Sample Flow Across Projects, Sociodemographics, and Response Rates

(all waves)

Understanding Data Collection in MIDUS

MIDUS is a complex longitudinal study involving wide-ranging data collection across diverse disciplinary domains. The purpose of this communication is to sharpen understanding of the *flow of data collection across projects within each wave of the study*. The information is organized in three parts: opening comments (first 2 pages), flow charts (next 4 pages, one for each wave of the study), and a final figure that provides an overview of the MIDUS Timelines, Samples, and Projects for the entire study as a whole. This last figure fills in temporal details behind the information summarized in the wave-specific flow charts described below.

The first flow chart pertains to the baseline data collection. At <u>MIDUS 1 (M1)</u>, the national sample included a random-digit-dialing (RDD) sample plus siblings of main sample respondents and a national sample of twins. Eligibility criteria for participating in the national survey are listed along with response rates for the phone interview and the self-administered questionnaire (SAQ). Sociodemographic information (age, gender, education, race, marital status, subjective health) is also provided. One subsequent project (daily diary assessments) was part of MIDUS 1. The sample size for the daily project, its eligibility criteria, response rates, and sociodemographic information are also provided.

The next figure shows parallel information for <u>MIDUS 2 (M2)</u>, which included recruitment of a new subsample of African Americans from Milwaukee, WI. In addition to sample expansion, M2 included three new projects. Following completion of the national survey, members of the sample were invited to complete a cognitive project (conducted by phone). Response rates across subsamples for the survey and cognitive projects are provided, along with sociodemographic information for each project. Members of the sample were then recruited for the daily project, the biomarker project (three data collection sites), and the neuroscience project (one data collection site). The primary eligibility criteria across these projects that participants had completed both the M2 phone interview and SAQ. Those who completed the daily project at M1 (i.e., longitudinal sample) were first distributed to the daily project. Some of these participants subsequently completed the biomarker project as well. Participants who were not part of the daily longitudinal sample were first sent to the biomarker project for sample recruitment. Some of these individuals subsequently completed the daily project as well. Recruitment for the neuroscience project (conducted at UW-Madison) was restricted to members of the biomarker project who completed assessments at the UW-Madison site. Sociodemographic information is provided for each project sample at M2.

Between the completion of M2 and the initiation of M3, a new <u>MIDUS Refresher (MR)</u> sample was recruited. It included a new national sample of U.S. adults that paralleled the age and gender distribution of the M1 national sample, along with recruitment of a new subsample of African Americans from Milwaukee, WI. The five-project data collection design for MR paralleled the projects that defined the M2 data collection. Information on eligibility criteria, response rates, and sociodemographics is included for each project. The flow of data collection across projects also paralleled the progression followed at M2.

The data collection for <u>MIDUS 3 (M3)</u> is partially completed; some projects are still in the field. Specifically, the survey and cognitive projects have been completed. Response rates and sociodemographic information for those two projects are detailed. The daily project, biomarker project, and neuroscience projects are currently recruiting participants and collecting data. Two additional projects are also part of M3: the gene expression project and the retention-early warning project. Details about these continuing and new MIDUS projects will be made available as data collection is completed.

Three summary points on information included in this document are noted. First, regarding the <u>sociodemographic representativeness of MIDUS</u>, detailed information (available on the MIDUS Portal (<u>http:\\midus.colectica.org</u>) and at NACDA (National Archive of Computerized Data on Aging), shows that the MIDUS baseline and Refresher samples compared favorably with CPS (Current Population Survey) data from the same time periods, with one exception. MIDUS participants have somewhat higher educational levels. This educational selectivity is also evident across the MIDUS projects, likely tied to eligibility requirements. That is, completion of the phone interview and SAQ from the survey project are prerequisites for participation in subsequent projects. The rationale behind such requirements was to maximize the availability of comprehensive data across members of the sample. Nonetheless, all MIDUS projects include substantial educational heterogeneity in their samples. Indeed, this heterogeneity central to the focus on social inequalities in health, which is a major thematic focus in MIDUS findings.

Second, within each wave of MIDUS, <u>the multidisciplinary depth of data collection requires substantial time</u>. That is, each project is carried out over a period of years (see MIDUS Timelines, Samples, and Projects). The biomarker project is by far the most time and labor-intensive, given that each participant must complete a two-day visit to one of three sites around the U.S. These lengthy visits are what lies behind the unprecedented richness of the MIDUS biomarker data.

