

COMMENTARY

The USDA Food and Nutrition Summer Institute

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BACKGROUND

More than ten years ago there were about 20 nutrition and dietetics programs at Historically Black Colleges and Universities (HBCUs) in the United States. Then and today the existing programs are small with limited professors and resources and only one offers a PhD in nutrition. I convened several nutritionists across the Federal Government to discuss how we might create a program to support and help strengthen these nutrition programs. After many years serving on technical review panels and providing technical assistance to HBCUs, I believed such a program would be useful.

As a group we were concerned by the diminishing numbers of African American dietitians. We also were particularly concerned about future generations of African American nutritionists and dietitians who would work in the federal or local government, conduct research, teach at universities, and manage public health programs in the US and abroad. The 1997 American Dietetic Association membership database revealed that only 2.5% of the registered dietitians were African American (1). By the 1999 membership database assessment the percentage was down to 2.4% (2). Presently, the percentage of African American registered dietitians has declined to 2% (3). Through our program we wanted to encourage and help prepare future nutrition and dietetic professionals.

A workshop was held in July of 1998 on the campus of Howard University to define the purpose and structure of the potential program. This workshop was sponsored by the Beltsville Human Nutrition Research Center, Agricultural Research Service, US Department of Agriculture (USDA) and the W.K. Kellogg Company. Professors from 14 HBCUs along with representatives from USDA (Food and Nutrition Service, Cooperative State Research and Extension Service), Food and Drug Administration, Centers for Disease Control and Prevention, Washington, DC Commission of Public Health, and community organizations attended the workshop. No students attended. Key results from the workshop included:

- The program would be named the USDA Food and Nutrition Summer Institute;
- There would be a focus on different topics each summer with effective teaching strategies being of primary concern (faculty development, technology, communication);
- A network should be established between representatives from education, health care facilities, government, private enterprise and community organizations;
- A website should be established and distance learning opportunities should be created;
- The Summer Institute should be held only in the Washington, DC area.

CONCEPTUALIZING A MODEL

The USDA Food and Nutrition Summer Institute program model was based on outcomes from the workshop and our interactions with the HBCU nutrition programs. While the workshop participants focused on faculty development, we believed that students also should be involved. Most importantly we believed that for education and research to be strong components within the HBCU programs, an understanding of nutrition policy and linkages to the community had to be equally viable. Thus, the Summer Institute model included: nutrition education and outreach; nutrition intervention research; nutrition policy; and nutrition linkages to the community. Each Summer Institute theme defined the annual agenda and they were held annually for three to five days.

DESCRIPTION OF SUMMER INSTITUTES

Between 1999 and 2007 the Beltsville Human Nutrition Research Center sponsored the USDA Food and Nutrition Summer Institute. The first two years were supported by funding from private sources. Throughout we partnered with several Federal agencies, receiving funding and in kind support, to carry out the Summer Institute each year.

Years One and Two

The first Summer Institute was held in July of 1999 in Baltimore, Maryland and was sponsored by the Beltsville Human Nutrition and several other USDA agencies (Cooperative State Research and Extension Service, Economic Research Service, Food and Nutrition Service), W.K. Kellogg Co., Centers for Disease Control and Prevention, Food and Drug Administration, and Sodexo Marriott. Professors and students from 12 HBCUs attended the four-day Summer Institute, which emphasized the use of technology to conduct intervention research, deliver education, and develop a community nutrition newsletter. An *Unsung Hero* Recognition Award was initiated and awarded to a local nutritionist from New York. The USDA Undersecretary for Food, Nutrition & Consumer Services at the time, Shirley Watkins, was the keynote speaker. Other highlights during the first Summer Institute included:

- Participants visited the US House of Representatives in Washington DC, where 7 Congressional representatives spoke to the group. This visit exposed the participants to the importance of understanding the relationship between legislation, nutrition, and public health policy.
- Participants selected one of three mini-project sessions to attend. Sessions were held on using technology to design:
 - A research intervention study
 - An *online* food service management course
 - A community nutrition newsletter

The learning objectives for these sessions included conceptualizing an *online* approach to project design, using multimedia tools, selecting implementation strategies, and evaluating the project. Participants presented their ideas from the three mini-project sessions at the end of the Summer Institute. The concept for the *online* newsletter became the genesis for the Summer Institute newsletter, which eventually was produced on a quarterly basis.

