CDC Office of Public Health Genomics

Mission
Provides timely and credible information for the effective and responsible translation of genome-based discoveries into public health & health care

1. Identify evidence-based applications
2. Inform & communicate
3. Integrate into practice & programs
Public Health Genomics has Come of Age
5 Highlights in 2013!

- 50\textsuperscript{th} Anniversary of the Launch of Newborn Screening as a Public Health Program in the US
- 10\textsuperscript{th} Anniversary of the Launch of the Surgeon General Family History Initiative
- Emergence of Whole Genome Sequencing as tool in Clinical Practice
- Emergence of Pathogen WGS a tool in Public Health
- Policy & Legislative Activities (ACA, FDA, Healthy People 2020)

http://blogs.cdc.gov/genomics/2014/01/30/highlights/
**Tier 1:** Recommended for clinical use by evidence-based panels, based on systematic review of evidence of validity and utility.

**Tier 2:** May be useful for informed decision making, based on demonstrated validity, and promising utility.

**Tier 3:** Not ready for clinical use, due to validity or utility not demonstrated, or systematic assessment finding harms outweigh benefits.

http://www.cdc.gov/genomics/gtesting/tier.htm
Selected Emerging Tier 1 Genomic Applications

- Hereditary Breast and Ovarian Cancer (BRCA)
- Hereditary Nonpolyposis Colorectal Cancer (Lynch Syndrome)
- Familial Hypercholesterolemia
Selected Tier 1 Genomic Applications: What’s in Common?

- Genetic autosomal dominant disorders with adult onset
- Relatively common (collectively 2 million people in the USA)
- Most not ascertained or managed by health care system
- Effective interventions that reduce morbidity and mortality
- Evidence based recommendations
- Involves family history and cascading interventions
- Can be integrated into public health programs (Cancer and Heart Disease Programs)
- Could serve as models for similar genomic applications
- Only the tip of the iceberg
Public Health Genomics

Genomic Applications Toolkit

Tier 1
State & Local Health Departments
How to use the Toolkit
Updates
Lynch Syndrome
Hereditary Breast & Ovarian Cancer
Familial Hypercholesterolemia
Videos
Contact Us

Genomics Implementation

Tier 1 Genomic Applications and their Importance to Public Health

Tier 1 Genomic Applications Toolkit for Public Health Departments

Contact Us:
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