Primer on the Oversight System

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Reasons for concern about oversight

- Many new genetic tests
- Many complexities
  - Technology
  - Who to test
  - Interpretation of results
- Most clinicians have limited knowledge about genetics

Sources of oversight

- Statutory regulation
- Public leadership
- Decisions about health care funding
- Professional leadership

Statutory regulation of genetic testing - federal

- Federal agencies
  - CMS - CLIA
  - FDA
- Primary focus of efforts
  - Laboratory oversight
  - Pre-market review

Laboratory oversight: Well established regulatory approach

- CLIA certification for laboratories providing test results for clinical use

- Oversight of:
  - Laboratory procedure
  - Training of laboratory personnel
  - Credentials needed for test interpretation

- Genetic testing specialty?

Laboratory oversight: Results obtained in research

- NBAC /NHLBI criteria for disclosure
  - Validated
  - Significant to health
  - Intervention available
- Responsibility of researcher if not CLIA-certified?

Clinical test oversight: NIH-DOE Task Force (1997)

Called for evidence-based entry of new genetic tests into clinical practice

- Criteria to identify tests requiring "validation and clinical utility data"
  - independent external review
  - professional organizations
- Consideration of role for FDA beyond per-market review of test kits

Secretary's Advisory Committee on Genetic Testing (SACGT) 1999-2002

- SACGT effort to categorize tests focused on reason for testing, eg, diagnostic vs. predictive - but
  - Many genetic tests have multiple uses
  - Different definitions - eg, of "diagnostic"
  - Incentives to seek review under least problematic test category

SACGT recommendation for pre-market review

- All tests, including “home brew”
  - Streamlined process, using template
  - Primary goal: accurate labeling - “Tell us what you know and what you don’t know”
- HHS Secretary charged FDA to consider implementation

Recent FDA efforts: Focus on pharmacogenomics

- Draft guidance documents related to pharmacogenomics
  - Voluntary submission of data
  - Creation of “safe harbor in which to explore interesting data”
- Intent to change clinical pharmacology labeling section of drug label
  - Would place relevant pharmacogenomic information in prominent location

Recent FDA efforts (cont.)

- Approval of several genetic test kits - eg, Roche AmbliChip, Invader UGT1A1 Molecular Assay
- Draft guidance document extending oversight to in vitro diagnostic multivariate index assays (IVDMIAs)
  - Tests that utilize laboratory data and analytic tool to generate result - eg, gene expression profiling to predict cancer prognosis

Direct to consumer

GAO Report:

- “Nutrigenetic Testing: Tests Purchased from Four Web Sites Mislead Consumers”

http://www.gao.gov/new.items/d06977t.pdf

Prevention of genetic discrimination

- Unclear role of ADA in genetic discrimination
  - EEOC action in Burlington Northern case - claimed discrimination under ADA for workers with work-related health claims who were secretly tested
- GINA
  - Now before both houses
  - Considered likely to pass after many failed attempts

Statutory regulation at state level

- Laboratory oversight - some state oversight more rigorous than CLIA
- Genetic non-discrimination
- Newborn screening

Role of statutory regulation?

- Not resolved
- Effective method to ensure standard labeling
- Potential protection against unsafe testing practices
- Not route to standard of practice

Public leadership

- Promotion of best practices
- Education and training
- Practice guidelines
- Research