Finally, the <u>potential for cross-project analyses in MIDUS is deep and wide</u>. That is, all participants in the cognitive, daily, biomarker, and neuroscience projects have completed the phone interview and SAQ of the survey project. Further, most survey participants (more than 70%) also completed the cognitive project. This means that investigators interested in the daily, biomarker and neuroscience data can investigate linkages to the survey and cognitive data. Further, across the Core and Refresher samples, there is extensive overlap (n = 1,355) between those who participated in both the daily and biomarker projects. Finally, all neuroscience participants completed the biomarker project as well as the survey and cognitive projects, and many (n = 294) also completed the daily project. In short, although data for some MIDUS projects are collected only subsamples of the national sample (due to budgetary and temporal constraints), the scope of data available for cross-project analyses is extensive.

MIDUS 1
Sample Flow Across Projects and Sociodemographics

SURVEY PROJECT N=7108 (RDD=4244 Sibling=950 Twin=1914)		

Eligibility Criteria:
✓ **Aged 25-74**
✓ **English speaking**
✓ **Non-institutionalized adults**
✓ **Living in the coterminous U.S.**
 	
Response Rate: 70%
 	
% Completing SAQ: 89%
	Age *(M,SD)*
	  25 to 39
	  40 to 59
	  60 to 75
		46.38 (13.00)
		35.0%
		45.8%
		19.2%

	Gender - Female	**51.7%**

	Education:
	  High school or less
	  Some college
	  College or more
		
		38.6%
		30.6%
		34.7%

	Race - White	**90.7%***
	Marital Status - Married	**65.7%**
	Subjective Health *(M,SD)* **(1=excellent, 5=poor)**	**2.47 (0.99)**

DAILY PROJECT N=1476 (RDD=1009 Twin=467)		

Eligibility Criteria:
✓ **M1 Interview + SAQ**
 	
Response Rate: 70.6%
	Age *(M,SD)*
	  25 to 39
	  40 to 59
	  60 to 75
		46.10 (12.82)
		36.3%
		45.4%
		18.3%

	Gender - Female	**53.6%**

	Education:
	  High school or less
	  Some college
	  College or more
		
		36.6%
		32.2%
		31.2%

	Race - White	**91.2%***
	Marital Status - Married	**68.8%**
	Subjective Health *(M,SD)* **(1=excellent, 5=poor)**	**2.40 (0.93)**

*Racial background is only available for the cases who completed   SAQ questionnaire (N=6325 for P1 and N=1472 for P2).

MIDUS 2
Sample Flow Across Projects and Sociodemographics

SURVEY PROJECT
N=5555
(RDD=2746   Sibling=733   Twin=1484   Milwaukee=592)

Eligibility Criteria:
✓ M1 Participation

Response Rate:
- RDD: 70%
- Sibling: 82%
- Twin: 82%
- Milwaukee: 71%

% Completing SAQ: 80%

Age (M,SD)	**50.02 (12.44)**
33 to 49	37.6%
50 to 65	40.3%
66 to 85	22.1%
Gender - Female	54.3%
Education:	
High school or less	35.4%
Some college	30.1%
College or more	34.5%
Race - White	80.9%
Marital Status - Married	66.3%
Subjective Health (M,SD) (1=excellent, 5=poor)	**2.52 (1.04)**

COGNITIVE PROJECT
N=4512
(RDD=2279   Sibling=663   Twin=1264   Milwaukee=306)

Eligibility Criteria:
✓ M2 Interview

Response Rate:
- RDD: 83%
- Sibling: 90%
- Twin: 85%
- Milwaukee: 52%

Age (M,SD)	**55.80 (12.31)**
33 to 49	34.6%
50 to 65	41.9%
66 to 85	23.5%
Gender - Female	55.1%
Education:	
High school or less	33.5%
Some college	30.0%
College or more	36.5%
Race - White	85.6%
Marital Status - Married	69.2%
Subjective Health (M,SD) (1=excellent, 5=poor)	**2.46 (1.03)**

DAILY PROJECT
N=2022
(RDD=1141   Sibling=185   Twin=516   Milwaukee=180)

Eligibility Criteria:
✓ M1 Daily (Longitudinal)
✓ M2 Interview + SAQ (New)

