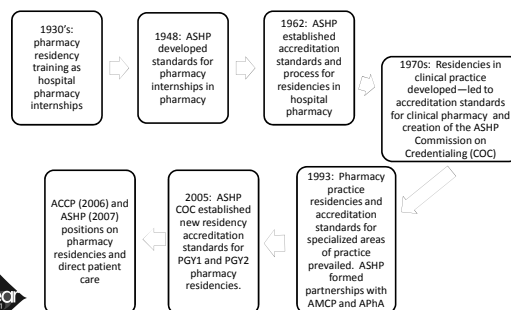
Overview of Postgraduate Pharmacy Education (PPE)

- Pharmacy Residency Programs
 - Organized, postgraduate experience in a defined area of practice that allows entry-level practitioners to enhance existing competencies and/or acquire additional competencies that exceed entry level.
 - Postgraduate year one pharmacy residency (PGY1)
 - Postgraduate year two pharmacy residency (PGY2)



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History of Pharmacy Residency Programs



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Pharmacy Residency Programs

- Benefits
 - Progression of the pharmacy profession
 - Increasing and enhancing productivity
 - Providing direct patient care
 - Interdisciplinary education and practice
- Challenges
 - Costs associated with financing residency positions
 - Limited resources
 - Perceived lack of value



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Current State of Pharmacy Residency Programs

% increase in PGY1 positions over past 5 years?

- A. 0 - 10%
- B. 11% - 20%
- C. 21% - 25%
- D. 26% - 30%
- E. 31% - 35%
- F. 36% - 40%
- G. > 40%



2007- 2011

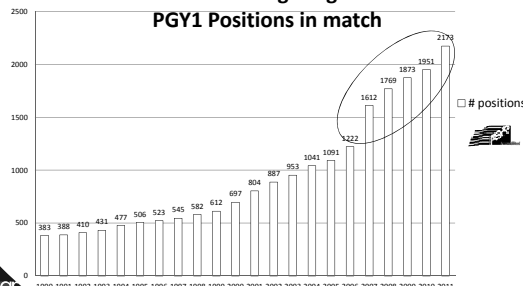


Based on National Matching Services data

35% increase in positions in 5 years

Note over the past 2 years there was a 16% increase in positions

ASHP Resident Matching Program 1990-2011
PGY1 Positions in match



Current State of Pharmacy Residency Programs

% increase in PGY1 Applicants over past 5 years?

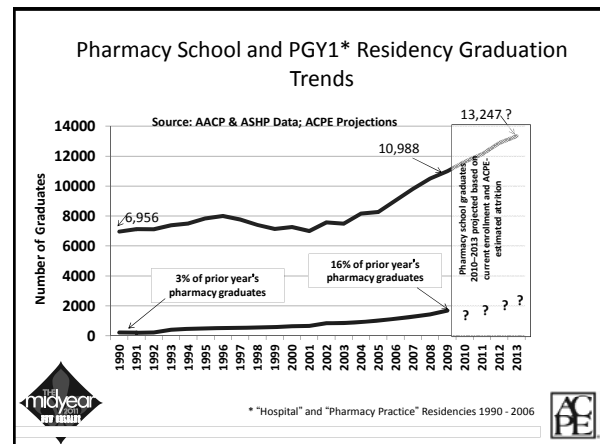
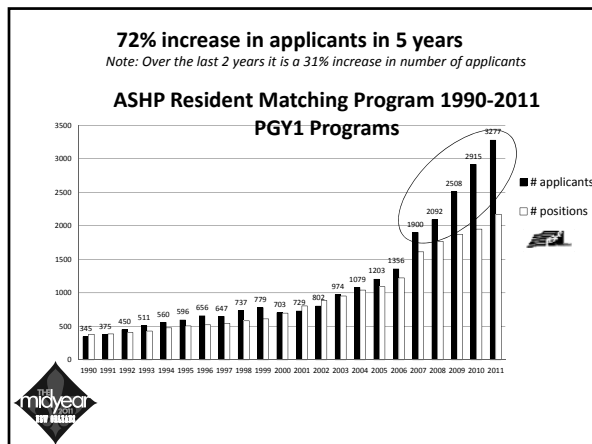
- A. 0 -25%
- B. 26% - 35%
- C. 36% - 45%
- D. 46% - 55%
- E. 56% - 65%
- F. >65%



