

## Among The Centenarians

Hawai'i is home to more 100-year-olds per capita than any other state. Researchers are learning why.

By Michael Markrich

The issue of the elderly comes up often in the Islands, where, out of the population of 1.2 million, 263,000 people are over age 60. For every 100,000 people living in Hawai'i, 20 live to be more than 100 years of age; on the Mainland, only 10 people out of 100,000 live to such an advanced age. Hawai'i is home to the greatest number of centenarians per capita—about 300 in all—in the United States. (Our distinction as the capital of centenarians was reaffirmed last year, when a Honolulu resident passed away at the age of 112.)



The four generations in this family include, from left: Brandi Moku (great-granddaughter, age 9), Paul Yoshimura (son, age 75), Noah Yoshimura (great-grandson, age 15), Ralph Yoshimura (age 101), and Wesley Yoshimura (grandson, age 52). photo: Olivier Koning

Some of the reasons given for Honolulu's extraordinary longevity rates are its congenial lifestyle, comfortable weather, clean air and large population of Okinawans. It is estimated that there are 50,000 Okinawans living here, or one-fourth of Hawai'i's Japanese population—203,000, according to the 2000 U.S. Census. (Although Okinawans consider themselves a distinct ethnicity among the Japanese-American population, the Census data makes no such distinction.)

### Genes vs. lifestyle

Okinawan people hold the distinction of living longer than any other ethnic group on Earth. How much longer? As stated earlier, 10 people out of 100,000 in the United States live to be centenarians; in Japan, the number is 20. Among Okinawans, there are 50 centenarians still living out of every 100,000.

According to the latest Census data, of the 300 centenarians in Hawai'i, about one-third are Japanese. The rest are a mix of Chinese, Koreans, Filipinos and Caucasians. It is significant that, while Okinawans make up only 4 percent of Hawai'i's overall population, they represent 11 percent of the total number who live to be 100.

The predominance of Okinawans among the ranks of centenarians has driven the research of Dr. Bradley Willcox, chief investigator in geriatrics research at the Pacific Health Research Institute (PHRI), and a clinical assistant professor of geriatric medicine at the University of Hawai'i John A. Burns School of Medicine. Over the course of his 10-year career in geriatrics, Willcox has interviewed more than 750 centenarians.

"There have been articles written that say the longest living people come from remote places in the Atlas Mountains. But that's a bunch of hokey. If you check closely, the people they are talking about don't have birth certificates to prove their age. The people who live the longest—with the birth certificates to prove it—come from Okinawa, and a lot of them are in Hawai'i," says Willcox. "During the Okinawan New Year, I can walk through the crowd and just ask if anyone has a 100-year-old living with them and I am certain that I will get at least five or six who do." While interviewing one family in Okinawa, Willcox discovered that there were three centenarians living in the home.

### Lessons for living

The PHRI has been conducting a study of ethnic Japanese men in Honolulu for the past 40 years. In studying their lives and deaths, Willcox has discovered that Japanese-Americans, who lived the longest, had lower blood sugar and better cholesterol levels, and weighed less than shorter-lived people within the study. The study also revealed that Japanese-American men suffered significantly less than their Western counterparts from heart attacks, strokes and cancer. Part of this is due to favorable genes and lots of exercise, but there are also other factors.

Okinawans consume sweet potatoes, which contribute to lower blood sugar levels than rice or other starches. Willcox also notes that they traditionally eat very little fat and tend to cook their food in water rather than oil. They also eat small portions, and lowered caloric intake has been associated with a longer life span. "If you feed an animal one-third less, he will live one-third longer," says Willcox. This may also be true of humans.

Yet there is a distinct disadvantage to living so long: the brain shrinks. "If you look at the MRI of a 100-year-old person and compare it to a 30-year-old, you will see an expansion of empty spaces in the brain cavity," says Willcox. "This means that older people think differently and take longer to think."



Dr. Bradley Willcox has been studying geriatrics and researching centenarians in Hawai'i and in Japan. photo: Monte Costa

They may also need caregivers to help tend to their basic needs.

## Reducing the Risk Factors

Despite spending many years of their lives smoking and drinking, Hawai'i's elderly nisei (U.S.-born offspring of Japanese-immigrant parents), now in their 70s and 80s, have a greater likelihood of longevity than their children and grandchildren.

### Keys to Longevity, Okinawan Style

- **Diet.** They traditionally eat sweet potatoes, rather than bread or rice, which are heavier in carbohydrate content. They trim the fat off their meat, eat large amounts of soy and fish. They generally under-eat, rather than eating to fullness.
- **Psychospiritual.** Many Okinawans who live to be 100 have a belief in a unique religious philosophy that includes female priestesses.
- **Exercise.** They do physical activity every day.
- **Social.** The Okinawans have a strong family social network that provides support for the elderly.
- **Sense of purpose.** People who live a long time tend to have an *ikigai*, something they enjoy doing that gives them a reason to live.

"The men and women of that generation smoked and drank, but this was more than compensated by a healthier diet, drinking green tea and physical activity," says Willcox. "During their youth on the plantations, they worked from sun up to sundown. Most of them smoked a few cigarettes a day during their breaks. They took a few drinks and they worked."

But what's better for a body, to be working physically or to be working at a computer all day? Second- and third-generation Japanese-Americans have far higher rates of diabetes and obesity.

Nisei Japanese men also grew up eating lots of raw fish, such as 'ahi, which, according to Willcox, helps prevent strokes. "The biggest killer of Japanese men in Japan is stroke. However, when these men come over here they have practically no strokes, because they are eating more fish, more fresh fruits and vegetables, and less of the pickled vegetables that they would normally eat at home. The fish contains Omega 3, which is a blood thinner and anticoagulant. It prevents the blood clotting that results in hardened arteries and strokes."

