Bridges to Our Bright Future

2011 AACP Annual Meeting and Seminars
July 9–13 ★ San Antonio, Texas
"The Intersection of Pharmacy Residencies and Schools/Colleges of Pharmacy"

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

- The importance of Pharmacy Residencies
- AACP and Pharmacy Residencies
- Tools, Services, and Programs for Pharmacy Residencies
Session Objectives

• Describe the accreditation process for pharmacy practice residencies
• Identify resources available to assist schools/colleges in the initiation and expansion of pharmacy residencies
• Discuss the elements that need to be addressed to expand pharmacy residency capacity at schools/colleges of pharmacy
• Summarize the need for and potential benefits from community pharmacy practice residencies
Session Agenda and Presenters

- **Pharmacy Residency 101**
  - Janet Teeters, MS, RPh Director of Accreditation Services, American Society of Health-System Pharmacists (ASHP)

- **Best Practices in Pharmacy Residencies from Schools/Colleges of Pharmacy**
  - Jean-Venable (Kelly) R. Goode, PharmD, BCPS, FAPhA, FCCP, Director of Community Pharmacy Practice and Residency Program, Virginia Commonwealth University School of Pharmacy
  - Todd D. Sorensen, PharmD, Professor and Director, Residency Programs, University of Minnesota College of Pharmacy

- **Community Pharmacy Residencies---Advancing Post Graduate Pharmacy Education**
  - Marialice Bennett, BS, RPh, President, American Pharmacists Association
  - Alex J. Adams, PharmD, Director of Pharmacy Programs at the National Association of Chain Drug Stores (NACDS)
Intersection of Pharmacy Residencies & Colleges/Schools of Pharmacy

Pharmacy Residency 101

Janet Teeters, M.S., R.Ph.
Director of Accreditation Services, ASHP
Disclosure

Director of Accreditation Services
Objectives

- List 3 documents one should read thoroughly if considering applying for ASHP accreditation
- Distinguish when different ASHP accreditation statuses would be used
- Describe how residencies differ from pharmacy student rotations
# PGY1 positions that increased 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
E. there was a 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

# positions

PGY1 Positions in match


383 388 410 431 506 523 545 582 612 697 804 887 953 1041 1091 1222 1612 1769 1873 1951 2173

Note over the past 2 years there was a 16% increase in positions.
# PGY1 Applicants increased 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
F. 72% increase in applicants in 5 years

Note: over the last 2 years it is a 31% increase in number of applicants

ASHP Resident Matching Program 1990-2011
PGY1 Programs
Pharmacy School and PGY1* Residency Graduation Trends

Source: AACP & ASHP Data; ACPE Projections

Number of Graduates

- 6,956
- 10,988
- 13,247?

3% of prior year’s pharmacy graduates
16% of prior year’s pharmacy graduates

Pharmacy school graduates 2010–2013 projected based on current enrollment and ACPE-estimated attrition

* “Hospital” and “Pharmacy Practice” Residencies 1990 - 2006
February 15-16, 2011
Washington February 15-16, 2011
Washington DC

Stakeholders: AACP, ACCP, AMCP, APhA, ASHP

Plus others: ACPE, VA, NACDS, NCPA, BPS

58 individuals


Executive summary to be published in AJHP in October 2011
Demand by Employers
By 2020 residency training should be required for new graduates going into practice:

- Faculty: 87% (Participants) 90% (RPDs)
- Ambulatory: 80% (Participants) 85% (RPDs)
- Complexity of care should dictate who needs residency training: 77% (Participants) 82% (RPDs)
- Hospital: 76% (Participants) 80% (RPDs)
- Managed Care: 59% (Participants) 54% (RPDs)
- Community: 11% (Participants) 24% (RPDs)

January 2011 Residency Capacity Survey: Participants of Conference 87% response (47/54) & Residency Program Directors (RPD) 39% response (532/1367)
Accreditation

The act of granting approval to an institution by an official review board after they have met specific requirements

Acts as a catalyst to promote change, provides consistency in training, & ensures a quality training experience

- A voluntary process
- National standards
- A means of self-regulation
- Peer review
Why accreditation?

- Non governmental consumer protection
- Fosters continuous quality improvement
- Public relies on accreditation for
  - Credibility
  - Consistency
  - Funding
  - Recognition
What’s involved from the accreditation side?

