The Social, Cultural and Behavioral Determinants of Health among Hawaii Filipinos: The Filipino Healthy Communities Project

Ann Pobutsky¹, Charlene Cuaresma², Gregg Kishaba³, Cecilia Noble², Ellen Leung², Edmar Castillo² and Arnold Villafuerte³

¹University of Hawaii at Manoa, Center on the Family Data Center ²University of Hawaii at Manoa, Student Equity, Excellence and Diversity Program ³Hawaii State Department of Health

Abstract

Background/Purpose: Filipinos are Hawaii's largest immigrant group and second largest ethnic group. The Hawaii Filipino Health Communities Project was initiated by the Hawaii State Department of Health, because of the high rates of heart disease and stroke mortality, and other behavioral risks seen among Hawaii's Filipino population (i.e. high smoking rates among Filipino men). The project sought to gather Filipino community members' perspectives on why such chronic disease health disparities exist for Filipinos, and identify solutions to address them. **Methods:** The project gathered information from both immigrant and local Filipinos throughout the state, using community engagement methods of interviews with community leaders (n=20) and community-based focus groups (n=20 groups with 130 participants), **Results:** Filipino community members were aware of, and community leaders well-versed in, the behavioral, cultural, and social determinants of health in their communities. However, being aware of such determinants of health has yet not resulted in changed behavior in the overall Filipino community (i.e. improved diet, increased physical activity, or better access to healthcare). **Conclusion:** More outreach is needed with Filipinos, along with interventions to combat health disparities in chronic disease, such as increased smoking cessation and creative ways to eat healthier and increase physical activity.

© 2015 Californian Journal of Health Promotion. All rights reserved. *Keywords: Filipinos, health disparities, chronic diseases, behavioral, cultural and social determinants*

Introduction

Residents of State of Hawaii, when compared to residents other States, are viewed as healthy on most indicators of morbidity and mortality, including heart disease, cancer, stroke, diabetes and arthritis, and associated risk factors (e.g. tobacco, nutrition and physical activity). Yet, there are very distinct geographic, ethnic and socio-economic status (i.e. low income and low education) related health disparities (Pobutsky, Bradbury & Wong Tomiyasu, 2012). Hawaii is a diverse state in both its geography and demographics. The 2010 U.S. Census counted a resident population of 1,360,301 in Hawaii, yet there is no majority ethnic group. The four predominant ethnic groups in the state (based on the U.S. Census and based on race alone or in combination) are Native Hawaiians, Filipinos, Japanese, and European-Americans/whites, followed by Chinese, Koreans, African-Americans and Samoans (Hawaii-Department of Business, Economic Development and Tourism, 2010).

Hawaii's Filipino Communities

After more than 100 years as a vibrant part of Hawai`i's multi-ethnic communities, Filipinos have emerged as the islands' second largest ethnic group at 23.3%, based on the American Community Survey (2007), and the state's largest immigrant group--larger than all of Hawaii's' immigrant groups combined. Filipinos were one of the last of the main Asian groups recruited for plantation labor in Hawaii (after the Chinese and Japanese) and in-migration from the Philippines for employment and family unification continues. Immigration, acculturation

and immigrant generation can all impact health for Filipinos in Hawaii, yet there is a lack of information on what factors make Filipinos vulnerable to health disparities. Even less has been documented about protective factors for preventive health measures or Filipinos' own views on health, healthy lifestyles and the socioeconomic and/or cultural determinants of health, especially for chronic diseases.

Epidemiology of Chronic Diseases among Hawaii's Filipinos

In Hawaii, compared to other ethnic groups, Filipino men have disproportionately high coronary heart disease mortality rates and both Filipino men and women have higher stroke mortality rates than other ethnic groups (Hawaii Heart Disease and Stroke Strategic Plan, 2011). Filipinos and Filipinas report less cancer screenings than other ethnic groups (Hawaii Coordinated Cancer Prevention Program, 2010). and are increasingly becoming more at risk for diabetes and its complications (Pobutsky, Balabis, Nguyen & C Tottori, 2010), and obesity. Filipino men have the highest smoking rates in the State of Hawaii, compared to other ethnic groups by gender (Pobutsky & Lowery St. John. 2010), and Filipino children have the 2^{nd} highest asthma prevalence in the State, after Native Hawaiian children (Krupitsky, Reyes-Salvail, Kromer-Baker, & Pobutsky, 2009).

While Filipinos in Hawaii have some of the worst measures on behavioral risk factors, subsequent health problems and death rates, there are not as many focused community-based interventions with Filipino communities as there are with other groups such as Native Hawaiians or Micronesian migrants to Hawaii. Finally, both and long-term migrants from the new Philippines increasingly become 'localized' and also adopt a sedentary lifestyle and the unhealthy components of both Asian and Western diets. Little is known about why such health disparities exist or persist, except to note that Filipinos are economically or otherwise marginalized (including occupational stratification in low wage service jobs). Anecdotal evidence also suggested that acculturation to the high fat, high sugar diet and sedentary nature of modern life in the United

States has also adversely affected Filipino immigrant health. This project was designed to fill some of these gaps in knowledge by gathering information from the Filipino community.

