Monday, July 12, 2010

Joint Session: Continuing Professional Education and Social and Administrative Sciences Sections:
Meeting the Needs of Underserved Patients through Scholarship, Teaching and Continuing Professional Development

Activity Code: TKU8L1

Meeting the Needs of Underserved Patients through Scholarship, Teaching and Continuing Professional Development

Devra Dang, PharmD, BCPS, CDE
Lisa Scholz, PharmD, MBA
Steven Chen, PharmD, FASHP, FCHSP

Joint Session of the Continuing Professional Education and Social & Administrative Sciences Sections
July 12, 2010
AACP Annual Conference
Program Objectives
1. Describe programs that currently exist to promote education and development for underserved patients
2. Identify opportunities for scholarship and resources to support these programs
3. Outline how continuing professional development can be used to fine tune skills to address the needs of underserved patients.

The Urban Service Track
Devra K. Dang, PharmD, BCPS, CDE
Associate Clinical Professor
University of Connecticut School of Pharmacy

Urban Service Track
- Goal: to develop a cadre of well-qualified health care professionals committed to serving Connecticut’s urban underserved populations & who are knowledgeable about the importance of interprofessional teamwork

Community Partners
Urban Service Track (UST)

- A collaboration between the University of Connecticut’s Schools of Medicine, Pharmacy, Dental Medicine, and Nursing

UST Structure

- Urban Health Scholars and faculty & community mentors
- Programmatic directions are guided by the Steering and Advisory Committees
- Steering Committee:
  - Faculty representatives from the 4 health professions schools
- Advisory Committee:
  - Medical, executive, and clinical directors from Connecticut’s federally-qualified community health centers
  - Community Health Center Association of Connecticut’s staff representatives
  - Community agencies’ representatives
  - City of Hartford Health Department’s representatives

Community & University Partners

- Connecticut AHEC
- UConn Center for Public Health & Health Policy
- Community Health Center Association of Connecticut
- National Association of Community Health Centers (NACHC)
- Hartford Health Department
- Connecticut Department of Public Health Office of Oral Health
- Institute for Community Research (ICR)
- National Kidney Foundation (NKF)
- ProHealth Physicians
- Burgdorf Primary Care Clinic
UST Curriculum

- "Add on" to existing curriculum
  - Complements existing curriculum in the 4 schools
- Based on 11 competencies identified by clinicians at Connecticut community health centers
- Delivered over 2 years
- All learning experiences are interprofessional in nature

UST Competencies

- Multiple constituencies
- Population health
- Cultural & linguistic differences
- Health policy
- Advocacy
- Health care financing & management
- Interprofessional teamwork & leadership
- Quality improvement
- Resource constraints
- Community resources
- Professional & ethical conduct
- Cultural & linguistic differences
- Health policy
- Advocacy
- Health care financing & management
- Interprofessional teamwork & leadership
- Quality improvement
- Resource constraints
- Community resources
- Professional & ethical conduct

UST Curriculum

- Learning retreats – 4/yr x 2 yrs
  - Each focuses on 2-3 competencies
  - Pre-retreat reading assignment & learning objectives clearly stated
  - Integrate clients/patients – gives vulnerable populations a voice and face
  - University and community clinicians are facilitators → reinforces the relationship between academic training & "real world" application
- Interactive
  - Case-based problem-solving
  - Clinical skills
  - Discussion with community members
- Fun activities
UST Curriculum
Community Outreach – Clinical
• Reinforces learning retreat curriculum
  – K.E.E.P. (Kidney Early Evaluation Program) screenings
  – National Primary Care Week community service
  – Mission of Mercy free dental clinic
  – Community health fairs

UST Curriculum
• Clinical training
  – Community outreach programs
  – Homeless shelters & migrant farm worker clinics

UST Curriculum
• Clinical training
  – Advanced clinical training takes place in federally-qualified health centers & other primary care facilities in Connecticut’s urban areas
**UST Curriculum**
Community Outreach – Education

- HeartStrong faith-based heart disease and stroke prevention program
- Community gardens
- Oral health program
  - For seniors
  - For children
- Poison Prevention Program for children
- Etc.!

