

AMERICAN COLLEGE OF PHYSICIANS

Mike Murray, MD, FACP, FACMG

Genomic Medicine 4
The National Human Genome Research
Institute

January 28, 2013
Dallas Texas

OUTLINE

- Introductory Slides
 - Description of ACP and Some of the Education Tools it has developed
 - Review of an ACP Survey
-

Number of Genomes Sequenced

Only seven human genomes have been fully sequenced (Nicolas Wade NYTs August 2009)

By the end of 2012 there will be 73,000 complete sequences funded by the NIH (Francis Collins September 2011)



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Currently estimated that sometime during calendar year 2014 the one millionth person will have their genome sequenced.

Genetics and Genomics for Primary Care Course 2005-2010


The Genetic Basis of
Adult Medicine


What the Primary Care Provider Needs to Know




October 2 – 4, 2009
The Fairmont Copley Plaza • Boston, MA

Course Director
Michael F. Murray, MD

 Brigham and Women's Hospital
Department of Medicine
Division of Genetics

Harvard Medical School
Department of Continuing
Education 

 **ACPE**
ACCREDITED COURSE OF POSTGRADUATE
MEDICAL EDUCATION | 10000-10-0000

Genomics for Primary Care Course 2013

Genomics Education Outline

Group Session 1

Meeting of 20 Physician Participants

Pretest

Content: Clinical whole genome key concepts
 Familiarization with genome reports
 Introduce the Genome Resource Center

Hour 1 – self study

Case 1
Case 2
Case 3

Hour 2 – self study

Case 4
Case 5
Case 6

Hour 3 – self study

Case 7
Case 8
Case 9

Hour 4 – self study

Case 10
Case 11
Case 12

Group Session 2

Meeting of 20 Physician Participants

Post test

Content: Review of cases
 Review of genome reports
 Genome Resource Center contact

American College of Physicians

- The American College of Physicians (ACP) is a national organization of internal medicine physicians (internists)—physicians who specialize in the prevention, detection, and treatment of illnesses in adults.
- ACP has 130,000 members and is the largest medical-specialty organization and the second-largest physician group in the United States.
- ACP provides information and advocacy for its members as they practice internal medicine and related subspecialties.

ACP and CME

- Internal Medicine - the annual national scientific meeting featuring more than 260 presentations.
- Medical Knowledge Self-Assessment Program (MKSAP) - now in its 15th edition; postgraduate board review courses; recertification courses; and chapter/regional meetings. For future internists, ACP provides education and career information, produces MKSAP for Students, and administers an In-Training Examination for residents.
- Physicians' Information and Education Resource (PIER), a Web-based decision-support tool that delivers evidence-based guidance to physicians in more than 490 modules, or clinical areas. PIER's modules focus on clinical topics and are linked to an extensive drug database and helpful patient information.
- ACP Online – created a series of mobile and PDA resources.

http://www.acponline.org/education_recertification/cme/

ACP and CME

Other CME Opportunities Include:

- Ethics Case Studies CME with ACP's Ethics Manual.
- ACP Review Courses for ABIM certification and maintenance of certification exams through an ACP review course.
- ACP Scientific Chapter Meetings - Held year-round, Chapter Meetings provide networking opportunities, CME, and updates from local Governors.

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ACP and Clinical Recommendations

- ACP develops three different types of clinical recommendations: *Clinical Practice Guidelines, Clinical Guidance Statements, and Best Practice Advice.*
- ACP's goal is to provide clinicians with recommendations based on the best available evidence; to inform clinicians of when there is no evidence; and finally, to help clinicians deliver the best health care possible.
- ACP Guidelines can be accessed on a smartphone.
- Current Guidelines - based on a systematic review of the literature.
- Guidance Statements - based on a review of existing guidelines.
- Best Practice Advice - developed through a review of available evidence and guidelines. Evaluates the value of diagnostic tests and therapeutic interventions.

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ACP and Clinical Recommendations

“ACP Best Practice Advice”

- The Clinical Guidelines Committee at ACP develops best practice advice to address the value of diagnostic tests and therapeutic interventions for various diseases. The development of these papers involves evaluation of the benefits, harms, and costs and how this can be translated into the value of an intervention. Establishing this balance ensures effective delivery of high-value care.
- **Current Best Practice Advice:**
 - Delivery of High-Value Care
 - Colorectal Cancer Screening
 - Diabetes
 - GERD
 - Imaging in Low Back Pain

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What do Internists know about Genetics?

