Vegetarianism–From Negative to Positive

The chair of nutrition at Harvard gives the keynote address to the Third International Congress on Vegetarian Nutrition.

by Chip Cassano

In his keynote address to the Third International Congress on Vegetarian Nutrition, Walter Willett, chair of the department of nutrition at Harvard University and professor of medicine at Harvard Medical School, was quick to acknowledge his debt to Seventh-day Adventist pioneers of vegetarian nutrition. He specifically mentioned Mervyn Hardinge—an honoree at the congress—and the late Roland Phillips, stressing the contributions of Phillips, "whose early work in nutritional epidemiology had an important impact on my own thinking and on the direction of the whole field of nutritional epidemiology." Willett also thanked Loma Linda University, not only for sponsoring the congress, but for assuming a leadership role in examining, scientifically, the impact of a vegetarian diet on health.

For the organizers of the congress, and for Adventists everywhere, it was a gratifying moment. Willett is a widely recognized and respected figure in the field of nutrition, having served on committees of the National Institutes of Health and the President's Cancer Panel. He currently sits on the boards of seven scholarly journals, and he publishes extensively—some 300 articles and 100 reviews to date.

Of equal significance, perhaps, is Willett's reputation for candor. In introducing Willett to the congress, Joan Sabaté, associate professor and chair of the nutrition department in Loma Linda University's School of Public Health, reported that Willett accepts almost no research funding from the food industry, and is thus "free to speak the truth." He is a vigorous and vocal critic of olestra, the new "fat substitute." When asked a few years ago how much red meat humans should consume, his unequivocal response was, "Zero."

Adventists in the audience were particularly interested when, early in his address, Willett acknowledged religion as a valid reason for becoming a vegetarian. The way humans treat our own and other species, Willett said, along

Chip Cassano, a graduate of Columbia Union College, received his M.A. in writing from the Johns Hopkins University. He is Spectrum*'s assistant editor.*

with our ability to sustain food sources for all, are two of the most important factors influencing the future and well-being of humankind.

The core of Willett's address, however, focused on more concrete issues—the direct health benefits of a vegetarian diet, particularly in affluent nations, and its connection to lower rates of cancer, cardiovascular disease, and overall mortality. Again, Adventists received prominent mention. In a 1980 study on mortality among California Adventists in selected cancer sites, the *Journal of the National Cancer Institute* reported overall cancer mortality in the Adventist population is lower by approximately one-half in men and by about one-third in women, when compared to the U.S. population.

Willett went on to categorize and qualify these findings. The most dramatic reductions, for example, are seen in mortality from cancer of the lung, whereas Adventist mortality rates for breast cancer and prostate cancer are quite similar to the general U.S. population. While colorectal cancer is less common among Seventh-day Adventist men, this may, according to Willett, reflect lower rates of smoking, not just differences in dietary patterns. Similarly, access to excellent medical care in the Adventist population might help account for lower cancer mortality rates.

Potential Hazards of Meat Consumption

Willett next explained how much of the early discussion of diet and health in vegetarian populations focused on the potential adverse effects of consuming meat. While international research points to strong positive associations between consumption of meat or animal fat and incidence of cancer and coronary heart disease, the associations are not always simple ones. For example, per capita meat consumption and incidence of colon cancer correlate strongly, but evidence does not suggest that *all* flesh foods are similarly associated with high risk of colon cancer. In fact, Willett reported that in a number of studies, including the Nurses' Health Study and Health Professionals Follow-up Study (which Willett oversees), consumption of chicken and fish tends to reduce colon cancer risk, although not always to statistically significant degrees. Similarly, while consuming less red meat seems to decrease risk of colon cancer, studies of Adventists do not suggest that those who eat little red meat enjoy an equivalent decrease in risk of breast cancer. The strongest association for major cancers in Western populations, Willett said, is between animal fat consumption and risk of prostate cancer. There was no correlation with the consumption of vegetable fats.

According to Willett, since meat is the primary source of saturated fat and cholesterol in the U.S. diet, avoiding meat is also likely to reduce risk of coronary heart disease, the country's largest killer disease. Again, studies of Adventist populations figured prominently in his conclusions. Willett referred to research published in *Preventive Medicine* reporting that Adventist males who ate beef three or more times a week had more than twice the risk for fatal coronary heart disease than did their vegetarian counterparts. Again, though, the findings come with clarifications—in this case, similar studies of Adventist women showed no association, a trend supported by Willett's own research.

Additional Benefits of Vegetarian Diets

Willett next shifted his attention to the benefits of consuming large quantities of vegetables, fruits, whole grains, legumes, and nuts—benefits he emphasized as even more important than those realized by remov-

ing meat from the diet. He called attention to a body of research currently investigating the constituents of fruits and vegetables that may protect against cancer—vitamin C, carotenoids, and folic acid, to name a few. According to Willett, folic acid is a particularly promising candidate; *Annals of Medicine*, for example, published research reporting inverse associations between folate intake and risks of colon cancer and adenomas.

Willett next referred to consumption of nuts, again pointing to studies conducted among Adventists. Although nuts, because of their high fat content, have been condemned by some nutritionists, the *Archives of Internal Medicine* reported research indicating substantially lower risks of both fatal and nonfatal coronary heart disease within the Adventist population among persons consuming more nuts. Just last year, the *New England Journal of Medicine* published research from the Iowa Women's Study confirming these findings.

These benefits, Willett said, are not surprising, since most of the fat in nuts is unsaturated. Furthermore, they might have been predicted by examining the Mediterranean diet, which is typically high in alpha-linolenic acid, and appears to reduce the risk of coronary heart disease. One study, Willett said, showed a 70 percent decrease in coronary difficulties for those on such a diet, when compared with control groups consuming less alpha-linolenic acid.

Consistent with their emphasis on minimally processed foods, Willett said, vegetarians typically eat more whole grains and, thus, consume more cereal fiber than their meat-eating counterparts. This is positive behavior. Many, however, assume all foods high in starch are good simply because they are

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"complex carbohydrates" and low in fat. Willett explained that intake of cereal fiber is associated with a lower risk of diabetes, while the diet consumed by many Americans, including white breads, potatoes, white rice, and refined pastas, is associated with a high glycemic index and increased risk of diabetes. The combination of low fiber intake and high glycemic load is particularly harmful.

Benefits of Good Diet

Willett concluded his address with a summary: First, a high intake of red meat has negative health consequences; thus, vegetarian diets tend to have health advantages. Second, in most diets, not consuming enough beneficial foods—including fruits, vegetables, whole grains, and foods high in non-hydrogenated vegetable oils—appears to be more serious than consuming too many harmful foods. Finally, vegetarian diets *per se* are not necessarily healthy. The vegetarian diet favored by some American teenagers consists primarily of Coca-Cola, pizza, and ice cream. Although meatless, this diet is almost devoid of vegetables and can hardly be considered healthy.

The keynote address was, at once, a compliment and challenge to the congress participants—Adventist and non-Adventist alike. The idea of vegetarian nutrition, Willett explained, has undergone a subtle but momentous shift—a tangible response to years of research—from the restrictive view of avoiding the harms of meat eating, to the more expansive approach of embracing the benefits of eating greater quantities of vegetables, fruits, whole grains, legumes, and nuts.

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