



# **Establishing a Framework for a Physician Assistant Research Agenda**

A Summary of the March 2010 Research Summit

Adrienne Wyatt and  
Christal Ramos, *Rapporteurs*

AMERICAN ACADEMY OF PHYSICIAN ASSISTANTS  
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On March 4-5, 2010, the American Academy of Physician Assistants sponsored a two-day PA Research Summit to begin the process of developing a framework for PA-related research. The summit brought together practicing PAs; representatives from the PA academic and regulatory communities; PAs engaged in research; health services researchers; health economists; and thought-leaders from federal agencies, industry, think tanks and private foundations with a demonstrated commitment to health care delivery and health policy research. This publication summarizes the presentations and discussions that occurred at the summit and offers next steps based on discussion priorities.

### **Introduction**

In its forty-fifth year, the PA profession is maturing and seeks to solidify and forward a comprehensive research agenda about the profession and the profession's impact on health outcomes. Throughout the profession's growth, there lacked overarching, strategic research goals. Further, research needs have historically never been clearly defined. Therefore, PA-related research has been conducted unsystematically, generally producing more breadth than depth. In addition, very few existing research studies are generalizable; most have small sample sizes or use highly context-specific variables.

Because the PA profession is an established and well-accepted profession, it is necessary to reassess its current research and data-gathering methodology. By ensuring that accurate, usable and useful research information is collected and available, the PA profession further solidifies its place in modern health care. Therefore, the Research Summit had three specific aims. The first objective was to identify and reach consensus on key questions regarding the PA profession upon which a framework for a research agenda will be built. The second objective was to identify and reach consensus on core strategic, specific, measurable, achievable, realistic and time-specific goals for a research agenda. The third objective was to identify and reach consensus on individual and institutional stakeholders, within the PA community and beyond, that have a strong interest in and motivation for advancing and supporting a research agenda for the profession.

### **Research Overview and Assessment**

The summit consisted of presentations, discussions and small group work. To foster an environment for creative and critical thinking, the summit's format was designed around open dialog and audience interaction with presenters. Because the participants have many different backgrounds and levels of knowledge on PA research, the first day of the summit was devoted to familiarizing participants with PA research and with the health care research landscape overall.

The summit began with an overview of PA research outlined in a literature review of PA-related research from 2000-present. This overview was provided by Janet Pagan-Sutton, PhD, of Social & Scientific Systems, Inc. The literature was collected through targeted keyword database searches using the terms "physician assistant," "physician extender," "non-physician provider," "non-physician practitioner," "mid-level provider"

and “mid-level practitioner.” The review was not designed to be comprehensive but to be a close representation of the available literature. The articles found were then grouped into topic-specific categories based on the main research focus of each.

The literature review revealed a wealth of information about PAs and the profession, yet it also underscored current research gaps. PAs have been studied in many different categories, including PA supply, trends of PAs, workforce adequacies, PAs in various practice settings and PA practice patterns. Most of the literature was descriptive in nature and studied the composition and practice patterns of the PA population. Although the literature review only spanned a ten-year period, some of the articles used data that was much older than that ten-year timeframe.

After the participants were briefed on current PA research literature, a number of prominent leaders within health care and research discussed key issues in health care today and where PAs fit. The keynote speaker, Carolyn Clancy, MD, of the U.S. Department of Health and Human Services, spoke about the Agency for Healthcare Research and Quality’s patient-oriented outcomes research and the need for health care providers to translate research findings into better quality care for patients. Most of this research is conducted through practice-based research networks. Dr. Clancy noted that most of these PBRNs are physician-led; but she strongly urged PAs to take the opportunity to get involved with PBRNs, mechanisms which offer PAs an effective means to participate in research. Further, PBRNs are instrumental in helping research become translated into practice. According to Dr. Clancy, it is important “to bring the research and the research findings closer to the delivery of care.” She also highlighted the need to standardize terms regarding concepts of care delivery. This standardization will make any research collection and sharing more effective and efficient. She also discussed the need to have a more systematic capture of information on how care is delivered.

