

New York City Health and Nutrition Examination Surveys (NYC HANES)

2004 and 2013-14

August 2016

Outline

- Introduction
- Part I: Survey Basics
- Part II: Weighting and Age Adjustment
- Part III: Data analysis using SAS and SUDAAN

INTRODUCTION

Two Important City Institutions Are Leading This Study

City University of New York

- Largest municipal university network in US
- 23 colleges and institutions
- ~275,000 matriculated students
- Trains more than half of NYC's undergrads (54%), very diverse
- School of Public Health (SPH) launched in 2008 and accredited in 2011
- SPH committed to advancing the health of NYC residents

New York City Health Department

- One of the largest and oldest local health departments in the country
- More than 6,000 staff
- Monitors the health of NYC residents and performs multiple health surveys
- Leader in finding innovative public health solutions, especially for chronic diseases
- Conducted NYC HANES in 2004

What Is NYC HANES?

- Important survey “takes the pulse” of adult health in NYC
- Modeled on the nation’s most important & accurate health survey (National HANES)
- Conducted first in 2004, and completed again in 2013-2014, 10 years later
- Led by CUNY School of Public Health in partnership with NYC Health Department, with private funding from
 - 5 Foundations: de Beaumont, Robert Wood Johnson, Robin Hood, NY State Health, Doris Duke Charitable
- Designed to identify & evaluate city health policies and generate solutions

NYC HANES 2004:

<http://www1.nyc.gov/site/doh/data/data-sets/new-york-city-health-and-nutrition-examination-survey-2004-nyc-hanes.page>



Data Sets & Tables

Neighborhood Statistics

Community Health Survey

[NYC Health & Nutrition Examination Survey](#)

NYC Youth Risk Behavior Survey

Pregnancy Risk Assessment Monitoring System

Physical Activity & Transit Survey

Vital Statistics Data Request

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New York City Health and Nutrition Examination Survey

- [New York City Health & Nutrition Examination Survey \(NYC HANES\) Main Page](#)
- [Designing and Implementing a Community HANES Survey](#)
- [Datasets & Related Documentation](#)

The New York City Health and Nutrition Examination Survey (NYC HANES) is a community-based health survey conducted by the New York City Department of Health and Mental Hygiene (DOHMH). Data was collected from June through December 2004. NYC HANES measured key health indicators in a sample of 1,999 randomly selected NYC adult residents through a detailed health interview and brief physical exam. In 2013, the City University of New York School of Public Health and DOHMH will conduct a second NYC HANES .

NYC HANES is modeled after a similar national survey - the National Health and Nutrition Examination Survey (NHANES). NHANES has been conducted by the National Center for Health Statistics for more than 35 years. Information from NHANES has led to important improvements in American health care and nutrition. [Learn more about NHANES](#) .

The data collected enabled the DOHMH to learn how many New Yorkers suffered from basic conditions such as diabetes, high blood pressure, high cholesterol, and depression. With this critical information, DOHMH can better direct the City's resources to the health needs of New Yorkers. Conducting a second survey will provide a powerful way to evaluate the impact of City health policies since 2004.

Designing and Implementing a Community HANES

To share the lessons learned in conducting the 1st ever community HANES we created the document entitled "*Designing and Implementing a Community Health and Nutrition Examination Survey: The New York City Experience* ." In this document we present the rationale for conducting a community HANES, describe critical planning steps that precede implementation and discuss issues that might arise during data collection. In addition, this site contains much of the documentation used in implementing NYC HANES, including study protocols and procedures, training and outreach materials and other resources created and used during the New York City study. [Learn more](#) .

NYC HANES Datasets and Related Documentation

- [Download questionnaires, datafiles, data documentation, analytic guidelines, and sample SAS programs for analysis](#)

NYC HANES Publications

- [Prevalence of Hepatitis C Infection in New York City, 2004](#)
- [Population-Based Biomonitoring of Exposure to Organophosphate and Pyrethroid Pesticides in](#)



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CUNY SPH

NYC HANES 2013-2014:

www.nychanes.org

NYC HANES

New York City Health and Nutrition Examination Survey

[ABOUT](#)

[DATA](#)

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[PUBLICATIONS](#)

[CONTACT US](#)



The New York City Health and Nutrition Examination Survey (NYC HANES) is a community-based health survey of NYC adult residents that includes a detailed health interview and brief physical exam. The survey was most recently conducted by The City University of New York School of Public Health (CUNY SPH) and the NYC Department of Health and Mental Hygiene (NYC DOHMH) in 2013-2014. In 2004, the NYC DOHMH conducted the first NYC HANES. [more>](#)

NYC HANES General Overview

- In-depth survey questions
 - Demographics, health behaviors, health outcomes, mental health, and disease awareness.
- Audio-computer assisted self-interview (ACASI)
- Clinical examination and laboratory testing
 - Objective measures of health, including undiagnosed conditions and controlled conditions
- Repository of biological specimens
- Instruments and labs benchmarked against National HANES (NHANES)

What we wanted to know...

