



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

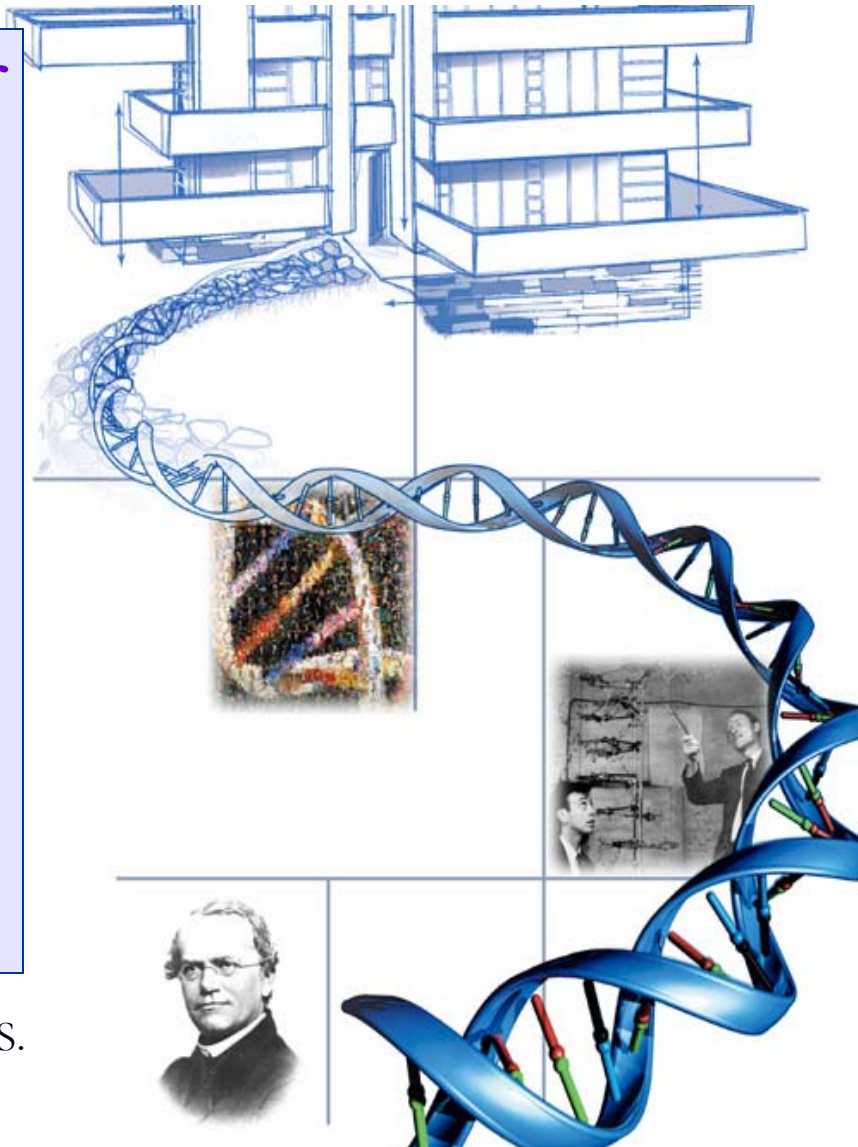


National Commission on Certification
of Physician Assistants



PHYSICIAN ASSISTANT
EDUCATION ASSOCIATION

Overview of the Physician Assistant Profession and Medical Genetics Education



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AAPA NEWS

May 15, 2007

NIH, Genomics Experts, PA Organizations Meet To Plan a Future for PAs in Genomics

Physician Assistants Poised to Introduce Genomic Medicine in Their Practices

By DOUG SCOTT

An historic conference in March between the leaders of four PA organizations, the National Institutes of Health (NIH), and leading experts in the field of genomics was the first step in planning a future where PAs can take a leadership role in introducing genomic medicine in their practices.

The goal of the two-day meeting, held at NIH headquarters in Bethesda, Maryland, was to develop an outline for how PAs could utilize current and anticipated knowledge of genetics and genomics as a basis for improving clinical care and making personalized medicine a regular part of patient care.

"What came out of this meeting was a remarkably detailed and ambitious agenda," said Francis Collins, M.D., director of the National Human Genome Research Institute (NHGRI).

education and everyday practice."