Division of Laboratory Sciences, CDC

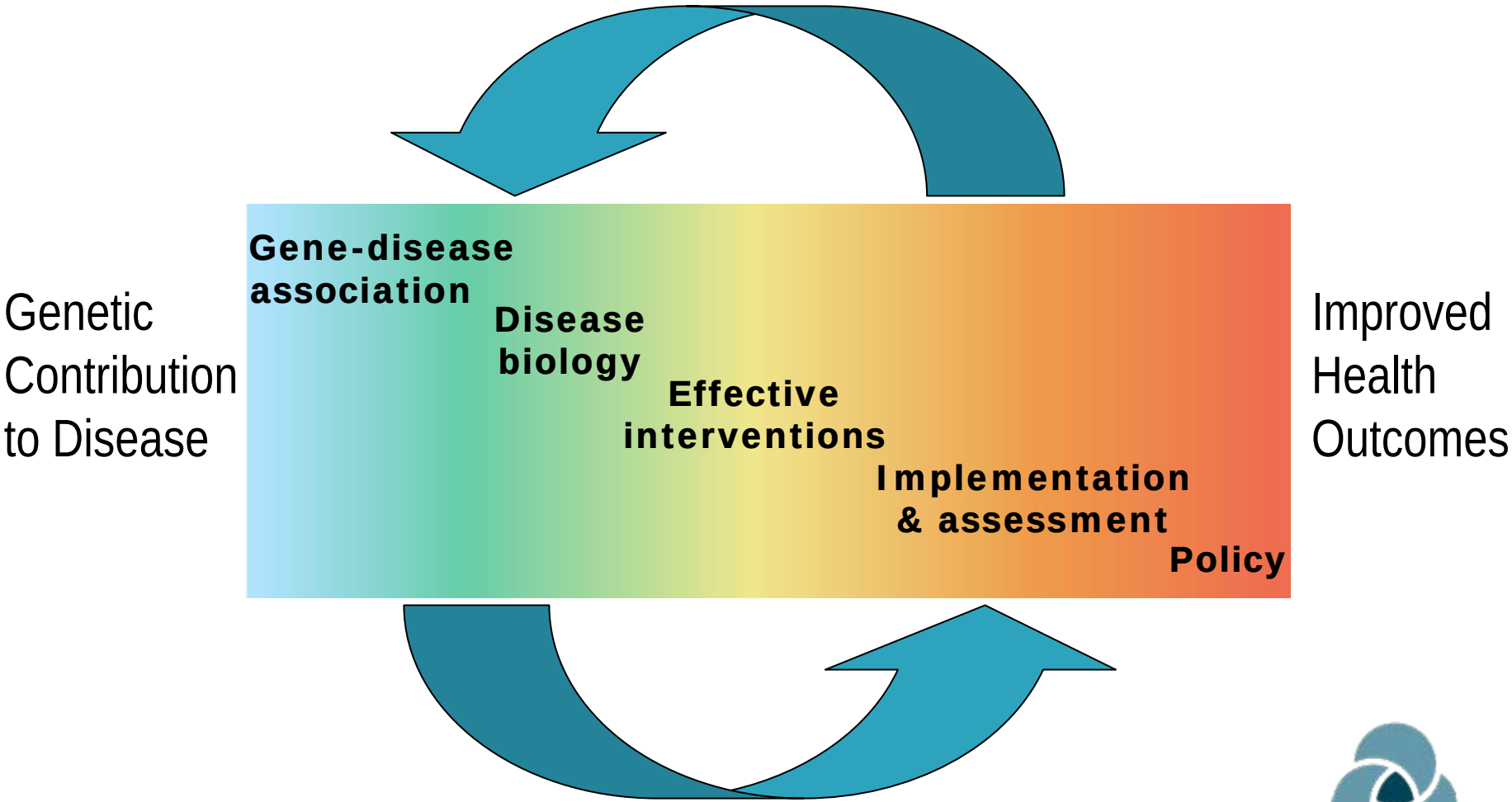
Multiple contributions in genetics

- QC/QA, technology & practice improvement
  - QA/proficiency testing for newborn screening
  - Genetic test reporting
- Education & training
- Research
- Policy development
  - Contributions toward standard setting

Public support of test evaluation and practice guideline development

- EGAPP
- US Preventive Services Task Force
- Secretary's Advisory Committee on Heritable Disorders and Genetic Diseases in Newborns and Children

The translational pathway for genomic health care



Federal research support: important potential for enhancing oversight

- Educational interventions & resources
- Clinical utility
- ELSI / policy

Funding decisions as alternative to statutory regulation

Powerful impact on test use

Challenges:

- Adequate framework for defining service needs
- Fair and rational procedures for decision-making
- Lack of evidence

Problematic issues

- Coverage of genetic counseling
- Inflexible rules for defining test candidacy
- Inequitable access

Key role of professional organizations & collaborations

- Leadership
  - Identification of issues
  - Education
- Laboratory oversight
- Practice guidelines & standards

Practice guidelines - Current realities

- Diverse sources & processes
- Professional, personal or financial interests may influence process
- Methodologies vary, not always specified
- Evidence often lacking

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Importance of public & professional leadership

Standard of practice as an evolving concept

Change over time in

- Technology – for example, genetic testing options
- Quality of evidence about health outcomes
- Case law

Health professional education

- Potential to enhance other efforts
- Challenges
  - Traditional methods generally have little impact
  - Many genetics curricula “sit on the shelf, collecting dust”
  - Focus on relevance / health outcomes

Are different approaches complementary?

- How can different mechanisms best complement each other to close gaps?
- How best to build on existing partnerships?
- How to create the right forums and processes for discussing controversial issues?