

Physician Assistant Education Association (PAEA)

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Mission

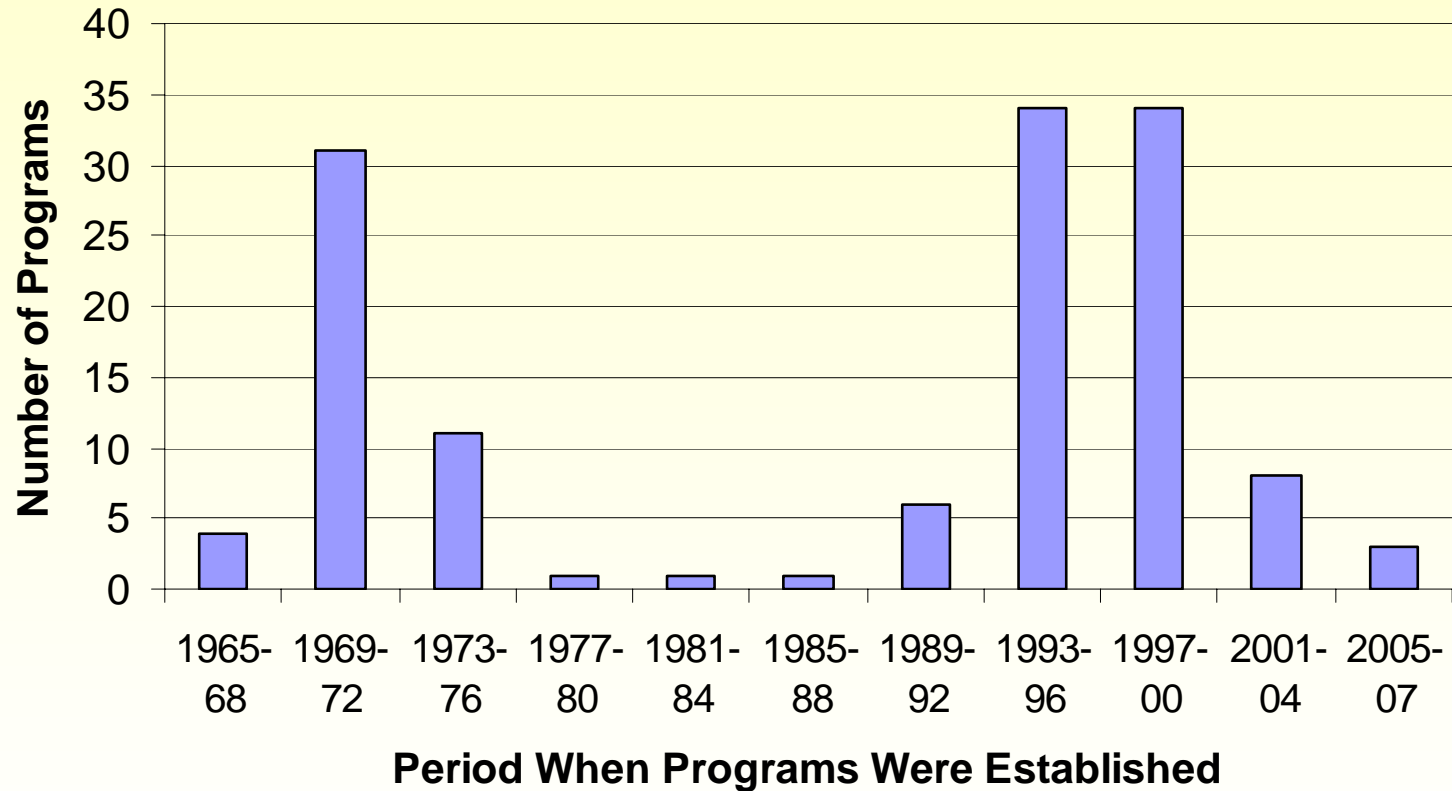
PAEA's mission is to

- Pursue excellence
- Foster faculty development
- Advance the body of knowledge that defines quality education and patient-centered care, and
- Promote diversity in all aspects of physician assistant education

Historical Growth

- The Association was founded in 1972 as the Association of Physician Assistant Programs (APAP). There were 30 PA programs nationwide at that time.
- The number of programs has increased rapidly, especially in the past 10 years.
- Today, PAEA represents all 134 accredited PA programs in the United States.

