

**2014 Native Hawaiian and Pacific Islander
National Health Interview Survey (NHPI NHIS)
Public Use Data Release**

Survey Description

**Division of Health Interview Statistics
National Center for Health Statistics
Hyattsville, Maryland**

**Centers for Disease Control and Prevention
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Contents

Guidelines for Citation of Data Source	5
Acknowledgements	6
Introduction.....	7
Overview	7
Background	7
National Health Interview Survey (NHIS).....	8
American Community Survey (ACS).....	8
Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS)	9
Sample Design	10
Sample Design and Allocation.....	10
Within-household Selection of Sample Adult and Sample Child	10
2014 Questionnaire	11
Interviewing Procedures	12
Outreach	12
Interviewers and Interviewer Training.....	12
Gaining Cooperation	13
Questionnaire Administration	13
Frame Refinement.....	15
Sample Sizes and Response Rates.....	17
Assessment of Data Quality.....	18
Overview of the 2014 NHPI NHIS Data Files and Data File Documentation	20
Edits to Protect Confidentiality.....	20
Household File	21
Family File.....	22
Person File	23
I. Coverage Section.....	23
II. Household Composition Section (HHC)	23
III. Family Identification Section (FID).....	24
IV. Health Status and Limitation of Activity Section (FHS).....	25
V. Family Food Security Section (FFS)	25
VI. Health Care Access and Utilization Section (FAU)	25
VII. Health Insurance Section (FHI)	26
VIII. Socio-demographic Section (FSD).....	26
IX. Income and Assets Section (FIN).....	26
X. English Language Proficiency Section (FLG).....	27
Injury and Poisoning Episode File.....	28

Family Disability Questions File (FDB)	29
Sample Child File	30
I. Child Identification Section (CID)	30
II. Child Conditions, Limitation of Activity and Health Status Section (CHS)	30
III. Child Health Care Access and Utilization Section (CAU)	30
IV. Child Mental Health Brief Supplement (CMB)	31
IV. Child Influenza Immunization Supplement (CFI)	31
Sample Adult File	32
I. Adult Identification Section (AID)	32
II. Adult Socio-Demographics Section (ASD)	32
III. Adult Conditions Section (ACN)	32
IV. Adult Health Status and Limitation of Activity Section (AHS)	33
V. Adult Health Behaviors Section (AHB)	33
VI. Adult Health Care Access and Utilization Section (AAU)	34
VII. Adult Selected Items Section (ASI)	35
VIII. Adult Internet and Email Usage (AWB)	35
Adult Functioning and Disability Supplement File (AFD)	36
Paradata File	37
Weighting	38
Person-level Analyses	38
Sample Child or Sample Adult Analyses	38
Household-level Analyses	39
Family-level Analyses	39
Recall Period and Weights	40
Variance Estimation	41
Guidelines for Data Use	42
Standard NCHS Guidelines	42
References	43
Appendix I. Advance Letter and Brochure	44
Appendix II. Calculation of Response Rates	47
Appendix III. Variance Estimation Method for Public Use Data	48
Variables Available for Variance Estimation	48
Variance Estimation for Analyses of the NHPI NHIS	49
Degrees of Freedom	51
Subsetted Data Analysis	51
Appendix IV. Merging Data Files and Combining Years of Data in the NHIS	55
Appendix V. Analysis of the Family Food Security Variables	55

Appendix VI. Mental Health Indicator (MHI) for Children Aged 2–3 Years	55
Appendix VII. The Short Strengths and Difficulties Questionnaire (SDQ).....	55

Guidelines for Citation of Data Source

With the goal of mutual benefit, the National Center for Health Statistics (NCHS) requests that recipients of the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) data files cooperate in certain actions related to their use.

Any published material derived from the 2014 NHPI NHIS data should acknowledge “NCHS, Native Hawaiian and Pacific Islander National Health Interview Survey” as the original source. The suggested citation to appear at the bottom of all tables and graphs is as follows:

- Data Source: NCHS, Native Hawaiian and Pacific Islander National Health Interview Survey, 2014

In a bibliography, the suggested citation for this document should read:

- National Center for Health Statistics. Survey Description, Native Hawaiian and Pacific Islander National Health Interview Survey, 2014. Hyattsville, Maryland. 2017.

The suggested citation for 2014 NHPI NHIS survey data and other documentation should read:

- National Center for Health Statistics. Native Hawaiian and Pacific Islander National Health Interview Survey, 2014. Public use data file and documentation. <https://www.cdc.gov/nchs/nhis/nhpi.html>. 2017.

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NHIS questionnaires are in the public domain and no permission is required to use them. Citation as to source, however, is appreciated.

Information on how to cite electronic media is available at: <http://www.cdc.gov/nchs/products/citations.htm>.

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Introduction

Overview

The 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) is the first federal survey designed exclusively to measure the health of the civilian noninstitutionalized Native Hawaiian and Pacific Islander population of the United States. It was conducted by the National Center for Health Statistics, which conducts the annual National Health Interview Survey (NHIS). The U.S. Census Bureau is the data collection agent for the NHIS, and the Census Bureau's trained NHIS field interviewers collected the data for this survey as well. The 2014 NHPI NHIS used the standard 2014 NHIS survey instrument, with only a few small modifications. However, some variables available on the 2014 NHIS data file are not available on the 2014 NHPI NHIS data files because they have been restricted to reduce the possibility that the identity of any respondents would be disclosed.

This document is primarily intended to describe the differences between the 2014 year of the annual NHIS and the 2014 NHPI NHIS. Data users are urged to use it in conjunction with the 2014 NHIS *Survey Description* document for the 2014 NHIS (NCHS, 2015).

Background

In 1997, the Office of Management and Budget (OMB) mandated the federal use of a new racial category when it separated the Asian or Pacific Islander category into the following two categories: 1) The Asian category, defined as "A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand and Vietnam."; and 2) The Native Hawaiian or Other Pacific Islander category, defined as "A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands." (The term "Native Hawaiian" does not include individuals who are native to the State of Hawaii by virtue of being born there (OMB, 1997)). Approximately 0.4% of the total US population identifies as NHPI alone or in combination with one or more other races, according to 2010 Census data. (Hixson, Hepler & Kim, 2012).

In 2009 the Institute of Medicine (IOM) issued a report calling for race and ethnicity data sufficiently granular to identify populations most at risk for health disparities (Institute of Medicine, 2009). Subsequently, the US Department of Health and Human Services issued the *HHS Action Plan to Reduce Racial and Ethnic Health Disparities* which underscored the need to improve the availability and quality of data collected and reported on racial and ethnic minority populations, including the NHPI population, to support better research activities and enable better health monitoring (USDHHS, 2011). The Patient Protection and Affordable Care Act of 2010 [Public Law 111-148, section 4302] further reinforces the importance of collecting national NHPI health data by requiring that, to the extent practicable, sufficient data are collected in federal public health surveys to generate statistically reliable estimates for all racial and ethnic groups (<http://aspe.hhs.gov/datacncl/standards/ACA/4302/index.shtml>). Responsibility for the collection of such data falls in large part on the National Center for Health Statistics (NCHS).

It is a challenge to include NHPI people in sufficient numbers in most population-based surveys because the small population size and geographic concentration of the population make traditional oversampling strategies very expensive. Geographic concentration does not mean that NHPI people live *only* in certain areas, but rather that a substantial fraction is clustered in certain states and areas, while the rest are widely dispersed across the country. Because the population is numerically small, in any given area of the country in which the NHPI population is not concentrated, there are very few NHPI people. Therefore, using traditional oversampling

strategies to obtain representative NHPI samples in areas of the country in which the NHPI population is not concentrated would require hundreds or even thousands of households to be screened per NHPI household identified. As a result, NHPI people are not typically oversampled and only small samples of NHPI people are available even in the largest health studies. To protect respondent confidentiality and comply with reliability standards, NHPI health statistics are often suppressed.

National Health Interview Survey (NHIS)

As one of the largest national health surveys, the National Health Interview Survey (NHIS) is one of the few sources of national health data on the NHPI population. The NHIS is the principal source of information on the health of the civilian noninstitutionalized population of the United States and is one of NCHS's major data collection programs. The main objective of the NHIS is to monitor the health of the United States population through the collection and analysis of data on a broad range of health topics. These topics include health status and conditions, access to and use of health services, health insurance coverage, risk factors, and health-related behaviors. Because the sample size has been relatively large since 1997 (ranging from a low of 74,236 persons in 2008 to a high of 108,131 persons in 2012), a major strength of this survey lies in the ability to categorize these health characteristics by many demographic and socioeconomic characteristics.

Beginning in 1997, complying with the revised OMB standards, the NHIS began disaggregating NHPI statistics from Asian statistics. However, because the sample sizes were so small (between 100 and 250 households with NHPI persons per year), many statistics were unreliable and were not released for public use. To address this problem, NCHS has been looking for a way to obtain an NHPI sample of a size sufficient to calculate reliable statistics. In 2012, a new policy on the use of the U.S. Census Bureau's American Community Survey as a frame for federal follow-back surveys introduced a mechanism that made a solution possible.

American Community Survey (ACS)

The American Community Survey (ACS) is an ongoing large U.S. household survey that collects information from about 3.5 million sample households a year on a wide range of demographic, economic, social and housing indicators. It is conducted in all 50 states and the District of Columbia. For more information on the design of the ACS, see <https://www.census.gov/programs-surveys/acs/methodology/design-and-methodology.html>. As the successor to the decennial census long form, response to the American Community Survey is required by law and attains very high participation rates relative to other Federal government surveys. Because it is so large, the ACS identifies approximately 8,000 households each year that contain at least one person who identifies as NHPI alone or in combination with one or more other races.

The Interagency Council on Statistical Policy Subcommittee on the American Community Survey is the committee charged with reviewing and supervising revisions to and potential other uses of the ACS. Established at the end of 2012, its charter notes the potential of the ACS as a frame for federal follow-back surveys of rare and hard-to-reach populations. However, the ACS can only be used in this way when federal law specifies the collection of the data or federal program administration depends on estimates based on the data from the follow-back survey. In addition, the following conditions must be met:

The ACS should be considered as a frame for a follow-back survey only when the eligible target population is a very rare subset of the US household population, large cost savings accrue to the Federal Government by using ACS versus alternatives, small domain estimates are critical to the follow-back survey, and the level of additional burden on the follow-back survey respondents (the number of interviews and number of questions) is warranted given the value of the statistical information derived

from the survey. In addition, the follow-back survey should not negate the use of the respondents for other potential measurement needs (i.e., their participation propensities are not severely damaged for other measurements because of the follow-back survey), nor should the use of ACS respondents for the follow-back survey interfere with other ACS higher priority uses. (Interagency Council on Statistical Policy Subcommittee on the American Community Survey, 2012)

Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS)

To meet the need for reliable data on the health of the NHPI population, the Division of Health Interview Statistics (DHIS) at NCHS used a single year of the ACS as a frame for a follow-back survey of addresses in the ACS with one or more NHPI residents. An NHPI resident was defined as a person of any age living in the household who was reported to have an NHPI racial identity, alone or in combination with one or more other racial identities for this follow-back survey. For consistency with the annual NHIS, such persons were identified using NHIS racial identity response coding rules. (See Frame Refinement section below). Racial identity was the only criterion for inclusion; there was no distinction made based on ethnicity (i.e., both Hispanic and non-Hispanic NHPI people were included).

In order to maintain comparability with the annual NHIS, the procedures for collecting information on the 2014 NHPI NHIS paralleled those of the annual NHIS. Specifically, the data were collected by the Census Bureau's trained NHIS field interviewers, using the standard 2014 NHIS survey instrument, modified only as necessary for sample control and to meet the legislative requirements specific to the ACS frame. These legislative-related modifications, described in more detail in the Questionnaire section below, were necessary due to the different legislative authorities that govern the NHIS and ACS.

