



Self-Rated Health Status Comparing Pacific Islanders to Asians

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Abstract

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Keywords

Advocacy; Asians; Diseases – Reporting; Hawaiians; Health and race; Health surveys; Health status differences; Inaccurate race reporting; Native Hawaiian; Pacific Islanders

Cover Page Footnote

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Self-Rated Health Status Comparing Pacific Islanders to Asians

Maile Taulii, University of Washington

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Disease reporting for Asians/Pacific Islanders often conflicts and is, many cases, inaccurate because of the aggregation of Asians and Pacific Islanders. An analysis of 2005 Behavior Risk Factor Surveillance System data was performed to examine health status of Asians compared to Native Hawaiian or Other Pacific Islanders. Findings show a significant difference between Asians and Native Hawaiian or Other Pacific Islanders, with a greater likelihood for Native Hawaiians or Other Pacific Islanders to rate their health as poor. Conclusion: Asians and Native Hawaiians or Other Pacific Islanders do not have the same health status. By aggregating these two distinctly different populations, Native Hawaiians or Other Pacific Islanders are silenced. The aggregate disease reporting, which is limited and inaccurate, precludes advocacy efforts and the political power to intervene, and stifles the ability to create change and improvement for these populations.

Key Words: Native Hawaiian, Pacific Islander, Asian, health status differences, advocacy, inaccurate race reporting

Introduction

Health disparities are disproportionately experienced by some racial and ethnic minority populations.¹ Surveys designed to assess the health of persons from various racial groups often include questions for participants to evaluate their own health status. Studies have shown that self-reported health status differs by racial groups.² One study by McGee et al. reported blacks and Native Americans were much more likely to report fair or poor health than were other groups, followed by Hispanics and whites. Asians/Pacific Islanders were least likely to report fair or poor health. Racial differences in self-reported health status also have proven to be a strong prognostic indicator for mortality differences found between the same racial groups.²

Self-reported health status was the primary outcome of interest for this study. This was chosen over a composite morbidity measure due to the interest in the perception of health as compared to actual disease status. A large number of studies have demonstrated that self-rated health status is a strong predictor of future morbidity and mortality, even after controlling for a variety of physical, sociodemographic and psychosocial health status indices.³⁻⁶ Self-rated health may reflect aspects of poor health that are not medically detectable or assessed through a medical examination. Additionally, self-rated health reflects lifestyles, or psychosocial and sociodemographic conditions known to have adverse effects on health.⁷ Finally, self-rated health status is a perception of a person's own wellness. Perception can differ based on physical health, mental health, personal experiences, or cultural beliefs. Individuals may rate their health status differently based on their history of disease, family history of disease, or cultural norms.

When reporting or reviewing study findings, special attention must be paid to the aggregation of racial groups, such as the Asian and/or Pacific Islander category. The Asian and/or Pacific Islander population together consists of people with roots in at least 29 Asian countries and 20 Pacific Islander cultures.⁸ According to the US Census Bureau, the term "Asian" refers to people having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent (for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam).⁹ The term "Native Hawaiian and Other Pacific Islander" refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.⁹

Table 1. Demographics of Asians and Native Hawaiian and Other Pacific Islanders

DEMOGRAPHIC	ASIAN	NHOPI
Population	4.2%	0.2%
Average Age	32.7	27.5
Percentage at 100% Poverty	12.6%	17.7%
Average Family Size	3.61	4.05
Average Household Size	3.11	3.6
Median Household Income	51,908	42,717
Percentage of Males with Bachelors Degree	26%	10%
Percentage of Females with Bachelors Degree	27%	9%
Percentage of Males with Grad or Prof Degree	22%	4%
Percentage of Females with Grad or Prof Degree	13%	4%

Source: 2000 US Census

Members of these groups speak over 100 languages and belong to numerous religions; most (96%) are of Asian origin, while the rest (4%) are Pacific Islanders.⁸ When a small racial group is lumped in with another larger racial group, the status of the large group can mask the status of the smaller group. An example of masking is seen in the age-adjusted death rate for Asians and/or Pacific Islanders, which is 350 per 100,000 (compared with 524 per 100,000 for the total American population), while the age-adjusted death rate for Native Hawaiians, a subset of the Pacific Island group, is 901 per 100,000.⁹ Even more alarming are the statistics for full-blood Native Hawaiians, disaggregated from Native Hawaiians, which is 2,200 per 100,000.¹⁶ Justification for racial category aggregation is limited and weak. With technology advances, the ability to record, track, and report on smaller populations is not only possible, it is essential for identifying and addressing identified health issues in the populations.