- Participants visited a local public housing development community center where a panel discussion was held with a Baltimore City Council members and several community activists. The panelists discussed local nutrition and public health initiatives taking place in the city.
- Two Centers for Disease Control and Prevention representatives spoke on the state of health in the African American community
- Participants were invited to submit proposals for small, competitive research grants after the Summer Institute. Five HBCUs were awarded these grants.

In July 2000, the Summer Institute was held in partnership with USDA (Cooperative State Research and Extension Service, Economic Research Service, Food and Nutrition Service, Food Safety and Inspection Service, Foreign Agriculture Service), Centers for Disease Control and Prevention and Food and Drug Administration. Professors and students from 13 HBCUs attended the four-day Summer Institute. The largest contingent of students, 22, attended that year. The purpose of the Summer Institute was to encourage HBCUs to leverage existing resources to better meet the public health needs of the community and eliminate health disparities in selected chronic diseases through research, program delivery and information dissemination. The USDA Deputy Undersecretary for Research, Education & Economics, Eileen Kennedy, was the keynote speaker and the 5 HBCUs awarded grants the previous year presented their research findings.

By the second year, the Summer Institute program model was formally accepted by the schools. The agenda highlighted aspects of the program model and were captured by:

- A visit to the US House of Representatives where 13 Congressional representatives spoke to the group.
- Lunch at a local church owned and operated restaurant in Washington DC.
- A visit to USDA headquarters with a welcome from Undersecretary for Food Safety, Catherine Woteki.
- A panel on various programs and funding opportunities in USDA and the Department of Health and Human Services.
- A panel on community collaborations to strengthen curriculum design for the 21st century.

- Mini-project sessions on grantsmanship, developing a social marketing campaign, and developing careers in food and nutrition.
- *Unsung Hero* Award given to a NC nutritionist *in memoriam* and a DC dietitian.
- HealthQuest Magazine publisher was closing speaker.

Two Summer Institutes in Africa

In July 2001, the USDA Food and Nutrition Summer Institute was held in Accra, Ghana. It was our first foray into an international setting. Our partners included USDA (Cooperative State Research and Extension Service, Economic Research Service, Food and Nutrition Service, Food Safety and Inspection Service), Centers for Disease Control and Prevention, Food and Drug Administration, and USAID. Eight HBCUs participated, including 12 students. The purpose of this Summer Institute was to encourage HBCUs to develop strong international nutrition components (courses, opportunities for academic and research exchange) to prepare students and professors to address the public health needs of African and African American communities. Two speakers from the Beltsville Human Nutrition Research Center and Food and Drug Administration provided overviews of the status of food, nutrition and health in the US. African speakers focused on food security, food safety and health within the context of east (Ruth Oniang'o, Kenya), west (Rosanna Agble, Ghana), southern (Pauline Kuzwayo, South Africa), and central (Kinday Samba Ndure, Gambia) Africa.

A major objective was to allot significant time for participants to talk and interact with the African speakers and participating African students. For all of the students and most of the professors, this was their first trip to Africa. We wanted to forge every opportunity possible for them to hold conversations and initiate potential relationships with their African counterparts. Round table discussions followed each speaker and discussion questions included:

Question 1 – How could faculty and students at Historically Black Colleges and Universities focus efforts towards enhancement of food and nutrition capacity development of an individual, organization, and institution?

Question 2 – If you wanted to play a role in capacity development and do something next year given your priorities, what could we do?

Question 3 – Over the next 5 years given your priorities, what could you do to enhance food and nutrition capacity development?

Each participating university made research or education presentations. Other highlights included:

- A site visit to a local hospital that cared for children with malnutrition. This visit was especially poignant because participants observed the realities of malnutrition that you can not learn from a textbook.
- A site visit to the Ghana Food Research Institute and the University of Ghana in Legon, Ghana.
- Unsung Hero Awards given to two founding program partners' husbands *in memoriam*, who had supported the creation of the Summer Institute.