Sample Design

Sample Design and Allocation

Paralleling the annual NHIS, the target population for the NHPI NHIS was the civilian noninstitutionalized NHPI population residing in the United States at the time of the interview. The sample was located in the geographic regions included in the ACS, specifically all 50 states and the District of Columbia. (It did not include the Puerto Rico Community Survey, which is a separate part of the ACS.) Unlike in the NHIS, residents of noninstitutional group quarters (such as college dormitories) were not available for the NHPI NHIS. (Such residents compose approximately 2% of the NHPI population.) No attempt was made to verify that the respondents were the same people who had responded to the ACS at that address and no attempt was made to follow NHPI residents who had moved between the year of the ACS frame and 2014 (when the NHPI NHIS was fielded).

NHPI NHIS data collection began in February 2014 and concluded in November 2014. Eligibility for survey participation was confirmed by the household respondent, who could have been any household member who was at least the age of legal majority for the state of residence. In most states this age is 18 years. This respondent completed the household roster section of the questionnaire, which gathers basic demographic information (sex, age, race/ethnicity, active military status) about all members of the household. If at least one civilian household resident was identified as NHPI alone or in combination with some other race, then the household “screened in” and the interview continued. (If multiple families were identified in the same household, only those families with at least one civilian NHPI member were selected to be interviewed.) If this selection criterion was not met, the interview terminated and the household is said to be “screened out.”

Within-household Selection of Sample Adult and Sample Child

In the annual NHIS, one adult aged 18 years or older and one child under 18 (if any children reside in the household) from each family are randomly selected as the “Sample Adult” and “Sample Child” respectively. More in-depth health information is gathered from the selected adult and the parent or guardian of the selected child.

For the NHPI NHIS, only those adults and children who were reported in the NHIS roster as NHPI were eligible for selection as the Sample Adult and Sample Child. If the household contained an NHPI adult but no NHPI child, or an NHPI child but no NHPI adult, the Sample Child or Sample Adult section was skipped accordingly. A non-NHPI parent or guardian could answer the questions about the NHPI Sample Child.

2014 Questionnaire

The goal of the NHPI NHIS was to maintain as much consistency as possible with the 2014 NHIS. Thus, the question text and answer options found in the NHPI NHIS exactly matched the question text and answer options found in the 2014 NHIS instrument. The instrument used for the 2014 NHPI NHIS was identical to the 2014 NHIS survey instrument, with the exception of the following two differences.

1. The sample control logic was modified, to implement the screening process described in the Sample Design and Allocation section above.
2. Medicare numbers and the last four digits of the Social Security number—data used to link to other Department of Health and Human Services datasets—were not collected because such linking is not permitted under the legislative authority governing the NHPI NHIS.

In all other ways, the instruments were identical. Please note that although the instruments were otherwise identical, the variables available on the public use files are not identical, due to data disclosure prevention requirements. For more information, see the comparisons of the 2014 NHIS Files and the 2014 NHPI NHIS in the files sections and subsections below.

An unanticipated benefit of the NHPI NHIS is that it prompted an improvement in an aspect of the standard NHIS instrument. To help ensure accurate entry of racial identity information, the mechanism for recording such information was enhanced in the 2014 NHPI NHIS instrument, and this change propagated to the 2014 NHIS instrument. Specifically, the racial identity look-up table used by the interviewers to enter verbatim racial identity responses (the responses provided in response to the “please specify” follow-up question to a racial identity answer of “Other Pacific Islander,” “Other Asian,” or “Some Other Race”) provided by respondents was expanded to include a more extensive set of NHPI racial identities than were available in any previous year’s NHIS instrument. This increased the likelihood that instead of typing in a response, the interviewer could select it from a list. This improvement was invisible to respondents, i.e., it did not affect the question text or the answer options. This improvement to the racial identity look-up table has also propagated forward to all subsequent NHIS instruments.

Interviewing Procedures

Outreach

Because this survey was a one-time effort to gather information about the NHPI population, extensive outreach efforts were implemented before and during the field period to ensure the fullest cooperation possible. As a first step, NCHS researched, designed and developed culturally and linguistically appropriate outreach materials, with input from knowledgeable NHPI researchers, community leaders and community organizations. These materials consisted of 1) a poster for displaying in public gathering places; 2) a brochure for distribution to members of the community and survey respondents; 3) a letter to community leaders and service providers; and 4) a fact sheet providing details about the study.

To ensure cultural appropriateness and relevance, the materials included images and language tailored to the population, including expressions of greetings and thanks in over 20 NHPI languages, and explanations of the potential uses of the data and the importance of the survey. As a second step, these outreach materials were then disseminated widely in both paper and electronic forms. A number of federal and non-federal agencies and organizations helped NCHS and the Census Bureau disseminate the materials, including the DHHS Office of Minority Health (OMH), the White House Initiative on Asian Americans and Pacific Islanders, and various community-based and faith-based organizations. Recipients included key NHPI stakeholders in the community and in the government, NHPI-focused listservs, and, most importantly, NHPI-serving community health centers and faith-based organizations around the country.

All recipients of the outreach packet were encouraged to further distribute the materials as broadly as possible. NCHS also created an NHPI NHIS webpage on the NCHS website (<http://www.cdc.gov/nchs/nhis/nhpi.html>). This page provided information about the survey as well as electronic versions of the outreach materials to facilitate distribution to those who could not receive these large files as email attachments. As a third step, information about the survey was disseminated to the media via traditional and social media outlets, including a press release (<http://www.cdc.gov/media/releases/2013/p1217-pacific-islanders.html>), a blog posting on healthdata.gov (<https://healthdata.gov/blog/new-source-native-hawaiian-and-pacific-islander-health-data-work-progress>), a special electronic communication (“e-blast”) to OMH newsletter subscribers, and a set of radio, television, and print media interviews with an emphasis on NHPI-focused outlets.

As a fourth step, NCHS also made a range of presentations about the survey at conferences, on conference calls, and in webinars to educate the community about the survey and answer questions. With the exception of the brochure, website and presentations at conferences, these outreach activities have no parallel in the operations of the annual NHIS.

Interviewers and Interviewer Training

The U.S. Census Bureau, under a contractual agreement, is the data collection agent for the National Health Interview Survey. To the extent possible, the field staff coordinating and conducting the 2014 NHPI NHIS interviews were experienced NHIS Census Bureau interviewers. However, given the higher geographic concentration of the NHPI population (and thus the sample) in the Los Angeles regional office areas, some of the interviewers in those areas were hired specifically for the 2014 NHPI NHIS. All interviewers received the standard NHIS training: They were trained in basic interviewing procedures and the concepts unique to the NHIS. All interviewers also received a special training which NCHS created especially for this survey. This special training briefly explained the background of the project and the NHPI population, the special procedures used in the NHPI NHIS, and prepared FRs to conduct the survey interviews in a culturally sensitive and respectful

manner. The training also emphasized standard NHIS procedures of particular importance in the NHPI NHIS. For example, because many NHPI people identify as more than one race, interviewers were reminded that if a respondent mentioned only one race, the interviewer might need to gently probe (“anything else?”) to indicate to the respondent that the instrument could capture as many races as they felt were applicable.

Gaining Cooperation

As in the annual NHIS, the interviews were conducted face-to-face in respondents’ homes, though telephone follow-ups were permitted to complete interviews. Also like the NHIS, telephone interviews were occasionally conducted when the respondent requested a telephone interview or when road conditions or travel distances would have made it difficult to schedule a personal visit before the required completion date.

Likewise, as in the annual NHIS, each household address selected for participation was mailed a letter prior to the interviewer’s visit. Such “advance letters” have been shown to decrease nonresponse; they confirm study legitimacy and communicate the value of the survey (de Leeuw et al., 2007). The 2014 NHPI NHIS advance letter was very similar to the regular NHIS advance letter, with a few key differences. Like the regular NHIS advance letter, it contained information about the purpose of the survey and the amount of time the interview would require, and it assured potential respondents that participation was voluntary. It also informed respondents that the information they would provide would be protected by law and explained how the information would be used. As in the annual NHIS, when the interviewer arrived at the household address, he or she provided another copy of the advance letter to each respondent and then obtained verbal consent for survey participation.

The NHPI NHIS advance letter was different from the regular NHIS advance letter in that it was tailored to ensure NHPI cultural appropriateness. For example, the NHPI NHIS advance letter emphasized appreciation for survey participation and included greetings and expressions of thanks in over 20 NHPI languages. It was also edited to accurately describe why the household was selected and the different legislative authorities governing the survey. Finally, it was signed by the director of the U.S. Census Bureau as well as the director of NCHS. The brochure included in the outreach packet was also provided to respondent households. A copy of this letter and the brochure are included in Appendix I.

No compensation or other incentives were provided for participation in the 2014 NHPI NHIS.

Questionnaire Administration

Once the eligibility of a household was determined, the interview proceeded just as an annual NHIS interview would. The household respondent provided relationship information about all household members; these relationships determine the number of families that comprise the household. Note that in a multi-family household, a single “household respondent” provides household information for all families.

The Family Core questionnaire is administered separately to each family in the household. For each family, a resident family member who is at least the age of legal majority is identified as the “family respondent.” The family respondent serves as the primary respondent for the family, providing information for all children and adult family members. However, all members of the family aged 18 years or older who are at home at the time of the interview may respond for themselves.

For the Sample Child questionnaire, one child (the “sample child”) is randomly selected. Information about the sample child is obtained from the sample child respondent who is an adult residing in the household who is knowledgeable about the child’s health. As noted above, only children with an NHPI racial identity, alone or in

combination, were eligible for selection as the Sample Child, but there was no requirement that the adult who served as the sample child *respondent* be NHPI.

For the Sample Adult questionnaire, one adult per family (the “sample adult”) is randomly selected, with increased chances of selection for any black, Hispanic, or Asian persons aged 65 years or older. (The oversampling of such persons, a practice carried over from the annual NHIS, is one reason why it is important to analyze the data using the appropriate weights.) The sample adult responds for himself or herself to the questions in that section unless he or she is physically or mentally unable to do so, in which case a knowledgeable proxy is allowed to answer for the sample adult. As noted above, only adults with an NHPI racial identity, alone or in combination, were eligible for selection as the Sample Adult.

An emancipated minor is any person aged 14 years or older who has not attained the age of legal majority for his or her state of residence and is married, widowed, divorced, separated, or living with a partner. Emancipated minors are not eligible to be selected as the sample child or sample adult and are not generally eligible to be the household or family respondent.

As in the annual NHIS, after completing the interview, the respondent received a thank you letter. Unlike the annual NHIS thank you letter, this letter included thanks from the heads of both the Census Bureau and NCHS and contained expressions of gratitude in the same set of NHPI languages found in the advance letter.

The 2014 NHPI NHIS, like the annual NHIS, was conducted using computer-assisted personal interviewing (CAPI). The CAPI data collection method employs computer software that presents the CAPI Reference Questionnaire (CRQ) on computer screens to each interviewer. The computer program guides the interviewer through the questionnaire, automatically routing the interviewer to appropriate questions based on answers to previous questions. Interviewers enter survey responses directly into the computer, and the CAPI program determines if the selected response is within an allowable range, checks it for consistency against some of the other data collected during the interview, and saves the responses into a survey data file. The computer program includes help facilities to aid interviewers in administering the CAPI questionnaire. This data collection technology reduces the time required for transferring, processing, and releasing data, and it ensures the accurate flow of the questionnaire.

All information collected by the NHIS and the NHPI NHIS that would permit identification of the individual is held strictly confidential, seen only by persons who work on the survey with a need to know, and such information is not disclosed or released to anyone for any other purpose without the consent of the respondent. NCHS must adhere to Section 308(d) of the Public Health Service Act (42 U.S.C. 242m), which forbids the disclosure of any information that may compromise the confidentiality promised to survey respondents. In addition, confidentiality protections are also mandated by the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) (44 U.S.C. 3501 note). Because the NHPI NHIS used the ACS as its sample frame, the ACS’s legislative authorities, found in Title 13, Sections 8 and 9 of the U. S. Code, further protect the confidentiality of the data.

