

Pharmacology may host genome revolution

Genomic research will transform medicine but progress has been slower than expected, leading critics to charge that the promise of genomics was hyperbole to get funding mandates and that while research should continue, the bulk of the money earmarked because of its applied science potential might instead be better spent elsewhere.

Proponents argue that the slowness shows the complexity of the relationship between medicine and disease and argue for more funding.

Both sides are arguing with anecdote so Ramy Arnaout, MD, DPhil, a founding member of the Genomic Medicine Initiative at Beth Israel Deaconess Medical Center (BIDMC), has tried to show benefits versus cost using quantitative modeling, the numerical forecasting approach used to try and predict everything from weather events to the outcomes of political elections.

Drug-related adverse outcomes cost the health-care system upwards of \$80 billion a year and they contend that many such cases should be avoidable by choosing and dosing drug prescriptions according to a person's genome, so they developed a quantitative model to estimate how much time and money would be required to use genomics, specifically pharmacogenomics, to cut these adverse outcomes in half. They believe their findings offer a template for the use of quantitative modeling in this field.

View the original article here: [Will Pharmacology Be Where Genomic Research Translates Into Clinical Care?](#)