Standards development
Measuring compliance
Review process
Education
Standards

- PGY1 Pharmacy Residency
- PGY1 Community Pharmacy Residency
- PGY1 Managed Care Pharmacy Residency
- PGY2 Pharmacy Residency

Outcomes, Goals, & Objectives

- each PGY1 area & each area of PGY2 specialized training (19) has their own set

Regulations

- Definitions, accreditation processes
Standard – has 7 Principles

1. Resident’s qualifications
2. Environment for learning
3. Resident’s responsibilities
4. Training program (systematic approach)
5. Residency Program Director & Preceptors
6. Organization
7. Pharmacy & Services
PGY1 Required Outcomes
Relates to Principle 4 – Training Program

- Medication Use Process
- Patient Centered Care
- Leadership
- Project Management
- Education/Training
- Medical Informatics
ASHP Accreditation Statuses

- Pre-Candidate
- Candidate
- Preliminary Accreditation
- Accreditation
- Conditional Accreditation
Applications

- **New Programs to accreditation**
  - Pre Candidate (seeking 1st resident)
  - Candidate (currently have a resident in the program)
    Includes Residency Program Director Review

- **Reaccreditation (every 6 years)**
  - Prior to next onsite visit
  - Pre-Survey Questionnaire and Self-Assessment Checklist for Accreditation
Residency Evaluation Process

(after a resident has been in place at least 9 months)

Pre-survey Self Evaluation Prepared by Site

↓

ASHP Site Visit

↓

Report by Surveyors & Site Follow up to Findings

↓

Review by Commission on Credentialing
(meets 2/yr)

↓

Interim Reports (over 6 years)
Min midterm report at 3 years

↓

Next Site Visit (6 yrs)
Core Elements - Residency

- Resident vs. Student
- Program Director
- Preceptors
- Patient Population
- Pharmacy Services
- Administrative support
- Systematic approach to training
- Required Outcomes
Residency vs Experiential Training

- Pharmacist vs. student
- Experience and repetition vs. exposure
- Integrating knowledge, skills, abilities & attitudes
- Ability to develop skills progressively
- Over time, increased complexity & challenge
- Learn skills for being successful as a clinician
- Integrate into a department, culture, politics, system
- Residency implies a “home” vs rotations
## Provide Instruction

<table>
<thead>
<tr>
<th>Stage of Learning</th>
<th>Bloom’s – level of cognitive learning</th>
<th>Methods of Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Knowledge, skills</td>
<td>Knowledge Comprehension</td>
<td>Reading, lecture Guided discussion Interactive lecture</td>
</tr>
<tr>
<td>Practical Application</td>
<td>Application Analysis Synthesis</td>
<td>Case presentation Case based teaching Simulation Practice based teaching</td>
</tr>
<tr>
<td>Integration</td>
<td>Evaluation</td>
<td>Practice based facilitation</td>
</tr>
</tbody>
</table>

**Residency**
Preceptors Role

- Facilitating
- Coaching
- Modeling
- Direct Instruction

Residents Learning

- Foundation Skills & Knowledge
- Practical Application
- Culmination & integration

Instruction
Model for Systematic Approach to Design

“RLS – Residency Learning System”

Outcomes, Goals & Objectives
Required/ Electives

Assessment
- Evaluation
- Criteria based feedback
- Adjustment of Customize Plan

Instruction
Preceptor Roles (instructing, modeling, coaching, facilitation)

Design Program
- Learning activities that meet the objectives
- Sequencing of experiences

Systematic Approach to design
Terms:

**Outcomes:** Broad category for resident’s abilities

**Goals:** What resident should learn to do

**Objectives:** Observable, measurable behavior

**Criteria:** Detail to evaluate performance related to the objectives

Systematic approach to design
**Outcome:** Patient Centered Care  
**Goal:** Document patient care activities appropriately

**Objective:** Appropriate selection of activities to document  
**Objective:** Effectively document appropriate information  

**Criteria:** Written in time to be useful  
- Follows P&P (date, time, legible, concise)  
- Pertinent data included  
- Accurate interpretation of data  
- Relevant & clear plans recommended
ASHP Resources available

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

- Fee Schedule [PDF]
- Residency Accreditation Regulations and Standards
- Starting a Residency Program
- Modifying or Changing a Residency
- Applying for Accreditation
- Preparing for a Residency Accreditation Survey
- ResiTrak™
- Residency Learning System (RLS)
- Communiqué (Newsletter)
- ASHP Commission on Credentialing
- Frequently Asked Questions
New “U” College of Pharmacy decides they want to develop a new residency program with the “RXRUS” pharmacy in the community, where they have actively taken pharmacy students on rotations. The Pharmacist in Charge agrees and they begin planning to create a residency that they want to get ASHP accredited.