Frame Refinement

After data collection was complete, it was discovered that the rules that the Census Bureau and the ACS use for recoding and thereby defining racial identity differ from those used by the NHIS. Specifically, the Census/ACS rules (henceforth referred to as the ACS rules or criteria) are more inclusive than those of the NHIS. The ACS accepts all indications of all racial identities as valid, while the NHIS accepts most but not all racial identity responses as valid, labeling the one exception probable measurement error. This has implications for the definition of the 2014 NHPI NHIS frame.

By definition, all ACS addresses identified by the ACS as containing one or more NHPI people (the initial frame) contained at least one resident who met the ACS criteria for NHPI racial identity. However, not all such addresses contained at least one resident who met the NHIS criteria for an NHPI identity. Because the purpose of the NHPI NHIS was to collect NHPI health data in such a way that the results would be comparable to the health data collected for all races in the annual NHIS, in hindsight, it might have been better to apply NHIS racial identity classification/edit rules to the ACS data from the beginning when identifying households in the ACS “with one or more NHPI residents.” However, because the ACS rule was used initially, the 2014 NHPI NHIS provided an unexpected opportunity to compare these two sets of criteria for an NHPI identity.

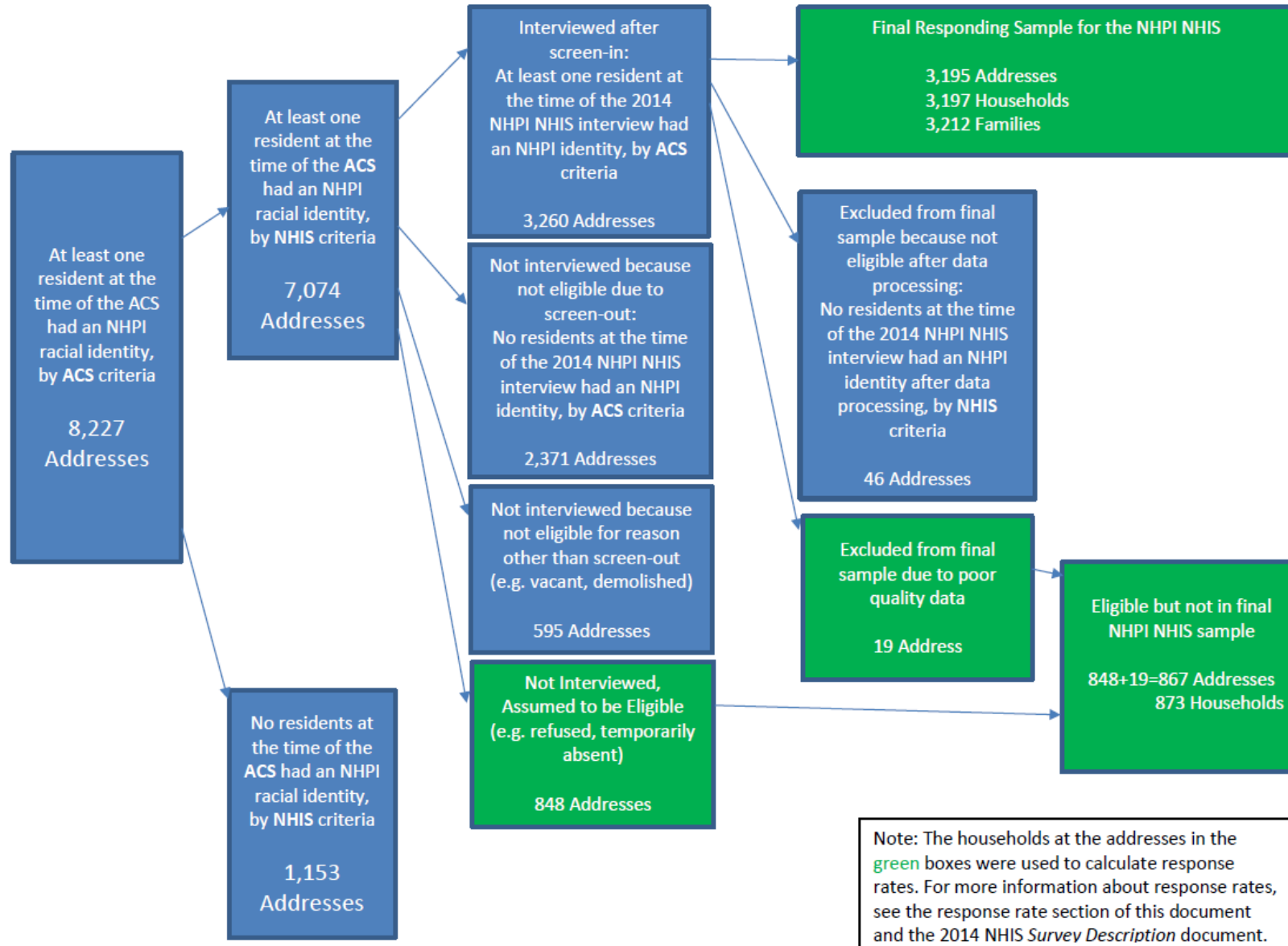
In all but one regard, the ACS and NHIS definitions of an NHPI identity are identical. In both surveys:

- If one or more of the racial identity options Native Hawaiian, Samoan, or Guamanian/Chamorro are selected or given as a verbatim answer, that response is considered valid evidence of an NHPI racial identity.
- If the “Other Pacific Islander” (OPI) option is selected and no further verbatim information is provided in the “Other Specify” line/followup-question to the OPI checkbox/choice, that response is considered valid evidence of an NHPI racial identity.
- If a verbatim answer of any other specific (e.g. “Tongan” or “Fijian”) or general (e.g. “Micronesia” or “Pacific Islander”) NHPI group is provided at any point in the racial identity section, that response is considered valid evidence of an NHPI racial identity.

The one exception to the pattern of identical rules for assessing the validity of racial identity responses across surveys is when the “Other Pacific Islander” checkbox/choice is indicated, and a non-NHPI race is provided for the “Other Specify” line/follow-up question to the OPI checkbox/choice, and no other indication is given of any other general or specific NHPI identity. One example of this would be a person who indicates “Other Pacific Islander,” indicates Filipino in the “Other Specify” verbatim follow-up to the Other Pacific Islander checkbox/choice, and does not provide any other indication of an NHPI racial identity. In such cases, the ACS codes that person as both NHPI and the provided verbatim non-NHPI race. In contrast, in the NHIS, that person is coded as the provided verbatim non-NHPI race but is not coded as NHPI. The NHPI NHIS followed the NHIS racial identity coding procedures.

Of the 8,227 addresses originally identified by ACS as containing at least one NHPI resident, 13.8% (1,153 addresses) did not meet *NHIS* criteria for having a resident in the ACS with an NHPI identity. These 1,153 addresses which did not meet *NHIS* criteria for having a resident in the ACS with an NHPI identity received an NHPI NHIS outcome of “out of scope”. The 7,074 addresses that met NHIS criteria for containing at least one NHPI person at the time of the ACS comprise the final frame for the 2014 NHPI NHIS. (For more detail about this issue, see Galinsky et al., forthcoming.) For a graphic depiction of the progression from the original frame to the final sample size, see Figure 1.

Figure 1. Flowchart showing the outcome of addresses in the NHPI NHIS Frame



Sample Sizes and Response Rates

The publicly released data files (also called “public use data files”) for the 2014 NHPI NHIS contain data for 3,197 households containing 11,085 persons in 3,212 families. Of the 11,085 persons, 8,697 are NHPI alone or in combination with one or more other races, and of these 8,697 persons, 8,661 persons have a non-zero value for the person weight variable (WTFA). The 36 NHPI persons with a zero value for the WTFA weight variable were on full-time active duty with the armed forces at the time of the interview. These 36 NHPI persons, along with the 2,388 non-NHPI persons, are retained in the person file only to enable family-level calculations. The number of sample children is 1,305 and the number of sample adults is 2,590. All sample children and sample adults are NHPI only or NHPI in combination with one or more other races. In 64 cases, a knowledgeable proxy answered for the sample adult.

The total household response rate was 78.6%: 13.9 percentage points of the 21.4% noninterview rate were the result of respondent refusal and unacceptable partial interviews.

The conditional response rate for the Family component was 99.7%, which was calculated by dividing the number of completed family interviews (3,212) by the total number of eligible families (3,222). The unconditional or final response rate of 78.3% for the family component was calculated by multiplying the conditional response rate of 99.7% by the household response rate of 78.6%.

The conditional response rate for the Sample Child component was 90.7%, which was calculated by dividing the number of completed Sample Child interviews (1,305) by the total number of eligible sample children (1,439). The unconditional or final response rate of 71.0% for the Sample Child component was calculated by multiplying the conditional rate of 90.7% by the final family response rate of 78.3%.

The conditional response rate for the Sample Adult component was 82.8%, which was calculated by dividing the number of completed Sample Adult interviews (2,590) by the total number of eligible sample adults (3,128). The unconditional or final response rate of 64.8% for the Sample Adult component was calculated by multiplying the conditional rate of 82.8% by the final family response rate of 78.3%.

For more information on how response rates were calculated, see Appendix II.

Assessment of Data Quality

The 2014 NHPI NHIS is the first national NHPI health survey with a sample size larger than a few hundred households and the first survey to use the ACS as a frame for a follow-back survey of a rare (numerically small) population. Because the ACS had never been used in this way before, and both frame (ACS) and annual NHIS data were available to assess the representativeness of the final NHPI NHIS sample, NCHS conducted a quality assessment of the 2014 NHPI NHIS data. The assessment considered the ways and degree to which the estimates of NHPI population characteristics calculated using data from the 2014 NHPI NHIS differ from estimates of the same population characteristics calculated using data from the ACS and NHIS (the two benchmarks). This section will present a summary of this assessment. The full report on the methods and results of the quality assessment is in preparation (Galinsky, Zelaya, Simile, and Barnes, forthcoming).

The two datasets used to calculate the benchmarks were:

- 1) The NHPI sample from five pooled years (2010-2014) of the annual NHIS, consisting of 919 NHPI addresses and 2,217 NHPI persons. Combining multiple years of the NHIS was necessary to obtain an adequate sample size for analysis. The sample sizes of NHPI people and addresses in the annual NHIS are so small, however, that even when combining 5 years of data many estimates are still not reliable. The data quality analysis focuses on those estimates which were reliable in the 2010-2014 NHIS.
- 2) The ACS frame consisting of 7,074 NHPI addresses and 16,912 NHPI persons. For more information on the refinement of the frame, see the Frame Refinement section above. Due to disclosure prevention restrictions, the year of the ACS used as the frame cannot be disclosed.

The data quality analysis consisted of three types of comparisons designed to assess the representativeness of the NHPI NHIS sample. All analyses used the weights and variance estimation variables and techniques appropriate for each data source (survey) to calculate national population estimates and standard errors.

First, the analysis compared estimates of the demographic characteristics of the NHPI population calculated using the 2014 NHPI NHIS data at the person and address level to the same estimates calculated using the two benchmarks (ACS frame and 2010-2014 NHIS). If the population estimates calculated using the 2014 NHPI NHIS sample looked similar enough to estimates calculated using the ACS frame and the NHPI sample from the 2010-2014 NHIS, that provides evidence that the NHPI NHIS sample can be considered representative. The interpretation of these results takes into account that both these benchmark surveys are also subject to various kinds of survey error; there are methodological differences between the 2014 NHPI NHIS and the ACS frame; and there are period differences between the 2014 NHPI NHIS and both the ACS frame and the 2010-2014 NHIS. When examining the results, therefore, the focus was on consistent differences between the 2014 NHPI NHIS and both benchmarks (the ACS frame and the 2010-2014 NHIS).