Attempting to address this aggregation problem, the US Office of Management and Budget (OMB) published final revisions to the Standards for the Classification of Federal Data on Race and Ethnicity.¹³ These revisions included splitting the racial category “Asian and/or Pacific Islander” into two categories, “Asian” and “Native Hawaiian or Other Pacific Islander.” OMB standards apply to all federally-collected data and reporting in the following areas: education, the national census, medical research, disease statistics, zoning for Congressional districts, the Voting Rights Act, and compliance with federal law and statutory regulations.¹³ Although this new racial classification was mandated in 1997 and was expected to be fully implemented by 2003, the 2005 National Healthcare Disparities Report (published by the Department of Health and Human Services and the Agency for Healthcare Research and Quality) stated that the lack of quality data prohibited them from detailing disparities for Native Hawaiians or Other Pacific Islanders.¹⁴

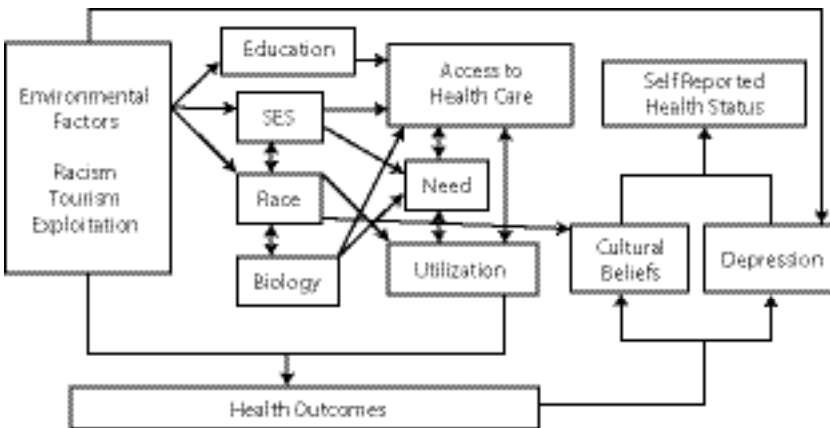
The continued aggregation of Asians and Pacific Islanders has been deleterious for Pacific Islanders. In the August 27, 2004, issue of *Morbidity and Mortality Weekly Report*, Asian/Pacific Islanders were reported having lower cardiovascular disease prevalence than the median of the 19 states and the District of Columbia.¹⁵ However, the Hawaii Department of Health, which disaggregates Asians/Pacific Islanders, reported that compared to other US races, Native Hawaiians bore an abnormally large burden of CVD. Among Native Hawaiians, heart disease mortality rate is 44% higher and stroke mortality rate is 31% higher than other US races.¹⁶ Such information is critical for advocating for targeted programs to address CVD among Pacific Islander groups.

This study examines whether Pacific Islanders, when separated from the larger Asian racial category, are more likely to rate their health status as poor when compared to non-Pacific Islander Asians. This study will also look at the effect of morbidity on self-rated health status by adjusting for various self-reported diseases. A secondary goal is to examine if self-reported health status for Pacific Islanders is subsequently related to morbidity. Specific diseases were chosen due to availability of data for Native Hawaiians and Other Pacific Islander populations. Because the study primarily looks at perceptions of health and not morbidity, comparing self-rated health status was critical, controlling for diseases for which the populations are known to have higher incidence. If morbidity was not adjusted for, differences in self-rated health status may simply have been a result of disease incidence levels.

Methods

The conceptual model in Figure 1 outlines the relationship between health outcomes and self-perceived health status. Pacific Islanders, like many other ethnic minorities in the US, experience racism. Additionally, Pacific Islanders experience exploitation and abuse of their traditional homelands and Pacific Island culture through tourism. This cultural prostitution, linked to low socioeconomic status, may be causally related to poor health status. The relationship between morbidity and self-reported health status is clear. However, the relationship between cultural beliefs and self-reported health status has yet to be determined.

