

The National Longitudinal Study of Adolescent to Adult Health (Add Health): Brief History, Wave VI Update, & the Potential of These Amazing Data*

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Thank you for inviting me! Unfortunately, my life course did not involve formal education or work at U of M...

- Born in Detroit; grew up in Detroit (love) and Macomb Township (not so much...)
- Many years spent pretending to be Rick Leach, Anthony Carter, etc.
- Graduated down the road from Adrian College
- Lifelong Tigers, Lions, Pistons, Red Wings, and Buddy's fan
- ISR/UM Admirer-Wannabe for Many Years...
- Maybe retire in Ann Arbor??? At least part time April-October???



Overview of Presentation

- 1) Add Health Background
- 2) Goals & Design of Wave VI
- 3) Potential of Wave VI & Beyond
- 4) Add Health Data Access
- 5) Acknowledgements

1. Brief Background

Add Health Origins & Evolution

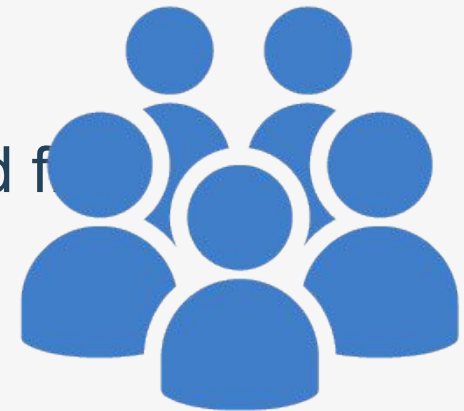
Developed in response to a 1993 Congressional mandate; project began in 1994 with primary funding from NICHD

Originally two waves; evolved into multi-wave design in early 2000s

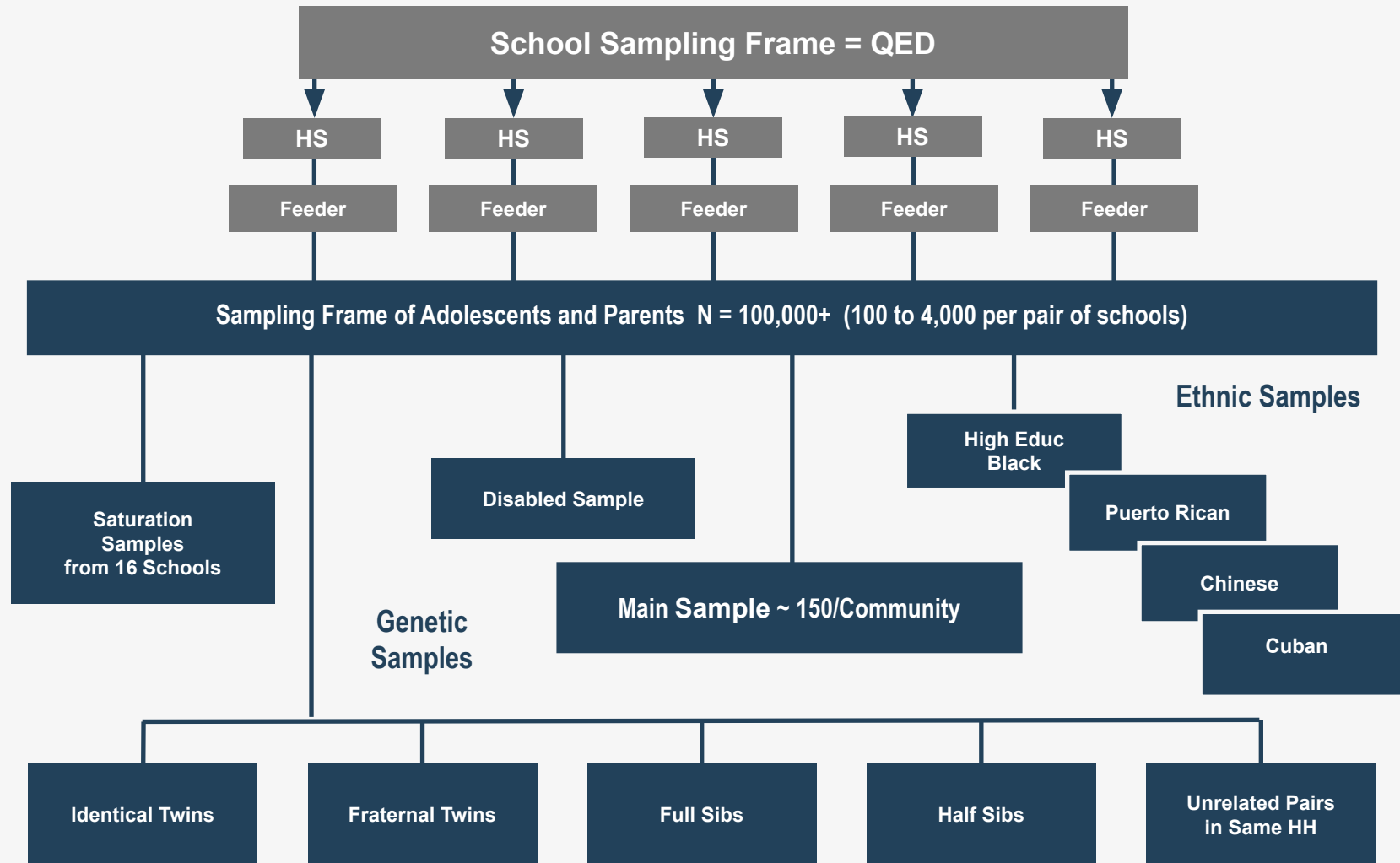
Renamed the National Longitudinal Study of Adolescent to Adult Health with Wave V funding in 2014