Results of a Survey Undertaken by ACP in Preparation for the “Genomic Medicine 4” Meeting

John Tooker, MD, MBA, MACP
Michael F. Murray, MD, FACP

Research Objectives

The genetics needs assessment research was designed to measure ...

- **Gaps in Internists' knowledge of genetics**
- **Gaps in Internists' skills related to genetics**
- **Pace of change in volume of genetic testing over past two years**
- **Barriers to incorporating genetic testing into one's practice**
- **Interest among Internists for an educational program about how to use and apply genetics within one's practice**

Approach and Response

- Web survey was sent to 806 participants from ACP's Internal Medicine Research Panel who met the following criteria:

- U.S. Internist
- Actively working in medicine
- Spending some/all professional time in direct patient care

- **486 Internists** responded to the survey (60% response rate)

Respondent Demographics

Age:

- Resident/Fellow 20%
- Under 40: 18%
- 40 to 55: 35%
- Over 55: 27%

Work Setting:

- Private office: 42%
- Hospital: 25%
- AMC: 23%
- Other: 11%

Specialty:

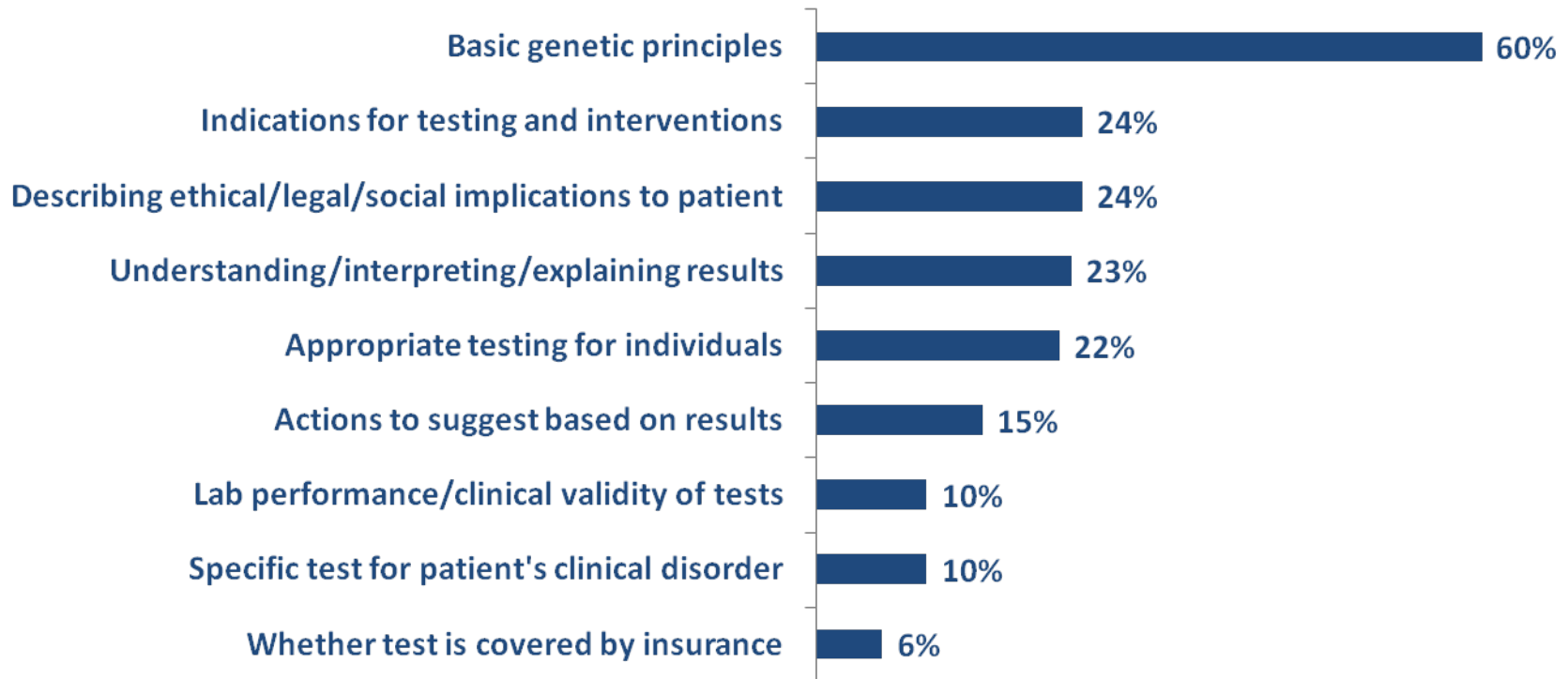
- IM Specialist: 60%
- IM Subspecialist: 40%



Is Internists' knowledge of genetics adequate?