2007- 2011



Based on National Matching Services data



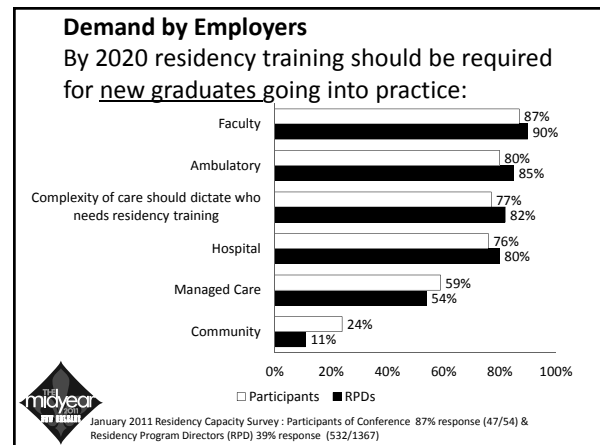
**Pharmacy Residency Capacity
STAKEHOLDERS CONFERENCE**

February 15-16, 2011
Washington DC

Stakeholders: AACP, ACCP, AMCP, APHA, ASHP
Plus others: ACPE, VA, NACDS, NCPA, BPS
58 individuals

Web site: <http://www.ashp.org/menu/Accreditation/Resources/Residency-Capacity-Conference.aspx>

Executive summary to be published in AJHP in Fall 2011



ASHP Pharmacy Residency Resources

- Accreditation web site
- Accreditation staff
- Midyear Clinical Meeting – residency programming
- Residency Learning System
- National Residency Preceptors Conference – 2012
- Other residency program directors & preceptors

ASHP Accreditation

ASHP is committed to addressing your accreditation needs

ASHP is committed to assisting existing residencies refine their programs, helping prospective programs with the process of seeking accreditation, and making it as easy as possible for prospective residents to get the information needed to find the best residency program for them.

Residency Accreditation

All the information, guidelines, and support you need for your residency accreditation needs.

- Free Schedule work
- Residency Accreditation Regulations and Standards
- Creating a residency program
- Modifying or Changing a Residency
- Applying for Accreditation
- Requesting for a Residency Accreditation Survey
- Residency Learning System (RLS)
- Communication Resources
- ASHP Commission on Evaluation
- Residency Accreditation Questionnaire

Current State of PGY1 Pharmacy Residency Programs

Residency Category	Sub Category	Number of Programs in ASHP Accreditation Statuses*
PGY1	Pharmacy	705
	Managed Care Pharmacy	36
	Community Pharmacy	71
Total PGY1 Residencies		812

Number of PGY1 positions offered in 2011 match: 2,173*

Estimated gap of 2011 PGY1 positions: 1,104 positions



* Information as of 8/1/11 (provided by Janet Teeters, Director, ASHP Accreditation Services)

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Current State of PGY2 Pharmacy Residency Programs

Residency Category	Sub Category	Number of Programs in ASHP Accreditation Statuses*
PGY2	Critical Care Pharmacy	90
	Oncology Pharmacy	63
	Ambulatory Care Pharmacy	49
	Infectious Diseases Pharmacy	42
	Pediatric Pharmacy	35
	Health System Pharmacy Practice Administration	24
	Internal Medicine Pharmacy	24
	Health System Pharmacy Practice Administration/M.S.	23
	Psychiatric Pharmacy	23



* Information as of 8/1/11 (provided by Janet Teeters, Director, ASHP Accreditation Services)

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Current State of PGY2 Pharmacy Residency Programs