The Okinawans in Hawai'i have another advantage as well. They consume vast quantities of a red-pepper alcoholic drink called Koregusu, which is supposed to get the blood circulating and stimulate the libido. How much? Willcox refers to one Okinawan patient who was upset by a nurse when she inferred that at his advanced age he should no longer be worrying about his sexual performance. "He was indignant," says Willcox. "He said, 'What do you mean, I am only 85!' "

### What's it like to be 101?

Ralph Yoshimura was born on Dec. 27, 1904. His wooden frame home on Democrat Street in Kalihi, with its wire garden gate and careful rows of potted plants, sits in sharp contrast to the clanging hammers striking steel and blasts of acetylene torches taking place all around him. The old neighborhood is a remnant of what was there when Yoshimura moved in more than 30 years ago.

Yoshimura shares his home with four generations of family members. On one wall, there are two pictures of Yoshimura and his wife, Mildred, who died two years ago at age 96. In a black-and-white photo taken on their wedding day in 1928, Mildred is wearing a traditional Japanese kimono, and Ralph, a neatly pressed dark suit and tie. Next to it is a portrait of the couple in traditional Japanese costume taken on their 75th wedding anniversary in 2003.

When Yoshimura, smiling and friendly, walks out of his room to greet us, he stands erect and bows slightly as he greets Sayaka Mitsuhashi, Willcox's wife and assistant, who has accompanied me to the interview. Ralph's son Paul, 75, and daughter-in-law, Jean, sit on the sofa and look on.

Mitsuhashi is an anthropologist. She begins the interview in Japanese. Ralph, whose family came from the Japanese prefecture of Kumamoto, smiles politely, but tells her that he was born in Kalihi and is more comfortable speaking English. "I was named Nichiro [Ralph came later], which was short for Nichiro Senso, the Russo-Japanese War which took place in 1905. First grade, I attended Kai'ulani Elementary School on King and Palama Streets. My teacher's name was Miss Bell."

In response to questions about the wedding pictures in the living room, Yoshimura becomes nostalgic. "She was my Wai'anae beauty," he says with a smile. "When I saw her for the first time she had hair down to her waist. After my father died, his friend hired a sempo [a matchmaker] and we went down to meet Mildred. When I saw her for the first time, I wanted to marry her."

As a test of Yoshimura's memory, he is asked whether he remembers the names of any of the girls he dated prior

to marrying Mildred in 1928. Without missing a beat, he recites three, "Lillian Kubo, Mabel Yoshida and Teruko." For some reason, Teruko's last name escapes him. By this time his son and daughter-in-law are laughing. "You never told us, Grandpa," says Jean. He blushes.

He continues with the story of his life. "I went to school until the fifth grade. My uncle needed me to pick coffee on his farm in Kona. I did that for a while and then I came back to Honolulu and worked as a delivery boy for a grocery store in Waikiki. I had a bicycle. I would take things to people when they ordered them. I knew all the Kahanamokus: Duke, David, Samuel, Lewis, Kapi'olani, Pi'ilani and Sergeant. Sergeant and I were closest in age. I used to eat with them in their kitchen."

The rest of his life comes out in a torrent of words. On Dec. 7, 1941, he was at a chicken fight in a cane field when the Japanese planes flew over to attack Pearl Harbor. He spent the war as a stevedore and a truck driver. He knew all the union leaders of that era, including Harry Bridges and Jack Hall. He scraped paint on a ship docked in Honolulu Harbor during the big strike of 1946, and had two sons, Paul and Ralph Jr. He operated a delivery business. He loved going to Las Vegas to play blackjack, but quit in the 1960s, "when they started using chips instead of silver dollars." He smoked until 1975, and then stopped cold turkey. He never drank.

Yoshimura ends his story speaking about the part of his life that was the most productive and happy: selling baby gamecocks to fighting chicken breeders and gambling on chicken fights. He admits his wife wasn't as happy about it. "She didn't like it! She scolded me every day about my gambling! When I won, she took all the money. I had to have *naisho* (a secret). If I didn't, I wouldn't have had any money to spend."

Did he love her? He nods, yes, he did.

Jean Yoshimura describes how her father-in-law spends his day. "Normally he gets up and takes his pills, he eats hotcakes and biscuits and coffee with a lot of sugar and a lot of cream, then he does his own dishes and reads newspapers. After that, he goes out onto the porch and watches television. He sleeps for an hour. Then he walks in the yard, sweeps and picks up things, then goes back and watches TV until Brandi [his 9-year-old great-granddaughter] comes home. He and Brandi talk and tease each other. After that he eats dinner, not too much, snacks on chocolate bars and cookies and then watches the Japanese channel and Korean soap operas."

Of course, there are challenges that come with getting older—some family friction arises when Ralph decides to cook and forgets to turn off the gas oven, or misplaces things within the house.

### **Mellow = Healthy**

Mitsuhashi, who has conducted many such interviews, says that she is not surprised Yoshimura has lived so long. "He's happy-go-lucky," she explains. "Most of the ones who live so long are that way."

"The Okinawans have a word for that kind of personality, *tagay*, which refers to a particular type of person that does not get upset," explains Willcox. "People who live this long tend to have stress-resistant personalities, what physicians call good coping skills. Mr. Yoshimura had a lot of physical activity, he stayed lean, had a good attitude and ate a good diet that was a mix of healthy Western and Japanese food."

Yoshimura himself has no explanation for why he has lived so long. But he knows what doesn't work—drinking alcohol. "All my friends who drank died in their 80s," he says. Yoshimura has no interest in starting now. He plans to live to 125.

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At 101 years of age, Ralph Yoshimura still has a memory sharp enough to remember the name of his first-grade teacher. photo: Olivier Koning