Four years later, the Summer Institute was held in Cape Town, South Africa as a satellite meeting to the International Congress of Nutrition (ICN) in 2005. The Beltsville Human Nutrition Research Center partnered with the Centers for Disease Control and Prevention, and USAID to sponsor 7 students to attend the Summer Institute and the ICN. Professors from 5 HBCUs also attended the meetings. The agenda included presentations on the Millennium Development Goals, integrated approaches to improve nutrition status of children in the African context, tracking health trends, closing the gap on the digital divide, and multimedia child intervention and education approaches. Student participants presented their results from a multi-site community nutrition project on nutrition, physical activity and diabetes sponsored by the Summer Institute and the US Army Research Lab. Other highlights included:

- A day-long study tour of a local township and community health center.
- Each student participant presented a poster at the ICN.

The Remaining Summer Institutes

Originally the HBCUs had wanted all the Summer Institutes to be held in the Washington, DC area. After the 2001 Summer Institute was held in Ghana, they realized that we could broaden our scope and hold the meetings in other venues. Thus, the 2002 Summer Institute was held at Alabama A&M University in partnership with the Cooperative State Research and Extension Service, Economic Research Service, Food and Nutrition Service, Centers for Disease Control and Prevention, and Food and Drug Administration. Eleven HBCUs, including 14 students, participated. The focus was on building healthy communities through education, behavior changes, and bridging nutrition and wellness programs between HBCUs and their respective communities.

For the first time during a Summer Institute, a day-long community event was held. The theme was "food, fitness and fun" and local speakers presented talks on elements of a healthy community and organic and community gardening. On the outside grounds of the Alabama A&M University Experimental Research Station, a food

station, fitness station, and food safety station were set up with interactive demonstrations. A fun station was set-up inside and various multi-cultural groups from the community presented aspects of their food and culture. For the remaining three days of the Summer Institute, panels were conducted on strategies for a healthy community, state legislation and policy, and local programs in action. The various HBCU participants made presentations on faith-based nutrition education and physical activity outreach, a hand washing project, a student mentoring program, childhood overweight, and a research proposal set in Africa. A strategic planning session on the future of the Summer Institute was held. The highlight of the meeting was a presentation by Dr. David Satcher, the former US Surgeon General, who spoke on his call to action to prevent and decrease overweight and obesity in the community.

Subsequent Summer Institutes continued to follow the program model. The 2003 Summer Institute was held at the Beltsville Human Nutrition Research Center. This meeting represented a unique partnership between USDA and the US Army Research Lab. One of their scientists found us on the Web and sought a partnership. Thus, the purpose of the meeting was to better understand the relationship between health and security in the prevention of diabetes. For the first time research projects would be conducted through the Summer Institute. Our meeting focused on planning for these projects; a community based study and an animal model study, which were conducted throughout the 2003-2004 academic year. Students and professors from 6 HBCUs and one Tribal College participated. Results from the community based study are published elsewhere (4).

Students and their faculty advisors who participated in the year-long research projects along with new students from each school attended the 2004 Summer Institute held on the campus of North Carolina Central University. A major portion of the meeting served as an opportunity for the students to present their research findings in oral and poster presentations. Time also was spent planning for presentations at other professional meetings the upcoming year and the 2005 International Congress of Nutrition in South Africa.

Our theme for the 2006 Summer Institute was “healthy people, healthy communities: defining our role for the next five years”. The meeting was held in Atlanta, Georgia in partnership with the Centers for Disease Control and Prevention. Students from Morehouse School of Medicine, University of Arkansas at Pine Bluff, Queens College, and Howard, Emory, Florida State, Alabama A&M, Southern, Fort Valley State, and Purdue Universities attended the Summer Institute. They were exposed to a number of representatives from the Centers for Disease Control and Prevention, who spoke about obesity research, health inequities, community based programs, behavior risk surveillance, evidence-based strategies to increase physical activity, and marketing yourself to maximize your career opportunities. Local nutritionists from the Food and Drug Administration, USDA Food and Nutrition Service, and the Atlanta Division of Public Health described their programs and services. One day was dedicated to training by representatives from the National Cancer Institute on *Body and Soul*, a church-based nutrition and physical activity initiative.