What documents should the individuals involved in this endeavor review?

A. ASHP Regulations on Pharmacy Accreditation
B. ASHP PGY1 Pharmacy Residency Standard
C. ASHP Outcomes, Goals and Objectives
What documents should the individuals review?

A. ASHP Regulations on Accreditation of Pharmacy Residencies - YES

B. ASHP PGY1 Pharmacy Residency Standard

Make sure you look at the ASHP PGY1 Community pharmacy standard!

C. ASHP Outcomes, Goals and Objectives

Make sure you look at the ASHP PGY1 Community pharmacy set
New “U” college and “RXRUS” get fortunate and one of their top students decides to be their very first resident. She starts on July 1st. So on July 11th they apply to ASHP to get accredited.

ASHP accepts the application, so which **accreditation status** will appear on the ASHP online residency directory?

A. Pre-Candidate
B. Candidate
C. Preliminary Accreditation
D. Accredited
E. Conditional
New “U” College appoints a faculty member as the Residency Program Director (RPD). The faculty members decides it would be better if the resident rotates to 12 different sites instead of spending much of their time at “RXRUS” pharmacy, so the resident can be exposed to wide variety of faculty members. The RPD decides this is best as he has found the key preceptor at “RXRUS” is giving lectures to the resident to make sure the goals and objectives are met.

What Problems should really be addressed to ensure this program is an accreditable program?
What Problems should really be addressed to ensure this program can be accredited?

A. Preceptor development should occur at “RXRUS” to ensure they understand the role of preceptors for residents versus students (more focus on modeling, coaching & facilitation, less on instruction).

B. The RPD needs to make sure their was a good systematic design to the training at “RXRUS” that the preceptors understand, that included learning activities to meet the objectives (at the correct level of learning).

C. The RPD should consider sending key staff in the program to an RLS program for Community pharmacy residencies.

D. The RPD should reconsider the 12 different rotations, that does not provide the resident a home base where they can learn some of the more intangible portions of being a professional, integrating into the site, & advancing their skills exponentially over the year.
Lessons from Schools/Colleges of Pharmacy:  
The VCU School of Pharmacy  
Community Pharmacy Practice Residency Program

Jean-Venable “Kelly” R. Goode, Pharm.D., BCPS, FAPhA, FCCP  
Professor and  
Director, Community Pharmacy Practice Residency Program
“I skate to where the puck is going to be, not to where it has been.”

-Wayne Gretzky
VCU Community Pharmacy Practice Residency Program

- APhA/ASHP Accredited
- Program established in 1997
- University-Based Multi-Site
- Practice Sites
  - Bremo Road Pharmacy/Richmond Apothecaries
  - Buford Road Pharmacy
  - Kmart Pharmacy
  - Kroger Pharmacy
  - Martin’s Pharmacy
Structure

• Personnel
  – Residency Director
    • Faculty
      – Oversight of training program
      – Administration
  – Site Coordinators
    • Mix of Faculty and Practitioners
      – Oversight of resident training at the sight
  – Preceptors
    • Mix of Faculty and Practitioners
      – Oversight of specific training experience
        » Longitudinal
        » Concentrated
        » Elective

• Resources
  – Funding
Resident Responsibilities

• Based on APhA/ASHP Accreditation Standard
• Residency is tailored to complement and augment the background and career goals of the resident
  – Patient care and clinical activities (50%)
  – Teaching and training (15%)
  – Program Development and Management (15%)
  – Research and contribution to the literature (5%)
  – Community and professional involvement (5%)
  – Electives (10%)
Patient Care and Clinical Activities

• MTM
• Disease Management
  – Asthma
  – Dyslipidemia
  – Hypertension
  – Osteoporosis
  – OA
  – Diabetes
  – Anticoagulation Monitoring

• Wellness and prevention
  – Screenings
  – Smoking cessation
  – Immunizations
Teaching and Training

