Can clinical trials address the realities of disease prevalence data?


The effect of ethnicity and genetic ancestry on the epidemiology, clinical features and outcome of systemic lupus erythematosus.

Lewis MJ¹, Jawad AS¹.


UGT1A1 polymorphisms with irinotecan-induced toxicities and treatment outcome in Asians with Lung Cancer: a meta-analysis.

Chen X¹,²,³, Liu L²,³, Guo Z¹,³, Liang W¹,³, He J¹,³, Huang L²,³, Deng Q²,³, Tang H²,³, Pan H²,³, Guo M¹,²,³, Liu Y¹,³, He Q¹,³, He J⁴,⁵,⁶.


Racial and ethnic disparities in sarcoidosis: from genetics to socioeconomics.

Westney GE¹, Judson MA.


An epigenetic clock analysis of race/ethnicity, sex, and coronary heart disease.

Horvath S¹,², Gurven M³, Levine ME⁴, Trumble BC³, Kaplan H⁵, Allayee H⁶, Ritz BR⁷, Chen B⁸, Lu AT⁴, Rickabaugh TM⁹, Jamieson BD⁹, Sun D¹⁰, Li S¹⁰, Chen W¹⁰, Quintana-Murci L¹¹, Fagny M¹², Kobor MS¹³, Tsao P¹⁴,¹⁵, Reiner AP¹⁶, Edlefson KL¹⁷, Absher D¹⁸, Assimes TL¹⁴.


BiDil for heart failure in black patients: The U.S. Food and Drug Administration perspective.

Temple R¹, Stockbridge NL.
Examples of Variability - Considerations for Study Sample

- **By Disease**
  - Cancer
  - Cardiovascular disease
  - HIV/AIDS
  - Diabetes
  - Obesity
  - Hepatitis
  - Mental illness
  - Oral health disorders

- **By Population**
  - Race/ethnicity
  - Socioeconomic position
  - Gender
  - Age
  - Disability
  - Sexual orientation

- **By Geography**
  - Urban versus rural
  - Developed versus developing countries
  - Neighborhood segregation

- **By Risk Factor**
  - Substance abuse (including tobacco)
  - Diet and weight
  - Vaccination status
  - Screening status
  - Access to care
  - Insurance status
  - Risk of injury/violence
  - Environmental risks
  - Sexual behavior
  - Physical inactivity

Relevant Co-morbidities

Group differences

Location “Place”

Individual Factors

**Stratifying key variables to identify important subgroups of patients who might differentially benefit from treatment**
If it were not for the great variability among individuals, medicine might as well be a science and not an art.

—Sir William Osler, The Principles and Practice of Medicine 1892