At both the person and address level, some estimates of sociodemographic characteristics of the NHPI population calculated using the 2014 NHPI NHIS differed statistically from those estimates calculated using the ACS frame and the 2010-2014 NHIS. Specifically, at the person level, a lower proportion of NHPI persons were estimated to be Hispanic when using the 2014 NHPI NHIS as compared to the ACS frame and the 2010-2014 NHIS (10.0% in the NHPI NHIS, 13.5% in the ACS frame, and 17.1% in the 2010-2014 NHIS); a higher proportion of NHPI persons aged 14 and over were estimated to have the marital status “separated” (7.2% in 2014 NHPI NHIS, 2.4% in the ACS frame, and 2.1% in the 2010-2014 NHIS). At the address level, compared to the ACS frame and the 2010-2014 NHIS: a lower proportion of NHPI addresses were estimated to have at least one Hispanic resident (14.8% in the 2014 NHPI NHIS, 21.6% in the ACS frame, and 21.2% in the 2010-2014 NHIS); a lower proportion of addresses were estimated to have a single NHPI person (36.9% in the 2014 NHPI NHIS, 45.6% in

the ACS frame, and 46.2% in the 2010-2014 NHIS); and a higher proportion of addresses were estimated to be resident owned (60.2% in the 2014 NHPI NHIS, 48.3% in the ACS frame, and 48.7% in the 2010-2014 NHIS) when calculated using data from the 2014 NHPI NHIS.

In the second comparison, the analysis compared estimates of eighteen health characteristics of the NHPI population calculated using the 2014 NHPI NHIS to estimates of the same health characteristics calculated using the NHPI sample from the 2010-2014 NHIS. Three characteristics were examined in the total population, six were examined separately among the child and adult populations, five were examined only among the adult population, and four were examined only among the child population, for a total of 24 comparisons. Three of the 24 population estimates calculated using the 2014 NHPI NHIS differed from the same estimates calculated using the 2010-2014 NHIS data: proportion of former smokers among NHPI adults, proportion of NHPI adults who had a flu vaccine in the past 12 months, and the proportion of NHPI children who had a dental visit in the past 12 months. All three of these differences mirror trends in the broader population of decreased smoking and increased access to and utilization of care over the years from 2010 through 2014 (Bloom, Cohen & Freeman, 2011; Bloom & Freeman, 2015; Ward, Clarke, Freeman & Schiller, 2015). In addition, seasonal administration of the flu vaccine in combination with the different calendar periods of data collection of the surveys (January through December for the NHIS; and February through November for the 2014 NHPI NHIS) could account for differences in the population estimates for the proportion of NHPI adults who had the flu vaccine in the past 12 months.

In the third comparison, logistic regression models using sex and age to predict health outcomes were constructed using both the 2014 NHPI NHIS and, separately, using the sample of NHPI persons from the 2010-2014 NHIS. While not speaking directly to the representativeness of the final sample, if the regression coefficients were similar in magnitudes and direction across the pairs of models, this would provide evidence of a lack of selection bias in the sample. The magnitude and direction of associations were comparable across samples.

In conclusion, in some regards the NHPI population estimates calculated using the 2014 NHPI NHIS data differ significantly from the NHPI population estimates calculated using the ACS frame data and the 2010-2014 NHIS data. Data users should be aware of these differences and may wish to include caveats regarding these differences when presenting results from the 2014 NHPI NHIS, especially if the health characteristics examined are strongly related to Hispanic ethnicity, marital status, home ownership, or household racial composition. However, for most analytic purposes, these differences are not likely to influence the results in a manner substantial enough to raise concerns about the underlying fitness of the data. The results from these three sets of analyses together suggest that the 2014 NHPI NHIS sample is reasonably representative of the NHPI population and, with appropriate caveats, will be useful for estimating prevalence and predictors of health-related characteristics of NHPI persons.

Overview of the 2014 NHPI NHIS Data Files and Data File Documentation

As in recent years of the annual NHIS, the following data files are available for the 2014 NHPI NHIS: Household File, Family File, Person File, Injury and Poisoning Episode File, Sample Child File, Sample Adult File, Adult Functioning and Disability File, Family Disability Questions File, and the Paradata File.

Because this document is primarily intended to describe the differences between the 2014 year of the annual NHIS and the 2014 NHPI NHIS, data users are reminded to read the following sections along with the 2014 NHIS *Survey Description* document (NCHS, 2015).

Edits to Protect Confidentiality

As alluded to earlier, NCHS (including its contractors and agents) collects personally identifiable NHIS, NHPI NHIS, and other survey data under a pledge of confidentiality and a promise that the data will be used only for statistical purposes.

Strict procedures in survey operations and data dissemination are used by NCHS, its data collection contractors, and other agents to prevent disclosure of survey subjects' identities. The risk of inadvertent disclosure of confidential information regarding individual respondents is higher when there exists a publicly released data set having detailed geography variables and a detailed and extensive set of survey observations. For this reason, the NHIS—and also the NHPI NHIS—does not publicly release state identifiers and some other geographic variables, and the original design variables are masked when the data are publicly released (see Appendix III for more detail about the masked design variables). It was therefore not possible to include a Hawaii/Not Hawaii state flag variable on the public use household file. The 2014 NHPI NHIS dataset, like all NHIS data sets, may also be coarsened by suppressing survey variables, collapsing multiple variables into one, and collapsing response categories. For example, very extreme values of height and weight are masked by being recoded into broad interval categories.

Some variables that are usually on the NHIS have been altered in the NHPI NHIS. Altered variables are given a name different from the name on the NHIS; those changes are specified below.

Researchers wishing to conduct analyses using the unaltered variables from the 2014 NHPI NHIS, or using variables that could not be released on the public use file such as geographic variables or detailed race variables, must apply to use the restricted NHPI NHIS data file. For more information, please visit the Federal Statistical Research Data Center website at <http://www.census.gov/fsrdc> and the Census Bureau's "How to Apply Page" at <http://www.census.gov/ces/rcresearch/howtoapply.html>.

Household File

Each record on the Household File represents either a responding household or a “Type A” nonresponding household. “Type A” nonresponding households are assumed to have been eligible for the NHPI NHIS interview but were not interviewed for a variety of reasons including refusal, language barrier, no one at home, and insufficient partial interview. The NHPI NHIS Household File contains information on 4,070 households: 3,197 households were interviewed, while 873 were not interviewed.

No variables have been altered in the 2014 NHPI NHIS Household File relative to the variables in the 2014 NHIS household data file.

Family File

The Family File contains variables that describe characteristics of the 3,212 families living in households that participated in the 2014 NHPI NHIS.

To protect confidentiality, the following variables in the Family File have been altered in the 2014 NHPI NHIS relative to the variables in the 2014 NHIS family file (see Table 1). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 1. Names and descriptions of family file variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
FSSKDAY5	FSSKDAYR	Number of days cut size or skipped meals
FSNEDAYS	FSNEDAYR	Number of days did not eat
FM_STRCP/FM_STRP	FM_STRN	Family structure
FM_EDUC1	FM_EDUCN	Education of adult with highest education in family
WRKCELN	WRKCELNP	Number of working cell phones

Person File

The 2014 NHPI NHIS Person File includes 11,085 records with 1 record for each person. Of the 11,085 persons, 8,697 are NHPI alone or in combination with one or more other races, and of these 8,697 persons, 8,661 persons have a non-zero value for the person weight variable (WTFA). The 36 NHPI persons with a zero value for the WTFA weight variable were on full-time active duty with the armed forces at the time of the interview. These 36 NHPI persons, along with the 2,388 non-NHPI persons, are retained in the person file only to enable family-level calculations.

I. Coverage Section

No variables have been altered in the coverage section of the 2014 NHPI NHIS Person File relative to the variables in the coverage section of the 2014 NHIS Person File.

II. Household Composition Section (HHC)

The questions and procedures used to collect race and ethnicity identity information in the 2014 NHPI NHIS were identical to those used in the 2014 NHIS. The family respondent reports the racial identity of all family members. As in the annual NHIS, respondents could report as many races for each person as they felt applied. The race question in both the 2014 NHIS and the 2014 NHPI NHIS is this:

What race or races [fill1: Do you/Does ALIAS] consider [fill2: yourself/himself/herself] to be? Please select 1 or more of these categories.

The respondent is shown a card with the following response options:

- 01 White
- 02 Black/African American
- 03 Indian (American)
- 04 Alaska Native
- 05 Native Hawaiian
- 06 Guamanian or Chamorro
- 07 Samoan
- 08 Other Pacific Islander
- 09 Asian Indian
- 10 Chinese
- 11 Filipino
- 12 Japanese
- 13 Korean
- 14 Vietnamese
- 15 Other Asian
- 16 Some other race.

If the respondent selects “Other Pacific Islander,” “Other Asian,” or “Some other race,” the respondent is asked to specify what other Pacific Islander/Asian/other racial identity they meant. The respondent’s response to those follow-up questions is recorded exactly as stated. During data processing, those verbatim answers are then coded so they can be included in the main race variables. As in the annual NHIS, the 2014 NHPI NHIS

allowed NHPI respondents to provide any level of detail they desired when answering the racial identity questions. For example, if they did not wish to provide a specific racial identity after specifying “Other Pacific Islander,” they were allowed to proceed to the next question. However, they were also allowed to provide as many detailed racial identities as they felt applied.

In some cases, the family respondent reported an NHPI race for a child and no NHPI race for that child’s biological parents. In some cases, the family respondent reported an NHPI race for a parent and no NHPI race for that parent’s biological child. As is standard practice in the NHIS, these race values were coded as given.

All of the standard race variables that are available on the 2014 NHIS public use file are also available on the 2014 NHPI NHIS public use file, with the exception of MRACBPI2, RACRECI3, and HISCODI3 (which were not relevant for the 2014 NHPI NHIS). The variables provided in the 2014 NHPI NHIS allow data users to determine if the person is NHPI and allow data users to distinguish between persons who are NHPI only and those who are NHPI and one or more other races. They do not permit disaggregation of NHPI persons into detailed NHPI race groups. However, over 40 detailed NHPI race variables have been created and are available on the restricted 2014 NHPI NHIS data file through the Census RDC. For more information on how to apply to use the restricted 2014 NHPI NHIS data file, please visit the Federal Statistical Research Data Center website at <http://www.census.gov/fsrdc> and the Census Bureau’s “How to Apply Page” at <http://www.census.gov/ces/rdcresearch/howtoapply.html>.

Due to disclosure restrictions, only one NHPI-specific race variable (NHPI_ANY) is available on the NHPI NHIS public use file. This variable is new to the NHPI NHIS; it does not appear on the 2014 NHIS. NHPI_ANY is defined as:

- At least one mention of an NHPI race
- No mention of an NHPI race

By examining the NHPI_ANY variable by the RACERPI2 variable, data users can distinguish persons who are NHPI only and those who are NHPI and one or more other races.

III. Family Identification Section (FID)

To protect confidentiality, the following variables in the family identification section of the 2014 NHPI NHIS Person File have been altered relative to the variables in the family identification section of the 2014 NHIS Person File (see Table 2a). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 2a. Names and descriptions of family identification section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
R_MARITL	MAR_STAT	Marital Status
COHAB2	COHAB2N	Cohabiting person's current marital status
SIB_DEGP	SIB_DEGN	Degree of sibling relationship to household reference person
MOM_DEGP	MOM_DEGN	Type of relationship with mother
DAD_DEGP	DAD_DEGN	Type of relationship with father
PARENTS	PARENTSN	Parent(s) present in the family
MOM_ED	MOM_EDN	Education of mother
DAD_ED	DAD_EDN	Education of father

IV. Health Status and Limitation of Activity Section (FHS)

No variables have been altered in the health status and limitation of activity section of the 2014 NHPI NHIS Person File relative to the variables in the health status and limitation of activity section of the 2014 NHIS Person File.