Internists express low confidence in having adequate knowledge in key areas

Percentage reporting adequate knowledge in:



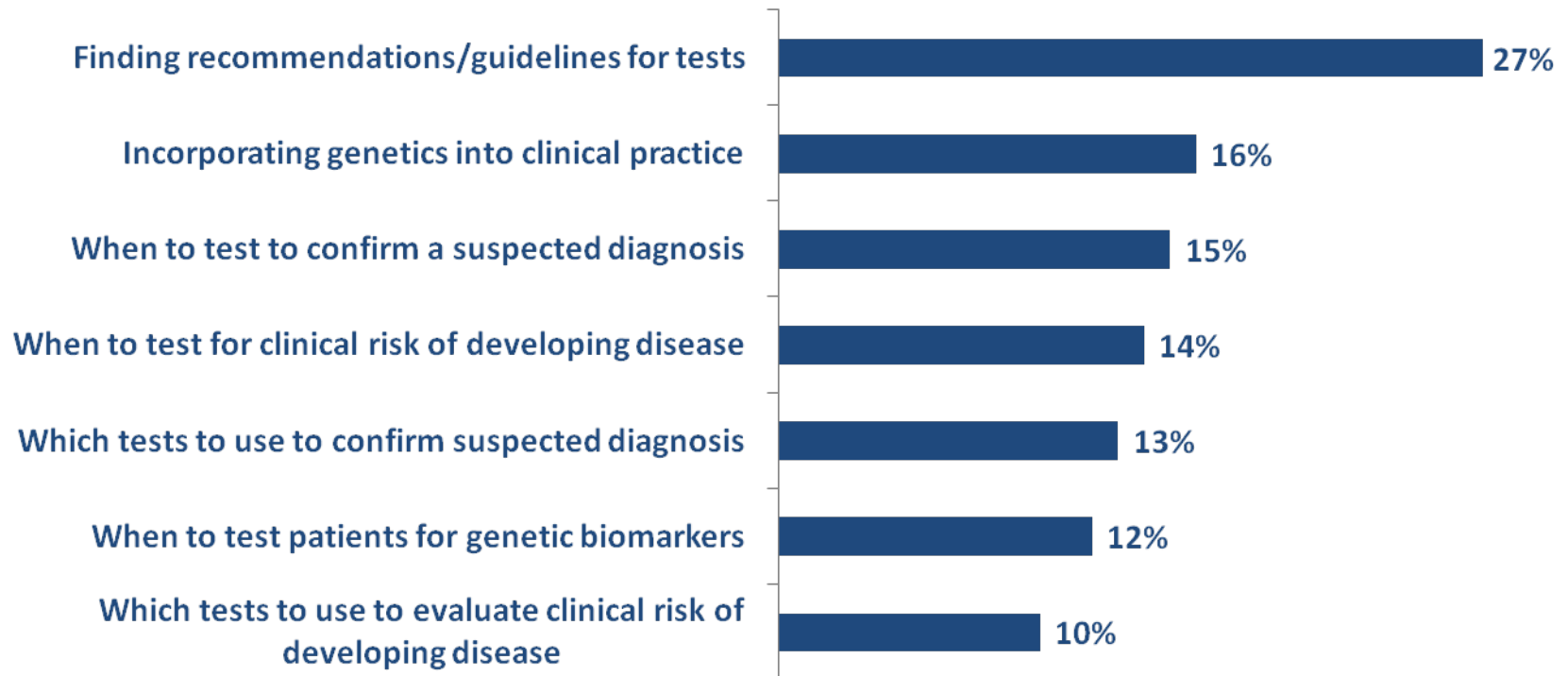
“It’s really a lack of knowledge of how ... (when to test, patient cost, etc) that prevents me from applying these tests in my day-to-day practice.”



Do Internists Have Adequate Skills Related to Genetics ?

