The Pharmacist's Role in the Interdisciplinary Care of the Aging Population

Pharmacy Training & Practice Report of Findings

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- PHARMACY SCHOOLS
- PHARMACY STUDENTS

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EXECUTIVE SUMMARY

The CSHP Foundation initiated its project, *Pharmacist’s Role in the Interdisciplinary Care of the Aging Population*, in July 2014. The aging focus was selected to address a potentially vulnerable population that would greatly benefit from increased interaction with and care from pharmacists, particularly when focusing on poly-pharmacy issues and the prevalence of chronic disease. The increasing diversity and lifespan of older adults, and opportunities to strengthen pharmacy practice resulting from the passage of SB 493 in 2013 which designated pharmacists as healthcare providers, opens the door to the development of advanced practice pharmacy, which in turn increases opportunity for pharmacists in caring for the aging population.

The overall intent of the project is to:

1) Maximize the role pharmacists play on interdisciplinary care teams.
2) Improve the health and healthcare of older adults by strengthening the training and preparation of pharmacists to work with older adults.
3) Identify opportunities where care for older adults can strengthen the implementation of SB 493.

Desired longer-term outcomes of the project include:

- Increased pharmacist involvement on interdisciplinary care teams focused on aging.
- Increased number of pharmacists in lead medication management roles for older adults.
- Expanded pharmacy school curriculum focused on aging that addresses the changes in the aging process and population.
- Increased number of pharmacy students choosing to work with older adults.
- Increased number of organizations adopting payment reforms that include pharmacist reimbursement for geriatric patient services.

Phase One of the project was structured to establish a baseline that would:

- Describe current approaches in pharmacy training and performance that are embedded in today’s healthcare education and delivery system.
- Provide recommendations to strengthen current pharmacy practice.
- Address identified gaps, with a particular emphasis on:
  - Roles pharmacists currently fill in California to improve healthcare for older adults.
  - Gaps in senior healthcare that can be improved through pharmacy services.
  - How the pharmacy workforce is being prepared for current and developing opportunities.

As we move forward addressing the issues related to pharmacy and aging, there are a number of considerations we should ponder. What follows are seven factors identified through analyses of available literature. The challenge and task before us is to identify the most effective ways to support pharmacists as a profession able to care for older adults, obtain recognition for the quality of care provided and be paid for the care they deliver.
Factor One – Continued Aging
We are not going to get any younger as a society. People will be living longer with higher quality of life in later years. With this positive longevity, the older adult population will still need medications the most to help them manage their chronic diseases.

Factor Two – Aging & Diversity
The aging population is growing more racially and ethnically diverse in our old age. This will require new parameters for how care is provided and how to most effectively navigate medication and chronic disease management.

Factor Three – Pharmacy Pipeline
Frontline healthcare and clinical staff does not, and in the next decade, will not look like the majority of older patients they serve. This will necessitate looking creatively about how to increase the diversity of the pharmacist pipeline.

Factor Four – Interdisciplinary Care Teams
Interdisciplinary Care Teams can work. Examining the geriatric population to be served and the needs they’ll present, who should be on the team and how should each member’s role be shaped?

Factor Five – The Business of Pharmacy Practice
The business of pharmacy is changing. Medication dispensing will not fully offset the costs of care or propel pharmacists into a new mode of payment for practice. What will that new business model embrace?

Factor Six – Pharmacy School Training Leadership Role
Two of the key outcomes of SB 493 are the designation of Advanced Practice Pharmacy (APP) and the opportunity for pharmacists to be paid for services provided. What leadership roles can pharmacy schools play to structure training in geriatric care to fulfill APP requirements? And, how can schools best equip their students to graduate understanding the business of pharmacy practice?

Factor Seven – Physician Champions
Physicians will continue to be one of the key decision-makers regarding payment for pharmacy practice. How do we identify and strengthen the relationship between pharmacists and physician champions who support pharmacists as healthcare providers and payment for quality pharmacy care provided?

As you read this report, consider these factors and the next steps proposed. Your thoughts on how to maximize the role of pharmacists as healthcare providers caring for older adults are invaluable.
METHODOLOGY

Three components were brought together to establish the project’s baseline assessment: Literature Review, Survey Research and Meta-Analyses Review.

LITERATURE REVIEW

A number of articles were reviewed to provide the framework for what is known about the: 1) aging population, 2) aging process and 3) pharmacy workforce and training to addressing aging, helping to frame the data elements of the project’s surveys.

The articles reviewed included:

- *Diabetes Tied to a Third of California Hospital Stays, Driving Health Care Costs Higher*, California Center for Public Health Advocacy, May 2014
- *Diversity in California’s Health Professions 2008: Pharmacy*, Center for Health Professions
- *California’s Pharmacists and Pharmacy Technicians, 2014*, California Healthcare Foundation
- *Primary Care: Proposed Solutions To The Physician Shortage Without Training More Physicians*, Health Affairs, November 2013
- *Pharmacists as Vital Members of Accountable Care Organizations*, Academy of Managed Care Pharmacy, 2011
- *The Value of Drug Adherence*, 2014
- *Facts and Fictions About an Aging America*, Weingarten Foundation Research Network on An Aging Society, Fall 2009

SURVEY RESEARCH PROCESS

Three surveys were developed in partnership with the USC School of Pharmacy and disseminated by the CSHP Foundation to each pharmacy school in California, pharmacy students from each school and practicing pharmacists throughout the care continuum, from September through mid December 2014. The CSHP Foundation disseminated the surveys to its members. CSHP also reached out to other organizations to distribute the surveys to their members, including the California Pharmacists Association (CPhA), California Hospital Association Medication Safety Review Committee and the California Association of Physician Groups (CAPG) Pharmaceutical Care Committee. The project’s expert panel was also approached for assistance in disseminating the surveys to their members. These approaches resulted in larger reach among pharmacists in different practice settings. One shortcoming of the survey results, however, was more limited participation among community pharmacists and pharmacists working in long-term care settings.

META-ANALYSES REVIEW

Once results from these surveys, particularly the survey addressing pharmacy practice were tabulated, the outcomes were compared to *US Pharmacists’ Effect as Team Members on Patient Care – Systematic Review and Meta-Analyses*, the meta-analyses compiled by the Department of Pharmacy Practice and Science at the University of Arizona College of Pharmacy. Comparison of survey results with the *Meta-Analyses* helped to identify best practices and proposed next steps for the project.

Completion of the literature review and extensive review of the meta-analyses provided a strong foundation used to shape the focus and content of each of the three surveys developed and disseminated for the project.
KEY LEARNINGS

LITERATURE REVIEW

The key points of the literature review highlighted areas where pharmacists could play stronger roles to improve the health and healthcare of older adults. It also sharpened understanding of the dynamics shaping the aging population and aging process, and how these will likely impact health priorities and healthcare practice, including pharmacy practice.

