Topics for Today

• Introduce myself
• Disturbing trends in health
• Guiding principles and NIH priorities
• An introduction to NIH
• NIH Funding
The health of the U.S. population is declining.
U.S. life expectancy ranks low among peers

2021 Life Expectancy Throughout World

(3) Chart data: OECD (2024), Life expectancy at birth (indicator). DOI: 10.1787/27e0f9d-en (Accessed on 10 January 2024)
U.S. life expectancy is no longer steadily increasing

Life expectancy at birth, by sex: United States, 2000–2022

NOTES: Estimates are based on provisional data for 2022. Provisional data are subject to change as additional data are received. Estimates for 2000–2021 are based on final data.
Working-age adults are dying at higher rates


Main drivers:
- Drug poisonings and alcohol-induced causes
- Suicide
- Cardiometabolic diseases

Levels of evidence supporting treatment guidelines

Lower level of evidence without a uniform consensus but with no major disagreement

High level evidence such as randomized controlled trials with uniform consensus

2A

2b

NCCN Levels of Evidence

7%  Category 1: High level evidence such as randomized controlled trials with uniform consensus

87%  Category 2A: Lower level of evidence with uniform consensus

6%  Category 2B: Lower level of evidence without a uniform consensus but with no major disagreement

0%  Category 3: Any level of evidence but with major disagreement

Category of evidence and consensus underlying National Comprehensive Cancer Network guidelines: Is there evidence of progress?
Aakash P Desai, Ronald S Go, Thejaswi K Poonacha

People who are not adequately represented in clinical research

- Are older
- Are uninsured
- Belong to minority groups
- Live in rural locations
- Have co-morbid conditions
- Are more likely to receive non-standard treatment
Guiding Principles
Our work is not finished when we deliver scientific discoveries, our work is finished when all people are living long and healthy lives.
NIH research encompasses the laboratory, the clinic, and the community.
Progress is accelerated when advanced scientific methods, such as new data analytics, are applied to data that includes everyone, and when new discoveries are rapidly and equitably adopted in clinical care.
What Should NIH Do?
Connect research to primary care
Community-based primary Care practices Advancing Research Equity for Health

CARE for Health™

Integrate research into the clinical care environment

Engender trust in science by addressing community needs

Achieve longitudinal collection of clinical data to address health across the lifespan

Conduct research addressing issues important to diverse communities, particularly those underrepresented in biomedical research

Reduce burden on providers using innovative data collection methods

Increase adherence to evidence-based care

Improve efficiency of care delivery
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<th>Cancer (NCI)</th>
<th>Eye (NEI)</th>
<th>Heart, Lung &amp; Blood (NHLBI)</th>
<th>Human Genome (NHGRI)</th>
<th>Aging (NIA)</th>
<th>Alcoholism (NIAAA)</th>
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<td>Allergy &amp; Infectious Diseases (NAID)</td>
<td>Arthritis, Musculoskeletal &amp; Skin Diseases (NIAMS)</td>
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<td>Child Health (NICHD)</td>
<td>Deafness &amp; other Comm. Disorders (NIDCD)</td>
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<td>Diabetes &amp; Digestive &amp; Kidney (NIDDK)</td>
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<td>Neurological Disorders &amp; Stroke (NINDS)</td>
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<td>Fogarty International (FIC)</td>
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<td>Complementary &amp; Integrative Health (NCCIH)</td>
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NIH Funding
(FY 2023 - $47.3B)

- Spending outside NIH
  - Research project grants at universities, medical schools
  - Research centers
  - Other research grants
  - Research training
  - R&D contracts

- Spending at NIH
  - Projects conducted by NIH scientists
    - 10.65% of budget
  - Research management and support
  - Other (administrative, construction, maintenance, operational costs)

82.66% Intramural research
10.65% Research support
6.69%
NIH Extramural Program By the Numbers

- Recruits 28,000 reviewers
- ~12,000 Grad Students
- >28,000 Postdocs
- ~350,000 NIH-supported researchers
- ~80,000 Applications of many types reviewed
- ~55K research project applications (~11.3K awards) in all 50 states and DC
- >2,800 NIH-funded institutions
- 169 Nobel Prize winners
NIH's Approach

• Majority of funding: investigator-initiated research
• NIH also develops initiatives to foster the acceleration of knowledge
Finding funding opportunities

• Matchmaker tool in NIH RePORTER
• Browse strategic plans, portfolio areas, research priorities
• Use NIH Guide to identify relevant notices of funding opportunities (NOFOs).

reporter.nih.gov/matchmaker
grants.nih.gov/funding/searchguide
Identify the right grant type

**Graduate/Medical Student**
- Dissertation Grant: R36
- NRSA Fellowships: F30, F31
- Institutional Training Grant: T32
- Research Residency (MDs): R25
- Diversity Supplements

**Postdoctoral Fellow**
- NRSA Fellowship: F32
- K-Awards: K99/R00
- Institutional Training Grant: T32
- Research Education Grant: R25
- Diversity Supplements
- Loan Repayment Program

**Early-Career Faculty**
- K-Awards: K01, K08, K23
- Research Education Grant: R25
- Research Project grants: R01, R21, R03
- Diversity Supplements
- Loan Repayment Program
NIH

Turning Discovery Into Health