Communities in Hawaii can be defined in a number of different ways for health disparities: high risk groups based on disease burden data (mortality, morbidity and disability), specific geographic areas, ethnic make-up of the population, and/or divergent culture(s) or norms (e.g. rural areas, mixed ethnic groups or 'locals'). All of the above criteria were used to delineate what the Hawaii Department of Health's Chronic Disease Management and Control Branch (CDMCB) saw as the priority population for the Healthy Communities Project: Hawaii's Filipino communities. The major activity of the Filipino Health Community Project was to gather information from Filipino community members in Hawaii, focusing on local Filipinos and immigrant Filipinos. This project sought to get their perspectives and views on health, health behaviors and health determinants through multiple methods. To reach Hawaii's Filipino communities meant conducting outreach to both (1) 'local' Filipinos who may have had parents or grandparents migrate to Hawaii from the Philippines, but who grew up in Hawaii (2nd or 3rd generations away from immigration), as well as (2) recent immigrant Filipinos, coming to Hawaii for jobs or to join families already established.

Methods

Study Design

Triangulation or multiple qualitative methods to gain the Filipino community's perspectives were used to gain a better understanding of what constitutes "healthy communities" for Filipinos in Hawaii (surveys, focus groups and key informant interviews). The CDMCB partnered with the University of Hawaii Student Equity, Excellence and Diversity (UH-SEED) Program (which includes the Ronald E. McNair Student Achievement Program and Graduate Professional Access), the Asian American Network for Cancer Awareness, Research and

Training (AANCART), and Hawaii Nursing Advocates and Mentors Inc. (NAMI).

Participants

On Oahu, the CDMCB partners UH SEED's AANCART coordinated with the NAMI nurses to guide ten university students, and SEED research assistants (eight of whom were members of the Filipino community), to assist with the 10 focus groups and surveys from Tagalog and Ilokano language students. Key informants were selected based upon their work in Hawaii: Filipino university educators, physicians and public health professionals were selected to be interviewed along with Filipinos knowledgeable about Hawaii's Filipino community, such as those involved in language access or social and public services. The 20 key informant interviews with Filipino health professionals and community leaders were conducted by UH SEED Ronald E. McNair Student Achievement Program student researchers Ellen Leung and Edmar Castillo, in fulfillment of their 10-week summer research project.

On Oahu, focus group participants were recruited at UH-SEED and AANCART through one of the author's (C.C) extensive network of community partners. The focus group participants included Local 5 union hotel workers, people from Local 5 senior retirement clubs, Filipino students and their families, Filipino churches and their networks, Filipino community organizations, the NAMI nurses and nurses from the Philippines who were taking nursing exams on Oahu for certification, care home operators, and UH-SEED students. and Ilokano, Tagalog Visayan-speaking participants were placed with UH SEED research assistants and NAMI nurses who could understand and speak the various languages Tagalog and Ilocano language classes. Neighbor Island focus groups were conducted through outreach with University of Hawaii system contacts.

Procedures

The 20 key informant interviews of Filipino community leaders statewide were conducted in

June and July 2011, and 20 focus groups with 130 focus group participants were conducted on Oahu (94 participants) in 2011 and 10 smaller focus groups on Neighbor Islands (36 participants) were conducted in 2012. The 10 focus groups on Oahu were conducted at the Filipino Community Center in Waipahu, and parts of the discussion can be viewed on a YouTube clip titled "Filipinos & Health in Hawaii":

http://www.youtube.com/watch?v=iNea2lckrEc. Ten UH SEED research assistants were trained and mentored to serve as focus group facilitators, transcribers, and to conduct preliminary data analysis. NAMI (Nursing Advocates and Mentors Inc.) nurses provided focus group logistical coordination and garnered community support for recruitment and implementation of focus groups. Group members also helped to translate. On the Neighbor Islands (Hawaii, Kauai, Maui, Molokai and Lanai), 11 focus groups, 3 key informant interviews were conducted by Cecilia Noble, a PhD Candidate in the UH Department of Sociology and Aimee Henson, a Filipino community member.

Measures and Analytic Plan

Questions asked in the focus groups and key informant interviews are listed in Figure 1. Information was gathered on what (1) constitutes health and healthy communities for Filipinos and (2) barriers to achieving health among Filipinos, including social determinants (non-medical/non-behavioral barriers).

Figure 1.