Mark McClellan, MD, PhD, of the Brookings Institution, presented various economic and policy factors that influence quality and cost of care. Dr. McClellan is the former Commissioner of the U.S. Food and Drug Administration and former Administrator of the Center for Medicare and Medicaid Services. He asserted that it is important to be aware of policy when thinking about research since research ultimately should lead to practical implementation. According to Dr. McClellan, good policy is developed when health care leaders and practitioners share information about what works and does not work in actual practice. He also stressed the need for analyzing health care in the context of reform. Dr. McClellan underscored the importance of taking steps to drive our health care system to focus on value in terms of quality of care. He emphasized that PAs can shape a research agenda that makes quality an important research topic. This research would be timely in influencing policy debates about health care reform implementation over the next few years. Further, research can assist in developing policy for changes in reimbursement and for supporting training programs. Ultimately, comparative effectiveness research can provide guidance on how to make policies more effective for health care.

After these presentations, a panel of researchers and health care experts discussed what they envision for PA research. Moderated by Mary Woolley, of Research!America, the panel speakers presented ideas and questions to spur thought and discussion. Kenneth Moritsugu, MD, MPH, FACPM, of Johnson & Johnson, maintained that in addition to the profession's focus on workforce research, other research disciplines should be explored including clinical, educational and economic research. Jeffrey Lemieux, of America's Health Insurance Plans Center for Policy and Research, felt it would be critical to research strategies for effective medication management for the elderly. Additionally, he felt that researchers should focus on ways of improving reimbursement. Perri Morgan, PhD, PA-C, with the Duke University Physician Assistants Program, stated that the profession needs an agenda to improve information on PAs from national data sources; government data is currently heavily physician-focused. She also asserted that there are methodological issues with past studies and any future research should begin with better methods.

Panel member Melinda Abrams, of The Commonwealth Fund, stated that in order to strengthen primary care, research should expand beyond a PA focus to concentrate on studying teams and infrastructures within practices that follow the primary care medical home model. Further, she wanted to explore which changes in care delivery are associated with lower costs. Finally, Fitzhugh Mullan, MD, of The George Washington University School of Public Health and the School of Medicine, wished to analyze workforce issues and practitioner shortages. He asserted that physician shortages can be offset by a better-integrated workforce and by incorporating more PAs into practices and hospitals.

At the end of the day, participants had the opportunity to reflect in groups on themes they had heard from the speakers and panelists. They then submitted worksheets to the summit moderators listing the recurring and most important themes. Summit moderators were John and Sheryl Paul, of Association Works, and are consultants with expertise in organizational strategic planning.

The second day focused on work from the prior day's main themes as summarized by the moderators. Participants were divided into small groups based on their background and expertise to further examine the five main themes that emerged from presentations and discussions on day one – the value of PAs, the PA workforce, PA data, the role of PAs in a changing health delivery system, and PA education and training continuum. With guided prompts, participants identified the most important areas or research questions within each theme. The groups then ranked each question by order of importance and provided their reasoning and ways to analyze or address the question. The small groups shared their findings with the entire group and discussed priorities surrounding their respective themes.

## Discussion Outcomes and Research Needs

The ultimate result of the Research Summit serves as a framework for a PA research agenda. The work that came out of the summit highlights compelling research needs. Below, the work collected from the summit is organized by the themes that emerged from the presentations and discussions on day one of the summit, and within these themes, the questions or needs requiring research are listed in order of importance as delineated at the summit.

### The Value of PAs

1. *How do PAs contribute to the delivery of cost-effective care?*

The cost component refers to efficiency, and the effectiveness component refers to quality. Participants prioritized this question because it is important to understand whether employing PAs will save money while ensuring quality care. The ability to demonstrate the use of PAs as a cost-effective model of care will increase opportunities for PAs in various settings.

