



MAYO CLINIC

# **Genetics and Genomics Education for Nurses SACGHS November 20, 2007**

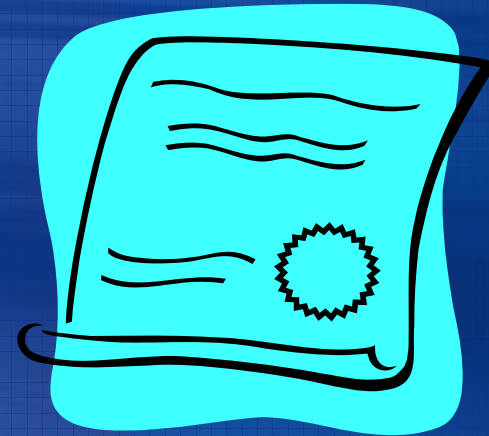
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# Initiatives to Educate Nurses About Genetics/Genomics

- **2005 Essential Nursing Competencies and Curricula Guidelines for Genetics and Genomics established by Consensus Panel (see printed materials)**
- **2006 Essential Nursing Competencies for Genetics and Genomics Next Steps: Strategic Planning for Implementation**

# Implementation Focus Areas

- Nursing academic focus
- Practicing nurses
- Regulatory and quality control focus





# Using Rogers' Diffusion of Innovation Theory

- Knowledge stage – What is genomics?
- Persuasion stage – Why is genomics important/relevant for me?
- Decision making stage – Is genomics worth the effort?
- Implementation stage – How do I include genomics in my practice?
- Confirmation stage – Am I competent in utilizing genomics in my practice?

# Mayo Clinic

- **The future of healthcare lies in translating genomics advances into practice. Patients will go to the providers that are best informed and best equipped to provide genomics services.**

**Dr. Denis Cortese  
President and CEO, Mayo Clinic**





# The Magnet Prize, the “Nobel Prize in Nursing”, Presented by the American Nurses Credentialing Center



Presented to Mayo Clinic acknowledging exemplary innovation for implementing the Nursing Genomics Program

# Our Patients Tell Us Genomics Is Important

- The needs of the patient come first

## James' Story

# Timeline of Nursing Genomics Activities

**Continuing Goal:** Develop an educational plan for practicing nurses which will translate the recent advances in genomics technology into medical benefits for patients.

## Creative Specialty Education Methodologies

- Bulletin Boards
- Case Studies
- Interactive Discussions
- Journal & Newspaper Articles
- Videos
- Genomics Discussion Group

Posters at  
Annual Nurses'  
Poster Fairs

## Nursing Staff Development Curriculum

Nursing Newsletter Articles

Presentations to Nursing Leadership Groups

**Starting Goal for Nursing Genomics Liaisons:** Plan and communicate to every Mayo Clinic nurse that they can achieve competency in genomics and that this is critical to the future success of nursing and optimal patient care.

2001

2002

2003

2004

2005

2006

2007



# Timeline of Nursing Genomics Activities

**Continuing Goal:** Develop an educational plan for practicing nurses which will translate the recent advances in genomics technology into medical benefits for patients.

**Nursing Genomics Interest Group**

**Nursing Specialty Curricula**

**CNE Conferences**

**Intranet Resources**

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# Nursing Actions Related to Genomics

## Assessment

family history

family pedigree

environmental factors

physical findings

knowledge & questions

## Planning

Review assessment  
information & needs

## Interventions

Patient  
education

Discuss  
risks

Discuss prevention,  
testing, treatment &  
pharmacogenomics

Discuss ethical, legal,  
cultural, social issues  
& support services

Genetics referral  
if indicated

## Evaluation

Review understanding of  
interventions & outcomes

# Barriers and Recommendations

- **Time for education – integrate into existing programs**
- **Time to implement in practice – keep it simple, relevant, and realistic**
- **Time to evaluate competency - keep it simple, relevant, and realistic**
- **Lack of education resources – funds to develop more relevant resources for all specialty practices**
- **Centralized location for resources for all nurses – support for a centralized location, easily accessible, and frequently updated with oversight to identify resource gaps**





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