Filipino Key Informant Interviews and Focus Group Questions

- 1. What do you think makes a community healthy? What do you think constitutes "health" or healthy communities for Filipinos in Hawaii?
- 2. What are the barriers Filipinos in Hawaii face in improving their health?
- 3. What do you think are the major causes of high blood pressure in Filipinos?
- 4. What do you think are the major difficulties among Filipinos to lower their blood pressure?
- 5. What do you think are the major causes of high blood cholesterol in Filipinos?

- 6. What do you think are the major barriers among Filipinos to lower their blood cholesterol?
- 7. What recommendations do you have to make it easier for Filipinos to improve their high blood pressure and cholesterol?
- 8. Why are smoking rates higher among Filipino men? What do you think are there barriers to quitting among Filipino men?
- 9. Why is there an increase in Filipina girls smoking?
- 10. Do you have any specific suggestions on how to make it easier for Filipino men or Filipina girls to quit smoking?
- 11. Why is there an increase in obesity and diabetes among Filipinos in Hawaii?What are the barriers to better physical activity and nutrition among Filipinos in Hawaii?
- 12. What are the reasons for the low cancer screening rates for colorectal cancer among Filipinos (men and women) in Hawaii?
- 13. What are the reason for low breast and cervical cancer screening rates among Filipinas?
- 14. What are the reasons for low prostate cancer screening among Filipino men?
- 15. Why are asthma rates increasing among Filipino kids?
- 16. What needs to be done to improve health in Filipino communities?
- 17. What kinds of approaches would be good to improve health in Filipino communities?
- 18. What are some of the positive things about health among Filipino culture, families and communities in Hawaii?
- 19. What would you do to improve the health of Filipinos in Hawaii?
- 20. How could such assets be tapped to improve the health of Filipinos in Hawaii?
- 21. What are the non-medical and non-behavioral barriers to health for Filipino communities?
- 22. What can be done to address the non-medical and non-behavioral barriers to health for Filipinos?
- 23. What other observations or suggestions do you have?

Open-ended responses from key informant interviews and focus groups were transcribed directly. All key informant interviews and focus group notes were transcribed and are summarized here by themes that emerged based on common responses of the participants. The responses were analyzed and grouped according to the frequency of the responses and the subsequent themes that emerged as part of the process of engaging the community with the focus groups and interviewing leaders in the Filipino community. Although the qualitative results were initially compiled separately for focus groups and key informant interviews, the results are combined here, since the questions asked in both the focus groups and key informant interviews were the same (Refer to Figures 1-7).

Results

Healthy Filipino Communities

Figure 2 lists some of the key elements that respondents felt constituted overall health or healthy communities for Filipinos in Hawaii. The qualitative data are grouped by frequency of responses based on summaries from both the focus groups and key informant interviews. Respondents mentioned the importance of family, family environments, Filipino cultural values and stress relief, the importance of the surrounding community and neighborhood as well as spiritual health. Respondents also mentioned employment and jobs as basic to well-being, along with access to affordable and quality healthcare and one mentioned "no discrimination". Regarding access to quality and affordable healthcare, it was the survey respondents themselves who mentioned this as an issue and even though, by law in Hawaii employers are required to provide health insurance to workers, there was confusion about what health insurance covers (such as preventive screenings), especially cancer among immigrants.

Figure 2.

What makes a community healthy? What do you think constitutes "health" or healthy communities and families for Filipinos in Hawaii? (N=130)

Family (n=23): "A healthy environment constitutes family environment, first of all. That it is able to provide for the needs of the family, that it functions as well as it could with its different responsibilities – provision of food,

shelter. The first foundation is a very healthy family".

Healthy neighborhoods / civic involvement / sense of belonging (n=19): "I think there should be a clean...a healthy environment...the surrounding community...the physical environment...meaning its welfare in terms of helpful surroundings, safe...safe neighborhoods. It has a sense of togetherness...a sense of belonging-ness in the community".

Basic access to food, clothing, housing and education-basic necessities for families and family stability (n=17): "A healthy community is a community where there is more laughter that is not put-downs, where there is enough to eat, where people have a roof over their heads and a decent paying job where people would have enough money for health insurance, to send their kids to school, to have a car that they can use to go to the doctor and pay for parking as well as to take their families to see friends and families and go on picnics".

Spiritual health (**n=14**):"*Pinoys*' (Filipinos) love to get busy and do good to others. They believe that this good for mental health. It gives them peace of mind. They are spiritual people who believe that the good you have done to others will return to you or your future generations".

Access to affordable and quality health care and human services (n=15): "Medical insurance provided by employers that cover doctor's visits, laboratory examinations and prescription drugs for some. Not worrying about health care gives peace of mind".

Employment/jobs are basic to economic wellbeing (n=11): "Employment that provides the benefit of health insurance is what we need and what we look for. Not just a source of income, but something that is stable and has benefit".