Residency Category	Sub Category	Number of Programs in ASHP Accreditation Statuses*
PGY2	Cardiology Pharmacy	18
	Solid Organ Transplant Pharmacy	18
	Pharmacotherapy	17
	Emergency Medicine Pharmacy	13
	Drug Information	12
	Geriatric Pharmacy	12
	Pharmacy Informatics	8
	Medication Use Safety	5
	Palliative Care/Pain Management Pharmacy	4
	HIV Pharmacy	3
	Nutrition Support Pharmacy	3



* Information as of 8/1/11 (provided by Janet Teeters, Director, ASHP Accreditation Services)

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Current State of PGY2 Pharmacy Residency Programs

Residency Category	Sub Category	Number of Programs in ASHP Accreditation Statuses*
PGY2	Managed Care Pharmacy System	2
	Biologic/Pharmacogenomics Pharmacy	1
	Nephrology Pharmacy	1
	Nuclear Pharmacy	1
	Specialized Area of Pharmacy	1
	Total PGY2 Residencies	492

PGY2 number of positions offered in 2011 match: 514

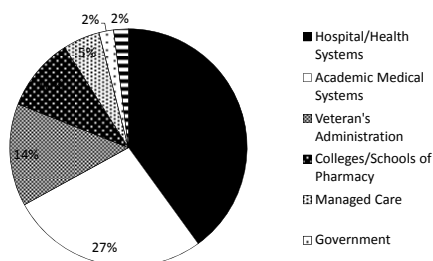


* Information as of 8/1/11 (provided by Janet Teeters, Director, ASHP Accreditation Services)

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Residency Administrator Practice Settings

Percentage of Total Residencies



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The Role of Schools and Colleges of Pharmacy in Pharmacy Residency Programs

Approximately what % of schools/colleges of pharmacy indicated participating in a post BS/PharmD residency program in fall 2010?

- A. 10%
- B. 20%
- C. 30%
- D. 40%
- E. 50%
- F. 60%



Based on AACP Fall 2010 Participation in Postgraduate Training Programs, AACP Survey Data

The Role of Schools and Colleges of Pharmacy in Pharmacy Residency Programs

Approximately what % of schools/colleges of pharmacy indicated participating in a post BS/PharmD residency program in fall 2010?

- A. 10 %
- B. 20%
- C. 30%
- D. 40% (42%)**
- E. 50%
- F. 60%



Based on AACP Fall 2010 Participation in Postgraduate Training Programs, AACP Survey Data



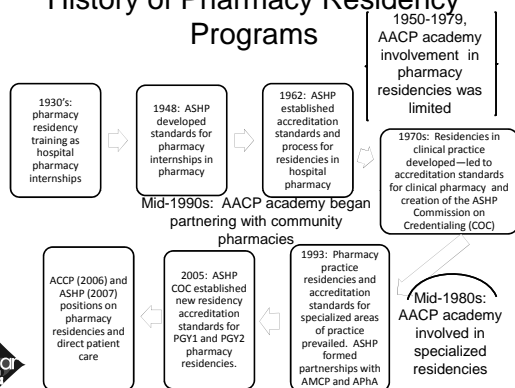
The Role of Schools and Colleges of Pharmacy in Pharmacy Residency Programs

- AACP Commissions and Committee Reports
 - AACP Commission to Implement Change in Pharmaceutical Education Position Paper IV: The Responsibility of Pharmaceutical Education for Scholarship, Graduate Education, Fellowships, and Postgraduate Professional Education and Training
 - Final Report and Recommendations of the 2002 AACP Task Force on the Role of Colleges and Schools in Residency Training
 - Final Report Deans' Council Task Force on Post Graduate Pharmacy (Residency) Education, July 2007
 - 2009 AACP Professional Affairs Committee Report
- AACP Postgraduate Education and Training Policies



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History of Pharmacy Residency Programs



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The Role of Schools and Colleges of Pharmacy in Pharmacy Residency Programs

- Contributions to Residencies by Pharmacy Academia
 - Full-time faculty with oversight of residencies (Residency Program Directors)
 - Preceptors
 - Partners with residency programs on mutually beneficial educational missions and initiatives
 - Research
 - Teaching certificate training programs
 - Professional leaders on advocacy issues
 - Pharmacist role models in patient care practice