Figure 1. Conceptual Model



The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, state-based surveillance system, which is a key source for information regarding health risk behavior, preventive health practices, and access to health care. BRFSS has been a source of risk behavior data since 1984, providing comparable state-specific prevalence estimates of selected health risk behaviors associated with chronic diseases.¹⁷ It is conducted as a cross-sectional telephone survey by state and territorial health departments with assistance from the Centers for Disease Control and Prevention (CDC).¹⁷ Although BRFSS data is available at the state level, the data used for this study was national, not state-specific; therefore, state weighting was not performed. BRFSS uses a multistage sampling design based on random-digit-dialing methods to select a representative sample of the civilian, non-institutionalized population aged >18 years in each state.¹⁷ For the years 2001 through 2005, race designation options included Native Hawaiian or Other Pacific Islander (NHOPI), thereby disaggregating the Asian category.¹⁷

Although oversampling of smaller minority populations occurs, no oversampling was performed on Native Hawaiians, Pacific Islanders, or Asians.¹⁸ This is unfortunate as Native Hawaiians and Pacific Islanders are small minority populations that could benefit greatly from oversampling. Oversampling of minority populations allows calculations of stable risk factor estimates.

For this analysis, unweighted data was used; therefore, each record counts the same as any other record. Related assumptions were that each record had an equal probability of being selected and that noncoverage and nonresponse were equal among all segments of the Native Hawaiian and Other Pacific Islander and Asian populations.

The BRFSS question to identify race was, "Which one of these groups would you say best represents your race?" Respondents were given the option to choose one category that best represented their preferred race.¹⁷ The preferred race was used to represent the respondent's self-identity.

Other variables of interest were health status, age, sex, education, employment, income, smoking status, and a number of measures for disease status—diabetes, cardiovascular disease, high blood pressure, and asthma.

Self-rated health status of NHOPI was compared to other Asian groups using Pearson χ^2 tests. Odds ratios were computed with fair or poor health status as the dependent variable, both unadjusted and adjusted for sex, age, education, employment, income, and smoking status. Similar odds ratio computations were made for the morbidity measures

(e.g., diabetes, cardiovascular disease), adjusting for the demographic variables and smoking status. Although self-reported health status categories have a natural ordering, it was not assumed that the categories are equivalent; for example, going from good to best is not necessarily the same as bad to worst. Because of this, the self-reported health status variable collected by BRFSS was converted into a binary variable of fair and poor.

Logistic regression was used to estimate the relationship between the binary variable, health status, and independent variables, race, while controlling for sex, age, education, employment, income, smoking status, diabetes, cardiovascular disease, high blood pressure, and asthma. All analyses were performed using the Stata software package.²¹

Results

In a bivariate analysis comparing binary health status to race, 19% NHOPI rated their health as poor, while 13% of Asians rated their health as poor ($p < .01$). Table 2 shows details on health status comparison for the bivariate categories across the two ethnic groups.

Table 3 shows the prevalence of selected morbidity measures, comparing disease rates for Asians to NHOPI. NHOPI had significantly higher rates for all conditions; for example, the prevalence of diabetes was 12.6% in NHOPI compared with 8.3% in other Asian groups ($p < .01$).

Table 4 shows the odds of being in poor health or having the indicated conditions comparing NHOPI to Asians, both adjusted and unadjusted. Pacific Islanders, when compared to Asians, were 42% (95%CI, 1.40 – 1.89) more likely to rate their health as poor, when controlling for age, sex, education, income, employment status and smoking status.