Barriers to Health Improvement

When asked about the overall barriers that Filipinos in Hawaii face in improving their health (Figure 3), the most frequent response was related to socio-economic factors, with many Filipinos reporting needing to work at more than one job to make ends meet: Health is not a high priority to most Filipinos. Maybe to some [who are] highly educated, but not to a majority especially for blue collar workers. Some folks have 2-3 jobs and they do care about what they eat or if they rest or give their body a break from work and stress. Even the retired and very old people work to be able to send money to their relatives in the Philippines".

Others mentioned barriers such as language access: "The language barrier is the most important thing. If they go to a doctor who doesn't know the culture, the language, [do] you think they will follow (the MD's advice?)." Other respondents mentioned health beliefs, ethnic stereotypes and discrimination, lack of knowledge about preventive screenings, fear about going to the doctor, and using traditional medicine.

Figure 3.

What are the overall barriers Filipinos in Hawaii face in improving their health? (N=130)

Socio-economic factors/work time constraints (n=34): "I don't think Filipinos in the professional class have any problems with health. They would be able to access health. They have the education in order to understand how to prevent illnesses and how to improve....it's a matter of lifestyle in that class. But from what I understand of the ones that are not within that middle class Filipino family, they have problems with access...access in terms of language, access in terms of culture, access in terms of understanding, access in terms of insurance, access in terms of some of the needs that may clash with prevailing health beliefs".

Language barriers & culture (new immigrants)/health & religious beliefs (n=30): "Recent immigrants are carrying the culture from the Philippines (don't ask questions and respect authority)-not an egalitarian society (MD's are authority figures)".

Lack of knowledge/education (n=13): "The notion of prevention is not ingrained in them"; "hard to have self-control /discipline to change your mentality"; "lifestyle adjustment".

Ethnic stereotypes, discrimination (n=9): "There are still negative stereotypes about Filipinos in Hawaii, so on those levels too, if you talked about health, that doesn't add to a healthy community or populations".

Fear of going to an MD just to check (no news is good news): (N=7) "There is a saying in the Philippines: "*Hwag ka'ng magpa check-up*. *Magkakasakit ka*. (Don't get a medical check-up-you'll get sick)" [e.g. they will find something].

Traditional beliefs/alternative medicine (n=6): "like they don't want to go to the doctor"; and "there is a strong belief from the referral of neighbors of herbal medicines from the Philippines. You can find it in almost every home".

Chronic Diseases and Their Risk Factors

Figure 4 shows some key responses about the specific reasons for diabetes, obesity, high blood pressure and other chronic diseases among Filipinos. The vast majority of the responses were about unhealthy components of diets, and changes in diet compared to the traditional diet in the Philippines, or costs of healthy foods. Many people mentioned traditional, favorite foods in the Philippines: "I grew up in the Philippines where I learned eating healthy food. We still do it here but we use a lot of *bagoong* (fermented salted fish) and patis (salty fish sauce). It's like I am not eating when I don't put bagoong or patis. It seems like it has no taste." Respondents' also cultural aspects of Filipino food and diet:

It is part of our culture (*dinuguan*, [pig's blood pudding] *bagoong*, *patis*)...there are homes where you have to have *bagoong* or *patis*. This is fine because it is part of their culture and how they grew up.

Figure 4.

What do you think are the major causes of diabetes, obesity, high blood pressure and high blood cholesterol in Filipinos? (N=130)

Diet (n=63): "People like to eat meat now (pig fat/meat *lechon* (roast pig) fried foods/*chicharon* (fried pig skin). The accessibility is also much

more-meat is more accessible than fresh fruits and vegetables because they are expensive. If you go to a party, Filipino Party...if you look at the layout, more than likely 75% of the food that's before you will be meat. And lots of desserts"; "Because we like to eat our meat and organ meat".

"Pinoys love their *adobo* (stewed pork with vinegar, garlic and soy sauce), *pinakbet* (stewed vegetables with fish sauce or *bagoong*), *bagoong and kamatis* (shrimp paste and tomatoes)".

"In the Philippines...they eat healthier. There is a lot of vegetables and stuff...they eat meat too because they breed their own meat...but more so in the United states (eating meat)".

Exercise/sedentary behavior (n=33): "I think we have become sedentary and don't play enough. We work so hard with multiple jobs that the concept of leisure time is not there. Any free time-it would be food, shelter, clothing that we have to be preparing for the week";" Life is very hard in the Philippines and they come here and they want all the easy things in life...'easy things' like they'd rather drive than walk".

Cultural/language issues (n=17): "Failure to follow instructions from MD's who are not Filipino"; "Not having tests done or blood pressure checked/lack of check-ups: "They don't know this is paid by the insurance".

"In the Filipino culture, there's a lot of things socially that revolve around food...when you go to a Filipino house and they tell you to eat, you have to eat; "it's shameful if you don't have enough food".

Stress/hard work and labor (n=19):"already doing physical activity; 15 people in one house; no time to exercise, too much work".