THE AGING POPULATION

The Baby Boomers are leading the way toward an aging society. We will continue to have an older age population shape our society past the impact of the Baby Boomers, due in part to increased life expectancy and reduced birth rates.ii

The majority of Medicare beneficiaries suffer from a significant percentage of chronic diseases, with 82% having at least one chronic disease.iii Older adults will continue to be more likely to have multiple chronic conditions, with the treatment choice often medication therapy.

THE AGING PROCESS

“Active lifespan” is increasing faster than total lifespan. This is because the health and functional capacity of older adults has been improving since the 1980s due in large part to improvements in healthcare and biomedical technology. Decreases in functional capacity are also being driven by factors outside of aging, including race, ethnicity, socioeconomics and education.iv

Variations in disease patterns among older adults are also seen by gender and race/ethnicity.v

Gender Differences

- Men experience higher rates of heart disease, cancer, diabetes and emphysema, with more inpatient stays.
- Women experience higher rates of osteoporosis, arthritis, asthma, chronic bronchitis, and hypertension and are more likely to report episodes of depression.

Differences by Race/Ethnicity & Culture

- Asian Americans experience the lowest rates of disabilities, longest life expectancy and fewest years in poor health.
- African Americans have the shortest life expectancy, longest number of years lived with chronic disease and the highest prevalence of stroke, diabetes and hypertension. According to the CDC’s National Center for Health Statistics (NCHS), African Americans tend to use nursing homes at a higher rate than white older adults and according to the Agency for Healthcare Research and Quality (AHRQ), were more likely to experience preventable adverse events or complications of care from hospitalization.
- Whites were more likely to report cases of cancer and chronic lung disease.
- Medicare beneficiaries with limited English proficiency were less likely to have access to a consistent source of care and less likely to receive important preventive care than Medicare beneficiaries who speak English fluently.
- Hispanic and non-Hispanic black older adults experience greater limitation or disability than non-Hispanic whites and tend to use healthcare services less frequently.

The growing racial and ethnic diversity of our aging population will require a greater understanding of how race/ethnicity and culture effect health decision making among older adults and their family members. The ability for older adults to understand and participate in their health decision-making will be greatly increased with a pharmacy workforce that better reflects their background and understanding.

**PHARMACY WORKFORCE, TRAINING & PATIENT ENGAGEMENT**

**Pharmacy Workforce**

- Not unlike other health professions, the race and ethnicity of pharmacists does not match California’s population. According to the California Healthcare Foundation’s California Health Care Quick Reference Guide for 2014 it can be seen a significant gap exists between the race and ethnicity of California’s population and its pharmacy graduates.

<table>
<thead>
<tr>
<th>Table 1: Pharmacy &amp; Pharmacy Tech 2012 California Graduates</th>
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<tbody>
<tr>
<td>RACE/ETHNICITY</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>Latino</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Native American</td>
</tr>
<tr>
<td>African American</td>
</tr>
<tr>
<td>Other/Unknown</td>
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</table>

**Race/Ethnicity & Culture**

- With the growing racial and ethnic diversity of California’s older adults, it will be critical for pharmacists to consider approaches to better connect a more diverse aging population with a workforce that more closely reflects their racial and ethnic diversity. This is an issue experienced by all general healthcare membership organizations. It is recommended that CSHP and its Foundation reach out to organizations such as the: California Medical Association (CMA), California Academy of Family Physicians (CAFP), California Academy of Physician Assistants (CAPA), and the California Association of Nurse Leaders (CANL), to discuss the steps these organizations have taken to strengthen their relationship with both individual providers from different race/ethnicities and ethnic provider organizations.

For example, the CMA Foundation took steps a number of years ago to help organize and support the Network of Ethnic Physician Organizations, (NEPO). NEPO is comprised of ethnic physician organizations and ethnic medical student leaders and provides input to both the CMA Foundation and CMA on healthcare policy, patient engagement, public health, and healthcare quality. Similar organizations appear to exist in pharmacy, including the:

Table 2: Ethnic Pharmacists Organizations

| Association of Black Health System Pharmacists, based in Florida |
| Hispanic Association of Pharmacists – Houston, TX |
| Indian Physicians Association of California |
| Vietnamese Pharmacists Association of the USA and Southern California |
All pharmacy schools also have chapters representing the larger racial and ethnic pharmacist organizations on their campuses that can be reached out to as well.

HEALTHCARE WORKFORCE PIPELINE

Pipeline Support
- There are a number of programs that provide funding to increase the diversity of California’s healthcare workforce through both state and federal funding. These programs only provide support to groups that are designated as healthcare providers, with the bulk of this funding going to physicians and physician organizations. Prior to passage of SB493, when pharmacists were not considered healthcare providers, their profession would likely not have been eligible for this support.
- Moving forward, the pharmacy profession and its leadership should reach out to these organizations as well as other health professions and learn what support might be available and the pipeline approaches used by other healthcare professionals.

Pharmacy Technicians
- Pharmacy leaders should also consider ways to utilize pharmacy technicians in more patient centric care as a means of better aligning their workforce better with the race and ethnicity of the older patients they will be serving.
- This approach has been conducted in medicine with medical assistants (MAs) and has been met with success, including MAs having functioned as members of care teams in medical practice.

Data Capture
- Another issue identified in the Institute of Medicine (IOM) “Retooling” report was the fact that it is difficult, if not sometimes impossible to capture data on the work pharmacists are doing with and for older adults. In the more traditional role of consultant pharmacists who provide support to skilled nursing facilities and their staffs, data is more readily available describing the work and relationship these pharmacists have with patients and other healthcare providers.
- What is often also not tabulated, resulting in a lack of awareness about pharmacy practice, is the work done by pharmacists on care teams in medical groups, ACOs and health systems as well as much of the work taking place in community pharmacies, including independent pharmacies, unless this is part of a pilot or demonstration project specifically intended to capture that data. To substantiate the role of pharmacists as healthcare providers, it will be critical for the pharmacy community to capture this data and its impact, making sure to gather the data that addresses the pharmacist’s role as a member of a multidisciplinary care team as well as direct patient interactions that might happen more at the point of care.

PHARMACY TRAINING & THE BUSINESS OF HEALTHCARE

Pharmacy Training
- More pharmacists and pharmacy technicians will need to have training in geriatrics. As we looked at current training of pharmacists and pharmacy technicians, a series of questions came to mind:
  1) With the changes taking place in our aging population, what new roles or new approaches to care might be necessary to deliver effective, efficient, high-quality care to older adults?
  2) How should the healthcare workforce be educated and trained to deliver high-value care to older adults?
  3) What will strengthen the recruitment and retention of the needed workforce.
**Medication Management**

- To effectively respond to the changes in the aging population, having a pharmacy workforce that is seen as the leaders in medication management, with approaches that lead to greater medication adherence is essential. Among healthcare providers, pharmacists have the level of understanding and expertise in medication management.

- With their recent designation as a healthcare provider, it is paramount for pharmacists to be viewed as the leader in this area, and for pharmacists, in a clear and compelling way, to communicate the value they bring to organizations providing care to older adults. This is the area that pharmacists need to own, especially those working with older adults.