- Extent of undiagnosed chronic conditions among NYC residents
- Which groups are at high risk of developing disease
- The full distribution of risk factors for cardiovascular disease (blood pressure, cholesterol, glucose)
- Population-based information on disease management
- Extent to which residents are exposed to environmental toxins

NYC HANES Goals

2004:

- Estimate prevalence of selected health conditions in NYC using objective measures
- Estimate citywide awareness, treatment, and control of selected health conditions
- Monitor prevalence of environmental exposures

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- Monitor prevalence of environmental exposures

2013-2014:

- Compare health of New Yorkers from 2004 to 2013-14; evaluate major citywide initiatives (e.g. trans-fat ban)
- Validate health estimates from electronic health records

Governance

- NYC HANES data and bio-repository are jointly shared by CUNY SPH and NYC DOHMH, governed by a signed Memorandum Of Understanding
- Both institutions are committed to maximizing the learning to be obtained from NYC HANES data
 - Extensive analytic plan drafted prior to data collection, with designated lead authors
 - Dataset is currently available to the public at nychanes.org
 - External requests for the use of stored blood, urine, or saliva will be reviewed

Request for NYC HANES Specimens

- Investigators are invited to submit research proposals to use the NYC HANES bio-specimens
- Procedures for submitting a research proposal and information about the specimens are at <http://nychanes.org/research-opportunities/>

PART I – SURVEY BASICS

BACKGROUND AND METHODS

NYC HANES: Study Designs

	2004	2013-2014
Time Frame	June – December 2004	August 2013 – June 2014
Population	Non-institutionalized NYC adult residents aged 20+ years	
Sampling	Population-based, cross-sectional, 3-stage cluster sample: <ul style="list-style-type: none"> - Stratified by borough - Primary Sampling Unit (PSU): Aggregation of Census Block Groups (by stratification PPS* sampling) - SSU: Households within PSU (by SRS**) - TSU: Participants within households (by SRS**) 	
Weighting	Weighted to non-institutionalized adult population aged 20+, per Census 2000	Weighted to non-institutionalized adult population aged 20+, per population estimates based on the American Community Survey (ACS) 2008-2012.

* PPS: Probability Proportional to Size

** SRS: Simple Random Sample

NYC HANES: Recruitment and Setting

	2004	2013-2014
Leading Entity	DOHMH	CUNY SPH and DOHMH
Recruitment of households	<ul style="list-style-type: none"> • Advance letter sent to selected households • Interviewers visited households to identify potential participants • Eligible participants asked to complete the survey in the established setting(s) 	
Data collection settings	Four field clinics, ≈10% home interviews	Mainly in the home, one field clinic
Fasting	80% of participants asked to fast.	All participants asked to fast. A 48-hour advance reminder.
Incentives	\$100	Up to \$200