Discussion

This study found significant differences in self-rated health status between the racial categories of Asian and NHOPI. Previous studies examining Asians and/or Pacific Islanders have reported conflicting information about how the population self-rates its health status. One possible reason for this may be the aggregation of Pacific Islanders with Asians. This study finds that, when Native Hawaiians and Other Pacific Islanders are disaggregated from Asians, there are significant differences between self-rated health status. A large number of studies have demonstrated that self-rated health status is a strong predictor of future morbidity and mortality, even after controlling for a variety of physical, sociodemographic and psychosocial health status indices.³⁻⁶ Policy

Table 2. Self-Rated Health Status for Asian and NHOPI

	FAIR	POOR
ASIAN	5794 (88%)	818 (13%)
NHOPI	1218 (81%)	280 (19%)

In a bivariate analysis comparing binary health status to race, 19% of Native Hawaiians or Other Pacific Islanders (NHOPI) rated their health as poor, while only 13% of Asians rated their health as poor ($p < .01$),

Table 3. Prevalence of Selected Conditions, by NHOPI versus Asian

DISEASE	ASIAN	NHOPI	P-VALUE
Asthma	10.5%	20.3%	0.000
High Blood Pressure	24.1%	27.4%	0.007
Myocardial Infraction	2.4%	4.4%	0.000
Diabetes	8.3%	12.6%	0.000
Angina	2.8%	4.0%	0.016
Stroke	2.0%	3.5%	0.000

Table 4. Odds of Selected Conditions, NHOPI compared to Asian

INDICATOR	CRUDE			ADJUSTED ¹		
	ODDS RATIO	95% CI		ODDS RATIO	95% CI	
Health Status - Fair/Poor	1.63	1.40	1.89	1.42	1.21	1.68
Diabetes	1.61	1.35	1.92	1.68	1.38	2.04
Asthma	2.18	1.88	2.53	2.03	1.74	2.38
High Blood Pressure	1.19	1.05	1.35	1.40	1.20	1.62
Myocardial Infraction	1.86	1.39	2.50	2.06	1.49	2.85
Angina	1.44	1.07	1.95	1.73	1.25	2.40
Stroke	1.78	1.28	2.47	1.94	1.36	2.77

¹ Adjusted for age, sex, education, income, employment, and smoking status.

makers, when allocating funds to support programs to alleviate health disparities, need to be aware that some minority populations may be at greater risk than others. By aggregating Native Hawaiians and Other Pacific Islanders into the larger Asian group, the disparities and needs of Native Hawaiians and Other Pacific Islander population disappear.

Federally issued reporting requirements in 1997 specified that the “Asian or Pacific Islander” category would be disaggregated to “Asian” and “Native Hawaiian or Other Pacific Islander.” Although it is a federal

mandate, it is not enforced or upheld by federal or local government agencies. This noncompliance with the federal reporting requirements severely impacts the NHOPI community by preventing recognition of population disparities and the Pacific Island communities' self advocacy. By ignoring the rights of Native Hawaiians and Other Pacific Islanders to be represented in national or local reports, federal and local governments are silencing the NHOPI community. The term "silent minority" is often used to describe the lack of control minorities often experience, especially for particularly small populations, such as Native Hawaiians and Other Pacific Islanders, who make up only 0.1% of the US population.^{1, 12, 19, 22} Limited population data cripples the ability to advocate, limiting political power to intervene and stifling the ability to change and improve. The well-known Maori scholar, Papaarangi Reid, described this phenomenon as "final colonization," writing "not counting death is the ultimate hallmark of social exclusion."²³

The findings in this study have three potential limitations. First, BRFSS data are based on telephone interviews and thus subject to recall bias. Second, the term "Asian" does not describe a homogenous population, but rather is an umbrella term for numerous distinct subpopulations such as Chinese, Asian Indians, and Vietnamese. Additionally, the category NHOPI consists of a number of distinct subpopulations such as Samoan, Tongan, Fijian, and Chamorro. Finally, because BRFSS data are derived from telephone interviews, the survey sample might not have been representative of all Asians and Native Hawaiians or Other Pacific Islanders, and the data might be limited by non-response and telephone coverage related errors.

Technological advances have moved data collection and storage capacity well beyond the limits of previous computing capacity.²⁴ There are no longer any logical or reasonable excuses for the continued aggregation of racial groups. Efforts must be made to accurately and effectively report the health status of all population groups, especially smaller groups like Native Hawaiian or Other Pacific Islanders, who when combined with larger groups, become invisible. The first steps to solving this problem have already been made. Federal reporting requirements clearly specify the disaggregation of Asians and Native Hawaiians or Other Pacific Islanders. The next steps are to enforce these requirements and educate reporting agencies on the importance and value of accurate and representative population data.

