



SECRETARY'S ADVISORY COMMITTEE ON GENETICS, HEALTH AND SOCIETY

Norman B. Kahn, Jr., MD

November 20, 2007

Washington, DC

Great Revolutions in Medicine and Health Care



Antibiotics

Imaging

Surgical Anesthesia

Aseptic Technique

Sewage Disposal

Water Purity

Immunization

Genomics?



- “Virtually all diseases (except maybe trauma) have a genetic component.”

Francis Collins, MD, PhD

Genetics in Primary Care (GPC): A Faculty Development Initiative

Contract funded 1998-2003 by:

HRSA

Maternal and Child Health Bureau
Bureau of Health Professions

NIH

National Human Genome Research
Initiative

AHRQ



Goal of the GPC

To enhance the ability of faculty to incorporate the clinical application of genetic information into undergraduate and graduate primary care medical education



“Primary Care Through a Genetics Lens”

- Expansion of differential diagnosis to include genetic conditions
- Appropriate use of family history to identify genetic conditions
- Importance of nondirective counseling
- Recognition of ethical, legal, and social issues raised by genetic diagnosis



“Genetics Through a Primary Care Lens”

- Evaluate utility of genetic information in terms of health outcomes
- Respect for patient preference
- Protect patients from media hype
- Use the potential of longitudinal care



GPC Faculty Teams

- Baylor College of Medicine
(Houston, Texas)
- Boston University School of
Medicine/Boston Medical Center
(Boston, Massachusetts)
- Cedars-Sinai Medical Center
(Los Angeles, California)
- Cook County Hospital/Rush Medical
College (Chicago, Illinois)



GPC Faculty Teams (continued)

- East Carolina University, Brody School of Medicine (Greenville, North Carolina)
- Lancaster General Hospital Family Medicine Residency Program (Lancaster, Pennsylvania)
- Mayo Clinic (team leader from Scottsdale, Arizona; other members from Jacksonville, Florida, and Rochester, Minnesota)
- Medical College of Wisconsin (Milwaukee, Wisconsin)



GPC Faculty Teams (continued)

- New York Medical College (Valhalla, New York)
Palmetto Health Alliance/University of South Carolina School of Medicine (Columbia, South Carolina)
- State University of New York School of Medicine at Buffalo (Buffalo, New York)
- University of California School of Medicine, Los Angeles (Los Angeles, California)



GPC Faculty Teams (continued)

- University of Cincinnati College of Medicine (Cincinnati, Ohio)
- University of Florida College of Medicine (Gainesville, Florida)
- University of Maryland School of Medicine (Baltimore, Maryland)
- University of Oklahoma Health Sciences Center, Tulsa (Tulsa, Oklahoma)
- University of Utah Health Sciences Center/Primary Children's Medical Center (Salt Lake City, Utah)



GPC Faculty Teams (continued)



- University of Vermont College of Medicine (Burlington, Vermont)
- University of Washington Family Medicine Residency Network (Seattle, Washington)
- Vanderbilt University Medical Center and Maharry Medical College (Nashville, Tennessee)

GPC Curriculum

Seven topics commonly recognized in primary care as having a genetic component:

- Breast cancer
- Cardiovascular disease
- Colorectal cancer
- Congenital hearing loss
- Dementia
- Developmental delay
- Hemochromatosis



Complimentary Tools and Resources Identified for Development

- “Genetics 101” curriculum for primary care physicians
- Aids to family history-taking in primary care
- “Red flags” to alert primary care MDs to potential genetic basis of disease
- Evidence-based medicine tools for interpreting genetics tests
- Cultural competency relevant to applying genetics advances in primary care



GPC Curriculum

<http://genes-r-us.uthscsa.edu/resources/genetics/pdfs/gpc-completedoc.pdf>

September 2001 revision can be accessed electronically at:

<http://www.mchlibrary.into/mchbfindreports/docs/fr240980020.pdf>





**ANNUAL CLINICAL
FOCUS
2005
GENOMICS**

ACF 2005 GENOMICS SUPPORTERS

Maternal and Child Health Bureau,
HRSA

National Human GENOME
Research Institute

National Coalition for Health
Professional Education in Genetics

American Cancer Society

National Heart, Lung and Blood
Institute



2005 ACF GENOMICS SUPPORTERS

National Institute of Child Health and
Human Development

The Susan B. Komen Breast Cancer
Foundation

Roche

GlaxoSmithKline

Genentech



ACF 2005 GENOMICS COOPERATING PARTNERS

American Academy of Nurse
Practitioners

American Academy of Pediatrics

American Academy of Physician
Assistants

American College of Medical
Genetics

American College of Physicians



ACF 2005 GENOMICS COOPERATING PARTNERS

American College of Physicians

American Heart Association

American Society of Human
Genetics

Centers for Disease Control and
Prevention

March of Dimes

National Society of Genetic
Counselors, Inc.



ACF 2005 GENOMICS TOPICS

Family History
Breast Cancer
Alzheimer's Disease
Colorectal Cancer
Bi-Polar Disorder
Newborn Screening
Hemochromatosis
Autism





ACF 2005 GENOMICS USAGE DATA

Web Visits 2005 - Present

Family History	4,314
Breast Cancer	3,514
Alzheimer's Dis.	3,975
Colorectal Cancer	3,576
Bi-Polar Disorder	6,307
Newborn Screening	2,640
Hemochromatosis	3,426
Autism	1,924
TOTAL VISITS	29,676





American Academy of Family
Physicians

“Recommended Curriculum
Guidelines for Family Medicine
Residents – Medical Genetics”

AAFP Reprint No. 258

Primary Care Clinicians need

to “see primary care through a
genetic lens”



Primary Care Clinicians need

to incorporate family history as
a standard of practice in each
patient's health record



Primary Care Clinicians need

to be sensitive to the ethical,
legal, and social issues in
helping patients and families
approach genetic testing



Primary Care Clinicians need

to know the evidence-based
implications for genetic testing



Primary Care Clinicians need

to be comfortable in
interpreting and following-up
on genetic tests with patients
and families



Primary Care Clinicians need

to be comfortable managing
chronic genetic-based illness,
using multi-disciplinary teams
and community resources



Primary Care Clinicians need

genetic decision support
integrated into electronic
health records