NYC HANES 2004: Sampling Design & Response Rate

SEGMENT

~20,000 Un-Linked* Segments in NYC

144 Segments randomly selected

HOUSEHOLD

4026 households approached

Response Rate
 $3388/4026 = 84\%$

3388 completed eligibility interview

638 did not complete eligibility interview

Overall Response Rate
 $84\% \times 66\% = 55\%$

PARTICIPANT

3047 participants identified

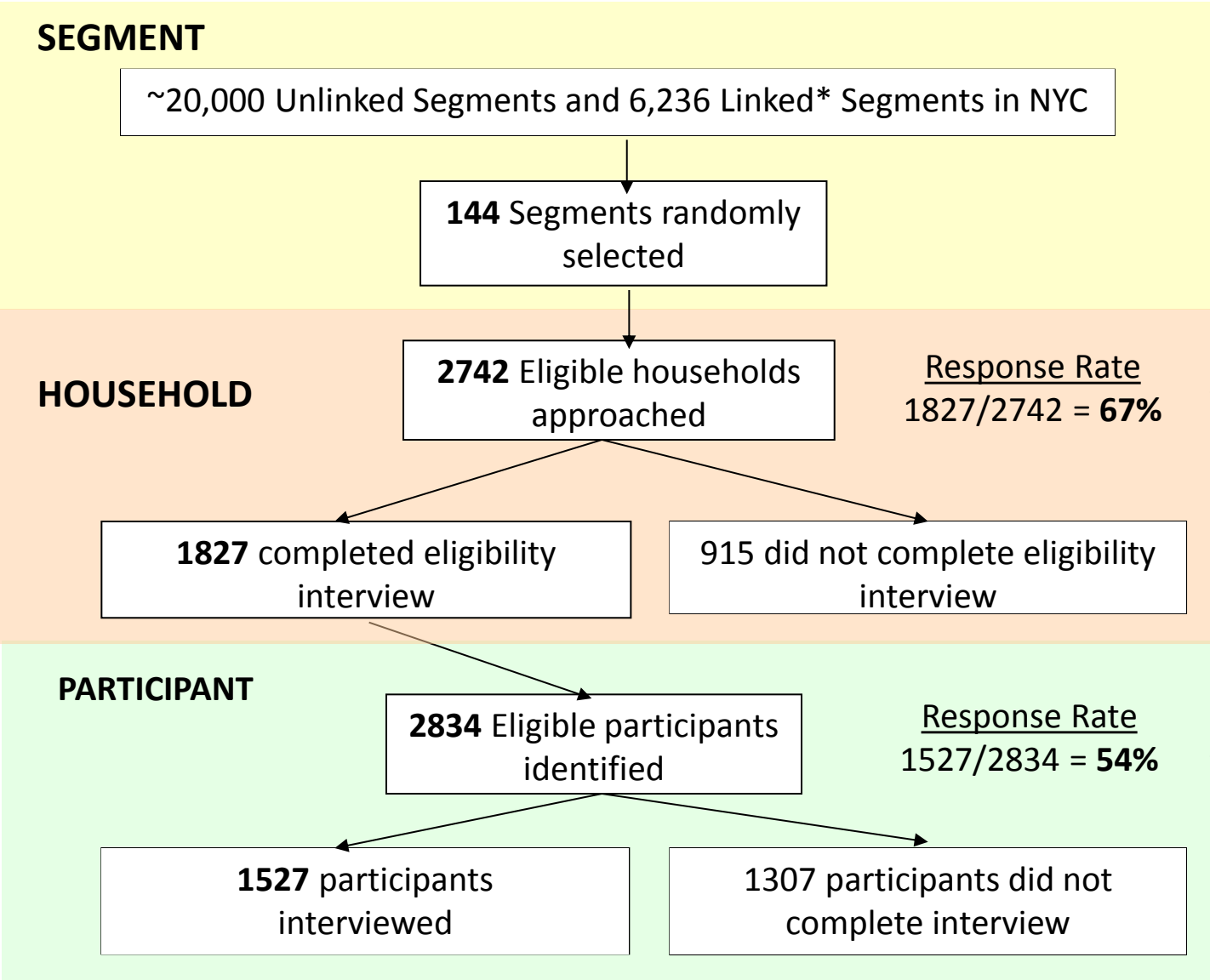
Response Rate
 $1999/3047 = 66\%$

1999 participants interviewed

1048 participants refused

(*) Linked Segments are segments combined due to small population size. 03/8/2022

NYC HANES 2013-14: Sampling Design & Response Rate



Overall Response Rate
 $67\% \times 54\% = 36\%$

* Linked Segments are segments combined due to small population size.

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NYC HANES: Limitations

- Cross-sectional design
 - Unable to establish temporality or incidence
- Only citywide estimates available (no borough or UHF)
- Small sample size, especially for some demographic subgroups
- Selection/non-response bias
 - Partially corrected through non-response weighting adjustment
- Random error or social desirability bias for some self-reported measures
 - Difficulty recalling past behaviors
 - Social desirability bias reduced using ACASI

SURVEY COMPONENTS

NYC HANES: Survey Components

Component	2004	2013-2014
Computer Assisted Personal Interview (CAPI) Questionnaire	<ul style="list-style-type: none"> - Demographic information - Medical/family history - Health care access - Nutrition and physical activity - Smoking and tobacco use - Social support - Alcohol use 	Same as 2004 plus: <ul style="list-style-type: none"> - <u>Oral Health</u> - <u>Mental Health Assessment</u>, including_Kessler-6 (K-6) and WHO-Disability Assessment Schedule (WHO-DAS)
Audio Computer-Assisted Personal Self- Interview (ACASI)	<ul style="list-style-type: none"> - Drug use - Sexual behavior - Incarceration 	<ul style="list-style-type: none"> - Drug use (<u>expanded</u>) - Sexual behavior (<u>expanded</u>) - Incarceration
Composite International Diagnostic Interview (CIDI)	<ul style="list-style-type: none"> - Mental Health Assessment 	<u>Not implemented</u>
Physical Exam	Anthropometric measurements	Same as 2004
Laboratory tests	<ul style="list-style-type: none"> - Urine - Blood 	<ul style="list-style-type: none"> - Urine - Blood - <u>Saliva</u>



NYC HANES: CAPI

- CAPI (Computer-Assisted Personal Interview). Face-to-face interview recorded by the interviewer using a computer.
 - Demographic information
 - Medical history, including family history
 - Health care access
 - Nutrition and physical activity
 - Smoking and tobacco use
 - Social support
 - Alcohol use
 - Oral health (new in 2013-14)
- Interviews were conducted in multiple languages by field staff. Additional languages were also used, either with a household member translating or with Language Line (a telephone-based translation service).

NYC HANES: ACASI

- ACASI (Audio Computer-Assisted Personal Self-Interview): Respondent completes questionnaire on the computer (no interviewer)
- Drug use (expanded in 2013)
- Sexual behavior (expanded in 2013)
- Incarceration
- Conducted in English and Spanish only. Proxies and translators did not complete the ACASI.

CIDI (2004 survey only)

- CIDI (Composite International Diagnostic Interview): Face-to-face interview conducted at a clinic (not in participants' homes).
 - Responses use diagnostic criteria to measure general anxiety disorder, panic disorder, and major depression.
- Interviews were written in English and Spanish. NYC HANES staff translated this component into other languages (if NYC HANES staff spoke the participant's language). Language line translation and family translators were not used.

