Pharmacist Education in the Era of Genomic Medicine

Barriers to Genomics Education; Facilitators of Genomics Education
System Barriers\textsuperscript{a}

- Electronic medical health record (EMR) structure
- Lack of communication between EMR systems
- Lack of decision support tools
- Unclear determination of team member roles in the medical home

\textsuperscript{a}Feero WG, Kuo G, Jenkins JF, Rackover MA and Participants. NHGRI Nov/Dec 2011.
System Barriers\textsuperscript{a}

- Lack of coordination of care
- Lack of evidence of clinical utility of pharmacogenomics (PGx)
- Lack of PGx testing guidelines or conflicting guidelines

\textsuperscript{a}Feero WG, Kuo G, Jenkins JF, Rackover MA and Participants. NHGRI Nov/Dec 2011.
Resource Barriers$^a$

- Limited drug information databases
- Duplication of efforts within the discipline and among healthcare providers

Regulatory Barriers\textsuperscript{a}

- Differing state regulations preventing standardization
- Payment and reimbursement policies

\textsuperscript{a}Feero WG, Kuo G, Jenkins JF, Rackover MA and Participants. NHGRI Nov/Dec 2011.
Education Barriers

• Lack of quality teaching resources
  – Including preceptors
• Few PGx faculty at educational institutions
• Varied competencies, curriculum, and pre-professional requirements

Education Barriers\textsuperscript{a}

- Curricula overload; competing priorities, methodology, volume
- Lack of understanding of relevance of PGx to current practices; perceived as futuristic
- Lack of collaboration among interdisciplinary team members

\textsuperscript{a}Feero WG, Kuo G, Jenkins JF, Rackover MA and Participants. NHGRI Nov/Dec 2011.
Education Barriers

• Lack of demand for services
• Public genome literacy

Education Facilitators

- Relationship with industry
- Communication advances
- Academic exemplars
- Standards incorporation
- General education for the public
- Interprofessional education

Resource Facilitators

- Better standards for what is included
- Best practices
- Integrated curricula; not stand alone
- Competencies and role delineation
- Common data structures for reporting and communicating

\[^{a}\text{Feero WG, Kuo G, Jenkins JF, Rackover MA and Participants. NHGRI Nov/Dec 2011.}\]
Public Access Facilitators\textsuperscript{a}

- Improved dissemination of information
- Social networking tools
- Patient empowerment

\textsuperscript{a}Feero WG, Kuo G, Jenkins JF, Rackover MA and Participants. NHGRI Nov/Dec 2011.
Motivation Facilitators

- Innovation
- Recognition of noteworthy PGx education/practice
- Payment for PGx services
- Quality care