Internists are less confident of having adequate skills in key areas of genetics

Percentage reporting adequate skills in:

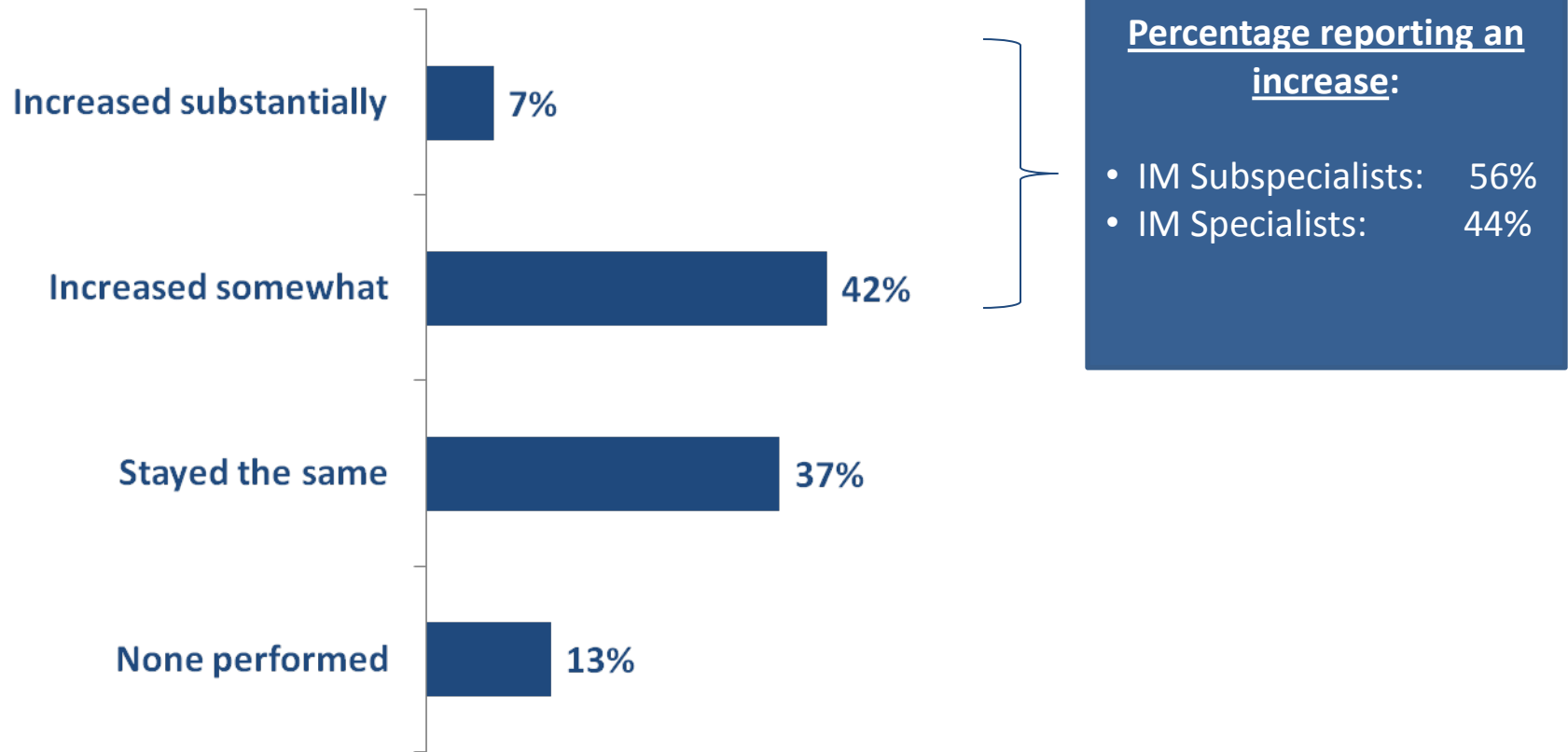


“Most clinicians (including me) know in general about the genetics basis of many diseases but are unsure how to incorporate specific genetic testing into practice, whether it be for diagnostics (e.g., HHC), therapeutics (e.g., breast cancer) or risk factor counseling (e.g., Alzheimer’s Disease)”