**UST Curriculum**
Community Outreach – Recruitment

- Louis Stokes Alliance for Minority Participation Symposium
- Clinical Skills Day for high school students
- Covenant Prep School in Hartford
- Etc.!

**UST Curriculum**
Advocacy

- National Association of Community Health Centers’ Annual Policy Forum, Washington, DC
- Task Force Oral Health Older Adults, Education-Advocacy-Treatment Program
UST Curriculum

• Other enrichment learning experiences. Examples:
  – Spanish for Health Care Professionals courses
  – Cross-campus conference on health literacy, effective cross-cultural communication

UST Curriculum

• Other enrichment learning experiences
  Examples:
  – Community-based research projects and summer internships
  – State, regional and national conferences and meetings
    • CT Public Health Association
    • National AHEC Organization
    • Institute for Healthcare Improvement
    • Society of Teachers of Family Medicine
  • Additional pharmacy-specific curricular requirements

UST Pharmacy Curriculum

• Separate application
  – Rising P2s and P3s are eligible
• Structured required and elective learning activities
• End-of-semester reflection paper
• Ambulatory care rotation at a primary care facility that serve Connecticut’s underserved populations
• Community-based research project focusing on improvement of primary care of underserved populations & promotion of pharmacist interventions
Opportunities & Challenges for the Pharmacy Curriculum

• Opportunities
  – UST curriculum & activities can be clearly mapped to the 2004 CAPE Educational Outcomes
  – Collaboration among the 4 professional schools has enabled an expansion of the number of IPPE sites & activities for all students in the pharmacy program

Opportunities & Challenges for the Pharmacy Curriculum

• Challenges:
  – Seamless incorporation of UST curriculum into existing curriculum without overwhelming Scholars
  – Differences in structure of the 4 health profession programs in terms of curriculum, student characteristics, scheduling, & campus distance
  – Human and physical resources
  – Fiscal resources

Ongoing and Future Plans

• Assessment
  – Students
  – Program
  – Outcomes
• Activities for 3rd & 4th-year medical and dental Scholars
• Expansion of partnerships
• Admit residents from medical, pharmacy, and dental medicine
Lessons Learned

- Pilot year
- Buy-in from all 4 schools
  - Designated faculty
  - Time and financial support
- Student leadership cabinet
- Strong mentorship component
- Separate pharmacy application
- Complementary UST pharmacy curriculum

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Reaching the Underserved through Colleges of Pharmacy: Opportunities for Funding

Lisa Scholz, PharmD, MBA
Senior Director, HRSA Pharmacy Services Support
American Pharmacists Association
Learning Objectives

1. Program Updates
2. Core Business Elements and Statistics
3. Information Analysis and Management
4. Policy Analysis
5. Relationships and Networking
6. Present Partnerships
7. Future Endeavors
8. Interactive Time
9. Contacts

Questions to run on…

- What is HRSA and what does it mean to you?
- Who is PSSC and what relation do they have to HRSA and APhA?
- What is HRSA currently doing with faculty and students?
- How can students become involved in the underserved population that is served by the Health Resources and Services Administration?
- What other innovative strategies could be applied to have a greater impact on colleges of pharmacy and the safety net communities? …local…state…federal??

HHS: Organizational Chart
Health Resources and Services Administration Organizational Chart

Integrity Resource:

Office of Pharmacy Affairs (OPA)

- Administers 340B program
- Develops innovative pharmacy service models and supports technical assistance
- Serves as Federal resource for pharmacy practice

Importance of Comprehensive Pharmacy Services
- Access to affordable drugs
- Application of “best practices”
- Efficient pharmacy management
- Systems to improve patient outcome

340B Program Resources

- Integrity
- Access
- Value
The Three Legs of the Stool . . .

Lisa(PSSC) Jimmy(OPA) Chris(PVP)

Intent of the 340B Program

Safety net providers

SAVINGS
Improve financial stability
Stretch dollars to serve vulnerable patients

340B Eligible Entities

Patients

What is the 340B Price?

25-50% of the average wholesale price

Drug Manufacturers

Centers for Medicare and Medicaid Services

The 340B price is actually a "ceiling" price
Who is eligible?