Price of healthy food/ Socio-economic barriers (n=15):"SPAM and Vienna sausage (are cheap here in Hawaii)"; "healthier food more expensive"; "It's financial too, fruits are more expensive than potato chips"; "Being poor/healthy foods are more expensive".

Lack of education (n=16):"There's a lack of information that is culturally appropriate and culturally compelling. They need to hear their stories and see their faces"; the food and no matter how much you explain to them it is part of their culture and especially for the elderly".

Lack of preventive care/affordable care/medical attention (n=11).

The second most common response was about lack of exercise and sedentary behavior as culprits in chronic disease: "Lack of time/hard to include physical activity into daily lives". Another common response was stress being linked to chronic illness: "I see a lot of Filipinos working multiple jobs, they are stressed, they are in debt." And, while respondents mentioned the higher costs of healthier foods, and lack of education, some mentioned that there is a high awareness about behavioral aspects of diet and physical inactivity and chronic disease:

Most people have a high awareness of prevention of chronic disease, despite the belief that there is a lack of knowledge, there is a high awareness that overeating leads to obesity and the increased risk of disease, but there is great concern over lack of self-efficacy to control their eating.

Smoking

Figure 5 shows the responses about smoking issues among Filipino men and younger Filipinas in Hawaii. Many people talked about how tobacco became a cultural tradition and crop in the Philippines, although smoking is mainly a male activity, and a social activity that goes with drinking. Others responded that is seen as a stress relief for hard-working Filipino men as well as a guilty pleasure. The reasons given for smoking among younger girls included peer or social pressure, the marketing of cigarettes to girls, the lack of parental supervision and that is seen as normal since it was so common among before. One Filipino community leader stated that girls may feel more empowered to smoke. Suggestions for smoking cessation included Filipino specific programs and norms change, along with worksite interventions or testimonials or group quitting.

Figure 5.

Smoking-What are the issues related to smoking among Filipino men and among younger Filipina girls and women in Hawaii? (N=130)

Filipino men:

Smoking is a male activity (n=15): "It is a macho thing/manly image";"status symbol".

Cultural traditions (n=12): "tobacco is a traditional crop in the Philippines"; "back in the Philippines, everyone smokes"; "cigarettes are pervasive, they're everywhere".

Guilty pleasure/outlet/stress relief (n=8): "For Filipino men, smoking can be justified because 'My work is hard, they sacrifice so much for their families it is hard to ask them to stop smoking when you know it makes them feel better".

Social activity (n=7): "It goes with the drinking (and/or gambling)."

Filipina girls:

Peer pressure/social pressure (n=10): "their friends are doing it"; "attention and 'badgirl' status";

Marketing to girls/Hollywood (n=6): "False notion that smoking is fashionable, provides stress-relief."

Lack of parental supervision (n=6): "Parents don't check their children because they are too busy with work"; "lack of parental supervision because parents are working two jobs".

"Girls feel more empowered now (n=6): "In my generation, if you smoked, at that time...you were looked down upon"; the social barriers are not there like in the P.I.".

Recommendations for Smoking Cessation Among Filipino/Filipina Smokers (n=16):

"Worksites/testimonials/group quitting"; "Need to change norms for Filipinos"; "Filipino specific programs are needed"; address language barriers for immigrants.

Cancer Screening

Figure 6 shows the comments about the reasons for lower cancer screening rates among Filipinos in Hawaii, compared to other groups. Reasons included the lack of awareness of the benefits of screening, not knowing that it is covered by insurance, language barriers, as well as fear, embarrassment or shame about screenings. There are cultural issues as well about not wanting to be examined by the opposite sex for women, or exposing the sexual organs to medical personnel, and not wanting to finding about cancer.

Figure 6.

What are the reasons for the low cancer screening rates cancer among Filipinos (men and women) in Hawaii? (N=130)

Lack of awareness of the benefits of screening/low information (n=27): "They do not know this is covered by insurance."

Language barriers (n=20): "explaining what the procedure entails."

Embarassment/shame/intimidation (n=20): "there is the modesty part, particularly cervical cancer. The ones from here (Hawaii), they are not culturally bound by modesty; the ones from the PI (Philippine islands) have the culture bound modesty."

Fear/cultural issues (n=20): "As a reason for good (or bad) health, most Filipinos believe this is because of '*sa awa ng Diyos*' or the grace of God."

Women not want a male MD or other ethnic MD (n=10): "is it going to be male or female MD?, Haole or Japanese?"

Women more apt to do check-ups than men (n=8): "(men) they don't like to go to doctors. Period"; "they only go to the MD when they feel sick".

Pain (n=9): "It also has something to do with the pain-it's painful for both procedures (pap smear and mammogram)".

Recommendations

Finally, Figure 7 lists the responses about recommendations to over some of the barriers to health Filipino communities. Manv in respondents felt there was a need to have more access to health information and health education and to be able to appreciate and understand the information. Others felt that family communication was important and tapping into the strengths of Filipino families could be done. Other suggestions included tapping community leaders, developing networks with the community, language access and trial demonstration projects.