Pace of Change in Volume of Genetic Testing

Volume of genetic testing over the past two years has tended to increase

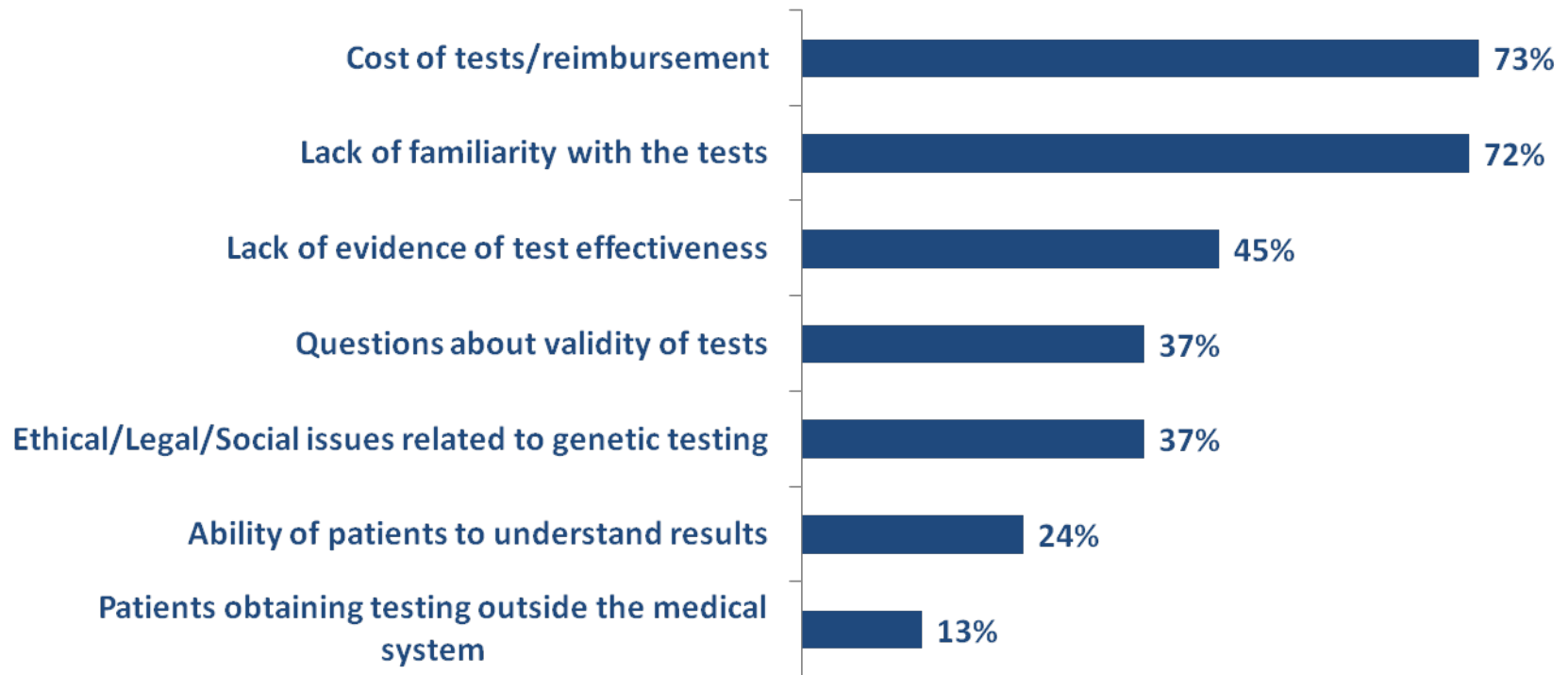




Barriers to Incorporating Genetics into One's Practice

Cost and lack of familiarity of tests are most frequently reported as barriers

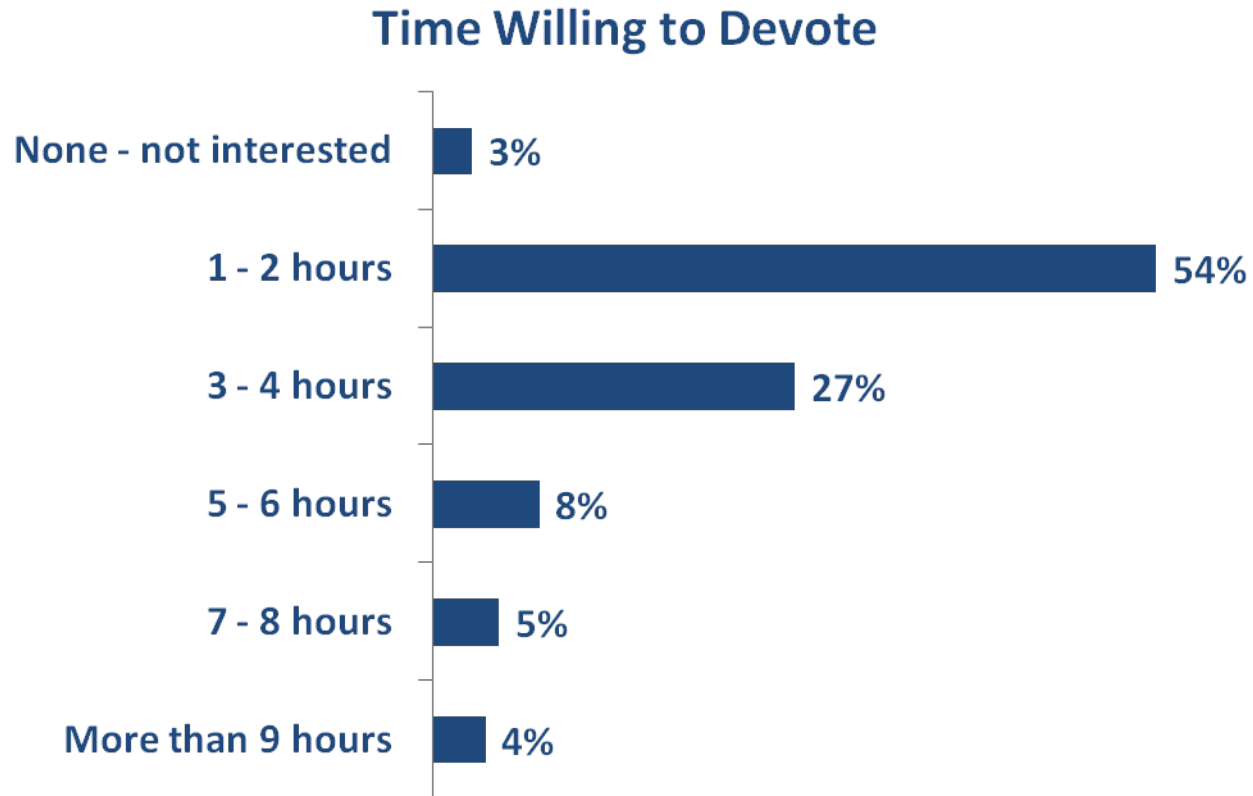