- Consolidated Health Centers
- Federally Qualified Health Center, or FQHC look-alikes
- Family planning (Title X)
- Ryan White Care Act (Parts A, B, C, D) grantees
- Black lung clinics
- Sole community and critical access hospitals, rural referral centers, and free standing cancer centers
- Native Hawaiian health centers
- Urban Indian organizations
- Certified tuberculosis clinics
- Certain disproportionate share hospitals (>11.75%)
- Certified sexually transmitted disease clinics
- Children’s Hospitals

HRSA Pharmacy Programs

- Pharmacy services in HRSA programs & safety-net partners are growing rapidly

$5,000,000,000

Call To Action: Institute of Medicine on Patient Safety

- Medication Errors are Most Common
- Injure 1.5 Million People Annually
- Cost Billions Annually
Call To Action: Institute of Medicine on Patient Safety

- “...for every dollar spent on ambulatory medications, another dollar is spent to treat new health problems caused by the medication.”

PSSC: Interface

First established through a contract between American Pharmacists Association (APhA) and HRSA, signed September 27, 2002. Contract renewed in 2007.

Our Mission is OPA’s Mission

Optimize the **value** of the 340B Program

and provide **clinically and cost effective pharmacy services**

that **improve medication use and advance patient care.**
PSSC Core Business Elements

• Information analysis and management
• Policy analysis
• Networking and Relationships

340B Entity Locations by State

Information Analysis and Management

http://pssc.aphanet.org/
Information Management and Analysis

PSSC Call Center
1-800-628-6297 or PSSC@aphanet.org

Advanced Technical Assistance

- Clinical pharmacy services
  - Formulary Management
  - Medication Therapy Management
- Pharmacy model selection
  - In house staffing
  - Contract pharmacy
  - Telepharmacy
- Technology
  - Split billing
  - Automation
- Compliance review
  - Policy and procedures
- 340B decision analysis
  - Meet with stakeholders

2009 Savings to entities: $4,213,927.00

Policy Analysis

- OPA Federal Register Notice of Final Guidelines for Children’s Hospitals to Participate in the 340B Drug Pricing Program
- Congressional legislation to change the 340B Program
  - HR 444
  - S 1239
- Congressional efforts regarding Healthcare Reform
  - House Tri-Committee
  - Senate Finance Committee
  - Senate HELP Committee
- HHS FY 2010 Budget OPA Funding
- New PSSC Policy Products/Items
Relationships and Networking
- ASHP – Annual and Midyear programming in coordination with Apexus/Prime Vendor Program
- APHA - 10 hrs of CE; 340B/Safety Net focus
- NRHA- Medication Use Conference
- Webinars- Ohio, Michigan
- Focus groups- Alaska

• Dialogue and collaboration with many other safety net stakeholder organizations
  • AACP, NCPA, NRHA, SNHPA

Program Development
Education and Tools for covered entities
pssc.aphanet.org/resources

Project Chance
• Awards through the Pharmacy Services Support Center and Academy of Student Pharmacists at APHA
  • $2000.00
  • Encourages pharmacy students to work with 340B entities to develop innovative programs in the safety net community
  • Deadline: January 5th
  • Requirement: Poster presentation and Annual Project Report
Project Chance Statistics

- Began in 2004 with 11 applicants, 5 Awards
- 2005-2010
  - 74 applicants
  - 54 awards
- Past Applicant Projects
  - Diabetes
  - Anticoagulation
  - 340B enrollment
  - Medicare Part D
  - Health literacy
  - Vaccination Program
  - Childhood obesity

HRSA Grants to Establish or Expand Comprehensive Pharmacy Services

- Purpose: To increase access to Health Center pharmacy services by establishing or expanding those services
- Bureau of Primary Health Care
  - Approximately 40 awards up to $150,000/year for two years
  - Awarded: September 1, 2008

HRSA Grant Concepts to Establish or Expand Pharmacy Services

- Onsite or contract pharmacy services
- 340B and Prime Vendor Participation
- Effective risk management practices
- Clinical pharmacy services including MTM
- Partnership with school or college of pharmacy
- Pharmacy “best practices”
- Patient Safety & Clinical Pharmacy Services Collaborative
Patient Safety & Clinical Pharmacy Services Collaborative Aim

“Committed to saving or enhancing thousands of lives a year by achieving optimal health outcomes and eliminating adverse drug events through increased clinical pharmacy services for the patients we serve.”