**Care Continuum**

- Pharmacy students who plan to focus on care for older adults should learn what is involved in their care continuum. For older adults, this can span from prevention to palliative care. It is critical for pharmacy students to be acquainted with the various settings where care may be given, and intersects between care settings as the older adult moves through this continuum. This “hand off”, when not done correctly, often results in hospital readmissions or medication errors and adverse events for older adults.

This type of training will also acquaint the pharmacy student with the other types of healthcare providers who will be part of the patient’s team in the various settings. Given the greater number of locations for patients to be seen, it would be advantageous for students to have training opportunities in addition to the hospital setting.

**New Models of Care & the Business of Healthcare**

- The models of patient care being developed, including for older adults, are all based on the premise of Interdisciplinary Team Based Care. This phrase implies an interaction and interdependence among healthcare providers, each with a different area of expertise working together to care for a single patient.\(^{\text{viii}}\)

- Geriatric care played a lead role in developing team based training methods in healthcare with the Veteran’s Affairs (VA) developing its Interdisciplinary Team Training in Geriatrics Program in the 1970s and the Health Resources and Services Administration (HRSA) providing financial support for Geriatric Education Centers (GECs) responsible to teach collaboration and teamwork in geriatric care.\(^{\text{ix}}\) In the late 1990’s, the John A. Hartford Foundation funded eight national programs to develop geriatric interdisciplinary team training (GITT) programs for students in nursing, social work and medicine.\(^{\text{x}}\) Pharmacy, however, was not a focal point for that work.

- Passage of SB 493 elevates the status of pharmacists in patient care and healthcare delivery, providing them the designation of healthcare provider. With the growing focus on new models of patient care, whether they be a patient centered medical home (PCMH) or accountable care organization (ACO), another key area of learning for pharmacy students, including those in geriatric training, is learning the business of pharmacy and healthcare practice.

- As part of the ACO healthcare team, pharmacists will play an essential role in helping their organization achieve Centers for Medicare and Medicaid Services (CMS) required quality benchmarks.\(^{\text{xii}}\) They have the opportunity to play a leadership role by both improving healthcare for older adults and playing a necessary role in lowering an organization’s total cost of care through effective medication management and reduction of adverse events related to medication use.

- Pharmacists, well trained in pharmacotherapeutics are uniquely positioned to help optimize appropriate medication use, reduce medication related problems and improve health outcomes. Even with this expertise, pharmacists are often underutilized, with other less costly health care providers playing the lead role in maximizing safe medication use.\(^{\text{xii}}\) Serving in these critical roles
on the patient’s team will provide the sounding board for the pharmacist’s value proposition showcasing their benefit to the organization.

- Unfortunately, most healthcare providers are still trained separately in their specific discipline, which sets up an implied hierarchy and responsibility for decision-making and adds little understanding or appreciation for the expertise of other team members. Team based training can break through these barriers allowing for healthcare providers of varied backgrounds to have a deeper appreciation of what each provider brings to the team.

**Cultural Diversity**

- With the growing diversity of older adults, there needs to be a greater focus on how race/ethnicity and culture influence health decision-making.

- Training should encompass:

<table>
<thead>
<tr>
<th>Table 3: Recommended Pharmacy Student Cultural Diversity Training Components</th>
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<tbody>
<tr>
<td>An understanding of diverse cultural health beliefs and practice systems of the patient’s culture.</td>
</tr>
<tr>
<td>Historic occurrences that older adults may have experienced that will influence their health decision-making and trust in their healthcare providers</td>
</tr>
<tr>
<td>Awareness of the impact of health literacy on health decision making among older adults, particularly those from diverse cultural backgrounds</td>
</tr>
<tr>
<td>Comprehension of the role of both palliative and hospice care by healthcare providers, patients and their family members</td>
</tr>
<tr>
<td>Culturally appropriate respect for older adults</td>
</tr>
<tr>
<td>Opportunities to observe &amp; perform culturally appropriate patient assessments</td>
</tr>
<tr>
<td>Effective engagement with older adults as they explain their health conditions</td>
</tr>
<tr>
<td>Learning how best to work with family members</td>
</tr>
<tr>
<td>Understanding the value and ability to identify health navigators or guides</td>
</tr>
</tbody>
</table>

**PATIENT ENGAGEMENT**

**The Direct Patient Workforce**

The Direct Patient Workforce has been described as those healthcare practitioners who interact directly with the patient or patient’s family and provide direct patient care. As reported by the IOM in their Retooling Report, direct care workers for older adults were identified as:

- Nurse assistants, who provided 70% to 80% of care hours in long-term care settings.
- Social workers who played leadership and collaborative roles in long-term care settings, particularly skilled nursing and hospice care.

The IOM stated that older adults account for about one-third of the patient visits to Physician Assistants (PA), who as a group have less than 1% of their members specializing in geriatric care. The Retooling report also indicated that less than 1% of pharmacists and registered nurses were certified in geriatrics.
As mentioned previously, it is still very difficult to capture data, even with stronger electronic systems, that describe and quantify the work pharmacists, other than consultant pharmacists working in long-term care, provide to older adults.

- As pharmacy training and practice expands, it will be critical for pharmacists and pharmacist organizations to develop standardized approaches to gather and report this data.
- When best practices in this area are identified, they should be widely showcased by pharmacist organizations.

**Pharmacy Technicians as Care Navigators and Guides**

As reported earlier, pharmacy technicians in California most closely mirror the race and ethnicity of California’s population, including the growing cultural diversity of the aging population. This group of pharmacy staff could therefore play a broader role as health navigator and guide for older adults and their families not familiar with the healthcare system, and those with limited English proficiency.

This type of work is being done on a much broader basis in organized medicine where medical assistants, who also more closely reflect a physician’s ethnic patient mix, are serving as health navigators and some are also being trained to serve as health coaches within primary care health homes."v

Some hospitals have already started down this path with the creation of Hospital Navigator Pharmacy Technicians. These technicians serve as a liaison from within the outpatient pharmacy and engage more in face-to-face patient communication. They are also expected to collaborate with patients and their families, nursing staff, physicians and case managers to enroll patients in population health programs.

- Moving forward, it would be worthwhile to determine if California hospitals have these navigator programs in place.
- If these are not found in California, it would be advantageous to determine which of these programs are found in other states.

**SURVEY RESEARCH**

Results of the three surveys developed in partnership with the USC School of Pharmacy are summarized on the following pages, providing the highlights and key findings for each survey.

**PRACTICING PHARMACIST SURVEY FINDINGS**

In the area of Pharmacy Practice, the survey addressed a number of factors, with priority given to the following areas:

- Practice setting and the presence of interdisciplinary care teams.
- Referrals to pharmacists for patient care.
- Improvements in patient care and health outcomes.
- Approaches to work with diverse patients, their family and caregivers.
- How pharmacists communicate their value in strengthening health, healthcare and reducing cost of care.
- How payment is factored into pharmacy practice.