Recipient of 2016 Golden Goose Award

Most recently (2021-25), Wave VI was funded by NIA and f
Co-funders (NICHD, NIMHD, NIDA, OBSSR, ODP)



Add Health Sample Design



Foundational Strengths of Add Health

Very large, nationally representative sample

Extensive health data: e.g., physical, mental, functional

Contextual Design: direct measurement of adolescent social environment:

- Schools
- Peer Networks
- Families
- Neighborhoods

Parent survey data from Wave I

Oversamples of minoritized groups

Biological Domain in Original Design (lots of twins, sibs) ... enhanced over time with extensive biomarker collection

Nearly 30-year cohort follow-up to date with excellent response rates

2. Goals & Design of Wave VI

Goals for Add Health Wave VI

(Average age = 44)

Collect & disseminate high-quality data on life course determinants and trajectories of health, cognition, health behavior, and health disparities among a large, nationally representative cohort aging into early midlife.

Summary of Wave VI Plan

1. Survey (web or in-person) Add Health cohort members
2. Collect in-depth cognitive data on cohort members, both web & in-person
3. Re-visit cohort members for in-home health exam
4. Conduct key blood-based assays
5. Archive blood & microbiome samples for scientific community use
6. Conduct mortality surveillance; gather birth record & college transcript data
7. Build contextual & environmental data files
8. Clean, document, disseminate, promote, & provide support for the scientific community

Key Wave VI Innovations

Two-Sample Design

- Sample 1: Web-based with NRFU
- Sample 2: In-person with ethnoracial oversamples

Survey Content Enhancements

- Ethnoracial identity detail
- Enhanced Discrimination
- Criminal Justice Contacts & Trust in Institutions
- Stress; Caregiving; Social Support; Optimism
- More depth on physical health (e.g., menopause, pain)
- More depth on mental & behavioral health
- More depth on cognitive, physical & sensory function