The conference provided a unique platform for the four PA organizations, NHGRI, the Office of the Surgeon General, NCHPEG, and other invited guests to be updated on the latest information in genetics and genomics, hold discussions in break-out groups, design a series of action items, build constructive partnerships, and design a framework for future meetings and cooperation between all the parties.

"What was remarkable about this conference, besides the way the organizations worked together, was that it produced real deliverables," said NHGRI Deputy Director Alan Guttmacher, M.D. "These centered around ways that PAs can use information when seeing patients in the office today or tomorrow — not some distant use of genomics. This



PHOTO COURTESY OF MAGGIE BARTLETT, NHGRI

Leaders of AAPA and other PA organizations joined representatives from the National Human Genome Research Institute, other genomics experts, and Acting U.S. Surgeon General Kenneth Moritsugu to define how PAs can best introduce genomics in patient care.



Information from AAPA

Summary of 2006 PA Demographics

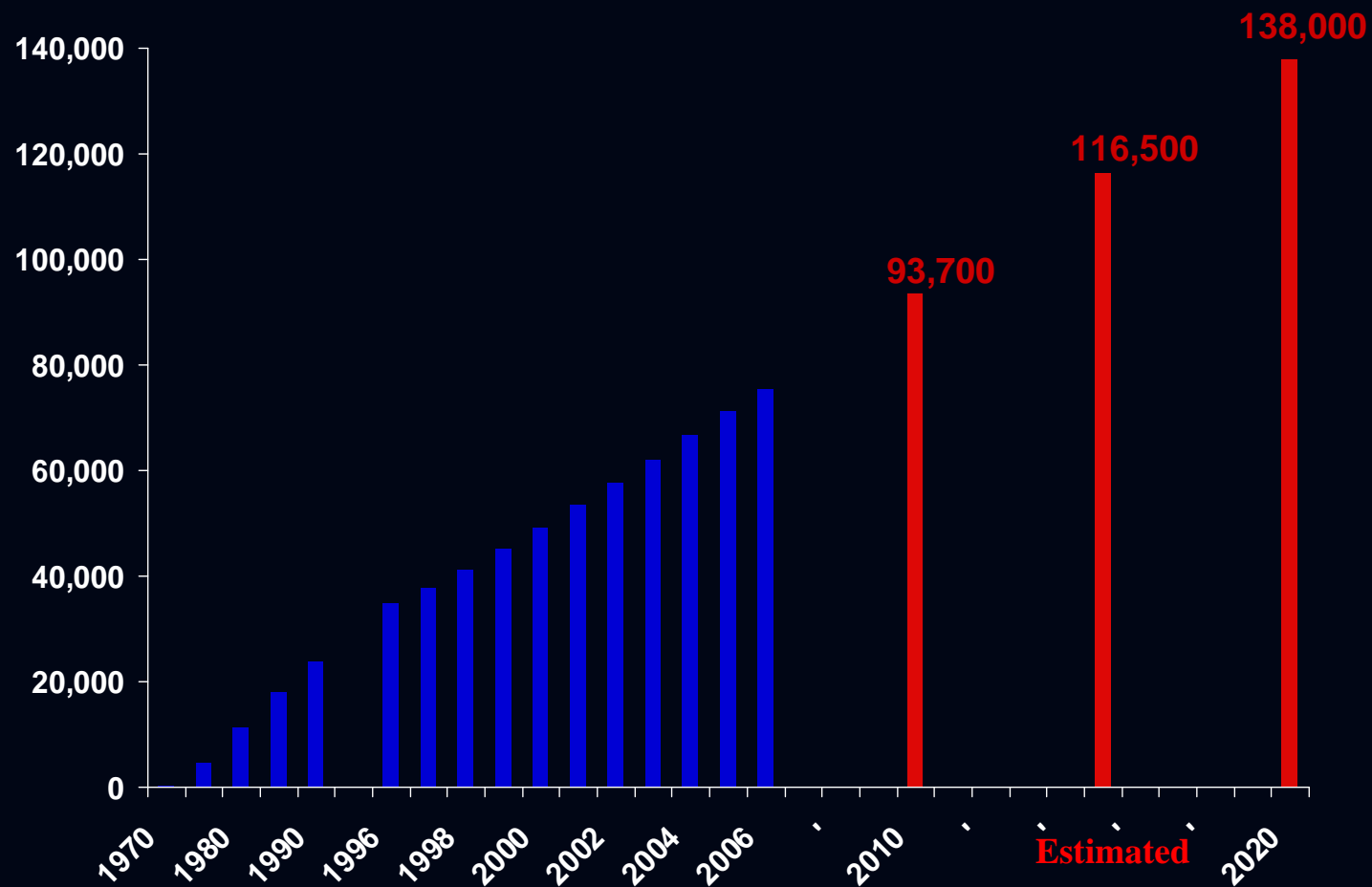
- 75,260 eligible to practice as of 1/1/2007
 - 63,609 in clinical practice