Figure 7.

Recommendations For Healthy Filipino Communities in Hawaii (N=130)

Access to health information/education (n=33): "Campaigns on health Filipino diet, e.g. the truth about *chicken adobo, bagoong, pinakbet*, (Filipino foods) etc."

Alternative ways of cooking needed (n=23): "For *lumpia* (Filipino fried eggrolls) for example, instead of people using ground pork or beef, they use turkey. Those are alternative ways for using things, like instead of frying *lumpia*, they would put it in the oven and bake it. I tried that before and it taste good with powder sugar. Sometimes they take the time to read the label of foods, what's the difference between corn oil, vegetable oil. Of course you don't believe in everything you read".

Tap into strengths of Filipino families/extended family and sensitivity to cultural values (n=22): "Cultural program books/ads with Filipinos & emphasize long life to be with family";

"Strong family support system/family and extended family: everyone stands together when something goes wrong (*bayanihan* or helping one another)".

"We need creative ways to get good nutrition/physical activity into our lives".

Affordable healthcare/regular MD visits (n=13): "Need to emphasize prevention, regular check-ups & screenings."

Involve the Filipino community (n=11): "Involve their community and give service and provide culturally appropriate care"; nurses, churches, community leaders, community based programs".

Health Trial Demonstration Projects (n=10): "Ballroom dancing or other Filipino community activities"; "Filipino Catholic Clubs"; "exercise groups in communities (Waipahu, Waianae)"; Filipinos love competitions".

Creative ways to exercise into people's lives (**n-9**): "walking"; going to the beach---Hawaii is the greatest place to get exercise".

Education about educational attainment (n=5): "Education definitely, but not only educating them but making them aware of their

educational attainment and how their health status is definitely interconnected with the other social, economic factors that impact their life". Using less salt (n=5): "Adobo,_foods, salty foods"; "I've tasted so much *pinakbet* at fast

food chains like Golden Coin and you know, the other Filipino restaurants...it's so salty. When I go home the next day, I can't even take off my ring from my ring finger because I'm so swollen".

Discussion

The results of the multiple qualitative methods to engage with Filipino communities in Hawaii provided detailed information on the perceptions of Filipino leaders, community members, lay people and recent immigrants on health and health communities. Filipinos stressed an overall view of healthy communities as family centered, along with having basic necessities for economic well-being, a healthy environment, socialization, happiness, a sense of community belonging and access to affordable health care. They saw the main barriers as socio-economic ones, along with language barriers, ethnic stereotypes and discrimination, lack of education, traditional beliefs and fear. Filipinos saw the main reason for chronic diseases (diabetes, obesity and heart disease and stroke) as dietary, along with lack of exercise and sedentary behavior, cultural norms and language, the price of healthy food as a barrier and hard work and stress. These findings are congruent with the public health literature on diet and exercise being the main behavioral determinants of health, yet the emphasis on cultural and language, prices of healthy food, hard occupational labor and stress are more congruent with the socio-cultural and socioeconomic determinants of health (USDHHS, Healthy People 2020, 2011). These determinants are not unique to Filipinos in the U.S., but these findings reflect the situation of Filipinos in Hawaii, with both new and older (2nd generation or longer) immigrants concentrated in low paid service jobs in Hawaii's economy (Okamura, 2008).

Specifically for smoking, Filipinos noted it was mainly a male activity in Hawaii, although tobacco is also associated with farming traditions in the Philippines, and it is increasing a problem among younger Filipinas raised in Hawaii. In Hawaii, girls smoke more than boys (Pobutsky, Lowery St. John, Urabe and Johnson, 2014), and this is an increasing concern for young Filipinas who grow up in Hawaii. Specifically for cancer screenings, it was mainly thought there was a lack of awareness about the need for various types of cancer screenings, along with language and cultural barriers such as shame or fear.

Finally, for overall recommendations, Filipinos in Hawaii thought that there needed to be access to more tailored and language appropriate interventions, that the strengths of Filipino families could be tapped into, along with engagement of Filipino community leaders, and Filipino specific demonstration projects. Increased health education, along with increased educational attainment for Filipinos were also Nationally, there have included. been recommendations that are similar, particular for appropriate and linguistically culturally interventions for Filipinos (dela Cruz. McBridem Compas, Calixto and Paca Van Derveer, 2002).

Limitations

The two main limitations of this study were (1) that the community leader/key informants tended to be better educated than the overall Filipino population and (2) the multiple methods used to recruit focus groups could have introduced bias in the form of having highly motivated participants. As a result, it is clear that the advocate and leaders of the Filipino community in Hawaii are well-versed in what they perceive as the health problems and potential solutions.