Perceived Barriers to Incorporating Testing into Practice





Attributes of an Educational Program in Genetics

The majority of Internists report a willingness to devote 1-2 hours



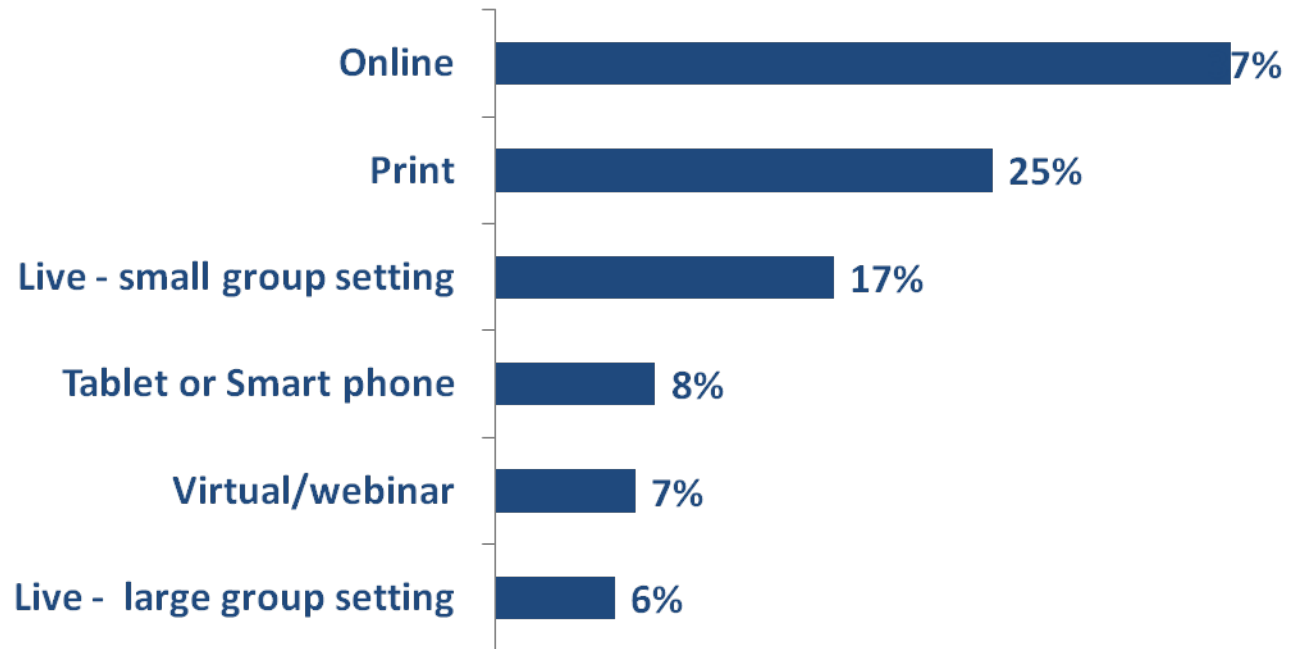
Preferred Format for Accessing Educational Information to Improve Genetics Knowledge