• Practitioner-Teacher Certificate Program
  – VCU Center for Teaching Excellence
• Student pharmacist teaching and training
  – Advanced experiential
  – Classroom
• Patients
• Pharmacists and other health care professionals
Research and Scholarship

- Research project
  - Original research idea with collaboration from primary preceptor
- Review article
  - To be submitted for publication
- Other projects
  - Journal review
  - Newsletters
  - Health brochures
Community and Professional Involvement

• Leadership and Advocacy
  – Membership and participation in VPhA
  – Legislative Day

• Service Learning
  – Participation in community organization of choice
    • Health-care related
      – ADA
      – AHA
      – Project Immunize Virginia
    • Non-health care related
      – Animal rescue
      – Special Olympics
Elective Opportunities

• National and state pharmacy associations
  – Legislative experience
• Community pharmacy
  – Patient care sites in Virginia and out of state
• Administration
  – Business and clinical services
• Pharmaceutical industry
• Managed care organizations
Resources for Starting a Program

- APhA-ASHP Accreditation Standard for Community Pharmacy Residencies
- Educational seminars at national meetings
- Established programs
  - Networking with other residency program directors
- Journal articles
Tips for Getting Started…

• Include as a part of the school’s strategic plan
• Integrate with other residency programs
• Dedicate appropriate school resources to support its operation
  – Monetary
  – Faculty time
• Core group of faculty who are experienced in community-based practice
Tips for Getting Started…

• Collaboration
  – Practice sites conducive to training/education
  – Site coordinators/preceptors
  – “No Free Labor”
• Identify Sponsoring Organization
• Affiliation Agreement
  – Responsibilities
  – Funding
Residency Program Funding

- Average resident salary: $32 - 55,000 plus health care benefits and travel allowance
- Other funding needs
- Funding sources
  - Residency sites (corporation)
  - University
    - Especially if the resident has teaching obligations
  - Wholesalers
  - Grants (NACDS Foundation)
  - Pharmaceutical Industry
  - Some states may have allowances for residency funding
Tips for Getting Started…

• Communication
• Design education/training structure
  – Description/outcome
  – Core training/education curriculum
  – APhA/ASHP Accreditation Standard
  – Evaluation System
    • Resitrak
• Policies and Procedures
Community Pharmacy Residency Program
Benefits to School

• Increased clerkship sites
• Increased opportunities for faculty development
• Increased opportunities for research
• Potential recruitment tool for students and new faculty
• Increased communication with community practitioners
Community Pharmacy Residency Program
Benefits to Site

• Increased opportunities for staff to provide care
• Increased potential for staff recruitment
• Increased visibility to the consumer/patient
• Increased potential for research on improved delivery of pharmacy services
• Increased visibility with other health care providers
• Increased communication with academia
Considerations

- Alignment of incentives
- Multi-site issues
- Benefits and perks
- Education and Marketing
“Coming together is a beginning. Keeping together is progress. Working together is success.”

- Henry Ford
Expanding Residency Training Capacity in Minnesota

Ambulatory Care Residency Program

University of Minnesota
Driven to Discover℠
• 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.”
<table>
<thead>
<tr>
<th>Community Clinic Emphasis</th>
<th>Rural Health Emphasis</th>
<th>Leadership Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-University Health Care Center (CUHCC)</td>
<td>Kanabec Hospital and Clinic</td>
<td>Broadway Family Medicine Clinic</td>
</tr>
<tr>
<td>Fairview Pharmacy Services</td>
<td>Avera Marshall Regional Medical Center (2012)</td>
<td>U of MN College of Pharmacy</td>
</tr>
<tr>
<td>Goodrich Pharmacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Cloud Medical Center</td>
<td>Paynesville Area Health System (2012)</td>
<td></td>
</tr>
<tr>
<td>Essential Health System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westside Community Health Services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12 sites, 18 Residents
Seeing Growth in the Future…

Envision a program structure that can support growth over time
UM Program Learning Activity Distribution

Site-Based Learning Activities:
- Patient Care
- Practice Management
- Residency Project
- Staffing

Core Learning Activities:
- Grand Rounds
- Journal Club
- Case Discussions
- Leadership Development

University of Minnesota
Driven to Discover™
UM Program Administration
Distribution