221 practicing pharmacists initiated the survey with 105 completing it for a 48% response rate. Many of those who did not complete the survey closed it because little of their time was spent caring for older adults.
**RESPONDENT BREAKDOWN**

The respondent breakdown below outlines the response pattern by type of pharmacy practice. The following is the breakdown of survey respondents by practice setting:

<table>
<thead>
<tr>
<th>Respondent Category</th>
<th>Percent Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital or Inpatient</td>
<td>24%</td>
</tr>
<tr>
<td>Overlap – In &amp; Outpatient</td>
<td>21%</td>
</tr>
<tr>
<td>Outpatient Setting</td>
<td>17%</td>
</tr>
<tr>
<td>Long-term Care</td>
<td>16%</td>
</tr>
<tr>
<td>Community Pharmacy</td>
<td>11%</td>
</tr>
<tr>
<td>Health Plan</td>
<td>5%</td>
</tr>
<tr>
<td>Telehealth</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

This breakdown of pharmacy practice settings appears to be under-represented in terms of community or retail pharmacy settings and the data provides additional locations capturing pharmacist work in both outpatient and long-term care settings when compared to the California Healthcare Foundation’s (CHCF) Healthcare Almanac Quick Reference Guide from 2014.\[xvi\]

This response pattern is likely the result of the fact that the project’s practicing pharmacy survey was targeted to pharmacists who work with older adults and this may not be the primary target population of community pharmacists.

The 2014 Reference Guide shows the following distribution of California pharmacists for 2010:

![Figure 1: Pharmacy Practice By Work Setting](image)

When comparing the two charts, the project survey response pattern has a smaller percentage of participants from Retail or Community pharmacies and appears to be on par related to hospitals. While the CHCF Reference Guide for pharmacy practice does not identify a specific category related to outpatient care, as is identified in the Project survey distribution, its Government category may include pharmacists from that category.

The project’s response pattern is over represented in the area of long-term care and home health compared to the CHCF Quick Guide. Overall, these differences can be explained by two factors: the project target audience was pharmacists who care for older adults which would lead to a greater completion rate for this group, and in the last several years, the increasing amount of activity of pharmacy practice in outpatient care settings necessitated surveying this group of pharmacists.
INTERDISCIPLINARY CARE TEAM DISTRIBUTION

Respondents were asked if interdisciplinary care teams were functioning at their practice setting. Overall, 77% of respondents indicated that interdisciplinary care teams functioned at their organization. When digging deeper however, what emerged was the following pattern:

<table>
<thead>
<tr>
<th>Respondent Category</th>
<th>Percent Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overlap – In &amp; Outpatient</td>
<td>100%</td>
</tr>
<tr>
<td>Hospital or Inpatient</td>
<td>88%</td>
</tr>
<tr>
<td>Long-term Care</td>
<td>80%</td>
</tr>
<tr>
<td>Outpatient Setting</td>
<td>76%</td>
</tr>
<tr>
<td>Health Plan</td>
<td>71%</td>
</tr>
<tr>
<td>Other</td>
<td>67%</td>
</tr>
<tr>
<td>Telehealth</td>
<td>63%</td>
</tr>
<tr>
<td>Community Pharmacy</td>
<td>46%</td>
</tr>
</tbody>
</table>

Hospital and similar settings were most likely to have functioning interdisciplinary care teams. These were also seen quite extensively at long-term care facilities as well as outpatient settings. Pharmacists working in community pharmacies were least likely to be part of an interdisciplinary care team. This may result from the fact that many independent pharmacies are not tied into organizations or systems providing care to older adults. What happens at the community pharmacy is the most visible aspect of pharmacy practice and close to what might be considered the point-of-care.

Going forward, it will be essential to determine how to increase the connectivity between community pharmacies and other organizations engaged in care for older adults.

PHYSICIAN/PHARMACIST INTERACTION – WHY CHAMPIONS ARE NEEDED

A very important set of survey questions shed light on the interaction between pharmacists and physicians, and why, especially with the recent designation of pharmacists as healthcare providers, it is critical to identify and work with physician champions from around the state who support pharmacists in their role as healthcare providers.

Physicians are key players on the interdisciplinary care team. They are the most likely resource for patient referrals, and will play a critical role in moving pharmacist payment to an accepted practice. What follows is a breakdown of survey results that address these issues.

- **Interdisciplinary Care Team**
  - Based on the fact that interdisciplinary care teams have been tested and shown to be a best practice bringing about positive change for patient health in organizations, it was critical to support the spread of the teams throughout the care continuum for older adults.xvii
  - In every practice setting, except community pharmacy, the majority of respondents reported the presence of care teams. Only 46% of the community pharmacist respondents reported being part of an interdisciplinary care team. This compared to 76% for medical groups, 100% for the VA, 80% for skilled nursing and 88% for hospitals.
  - The composition of the care team was also reviewed to determine which healthcare providers were most likely to be on the teams. Pharmacists and physicians were most likely to be mentioned in all practice settings as being on a care team, followed by registered nurses (RN) and social workers. There was some variation in participation based on whether the organization was hospital based, long-term care or more outpatient in its focus. The respondents from hospitals and long-term care were more likely to have dieticians and social workers as members of their team as well.
Referral Process
- By far, physicians were the most likely source of referrals to pharmacist survey respondents. For all of the practice settings, physicians were the healthcare provider overwhelmingly responsible for a referral to a pharmacist. This pattern was the same for inpatient, outpatient, long-term care and community pharmacy.
- A patient was more likely to self-refer to Community pharmacists than in other settings.

Scope of Practice
- Survey respondents were asked whether they had the authority to initiate drug therapy changes or whether they were required to make recommendations to physicians, and with physician approval, initiate the change.
  - For all practice settings except community pharmacy, respondents were split on this question. In inpatient, outpatient and long-term care settings, pharmacists were as likely to be able to make modifications as they were to need physician approval.
  - For community pharmacists, the overwhelming response was that they could only make drug therapy recommendations to physicians and could not initiate changes without physician approval.
  - Moving forward, this may be an area to explore more fully as to the rationale for these practices.

Types of Services Provided
- Respondents were asked to identify the types of pharmacy services they provide. The following figure represents priority services provided.

Figure 2: Types of Services Provided
When we break this down further within practice settings, we see the following pattern:

- Assisted living does little in the way of medication therapy management.
- Pharmacists involved in all major practice settings engage in comprehensive medication review and resolution of medication related problems.
- Hospitals and IPAs are more likely to provide pharmacy consultations for team members, followed by hospital based clinics, the VA, health plans, staff model medical groups, skilled nursing facilities and community pharmacy.
- Community pharmacy is more likely to provide preventive services than the other settings.
- Hospitals, the VA, medical groups, both staff model and independent practice associations (IPA), engage more in modification of medication therapy care plans.
- Lab tests are more likely to be ordered by pharmacists at hospitals, the VA, and IPA medical groups.
- Patient education is more likely to be provided by pharmacists at the VA, hospitals, and medical groups.
- Follow-up care is more likely to be provided by the VA, in hospital clinics and IPAs, but not by hospitals on the inpatient side.

