Assessing the Data Quality of the Native Hawaiian and Pacific Islander National Health Interview Survey (NHPI NHIS)

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NHPI NHIS: Background

Native Hawaiian and Pacific Islander Population
- Numerically small (0.4% of U.S. population)
- Limited reliable national health data

National Health Interview Survey (NHIS)
- Conducted by the National Center for Health Statistics (NCHS)
- Data collected by U.S. Census Bureau
- In-person household interview
- ~35,000 households annually
- Disaggregated NHPI health statistics since 1999, but often unreliable
- Only ~100-250 NHPI households annually

Native Hawaiian and Pacific Islander National Health Interview Survey

Special Sampling Frame

- NHPI households in 1 year of the **American Community Survey (ACS)**

Standard NHIS Methods

- 2014 **NHIS instrument**
  + special screening

- **NHIS field staff**

- Standard NHIS data processing and file creation

Customized Field Methods

- **Customized interviewer training**

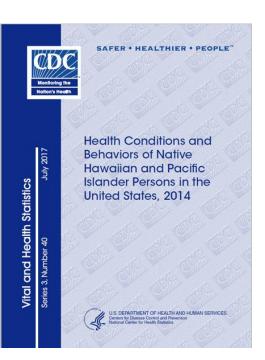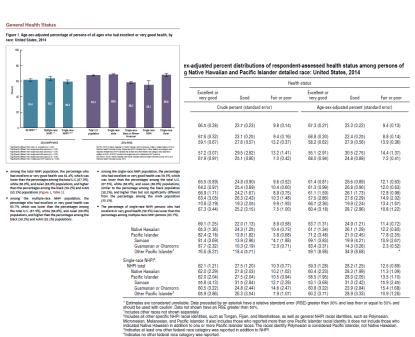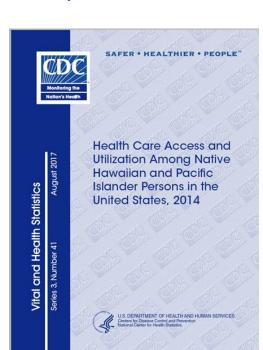- **Customized** respondent & outreach **materials**

- **Extensive outreach effort**

NHPI NHIS Chartbooks

https://www.cdc.gov/nchs/data/series/sr_03/sr03_040.pdf
https://www.cdc.gov/nchs/data/series/sr_03/sr03_041.pdf

Research Questions

Is the 2014 NHPI NHIS sample representative of the civilian non-institutionalized NHPI population of the United States?

❑ What patterns of differences, if any, exist between the NHPI sample obtained in the NHPI NHIS and the NHPI samples obtained in two national benchmark surveys?

Research Methods: Data Sources

❏ All NHPI persons and NHPI households identified in **a recent single year of the ACS**

❏ All NHPI persons and households identified in **the combined 2010-2014 years of the annual NHIS**

Research Methods: Analysis

❑ Comparison of weighted estimates of 8 person level and 10 household level demographic characteristics

    ❑ 2014 NHPI NHIS compared with ACS Frame and 2010-2014 NHIS

❑ Comparison of weighted estimates of 18 health characteristics in various age groups (24 comparisons)

    ❑ 2014 NHPI NHIS compared with 2010-2014 NHIS

Results: Person-Level NHPI Population Estimates

Measure	NHPI NHIS estimate *differs* from *both* ACS Frame and 2010-2014 NHIS estimates?
% Male	No
Age distribution	No
Hispanic ethnicity	**Yes**
Single-race NHPI	No
Among multiple-race NHPI , other race	No
Marital Status	**Yes**
Educational attainment	No
Place of birth and citizenship status	No

Results: Person-Level NHPI Population Estimates

Measure	ACS Frame	2010-2014 NHIS	2014 NHPI NHIS
% Male			
Age distribution			
% Hispanic ethnicity	**13.5**	**17.1**	**10.0**
% Single-race NHPI			
Among multiple-race NHPI, other race			
Marital Status: % Separated	**2.4**	**2.1**	**7.2**
Educational attainment			
Place of birth and citizenship status			