Survey: Anthropometrics

- Height
- Weight
- Waist circumference
- Blood pressure and pulse
 - Conducted both at the clinic and in participants' homes

Survey: Lab Tests and Repository

- **Laboratory Analysis**

- Diabetes: fasting plasma glucose, glycohemoglobin (A1c)
- Heart disease: cholesterol, HDL, triglycerides
- Infectious diseases: hepatitis B*, C, and E*, oral HPV*
- Environmental exposures: blood and urine mercury, blood lead, blood cadmium, serum cotinine (nicotine byproduct)
- Kidney function: urine albumin, urine and serum creatinine*

- **Repository**

- Sera and urine stored for future research (2013-14: saliva*)

** Purple font = Collected in 2013-14 only*

DATASET AND DOCUMENTATION

2004 Dataset and documentation

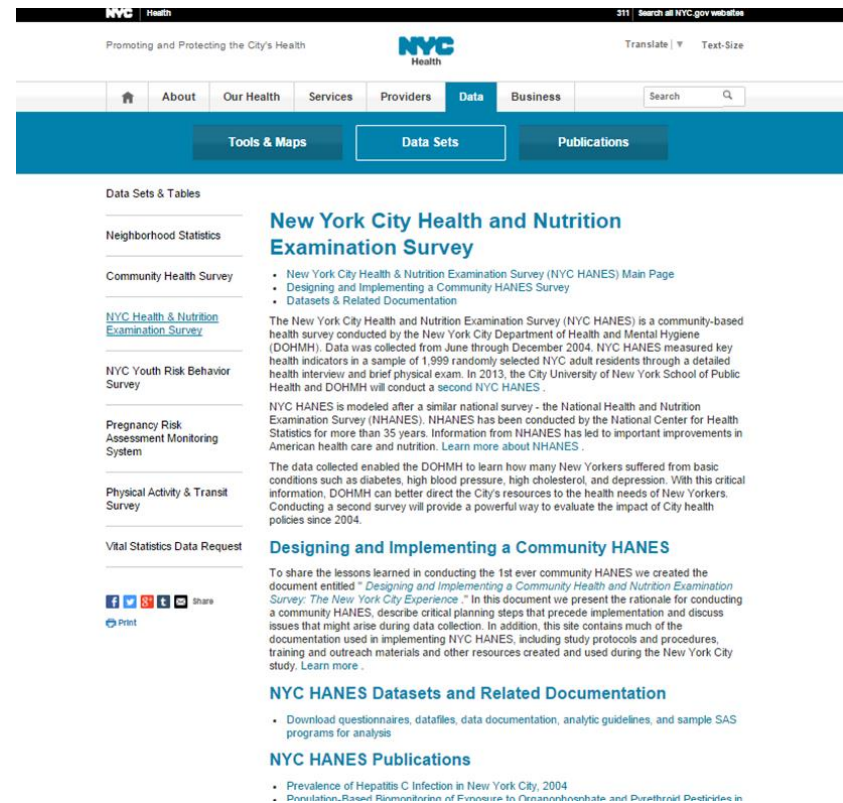
Open Access Location

- NYC DOHMH website:
<http://www1.nyc.gov/site/doh/data/data-sets/new-york-city-health-and-nutrition-examination-survey-2004-nyc-hanes.page>
- Data & Statistics
 - Surveys
 - NYC HANES Survey
 - » Datasets and Related Documentation
- Using the Data
- Data and Data Documentation
- SAS Formats and Previously Used Recodes
- Sample SAS Code
- Datasets for Control Totals used in above programs and referenced in Analytic Guidelines

2004 Dataset and documentation

Open Access Location

- Data and Documentation Modules:
 - SPFile: Participants' Demographic Information
 - CAPI
 - ACASI
 - CIDI
 - EXAM (Physical Exam)
 - Labs (Lab results)
- For each Module:
 - Variable list (EXCEL)
 - Questionnaire (PDF)
 - Data documentation (PDF)
 - Codebook (PDF)
 - Data (SAS Dataset)



The screenshot shows the NYC Health website interface. The top navigation bar includes 'Home', 'About', 'Our Health', 'Services', 'Providers', 'Data', and 'Business'. The 'Data' tab is selected, leading to a 'Data Sets' page. The main content area features a sidebar with links to 'Data Sets & Tables', 'Neighborhood Statistics', 'Community Health Survey', 'NYC Health & Nutrition Examination Survey', 'NYC Youth Risk Behavior Survey', 'Pregnancy Risk Assessment Monitoring System', 'Physical Activity & Transit Survey', and 'Vital Statistics Data Request'. The main content area is titled 'New York City Health and Nutrition Examination Survey' and includes a list of links: 'New York City Health & Nutrition Examination Survey (NYC HANES) Main Page', 'Designing and Implementing a Community HANES Survey', and 'Datasets & Related Documentation'. Below this, there is a detailed description of the survey, its history, and the purpose of the data collection. At the bottom, there are sections for 'Designing and Implementing a Community HANES' and 'NYC HANES Datasets and Related Documentation'.