Test My Brain Assessment (four cognitive domains) in both Sample 1 & Sample 2

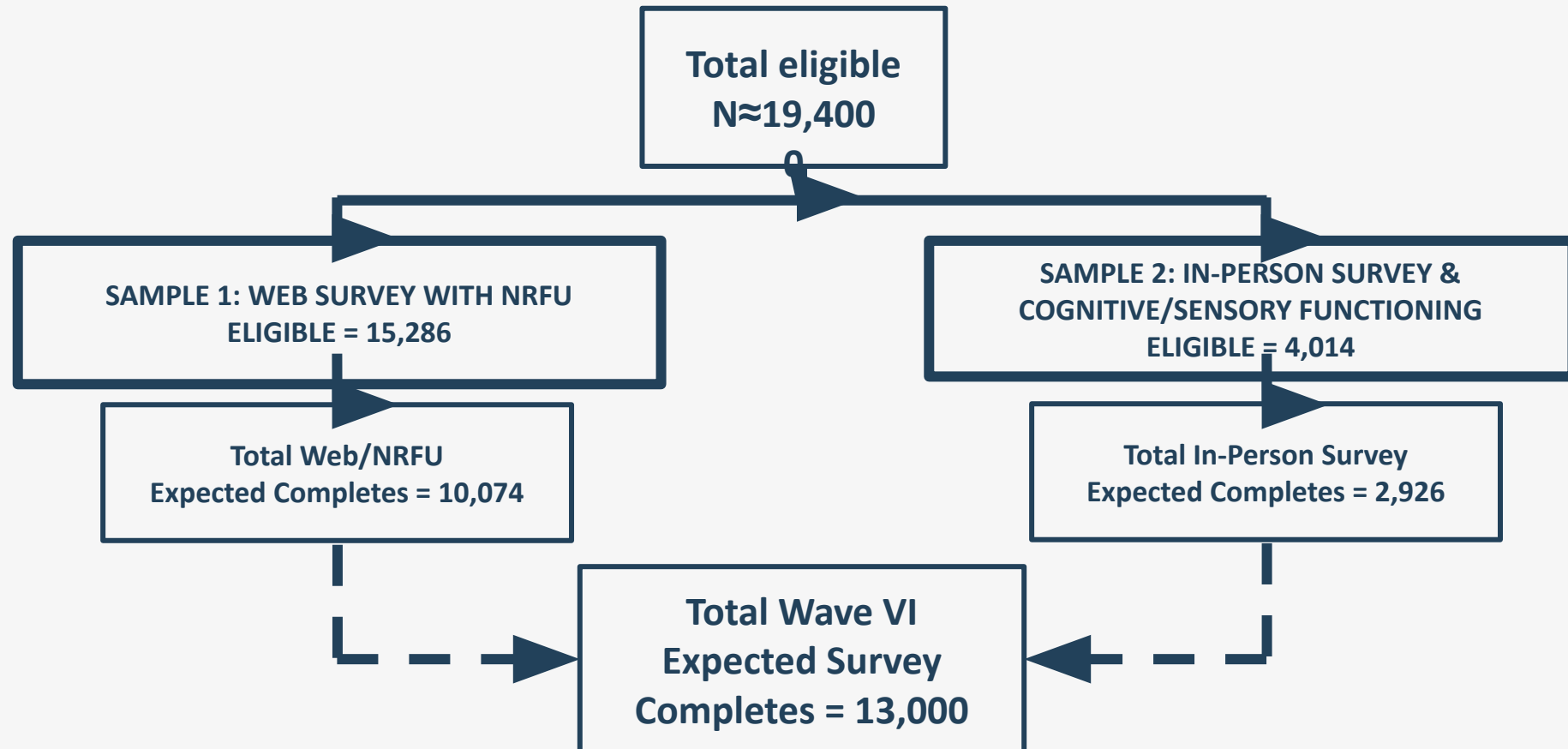
Add CAPS: Battery of Cognitive, Physical & Sensory Function Measures in Sample 2