Response Rate: 66.4%

Age (M,SD)	**56.23 (12.20)**
33 to 49	33.2%
50 to 65	42.9%
66 to 85	23.9%
Gender - Female	57.2%
Education:	
High school or less	31.2%
Some college	30.4%
College or more	38.4%
Race - White	84.1%
Marital Status - Married	68.7%
Subjective Health (M,SD) (1=excellent, 5=poor)	**2.44 (1.02)**

Completed Both
N=1011

Completed Daily First
N=377   37%

Completed Bio First
N=634   63%

BIOMARKER PROJECT
N=1255
(RDD=666   Twin=388   Milwaukee=201)

Eligibility Criteria:
✓ RDD or Twin Sample
✓ M2 Interview + SAQ

Response Rate: 41.8%

Age (M,SD)	**54.52 (11.71)**
Age 33 to 49	37.8%
Age 50 to 65	43.7%
Age 66 to 85	18.5%
Gender - Female	56.8%
Education:	
High school or less	28.0%
Some college	30.0%
College or more	42.1%
Race - White	78.1%
Marital Status - Married	64.7%
Subjective Health (M,SD) (1=excellent, 5=poor)	**2.41 (0.99)**

NEUROSCIENCE PROJECT
N=331
(RDD=134   Twin=88   Milwaukee=109)

Eligibility Criteria:
✓ M2 Interview + SAQ
✓ Completed Bio at UW

Response Rate: 76.3%

Age (M,SD)	**52.99 (11.37)**
Age 33 to 49	43.1%
Age 50 to 65	42.5%
Age 66 to 85	14.5%
Gender - Female	55.4%
Education:	
High school or less	34.0%
Some college	29.5%
% College or more	36.4%
Race - White	64.2%
Marital Status - Married	60.2%
Subjective Health (M,SD) (1=excellent, 5=poor)	**2.42 (0.97)**

MIDUS Refresher
Sample Flow Across Projects and Sociodemographics

SURVEY PROJECT
N=4085
(RDD=3577 Milwaukee=508)

Eligibility Criteria:
✓ Aged 25-75
✓ English Speaking
✓ Non-institutionalized
✓ Living in the coterminous U.S.

Response Rate
RDD: 59%
Milwaukee: 48%

% Completing SAQ: 72%

Age *(M,SD)*	49.58 (14.23)
25 to 39	29.1%
40 to 59	41.4%
60 to 76	29.5%
Gender - Female	52.5%
Education:	
High school or less	26.1%
Some college	31.7%
College or more	42.2%
Race - White	72.5%
Marital Status - Married	58.7%
Subjective Health *(M,SD)* (1=excellent, 5=poor)	2.52 (1.11)

COGNITIVE PROJECT
N=2975
(RDD=2763 Milwaukee=212)

Eligibility Criteria:
✓ MR Interview

Response Rate
RDD: 71%
Milwaukee: 42%

Age *(M,SD)*	52.09 (14.09)
25 to 39	22.9%
40 to 59	40.7%
60 to 76	36.3%
Gender - Female	52.8%
Education:	
High school or less	22.9%
Some college	30.0%
College or more	47.0%
Race - White	78.0%
Marital Status - Married	61.3%
Subjective Health *(M,SD)* (1=excellent, 5=poor)	2.49 (1.09)

DAILY PROJECT
N=781
(RDD=781)

Eligibility Criteria:
✓ MR Interview + SAQ

Response Rate: 63.2%

Age *(M,SD)*	47.92 (12.68)
25 to 39	27.8%
40 to 59	51.1%
60 to 76	21.1%
Gender - Female	55.6%
Education:	
High school or less	20.4%
Some college	29.7%
College or more	49.9%
Race - White	84.7%
Marital Status - Married	65.6%
Subjective Health *(M,SD)* (1=excellent, 5=poor)	2.44 (1.09)

Completed Both
N=345

Completed Daily First
N=262 76%

Completed Bio First,
N=82 24%

BIOMARKER PROJECT
N=863
(RDD=746 Milwaukee=117)

Eligibility Criteria:
✓ MR Interview + SAQ

Response Rate: 42%

Age *(M,SD)*	50.84 (13.41)
Age 25 to 39	22.2%
Age 40 to 59	46.2%
Age 60 to 76	31.5%
Gender - Female	52.1%
Education:	
High school or less	17.3%
Some college	30.5%
College or more	52.2%
Race - White	70.6%
Marital Status - Married	58.5%
Subjective Health *(M,SD)* (1=excellent, 5=poor)	2.45 (1.10)