**Payment for Services –**

- Responses to the question about payment for pharmacy services show some movement in the area of pharmacist payment beyond a salaried position. Salaried pharmacists were more likely to be found in large institutions.
  - Community pharmacists are beginning to experience reimbursement as part of demonstration projects with health plans and other payors, including some ACOs, where payment is based on improvements made and benchmarks attained.
  - A number of respondents chose the “Other” category to describe their reimbursement. When reviewing their description of “Other”, it meant that they were not being reimbursed at this time and providing additional pharmacy services at no cost to the larger institution requesting the services.
- This is a critical area to watch. Since SB 493 does not require payment for pharmacy services, pharmacists will need to demonstrate and document that their involvement in patient care, including medication and disease state management, has lead to definite improvements in patient health, making the link between payment and improvement.

**COMMUNICATING THE VALUE PROPOSITION FOR PHARMACY PRACTICE**

When asked, pharmacist survey respondents had a difficult time clearly and concisely describing the benefit they brought to their organization in strengthening patient care, health outcomes and reducing cost of care. If this cannot be clearly articulated, it will be difficult to move the bar for pharmacists in terms of provider status, recognition and payment for pharmacy services. It is recommended that as the project moves forward, training and tools be developed to assist pharmacists in this effort.
**IMPROVEMENTS IN HEALTH OUTCOMES**

Respondents were asked to designate areas where they had been able to identify and document improvements in care for older adult patients. Below is a chart that summarizes those changes.

![Figure 3: Documented Improvement in Health Outcomes](image)

- The top three identified improvements at over 50% were seen in increased patient safety, improvement in appropriate medication prescribing and patient satisfaction.
  - These three improvement areas were followed closely by increased medication adherence and increased satisfaction among the members of the care team.
- When asked to identify the factors that were felt to lead to these improvements, the following factors were highlighted:
  - The uniform involvement of the interdisciplinary care team members – teamwork!
  - Support for care coordination, allowing team members to support the patient.
  - Putting plans together by the team to address improvement opportunities.
  - Regular communication with the patient’s physician so he or she is in the loop on the improvement plan and progress.
  - Accept that right now, payors aren’t paying for patient education. It needs to be done, so we have accepted the lack of payment and still provide this critical service.
  - Paying attention to medication management issues.
  - Support from our organization’s leadership.
- As the project moves forward, it would be worthwhile to identify successful interdisciplinary care teams and engage them in a discussion about their successful improvement processes.
WORKING WITH DIVERSE COMMUNITIES

As the aging population continues to become more ethnically diverse, it will be essential to identify provider organizations and practitioners that have demonstrated success in working with diverse communities.

- Respondents were asked to identify what methods their organization had employed to help them overcome cultural barriers.
- The tactics chosen by the organizations fell into the following categories:
  - Language assistance when necessary.
  - Diversify the organization’s workforce.
  - Conduct ongoing staff training.
  - Leadership attentive to this need and providing support.
- Individual practitioners shared more personalized strategies to strengthen their relationship with patients and family members from more diverse populations:
  - Build rapport and trust with the patient, family members and caregivers.
  - Use interpreter services when needed.
  - Be respectful of the patient’s beliefs, values, naming of the illness, etc.
  - Find common ground.
  - Be aware of my own biases.
  - Be aware of health disparities and discrimination affecting minority populations.
  - Know about and understand different cultures and their health beliefs and practices.

Moving ahead, it would be worth exploring how to engage individuals and organizations who have had success in working with diverse communities of older adults to learn more about their approaches and develop opportunities to share their learning’s and resources.

PHARMACY SCHOOL SURVEY FINDINGS

All of California’s eight Schools of Pharmacy were surveyed with all schools participating in the survey. What follows is a summary and highlights of their survey responses.

In the area of Pharmacy School curriculum regarding geriatric training and exposure to cultural diversity, the survey addressed the following issues, including the availability of –

- Geriatric Didactic Coursework
- Coursework related to Cultural Diversity and Health Literacy
- Introductory & Advanced Practice Pharmacy Experiences (IPPE & APPE) in Geriatrics
- Extra Curricular Activities in Geriatrics
- Inter-Professional Teaching & Learning Opportunities
- Qualified & Trained Geriatric Faculty

GERIATRIC DIDACTIC COURSEWORK

All schools offer Geriatric Pharmacotherapy coursework. More schools are inclined to integrate this content into other therapeutic courses rather than make this a stand-alone offering. When respondents were asked the rationale for incorporating geriatric materials into other therapeutics courses, several responses were provided:
The following topics were most likely to be included in the Geriatric Didactic Coursework:

- Medicare Part D
- Diversity of the Aging Population and Culturally Responsive Pharmacy Care
- Specific Diseases in Geriatrics
- Geriatric Pharmacotherapy
- Geriatric Syndromes
- Physiology of Aging
- Sociology of Aging
- Psychology of Aging

Other Topics included elder abuse, aging networks, family issues, geriatric health policy and demographics. What was not included in the topics and content of the coursework were aspects of interdisciplinary team based care, health prevention and health promotion for older adults and the “business” of pharmacy practice with older adults.

**CULTURAL DIVERSITY & HEALTH LITERACY COURSEWORK**

The majority of respondents, 77%, indicated that they did not offer stand-alone coursework addressing cultural diversity or health literacy. These concepts were integrated into other courses. The rationale for this approach was driven by both practical and philosophical considerations.

- Several respondents indicated that it was difficult to find space in an already tight curriculum as well as finding qualified faculty to teach the courses.
- Others stated that they felt that it was better to incorporate these concepts into other courses so students would have many opportunities to be exposed to the concepts, seeing how cultural diversity and health literacy were linked to other important health and healthcare issues.

The Cultural Diversity and Health Literacy courses available are both required and elective, depending on the pharmacy school.

**Table 7: Cultural Diversity & Health Literacy Course Content**

<table>
<thead>
<tr>
<th>Cultural Diversity</th>
<th>Health Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background on various cultures in the US</td>
<td>Assuring that tools/resources are easy to use</td>
</tr>
<tr>
<td>Who the health decision maker is in the family</td>
<td>Becoming aware of biases/assumptions</td>
</tr>
<tr>
<td>Health beliefs of the various cultures in the US</td>
<td>Accessing information appropriate for level of understanding</td>
</tr>
<tr>
<td>Beliefs of the various cultures in the US regarding medicines and other types of herbal and traditional remedies</td>
<td>Speaking clearly and listening carefully</td>
</tr>
</tbody>
</table>

Education, individually or in a group, in partnership with educators who understand the patient and family’s culture and how this influences their health decision making.
Coursework also addressed overcoming cultural barriers. Content addressing this subject area included:

- Exploring and becoming respectful of patient beliefs, values, meaning of illness, preferences and needs.
- Building rapport and trust.
- Finding common ground.
- Becoming aware of own biases and assumptions.
- Becoming knowledgeable about different cultures.
- Becoming aware of health disparities and discrimination affecting minorities.
- Using interpreter services when needed.
- Understanding the role of a pharmacist.