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"Administrators and faculty must support existing residency programs by collaborating with program directors and program preceptors and stimulating and catalyzing the development of new residencies"

AACP Commission to Implement Change
in Pharmaceutical Education Position Paper IV, 1993



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Expanding Opportunities for Pharmacy Residency Programs

- Pharmacy Profession Issues
 - Define scope of practice for all members of the pharmacy workforce
 - Ensure that pharmacists take responsibility for all aspects of their professional practice
 - Ensure pharmacists accept global accountability for patient outcomes (shared risk)
 - Standardize technician training and licensing requirement across the profession to increase pharmacists ability to optimize patient care
 - Address board of pharmacy regulations/laws which limit technician/pharmacist roles in prescription fulfillment to support safe and efficient pharmacy service



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Expanding Opportunities for Pharmacy Residency Programs

- Challenges with Current Pharmacy Residency Model
 - 1:1 resident to preceptor ratio
 - Episodic resident presence (rotations)
 - Relative lack of residency integration into pharmacy practice model
 - Challenges with program administration
 - Limited opportunities for specific residency experiences and for practicing pharmacists to get residency training



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Expanding Opportunities for Pharmacy Residency Programs

- Potential Opportunities for Expansion
 - Role of the Preceptor
 - Delegate service activities to residents
 - Collaborate in terms to precept residents
 - Utilize technology
 - Role of the Residency
 - Practice as a "Practitioner-learner"
 - Be an extender of services delivered by attending pharmacists (preceptors)
 - Longitudinal periods of integrated responsibilities for the entire care of the patient
 - Program Administration
 - Explore new models for administration for program delivery
 - Shift primary focus of RPD to program delivery, rather than resident



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Expanding Opportunities for Pharmacy Residency Programs

- Potential Opportunities for Expansion
 - Training Environment
 - Explore feasibility of training in non-traditional sites (i.e., retail clinics, community health centers, urgent care centers)
 - Development and assessment of performance measures of the quality of resident services
 - Evolving health care models and the role of the pharmacist
 - Learning Experience Design
 - Pharmacy Resident
 - Use of simulation and technology for content and competency assessment
 - Use of distance technology to facilitate resident-preceptor interactions in multi-site programs
 - Pharmacist Practitioner
 - Abbreviated or employer-supported residency programs (mid-career residency opportunities)
 - Continuing Professional Education (CPE)



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Conclusions

- Postgraduate Pharmacy Education (PPE) continues to be necessary for pharmacy's progression as well as to optimize patient outcomes and public health
- Schools and colleges of pharmacy have a role in pharmacy residency training and its expansion
- Opportunities for residencies exist in a variety of practice settings and geographic locations
- Collaboration is a vital element for pharmacy residency expansion



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"While residency training has made significant strides over the years, the Commission believes that the profession is poised for enormous expansion in the responsibilities that it will assume, and residency training must support that expansion. Pharmaceutical education has a leadership role in facilitating this expansion by:

- *increasing the number of residency programs;*
- *strengthening existing residency programs;*
- *identifying new areas of practice that may benefit from residency training;*
- *developing pilot residency programs in new practice areas to demonstrate their feasibility;*
- *promoting residency training to students and practitioners as career options; and*
- *promoting the concept that experienced practitioners may acquire additional practice competencies through residency training*



AACP Commission to Implement Change
in Pharmaceutical Education Position Paper IV, 1993

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Partnerships Between Health Systems and Schools of Pharmacy

Todd D. Sorensen, Pharm.D.
Professor, University of Minnesota
Director, Ambulatory Care Residency Program



Questions for Schools

- Is residency education in your mission? Vision?
- If you will engage in residency education, what is your goal?
- In partnering with another health care institution for residency education, what does “win-win” look like?



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What is the Mission and Vision of Academic Pharmacy Institutions?

Mission

- The College of Pharmacy inspires and educates current and future pharmacists and scientists, engages in cutting-edge research and leads practice development to improve the health of the people of Minnesota and the world.