Who Are the PSPC 2.0 Teams?

- 110 multi-disciplinary teams in action – from 41 States (including District of Columbia and PR)
- Over 350 organizations
- 20 Community Pharmacies
- 79 Community Health Centers
- 43 Hospitals (Community, DSH, and Critical Access)
- 3 Schools of Medicine
- 53 Schools of Pharmacy
- 7 Ryan White Grantees / HIV Organizations
- 4 Poison Control Centers
- 15 Primary Care Associations
- 8 State Government / Health Departments
- 6 Rural Health Clinics

Collaborative Events & What’s Next

- PSPC 1.0: August 2008 – Sept. 2009 with 68 community based teams
- PSPC 2.0: Sept. 2009 – Fall 2010 with 110 community based teams
- Action Period & Collaborative Conference Calls
- Learning Session 2
  - Interactive learning event
  - Broadcast nationwide
- May 13, 2010
- Action Period & More Collaborative Conference Calls
- LS3 – late summer 2010
- LS4 in Fall 2010
340B and the PSPC

- 340B provides access to medications
  - Access to drugs combined with clinical pharmacy services and patient safety create an optimal care environment
- 340B can create cost savings to support the implementation of clinical pharmacy services
- Clinical services to improve outcomes and decrease overall costs to an already burdened system through an overall reduction in costs/patient.

Potential Future Seeds . . . That Can Blossom

- Residency training partnerships
- Internships
- Rotation site locator
- Job descriptions
- Tools and Resources
Interactive Time!
Based on your knowledge of the safety net and the opportunities to partner...what do you see as opportunities for additional partnerships?

Would you be willing to partner with HRSA/PSSC?...what would that partnership look like?

How can we utilize meetings like AACP to engage stakeholders in the future?

Contacts:

www.hrsa.gov/opa
www.hrsa.gov/patientsafety

Pharmacy Services Support Center
1-800-840-2497
pssc@aphanet.org
pssc.aphanet.org

Prime Vendor Program
1-888-340-2787
340B_primevendor@340bpvp.com
www.340bpvp.com

Academic Pharmacy Partnerships with Safety Net Clinics:
Patient Care, Teaching, and Scholarship Opportunities

Steven Chen, Pharm.D., FASHP
Associate Professor
University of Southern California School of Pharmacy
Co-Chair, HRSA Patient Safety & Clinical Pharmacy Collaborative 2.0
Outline

• Clinical pharmacy program development and sustenance
• Teaching / service opportunities
• Scholarship and Public Relations

Clinical Pharmacy Program Development

• Form a team
• Define specific aims / population of focus
• Staff the program
• Start small
• Expand

The HRSA Patient Safety & Clinical Pharmacy Change Package
Clinical Pharmacy Program Development

Form a Team

- Potential clinic partners
  - High interest in School of Pharmacy Collaboration
  - Key leaders (not necessarily by title)

- Faculty
  - Safety net laws / regulations - Mel Baron
  - Director of USC Pharmacies / Pharmacy Owner - Mike Rudolph
  - Community pharmacy programs - Jeff Goad
  - Grants / research, public health expertise - Kathy Johnson
  - Primary care, data collection / management - Steve Chen

Safety Net Clinics - 2.7 million uninsured in Los Angeles

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>T.H.E. Clinica</th>
<th>Weingart Medical Clinic</th>
<th>South Central Family Health Center</th>
<th>QueerCare Clinics</th>
<th>LA County</th>
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<tbody>
<tr>
<td>Ethnicity (%)</td>
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<td>Black</td>
<td>59</td>
<td>50</td>
<td>4</td>
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<td>Hispanic</td>
<td>21</td>
<td>40</td>
<td>90</td>
<td>25</td>
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<tr>
<td>White</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>47</td>
<td></td>
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<tr>
<td>Asian / Pacific Islander</td>
<td>16</td>
<td>2</td>
<td>3</td>
<td>13</td>
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<td>Education and Income:</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>&lt;12 years education (%)</td>
<td>56</td>
<td>70</td>
<td>58</td>
<td>28</td>
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<tr>
<td>Median Family income</td>
<td>$21,038</td>
<td>$22,500</td>
<td>$23,554</td>
<td>$34,267</td>
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<td>Unemployment rate (%)</td>
<td>12</td>
<td>96</td>
<td>7</td>
<td>5</td>
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<tr>
<td>&lt;100% of Federal poverty level (%)</td>
<td>75</td>
<td>100</td>
<td>92</td>
<td>29</td>
<td></td>
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<tr>
<td>Receiving Public assistance (%)</td>
<td>25</td>
<td>100</td>
<td>18</td>
<td>12</td>
<td></td>
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</table>