- Average age:
 - In practice: 43 years

- Gender:
 - In practice: 38% male; 62% female

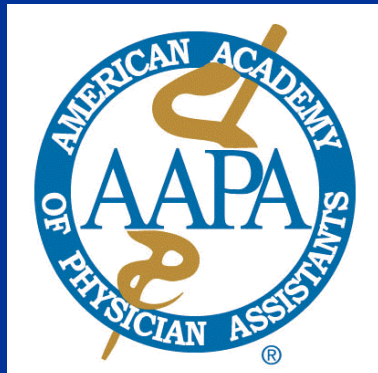
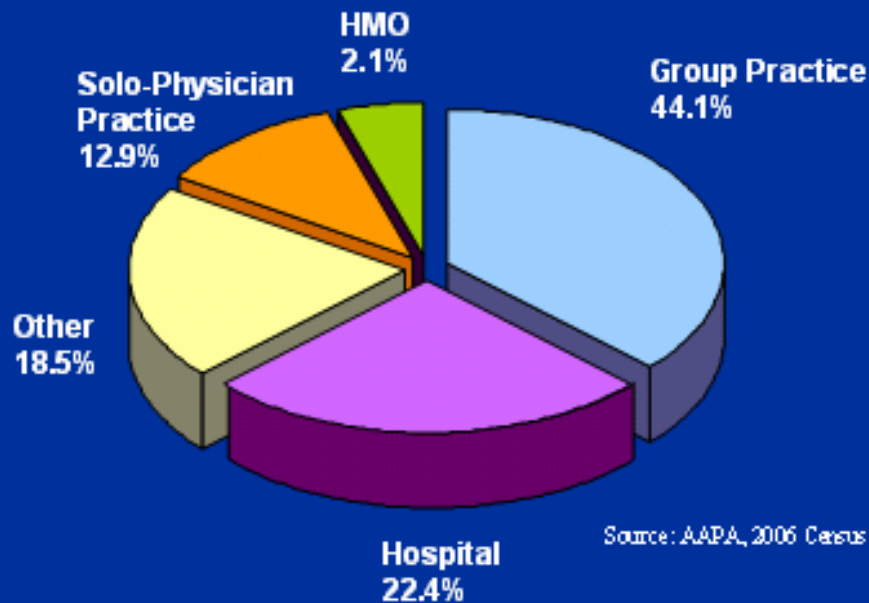
- Minorities
 - In practice: 12%
 - New grads: 17%
 - In school: 23%

Number of People Eligible to Practice as PAs



Sources: Information Updates: Number of People in Clinical Practice as PAs, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006 and AAPA Masterfile 11/1/2006.

