

THE PRECISION MEDICINE INITIATIVE



WHAT IS IT?

Precision medicine is an emerging approach for disease prevention and treatment that takes into account people's individual variations in genes, environment, and lifestyle.

The Precision Medicine Initiative will generate the scientific evidence needed to **move the concept of precision medicine into clinical practice.**

WHY NOW?

The **time is right** because of:

Sequencing of the human genome

Improved technologies for biomedical analysis

New tools for using large datasets



NEAR-TERM GOALS

Intensify efforts to apply precision medicine to **cancer.**

Innovative **clinical trials** of targeted drugs for adult, pediatric cancers

Use of **combination therapies**

Knowledge to overcome **drug resistance**



LONGER-TERM GOALS

Create a research cohort of **> 1 million American volunteers** who will share genetic data, biological samples, and diet/lifestyle information, all linked to their electronic health records if they choose.



Pioneer a **new model for doing science** that emphasizes **engaged participants, responsible data sharing, and privacy protection.**

Research based upon the cohort data will:

- Advance **pharmacogenomics**, the right drug for the right patient at the right dose
- Identify new targets for **treatment and prevention**
- Test whether **mobile devices** can encourage healthy behaviors
- Lay **scientific foundation** for precision medicine for **many diseases**



Follow the Initiative's progress and consider volunteering for this landmark effort.

www.nih.gov/precisionmedicine