Clinical Pharmacy Program Development

Define Specific Aim / Population of Focus

- Refine formulary (PAP, 340B)
- Organize dispensaries to improve medication safety
- Provide disease state / medication therapy management (DSM, MTM) to high-risk patients
- Increase the number of student pharmacists and residents exposed to and trained to provide care for diverse safety net clinic patients
Clinical Pharmacy Program Development
Define Specific Aim / Population of Focus

- What are perceived to be the most significant disease / medication-related problems?
- Take opportunity you’re given (e.g., refills, reconcile meds, anticoagulation)
- Review available reports (Utilization Review, P&T, registries)

Caution!

<table>
<thead>
<tr>
<th>You say…</th>
<th>Most medical directors hear…</th>
</tr>
</thead>
<tbody>
<tr>
<td>“clinical pharmacy”</td>
<td>“pharmacist who thinks clinically”</td>
</tr>
<tr>
<td>“medication therapy management”</td>
<td>“help patients keep their medicines in order”</td>
</tr>
<tr>
<td>“pharmacist intervention”</td>
<td>“can read physician handwriting”</td>
</tr>
</tbody>
</table>

Clinical Pharmacy Program Development
Staff the Program

- Faculty
- Volunteers
- Residents
- Grants
Clinical Pharmacy Program Development

Start Small

- Pilot program, even with a single physician
- Attributes of key initial physician partners
  1. Highly respected in the organization
  2. Will endorse / advocate / support your service
  3. Willing to give you honest, constructive feedback
- Medical director isn’t always the best choice!

Clinical Pharmacy Program Development

Expand

- Volunteers
- More grants
- Clinic budgets for pharmacist(s)
- Residents and students

USC School of Pharmacy Affiliated Safety Net Clinics (11 sites)
Outline

• Clinical pharmacy program development and sustenance
• Teaching / service opportunities

Teaching / Service Opportunities
Student / Resident / Pharmacist Training

• Learn about medically underserved populations
• Learn how to provide culturally competent care to diverse patients
• Learn how health literacy can impact health care outcomes
• Learn about disease state management under collaborative practice agreements

Teaching / Service Opportunities
Student Training

• Introductory Practice Experience Program (IPPE) (dispensary, counseling)
• Advanced Practice Experience Programs (APPE) (clinical services/DSM)
• Elective Course (Health Care for Special Populations)
• Elective Clerkships (administration)
• Alternative to “traditional” internship experiences
Teaching / Service Opportunities

SHARE Program
(Students Helping and Receiving Education)

- $29,000 grant (2004)
- Student pharmacist volunteer program to assist in the delivery of patient consultation and clinical pharmacy services in Safety Net Clinics
- Goal: Improve medication use, safety, and health outcomes for the underserved with an emphasis on health literacy and cultural competency

Teaching / Service Opportunities

SHARE Community Education / Service

Patient Education Classes
- Counseling
- Translation
- Data Collection
- Immunizations

Health Fairs

Teaching / Service Opportunities

Impact of Volunteer Service on Career Choices

- Value of program (very valuable to professional development - 64%)
  - Clinic operations (75%)
  - Free med programs (81%)
  - Multicultural patient populations (91%)
  - Working with a language barrier (81%)
  - Counseling opportunities (82%)
  - Rounds with pharmacist/mentee students (76%)
- Changed Perception of Profession of Pharmacy (82%)
- Impacted Plans after Graduation (62%)
- Interest in Job in Safety Net Clinic (63%)
Teaching / Service Opportunities
Resident / Fellow / Pharmacist Training

• Post-Graduate Residency Training
  – Great site for providing balance between training and patient care service
  – Has increased interest in program
• Fellowship Training
• Certificate Programs for Practitioners