2. *What is the impact of PAs on patient safety?*

This question is critical because ten years after the release of the Institute of Medicine's report entitled "To Err is Human," little measurable progress has been made to increase patient safety. Additionally, because patient safety is a priority for patients, hospitals and society overall, it is important to measure the impact that PAs have and the role they play.

3. *What is the impact of PAs on access to care?*

Participants believed the main goal of a compassionate, rational health care system should be to ensure timely access to appropriate care. Research is needed on how PAs can improve access to care and help offset physician shortages.

4. *What is the impact of PAs beyond direct patient care?*

As the PA profession matures, there is a need to look at the evolution of the PA role as well as the natural life-cycle of the PA. The roles PAs play in areas outside of direct patient care have yet to be studied and widely recognized, for example in areas such as public health, health care leadership and health education.

5. *What is the impact of PAs on patient satisfaction?*

According to participants, there are several reasons why this question is important. First, patients drive the health care system. Second, patient advocacy groups are important influencers within health care. Additionally, employers care about patient satisfaction. And, finally, patient satisfaction may impact patient treatment compliance.

## **The PA Workforce**

1. *What is the current composition and productivity of the PA workforce?*  
There are several reasons why this question is important. First, it is necessary to know the baseline from which to make future projections. Also, it is important to know what influences PA workforce composition and productivity. Finally, it is necessary to determine which characteristics of PA workforce composition are important. Participants identified several existing databases from which researchers can collect information regarding this question. These data sets include those from the National Commission on Certification of Physician Assistants recertification lists, licensure applicants, AAPA census and data from the Physician Assistant Education Association.
2. *Is there a shortage of PAs and, if so, where?*  
The answer to this question is important in order to project future needs and to address assumptions about shortages in the PA profession.
3. *How prepared is the PA workforce to care for a diverse population?*  
This question is important because as the population grows increasingly more diverse, the PA profession should grow accordingly. Additionally, it is important to understand the extent to which PAs are trained in and exhibit cultural competencies.
4. *What are the trends in adaptability of the PA profession?*  
This question is important because if PAs are adaptable (with regard to practice location and/or specialty), then it suggests flexibility and added value for the profession and society as a whole. Additionally, the answer can influence policy makers and future needs.
5. *What are the factors influencing PA career paths in primary care?*  
Proposed health care reform legislation emphasizes primary care and expanding access to that care. PAs will be critical to meeting these new health care needs. Therefore, this question is important because its answer will help determine how the health care system can influence PA distribution among specialties.

## **PA Data**

1. *How can PAs be better included in national and state database collections? Additionally, there is the need to make the AAPA census more scientifically sound and generalizable.*  
This question/need is important because rich data sets have many potential uses for research. There are currently many improvements needed for several existing data sets. For example the Medical Expenditure Panel Survey collects provider information but the error rate is unknown. The National Ambulatory Survey uses a sampling method that under-represents PAs. Further, the AAPA survey

does not currently use scientific sampling, which would result in more generalizable results.

2. *Improving the ability to integrate PA data with other data sources.*  
A wealth of information is being collected through registries, health information technology, health insurance claims and other data sources with the potential to contribute to PA research. However, data collection procedures should be modified in order to reliably identify PAs as care providers.
3. *Collection of timely, policy-relevant data.*  
Closely related to the second need, this type of collection is important in order to explore the value PAs add to health care and to address timely issues that may arise in health care policy. Examples of policy-relevant data include information about PA roles in medical homes or barriers to PAs serving as preceptors of PA students.
4. *Find alternative sources of data and new data partners.*  
Other rich data sources may exist that could be shared. With new information, there is a potential to explore micro-level data that could show quality, safety and outcomes, along with information on team roles in delivery of care.
5. *Establish a universal way to identify PAs in data collection.*  
Because of varying definitions used to record information on PAs, it is difficult to identify PAs in other data sources. Additionally, PAs may be left out of data sources altogether. For example, if a PA provides a service under Medicare's 'incident-to' provisions, then the claim is billed using the physician's name and National Provider Number only. The PA's work essentially disappears from this claims information. By establishing a standardized identifier, national databases and claims data can provide more accurate information about PAs' roles and duties. It could also be easier to glean information from these databases about how PAs impact patient safety and quality of care.