2004 Dataset

Location at the NYC DOHMH

- R:\SUDAAN\NYC HANES\2004\Dataset\nychanes04.sas7bdat
 - All survey modules (CAPI, ACASI, CIDI, Anthropometrics, Lab tests) have been merged into one dataset
 - Variables are formatted
 - Variables that were created specifically for EpiQuery are also included

2004 Documentation

Location at the NYC DOHMH

- **R:\SUDAAN\SUDAAN\NYC HANES\2004**
- **Variables lists**
- **Questionnaires** (for all survey modules; demographics are included in the CAPI questionnaire)
- **Codebooks** for CAPI, ACASI and CIDI, LABS (lab tests), EXAM (anthropometrics), and SP Complete (demographics only)
- **Recodes/recode formats**
- **Analytic notes**

EpiQuery

<https://a816-healthpsi.nyc.gov/epiquery/NYCHANES/index.html>

NYC Health and Nutrition Examination Survey, 2004

(Adults aged 20 years or older)

Select Survey Measure

Cardiovascular Disease Risk Factors

High Blood Pressure

- Prevalence of hypertension
- Awareness among adults with hypertension
- Control among adults with hypertension

High Cholesterol

- Prevalence of hypercholesterolemia
- Awareness among adults with hypercholesterolemia
- Control among adults with hypercholesterolemia

Diabetes

- Prevalence of diabetes
- Prevalence of diagnosed vs. undiagnosed diabetes
- Awareness among adults with diabetes
- Glycemic control among adults with diabetes (self report and diagnosed during survey)
- Glycemic control among adults with self-reported diabetes

Weight

- Overweight and obesity

Infectious Diseases

Herpes Simplex Virus Type 2 (HSV-2)

- Prevalence of herpes simplex virus type 2
- Awareness among adults with HSV-2

Hepatitis C Virus

- Prevalence of hepatitis C

Mental Health

Major Depressive Disorder (MDD)

- Prevalence of major depressive disorder
- Awareness among adults with MDD
- Treatment among adults with MDD

Generalized Anxiety Disorder (GAD)

- Prevalence of generalized anxiety disorder
- Treatment among adults with GAD

Environmental Exposures

- Blood lead levels ≥ 5 $\mu\text{g}/\text{dL}$
- Blood mercury levels ≥ 5 $\mu\text{g}/\text{L}$

Please select one: Age-adjusted estimate† Unadjusted (crude) estimate
What is age adjustment?

†Adjusted to the year 2000 U.S. Standard Population

SUBMIT

[Click here for more information about this dataset](#)

Manuscripts

- Manuscripts from NYC HANES 2004 can be found in the 'Manuscripts' folder
- A list of publications (with hyperlinks to journals) can be found on NYC HANES website:
<http://www.nychanes.org>

2013-2014 Dataset and Documentation

- **Location:**
 - At the DOHMH: R:\SUDAAN\SUDAAN\NYC Hanes\2013-4
 - Public Access: www.nychanes.org
- **First step: Data documentation (What you need to know) and Analytic Guidelines**, Files with details on how to navigate all the datasets
- **Dataset:** One file contains all components of the dataset (CAPI, ACASI, EXAM, BLOOD, URINE, SALIVA)
- **Control Totals:** Datasets to be used when adjusting weights for non-response
- **Questionnaire** (for CAPI and ACASI; demographics are included in the CAPI questionnaire)
- **Codebook** for CAPI, ACASI, LABS (BLOOD, URINE, SALIVA), EXAM (anthropometrics)
- Other support files:
 - **Variable list**
 - **Recodes/recode formats**
 - **Sample SAS Code**

Questionnaires

In dataset:

- DMQ_A



In Questionnaire

DEMOGRAPHICS INFORMATION – DMQ

ASK ALL
DMQ.A

What year {were you/was SP} born?

|_|_|_| ENTER 4-DIGIT YEAR

REFUSED 7777

DON'T KNOW..... 9999

- DMQ_Age



ASK ALL
DMQ.Age

Can {you/SP} please confirm {your/his/her} age?

|_|_|_| [ENTER NUMBER]

RANGE = 20-115;

HARD ERROR: IF AGE <20 SP IS NOT ELIGIBLE FOR STUDY]

- DMQ_1



ASK ALL
DMQ.1 -

What is the **highest** grade or level of school {you have/SP has} **completed** or the **highest degree** {you have/s/he has} **received**?

[DMQ.140]

HAND CARD DMQ1

READ HAND CARD CATEGORIES IF NECESSARY. ENTER HIGHEST LEVEL OF SCHOOL.

NEVER ATTENDED/KINDERGARTEN

ONLY 0

1ST GRADE 1

2ND GRADE 2

3RD GRADE 3

4TH GRADE 4

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Codebook

New York City Health and Nutrition Survey (NYC HANES) 2013-14 Codebook - ANALYTIC DATASET