Conclusion

Chronic diseases are the major causes of disability and death throughout the world now, not just in Hawaii and the United States. Obesity and its' co-morbidities, heart disease and stroke, diabetes, kidney failure are now widespread in both wealthy and poor nations throughout the world (including the Philippines), and the World Health Organization predicts that obesity related chronic diseases will be the leading causes of death in all countries, even the poorest, within a couple of years (Stevens, Singh, Lu et al, 2012).

Clearly these issues affect both local and immigrant Filipinos, including their families in the Philippines and abroad. Further, Filipinos themselves are able to articulate the behavioral risks and determinants (diet, physical activity), cultural determinants (language, beliefs and norms), and social determinants (family income, work, discrimination) that affect their health and communities in Hawaii. While federal funding for the Centers for Disease Control and Healthy Communities Prevention (CDC) 2012, the Hawaii Program was cut in Department of Health is committed to addressing health disparities through targeted efforts in its' chronic disease programs in the future. The practical implications of this project are that there opportunities for the Hawaii Department of Health to work on chronic disease issues that are known to adversely affect Filipino communities including: targeted smoking cessation strategies, intervention efforts to improve health eating and increase non-work related physical activity, increased access to healthcare, and stress reduction. Workplace wellness strategies would be especially valuable for Filipinos in Hawaii.

Acknowledgements

This work was funded by CFDA 93.544 (under cooperative agreement number 1U58DP001962-01 and 3U58DP001962-03S Revised) from the Centers for Disease Control and Prevention

(CDC) and does not necessarily represent the official views of the CDC.

The CDMCB thanks its community partners on this project: University of Hawaii Student Equity, Excellence and Diversity (UH-SEED) Program, the Asian American Network for Cancer Awareness, Research and Training (AANCART), Hawaii Nursing Advocates and Mentors Inc. (NAMI), and the Ronald E. McNair Student Achievement and Graduate Professional Access (GPA) program. This work would not have been possible without the help of the Bilingual Health Services and Lanakila Easy Access Project staff. On Oahu, Estrellita Remedios Manangbao, Lapurga, Eliseo Huerbana, Alister Au, Chio Yee, Pun Ho, Lang Huynh, Lethu Duong, Mine Lorin, Nena Kim, Susana Quintana, John Ishoda, and Tugalei Soa. On Kauai, Cora Pascual and Pua Ka'ohelaulii and on Maui, Romuolda Ines. Thanks to Venus Bermudo and Bernie MacPherson for helping gather some of the initial community based surveys on Oahu, and Aimee Hensen for assisting with focus groups and key informant interviews on the Neighbor Islands. Thanks to Danette Wong Tomiyasu, (former CDMCB Branch Chief) and Linda Green of the Heart Disease and Stroke Prevention Program and for help and support of this project. A special thanks to Ann Verga of the Health Disease and Stroke Prevention Program, who did all of the data entry of the surveys for more than one year. Thanks to Maile Goo, PhD at UH-SEED who assisted with the logistics and administration of the DOH and UH-SEED partnership.

References:

- Centers for Disease Control and Prevention. Chronic disease and health promotion. Retrieved February 10, 2015 from: http://www.cdc.gov/chronicdisease/overview/index.htm
- Centers for Disease Control and Prevention. Health aging. Retrieved February 10, 2015 from: http://www.cdc.gov/aging/
- Cuaresma, C., Mitschke, D., & Robinett, H. (2007). Capacity building for cancer awareness in Hawaii's foreign-born Filipino communities. *Developing Human Resources in the Pacific*, 14, 123-129.
- Dela Cruz, F., McBride, M.R., Compas, L.B., Calixto, M-P., & Paca Van Derveer, C. (2002). White paper on the health status of Filipino Americans and recommendations for research. *Nursing Outlook*, 50, 7-15.
- Gentilucci, U.V., Picardi, A., Manfrini, S., Khazrai, Y.M., Fioriti, E., Altomare, M., Guglielmi, C., Di Stasio, E., & Pozzilli, P. (2008). Westernization of the Filipino resident population in Rome: obesity, diabetes and hypertension. *Diabetes/metabolism Research and Reviews*, 24, 364-370.

- Global Burden of Disease Study (2010). Institute for Health Metrics and Evaluation (IHME), University of Washington. Retrieved April 9, 2014 from http://www.healthmetricsandevaluation.org/sites/default/files/countryprofiles/GBD% 20Country% 20Report% 20-% 20Philippines.pdf
- Harle, M.T., Dela Cruz, R.F., Veloso, G., Rock, J., Faulkner J., & Chen, M.Z. (2007). The experience of Filipino American patients with cancer. *Oncology Nursing Forum*, 34, 1170-1175.
- Hawaii Department of Business, Economic Development and Tourism (2010). State data book, section 1: Population. Retrieved March 20, 2014 from

http://files.hawaii.gov/dbedt/economic/databook/2012-individual/01/010112.pdf Hawaii Department of Health (2011). Hawaii Plan for the Prevention of Heart Disease and Stroke.