PA Employers

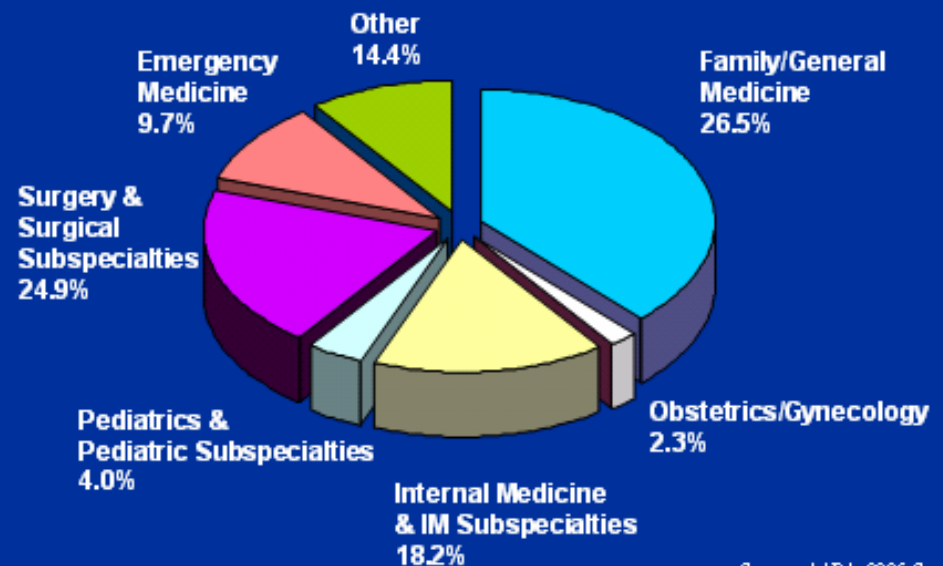


Types of Patient Visits to PAs

- 84% of PAs see outpatients
 - 56% see outpatients exclusively
- 52% of PAs see inpatients
 - 32% see inpatients exclusively
- 1% of PAs see patients in nursing homes

Source: AAPA, 2006 Census

PAs by Specialty



AAPA CME Services



CME at AAPA 2007 Annual Conference

- Headlines and Heredity
- Tailoring Anticoagulation Therapy
- Cancer Genetics and Genomics: Implications for PA Practice
- Race-based Therapeutics? What's the Big Deal?
- Personalized Medicine: Integration of Medical Genetics into Clinical Practice



NCHPEG
National Coalition
for Health Professional
Education in Genetics



PREPARING HEALTH PROFESSIONALS FOR THE GENOMICS REVOLUTION

ABOUT NCHPEG

MISSION AND BACKGROUND

MEMBERSHIP

NCHPEG IN THE LITERATURE

CONTRACTS AND GRANTS

ANNUAL MEETING

DIVERSITY INITIATIVES

TECHNICAL ASSISTANCE

WORKING GROUPS

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Genetics in the Physician Assistant's Practice

[available now >>](#)

Are existing online resources adequate for non-geneticist health care providers?

NCHPEG is facilitating recruitment for a survey to determine the accuracy and efficiency of some online resources for answering clinical questions about genetic conditions. If you are a health care provider of any kind (not just physicians), not a geneticist or genetic counselor, and interested in participating, please click [here](#).

[Download PowerPoint presentations from NCHPEG's 10th Annual Meeting](#)



All Health Professionals

Select an option below



Genetics in the Practice of Speech-Language Pathology & Audiology

[available now >>](#)

NCHPEG News

In Practice Newsletter



The In Practice Newsletter has been re-vamped! Take a look at the [newest issue](#).

[view all Newsletter](#)