New PA Programs



Physician Assistant Education

- Professional competency-based education
- Majority of matriculants have a bachelor's degree and health care experience
- Typical PA program is 26 months in length
 - One year of didactic education
 - One year of clinical rotations

Accreditation Standards

- 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**

Status of Genetics Curricula in PA Programs Nationwide 2007

PAEA Survey

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Physician Assistant Program



Background

- Advances in genetics are leading to new demands on practicing PAs
- This has implications for the educational needs of PAs and students
- The current status of PA program genetics curricula and delivery needed to be ascertained
- A formal survey was done by Laura Meth in 2002; a prior “mini-survey” was done by Rackover in 2000

Survey Objectives

- To gather data that will potentially assist in the development of specific genetics competencies, genetics curricula, and curricular delivery methods for PAs and PA educators, specifically
 - 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

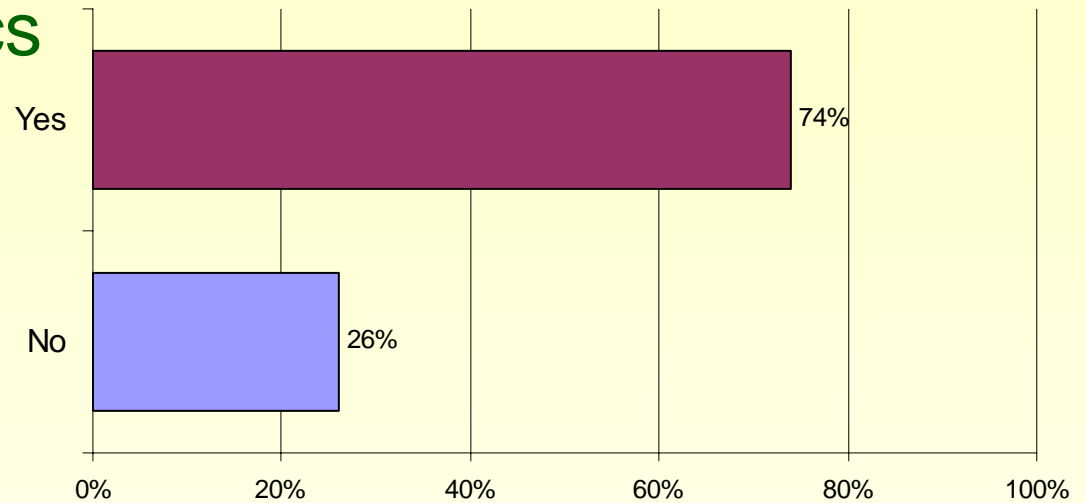
Methodology

- A link to a Web-based survey was e-mailed to 134 program directors
- 18 questions – mostly multiple choice, yes/no; some open-ended
- 75% response rate (100 of 134 programs responded)

Results

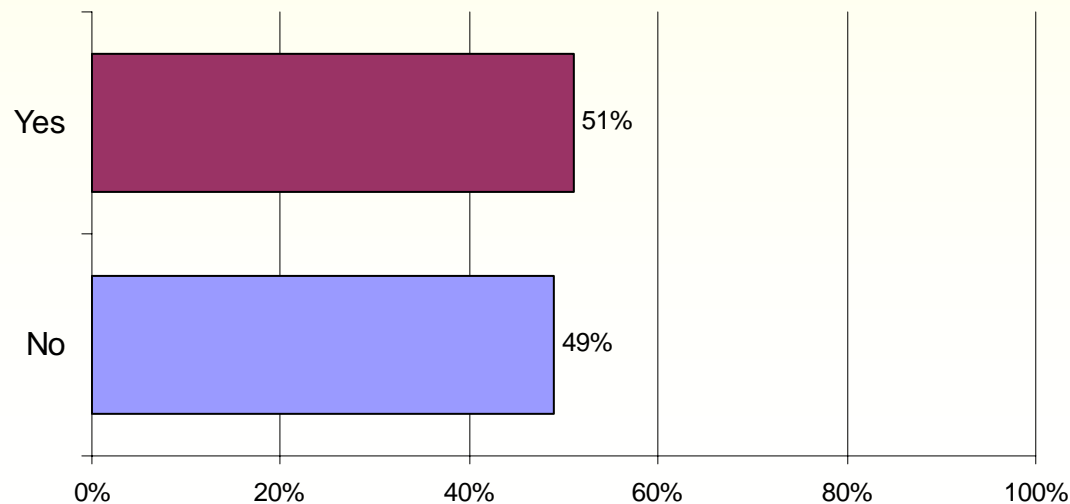
Programs with stated core and learning objectives for genetics/genomics

74% of programs



Programs with stated core and learning objectives for molecular biological concepts