### **The Role of PAs in the Changing Health Care System**

1. *What do "medical teams" look like today?*  
By examining team compositions, researchers can determine which factors are shared by the most effective teams. Possible data sets to use when analyzing this question can include those from AAPA, the National Commission on Certification of Physician Assistants, the Physician Assistant Education Association, the Accreditation Review Commission on Education for the Physician Assistant, rural Federal Area Health Education Centers and large health care organizations such as Kaiser Permanente and Geisinger. For research of this scale, it is also necessary to explore appropriate avenues for funding.

2. *What are the outcomes of the currently-identified teams?*  
Relying on the data uncovered from the first question, this question is important because it will help health care teams to optimize their value to individual patients and the health care system as a whole.
3. *What are the characteristics and activities of individual members of successful medical teams?*  
It is important to know how each team member contributes in order to maximize the team's effectiveness. Teams to analyze can include primary care teams, emergency department teams, critical care unit teams, hospitalist teams, trauma teams and surgical teams.
4. *What is the changing role of PAs during their careers within a practice, within the profession, within the broader medical structure and within institutions?*  
It is essential to understand current roles in order to project future needs. Also, PA roles and how they change can have implications for PA educational models. Within this question, PA roles should be analyzed by exploring the determinants of "supervision" by a physician over the course of PAs' careers.
5. *What is the future role of PAs in the "medical team"?*  
Answering this question will help support legislative advocacy efforts and the development of educational models. Additionally, by understanding this question, the profession can further examine workforce issues and delineate resource needs.

### **PA Education and Training Continuum**

1. *What is the cost of educating a PA student?*  
The answer to this question will provide a basis for cost-effectiveness research and will support workforce planning.
2. *What is the life-long learning continuum of a PA?*  
There is a need to define minimums for generalist education and to understand how years of experience in clinical practice relate to the amount of training and knowledge that has been gained on the job. Further, it is important to understand how continuing medical education contributes to practice outcomes.
3. *What is the regulatory impact on education programs' abilities to produce quality PAs?*  
Changes in law may affect PA education. For example, the Centers for Medicare and Medicaid Services' coverage and reimbursement policies limit student involvement in patient care and create barriers to adequate training. Further, by understanding how regulation impacts education, the profession will be able to address in a more informed manner how plans for specialty certification and proposed changes to maintenance of certification could be affected.



4. *Do we produce a quality PA and how is quality defined?*

Because this question is broad, there are sub-questions that researchers can address in order to establish a foundation regarding quality. The PA profession, in conjunction with the Physician Assistant Education Association, should examine what PA programs teach and how these programs assess student competencies.

5. *How do programs recruit, develop and retain faculty and preceptors?*

This question is important because successful changes to our nation's health care system will require the continued expansion of the PA profession. Such expansion will require an increase in qualified faculty and preceptors to prepare the next generation of PAs. Additionally, since the PA profession does not have a large faculty pool, there will need to be increased recruitment and retention to meet future demands and to offset faculty "burnout."

### **From Ideas to Action**

The Research Summit highlighted many needs for PA-related research, and participants agreed that developing a framework for a research agenda would be a critical next step. Additionally, most participants agreed that AAPA should provide leadership in the development of an agenda framework and in the implementation of the agenda. A distinction articulated at the summit is that while AAPA should undertake a leadership role in the development of a research framework for the profession, neither AAPA, nor any one organization, would be charged with or expected to financially support and/or conduct all research prioritized in the agenda framework.

In order to fulfill the research needs identified at the summit, it will be essential to develop partnerships and to foster interest in conducting and/or supporting PA-related research by government agencies, industry, policy research organizations and the philanthropic sectors.