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References

1. Williams, D. R. 1997. Race and Health: Basic Questions, Emerging Directions. *Ann Epidemiol* 7:322–333.
2. McGee, D.L.; Liao, Y.; Cao, G.; et al. 1999. Self-Reported Health Status and Mortality in a Multiethnic US Cohort. *Am J Epidemiol* 149:41–46.
3. Kaplan, G.A.; & Camacho, T. 1983. Perceived Health and Mortality: A Nine-Year Follow-Up of the Human Population Laboratory Cohort. *Am J Epidemiol* 117:292–304.
4. Idler, E. L.; & Angel, R. J. 1990. Self-Rated Health and Mortality in the NHANES-I Epidemiologic Follow-Up Study. *Am J Public Health* 80:446–452.
5. Appels, A.; Bosma, H.; Grabauskas, V.; Gostautas, A.; and Sturmans, F. 1996. Self-Rated Health and Mortality in a Lithuanian and a Dutch Population. *Soc Sci Med* 28:681–90.
6. Mossey, J.M.; & Shapiro, E. 1982. Self-Rated Health: A Predictor of Mortality among the Elderly. *Am J Public Health* 72:800–08.
7. Idler, E. L.; & Kasl, S. 1991. Health Perceptions and Survival: Do Global Evaluations of Health Status Really Predict Mortality? *J Gerontol* 46:55–65.
8. US Bureau of the Census. 1993. *1990 Census of Population and Housing, Asian and Pacific Islanders in the United States*. Publication DP-3-5. Washington, DC: US Department of Commerce.
9. U.S. Census Bureau. 2000 Census of Population. Public Law 94-171 Redistricting Data File. Updated every 10 years. <http://factfinder.census.gov>.
10. Ghosh, C. 2003. Healthy People 2010 and Asian Americans/Pacific Islanders: Defining a Baseline of Information. *Am J Public Health* 93(12):2093–2098.
11. National Center for Health Statistics. 1997. Asian or Pacific Islander Mortality, Selected States, 1992. *Monthly Vital Statistics Report* 46(1)(suppl). Publication PHS 97–1120.
12. Johnson, D. B.; Oyama, N.; and Le Marchand, L. Papa Ola Lokahi Hawaiian Health Update: Mortality, Morbidity, and Behavioral Risks. *Pacific Health Dialog* 5(2):297–313.
13. Office of Management and Budget. *Federal Register*. Notice of October 30, 1997 (62 FR 58782–58790).
14. 2005 National Healthcare Disparities Report, Agency for Healthcare Research and Quality.

15. REACH 2010 Surveillance for Health Status in Minority Communities—United States, 2001–2002. *Morbidity and Mortality Weekly Report*, August 27, 2004 / 53(SS06);1-36).
16. Hawaii State Department of Health, Vital Statistics
17. National Center for Chronic Disease Prevention and Health Promotion. *Behavioral Risk Factor Surveillance System*, <http://www.cdc.gov/brfss/index.htm>
18. *Improving the Collection and Use of Racial and Ethnic Data in Health and Human Services: A Joint Report of the HHS Data Council Working Group on Racial and Ethnic Data and the Data Work Group of the HHS Initiative to Eliminate Racial and Ethnic Disparities in Health*. Dec. 1999. <http://aspe.hhs.gov/datacncl/RaceRpt/index.htm#toc>
19. US Census Bureau, 2000.
20. Christakis, D. A.; Wright, J. A.; Zimmerman, F. J.; Bassett, A. L.; and Connell, F. A. 2002 (April). Continuity of Care is Associated with High-Quality Care by Parental Report. *Pediatrics* 109(4):e54.
21. Version 9, Stata Corporation, College Station, TX, USA
22. Manchester, A. 1999. Silent Minority. *Nurs Stand* 14(12):18–19.
23. Reid, P. 1999. Nga Mahi Whakahaehae a te Tangata Tiriti. In *Health and Society in Aotearoa, New Zealand*, P. Davis and K. Dew, eds., pp. 83–93. Auckland, New Zealand: Oxford University Press.
24. DOE Office of Science Data-Management. 204 (May). *Data-Management Challenge*. <http://www.sc.doe.gov/ascr/Final-report-v26.pdf>

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