LESSONS LEARNED AND ACCOMPLISHMENTS

In 2007, the USDA Food and Nutrition Summer Institute program celebrated its 10th year. The initial planning workshop and Summer Institutes had been held in the Washington, DC metropolitan area, on three HBCU campuses, and twice in Africa. The program was the only one of its kind within the US Department of Agriculture and the program model focused on nutrition education and outreach, nutrition intervention research, nutrition policy, and nutrition linkages to the community. Undersecretaries, Deputy Undersecretaries, a US Surgeon General, and members of Congress had met with and spoken to participants. A strong emphasis had been placed on experiential learning, incorporating theory and application. Some of our program objectives had been to 1) enhance the growth and development of a competent, diverse body of nutrition students and professionals; 2) build collaborative partnerships and; 3) work with HBCUs to meet 21st century challenges by helping to strengthen their knowledge of domestic and international nutrition issues.

I am particularly proud of the program's role in developing African American professionals based on the following outcomes:

- 1) Encouraged several students to pursue doctorates. At least four students received a PhD through our mentorship.
- 2) Based on participation at the Summer Institute in Ghana, one student became interested in international nutrition and after graduation went onto work on a project for USAID in Nigeria.
- 3) Assisted one student to complete her dissertation research and obtain a Federal government position with the Cooperative State Research and Extension Service.
- 4) Encouraged undergraduate students to pursue advance degrees. To our knowledge at least 10 students entered Masters degree programs. In addition, several students are completing or completed dietetic internships.
- 5) Exposed undergraduate students to research methodology and diverse career options in food and nutrition. Between 2000 and 2006, 10 to 20 students participated in the Summer Institute each year.
- 6) Assisted students to submit research abstracts to national and international nutrition meetings. Between 2003 and 2006, five to 7 students submitted abstracts each year. Students presented posters at the American Public Health Association, Experimental Biology, American Dietetic Association, and International Congress of Nutrition.
- 7) Encouraged the professors to apply for research funds in and outside of USDA. Several professors credited this encouragement to their success in receiving funding from USDA, Centers for Disease Control and Prevention, and the National Institutes of Health.

While our major focus had been on HBCU nutrition programs, from time to time students from Tribal Colleges, Hispanic Serving Institutions, and nursing programs

participated. These students added interesting perspectives to our quest to enhance the growth and development of a competent, diverse body of nutrition professionals. With that in mind the Beltsville Human Nutrition Research Center convened the 2007 Summer Institute and invited representatives from our federal partners, HBCUs, Tribal Colleges, Hispanic Serving Institutions, and the American Dietetic Association to discuss the future of the program. Out of that meeting the Summer Institute program model ended and a summer-long internship experience was created.

When I first initiated a dialogue with colleagues about creating the Summer Institute, I had no idea that the program would last this long, 10 years. Each year was a challenge because we did not have a fixed budget. However, in the process of creating the program, I learned how to develop partnerships and be creative with limited resources. Over the years, I had excellent staff whom I mentored along the way as they supported me, but concomitantly I learned how to trust their judgment and technical expertise to get some amazing activities accomplished.

From the HBCU nutrition programs, I learned patience and a better understanding of the challenges they face to survive and produce students. The size of the nutrition department, the number of professors and their experiences, university support, and the students' grades, interests and motivation can affect the depth and breadth of the academic environment.

One of my greatest lessons learned and sense of accomplishment came with holding the Summer Institute in Africa twice. I wanted the Summer Institute to expose the students to a world of opportunities in the field of nutrition. As African American students I wanted to connect them to the field through the eyes of Africans. I wanted them to see they could aspire to work as nutritionists or dietitians in their local communities and beyond. The Summer Institutes in Africa went beyond my expectations. I believe those meetings provided the students with a broader perspective of the field and their potential careers in the field of nutrition. After the Summer Institute in Ghana, two students decided to seek doctorates. One student started an ongoing e-mail correspondence with one of the African speakers. Without the experience in South Africa another student may never have dreamed of working with USAID in Nigeria. Although the USDA Food and Nutrition Summer Institute ended in 2007, the experience taught me how to partner with others and influence a generation of nutritionists.

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