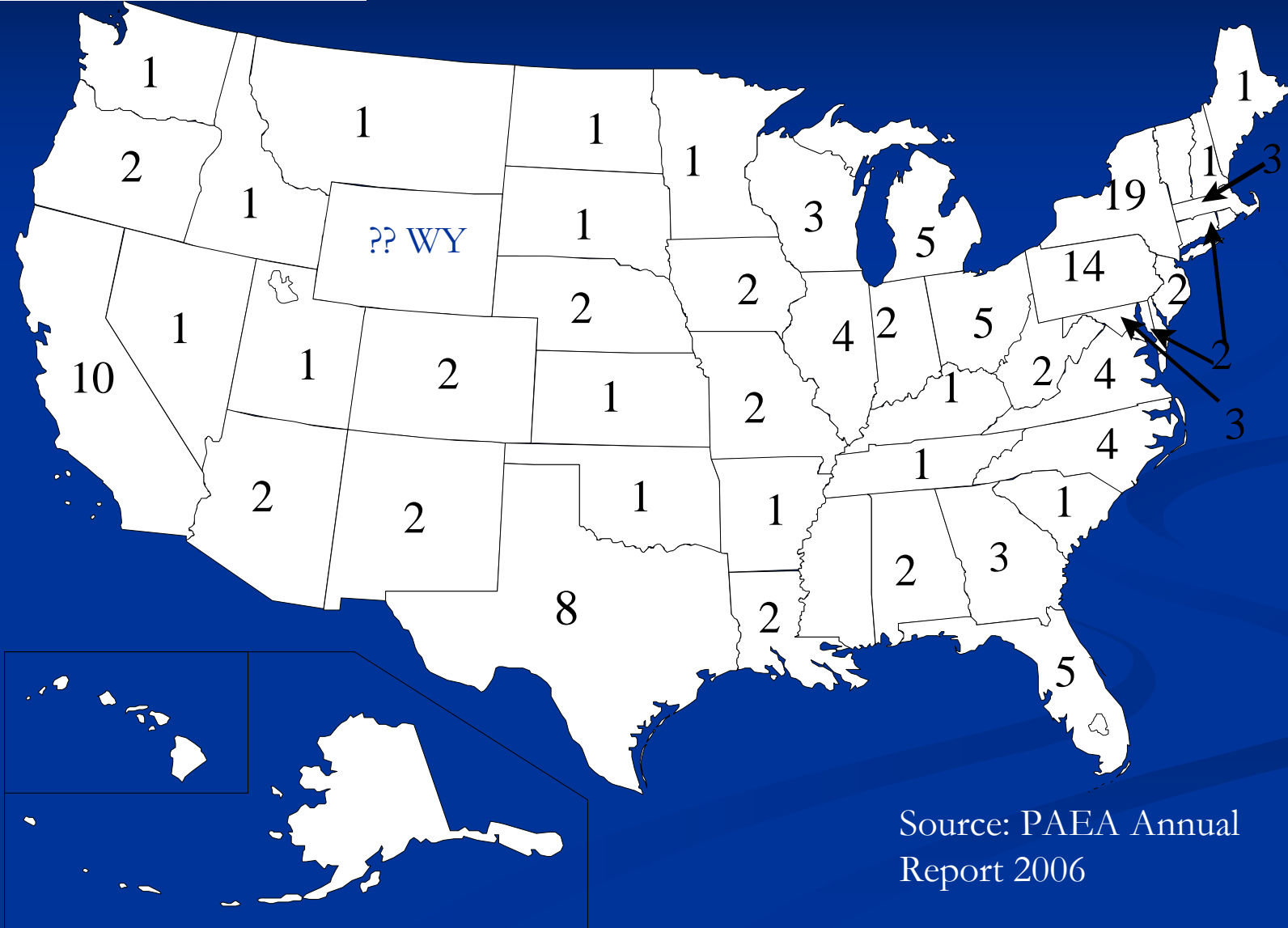
[NEWSLETTER REGISTRATION](#)