Results: Household-Level NHPI Population Estimates

Measure	NHPI NHIS estimate _differs_ from _both_ ACS Frame and 2010-2014 NHIS estimates?
All residents were single-race NHPI	No
Number of NHPI residents	**Yes**
Number of residents	No
At least 1 Hispanic resident	**Yes**
Number of children in household	No
Maximum educational attainment	No
Immigrant status of residents	No
Tenure	**Yes**
State	No
Region	No

Results: Household-Level NHPI Population Estimates

Measure	ACS Frame	2010-2014 NHIS	2014 NHPI NHIS
All residents were single-race NHPI			
Number of NHPI residents: 1	**45.6**	**46.2**	**36.9**
7+	**3.6**	**2.8**	**5.2**
% with at least 1 Hispanic resident			
Number of children in household			
Maximum educational attainment			
Immigrant status of residents			
Tenure: % Renter			
State			
Region			

Results: Household-Level NHPI Population Estimates

Measure	ACS Frame	2010-2014 NHIS	2014 NHPI NHIS
All residents were single-race NHPI			
Number of NHPI residents: 1	**45.6**	**46.2**	**36.9**
7+	**3.6**	**2.8**	**5.2**
% with at least 1 Hispanic resident	**21.6**	**21.2**	**14.8**
Number of children in household			
Maximum educational attainment			
Immigrant status of residents			
Tenure: % Renter	**49.5**	**48.2**	**37.1**
State			
Region			

Results: NHPI Population Health Estimates

Measures	
Adult obesity	Child chickenpox
Adult ever diabetes	Child respiratory allergies in past 12 months
Adult ever hypertension	Child skin allergies in past 12 months
Adult ever asthma	Child ever asthma
Adult current asthma	Child current asthma
Adult last dentist visit in past 12 months	**Child last dentist visit in past 12 months**
Adult flu vaccine in past 12 months	Child flu vaccine in past 12 months
Adult cost barrier to dental	Child cost barrier to dental
Adult usual source of care	Child usual source of care
Adult smoking	Child cold past 2 weeks
Adult aerobic/strengthening	Total population: Cost barrier to care
Total population: Reported general health	Total population: Cost delayed care

Results: NHPI Total Population Health Estimates

Measure	2010-2014 NHIS	2014 NHPI NHIS
Total population: Reported general health		
Total population: Cost barrier to care		
Total population: Cost delayed care		

Results: NHPI Adult Population Health Estimates

Measure	2010-2014 NHIS	2014 NHPI NHIS
Adult obesity		
Adult ever diabetes		
Adult ever hypertension		
Adult ever asthma		
Adult current asthma		
Adult last dentist visit in past 12 months		
% Adult flu vaccine in past 12 months	**34.8**	**42.5**
Adult cost barrier to dental		
Adult usual source of care		
Adult smoking: % Former	**13.1**	**19.5**
Adult aerobic/strengthening		

Results: NHPI Child Population Health Estimates

Measure	2010-2014 NHIS	2014 NHPI NHIS
Child chickenpox		
Child respiratory allergies in past 12 months		
Child skin allergies in past 12 months		
Child ever asthma		
Child current asthma		
Child last dentist visit in past 12 months	**71.8**	**83.0**
Child flu vaccine in past 12 months		
Child cost barrier to dental		
Child usual source of care		
Child cold past 2 weeks		

Conclusions and Implications

- Some demographic differences identified between the 2014 NHPI NHIS sample and two benchmark survey samples

- Health outcomes: similarities and only isolated differences across surveys

- 2014 NHPI NHIS is useful for estimating prevalence and predictors of health-related characteristics of NHPI persons

- Successful federal health surveys of numerically small and hard-to-reach populations are possible

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The NHPI NHIS respondents

https://www.cdc.gov/nchs/nhis/nhpi.html

Thank you!

Mahalo   Fa'afetai tele   Mālō 'aupito

Mauru' uru   Fakafetai

Fakaue lahi   Faka fetai   Fãiåk se'ea   Kia Ora

Kotoa nui   Meitaki maata   Si Yu'us Må'åse'

Kommol tata   Kinisou   Kalahngan

Kulo   Kamagar   Sulang   Ko rab'a   Tubwa

Vinaka vakalevu   Tank iu   Tank yiu

Tenkyu tru   Merci   Wela'lin