V. Family Food Security Section (FFS)

No variables have been altered in the family food security section of the 2014 NHPI NHIS Family File relative to the variables in the family food security section of the 2014 NHIS Family File.

VI. Health Care Access and Utilization Section (FAU)

To protect confidentiality, the following variables have been altered in the health care access and utilization section of the 2014 NHPI NHIS Person File relative to the variables in the health care access and utilization section of the 2014 NHIS Person File (see Table 2b). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 2b. Names and descriptions of health care access and utilization section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
HOSPNO	HOSPNO_P	Number of times in hospital overnight, 12 months
HPNITE	HPNITE_P	Number of nights in hospital, 12 months
PHCHMN2W	PHCHN2WP	Number of HOME visits by health professional, 2 weeks
PHCPHN2W	PHCPN2WP	Number of PHONE calls to health professional, 2 weeks
PHCDVN2W	PHCDN2WP	Number of times VISITED health professional, 2 weeks

VII. Health Insurance Section (FHI)

To protect confidentiality, the following variables have been altered in the health insurance section of the 2014 NHPI NHIS Person File relative to the variables in the health insurance section of the 2014 NHIS Person File (see Table 2c). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 2c. Names and descriptions of health insurance section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
PLNWRKR2	PLNWK2	How plan was originally obtained, collapsed
EXCHPR2	EXCHPR2R	Exchange company coding
MILCARE	MILCAREN	Military health care coverage collapsed
MILMAN	MILMANR	Type of TRICARE coverage

VIII. Socio-demographic Section (FSD)

To protect confidentiality, the following variables have been altered in the socio-demographic section of the 2014 NHPI NHIS Person File relative to the variables in the socio-demographic section of the 2014 NHIS Person File (see Table 2d). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 2d. Names and descriptions of socio-demographic section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
EDUC	EDUCN	Highest level of school completed
DOINGLWP	DOINGLNP	What was person doing last week
WHYNOWKP	WHYNOWNP	Main reason for not working last week
WRKHRS2	WRKHRSN	Hours worked last week
WRKMYR	WRKMYRN	Months worked last year
YRSINUS	YRSINUSN	Years that person has been in the U.S.

IX. Income and Assets Section (FIN)

There are no imputed income files for the 2014 NHPI NHIS.

No variables have been altered in the income and assets section of the 2014 NHPI NHIS Person File relative to the variables in the income and assets section of the 2014 NHIS Person File.

X. English Language Proficiency Section (FLG)

The variable has not been altered in the English language proficiency section of the 2014 NHPI NHIS Person file relative to the variable in the English language proficiency section of the 2014 NHIS Person File.

Injury and Poisoning Episode File

To protect confidentiality, the following variables have been altered in the 2014 NHPI NHIS Injury and Poisoning Episode File relative to the variables in the 2014 NHIS Injury and Poisoning Episode File (see Table 3). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 3. Names and descriptions of injury and poisoning episode file variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
IPIHNO	IPIHNO_P	Number of nights in the hospital
IMVTYP	IMVTYP_P	Type of vehicle injured person was in
PPOIS	PPOIS_P	Cause of poisoning episode
RPD	RPD_P	Days between the date of injury/poisoning and date the questions were asked

Family Disability Questions File (FDB)

No variables have been altered in the 2014 NHPI NHIS Family Disability File relative to the variables in the 2014 NHIS Family Disability File.

As in the 2014 NHIS, a random sample of approximately one-half of the respondents from the 2014 NHPI NHIS Person File was selected for the FDB questions. Therefore, a different weight (WTFA_FDB) was generated for persons in the FDB File. This weight was designed to produce annual-level estimates calculated based on data included in the files.

More information about the Family Disability File can be found here:

ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2014/srvydesc_fmlydisb.pdf.

Users should ignore the technical note on combining years of data since there is only one year of the NHPI NHIS.

Sample Child File

The 2014 NHPI NHIS Sample Child File includes 1,305 records with 1 record for each person. All sample children are NHPI only or NHPI in combination with one or more other races. Compared to the annual NHIS, the NHPI NHIS has a higher rate of families without a sample child because of the requirement that the sample child be NHPI. Some families in the final NHPI NHIS sample had an NHPI adult and one or more children, but none of the children were described as NHPI. Such families have no sample child.

I. Child Identification Section (CID)

No variables have been altered in the child identification section of the 2014 NHPI NHIS Sample Child File relative to the variables in the child identification section of the 2014 NHIS Sample Child File.

II. Child Conditions, Limitation of Activity and Health Status Section (CHS)

To protect confidentiality, the following variables have been altered in the 2014 NHPI NHIS Sample Child File relative to the variables in the 2014 NHIS Sample Child File (see Table 4a). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 4a. Names and descriptions of child conditions, limitations of activity and health status section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
TOTOZ_P	TOTOZ_PN	Total birth weight in ounces
CWGHT_TC	CWGHT_PN	Current weight in pounds (truncated)
BMI_SC	BMICATSC	Body Mass Index (BMI)
SCHDAYR1	SCHDAYRN	Days missed due to illness/injury, past 12 months
CHRTSCHR	CHRTSCHN	Time since last hearing test at school
CHRTEST	CHRTESTN	Time since last hearing test by specialist
CHRTOTR	CHRTOTRN	Number of total explosive events
CHRWKVLN	CHRWLVN	Time exposed to very loud noises at least 4 hours a day, several days a week
CHRWKVRT	CHRWVVRTN	How often used hearing protection when very loud explosive noises occurred

III. Child Health Care Access and Utilization Section (CAU)

To protect confidentiality, the following variables have been altered in the 2014 NHPI NHIS Sample Child File relative to the variables in the 2014 NHIS Sample Child File (see Table 4b). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 4b. Names and descriptions of child health care access and utilization section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
CDNLONGR	CDNLONGN	Time since last saw dentist
CHERNOY2	CHERNOYN	Number of times in ER/ED, past 12 months
CMDLONGR	CMDLONGN	Time since seen/talked to health professional

IV. Child Mental Health Brief Supplement (CMB)

No variables have been altered in the child mental health brief supplement section of the 2014 NHPI NHIS Sample Child File relative to the variables in the child mental health brief supplement section of the 2014 NHIS Sample Child File.

IV. Child Influenza Immunization Supplement (CFI)

No variables have been altered in the child influenza immunization supplement section of the 2014 NHPI NHIS Sample Child File relative to the variables in the child influenza immunization supplement section of the 2014 NHIS Sample Child File.

Sample Adult File

The 2014 NHPI NHIS Sample Adult File includes 2,590 records with 1 record for each sample adult. All sample adults are NHPI only or NHPI in combination with one or more other races. Compared to the annual NHIS, the NHPI NHIS has a higher rate of families without a sample adult because of the requirement that the sample adult be NHPI. Some families in the 2014 NHPI NHIS sample had an NHPI child but no NHPI adults. Such families have no sample adult.

I. Adult Identification Section (AID)

No variables have been altered in the adult identification section of the 2014 NHPI NHIS Sample Adult File relative to the variables in the adult identification section of the 2014 NHIS Sample Adult File.

II. Adult Socio-Demographics Section (ASD)

To protect confidentiality, the following variables in the 2014 NHPI NHIS Sample Adult file have been altered relative to the variables in the 2014 NHIS Sample Adult File (see Table 5a). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 5a. Names and descriptions of adult socio-demographic section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
DOINGLWA	DOINGLNA	Corrected employment status last week
WHYNOWKA	WHYNOWNA	Main reason for not working last week
INDSTRN2	INDSTRN3	14-category industry recode
OCCUPN2	OCCUPN3	17-category occupation recode
YRSWRKPA	YRSWRKPN	Number of years on the job

III. Adult Conditions Section (ACN)

To protect confidentiality, the following variables in the 2014 NHPI NHIS Sample Adult file have been altered relative to the variables in the 2014 NHIS Sample Adult File (see Table 5b). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 5b. Names and descriptions of adult conditions section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
HYBPCKNO	HYBPCKNP	Time since blood pressure checked, number of units
CLCKNO	CLCKNP	Time since cholesterol checked, number of units
CANAGE7	CNAGE7P	Age first diagnosed with colon cancer
CANAGE8	CNAGE8P	Age first diagnosed with esophageal cancer
CANAGE10	CNAGE10P	Age first diagnosed with kidney cancer
CANAGE14	CNAGE14P	Age first diagnosed with lung cancer
CANAGE16	CNAGE16P	Age first diagnosed with melanoma
CANAGE20	CNAGE20P	Age first diagnosed with prostate cancer
CANAGE23	CNAGE23P	Age first diagnosed with skin cancer
CANAGE28	CNAGE28P	Age first diagnosed with thyroid cancer
CANAGE30	CNAGE30P	Age first diagnosed with other cancer
DIBAGE	DIBAGEP	Age first diagnosed with diabetes
DIFAGE2	DIFAGE2P	Years since first diagnosed with diabetes
HEARAGE1	HEARAGE2	Age at first hearing loss
HRAIDLGP	HRAIDLG1	How long hearing aid use in past
HR12MR	HR12MRP	Number of rounds fired, past 12 months

IV. Adult Health Status and Limitation of Activity Section (AHS)

To protect confidentiality, the following variables in the 2014 NHPI NHIS Sample Adult file have been altered relative to the variables in the 2014 NHIS Sample Adult File (see Table 5c). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 5c. Names and descriptions of adult health status and limitation of activity section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
WKDAYR	WKDAYR1	Number of work loss days, past 12 months
BEDDAYR	BEDDAYR1	Number of bed days, past 12 months

V. Adult Health Behaviors Section (AHB)

To protect confidentiality, the following variables in the 2014 NHPI NHIS Sample Adult file have been altered relative to the variables in the 2014 NHIS Sample Adult File (see Table 5d). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 5d. Names and descriptions of adult health behaviors section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
SMKREG	SMKREGP	Age first smoked fairly regularly
SMKQTP	SMKQTP	Time since quit smoking (in years)
CIGSDA1	CIGSDA1P	Number cigarettes per day (daily smokers)
CIGDAMO	CIGDAMOP	Number days smoked in past 30 days
CIGSDA2	CIGSDA2P	Number cigarettes per day (some day smokers)
CIGSDAY	CIGSDAYP	Number cigarettes per day (all current smokers)
See note	PA08_3R	Aerobic exercise, meets 2008 federal physical activity guidelines
See note	PA08_4R	Aerobic exercise, basic plus highly active
See note	STRENGTH	Meets 2008 federal physical activity guidelines for strength
See note	PA08_C4R	Meets 2008 federal physical activity guidelines for both aerobic and strength
ALS5UPY1	ALC5UPYP	Number of days had 5+/4+ drinks past year
AWEIGHTP	AWEIGHP	Weight without shoes, pounds
BMI	BMICAT_N	Body mass index categories

NOTE: The 2014 NHIS includes 15 variables on physical activity (VIGNO, VIGTP, VIGFREQW, VIGLNGNO, VIGLNGTP, VIGMIN, MODNO, MODTP, MODFREQW, MODLNGNO, MODLNGTP, MODMIN, STRNGNO, STRNGTP, and STRFREQW).