Priorities for action emanating from the Research Summit include:

- AAPA will establish a Research Steering Committee commissioned by the Academy's board of directors. The charge to the committee and the composition of the steering committee will be developed and approved by the AAPA BOD by September 1, 2010. The Research Steering Committee will be recruited by October 1, 2010.
- AAPA will continue to take steps to improve PA data, both within its own data sources and in partnership with state and federal data sources. AAPA has already worked with consultants to examine its annual census and will be moving towards scientific sampling in order to collect more representative data. AAPA will also work with state licensing agencies to recommend they collect the minimum data set during PA licensing, as well as with the federal

government to ensure that PAs can be identified for the role they play in providing care in the data that is collected

- AAPA is currently partnering with National Commission on Certification of Physician Assistant, the Physician Assistant Education Association, and the Accreditation Review Commission on Education for the Physician Assistant to develop a PA data consortium to facilitate access to and sharing of PA data for research and analysis. This consortium will also serve as a platform where other data can be contributed, shared and linked for analysis with the PA organizations' data.
- AAPA will update the bibliography on its Web site with the 10-year bibliography prepared for this summit on June 1, 2010. AAPA will continue to expand and maintain a current list of PA literature.
- Once recruited, the Research Steering Committee will be charged with submitting a proposed research agenda for the profession that delineates goals and establishes timelines, identifies synergies for funding using existing entities such as the Physician Assistant Foundation as well as public sector and philanthropic partnership for support. The Research Steering Committee will be charged with incorporating the outcomes of the research summit into its deliberations. The agenda developed by the Research Steering Committee will be submitted to the AAPA BOD for review and consideration by March 1, 2011.



## Appendix 1 – Speakers and Presenters

**Melinda K. Abrams, MS**

Assistant Vice President, Patient-Centered Coordinated Care Program, The Commonwealth Fund

**Carolyn Clancy, MD**

Director, Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services

**Stephen H. Hanson, MPA, PA-C**

President, AAPA

**William F. Leinweber**

Executive Vice President and CEO, AAPA

**Jeffrey Lemieux**

Senior Vice President, America's Health Insurance Plans, Center for Policy and Research

**Mark B. McClellan, MD, PhD**

Director, Engelberg Center for Health Care Reform  
Leonard D. Schaeffer Chair in Health Policy Studies, the Brookings Institution

**Perri Morgan, PhD, PA-C**

Director of Physician Assistant Research, Department of Community and Family Medicine, Duke University Medical Center

**Kenneth Moritsugu, MD, MPH, FACPM**

Chairman, Johnson & Johnson Diabetes Institute  
Vice President, Global Strategic Affairs, Johnson & Johnson Family of Companies

**Fitzhugh Mullan, MD**

Murdock Professor of Medicine and Health Policy, George Washington University School of Public Health  
Clinical Professor of Pediatrics, George Washington University School of Medicine

**Janet Pagan-Sutton, PhD**

Senior Research Scientist, Center for Health Research and Policy, Social & Scientific Systems, Inc

**Mary Woolley**

President/CEO, Research!America

## Appendix 2 – Attendees

Athena Abdullah  
Physician Assistant Education Association

Timi Agar-Barwick  
Physician Assistant Education Association

Lisa M. Alexander  
George Washington University

Scott Arbet  
National Commission on Certification of  
Physician Assistants

David Asprey  
University of Iowa

Patrick Auth  
Accreditation Review Commission on  
Education for the Physician Assistant, Inc.

Ruth Ballweg  
MEDEX Northwest PA Training Program

Jeff Baynes  
Novartis Pharmaceuticals, Inc.

Rami Ben-Joseph  
Endo Pharmaceuticals, Inc.

Marc Berk  
Social and Scientific Systems, Inc.