- Retrieved March 20, 2014 from http://health.hawaii.gov/heart-diseasestroke/files/2013/12/HDSP_Plan.pdf
- Hawaii Coordinated Cancer Prevention Program (2010). Hawaii Cancer Facts & Figures. Retrieved March 25, 2014 from

http://health.hawaii.gov/about/files/2013/06/Hawaii_Cancer_Facts_and_Figures_2010.pdf

- Kim, W. & Keefe, R.H. (2010). Barriers to health care among Asian Americans. *Social Work in Public Health*, 25, 286-295.
- Lasker, B. (1931). Filipino Immigration To Continental United States and to Hawaii. The University of Chicago Press.
- Migration Policy Institute (2013). Filipino immigrants to the United States. Retrieved April 10, 2014 from http://www.migrationpolicy.org/article/filipino-immigrants-united-states
- Migration Policy Institute (2006). The Philippines' culture of migration. Retrieved April 10, 2014 from http://www.migrationpolicy.org/article/philippines-culture-migration
- Okamura, J.Y (2008). Ethnicity and Inequality in Hawaii. Philadelphia: Temple University Press.
- Pobutsky, A., Lowery St John, T., Urabe, C., Li, F., & Johnson, L. (2014). An exploration of ethnic, sex, immigration and acculturation differences on tobacco smoking among Hawaii public high school students. *Hawaii Journal of Medicine and Public Health*, 73, 4-10. Retrieved March 31, 2014 from http://hjmph.org/HJMPH_Jan14.pdf
- Pobutsky, A., Noble, C., Cuaresma C., Chung, E., Castillo, E. & Villafuerte, A. (2012). The social, cultural and behavioral determinants of health among Hawaii Filipinos: The Filipino Healthy Communities Project, 2009-2012. Unpublished report. Available from the Chronic Disease Management and Control Branch, Hawaii State Department of Health, 1250 Punchbowl St, Honolulu, HI 96813.
- Pobutsky, A., Bradbury, E., & Wong Tomiyasu, D. (2011). Chronic disease disparities report 2011: Social determinants. Honolulu: Hawaii State Department of Health. Retrieved February 12, 2015 from:

http://health.hawaii.gov/healthequity/files/2013/08/CD_BurdenReport_FINAL.pdf

- Pobutsky, A., Balabis, J., Nguyen, D-H., and Tottori, C. (2010). Hawaii diabetes report 2010 Honolulu: Hawaii State Department of Health. Retrieved March 20, 2014 from http://www.hawaiihealthmatters.org/javascript/htmleditor/uploads/DOH_DiabetesReport2010_Lo .pdf
- Pobutsky, A., and Lowery-St. John T. (2010). Smoking and tobacco use in Hawaii: facts, figures and trends, 2008. Honolulu: Hawaii State Department of Health. Retrieved March 20, 2014 from http://health.hawaii.gov/tobacco/files/2013/06/2010-Facts.pdf
- Rodriguez, R. M. (2010). Migrants for Export: How the Philippine State Brokers Labor to the World. Minneapolis: University of Minnesota Press.
- Stevens, G.A., Singh, G.M., Lu, Y., Danaei, G., Lin, J.K., MM Finucane, M. M., Bahalim, A.M., McIntire, R.K., Gutierrez, H.R., Cowan, M., Paciorek, C.J., Farzadfar, F., Riley, L., & Ezzati, M. (2012). National, regional, and global trends in adult overweight and obesity prevalence. *Population Health Metrics*, 10, 22. Retrieved April 7, 2014 from http://www.pophealthmetrics.com/content/pdf/1478-7954-10-22.pdf

- U.S. Bureau of the Census, Foreign born population. Retrieved March 20, 2014 from http://www.census.gov/population/foreign/
- U.S. Department of Health and Human Services, Healthy People 2020, Social Determinants of Health (2011). Retrieved March 2, 2015 from:
 - http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health
- U.S. Department of Health and Human Services, NIH-NHLBI, the Asian Pacific Islander Health Forum and the West Bay Pilipino Multi-Services, Inc. Retrieved April 9, 2014 from https://www.nhlbi.nih.gov/health/prof/heart/other/filipino.pdf
- World Health Organization (2002). The impact of chronic disease in the Philippines. Retrieved April 9, 2014 from http://www.who.int/chp/chronic_disease_report/philippines.pdf?ua=1
- World Health Organization (2013). Social Determinants of Health. Retrieved April 10, 2014 from http://www.who.int/social_determinants/en/

Author Information *Ann M. Pobutsky, PhD Statistical Analyst Center on the Family Data Center University of Hawaii at Manoa 2515 Campus Rd., Miller Hall Honolulu, HI 96822 Email: pobutsky@hawaii.edu

* corresponding author