Section	Raw Name	Question	Format	2004 Study	Notes	Mean	Value	Frequency (unweighted)	Percent (unweighted)	Percent (weighted)
SAMP	KEY	SP Case ID	SCH2FMT		Ask all		[Other]=Data Present	1527	100.00	100.00
SAMP	BOROSTRATUM	Nesting Variable: Stratum	NUM6FMT		Ask all		>0: Data Present	1527	100.00	100.00
SAMP	PSUNEST	Nesting Variable: PSU	NUM6FMT		Ask all		>0: Data Present	1527	100.00	100.00
SAMP	HHNEST	Nesting Variable: SSU	NUM6FMT		Ask all		>0: Data Present	1527	100.00	100.00
SAMP	CAPI_WT	Capi Weight	NUM6FMT		Ask all		>0: Data Present	1527	100.00	100.00
SAMP	EXAM_WT	Physical Weight	NUM6FMT		Ask all		0: No Value >0: Data Present	27 1500	1.77 98.23	2.17 97.83
SAMP	BLOOD_WT	Blood Weight	NUM6FMT		Ask all		0: No Value >0: Data Present	317 1210	20.76 79.24	21.01 78.99
SAMP	URINE_WT	Urine Weight	NUM6FMT		Ask all		0: No Value >0: Data Present	77 1450	5.04 94.96	5.70 94.30
SAMP	SALIVA_WT	Saliva Weight	NUM6FMT		Ask all		0: No Value >0: Data Present	69 1458	4.52 95.48	5.13 94.87
SAMP	WT_CAPI	Capi Weight Indicator	Y1N0F		Ask all		1: Yes	1527	100.00	100.00
SAMP	WT_EXAM	Physical Weight Indicator	Y1N0F		Ask all		0: No 1: Yes	27 1500	1.77 98.23	2.17 97.83
SAMP	WT_BLOOD	Blood Weight Indicator	Y1N0F		Ask all		0: No 1: Yes	317 1210	20.76 79.24	21.01 78.99
SAMP	WT_URINE	Urine Weight Indicator	Y1N0F		Ask all		0: No 1: Yes	77 1450	5.04 94.96	5.70 94.30
SAMP	WT_SALIVA	Saliva Weight Indicator	Y1N0F		Ask all		0: No 1: Yes	69 1458	4.52 95.48	5.13 94.87
LAQ	LAQ1	Interviewer Instruction: What Language Is Being Used to Conduct this Interview?	TE_4F		Ask all		1: English 2: SPanish 3: Chinese	1308 143 22	85.66 9.36 1.44	83.67 10.59 1.64

Codebook

Codebook Field	Description
Section	Describes the component of the study the variable comes from
Raw Name	Name of variable as it appears in the dataset
Question	Actual question in the questionnaire or brief description of the variable
Format	SAS Format Name. User-defined formats are applied for variables, and the format names are provided in the SAS program 'SAS variable formats.sas'.
2004 Study	Name of variable as it appears in the NYC HANES 2004 dataset. Useful for analysis of change over time
Notes	<p>Describe the:</p> <ul style="list-style-type: none"> • NHANES matching variable name, when it applies. Useful for analysis comparing NYC to the National estimates. • Preceding skip pattern, • Instructions for the interviewer or examiner during the interview or examination, and • Definitions of recoded variables. <p>The Notes will be useful for identifying the denominator of prevalence estimates and for inclusion criteria.</p>
Mean	The mean value of continuous variables. Only available for continuous variables.
Value	<p>The possible responses for a variable, and the codes for those responses.</p> <p>NOTE: For continuous variables, the value format shows the sample for which the variable has a non-missing value, missing values, Don't Knows and Refusals.</p>
Frequency (unweighted)	Frequency of occurrence.
Percent (unweighted)	Reflects the occurrence (unweighted) per 100 of the study population.
Percent (weighted)	Reflects the weighted occurrence per 100 of the weighted population.

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Key Demographic Characteristics

Characteristic	2004			2013-14		
	N	%	% _w	N	%	% _w
Total	1999	100.0	100.0	1527	100.0	100.0
Age group						
20-29	519	26.0	19.8	360	23.6	22.6
30-39	453	22.7	22.7	337	22.1	19.4
40-49	432	21.6	20.3	252	16.5	18.0
50-59	309	15.5	15.6	264	17.3	16.9
60+	286	14.3	21.6	314	20.6	23.1
Gender						
Men	831	41.6	46.1	642	42.0	46.6
Women	1168	58.4	53.9	885	58.0	53.4
Marital Status						
Never Married*	746	37.3	34.1	654	42.8	39.6
Married	884	44.2	45.3	590	38.6	42.6
Widowed, divorced, separated	362	18.1	20.3	283	18.5	17.9
Don't Know and Refuse	7	0.4	0.4	0	-	-
Race/ethnicity						
Non-Hispanic White	617	30.9	38.4	513	33.6	35.0
Non-Hispanic Black	433	21.7	23.0	340	22.3	21.3
Hispanic	260	13.0	10.8	390	25.5	27.1
Non-Hispanic Asian	657	32.9	26.2	204	13.4	14.0
Other**	29	1.5	1.5	80	5.2	2.6
Don't Know and Refuse	4	0.2	0.2	0	-	-
Education (Highest Level)						
Less than high school graduate	572	28.6	27.0	316	20.7	18.7
High school graduate, GED, or alternative	384	19.2	19.0	244	16.0	23.8
Some college or associate's degree	419	21.0	20.4	337	22.1	22.6
College graduate or higher	616	30.8	33.2	628	41.1	34.9
Don't Know and Refuse	8	0.4	0.4	2	0.1	0.1

* Includes Single and Living with a Partner

** Includes multiracial (more than one race)

Getting help

- Before starting your analysis, talk to us! We are here to help you.
- Talk to your colleagues.
- Contacting SUDAAN
 - Go to the technical assistance web page, or
 - Send an email at sudaan@RTI.org

