

## U of I scientist does nutritional detective work in Botswana

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Many Americans have a soft spot for Botswana, developed while reading the best-selling #1 Ladies Detective Agency series. But few have had a chance to do any sleuthing of their own in that African country.

That changed when University of Illinois scientist Karen Chapman-Novakofski acquired a Botswana doctoral student and learned how little data existed about the health and nutrition of that country's elderly.

"In Botswana, which has the highest incidence of AIDS of any African country, the aged are often raising many grandchildren whose parents have died from the disease. So the elderly's good health is very important," she said.

The two traveled to Africa, secured each tribal chief's permission, then set up shop in front of Botswanan post offices on the days the elderly received their pension checks and questioned them about their eating habits.

The results of their detective work have clarified the situation for Botswanan policy makers and were published in the November/December issue of the Journal of Nutrition Education and Behavior. The article has also been selected for inclusion in a special issue of that journal dedicated to the problem of world poverty.

"The information that we gathered will support needed changes in the country's nutrition policy. For example, should foods be fortified" And

what foods are best to fortify"" said Chapman-Novakofski, a U of I professor of nutrition.

"Because of our research, Sega (her former doctoral student and collaborator Segametsi D. Maruapula, now a professor at Botswana's University of Gabarone) is well positioned to assume leadership in this area," she said.

Elderly Batswana have little variety in their diet, and, of the five major food groups, they receive only enough grain, and not nearly enough milk, fruits, vegetables, and meat. Only 41 percent had eaten meat in the 24-hour period before they were surveyed, the researcher said.

She noted that mixed dishes--for example, samp (a grain) and beans--are a source of protein for Batswana, and added that people who consume lower-calorie diets may need higher protein levels in order to function well.

"The most widely consumed foods were tea, sorghum and maize meal, followed by milk and bread," she said. "Although up to 40 percent of the elderly drink milk, they mainly drink it in their tea. And Botswanan milk is ultrapasteurized, canned milk that may not be fortified with vitamins A and D."

The scientists also investigated dietary patterns, Chapman-Novakopfski said.

For example, persons living in urban areas had more access to fruits and vegetables than their rural counterparts. "And, in a pattern that also occurs in the West, single, widowed, and elderly females consumed less meat and fruit than elderly men and married people," she said.

Eating vegetables was more common if older persons had children in

their homes, also a Western behavior, she said. "As a rule, people make an effort to prepare more nutritious meals if children are also eating them."

The elderly Batswana's frequent role as caretakers of their grandchildren makes it all the more necessary that government policy makers promote good health and nutrition among that group, said Chapman-Novakofski.

"Although, as a researcher, the amazing thing to me was that the people we interviewed were as old and as mobile as they were. Most had walked to the post office to get their pension," she said.

"Many live to be 80 or 90, yet they're obviously not eating the five fruits and vegetables a day that we recommend. They may not be in robust good health, yet they seem to be healthy enough, especially in a country that has severe infectious disease," she said.

"So there may be other factors that promote their longevity, which is an interesting area for further research," she said.

"Also, as Batswana begin to adopt Western consumption patterns, they'll have the challenge of promoting good eating habits while avoiding some of the bad habits that we have, such as overconsumption of fats and calories," she said.

Source: University of Illinois at Urbana-Champaign

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