Whole Genome Sequencing (WGS)

Overview

- Sequence entire genome (~3 billion bases in humans)
- Captures all genetic variation including non-coding regions
- Most comprehensive genomic analysis method

Coverage	Cost	Time
30-50X	**$600-1000**	**1-3 days**
Clinical grade	Per sample	Sequencing + analysis

Applications

Clinical

- Rare disease diagnosis
- Cancer genomics
- Pharmacogenomics
- Prenatal screening

Research

- Population genetics
- Evolution studies
- GWAS studies
- Structural variants

Detects SNVs, indels, CNVs, and structural variants genome-wide