**IPPE & APPE GERIATRIC ROTATIONS**

Introductory and Advanced Pharmacy Practice Experience rotations are offered at all the Schools of Pharmacy. However, several of the schools do not have a specific geriatric APPE rotation or require an IPPE rotation. For those schools without a required IPPE rotation, students may request an IPPE geriatric rotation. However, respondents indicated that the sites might not always be available when a request is made. Respondents also indicated that while geriatric APPE rotations are not always available, there is a substantial geriatric population at the AAPE Rotation sites.

The purpose of these rotations is to offer more hands on learning experience to pharmacy students. Rotations are set at participating healthcare organizations. Organizations listed as participating for both IPPE and APPE rotations included:

<table>
<thead>
<tr>
<th>Hospitals</th>
<th>Ambulatory Care Clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled Nursing Facilities</td>
<td>Board &amp; Care Homes</td>
</tr>
<tr>
<td>Assisted Living Facilities</td>
<td>PACE Clinics</td>
</tr>
<tr>
<td>Community Pharmacies and Senior Housing Communities</td>
<td></td>
</tr>
</tbody>
</table>

What has been covered on these rotations in the past has included:

- How to perform a comprehensive medication review.
- Identification and resolution of medication related problems.
- MTM for Part D Patients and non Part D Patients.
- Preventative Health Services such as immunizations and health screenings.
- Drug information consultations for healthcare team members.
- Follow-up care for patients as needed.
- Education and counseling to patients about self-care to improve their health condition.

**GERIATRIC EXTRA CURRICULAR PHARMACY ACTIVITIES**

Roughly two-thirds of the respondents indicated that extra curricular pharmacy activities specializing in geriatrics were available at their school. Settings used for extra curricular activities include:

<table>
<thead>
<tr>
<th>Table 8: IPPE &amp; APPE Geriatric Rotation Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing Care Retirement Community (CCRC)</td>
</tr>
<tr>
<td>Senior Wellness Centers</td>
</tr>
<tr>
<td>Assisted Living</td>
</tr>
<tr>
<td>Home Care</td>
</tr>
<tr>
<td>Student Run Free Clinics</td>
</tr>
</tbody>
</table>

Sites selected for these activities are more likely to reflect more infirmed, less active older adults.
Extra Curricular Pharmacy Practice activities address a number of health and geriatric issues:

**Figure 4: Primary Health Care Issues Addressed In Extra Curricular Pharmacy Practice Activities**

- Polypharmacy
- Fall prevention
- Diabetes
- Cardiovascular Disease
- Medication therapy management
- Smoking cessation
- Depression
- Dementia
- Lungs
- Other

Additional health and aging issues addressed include Urinary Incontinence, Musculoskeletal Disorders, Cancers, Urinary Tract Infections, Parkinson’s Disease, Anxiety Disorders, Oral and Dental Health, Pneumonia and Vision. What was not included in the Extra Curricular activities was exposure to elements of multicultural healthcare. Several of the respondents shared concerns about their IPPE and APPE rotations and extra curricular pharmacy activities, stating that more sites were needed to meet student training needs for these as well as the multidisciplinary teaching and learning opportunities.

**INTER-PROFESSIONAL LEARNING OPPORTUNITIES**

Respondents reported their schools offer students participation in Inter-Professional activities that are made available all four years with more participation in the student’s first and third year. Available settings for this focused on the more infirmed older adult, leaving out settings such as medical groups, ACOs or clinics where students would see older adults as part of a broader healthcare practice and community. Also missing from this training was a component addressing care transitions, which is critical for this population.

**Figure 5: Healthcare Professionals that Comprise Inter-Professional Teams**
Participation on an Inter-Professional Team allows the pharmacy student to experience first hand multidisciplinary team based care for older adults during their training, providing the opportunity for this experience to be foundational for the student and his or her belief in the value that healthcare is based on shared responsibility.

QUALIFICATIONS/TRAINING OF GERIATRIC FACULTY & ADDITIONAL GERATRIC TRAINING
70% of respondents stated their institution offers a Certificate or concentration in geriatrics with 20% offering a Post Graduate Year (PGY) – 1 Residency in geriatrics. And, 92% of faculty who teach geriatrics has geriatric experience, which strengthens what is taught.

HOW DOES CURRICULUM MEASURE UP TO SB493 & THE BUSINESS OF PHARMACY
At the conclusion of the Pharmacy School survey, respondents were asked if they felt adding or enhancing what was offered to students at their school regarding geriatric education would be sufficient to meet what is to become Advanced Practice Pharmacy, as was designated in SB493.

Respondents stated that they felt geriatric training would fit well with Advanced Practice Pharmacy and that having this training would be very helpful for upcoming students. However, at no time did the concept of the business of pharmacy, or the concept of linking quality improvement with payment or incorporating outpatient services, or effective management of care transitions in geriatric training come up.

As has been learned the hard way in organized medicine, simply learning how to practice medicine without knowing how to practice the business of medicine can sink the ship. As schools consider ways to strengthen geriatric care, let’s encourage them to include the business of geriatric pharmacy practice as part of that enhancement.

PHARMACY STUDENTS SURVEY FINDINGS
Students from all Schools of Pharmacy participated in the survey. What follows highlights the student’s responses to the survey questions.

154 students initiated the survey, with 71 surveys completed, for a 46% completion rate. 40% of respondents were 1st year, 20% were 2nd year, 22% were 3rd year and 18% were 4th year students.

The Pharmacy Student survey addressed student -
  o Perceptions of and interest in working with older adults.
  o Perceived value of Geriatric Coursework Training.
  o Opportunity for students to engage in real life experience working with older adults in multidisciplinary care teams, identifying the span of these opportunities.

PERCEPTIONS OF OLDER ADULTS
Students were asked to share their perceptions about older adults on a broad array of factors. The following charts showcase those results. Results are reported using the number of student responses for each question, not the percent of responses.
Overall, these students, who have a strong interest in geriatric pharmacy care and aging, have positive perceptions of older adults and express a strong commitment that government resources should be dedicated to provide care and support to this population.
Students feel older adults continue to be contributing members to society as they age, but do believe that they become less organized and move confused as aging continues. While memory disorders are more prevalent in older adults, it is cautionary that students seem to feel so strongly about this.

**Figure 8: Pharmacy Students Perception of Older Adults (3 of 3)**

In these final factors, students had a very positive outlook on the capacity of older adults to get along in society and continue to contribute to the greater good.

**GERIATRIC COURSEWORK VALUE**

15% of student respondents report having taken a stand-alone didactic geriatric course at their school. In this group, only 58% felt the course offered sufficient background in geriatrics. To provide a more complete background in geriatrics, respondents felt the course should:

- Place more emphasis on geriatric diseases and treatments.
- Provide more instruction regarding acute management of geriatric conditions, such as hospice care and pain management.
- Incorporate a rotation in geriatrics in the course.
- Incorporate Beer’s criteria in lectures.

