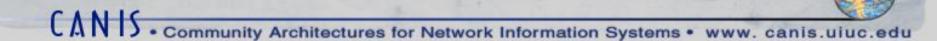
# Measuring Data for Population Health

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NSF Workshop held 12 January 2012 Final report submitted 3 May 2012

https://wiki.engr.illinois.edu/display/hiworkshop
/NSF+Workshop+Population+Health



#### **Population Measurement**

• National Scale Demographic Survey
CDC BRFSS Behavioral Risk Factor Survey
Scale is 350K persons for 100 features annually
Features measured by patient specified surveys

• Future Internet Scale MDPH

Personal Genomes, Quantitative Self, SmartPhone Scale is 350M persons for 100K features daily Vital Signs: Blood, Breath, Diet, Exercise, Stress



#### **Health Determinants**



Inner Middle Outer



## Workshop Recommendations

Testbeds for Making Baselines [\$10M, 5 yrs]

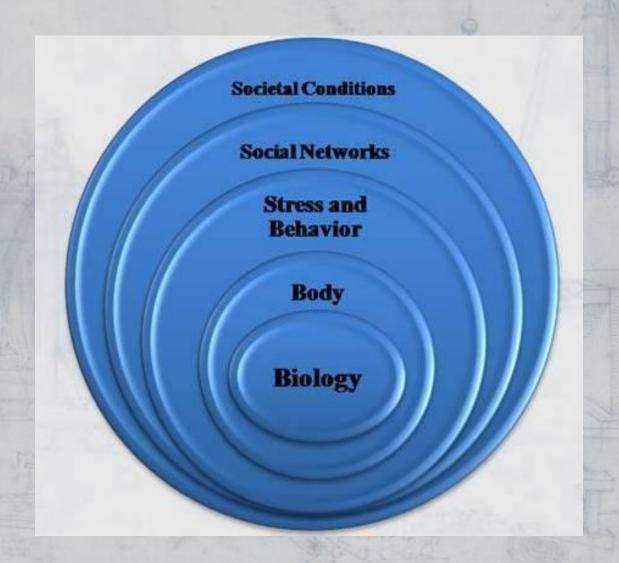
National Health Monitoring Observatories Framingham-2, 2500 persons across determinants Similar to Digital Library Infrastructure

Prototypes for Using Baselines [\$1.5M, 3 yrs]

Assessing Human Variability
Establishing Standards for Health Monitors
Education for Human and Data Resources



# Five Rings of Human Health





#### **Health Informatics**

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### Healthcare Infrastructure

Health Systems for Individuals and Populations