Dennis Blessing  
Department of PA Studies, UT Health  
Science Center – San Antonio

Jerald Breitman  
Former Director, Professional Relations  
Burroughs-Wellcome

Brooke Braun  
American Academy of Physician Assistants

Kate Callaway  
American Academy of Physician Assistants  
Board of Directors

Jim Cawley  
George Washington University

Agnes Compagnone  
Physician Assistant Foundation

Tim Dall  
The Lewin Group

Ann Davis  
American Academy of Physician Assistants

Meredith Davison  
Physician Assistant Education Association

Richard Dehn  
University of California, Davis, FNP/PA  
Program

James Delaney  
American Academy of Physician Assistants  
House of Delegates

Michael Doll  
Geisinger Medical Center

Michelle Ona-DiBaise  
American Academy of Physician Assistants  
Board of Directors

Clese Erikson  
Association of American Medical Colleges

Carl Fasser  
Baylor College of Medicine PA Program

Michael Flesher  
Pfizer, Inc.

Frank Fortier  
American Academy of Physician Assistants

Howard Glassroth  
American Academy of Physician Assistants

Anita Glicken  
University of Colorado – Denver

Sandy Harding  
American Academy of Physician Assistants

Roderick Hooker  
Department of Veterans Affairs

Paul Jacques  
Medical University of South Carolina,  
Division of PA Studies

Jerald Katzoff  
Bureau of Health Professions

James Kilgore  
Clinical Research Consultants, Inc.

Patrick E. Killeen  
American Academy of Physician Assistants  
Board of Directors

Eric Larson  
University of Washington

Jonathan Lerner  
Association of Postgraduate PA Programs

Mei Liang  
Physician Assistant Education Association

Cindy Lord  
American Academy of Physician Assistants  
Board of Directors

Jennifer Lucado  
Social and Scientific Systems, Inc.

Daniel Mareck  
Health Resources and Services  
Administration

Sheila Mauldin  
National Commission on Certification of  
Physician Assistants

Jennie McKown  
Johns Hopkins Hospital

Bob McNellis  
American Academy of Physician Assistants

David Meyers  
Agency for Healthcare Research and  
Quality

Mike Millman  
Health Resources and Services  
Administration

Marc J. Moote  
University of Michigan Health System

Folusho E. Ogunfiditimi  
Henry Ford Hospital and Health System

Josanne K. Pagel  
Cleveland Clinic

Patti Pagels  
American Academy of Physician Assistants  
Board of Directors

John Paul  
Association Works

Sheryl Paul  
Association Works

Don Pedersen  
University of Utah PA Program

Emil Petrusa  
Vanderbilt University School of Medicine

Stephen Petterson  
American Academy of Family Physicians

Maura Polansky  
University of Texas MD Anderson Cancer  
Center

Jim Potter  
American Academy of Physician Assistants

Michael Powe  
American Academy of Physician Assistants

Christal Ramos  
American Academy of Physician Assistants

Ellen Rathfon  
American Academy of Physician Assistants

Tamara Ritsema  
George Washington University

Lisa Robin  
Federation of State Medical Boards

Ted Ruback  
Physician Assistant Education Association

Dana Sayre-Stanhope  
Emory University School of Medicine PA  
Program

Claudia Schur  
Social and Scientific Systems, Inc.

Don Sefcik  
National Commission on Certification of  
Physician Assistants

Freddi Segal-Gidan  
Keck School of Medicine

Lynn Shoenfelder  
American Academy of Physician Assistants

Sabrina Smith  
American Academy of Physician Assistants

Pat Spurlock  
American Academy of Physician Assistants

William Stanhope  
Past President – American Academy of  
Physician Assistants

Greg Thomas  
American Academy of Physician Assistants

Nina A. Thomas  
Eli Lilly and Company

Barbara Tombros  
Novartis Pharmaceuticals Corporation

Mary Warner  
Yale School of Medicine PA Program

Denni Woodmansee  
Department of Veterans Affairs

John Western  
Southern California Permanente Medical  
Group

Karen Wright  
The George Washington University PA  
Program



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