NYC HANES 2013-2014 Team and Funding

- **CUNY SPH:** Lorna Thorpe, Co-PI; Amy Freeman, Jessica Rodriguez-Lopez, Liz Lurie, Mark Friedman
- **DOHMH:** Sharon Perlman, Co-PI; Carolyn Greene (PI Emeritus), Ram Koppaka, Elisabeth Snell, Claudia Chernov
- **Public Health Laboratory:** Jennifer Rakeman, Amado Punsalang, Josephine Atamian, Janet Nival, Orlin Trochev, Francesca Giancotti, Gustavo Fernandez, Birdette Davidson, Diana Lasker, Ka Ho Cheng, Leo Yau, Altaf Shaikh
- **Other contributing DOHMH bureaus/programs include:** Division of Epidemiology, Health Police, Environmental Health, DIITT, Administration, Finance, General Counsel, Communications, IGA & Press Office, Mental Health, Disease Control, Health Promotion and Disease Prevention, Health Care Access and Improvement, Commissioner's Office, Thomas Farley, Mary Bassett
- **Other contributing CUNY Offices:** Jennifer Raab, Ayman El-Mohandes, Gillian Small, CUNY Communications, Hunter College Geography Dept; Baruch College Survey research
- The Fund for Public Health in NY, CUNY RF
- RTI International

Support for NYC HANES 2013-14 was provided by the de Beaumont, Robin Hood, the New York State Health Foundations, and the Doris Duke Charitable Foundation.



APPENDIX

Public Use Web Sites

- **2004**

<http://www1.nyc.gov/site/doh/data/data-sets/new-york-city-health-and-nutrition-examination-survey-2004-nyc-hanes.page>

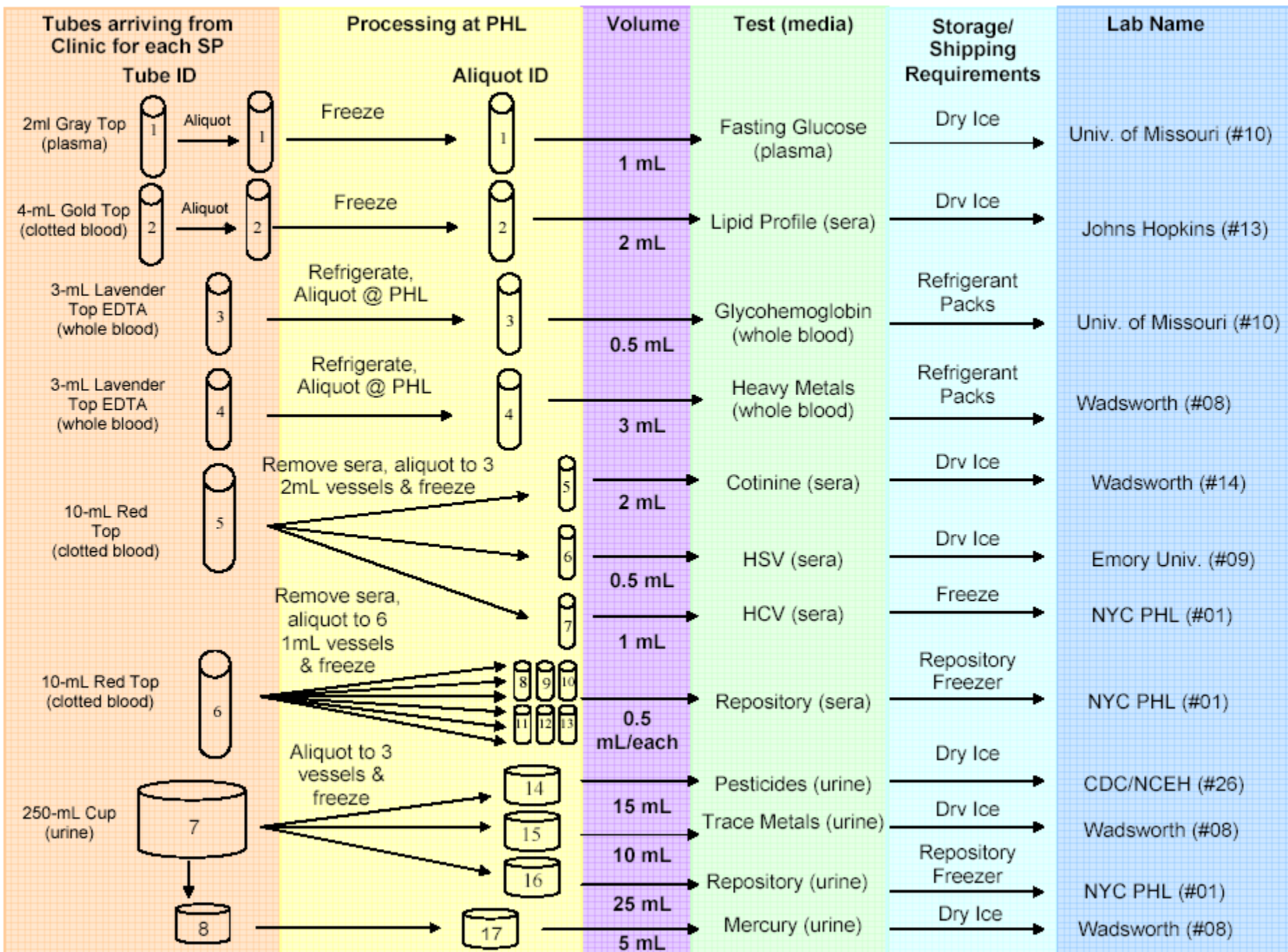
- **2013-2014**

<http://nychanes.org>

More about 2004 labs

- **All specimens first processed at the NYC Public Health Laboratories, then shipped to 5 additional facilities for further processing:**
 - University of Missouri
 - Johns Hopkins University
 - Wadsworth
 - Emory University
 - National Center for Environmental Health at the CDC
- **Specimens analyzed at 6 different laboratories**