VI. Adult Health Care Access and Utilization Section (AAU)

To protect confidentiality, the following variables in the 2014 NHPI NHIS Sample Adult file have been altered relative to the variables in the 2014 NHIS Sample Adult File (see Table 5e). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 5e. Names and descriptions of adult health care access and utilization section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
AHERNOY2	AHERNOYP	Number of times in emergency room or department, past 12 months
ASRGNOYR	ASRGNOYP	Number of surgeries, past 12 months
AWAITRMN	AWAITRNP	Time in waiting room-number
ASPFLUM2	ASPFLUMP	Month of most recent flu nasal spray
SHEPANUM	SHEPANMP	Number of shots of hepatitis A vaccine received
SHHPVDOS	SHHPVDSP	Number of HPV shots received
AHPVAGE	AHPVAGEP	Age at first HPV shot
AVISAPN2	AVISAPNP	Appointment wait time - number

VII. Adult Selected Items Section (ASI)

To protect confidentiality, the following variables in the 2014 NHPI NHIS Sample Adult file have been altered relative to the variables in the 2014 NHIS Sample Adult File (see Table 5f). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 5f. Names and descriptions of adult selected items section variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
ASISLEEP	ASISLEPR	Hours of sleep recode

VIII. Adult Internet and Email Usage (AWB)

No variables have been altered in the adult internet and email usage section of the 2014 NHPI NHIS Sample Adult File relative to the variables in the adult internet and email usage section of the 2014 NHIS Sample Adult File.

Adult Functioning and Disability Supplement File (AFD)

No variables have been altered in the 2014 NHPI NHIS adult functioning and disability supplement file (AFD) relative to the variables in the 2014 NHIS adult functioning and disability supplement file.

As in the 2014 NHIS, approximately one-half of all sample adults from the 2014 NHPI NHIS were randomly selected to receive the AFD supplement. Therefore, a different weight (WTFA_AFD) was generated for sample adults in the AFD File. This weight was designed to produce annual-level estimates calculated based on data included in the files.

More information about the Adult Functioning and Disability supplement file can be found here:

ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2014/srvydesc_funcdisb.pdf.

Users should ignore the technical note on combining years of data; there is only one year of the NHPI NHIS.

Paradata File

To protect confidentiality, the following variables in the 2014 NHPI NHIS Paradata File have been altered relative to the variables in the 2014 NHIS Paradata File (see Table 6). The first column is the name of the variable as found in the 2014 public use NHIS data file. The second column is the name of the variable as found in the 2014 public use NHPI NHIS data file. The third column is the variable description.

Table 6. Names and descriptions of paradata variables that were altered in the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) relative to the variables in the 2014 National Health Interview Survey (NHIS)

2014 NHIS Variable	2014 NHPI NHIS Variable	Description
WRKCELN	WRKCELNP	Number of working cell phones
TOTCOUNT	TOTCNTP	Total count of Contact History Instrument (CHI) records for this case
MODE_P	MODE_PP	Number of personal visit attempts for this case
MODE_T	MODE_TP	Number of telephone attempts for this case
CTSTAT1	CTSTAT1P	Number of contacts with sample unit members
CTSTAT2	CTSTAT2P	Number of contacts with non-sample unit members
CTSTAT3	CTSTAT3P	Number of noncontacts

The CENREG (Census Region) variable was removed for confidentiality reasons as well.

More information about the Paradata File can be found here:

ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2014/srvydesc_paradata.pdf.

Weighting

The 2014 NHPI NHIS sample is a subsample of ACS responding addresses, as described in previous sections above.

The procedure for creating weights for the 2014 NHPI NHIS was similar to the annual NHIS weight creation procedure, which is described in “Design and Estimation for the National Health Interview Survey, 2006–2015,” available from: http://www.cdc.gov/nchs/data/series/sr_02/sr02_165.pdf. The first step was the creation of household-level weights. The household-level weights were used in the creation of all other weights.

The starting point for the 2014 NHPI NHIS household weights was the ACS address-level weight, which is based on the ACS probability of selection. The final household-level weight consists of the ACS address-level weight and a geographic nonresponse adjustment for nonresponse to the 2014 NHPI NHIS.

The final household-level weight was the basis for the person-level weights in the household. The final person-level weight consists of the final household-level weight and a ratio adjustment so totals in certain age/sex categories agreed with ACS person-level estimated totals. The age categories for the ratio adjustment are: 0-4, 5-14, 15-17, 18-19, 20-24, 25-29, 30–34, 35-44, 45-49, 50-54, 55-64, 65-74, and 75+ years of age.

Person-level Analyses

One set of weights is provided on the Person File:

- Weight - Final Annual (WTFA) is based on the ACS design and a ratio adjustment. National estimates of NHPI persons can be made using these weights.

WTFA is nonzero only for NHPI civilians. Family members who are active duty members of the Armed Forces and non-NHPI persons have zero weights. These people are retained on the person file only to enable family-level calculations. Weights could not be calculated for the non-NHPI family members because these individuals are not representative of any population as a result of the survey design, specifically the decision to only interview households with at least one NHPI resident at the time of the NHPI NHIS.

One set of weights is provided on the Family Disability File:

- Family Disability Weight - Final Annual (WTFA_FDB), assigned to a subsample of the NHPI NHIS persons, is based on the ACS design via the final household-level weight, factors for supplement subsampling, and an age/sex ratio adjustment using ACS person-level estimated totals. The age categories for the ratio adjustment are: 0-4, 5-14, 15-17, 18-19, 20-24, 25-29, 30–34, 35-44, 45-49, 50-54, 55-64, 65-74, and 75+ years of age.

Sample Child or Sample Adult Analyses

One set of weights is included on the Sample Child File:

- Sample Child Weight - Final Annual (WTFA_SC) is based on the ACS design via the final household-level weight, a factor for the subsampling of the Sample Child, a geographic nonresponse adjustment for nonresponse to the NHPI NHIS Sample Child Module, and an age/sex ratio adjustment using ACS person-

level estimated totals. The age categories for the ratio adjustment are: 0-4, 5-14, and 15-17 years of age. National estimates of NHPI sample child variables can be made using these weights.

The Sample Adult File contains one set of weights:

- Sample Adult Weight - Final Annual (WTFA_SA) is based on the ACS design via the final household-level weight, a factor for the subsampling of the Sample Adult, a geographic nonresponse adjustment for nonresponse to the NHPI NHIS Sample Adult Module, and an age/sex ratio adjustment using ACS person-level estimated totals. The age categories for the ratio adjustment are: 18-24, 25-29, 30-34, 35-44, 45-49, 50-54, 55-64, 65-74, and 75+ years of age. National estimates of NHPI sample adult variables can be made using these weights.

The Adult Functioning and Disability Supplement File contains one set of weights:

- Adult Functioning and Disability Weight - Final Annual (WTFA_AFD), assigned to a subsample of the NHPI NHIS sample adults, is based on the ACS design via the final household-level weight, factors for Sample Adult and supplement subsampling, a geographic nonresponse adjustment for nonresponse to the combination of the NHPI NHIS Sample Adult Module and the supplement module, and an age/sex ratio adjustment using ACS person-level estimated totals. The age categories for the ratio adjustment are: 18-24, 25-29, 30-34, 35-44, 45-49, 50-54, 55-64, 65-74, and 75+ years of age.

Household-level Analyses

Two sets of weights are provided on the Household File:

- Weight - Final Annual Household (WTFA_HH) includes the ACS probability of selection and a nonresponse adjustment. Nonresponding households have a zero weight in this field. WTFA_HH is the appropriate weight to use when analyzing only responding households.
- Weight - Interim Annual Household (WTIA_HH) reflects the ACS probability of household selection. It does not include a nonresponse adjustment. WTIA_HH is the appropriate weight to use when analyzing all households in the file, both responding and nonresponding.

Family-level Analyses

Lastly, the Family File contains one set of weights. As in the annual NHIS, a variation of the "principal person" method is used to create the 2014 NHPI NHIS Family File weight (WTFA_FAM). Briefly, a person-level ratio adjustment is used as a proxy for the NHPI NHIS family-level ratio adjustment. Use of the person weight with the *smallest* ratio adjustment within each family is believed to provide a more accurate estimate of the total number of NHPI families than either the use of other person weights in the family or the use of no ratio adjustments whatsoever.

Accordingly, the weight provided with the 2014 NHPI NHIS Family File, WTFA_FAM, corresponds to the 2014 NHPI NHIS person weight for one of the civilian NHPI persons in the family. As a result, the Family weight is based on the ACS design and a ratio adjustment.

Recall Period and Weights

Some questions for particular events have recall periods referring to, for example, the “last 2 weeks” or the “last 3 months.” In general, annual estimates of events can be made using these types of variables. For example, using a variable that counts events experienced by a person within a two-week recall period, an annual estimate of the number of events is 26 times the weighted estimate of the total number of events experienced by all persons within the two-week recall period. Similarly, using a variable with a three-month recall period, an annual estimate of the number of events is four times the weighted estimate of the total number of events experienced by all persons within the three-month recall period. This assumes that the average rate of occurrence is the same over the last year as over the last two weeks (or three months). Analysts are cautioned to check the accompanying file documentation and the questionnaire in order to evaluate if annual estimates for these kinds of event variables are possible and have intrinsic meaning. Annual estimates of *events* should not be interpreted as annualized *person* experiences.

Variance Estimation

The data collected in the 2014 NHPI NHIS were obtained from a subset of ACS responding addresses. 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 2014 NHPI NHIS data. Analysts who apply SRS techniques to 2014 NHPI NHIS 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.

Several software packages are available for analyzing complex samples. The website *Summary of Survey Analysis Software*, currently located at <http://www.fas.harvard.edu/~stats/survey-soft/survey-soft.html>, provides references for and a comparison of different software alternatives for the analysis of complex data. Analysts at NCHS generally use the software package SUDAAN® (Research Triangle Institute, 2012) with Taylor series linearization methods to produce standard error estimates and hypothesis test results (such as p values).

Appendix III provides SUDAAN code and a description of its use to compute standard errors of means, percentages and totals with the 2014 NHPI NHIS database. Appendix III also provides example code for SPSS, Stata, R, SAS survey procedures, and VPLX. NCHS recommends that 2014 NHPI NHIS data be 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.

Analyses of large 2014 NHPI NHIS subgroups usually produce reliable estimates, but analyses of small subgroups may yield unreliable estimates, as indicated by their large variances. The analyst should pay particular attention to the coefficient of variation (relative standard error) for estimates of means, proportions and totals. In addition, small sample sizes or small numbers of primary sampling units containing targeted data may be an indication of estimates lacking precision.

Guidelines for Data Use

The 2014 NHPI NHIS sample is a subsample of ACS responding addresses. The 2014 NHPI NHIS sample can be analyzed on a standalone basis. **It is not appropriate to combine the 2014 NHPI NHIS sample with the annual NHIS sample (from any year), as the two samples come from different sample designs.**

To indicate that such an analysis is not recommended, the design variables necessary for variance estimation have been named differently in the 2014 NHPI NHIS dataset (var_str and var_psu) than they are in the annual NHIS dataset (strat_p and psu_p).

Estimates from the 2014 NHPI NHIS sample can be treated as statistically independent from estimates from the annual NHIS sample, because the ACS and NHIS sample designs are independent from each other.

Data users may want to make comparisons across race categories, comparing NHPI population statistics calculated using the 2014 NHPI NHIS data to corresponding statistics for other racial groups calculated using the 2014 NHIS. To do so, it would be appropriate to calculate point estimates and standard errors for each racial group separately using the separate data sets and then calculate a t score using those point estimates and standard errors.

Standard NCHS Guidelines

With the goal of mutual benefit, NCHS requests that recipients of data files cooperate in certain actions related to their use.

Any published material derived from the 2014 NHPI NHIS data should acknowledge NCHS as the original source. The suggested citation, "SOURCE: NCHS, Native Hawaiian and Pacific Islander National Health Interview Survey, 2014," should appear at the bottom of all tables and graphs. Published material derived from the data should also include a disclaimer that credits the author's analyses, interpretations, and conclusions to the author (recipient of the data file) and not to NCHS, which is responsible only for the initial data. Users who wish to publish a technical description of the data should make a reasonable effort to ensure that the description is not inconsistent with that published by NCHS.