Centralized Administration
Marketing and Recruitment
Application/Interview coordination
Program communications
Fiscal management
RLS/ResiTrak management
Accreditation coordination

Site-Based Admin
Learning experience design
Resident evaluations
Financing the Program

Sites
• 100% Salary and fringe
• Professional travel stipend - $1000
• Program admin fee - $5000
• Tech/library fee - $2000

College of Pharmacy
• Program administration
  – Director
  – Assistant Director
  – Coordinator (0.75 FTE)
• Leadership Emphasis residents (4 FTE)
Strategies for Identifying Training Sites

- Sites seeking to expand pharmacy services
- Sites with unique funding streams
  - Cost-based reimbursement, MTM contracts, P4P
- Access to seed grant opportunities
- Past residency graduates
- Leveraging existing partnerships
Benefits and Results

• Small practice sites hosting residents
  – Reduced administrative burden
  – Expanded learning opportunities for residents

• Win-Win Partnerships
  – Increased ambulatory care residency opportunities in the state
  – Significant increase in site-level pharmacy staff contribution
  – Enhanced experiential education opportunities
Community Pharmacy Residencies: Advancing Post Graduate Pharmacy Education

Marialice Bennett, BS, RPh
Professor of Clinical Pharmacy
Pharmacy Practice and Administration
The Ohio State University College of Pharmacy

President
American Pharmacists Association
Background of Community Pharmacy Practice Residency Programs

- Community Pharmacy Residency Program established by APhA in 1986
- Partnership between APhA and ASHP to accredit community residencies in 1999
- “Pharmacy Residency Training in the Future: A Stakeholders’ Roundtable Discussion” in January 2005
- 2011 ASHP Residency Capacity Conference

CPRP Program Current Status

- Currently 75 programs (127 positions)
  - 70 programs in the accreditation pool (120 positions)
    - Includes pre-candidate, candidate and accredited programs
  - 67 programs affiliated with a school/college of pharmacy
PGY1 Community Pharmacy Residency Filled Positions (Accredited & Non-Accredited Programs)

Available Resident Positions

Positions Filled

- **2008-09**: 95 available, 79 filled
- **2009-10**: 116 available, 108 filled
- **2010-11**: 120 available, 114 filled

Legend:
- Blue bar: Available Resident Positions
- Yellow bar: Positions Filled

Bridges to Our Bright Future 2011 Annual Meeting and Seminars
Community Pharmacy Residency Trends

- 89% of community pharmacy residency programs affiliated with schools and colleges of pharmacy
- Health systems with community pharmacies
- Increasing interest from colleges of pharmacy - APPE/IPPE
- Increased interest from large chains
- Expansion of number of positions in established programs
2009-2010 Resident Exit Survey

- Yields important insight and trending regarding community pharmacy resident attitudes about their training
- 2009-2010 Survey Conducted by APhA & ASHP
- Year 9 of survey
- 99 residents surveyed – 57 responded – 58% response
- Print copies available
- Posted on www.pharmacist.com
Value of Community Pharmacy Residency Training: Promoting Growth & Expansion
The Research Findings – Value

**Schools/Colleges**
- Serving societal needs
- Serving schools/colleges needs
- Building mutually beneficial relationships
- Monetary benefits
- Extra help for teaching

**Practice Sites**
- Profession development
- Practice site development
- Pharmacy education development
- Monetary benefits
- Pharmacy staff development
The Research Findings – Barriers

Schools/Colleges
• Organizational – strategic barriers
• Operational – logistic barriers
• Accreditation
• Lack of interest or resistance
• Research issues

Practice Sites
• Organizational – strategic barriers
• Operational – logistic barriers
• Accreditation
• Lack of interest or resistance
• Research issues
Fundamental Barriers to Growth & Expansion of PGY1 Community Residencies

• Lack of leadership

• Lack of revenue

• Costs of reimbursement for residents
Overall Conclusions

- Primary value to pharmacies - pharmacy education & development and advancement of the profession
- Primary value to schools/colleges of pharmacy - pharmacy education needs and serving societal needs
- Significant barriers are perceived by schools/colleges and practice sites not engaged in PGY1 Community Pharmacy Residency Programs
Moving PGY1 Community Pharmacy Residencies Forward

- Engage multiple stakeholders
- Increase awareness of benefits
- Promote the value
- Dismiss misconceptions
- Address barriers
- Entrench a new paradigm for community pharmacy practice with residency training as a component
- Address funding issues
Community Pharmacy Residency
Supply and Demand:
Opportunities for Academic Pharmacy

Alex J. Adams, PharmD.
Director, Pharmacy Programs
A Tale of Two Settings

Community

Health-System
IACP Announces Nearly $900,000 in Grants to Support New and Existing Community Pharmacy Residencies.