Race, Genetics, and Healthcare



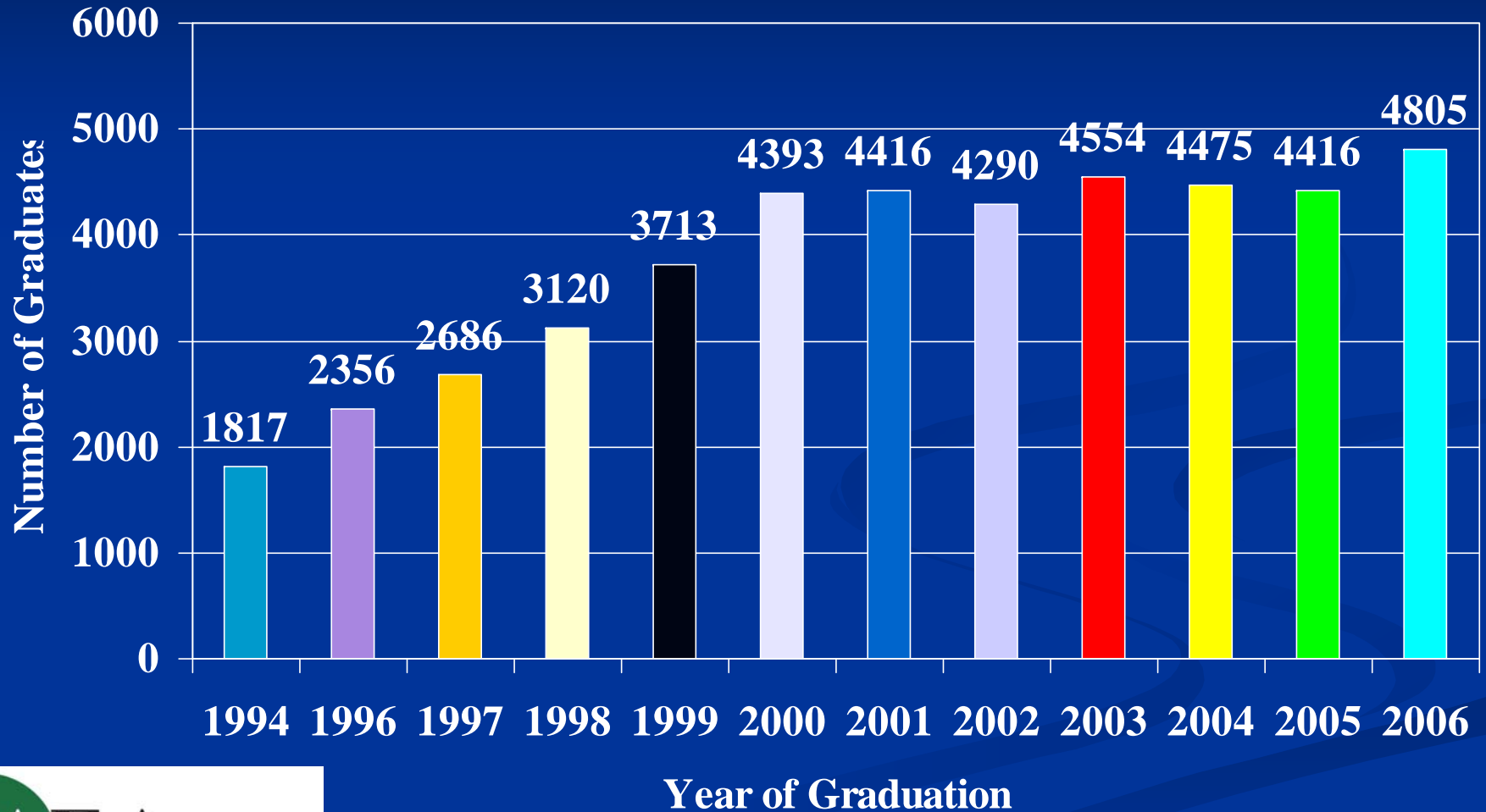


11/2007: 139 PA Programs



Source: PAEA Annual Report 2006

Number of Recent Graduates



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RESEARCH ARTICLES

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- 7 **Evaluation of Student Confidence in Utilizing EBM Skills Following Completion of an EBM Curriculum**
David Coniglio, MPA, PA-C; Prema Menezes, MHS, PA-C; Patricia Moorman, PhD; Perri Morgan, MS, PA-C; Margaret Schmidt, EdD, CLS, CLSpH (NCA)

- 14 **Physician Assistant Students' Attitudes Toward International Experiences**
David Luce, MMS, PA-C; Nicole Stewart, MMS, PA-C; Meredith Davison, PhD

- 20 **Breaching Patient Confidentiality: A Study of Physician Assistants' Awareness and Attitudes**
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SPECIAL ARTICLES

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ABSTRACTS & BRIEF REPORTS

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- 44 **Evaluation of a Genetics Curriculum for Physician Assistant Students**
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Debra Knight, MS, PA-C; Sharon Moser, MS, PA-C, LLP; Carla Groh, PhD, RN



BRIEF REPORT

Establishing Essential Physician Assistant Clinical Competencies Guidelines for Genetics and Genomics

Michael Rackover, PA-C, MS, Philadelphia University; Constance Goldgar, PA-C, MS, University of Utah; Chantelle Wolpert, PA-C, MBA, CGC, University of North Carolina; Kristine Healy, PA-C, MPH; Midwestern University; Jennie Feiger, MS, MA, CGC, Red Rocks Community College; Jean Jenkins, PhD, RN, FAAN, National Human Genome Research Institute

The translation of genetic and genomic science to clinical care has significant implications for the physician assistant (PA) profession. Similar to other health care professionals, PAs will need to develop strategies for applying new knowledge in genetics. In response to this need, the authors have undertaken to define the essential genetic and genomic competencies for all PAs regardless of academic preparation, role, or clinical specialty. The authors' intention in developing these genetics/genomics competencies is to encourage PA educators to seek out academic curriculum content/learning activities based on the most current genetic and evidence-based information. They are proposed to complement the *Competencies for the Physician Assistant Profession*. Practicing PAs can also use these to chart a course for advance-