Outline

• Clinical pharmacy program development and sustenance
• Teaching / service opportunities
• Scholarship and Public Relations

Scholarship and Public Relations

• Grantsmanship
• Practice-based research
• Media and legislature
Scholarship and Public Relations

Grants to Initiate or Expand Programs
http://www.foundationcenter.org/findfunders/

- HRSA: $140,000 grant (2003)
- Community Pharmacy Foundation: $50,000 (2004)
- QueensCare Foundation:
  - $300,000 for 3 years (2004)
  - $1,100,000 for 3 years (2006)
- UniHealth:
  - $405,000 for 3 years (2004)
  - $405,000 for 3 years (2005)
  - $350,000 (2010)

Scholarship and Public Relations

Practice-Based Research: Return on Investment

- Medication cost savings (1 FTE pharmacist serving 3 clinics)
  - PAP utilization + 340B purchasing
  - > $700,000 in annual medication costs saved
  - Access to critical medications previously thought to be unattainable
- Extension of pharmacy services with the help of students
  - Student assistance in dispensary → 10-20 additional hours of disease state management time

Scholarship and Public Relations

Practice-Based Research: Access to Health Care

- Physician time saved by having the pharmacist:
  - Provide medication counseling & dispense medications
  - Provide MTM for the most difficult-to-treat patients
- Increases physician access for new patients
- Increases physician availability for existing patients needing frequent follow-up
Scholarship and Public Relations

**Practice-Based Research - Disease Management / Medication Therapy Management**

**Patient Visits, 10/04-9/08**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
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<tbody>
<tr>
<td>Patient Referrals</td>
<td>2,779</td>
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<tr>
<td>Unique Patients Seen</td>
<td>2,235</td>
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<tr>
<td>Patient Visits</td>
<td>15,904</td>
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<tr>
<td>Diabetes</td>
<td>13,267</td>
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<tr>
<td>Hypertension</td>
<td>9,452</td>
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<td>Dyslipidemia</td>
<td>8,720</td>
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<tr>
<td>Asthma</td>
<td>975</td>
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<tr>
<td>Other</td>
<td>1,403</td>
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</table>

**Blood Pressure Management (n=242)**

Majority of patients with DM (BP goal < 130/80)

Baseline vs. Post-enrollment:
- **SBP**:
  - Baseline: 152 mmHg
  - Post-enrollment: 126 mmHg
  - **Change**: -26 mmHg
- **DBP**:
  - Baseline: 83 mmHg
  - Post-enrollment: 71 mmHg
  - **Change**: -12 mmHg

**A1C (n=225)**

Baseline vs. Post-enrollment:
- **A1C (%)**:
  - Baseline: 11.3%
  - Post-enrollment: 7.6%
  - **Change**: -3.7%
## Overall Impact of Pharmacist Intervention on Individuals with Diabetes (N=484)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Change in A1C (Adj R² = 0.4093)</th>
<th>Likelihood of Achieving A1C &lt; 7</th>
<th>Likelihood of Achieving A1C &lt; 8</th>
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<tbody>
<tr>
<td></td>
<td>Estimated Effect (% A1C)</td>
<td>p-Value</td>
<td>Estimate Effect (Odds Ratio)</td>
</tr>
<tr>
<td>Intercept</td>
<td>7.760</td>
<td>&lt;0.0001</td>
<td>0.697</td>
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<tr>
<td>Intervention group</td>
<td>-1.38</td>
<td>&lt;0.0001</td>
<td>4.037</td>
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<tr>
<td>Gender (male)</td>
<td>0.292</td>
<td>0.0770</td>
<td>0.988</td>
</tr>
<tr>
<td>Age (in years)</td>
<td>-0.025</td>
<td>0.0018</td>
<td>0.986</td>
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<tr>
<td>Insured (1=MediCal + other)</td>
<td>0.186</td>
<td>0.2716</td>
<td>-</td>
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<tr>
<td>Hispanic (1 = Black + other)</td>
<td>0.403</td>
<td>0.0717</td>
<td>0.619</td>
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<td>Smoker (1=yes)</td>
<td>0.080</td>
<td>0.8783</td>
<td>1.652</td>
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<tr>
<td>Baseline A1C level</td>
<td>-0.721</td>
<td>&lt;0.0001</td>
<td>0.874</td>
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<td>Days between first/last A1C test</td>
<td>-0.0022</td>
<td>0.5708</td>
<td>1.000</td>
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## Blood Pressure Control, Usual Care vs. Pharmacist Managed Diabetic Patients

