

2018 National Study of Long-Term Care Providers

Adult Day Services Center (ADSC) Participant Restricted Data File

March 2021

Data Description and Usage

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Please Read Carefully Before Using NCHS Public Use Survey Data

The National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), conducts statistical and epidemiological activities under the authority granted by the Public Health Service Act (42 U.S.C. § 242k). NCHS survey data are protected by Federal confidentiality laws including Section 308(d) Public Health Service Act [42 U.S.C. 242m(d)] and the Confidential Information Protection and Statistical Efficiency Act or CIPSEA [Pub. L. No. 115-435, 132 Stat. 5529 § 302]. These confidentiality laws state the data collected by NCHS may be used only for statistical reporting and analysis. Any effort to determine the identity of individuals and establishments violates the assurances of confidentiality provided by federal law.

Terms and Conditions

NCHS does all it can to assure that the identity of individuals and establishments cannot be disclosed. All direct identifiers, as well as any characteristics that might lead to identification, are omitted from the dataset. Any intentional identification or disclosure of an individual or establishment violates the assurances of confidentiality given to the providers of the information. Therefore, users will:

1. Use the data in this dataset for statistical reporting and analysis only.
2. Make no attempt to learn the identity of any person or establishment included in these data.
3. Not link this dataset with individually identifiable data from other NCHS or non-NCHS datasets.
4. Not engage in any efforts to assess disclosure methodologies applied to protect individuals and establishments or any research on methods of re-identification of individuals and establishments.

By using these data you signify your agreement to comply with the above-stated statutorily based requirements.

Sanctions for Violating NCHS Data Use Agreement

Willfully disclosing any information that could identify a person or establishment in any manner to a person or agency not entitled to receive it, shall be guilty of a class E felony and imprisoned for not more than 5 years, or fined not more than \$250,000, or both.

This document describes the data and some of the processes involved in creating the adult day services center (ADSC) participant restricted data file. NCHS recommends that data users read this document prior to working with the data.

The National Study of Long-Term Care Providers (NSLTCP) was renamed the National Post-acute and Long-term Care Study (NPALS) in January 2020. For the remainder of this document NPALS will be referred to as NSLTCP in order to correctly match the name of the study when the 2018 surveys were fielded.

Data Files

The 2018 NSLTCP ADSC restricted data are distributed in two data files: (1) a provider-level data file and (2) services user (participant)-level data file. This document refers to the participant file. The file contains one record for each sampled participant (participants were not interviewed; interviews were conducted with the directors or caregivers). This file contains participant characteristics, use of services, health status, and cognitive and physical functioning. This file contains 1255 records and over 130 variables. Each record has a primary identifier (PARTICIPANTID). The records in the participant file are sorted in order by the primary identifier.

The data are provided in SAS and STATA formats.

Documentation

There are several types of documentation available for use with the data file. These include the survey methodology documentation that provides a brief overview of the survey, the data collection procedures, and the sampling design; the survey questionnaires; and this provider-specific data description and usage or readme document. A separate data description and usage is available for the residential care community component of NSLTCP. A data dictionary or codebook listing the questions and response categories (without the unweighted frequencies and weighted estimates) will be made available to data users upon request.

Brief description of survey

The survey on ADSCs was conducted between July 2018 and February 2019. To be eligible

for the study, an ADSC must (a) have been licensed or certified by the state specifically to provide adult day services, or accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF), or authorized or otherwise set up to participate in Medicaid (Medicaid state plan, Medicaid waiver, or Medicaid managed care), or part of a Program of All-Inclusive Care for the Elderly (PACE); (b) have had an average daily attendance of one or more participants based on a typical week; and (c) have had one or more participants enrolled at the ADSC at the designated location at the time of the survey. Data were collected by mail, web, and computer-assisted telephone interviews (CATI).

From a frame of 6,361 ADSCs, 1,650 were randomly selected for the survey. Of the 1,650 sampled ADSCs, eligibility could not be determined for 543. Among those cases where eligibility could be determined (1,107), 917 (83%) were eligible and 190 (17%) were ineligible because they did not meet the survey criteria or were out of business. However, 543 ADSCs (33%) could not be contacted; therefore, the final eligibility status of these centers was unknown. Using the eligibility rate of 83%,¹ a proportion of these centers of unknown eligibility was estimated to be eligible; 450 ADSCs of unknown eligibility were assumed as eligible. The total number of eligible adult day services centers was estimated as 1,367 (917 + 450). Of the 1,367 in-scope and presumed in-scope ADSCs, 672 of them completed the provider questionnaire, for a weighted response rate (for differential probabilities of selection) of 50% (this is calculated by using AAPOR's Response Rate 4). To account for ADSCs of unknown eligibility, the weights of the ADSCs with known eligibility were adjusted upward based on the proportion of ADSCs that were actually known to be eligible. Adjustments were also made to account for non-response.

Two participants were randomly selected from eligible ADSCs that agreed to participate. A questionnaire was completed for a total of 1255 participants from 630 ADSCs. About 66% of ADSCs completed both provider and at least one participant modules and the rest of the ADSCs either completed the provider module or the participant module. Therefore, not all

¹ The eligibility rate is calculated by the number of known eligible ADSCs divided by the total number of ADSCs with known eligibility status. ADSCs that were invalid or out of business and centers that screened out as ineligible were classified as known ineligibles.