Most Preferred Format



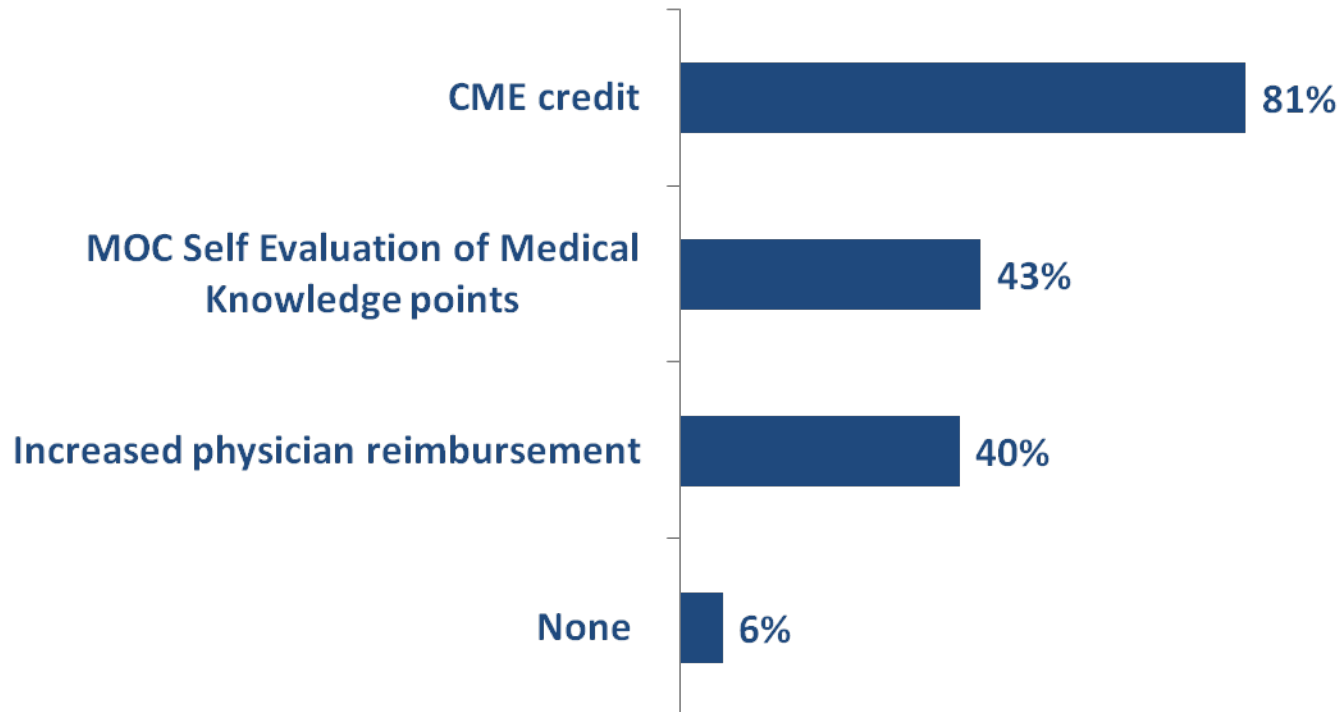
Preferred Delivery Medium for Accessing Educational Information

Most Preferred Delivery Medium



Offering CME Credit Would Increase Likelihood of Participating for Most

Incentives for Increasing Participation





Implications of the Research for Practicing Clinicians?

Special Thanks to:

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- Patrick Alguire, MD, FACP, - ACP's Senior Vice President for Medical Education
- Arlene Weissman, PhD - ACP's Director Research Center