

Public Health Genomics: What does Public Health Expect from Medical Care?

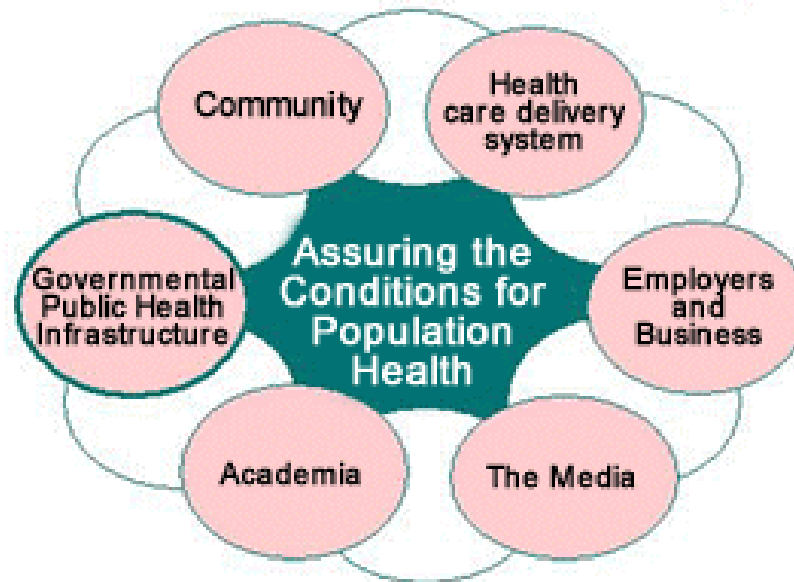
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Genomic Medicine Working Group

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Intersectoral Public Health

The Public Health System



INSTITUTE OF MEDICINE

Public Health and the Medical Care System

- Trends favoring connections between public health and medical care
- Genomics providing further opportunities for these connections

Core Public Health Functions: Genomic Programs

- Assessment
 - Surveillance
 - Risk assessment
- Policy Development
 - Screening Programs
 - Patient and Provider Education
 - Interface with Medical Care
- Assurance
 - Availability of Services

Medical Care Interface

- Assessment
 - Health Data from medical care system
 - Risk data to medical care system
- Policy Development
 - Participation in education and policy formation and implementation
- Assurance
 - Provision of medical services

Opinions from Public Health Stakeholders

- GAPPNet
- Priorities for 2012-2017
- 2012 Conference on Evidence-Based Genomic Interventions
- CDC's Office of Public Health Genomics
 - Muin Khoury, Director

Opinions from Public Health Stakeholders Potential for Reducing Morbidity and Mortality

- Current Programs: Newborn Screening
- Potential Future Programs: Genomic component of all major public health prevention interventions
- Current Opportunities – “Low Hanging Fruit”:
 - Hereditary Breast and Ovarian Cancer
 - Lynch Syndrome
 - Familial Hypercholesterolemia
 - Total lives saved >newborn screening programs

CDC/OPHG Stratification

- Tier One – Evidenced Based Applications
 - e.g., Breast/Ovarian; LS; FH
- Tier Two – Promising Applications
 - Informed Decision-Making
 - e.g., gene expression profiles assessing breast cancer risk and targeting chemotherapy
- Tier Three – Little or no evidence
 - e.g., HFE population screening

Expectations from Medical Care: Categories (PEPP)

- **P**ractice
- **E**ducation (Professional; Patient; Public)
- **P**olicy
- **P**artnership

Expectations: Clinical Practice

- Hereditary Breast and Ovarian Cancer
 - Healthy People 2020
 - Understand and utilize Family Health History
- Lynch Syndrome
 - Healthy People 2020
 - EGAPP Recommendations
 - Cascade Testing
- Familial Hypercholesterolemia
 - Cascade Testing

Expectations: Provider, Patient and Consumer Education

- How genetics relates to other causal factors
- Background for informed decision-making
- When and how to access genetic counseling services

Expectations: Policy Development

- Support Accelerating and Streamlining translation (GAPPNet Goal)
- Support integration of genomics into medical education
- Support integration of genomics into electronic medical records and decision support tools
- Support public health programs utilizing genomic tools

Expectations: Policy Development

Support policies assuring that genomics will be applied in ways that narrow and do not widen health disparities.



Expectations: Partnerships

- This Working Group
- Genetics and Chronic Disease Leadership in State Health Departments
- Local Cancer and Heart Disease Coalitions
 - PH, Labs, Epid, Legal; MCH; Chronic Disease
- National Professional and Disease-Related Organizations
- Genetic Alliance



Discussion

