



Michigan Department of Community Health  
Public Health Genomics Program

# Overview

## Background

- Newborn Screening for phenylketonuria (PKU) began in 1965; Michigan babies are now screened for more than 50 disorders
- In 1979, the program expanded to address genetic diseases more broadly and for nearly 20 years, the focus was on provision of clinical services for rare diseases and syndromes
- Today, rapid scientific advances have led to a new role for genetics—and genomics—in common chronic disease, environmental health, and other public health programs
- Genetics spans the life cycle and a range of public health concerns, so there is an intrinsic need for integration with other programs. Within the Department of Community Health, we collaborate with: maternal and child health programs; chronic disease programs; mental health initiatives; Bureau of Laboratories; vital records, epidemiology, and surveillance systems; and many others
- Federal partners and funding agencies include the HRSA Genetic Services Branch; and the CDC—National Center on Birth Defects and Developmental Disabilities; and National Office of Public Health Genomics
- Key state partners include: advocacy organizations and community-based groups; local public health departments; hospitals and genetic centers; health and education professionals; the major universities; and many others

### *Our Vision:*

*“Improved health outcomes and enhanced quality of life for the people of Michigan through appropriate use of genetic information, technology, and services”*

## Core Function

- ➔ **To provide assessment, policy development and assurance related to birth defects, genetic disorders, and the use of genomics in public health programs**

### **The Genomics Program Mission**

- ✓ Coordinate educational activities that increase genetic literacy
- ✓ Facilitate early identification and treatment of individuals with birth defects, heritable disorders and genetic susceptibilities
- ✓ Foster collaboration to integrate advances in genomic science throughout public health and other systems of care

# Key Program Activities

## Newborn Screening (NBS):

- Assure that all Michigan infants receive appropriate metabolic screening
- Provide follow-up for infants with positive screening tests and assure access to treatment and a medical home
- Provide long term follow-up and monitor health outcomes to evaluate the NBS program

## Birth Defects Prevention and Follow-up:

- Foster awareness of folic acid and other birth defect prevention strategies
- Promote integration of a genetics component within child health programs
- Collaborate with the Birth Defects Registry to assure that children with birth defects and their families are linked with available services

## Adult Genetics and Chronic Disease Genomics:

- Coordinate the use of genomics in core public health activities across chronic disease, laboratory and environmental health programs
- Expand the use and evaluation of targeted risk assessment strategies based on genomic tools such as family health history
- Utilize public health databases and surveillance systems to better understand and address the genetic burden of common chronic diseases
- Assess the feasibility of population genetic studies using dried newborn blood spots

*Genetics is the study of a single gene and its effects, while **genomics** refers to study of the entire genome, including complex interactions between multiple genes and environment.*

*Public health genomics helps to increase awareness and understanding of the role of genes, environment and behaviors as risk factors in health and disease.*

## Genetics Education and Resource Center:

- Maintain a central Internet portal at [www.MIGeneticsConnection.org](http://www.MIGeneticsConnection.org) for state-specific information on genetics and birth defects
- Serve as a partner in Michigan's Family to Family Health Information and Education Center, providing information and training to families and health professionals
- Offer presentations, workshops and exhibits to increase genetic literacy and awareness of available services
- Educate the health workforce, policy makers, and the public about the role of family history and genetic risk factors

## Clinical Services:

- Assure availability and accessibility of quality genetic services for patients with or at risk for birth defects and genetic disorders, including medical management for children identified by NBS

## Contact Us

- Call the offices of the state genetics coordinator toll-free at 1-866-852-1247 or (517) 335-8887, or e-mail [genetics@michigan.gov](mailto:genetics@michigan.gov)
- For Newborn Screening, call 1-866-673-9939 or (517) 335-9205, or e-mail [mdch-newbornscreening@michigan.gov](mailto:mdch-newbornscreening@michigan.gov)
- For Birth Defects information, call 1-866-852-1247 or (517) 335-9785, or e-mail [BDRFollowup@michigan.gov](mailto:BDRFollowup@michigan.gov)

Michigan Department  
of Community Health



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[www.michigan.gov/mdch](http://www.michigan.gov/mdch)  
(search "genomics")