CIPSEA and the Public Health Service Act (Section 308d) provide that NHIS and NHPI NHIS data collected by NCHS may be used only for the purpose of health statistical reporting and analysis. Any effort to determine the identity of any reported case is prohibited by these laws. Any intentional identification or disclosure of a person or establishment violates the assurances of confidentiality given to the providers of the information. Therefore, users must:

- Use the data in these data files for statistical reporting and analysis only.
- Make no use of the identity of any person discovered, inadvertently or otherwise, and advise the Director, NCHS, of any such discovery (301-458-4500).
- Not link these data files with individually identifiable data from any other NCHS or non-NCHS data sets.

Use of the NHIS data files signifies users' agreement to comply with the above-stated statutory-based requirements.

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Appendix I. Advance Letter and Brochure

HIS-700 (LOS ANGELES)
(1-2014)



UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001
OFFICE OF THE DIRECTOR

Hello

I am Charles Rothwell, the head of the National Center for Health Statistics (NCHS), part of the CDC (the United States Centers for Disease Control and Prevention) and I am John H. Thompson, the head of the U.S. Census Bureau. Our agencies are working together to conduct a major survey about the nation's health and we need your help.

Aloha

Talofa lava

The survey is called the Native Hawaiian and Pacific Islander (NHPI) National Health Interview Survey (NHIS). In the next few days, a Census Bureau interviewer will visit you to ask for your participation. We ask that you take some time to answer our questions.

Māiō e lelei

la Orana

Please know that everything you tell us will be kept strictly private. Your answers are used to help understand and solve the health problems of your community and anticipate future health issues. Quality health information is necessary to make good decisions and sound policies. In this way, taking part in the survey indirectly benefits all NHPI Americans – children and adults, parents and grandparents.

Tālofa

Fakaalofa atu

Molo ni

Some interviews take about five minutes. Most interviews will take about an hour to do all the parts, depending on the size and health of your family. We hope you will want to take part in the survey – it is your choice. Your participation is voluntary. You may choose not to answer any question and, of course, you can stop at any time. No penalties or loss of benefits will come from refusing.

Noa'ia

Kia Ora

Kacha

Strict federal laws protect your information. Question 5 on the back of this letter describes these laws and who may see your personal information.

Kia orana

fiafia ʻidai

Please contact the Census Bureau, toll-free, at 1-800-992-3530, press 5, if you have questions about the survey or to schedule an interview. About a week after the interview, some households will be asked a few extra questions for quality purposes.

Yokwe

Ran anim

Please visit our survey website at: <http://www.cdc.gov/nchs/nhis.htm> for more information about the NHIS.

Kaschlic

We are very grateful for your help. We know your time and privacy are valuable. Thank you for your cooperation.

Lotu wo

Sincerely,

Mogethin

Alii

Charles J. Rothwell
Director
National Center for Health Statistics
Centers for Disease Control and Prevention

John H. Thompson
Director
U.S. Census Bureau

Mauri

Mo yoran

ʻBula vinaka

Halo

Halo ola keta

Bonjour

Kwe'

REGIONAL OFFICE
US CENSUS BUREAU
15350 SHERMAN WAY STE 400
VAN NUYS CA 91406-4203
1-800-992-3530, press 5

Why is the NHPI NHIS important?

Since the NHIS is nationally representative, it usually includes about 100 households each year with Native Hawaiian and Pacific Islander residents. However, to protect the privacy of these households, the health data of NHPI people have to be combined with the health data of Asian people when NHIS statistics are shown by race.

NHPI community leaders, as well as policy makers, researchers, and service providers, agree we need better data on the health of NHPI people. The NHPI NHIS helps to meet the goal of the Department of Health and Human Services (HHS) of improving the collection and reporting of data on NHPI populations and increasing the capacity to conduct more reliable statistical research for NHPI populations.

The NHPI NHIS is a rare opportunity to collect rich and accurate health information about the health of Native Hawaiians and Pacific Islanders.



Thank You	Kia Oza	Sulang
Mahalo	Kotoa nui	Ko rab'a
Fa'afetai tele	Meitaki maata	Tubwa
Mälö 'aupito	Si Yu'us Mä'ise'	Vinaka vaKalovu
Mauru' uru	Kommol tata	Tank iu
Fakafetai	Kinisou	Tank yiu
Fakaue lahi	Kalahngan	Tenkyu tru
Faka fetai	Kulo	Merci
Fäiäk se'ea	Kamagar	Wela'lin

Your help is greatly appreciated.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics

3311 Toledo Road
Hyattsville, MD 20782
301.458.4901 Office
NHIS@cdc.gov



NATIVE HAWAIIAN AND PACIFIC ISLANDER (NHPI) NATIONAL HEALTH INTERVIEW SURVEY (NHIS)



The Native Hawaiian and Pacific Islander National Health Interview Survey collects information on health, healthcare, health insurance, and health-related behaviors.

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov



What is the National Health Interview Survey (NHIS)?

The NHIS is the nation's largest in-person household health survey. It is conducted annually by the National Center for Health Statistics (NCHS), which is a part of the Centers for Disease Control and Prevention (CDC), and the Census Bureau.

What is the Native Hawaiian and Pacific Islander (NHPI) National Health Interview Survey?

The NHPI NHIS is a special version of the National Health Interview Survey.

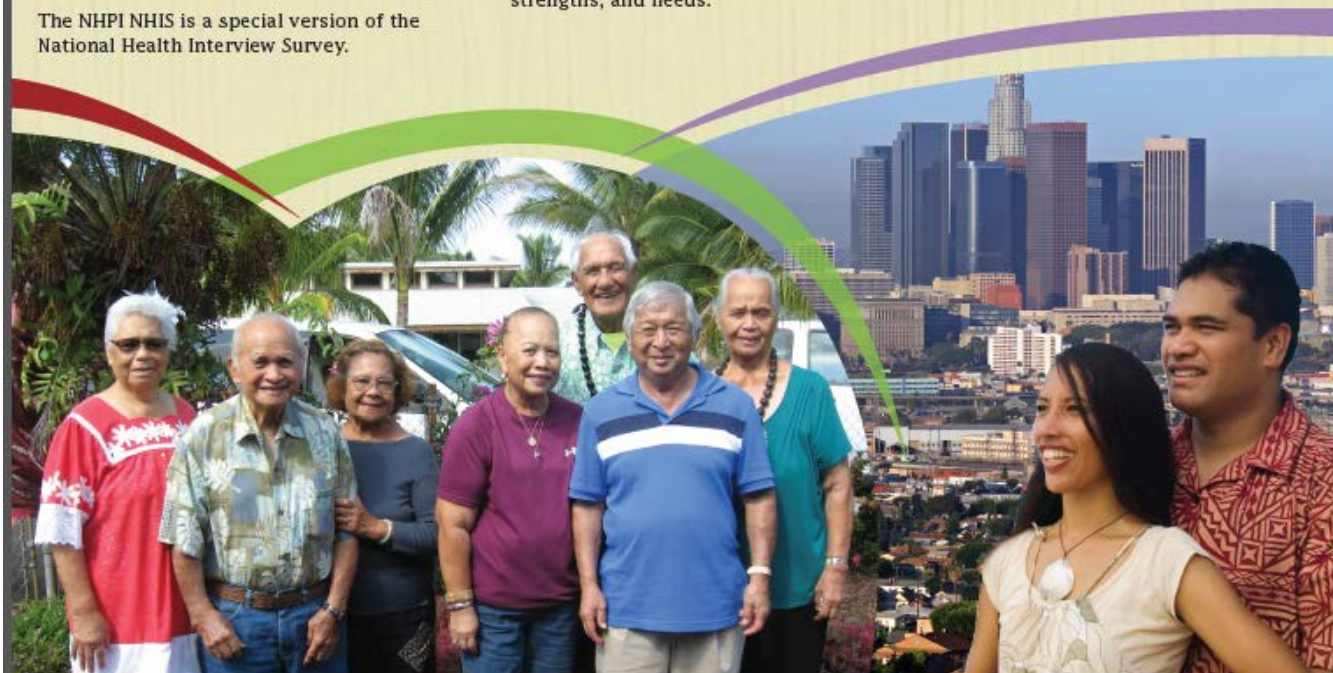
How can the information be used?

With the data collected, it will be possible to:

- Plan policies to help improve NHPI health and well-being.
- Develop effective interventions to improve NHPI health.
- Improve medical services for NHPI people.
- Understand NHPI health problems, strengths, and needs.

Anyone can use the information gathered in the NHPI NHIS—policymakers, researchers, and community members such as pastors, health care providers, community service providers, teachers, students, and the general public.

The data, stripped of all identifying information, will be available to everyone on the NCHS NHIS Web site: www.cdc.gov/nchs/nhis.htm.



Appendix II. Calculation of Response Rates

Response rates for the 2014 NHPI NHIS were calculated using the same formulas as were used to calculate the response rates for the 2014 NHIS. For more information, see Appendix II in the 2014 NHIS *Survey Description* document (NCHS, 2015).

Response rates for the ACS (the source of the frame for the NHPI NHIS) were not included in the calculation of the 2014 NHPI NHIS response rates. As the successor to the decennial census long form, response to the ACS is required by law and attains very high response rates. These response rates can be found online: <https://www.census.gov/acs/www/methodology/sample-size-and-data-quality/response-rates>.

Appendix III. Variance Estimation Method for Public Use Data

The data collected in the 2014 NHPI NHIS are obtained from a subset of ACS responding addresses. The final weights provided for analytic purposes have been adjusted to ACS estimates. As with any variance estimation methodology, the techniques presented here involve several simplifying assumptions about the design and weighting scheme applied to the data. The method described below is applicable to the 2014 NHPI NHIS Household, Person, Sample Child, and Sample Adult public use data files.

Data 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 NHPI NHIS. The clustering protocols that are used in the multistage selection of the NHPI NHIS sample require other analytic procedures, as described below. Analysts who apply SRS techniques to NHPI NHIS 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.

Several software packages are available for analyzing complex samples. The website *Summary of Survey Analysis Software*, currently located at <http://www.fas.harvard.edu/~stats/survey-soft/survey-soft.html>, provides references for and a comparison of different software alternatives for the analysis of complex data. Analysts at NCHS generally use the software package SUDAAN® (Research Triangle Institute, 2012) to produce standard error estimates. In this appendix, examples of SUDAAN computer code for standard error calculation are provided for illustrative purposes. Examples also are provided for the Stata, SPSS, SAS, R, and VPLX software packages. NCHS recommends that NHPI NHIS data be 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.

Finally, data users are reminded that it is not appropriate to combine the 2014 NHPI NHIS sample with the annual NHIS sample (from any year), as the two samples come from different sample designs (please see “Guidelines for Data Use” above).

Variables Available for Variance Estimation

The 2014 NHPI NHIS Household, Family, Person, Sample Child, Sample Adult, and the supplement public use files contain the design variables necessary for variance estimation; Table I provides a summary of the Person File variables. The stratum and PSU variable names are the same in all files, but the weight variable has a different name.

Table I. Variables used for variance estimation, 2014 Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS) Person File

Variable Name	Variable Label
VAR_STR	Stratum for variance estimation
VAR_PSU	PSU for variance estimation
WTFA	Weight - Final annual Person File weight

It should be noted that the VAR_STR and VAR_PSU levels are pseudo-levels or simplified versions of the true ACS sample design variables. NCHS must adhere to laws that forbid the disclosure of any information (such as county of residence) that may compromise the confidentiality promised to its survey respondents. Consequently, much of the NHPI NHIS design information cannot be publicly released, and other data are either suppressed or recoded to ensure confidentiality. In order to satisfy this disclosure constraint, the original ACS design variables are masked for public release by applying techniques to cluster, collapse, mix, and partition the original design

variables. Through this process, the original ACS design variables are transformed into public use variance estimation variables (i.e., VAR_STR and VAR_PSU).

