

ICPSR 26841

**Midlife in the United States  
(MIDUS 2): Daily Stress  
Project, 2004-2009**

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Saliva Collection

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## MIDUS Project 2:

### National Study of *Daily Experiences*

#### Wave 2: Saliva Collection

For file: M2\_P2\_DAILY DATA\_7-14-09.sav

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# **National Study of *Daily Experiences***

## **Wave 2: Saliva Collection**

### **Description**

In the second wave of NSDE, participants are asked to provide four saliva samples on days 2 through 5 in addition to completing short telephone interviews about their daily experiences across eight consecutive days. Saliva samples are collected at waking (before getting out of bed), 30 minutes after getting out of bed, before lunch, and before bed. Participants are instructed to collect samples before eating, drinking, or brushing their teeth. In addition, participants are asked not to consume any caffeinated products (e.g., coffee, tea, soda, or chocolate) before collecting samples. Data on the exact time respondents provide each saliva sample is obtained from the nightly telephone interviews and from a paper-pencil log sent with the collection kit. Prescription and over-the-counter medications taken during the collection period are recorded during the telephone interview of the last day of saliva collection. In addition, a group of respondents receive a “Smart Box” to store their salivettes. These boxes contain a computer chip that records the time respondents open and close the box.

When all 16 tubes are ready to be sent, participants use a pre-addressed, paid courier package for the return mailing. The enclosed salivettes are shipped to the MIDUS Biological Core at the University of Wisconsin, where they are stored in an ultracold freezer at -60°C. For analysis, the salivettes are thawed and centrifuged at 3000 rpm for 5 minutes, yielding a clear fluid with low viscosity. Cortisol concentrations are quantified with a commercially available luminescence immunoassay (IBL, Hamburg, Germany), with intra-assay and inter-assay coefficients of variation below 5%.

Of the 2,022 respondents (RDD, Twin, Sibling, City Oversample, and Milwaukee) who have completed wave 2 of the NSDE, 1,736 (85.9%) provided saliva samples.

### **Saliva and Cortisol Variables**

In addition to the saliva and cortisol information described below, saliva and cortisol variables are also outlined in M2\_P2\_Daily Data Measurement Instrument\_7-14-09.pdf.

**A.** The first set of saliva- and cortisol-related variables allows for a descriptive examination of the saliva and cortisol data.

*B2DCORT*: denotes whether a participant provide any saliva samples (1=yes, 2=no). Additionally, a value of 3 is denoted if a participant said they provided saliva but no samples were received. This is a between-person variable.

*B2DCDAY*: denotes at least one valid cortisol sample on a given day for participants who provided saliva (1=yes, 2=no, 8=refused/missing). This is a daily variable.

*B2DSMART*: denotes whether a participant provided “Smart Box” data (1=yes, 2=no). Refused or missing responses are denoted as 8. This is a between-person variable.

*B2DCWDAY*: denotes whether a participant provided saliva samples outside of the designated saliva collection days 2 through 5 (1=yes, 2=no, 8=refused/missing). For example, a participant could have started saliva collection on day 1, rather than day 2, and ended collection on day 4, rather than day 5. This is a between-person variable.

## **B. Raw Cortisol Values**

The raw cortisol values for the four occasions are represented by B2DCORW (cortisol at waking), B2DCORA (30 minutes after waking), B2DCORL (before lunch), and B2DCORB (before bed). Cortisol values are in nanomoles per liter (nmol/l). No boundary restrictions are placed on the cortisol values, such that values as low as .00020 nmol/l and as high as 201241.60829 nmol/l are observed in the data.

In addition to actual raw values, the following values denote some type of non-response.

999994. UNRELIABLE  
999995. NOT DONE  
999996. EMPTY  
999998. REFUSED/MISSING

Unreliable includes zero and unreliable values. Not done means the sample is missing. Empty reflects that a sample is sent to the lab, it is spun down, and there is little or no saliva in the bottom of the tube.

## **C. Cortisol Collection Time**

Cortisol collection time variables (B2DCORWT, B2DCORAT, B2DCORLT, and B2DCORBT) appear in 24-hour military time. Collection times outside of 0-to-24 hour window occur in cases where a participant collects a saliva sample particularly early (i.e., prior to the beginning of interview day) or late (i.e., after the end of interview day). For example, an early awakening time of 11 p.m. would result in B2DCORWT value of -1.00. Similarly, a relatively late bedtime of 2 a.m. would result in B2DCORBT value of 26.00.

Two sources of data provide information on cortisol collection times: 1) paper-pencil log, as completed by the participant, and 2) cortisol collection times obtained by the interviewer from the participant during the telephone interview. Participants fill out the appropriate time for each cortisol collection occasion on the paper-pencil log and mail it along with their completed saliva samples. In addition, the interviewer records each cortisol collection time during interview days that are relevant to saliva collection.

Interviewer-obtained saliva collection time is a secondary source of cortisol collection time information, which is used to supplement paper-pencil log cortisol collection time. Specifically, participant-provided paper-pencil log times are first used to create B2DCORWT, B2DCORAT, B2DCORLT, and B2DCORBT variables. In cases where one or more paper-pencil log cortisol collection times are not available, the interviewer-obtained saliva collection times are entered into these variables instead.

**Cortisol Collection Time Variables:**

*B2DCORWT:* CORTISOL COLLECTION TIME AT WAKING

*B2DCORAT:* CORTISOL COLLECTION TIME 30 MINUTES AFTER WAKING

*B2DCORLT:* CORTISOL COLLECTION TIME BEFORE LUNCH

*B2DCORBT:* CORTISOL COLLECTION TIME BEFORE BED

98. REFUSED/MISSING

**D. Medication Use During Saliva Collection**

Information on use of over-the-counter and prescription medications relevant to cortisol levels is obtained on the last day of saliva collection. Participants endorse use of seven types of medication (see below) with a 1 (yes) or 2 (no) response. Typically, these questions are administered on day 5 of the NSDE interview, unless the participant finishes saliva collection early (e.g., day 4) or late (e.g., day 6). In cases where participants report no medication use for any of the categories, B2DMED10 is recoded into a 1 (yes) category.

**Medication Use Variables:**

During the days you provided saliva, did use you use any of the following medications?

*B2DMED1:* OVER THE COUNTER OR PRESCRIPTION ALLERGY  
MEDICATIONS  
(E.G., BENADRYL, FLONASE, OTC SLEEP MEDICATIONS)

*B2DMED2:* A STEROID INHALER  
(E.G., ADVAIR, FLOVENT, PULMICORT)

*B2DMED3:* OTHER STEROID MEDICATION  
(E.G., PREDNISONE, TRIAMCINOLONE)

*B2DMED4:* MEDICATIONS OR CREAMS CONTAINING CORTISONE  
(E.G., CORTAID, CORTIZONE, DIPROSONE, PSORCON)

*B2DMED5:* BIRTH CONTROL PILLS

*B2DMED6:* OTHER HORMONAL MEDICATIONS  
(E.G., ESTRATEST, LEVOTHYROXINE, PREMPRO, SYNTHROID)

*B2DMED7:* ANTI-DEPRESSANTS OR ANTI-ANXIETY MEDICATIONS  
(E.G., CELEXA, EFFEXOR, PAXIL, VALIUM, WELLBUTRIN)

*B2DMED8:* DON'T KNOW

*B2DMED9:* REFUSED

*B2DMED10:* NONE

1. YES
2. NO
7. DON'T KNOW
8. REFUSED/MISSING
9. INAPPLICABLE