June 20, 2000
IACP Announces Nearly $900,000 in Grants to Support New and Existing Community Pharmacy Residencies.

June 20, 2000
NACDS Foundation Announces $1.5 Million to Support New Community Pharmacy Residencies.

December 2010
$1.5 Million in grants are available to:

• New programs
• Successful programs looking to expand capacity
• **Must** be partnered with a school/college of pharmacy

**Total grant to each selected residency: $50,000**

• Divided over 3 years
• Grant awarded to **academic** institution
Community PREP Timeline

2011

Fund Three (3) Residencies

2012

Fund Twelve (12) Residencies

2013

Fund Fifteen (15) Residencies

2014

First 3 residencies supported in 2011:

Purdue-Kroger
UMKC-Red Cross Pharmacy
UNC-Kerr Drug
Continuation of Community PREP beyond the current commitment will depend, in part, on several factors:

- Will student demand for community residencies grow with an increasing supply?

- What is the true capacity for CPRP expansion?

Preliminary results from a recent survey suggests academic pharmacy can play a major role in shaping these factors!
Pharmacy Student Perceptions of Community Pharmacy Residency Programs (CPRPs): Selected Findings

• Self-administered online survey distributed through AACP SIG e-mail distribution lists

• Requested that faculty forward e-mail to penultimate and final year pharmacy school students

• Open from April-May 2011

• 1,722 completed surveys were received from students at 55 schools/colleges of pharmacy
Familiarity with Community Pharmacy Residencies

“On a scale from 1 to 5, where 1 = not at all familiar and 5 = very familiar, how familiar are you with community pharmacy residencies, in general?”

<table>
<thead>
<tr>
<th>Response Statistics</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.72*</td>
</tr>
<tr>
<td>Median</td>
<td>3</td>
</tr>
<tr>
<td>Mode</td>
<td>3</td>
</tr>
</tbody>
</table>
## How students have heard about CPRPs

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of pharmacy seminar or assembly</td>
<td>890</td>
</tr>
<tr>
<td>In one (or more) of my classes</td>
<td>707</td>
</tr>
<tr>
<td>From a faculty member or other mentor</td>
<td>642</td>
</tr>
<tr>
<td>From a pharmacy student who is pursuing a CPRP</td>
<td>596</td>
</tr>
<tr>
<td>On rotations from preceptors</td>
<td>560</td>
</tr>
<tr>
<td>From one of my pharmacy organizations</td>
<td>498</td>
</tr>
<tr>
<td>Through a job or internship that I have/had</td>
<td>305</td>
</tr>
<tr>
<td>Other</td>
<td>124</td>
</tr>
</tbody>
</table>
### Student awareness of school’s residency program

<table>
<thead>
<tr>
<th></th>
<th>Is your school of pharmacy affiliated with a community pharmacy residency program?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>In a school WITHOUT a CPRP</td>
<td>145</td>
<td>203</td>
</tr>
<tr>
<td>In a school WITH a CPRP</td>
<td>665</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>810</td>
<td>243</td>
</tr>
</tbody>
</table>
Student “Word Association Test”

Keywords:
- ambulatory
- diabetes
- management
- immunizations
- experience
- boring
- community
- education
- dispensing
- independent
- mtm
- patient
- rare
- pay
- pointless
- unnecessary
- underpaid
- waste
- work
- retail
## Perceptions of community vs. health-system residencies