What students felt was of greatest value about the course was:

- Learning about treatments and what can be used and not used.
- Learning about the treatment approach with the geriatric population and how it varies from the younger population.
- Knowing what medications to avoid and why these should not be used.
- Learning how to treat geriatric patients relative to the normal adult population.
- Understanding the social needs the elderly face as well as their physiological response to medications.
- Medicare Part D.
- Physiological changes associated with aging that can alter therapy.
Learning how to interact with and care for the elderly population.

What this population is facing in their life; what they struggle with in old age and how important the pharmacist’s role is in helping them.

EXPERIENTIAL LEARNING OPPORTUNITIES
78% of student survey respondents report having participated in a number of hands on training and education opportunities in geriatric care. These included extra curricular activities and rotations. All of these students believe participating in these activities will improve the delivery and quality of care.

These offerings were structured as Inter-Professional Activities where students had the opportunity to work with other healthcare professionals in the care for older adults. The settings for these activities were primarily skilled nursing facilities, CCRCs, assisted living types of facilities and community based senior care programs. Healthcare professionals students worked with included other Pharmacists, Physicians, PAs, Occupational and Physical Therapists, Social Workers, Nurses and Dieticians. A small group also worked with Mental Health Practitioners.

While the students were offered the opportunity for hands on, community based experiences, what seems to be missing from the approach at the Schools of Pharmacy is focusing on the total care continuum for older adults. The sites, once again, focused on the more infirmed older adults. Our population is living longer and staying healthier for a longer time frame. The geriatric training at the Schools of Pharmacy seems to miss that key aspect of the aging process, as well as the critical importance of care transitions for older adults and the role pharmacists can play, and do play in helping older adults stay out of the hospital, keep well, and as well as play a role in patient and consumer education, prevention and health promotion.

Offering students the opportunity to participate in those types of activities in community pharmacies, medical groups, clinics and other outpatient settings along with exposure to multicultural health settings, would provide a more complete exposure for students in geriatric care.

META-ANALYSES REVIEW
At the completion of the analysis of the project surveys, it was clear that a broader role for pharmacists in patient care was of great value, in terms of:

- Patient benefit.
- Substantiation of the healthcare provider designation resulting from SB493.
- Providing the anchor and justification for payment for patient care.
- Setting the parameters for the training needed to support this work.

Staff and consultants reviewed the meta-analyses compiled by the University of Arizona College of Pharmacy focusing on the effect of pharmacists as team members when delivering patient care. The intent of the review was to identify best practices in pharmacy care that stood the test of evaluation. The meta-analyses were selected for review given the depth and breadth of their analysis.

RESULTS SUMMARY
The meta-analyses included 298 studies, the majority of which were conducted in outpatient settings. The review of these studies focused on team based direct patient care that included pharmacist participation beyond dispensing of medication, including both medication and disease management.

The overall objective of the of the meta-analyses was to conduct a comprehensive review of evidence examining the effects of pharmacists’ direct patient care interventions and services on:

- Therapeutic
- Safety, and
- Humanistic Health outcomes in the US
The most frequently reported pharmacist direct patient care interventions and services included:

- Making or recommending medication adjustments.
- Patient Education addressing medication understanding.
- Patient education addressing disease understanding.
- Prospective or retrospective drug utilization review.
- Chronic disease management.

The intent of the meta-analyses was to identify what it would take to move beyond what the IOM characterizes as usual care to best practice in patient care that involved pharmacist practice and intervention with the goals of achieving desired therapeutic outcomes and reducing adverse health events.\textsuperscript{xix}

Over 90% of the studies included adults age 18 to 65 years of age and adults older than 65 years of age. Of the disease states reviewed in the studies, those most frequently reported were: hypertension, dyslipidemia, diabetes, anticoagulation, asthma/chronic obstructive pulmonary disease, infection and psychiatric conditions.

**Therapeutic Outcomes Analysis**

Of the studies reporting therapeutic outcomes, favorable results were found, meaning that significant improvement occurred as a result of the pharmacist’s direct patient care intervention when compared to more traditional or conventional forms of patient care. The following disease states were selected to undergo a meta-analyses where it was found that pharmacists’ intervention and services significantly improved outcomes\textsuperscript{x}:  

- Hemoglobin A1c
- Low Density Lipoprotein (LDL) Cholesterol
- Blood Pressure

Results of this meta-analyses provides substantiation that pharmacist involvement in team-based care and direct patient care can lead to significant improvement and health outcomes.

**Safety Outcomes Analysis**

Favorable results were found in the majority of studies reporting adverse drug reactions and medication errors where pharmacists were members of the care team compared to studies where the pharmacist did not play a role on this care team.

This analysis focused on issues such as:

- Adverse Drug Events
- Adverse Drug Reactions
- Medication Errors
- Appropriate Medication Dosing

Once again, the meta-analyses showed that pharmacist involvement in medication therapy management where pharmacists are part of a care team is a demonstrated best practice.

**Humanistic Outcomes Analysis**

Humanistic Outcomes is the term used in the meta-analyses to refer to more patient centric behaviors, such as:

- Patient Adherence
- Patient Knowledge (about disease state and medication use)
- Patient Satisfaction
- Quality of Life
These are the indicators with the most difficulty in seeing significant change. Six humanistic outcomes were selected for meta-analyses evaluation: medication adherence, patient satisfaction, patient knowledge, general health, physical functioning and mental health.

Medication adherence, patient knowledge and general health showed statistically significant changes with pharmacist intervention, while the other factors did not, indicating that pharmacist involvement in Humanistic Outcome areas could lead to significant positive change.

While medication dispensing is likely the most well known role of a pharmacist and remains a key aspect of pharmacist functionality, the results of these meta-analyses demonstrate the positive effects of pharmacist-provided direct patient care on a number of health outcomes that extend beyond medication distribution. Pharmacist-provided care can be a cost-effective alternative to traditional care approaches.\textsuperscript{xxi}

Based on the results of the meta-analyses, it would be advantageous to establish a process to identify best practice examples of this type of work involving pharmacist practice in California and in the US.
DISCUSSION

The US population will continue to age, requiring a healthcare system that can effectively address the needs of this population as they age and move from preventive services and health promotion to palliative care. Pharmacists have the knowledge and skills to play a critical role in helping older adults manage their health and help organizations lower their overall cost of care for their aging patients.

Life span is growing and so is the functional capacity of a large segment of older adults. Successful partnership in preserving health and quality of life will require the healthcare community to see older adults in their full breadth and, not simply as shrinking, tottering, forgetful individuals with little left to offer.

This population will also continue to grow in its racial and ethnic diversity, requiring the healthcare community to have a stronger understanding of how to work in partnership with these patients and their families. Pharmacy schools have the opportunity to strengthen this aspect of their training, by working in concert with multicultural organizations and identifying opportunities for their students to observe and experience successful patient education and development of trusting relationships. The pharmacy professional should also take the opportunity to identify short and long-term approaches to broaden its workforce diversity to better match that of our aging population.