FIGURE 1. NYC HANES SPECIMEN PROCESSING FLOWCHART (3.14.04)



More about 2013-14 Labs

- **All specimens first processed at the NYC Public Health Laboratories, then shipped to 4 additional facilities for further processing:**
 - University of Minnesota
 - Wadsworth
 - Centers for Disease Control and Prevention (CDC)
 - Albert Einstein
- **Specimens were analyzed by 3 of the above laboratories**

FIGURE 1A. NYC HANES PROCESSING FLOWCHART

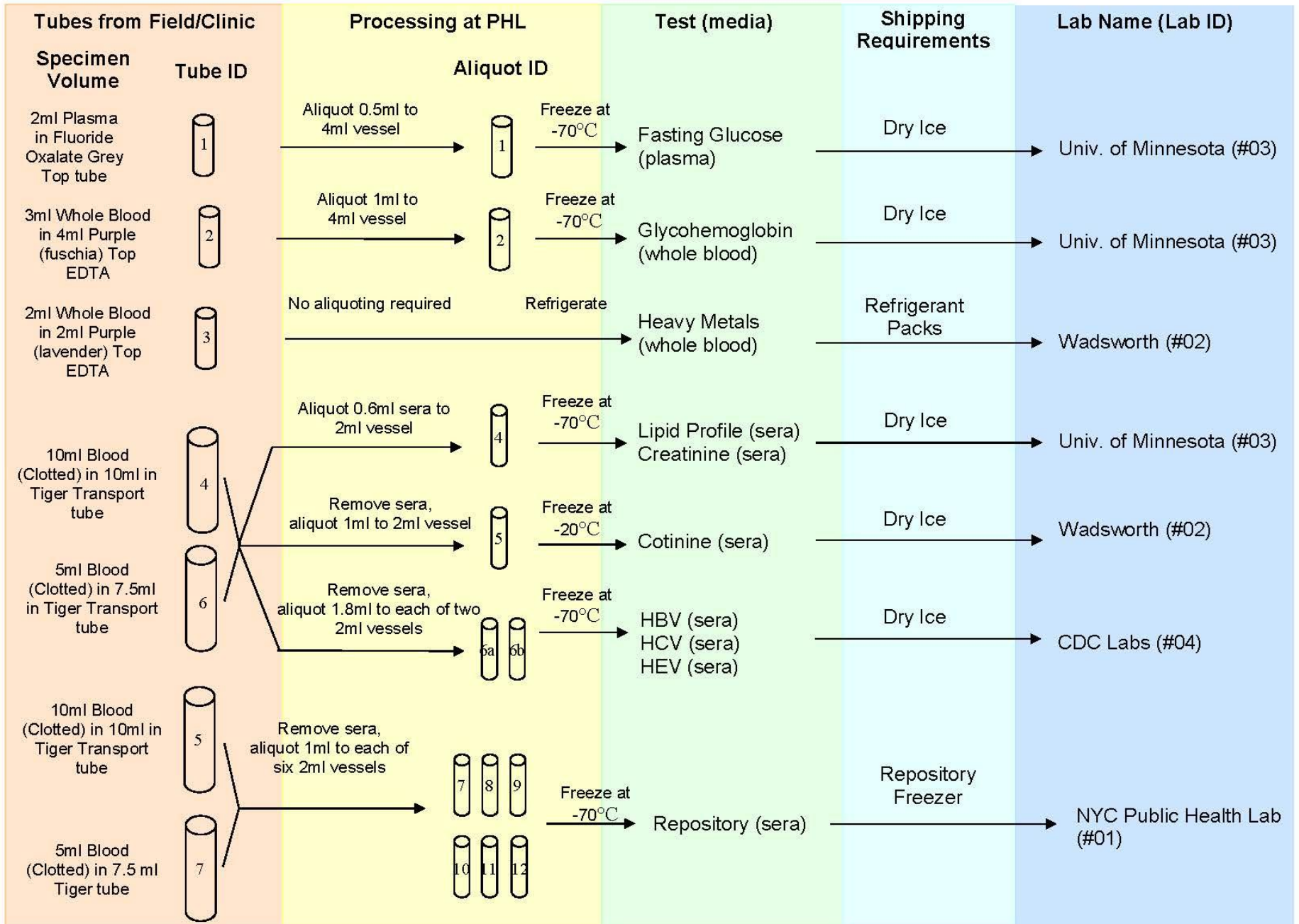


FIGURE 1B.NYC HANES PROCESSING FLOWCHART: URINE AND SALIVA SPECIMENS