Vision

- Establishing relationships with patients, decision makers and practitioners to meet changing needs, model patient-centered care and shape the evolving health care system.
- Preparing graduate students, residents and post-doctoral fellows to become the next generation of scientists, advanced practitioners and educators.



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Residency Education – *What is your goal?*

- | | |
|--|---|
| ▪ Prepare advanced practitioners | ▪ Advance pharmacy practice in the region |
| ▪ Support faculty... <ul style="list-style-type: none"> ▪ Practice ▪ Scholarship | ▪ Build a relationship with an organization |
| ▪ Support experiential education | ▪ <i>Your answer here...</i> |
| ▪ Support didactic education | |



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What does “win-win” look like?

Health Care Organization

- Increased patient care capacity
- Manpower for new initiatives
- Improvement in quality
- Favorable ROI

School of Pharmacy

- Faculty support
- Teaching support
- Innovative practice sites
- Favorable ROI



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The Role of Schools and Colleges of Pharmacy in Pharmacy Residency Programs

- Pharmacy Residency Models
 - College/school affiliation with institutional-based program
 - Jointly-funded programs between practice sites and colleges/schools of pharmacy
 - College/School of pharmacy funded residencies



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Barriers to Hosting Residency Education





- Multi-site PGY1 program coordinated by U of MN
- Formally established in 1999
- Three emphasis areas in ambulatory care:
 - Community Clinic
 - Leadership
 - Rural Pharmacy Practice



Residency Program Vision...

"The program serves as an instrument for pharmaceutical care practice development and as a key source of leadership at the academic-practice interface in Minnesota."

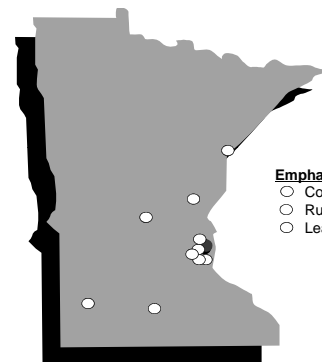


Community Clinic Emphasis	Rural Health Emphasis	Leadership Emphasis
Community-University Health Care Center (CUHCC)	Kanabec Hospital and Clinic	Broadway Family Medicine Clinic
Fairview Pharmacy Services	Avera Marshall Regional Medical Center	St. Joseph's Clinic
Goodrich Pharmacy	Marshall Medical Center	U of MN College of Pharmacy
St. Cloud Health		
Essential Health System		
Westside Community Health Services		

12 sites, 17 Residents



Expanding Residencies to Serve Minnesota



Emphasis Areas

- Community Clinic
- Rural Health
- Leadership



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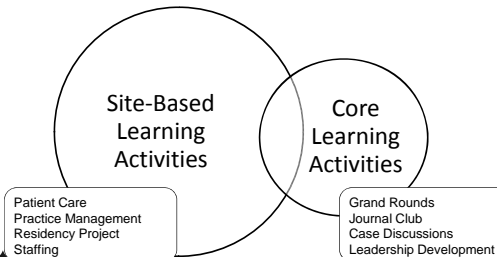
Seeing Growth in the Future...