### Clinical Skills

<table>
<thead>
<tr>
<th>Items</th>
<th>CPRPs MEAN</th>
<th>CPRPs SD</th>
<th>Health-System MEAN</th>
<th>Health-System SD</th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing skills in disease state management</td>
<td>2.78</td>
<td>.92</td>
<td>3.35</td>
<td>.79</td>
<td>-19.383</td>
<td>.000</td>
</tr>
<tr>
<td>Learning to provide quality patient care</td>
<td>2.96</td>
<td>.92</td>
<td>3.28</td>
<td>.81</td>
<td>-12.341</td>
<td>.000</td>
</tr>
<tr>
<td>Developing skills in medication therapy management</td>
<td>3.19</td>
<td>.89</td>
<td>2.71</td>
<td>.93</td>
<td>14.135</td>
<td>.000</td>
</tr>
<tr>
<td>Developing prevention and wellness programs</td>
<td>3.49</td>
<td>.73</td>
<td>2.29</td>
<td>.86</td>
<td>42.264</td>
<td>.000</td>
</tr>
<tr>
<td>Developing patient education skills</td>
<td>3.52</td>
<td>.75</td>
<td>2.80</td>
<td>.88</td>
<td>26.759</td>
<td>.000</td>
</tr>
<tr>
<td>Experience with direct patient contact and interaction</td>
<td>3.55</td>
<td>.75</td>
<td>2.79</td>
<td>.92</td>
<td>26.548</td>
<td>.000</td>
</tr>
<tr>
<td>Enhancing drug information skills</td>
<td>2.91</td>
<td>.87</td>
<td>3.53</td>
<td>.69</td>
<td>-25.543</td>
<td>.000</td>
</tr>
</tbody>
</table>

1 = Not at all valuable; 4 = Very valuable
## Perceptions of community vs. health-system residencies

<table>
<thead>
<tr>
<th>Items</th>
<th>CPRPs</th>
<th></th>
<th>Health-System</th>
<th></th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>SD</td>
<td>MEAN</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing teaching skills</td>
<td>2.77</td>
<td>.93</td>
<td>3.18</td>
<td>.81</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>14.322</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing research skills</td>
<td>2.08</td>
<td>.90</td>
<td>3.31</td>
<td>.80</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>44.055</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhancing clinical knowledge</td>
<td>2.71</td>
<td>.86</td>
<td>3.68</td>
<td>.65</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>37.269</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for medical/professional writing</td>
<td>2.25</td>
<td>.90</td>
<td>3.34</td>
<td>.78</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>39.879</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for giving formal presentations</td>
<td>2.49</td>
<td>.93</td>
<td>3.50</td>
<td>.72</td>
<td>-</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>37.063</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities in elective rotations</td>
<td>2.39</td>
<td>.97</td>
<td>3.38</td>
<td>.82</td>
<td>-</td>
<td>.000</td>
</tr>
</tbody>
</table>

1 = Not at all valuable; 4 = Very valuable
### Perceptions of community vs. health-system residencies

<table>
<thead>
<tr>
<th>Items</th>
<th>CPRPs</th>
<th>Health-System</th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>MEAN</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Learning and using advances in technology</td>
<td>2.60</td>
<td>3.02</td>
<td>.92</td>
<td>.84</td>
</tr>
<tr>
<td>Gaining expertise in pharmacy practice management</td>
<td>3.04</td>
<td>2.81</td>
<td>.89</td>
<td>.91</td>
</tr>
<tr>
<td>Gaining expertise in business management</td>
<td>3.21</td>
<td>2.13</td>
<td>.83</td>
<td>.88</td>
</tr>
<tr>
<td>Learning to develop innovative pharmacy services</td>
<td>3.13</td>
<td>2.69</td>
<td>.86</td>
<td>.86</td>
</tr>
<tr>
<td>Learning to implement innovative pharmacy services</td>
<td>3.15</td>
<td>2.73</td>
<td>.85</td>
<td>.86</td>
</tr>
<tr>
<td>Learning about the drug distribution system</td>
<td>3.01</td>
<td>2.81</td>
<td>.87</td>
<td>.89</td>
</tr>
<tr>
<td>Providing additional opportunities for employment</td>
<td>2.90</td>
<td>3.31</td>
<td>.96</td>
<td>.81</td>
</tr>
<tr>
<td><strong>OVERALL MEAN</strong></td>
<td>2.91</td>
<td>3.04</td>
<td>.61</td>
<td>.51</td>
</tr>
</tbody>
</table>

1 = Not at all valuable; 4 = Very valuable
Conclusions:

- There are funding opportunities available to jumpstart new community pharmacy residencies

- We have room for improvement in raising awareness of the availability and value of community pharmacy residencies
"The Intersection of Pharmacy Residencies and Schools/Colleges of Pharmacy"

Questions/Discussion

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