Neurocognitive & Covid-19 Bio-Assays

Linkages: Death Records, Birth Records, College Transcripts

Extensive Additions of Contextual (e.g., Structural Racism) & Environmental Data

Wave VI Survey Design: 2 Sub-Samples



Wave V & Wave VI Sample Sizes

(Wave VI Data as of 10/11/24 ... about 5 months more to go)

	WAVE V ACTUAL	WAVE VI TO DATE	
SURVEY COMPLETES	12,300	10,794	
HOME EXAM COMPLETES	5,381	5,270	

3. Potential of Wave VI & Beyond

Add Health longitudinal, multi-level, intergenerational design

(Each wave also includes contextual data specific to various

Wave	Administrative		Survey Administration		Biological Data Collection
Wave I 1994-95 (RR=79%)	Students N=90,118	School Admin N = 144	Adolescents in grades 7-12 N = 20,745	Parent N=17,670	Height, weight
Wave II 1996 (RR=89%)		School Admin N = 128	Adolescents in grades 8-12 N = 14,738		Height, weight
Wave III 2001-02 (RR=77%)	High school transcripts		Young adults Aged 18-26 N = 15,197	Partner N=1,507	Height, weight, STI, HIV, genetic (buccal cell DNA)
Wave IV 2008-09 (RR=80%)			Adults Aged 24-32 N = 15,701		Height, weight, waist, metabolic, immune, inflammation, cardiovascular, medications, candidate genes, GWAS
Wave V 2016-18 (RR=72%)	Birth & death records	Sexual Orientation, Gender Identity & Health N = 2,665	Adults Aged 33-43 N = 12,300	Parent N=3,001	Height, weight, waist, metabolic, immune, inflammation, cardiovascular, renal, medications, gene expression, epigenetic, microbiome
Wave VI 2022-24	Birth & death records; College transcripts		Adults Aged 39-49 N ~ 13,000	Parent N=5,000	Height, weight, waist, metabolic, immune, Covid-19, inflammation, cardiovascular, renal, medications, microbiome, cognitive, physical functioning, neurocognitive

Address Life Course, Multi-Level, & Intergenerational Based Scientific Issues, Such As:

- * Emergence and unfolding of health disparities across many domains
- * Contextual (family, peers, schools, neighborhoods) influences on cognition & health
- * Genetic & environmental influences on health, health behavior, and functioning
- * Real-time unfolding of the obesity epidemic across the life course
- * Social, economic, and behavioral influences on biological aging
- * Intergenerational influences on cognition, health, and wellbeing

4. Add Health Data Access

Obtaining Add Health Data

1) Restricted Use:

Through User Contracts

GWAS Data ... through dbGaP

For info, go to:

<https://addhealth.cpc.unc.edu/data/>

<https://www.cpc.unc.edu/projects/addhealth/documentation>

2) Public Use: through ICPSR ... go to:

<https://www.icpsr.umich.edu/web/DSDR/studies/21600>

Looking Ahead to Dissemination of Wave VI Data:

Domains: Survey data (3/4 web; 1/4 in-person)

Cognitive, sensory, and physical functioning

Biological data (biomarker, anthropometric, meds)

Mortality surveillance

Birth Records; College Transcripts

Contextual & Environmental data from multiple levels

Data ETA: 2025 (Not January 1st ... ☺ ... more like Sept-Dec)

5. Acknowledgements

Current Add Health Funders

National Institute on Aging (NIA)

Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)

National Institute on Minority Health and Health Disparities (NIMHD)

National Institute on Drug Abuse (NIDA)

NIH Office of Behavioral and Social Sciences Research (OBSSR)

NIH Office of Disease Prevention (ODP)

Acknowledgements, continued

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Add Health was originally designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill. Add Health is currently directed by Robert A. Hummer; it was previously directed by Kathleen Mullan Harris (2004-2021) and J. Richard Udry (1994-2004).

Information on obtaining Add Health data is available on the project website (<https://addhealth.cpc.unc.edu>).

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ExamOne: Our Home Exam Contractor  **Add Health**
The National Longitudinal Study of Adolescent to Adult Health