ADSCs in the provider file are represented in the participant file and vice versa. Some ADSCs only completed one participant questionnaire. During the weighting process, these participants were moved to a similar ADSC that had user records in the file.

Data dictionary

The 2018 ADSC participant data dictionary or codebook for the restricted file is provided as a single file containing all variables in the participant file. Each variable in the file has its own codebook entry.

If a question or a series of questions in the survey were legitimately skipped for selected respondents, then the skipped responses were coded as “-1= INAPPLICABLE” in the data dictionary. The questionnaire skip pattern is specified in the data dictionary beside the question text and code categories. Data users are advised to consult the questionnaire to better understand the questionnaire skip patterns. Missing responses were coded as “-9=MISSING.”

Participant Questionnaire

The Participant Questionnaire is included in the data release package and available at: <https://www.cdc.gov/nchs/data/nsltcp/2018-NSLTCP-ADSC-Questionnaire-Participant.pdf>

The questionnaire includes all the questions asked in the participant module. There may be some differences in how questions were asked in the questionnaire and how they were coded in the PUF.

Data processing activities to create the public-use file

The raw data received from the field were reviewed and edited prior to releasing the restricted data file through NCHS’ Research Data Center (RDC). Data were reviewed for accuracy, logic, consistency and completeness.

Item nonresponse and imputed data

Item nonresponse is a source of missing data and occurred if a respondent did not know the answer to a question or refused to answer a question, the interviewer inadvertently skipped a

question due to problems relating to CATI or the interview broke off before administering the entire questionnaire. In the data file, item-nonresponse is coded as -9 when a respondent did not provide an answer. NCHS handled item nonresponse for age (10 cases), sex (6 cases), race (55 cases) and ethnicity (14 cases) by imputing using a hot-deck method. Imputed variables are flagged for the data users.

Reliability of estimates

Estimates published by NCHS must meet reliability criteria based on the relative standard error (RSE or coefficient of variation) of the estimate and on the number of sampled records on which the estimate is based. Proportion estimates are not presented or are flagged based on the procedure specified in “National Center for Health Statistics Data Presentation Standards for Proportions,” available from: https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf. For all estimates other than estimates of proportions in the tables: estimates are not presented if they are based on fewer than 30 cases in the sample data, in which case only an asterisk (*) appears. Estimates based on 30 or more cases include an asterisk if the relative standard error of the estimate exceeds 30%.

The data collected in the 2018 NSLTCP were obtained through a complex, multistage sample design that involves stratification and clustering. The final weights provided for analytic purposes have been adjusted in several ways to yield valid national estimates for adult day services centers in the U.S. Users are reminded that the use of standard statistical procedures that are based on the assumption that data are generated via simple random sampling (SRS) generally will produce incorrect estimates of variances and standard errors when used to analyze data from the NSLTCP provider file. The clustering protocols that are used in the multistage selection of the NSLTCP sample require other analytic procedures, as described below. Users who apply SRS techniques to the data generally will produce standard error estimates that are, on average, too small, and are likely to produce results that are subject to excessive Type I error.

In this document, examples of SUDAAN computer code are provided for illustrative purposes. Examples are provided also for the SAS and STATA software packages. However, the appropriate application of these procedures is the ultimate responsibility of users. NCHS strongly recommends that NSLTCP data analyzed under the direction of or in consultation with a statistician who is cognizant of sampling methodologies and techniques for the analysis of complex survey data. The ADSC provider file includes design variables that designate each record's stratum marker and the first-stage unit (or cluster) to which the record belongs. Examples follow for using these design variables with SUDAAN, STATA, and SAS survey procedures.

Table 1a. Computations using SUDAAN

PROC statement	NEST statement	TOTCNT statement	WEIGHT statement
PROC x FILE = y DESIGN = WOR;	NEST STRATA;	TOTCNT POPFAC; POPSU	WEIGHT SUWT;

Table 1b. Computations using STATA

Design description in STATA
svyset su_facid, strata(strata) fpc(popfac) vce(linearized) singleunit(missing) ParticipantID, fpc (popsu) weight (suwt)

Table 1c. Computations using SAS

PROC	STRATA	CLUSTER	WEIGHT
PROC SURVEY_ DATA = Y TOTAL = SECONDFILE;	STRATA STRATA;	CLUSTER SU_FACID;	WEIGHT SUWT;

Obtaining the data

The ADSC 2018 participant file can be accessed through the NCHS' RDC. In addition to following the RDC procedures for restricted data file access, there are a few conditions or restrictions for data use and they are as follows:

1. Use the data in this dataset for statistical reporting and analysis only.
2. Make no use of the identity of any person or establishment discovered inadvertently and advise the Director, NCHS, of any such discovery.
3. Report apparent errors in the ADSC provider data or documentation files to the Long-Term Care Statistics Branch (LTCSB).

We also request the user inform LTCSB of any publications or presentations produced based on the 2018 NSLTCP data and cite relevant NSLTCP documentations/ data products in their work when appropriate.

Contact Information

To request a codebook or for questions, suggestions, or comments concerning NSLTCP data, please contact the LTCSB at:

Long-Term Care Statistics Branch (LTCSB), NCHS,

3311 Toledo Road, Hyattsville, MD 20782

E-mail: ltsbfeedback@cdc.gov

Phone: 301-458-4747.