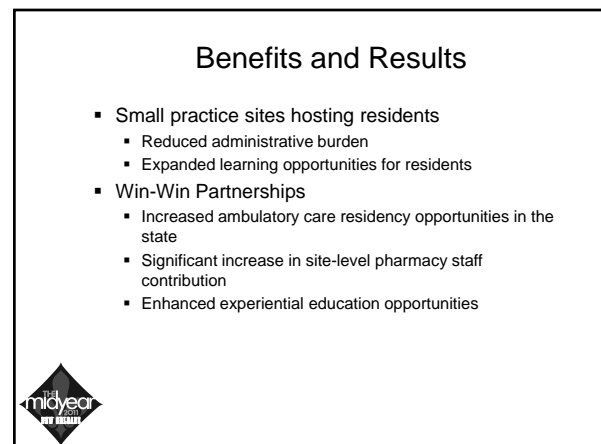
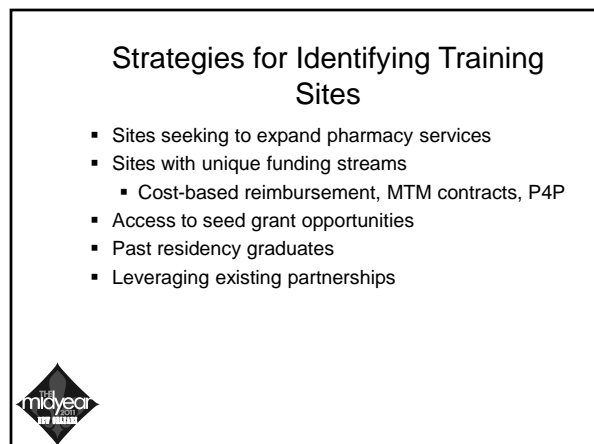
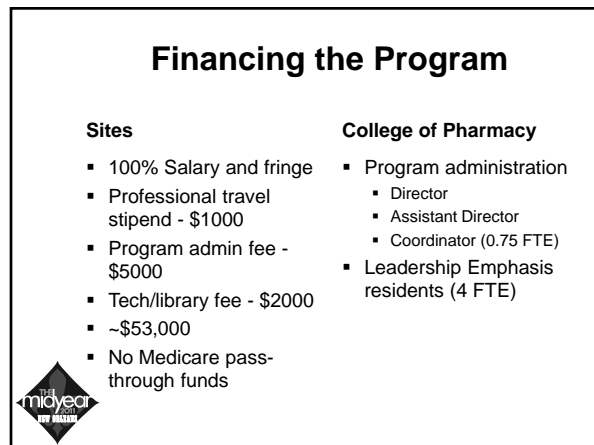
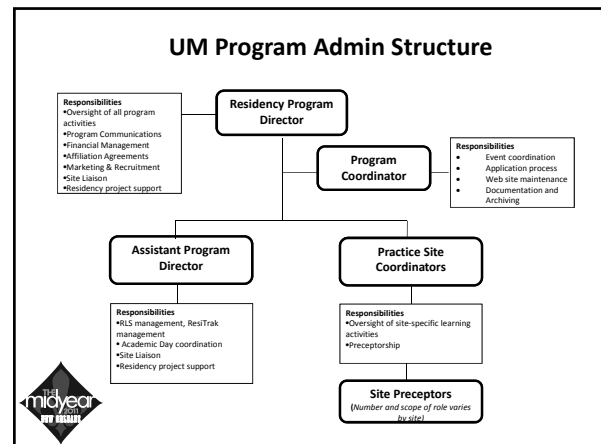
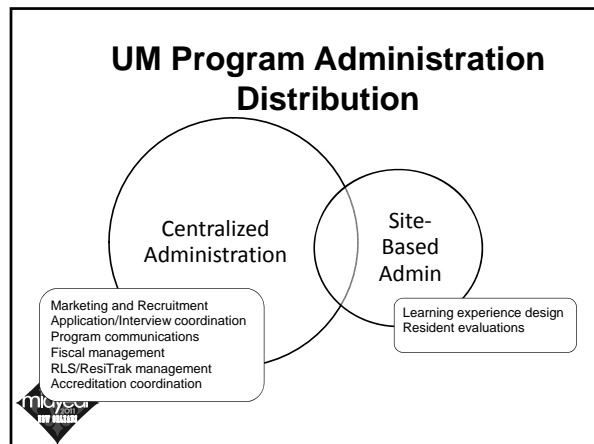


Envision a program structure that can support growth over time



UM Program Learning Activity Distribution





Strategies for Site and Preceptor Development

- Coaching on program's RLS applied to site-specific learning activities
- Bi-annual program retreats
 - Preceptor development, input and collegiality
- Site Visits
- Program Listserve
- Traveling "Academic Days"



Conclusion



Questions for the Audience. Working together, discuss...

- Considering your own institution, how would you plan an expansion in your postgrad pharmacy residency program?
- If you are in a health care system and not involved with a College of Pharmacy, how could you develop a partnership with the College?



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