51% of programs

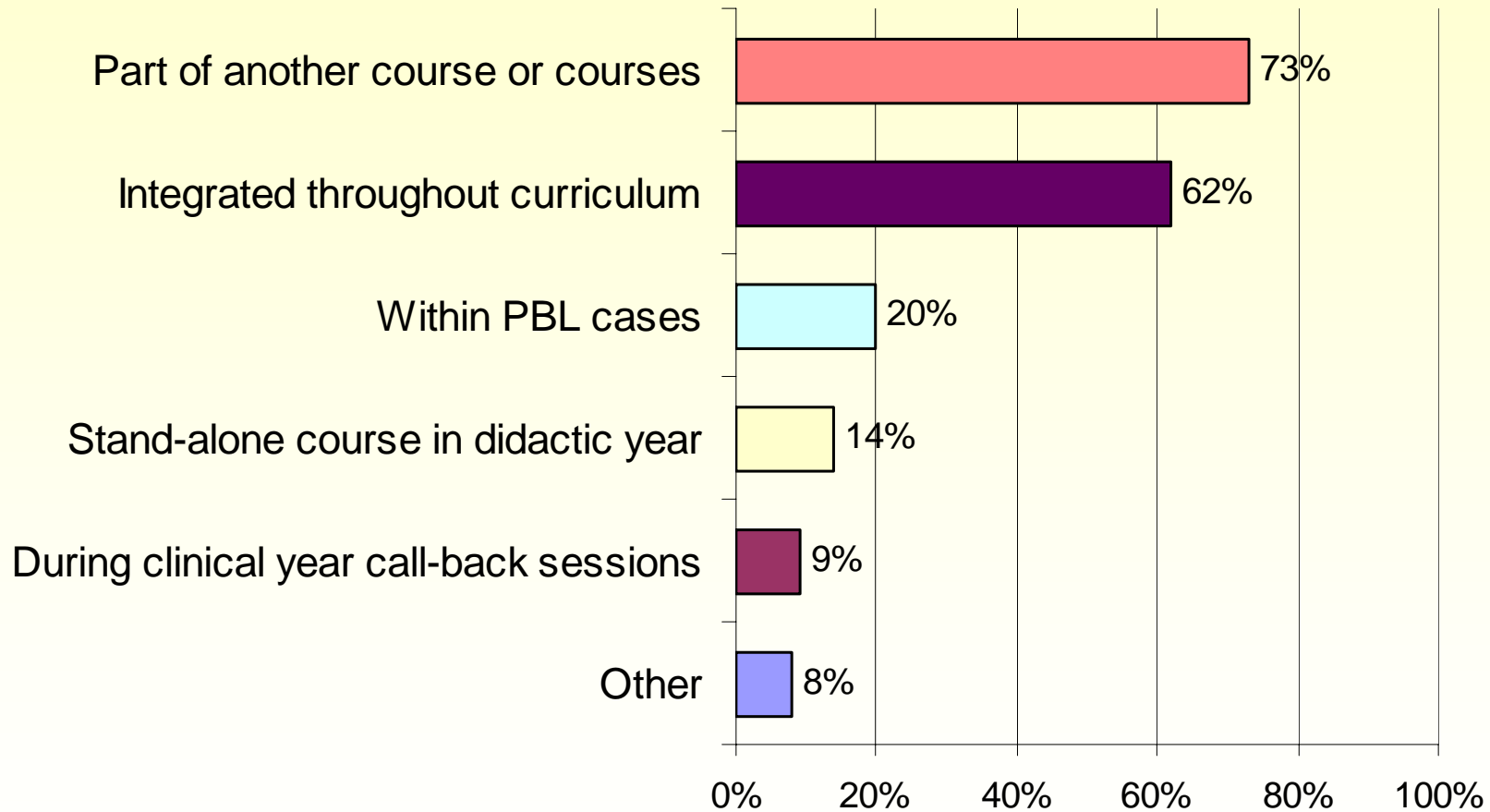


Number of contact hours dedicated to genetics:

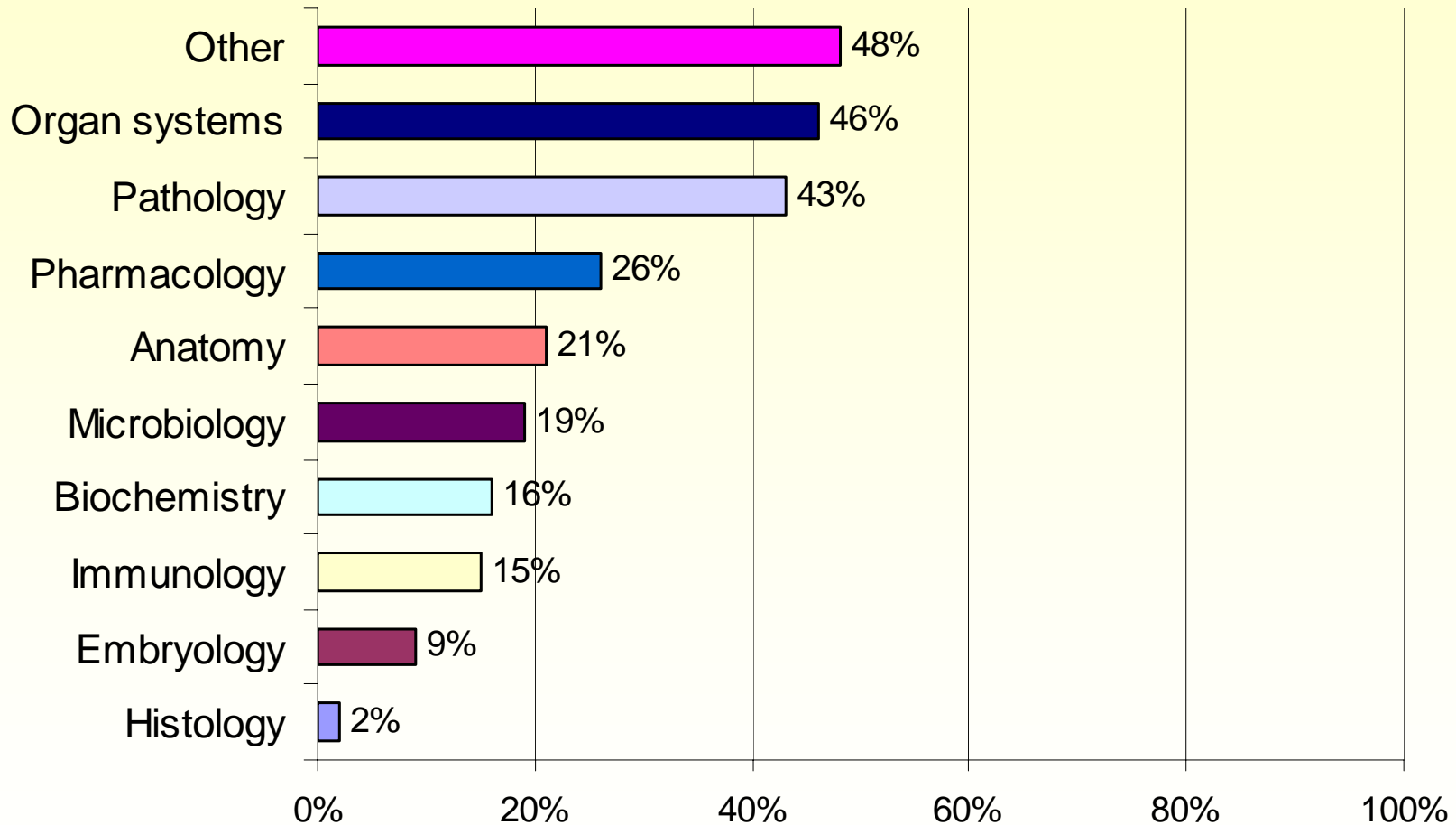
Contact hours	# Programs
0	1
1-3	8
4-6	10
7-10	27
11-15	22
16-20	17
21-25	3
26-30	9
>31	2