Variance Estimation for Analyses of the NHPI NHIS

The limited public release design information requires a mathematical simplification that the PSUs be treated as if they were sampled with replacement (WR). The simplified design structure can be specified with the following statements in SUDAAN for the Person File:

```
PROC <DESCRIPT, CROSSTAB,..>..      DESIGN = WR ;
NEST  VAR_STR VAR_PSU ;
WEIGHT      WTFA ;
```

Note that SUDAAN requires that the input file be sorted by the variables listed on the NEST statement (i.e., VAR_STR and VAR_PSU). Design statements for other data files should use the appropriate weight variables found on these files.

Corresponding statements for other software packages are as follows:

Stata svy

```
SVYSET [PWEIGHT=WTFA],STRATA(VAR_STR)PSU(VAR_PSU)
SVY: MEAN <name of variable to be analyzed for average>
or
SVY: PROPORTION <name of variable to be analyzed for percentage/proportion>
```

SPSS csdescriptives (for averages) or cstabulate (for percentages/proportions):

One needs first to define a “plan file” with information about the weight and variance estimation, e.g.:

```
CSPLAN ANALYSIS
/PLAN FILE="< file name >"
/PLANVARS ANALYSISWEIGHT=WTFA
/DESIGN STRATA=VAR_STR CLUSTER=VAR_PSU
/ESTIMATOR TYPE=WR.
```

and then refer to the plan file when using csdescriptives or cstabulate, e.g.:

```
CSDESCRIPTIVES
/PLAN FILE="< file name >"
/SUMMARY VARIABLES =<name of variable to be analyzed>
/MEAN.
```

```
CSTABULATE
/PLAN FILE="< file name >"
/TABLES VARIABLES =<name of variable to be analyzed>
/CELLS TABLEPCT.
```

SAS proc surveymeans (for averages) or surveyfreq (for percentages/proportions)

```
PROC SURVEYMEANS;  
STRATA VAR_STR;  
CLUSTER VAR_PSU;  
WEIGHT WTFA;  
VAR <name of variable to be analyzed>;  
RUN;  
  
PROC SURVEYFREQ;  
STRATA VAR_STR;  
CLUSTER VAR_PSU;  
WEIGHT WTFA;  
TABLES <name of variable to be analyzed>;  
RUN;
```

R (including the “survey” add-on package)

Note that R syntax is case-sensitive.

```
# load survey package  
require(survey)  
# create data frame with NHPI NHIS design information, using existing data frame of NHPI NHIS data  
NHPIsvy <- svydesign(id=~var_psu, strata=~var_str,  
                  nest = TRUE,  
                  weights=~wtfa,  
                  data=< existing data frame name>)  
svymean(~<name of variable to be analyzed>, design=NHPIsvy)
```

Note that svymean will produce proportions for “factor variables.” For details, consult the R documentation at <http://cran.r-project.org/manuals.html>.

VPLX

In the CREATE step, include the following statements:

```
STRATUM VAR_STR  
CLUSTER VAR_PSU  
WEIGHT WTFA
```

Then specify the variable to be analyzed in the DISPLAY step:

```
LIST MEAN(<name of variable to be analyzed>)
```

VPLX can produce percentages by including a CAT statement in the CREATE step. For details, consult the VPLX documentation at <http://www.census.gov/sdms/www/vdoc.html>.

Degrees of Freedom

A rule of thumb to calculate the number of degrees of freedom to associate with a standard error is the quantity *number of PSUs - number of strata*. Typically, this rule is applied to a design with two PSUs per stratum and when the variance components by stratum are roughly the same magnitude. This rule of thumb is not directly applicable to the NHPI NHIS design because the addresses in the NHPI NHIS project came from only a small subset of the U.S. counties/sampling strata included in the ACS. The applicability of this rule of thumb depends upon the variable of interest and its interaction with the design structure (for additional information, see Chapter 5 of Korn and Graubard 1999). The number of degrees of freedom is used to determine the t-statistic, its associated percentage points, p-values, standard error, and confidence intervals. As the number of degrees of freedom becomes large, the distribution of the t-statistic approaches the standard normal distribution. For example, with 120 degrees of freedom, the 97.5 percentage point of the t distribution is 1.980, while the 97.5 percentage point of the standard normal distribution is 1.960. The user should consult a mathematical statistician for further discussion.

Subsetted Data Analysis

Some analyses using NHPI NHIS data are restricted to specific population subgroups such as persons aged 65 and older. Some users delete all records outside of the domain of interest (e.g., persons aged less than 65 years) in order to work with smaller data files and run computer jobs more quickly. This procedure of keeping only selected records (and list-wise deleting other records) is called subsetting the data. With a subsetted dataset that is appropriately weighted, correct point estimates (e.g., estimates of population subgroup means) can be produced. **However, in general, software packages that correctly analyze complex survey data cannot compute accurate standard errors for subsetted data.** When complex survey data are subsetted, oftentimes the sample design structure available to the software is incomplete; subsetting data deletes important design information needed for variance estimation. Note that SUDAAN has a SUBPOPN statement that allows the targeting of a subpopulation while using the full (unsubsetted) data file containing the design information for the entire sample. (See a SUDAAN manual for more information.) NCHS recommends that subpopulation analyses be carried out using the full data file and the SUBPOPN statement in SUDAAN, or an equivalent procedure (see below) with another complex design variance estimation software package.

Strategy 1 (recommended)

Use the SUBPOPN statement with the SUDAAN method described above for the full Person File dataset:

```
PROC<DESCRIPT, CROSSTAB,..>DESIGN = WR ;
NEST  VAR_STR VAR_PSU ;
WEIGHT      WTFA ;
SUBGROUP    (variable names);
LEVELS..    ;
SUBPOPN     SEX=2 / NAME="Analysis of NHPI women;"
```

Using the full dataset with the SUBPOPN statement in this example would constrain this analysis to NHPI women only (SEX = 2 for female). (Because WTFA is nonzero only for NHPI persons, only NHPI persons will be included in the analysis.) Use of the SUBPOPN statement is equivalent to subsetting the dataset, except that any resulting variance estimates are based on the full design structure for the complete dataset.

Implementing Strategy 1 in other software packages can be accomplished as follows:

Stata svy

Add SUBPOP to the SVY statement, e.g.:

```
SVYSET [PWEIGHT=WTFA],STRATA(VAR_STR) PSU(VAR_PSU)
SVY,SUBPOP( SEX==2 ): MEAN <name of variable to be analyzed>
```

SPSS csdescriptives or cstabulate

One must first define an indicator variable, e.g.:

```
DO IF (SEX EQ 2).
  COMPUTE SUBGRP=1.
ELSE.
  COMPUTE SUBGRP=0.
END IF.
```

and define a “plan file” with information about the weight and variance estimation, e.g.:

```
CSPLAN ANALYSIS
/PLAN FILE="< file name >"
/PLANVARS ANALYSISWEIGHT=WTFA
/DESIGN STRATA=VAR_STR CLUSTER=VAR_PSU
/ESTIMATOR TYPE=WR.
```

and then refer to the plan file and indicator variable when using csdescriptives or cstabulate, e.g.:

```
CSDESCRIPTIVES
/PLAN FILE="< file name >"
/SUMMARY VARIABLES =<name of variable to be analyzed>
/SUBPOP TABLE=SUBGRP
/MEAN.
```

```
CSTABULATE
/PLAN FILE="< file name >"
/TABLES VARIABLES =<name of variable to be analyzed>
/SUBPOP TABLE=SUBGRP
/CELLS TABLEPCT.
```

It is very important that the indicator variable be defined for all data records. Otherwise, an invalid result can occur.

SAS proc surveymeans or surveyfreq

One must first define an indicator variable, e.g.:

```
IF SEX=2      THEN SUBGRP=1;
ELSE SUBGRP=0;
```

And then refer to the indicator variable in proc surveymeans using the DOMAIN statement, e.g.:

```
PROC SURVEYMEANS;
STRATA VAR_STR;
CLUSTER VAR_PSU;
WEIGHT WTFA;
VAR <name of variable to be analyzed>;
DOMAIN SUBGRP;
RUN;
```

Proc surveyfreq does not have a DOMAIN statement. Instead, include the indicator variable in the TABLES specification:

```
PROC SURVEYFREQ;
STRATA VAR_STR;
CLUSTER VAR_PSU;
WEIGHT WTFA;
TABLES SUBGRP*<name of variable to be analyzed>;
RUN;
```

As with SPSS, it is very important that the indicator variable is defined for all data records. Otherwise an invalid result can occur.

R (including the “survey” add-on package)

After applying the svydesign function to a data frame that contains the entire NHPI NHIS sample file being analyzed, specify the criteria that define the subgroup of interest in the subset function and apply the function to the R “object” created by the svydesign function to create a new R object. Note that R is very “feisty” when testing for equality; hence, the syntax that follows specifies the subgroup of interest without using an equality test.

```
# load survey package
require(survey)
# create data frame with NHPI NHIS design information, using existing data frame of NHPI NHIS data
NHPIsvy <- svydesign(id=~var_psu, strata=~var_str,
                   nest = TRUE,
                   weights=~wtfa,
                   data=< existing data frame name>)
# subset for sex=2 without using equal signs
subgrp <- subset(NHPIsvy, sex>1)
svymean(~<name of variable to be analyzed>, design= subgrp)
```

VPLX

In the CREATE step, define one or more CLASS variables that can be used to specify the criteria that define the subgroup of interest.

```
COPY SEX INTO SEXCAT
CLASS SEXCAT (1/2)
STRATUM VAR_STR
CLUSTER VAR_PSU
WEIGHT WTFA
```

The second category of SEXCAT defines the subgroup of interest.

Then, specify the variable to be analyzed in the DISPLAY step, and specify the subgroup of interest as well:

```
LIST MEAN(<name of variable to be analyzed>) /CLASS SEXCAT(2)
```

Strategy 2 (not recommended, except when Strategy 1 is infeasible)

Use the MISSUNIT option on the NEST statement with the method described above for subsetting data:

```
NEST VAR_STR VAR_PSU / MISSUNIT ;
```

In a WR design, when some PSUs are removed from the database through the listwise deletion of records outside the population of interest, leaving only one PSU in one or more strata, the MISSUNIT option in SUDAAN “fixes” the estimation to avoid errors due to the presence of strata with only one PSU. In the special case of a WR design with exactly two PSUs per stratum, using the MISSUNIT option with subsetting data gives the same variance estimate as using Strategy 1. However, except for this special case, there is no guarantee that the variance estimates obtained by this method are equivalent to those obtained using Strategy 1. Other calculations, such as those for design effects, degrees of freedom, standardization, etc., may need to be carried out differently. Users are responsible for verifying the correctness of their results based on subsetting data.

Appendix IV. Merging Data Files and Combining Years of Data in the NHIS

This appendix is not applicable to the 2014 NHPI NHIS. Data users are reminded that it is not appropriate to combine the 2014 NHPI NHIS sample with the NHIS sample (from any year) as the two samples come from different sample designs. Please see “Guidelines for Data Use” above for more information.

Appendix V. Analysis of the Family Food Security Variables

The ten questions on the Family Food Security Supplement (FFS) section can be used to determine the food security status of families as recommended by the US Department of Agriculture (USDA) Economic Research Service. Responses to the two FFS questions that ask about the frequency of occurrence in the past 30 days were recoded to protect confidentiality. The recoded response categories “1-2 days” versus “greater than or equal to 3 days” in the NHPI public use file are in agreement with the affirmative values needed for creating the raw food security score. For more information, see Appendix V in the 2014 NHIS *Survey Description* document (NCHS, 2015).

Appendix VI. Mental Health Indicator (MHI) for Children Aged 2–3 Years

For more information, see Appendix VI in the 2014 NHIS *Survey Description* document (NCHS, 2015).

Appendix VII. The Short Strengths and Difficulties Questionnaire (SDQ)

The Short Strengths and Difficulties Questionnaire (SDQ) is unchanged from the annual NHIS. For more information, see Appendix VII in the 2014 NHIS *Survey Description* document (NCHS, 2015).