NEUROSCIENCE PROJECT
N=138
(RDD=94 Milwaukee=44)

Eligibility Criteria:
✓ MR Interview + SAQ
✓ Completed Bio at UW

Response Rate: 56.6%

Age *(M,SD)*	47.15 (11.61)
Age 25 to 39	26.8%
Age 40 to 59	56.6%
Age 60 to 76	16.7%
Gender - Female	54.3%
Education:	
High school or less	23.2%
Some college	35.5%
% College or more	41.3%
Race - White	61.6%
Marital Status - Married	53.6%
Subjective Health *(M,SD)* (1=excellent, 5=poor)	2.40 (0.97)

MIDUS 3
Sample Flow Across Projects and Sociodemographics

SURVEY PROJECT
N=3683
(RDD=1732 Sibling=544 Twin=1018 Milwaukee=389)

Eligibility Criteria:
✓ M2 Participation

Response Rate:
● RDD: 74%
● Sibling: 84%
● Twin: 78%
● Milwaukee: 79%

% Completing SAQ: 83%

Age (M,SD)	**63.37 (11.30)**
39 to 59	40.3%
60 to 75	43.7%
76 to 93	16.0%
Gender - Female	56.0%
Education:	
High school or less	31.0%
Some college	30.1%
College or more	38.9%
Race - White	80.5%
Marital Status - Married	62.7%
Subjective Health (M,SD) (1=excellent, 5=poor)	2.64 (1.05)

COGNITIVE PROJECT
N=3022
(RDD=1413 Sibling=468 Twin=812 Milwaukee=329)

Eligibility Criteria:
✓ M3 Interview

Response Rate:
● RDD: 81%
● Sibling: 86%
● Twin: 79%
● Milwaukee: 85%

Age (M,SD)	**64.13 (11.21)**
39 to 59	36.8%
60 to 75	45.9%
76 to 93	17.3%
Gender - Female	54.7%
Education:	
High school or less	27.9%
Some college	28.7%
College or more	43.4%
Race - White	90.0%
Marital Status - Married	67.1%
Subjective Health (M,SD) (1=excellent, 5=poor)	2.55 (1.02)

Completed Both
N=492

DAILY PROJECT
N=1106
(RDD=591 Sibling=94 Twin=341 Milwaukee=80)

Eligibility Criteria:
✓ M1 Daily (Longitudinal)
✓ M2 Interview + SAQ (New)

Response Rate: 64.0%

Age (M,SD)	**62.47 (10.15)**
39 to 59	41.4%
60 to 75	47.4%
76 to 93	11.2%
Gender - Female	57.1%
Education:	
High school or less	22.2%
Some college	32.0%
College or more	45.8%
Race - White	83.8%
Marital Status - Married	65.7%
Subjective Health (M,SD) (1=excellent, 5=poor)	2.46 (0.99)

Completed Daily First
N=297 60.4%

Completed Bio First
N=195 39.6%

BIOMARKER PROJECT
N=747
(RDD=360 Twin=284 Milwaukee=103)

Eligibility Criteria:
✓ RDD or Twin Sample
✓ M2 Interview + SAQ

Response Rate: 65.8%

Age (M,SD)	**60.77 (9.61)**
Age 39 to 59	47.3%
Age 60 to 75	45.5%
Age 76 to 93	7.2%
Gender - Female	55.8%
Education:	
High school or less	22.4%
Some college	31.9%
College or more	45.8%
Race - White	78.2%
Marital Status - Married	62.9%
Subjective Health (M,SD) (1=excellent, 5=poor)	2.48 (1.03)

NEUROSCIENCE PROJECT
N=231
(RDD=74 Twin=96 Milwaukee=61)

Eligibility Criteria:
✓ M2 Interview + SAQ
✓ Completed Bio at UW

Response Rate: 84.0%

Age (M,SD)	**59.74 (9.27)**
Age 39 to 59	50.2%
Age 60 to 75	44.2%
Age 76 to 93	5.6%
Gender - Female	55.0%
Education:	
High school or less	28.1%
Some college	29.4%
% College or more	42.4%
Race - White	69.7%
Marital Status - Married	61.0%
Subjective Health (M,SD) (1=excellent, 5=poor)	2.58 (1.01)