<table>
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<tr>
<th>Follow-up Period</th>
<th>Usual Care (N=85)</th>
<th>Pharmacist-Managed (N=64)</th>
<th>P-Value</th>
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<tr>
<td>3 months</td>
<td>22%</td>
<td>42%</td>
<td>0.009</td>
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<tr>
<td>6 months</td>
<td>36%</td>
<td>47%</td>
<td>0.201</td>
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## LDL-C Management, Usual Care vs. Pharmacist Managed Diabetic Patients

<table>
<thead>
<tr>
<th>Follow-up Period</th>
<th>Usual Care (N=108)</th>
<th>Pharmacist-Managed (N=88)</th>
<th>P-Value</th>
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<tbody>
<tr>
<td>Baseline</td>
<td>138</td>
<td>134</td>
<td>NS</td>
</tr>
<tr>
<td>2nd visit</td>
<td>115</td>
<td>109</td>
<td>NS</td>
</tr>
<tr>
<td>3rd visit</td>
<td>116</td>
<td>95</td>
<td>&lt;0.0001</td>
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</table>
Drugs-Related Problems
Legal / dispensing, Clinical, Care Quality, Cost

1. Wrong dose / dose interval
2. Wrong tx duration / quantity
3. Improper directions
4. Treatment or dosage form is not optimal or inappropriate
5. Polypharmacy / duplication
6. Drug interaction, Contraindication, Allergy
7. Rx with no indication
8. Untreated medical problem
9. Medication overuse, underuse / poor adherence, misuse
10. Dose discrepancy between pt use & prescribing
11. Sub- / Super- therapeutic Cp
12. Needs lab / diagnostic test
13. Abnormal lab result
15. Nonformulary / not cost effective drug choice
16. Pt dissatisfied with tx

Interventions Provided by Pharmacists
(N=222)

Interventions (#)

- Change Dose/Drug Interval: 154
- Add Medication: 132
- Substitute Medication: 104
- Discontinue Medication: 45
- Educate Patient: 29
- Provide Adherence Aid: 22
- Order lab/Diagnostic test: 10
- Refer to Other Service: 5
- Other: 1

Problems Identified by Pharmacists
(N = 222)

- Quality of Care: 67%
- Medication Safety: 28%
- Legal / dispensing: 5%
- Others: 8%
Health Outcomes (N=135)

- Improved: 42%
- Resolved: 54%
- No Change: 2%
- Unknown: 2%

Physician Satisfaction / Feedback
JWCH Institute, Weingart Clinic

- "The USC Pharmacists provide our patients and clinic a comprehensive package of health education, drug information, disease management and dispensing assistance."
- "We are able to provide a wider range of services to a greater number of patients due to the PAP software and assistance that the USC School of Pharmacy has provided."
- "Our disease management indicators have improved dramatically as a result of the assistance we have received from the USC Pharmacy clinicians."
- "Patient satisfaction has never been better thanks to the USC School of Pharmacy."
- "Our patients have consistently provided positive feedback about how the pharmacy services have increased the quality of care at the clinic and made their healthcare experience more satisfying."
Visits to Congressional Offices In Washington DC to discuss problem of lack of payment for pharmacist clinical services in safety net clinics
Representative Roybal-Allard was very interested in our work and our award

Outline
- Clinical pharmacy program development and sustenance- Symbiotic relationship with school of pharmacy
- Teaching / service opportunities- Offers optimal outpatient training for students
- Scholarship and Public Relations- High demand for grants for the underserved, high media and legislative interest

Question
What will you do, beginning next week, to develop or expand a partnership with a safety net clinic?
Monday, July 12, 2010
Joint Session: Continuing Professional Education and Social and Administrative Sciences Sections: Meeting the Needs of Underserved Patients through Scholarship, Teaching and Continuing Professional Development

Activity Code:
TKU8L1