Feature Editor's Note:

Genomic science has extraordinary implications for health workers, and the legal, social and financial issues related to genetic testing and recording of genomic information are policy issues that continue to draw social discourse. Explaining basic concepts of probability and genetic risk are formidable tasks to add to an increasing body of knowledge for the busy clinician – but they will have to be mastered as information about genetics races forth. These draft core competencies in genetics for PAs

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Current Status of Genetics Education And Needs Assessment of Physician Assistant Programs: A Nationwide Survey

Constance Goldgar MS, PA-C; Michael Rackover, MS, PA-C

Purpose: The explosion of genetic information resulting from the Human Genome Project and related advances has major implications for health care providers, including PAs. In order to assess the current state of genetics education in PA programs and the needs of program faculty related to teaching genetics and developing curricula, the authors and Association undertook a survey of PA programs. **Methods:** A Web-based survey containing 18 multiple-check, Likert scale, and open-ended questions was sent to the directors of 134 accredited PA programs in February of 2007. **Results:** 100 programs responded, for a 75% response rate. Eighty-one percent of responding programs expressed the need to enhance the quality and extent of genetic and molecular medicine in their curricula, and 62% planned to make changes in the near future. Genetics is delivered with an assortment of curriculum models and taught with a rich variety of methods. It was surprising to find some salient concepts not being taught in 12-16% of programs: eg, molecular biology, Mendelian and non-Mendelian inheritance, pedigree structure, and genetic diagnostic testing. Pharmacogenomics is taught in only a quarter of programs. PA program core faculty play a major role in teaching genetics. PA program respondents indicated the following to be particularly helpful for genetics curriculum development: (1) centrally developed resources, (2) genetic case studies, and (3) up-to-date valid resources on the Web for educators and students. **Conclusions:** PA programs clearly see the importance of genetics in PA education, but have expressed the need for more resources to further develop their curricula. It is hoped that this survey will provide baseline data that will aid in the development of competencies and curricular components in the future.

Status of Genetics Curricula in PA Programs Nationwide 1/2007

- PAEA Survey 75% response rate
 - (100 of 134 programs responded)
- To determine how genetics is taught in PA programs nationwide
- To determine what genetics content is covered and what gaps exist
- To assess faculty needs for supporting a genetics curriculum



Potential Education Barriers

	Very significant	Quite significant	Not very significant	Not at all significant
a. Structure of existing curriculum	20	40	38	11
b. Curriculum already overloaded	40	40	13	7
c. Genetics not seen as a priority by colleagues	9	19	40	32
d. Lack of resources to champion changes & developments	6	27	47	20
e. Lack of faculty with sufficient genetics experience or knowledge	14	26	36	14
f. Lack of time to develop resources	20	41	29	10

Looking to the future

- 81 percent of programs perceived a need to enhance their genetics curricula.
- 62 percent of programs plan to change their approach to teaching genetics in the near future.



Opportunities

- Position PA educators as leaders in teaching of genetics in medical education
 - Monitor and report innovations in genetics education
 - Develop curriculum resources and best practices
 - Create faculty development opportunities
 - Develop assessment tools for students and faculty
 - Develop a database to track genetics activities and outcomes in PA education



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

ARC-PA Standards

- Outline the requirements for accreditation of programs.
 - are competency based.
- Have specificity regarding curriculum requirements.
- Do not prescribe a specific academic degree.
- The new Accreditation Standards for PA Education, in effect as of September 2006, include the following standard:
B2.02. Instruction in the professional phase of the program must include instruction in the following basic medical sciences:
 - a) anatomy
 - b) physiology
 - c) pathophysiology
 - d) pharmacology and pharmacotherapeutics
 - **e) the genetic and molecular mechanisms of health and disease**

National Commission on Certification of Physician Assistants (NCCPA)

■ Activities regarding genetics/genomics

1. Exam Content

- beginning to code new items on the exam with a genetics code when applicable
- new item writer with experience in genomics will be added in 2008.

2. Promotion

- educate their Board about genetics=



The Four Organizations