With the passage of SB493, for the first time, pharmacists have a real opportunity to receive payment for their services after finally being acknowledged as healthcare providers in California. Payment approaches have changed over the years with the care of older adults now anchored in the era of managed care and health care cost containment. It will be even more critical for pharmacists to work in partnership with other healthcare professionals, especially physicians to ensure payment occurs for quality pharmacy care provided to older adults.

Pharmacists have not always told their story well, including the—

- Depth and breadth of their training.
- Impact they make in patient and community health.
- Leadership pharmacists provide in medication management and safety, especially important in the aging population with its increased prevalence of chronic disease.
- Healthcare and medication access pharmacists and pharmacies provide, particularly in rural areas.
- Role in primary care many pharmacists play.
- Broad array of roles pharmacists play in our healthcare system.
- Value pharmacists can bring to the healthcare system in improving health, strengthening healthcare and reducing the total cost of care for older adults.

With the opportunity provided through the passage of SB493 to address pharmacy payment, the interaction between pharmacists and physicians is even more critical. Physicians are the key players on the interdisciplinary care team. They are the most likely resource for patient referrals to pharmacists and will play a critical role in moving pharmacist payment to an accepted practice. It is therefore essential to identify and work with physician champions from around the state who support pharmacists in their role as healthcare providers.
RECOMMENDATIONS FOR ACTION

What follows are a set of recommended next steps for the project. These action items are structured to run the gamut of 2015, funding and support permitting.

Multicultural Webinar Series

1) Working in partnership with Pharmacy School’s Multicultural Aging Program faculty, state and national experts and Project Expert Panel members, design a curriculum for practicing pharmacists, pharmacy staff and members of Interdisciplinary Care Teams addressing: communication approaches, health decision making, health beliefs among various cultures, cultural beliefs about medicines and other types of remedies, successful approaches in building trust, the influence of culture in health decision making and how pharmacists are viewed in different cultures.

2) Address how efforts to strengthen multicultural patient communication can impact patient workflow and how this can be addressed, identifying best practices where possible.

3) Identify partner organizations to share their materials and experiences on this issue.

4) Conduct a webinar series that includes pharmacist faculty who have had success in their workplaces with a diverse group of aging patients and their families.

5) Present both a summary of possible approaches and examples of how pharmacists and their teams have addressed multicultural communication and health literacy with diverse older adults.

Resource Materials

1) Work with partner organizations to compile an Aging Multicultural Communication Resource Guide for pharmacists and pharmacy staff.

2) Involve Schools of Pharmacy, pharmacy students and culturally diverse patient/community-based organizations in the development of this resource.

Best Practices Inventory

1) Building on the University of Arizona Meta-Analyses, identify organizations in California and nationally that have demonstrated success through their Pharmacy Practice Interdisciplinary Care Team in breaking down practice silos and bringing about positive change in health outcomes for older patients with a primary focus on outpatient care.

2) Develop a monograph showcasing the best practices and partnership between team members and patients.

3) Identify other provider organizations to possibly cosponsor the monograph.

Professional Education Programming

4) Implement professional education programming highlighting the challenges and successful approaches of these organizations.
   a. Identify provider organizations where this workshop could be presented.
   b. Conduct the workshop at the CSHP Seminar 2015 Conference.
Physician Champion Inventory

1) Build an ethnically diverse group of champions in California who see value in their relationship with pharmacists in strengthening healthcare for older adults.

2) Identify pharmacists across the care continuum and modes of practice who have positive working relationships with physicians in the care for their patients.

3) Solidify a group of physicians and pharmacists willing to be interviewed to share their stories about the power of partnership in strengthening the health and healthcare for older adults.

Media Methods to Tell This Story

1) Develop a monograph showcasing the best practices and partnership between team members and patients.

2) Identify other provider organizations to possibly cosponsor the monograph.

3) Set up a process to distribute the monograph and showcase the stories included in the document with key audiences.

4) Explore the possibility of developing a YouTube video highlighting one of these partnerships in order to bring the story to life.
   a. Include the voice of the patient in the video.

Payment Reform Inventory, Including Aging Focus

1) Identify healthcare organizations in California that have started down the path to pay pharmacists for the quality of care provided.

2) Select a representative group and Interview organizational leadership to determine how their payment is structured, paying particular attention to those organizations addressing aging and geriatric care.

3) Learn how the organizations use data to evaluate impact of pharmacist practice on healthcare delivery, health outcomes and healthcare costs for older adults.

4) Discuss the motivation and challenges in their process.

5) With organizational leadership, identify the key policy issues that need to be addressed in order for there to be movement in the area of pharmacy payment for practice, with a primary focus on payment for care of older adults.

6) Identify the recommendations these organizations would give to pharmacists and pharmacist organizations about the value they bring to strengthening patient care and containing cost.
   a. Develop this into Value Proposition Talking Points for pharmacists.

7) Bring together leadership of the pharmacist organizations in California involved in aging and geriatric care and their key partner organizations to develop a policy brief addressing the issue of payment for pharmacy practice for older adults that leads to improved healthcare delivery, improved health and contained cost.
**Pharmacy Student Community Leadership Grant Program**

1) Reach out to Pharmacy School leadership to determine if there would be interest in supporting a program where students at the schools received grants in amounts ranging from $1000 to $2000 to conduct a community based Experiential Learning Activity focusing on aging.

   a. With faculty support, students would develop a proposal outlining the intent of their project to address an aging issue that relates to pharmacy practice.
      
      i. Higher level funding would be provided for activities addressing some aspect of multicultural health and disparities reduction.

   b. A timeline, objectives, action steps and budget would be developed and submitted to the CSHP Foundation for review.

   c. If approved, one half of the funds would be sent to the School. Students would submit at least one progress report, depending on the timeframe for their project, making course corrections if stated by the CSHP Foundation.

   d. A final report would be submitted at the close of the grant. Final funding would be sent to the school if all grant parameters were met.

2) Successful grants would be featured in the CSHP Foundation, CSHP and partner Newsletters and could be presented at the upcoming Seminar conference.

**Multicultural Pipeline Baseline of Activity**

1) The proposed Action Item is intended in 2015 to be a data and information gathering activity, with time set aside to meet and build relationships with organizations in California leading healthcare workforce pipeline issues.

   a. Key among these is the Statewide Office of Health Planning and Development (OSHPD).

   b. Because pharmacists in the past were not designated as healthcare providers, OSHPD is likely not aware of issues surrounding the pharmacy profession and its pipeline issues.

   c. The goal of this initial work would be to establish a relationship with OSHPD and other key organizations, such as the California Healthcare Foundation to explore ways to increase the racial and ethnic diversity of California’s pharmacy students and practitioners.
ENDNOTES

1 Department of Pharmacy Practice and Science, the University of Arizona College of Pharmacy, entitled, US Pharmacists’ Effect as Team Members on Patient Care – Systematic Review and Meta-Analyses.

ii FACTS & FICTIONS ABOUT AN AGING AMERICA. Developed by the Macarthur Foundation Research Network on an Aging Society. Fall 2009.


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xi Pharmacists as Vital Members of Accountable Care Organizations

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