Comprises
> 2/3 of
programs

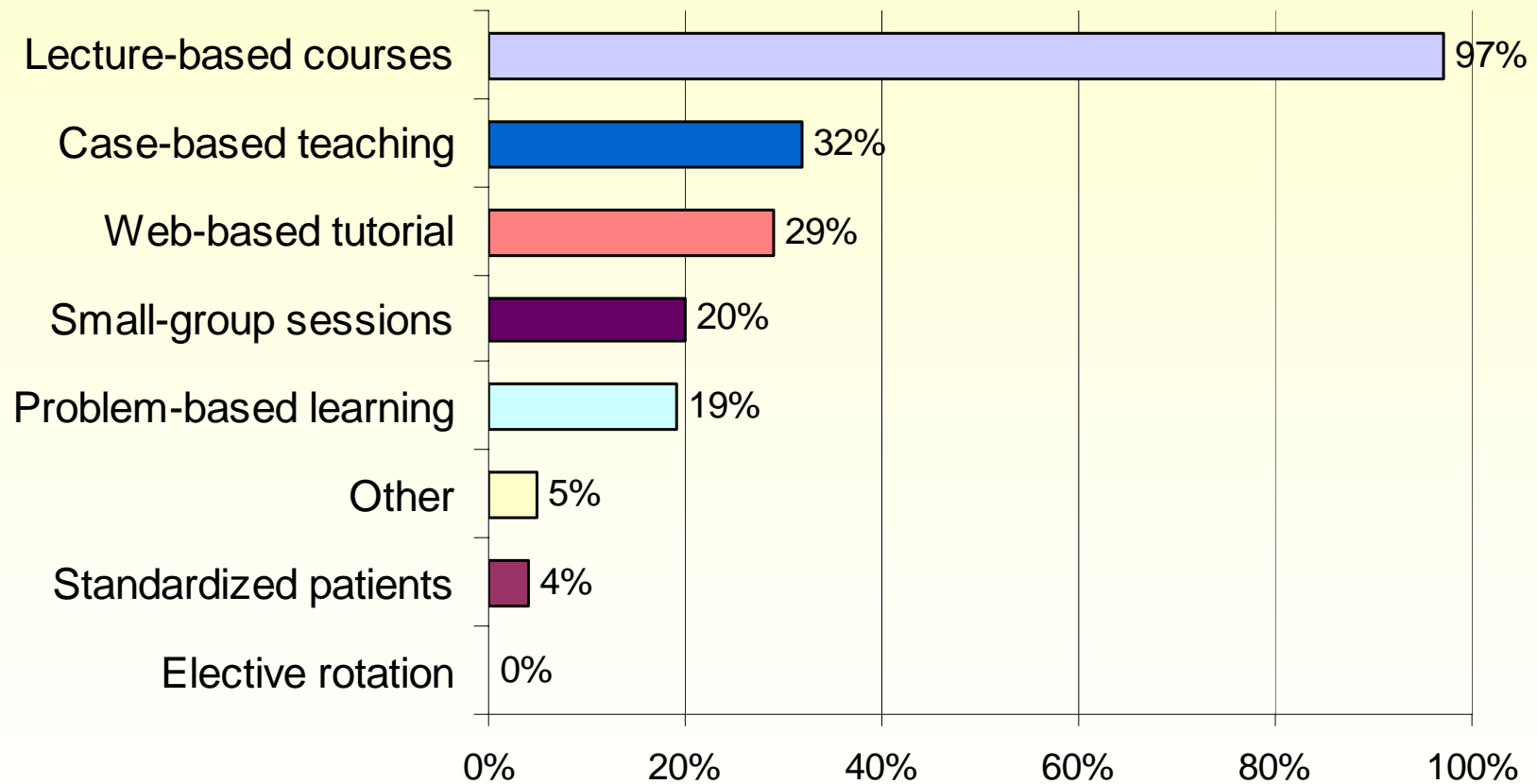
How we are teaching genetics and the molecular basis of disease:



Courses into which genetics is integrated:



How we provide genetics instruction:



Who is responsible for teaching genetics?

- PA program faculty have the majority of teaching responsibility – 72% of responding programs use PA program faculty. Others include:
 - Basic science instructors (53%)
 - Physicians with additional genetics experience (33%)
 - Genetic counselors (19%)

Genetics concepts: What are we teaching?

Concept	In formal genetics course	Woven into other courses	Not taught currently
Molecular Biology — e.g., DNA, RNA, transcription, translation	17	69	14
Terminology — e.g., allele, locus, genotype, phenotype	24	68	8
Mendelian inheritance patterns	23	65	12
Non-Mendelian inheritance patterns	21	65	14
Pedigree structure	15	71	14
Cytogenetics	17	36	47*
Mutations (various types)	20	68	12

What are we teaching? (cont.)

Concept	In formal genetics course	Woven into other courses	Not taught currently
Specific common genetic diseases — e.g., hemochromatosis, CF, NF	6	91	3
Genetic screening	15	78	7
Genetic diagnostic testing	14	70	16
Genetic treatments	13	50	37
Pharmacogenetics	10	57	33
Genetic Counseling	11	68	21
Ethics, Legal, Social Issues	10	81	9

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.

Potential 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

Genetics resources regarded as helpful for curriculum development:

	Very helpful	Quite helpful	Not very helpful	Not at all helpful
Centrally developed curriculum resources	48	42	10	0
Lectures with slides	52	36	12	0
Problem-based material	43	43	9	5
Self-instructional materials	43	42	14	1
Updated list of Web resources for educators	51	36	12	1
Updated list of Web resources for students	49	40	10	1
Case histories and ethical issues	61	34	4	1
Genetic case studies	63	32	4	1
Assessment tools	53	34	10	3
Short course in clinical genetics for faculty	51	33	14	2

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