

Corazon VC Barba: An Icon of Excellence in the Field of Human Nutrition in Philippines

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I. INTRODUCTION

For many of us in the field of Human Nutrition in the Philippines, we would not have been able to grow in the profession without the guidance of a mentor who has seen the evolution of the field of human nutrition in a span of more than 60 years. Almost synonymous to the word mentor, Dr. Corazon Veron Cruz Barba is credited with setting the professional paths of many Registered Nutritionists Dietitians (RNDs), and others outside of profession either as undergraduate or graduate students in the Philippines, Indonesia, Bangladesh, Vietnam, and Myanmar and other South East Asian countries. While some of her students have retired, others still serve in key positions, still reaching out to their mentor for affirmation, guidance and support. Dr. Barba's opinion has and will always be a guiding force in the nutrition community even if she herself has been retired for twenty five years.

"If I had it my way, I would have opted a career in teaching just like my mother Socorro Victorino 'Coring' Veron Cruz did for more than 40 years," recalls Dr. Barba.

"When I was preparing for university, my father, Pascual A. Veron Cruz, said to me, 'teachers put in long hours for a small pay.'"

"You should take up nutrition," her father decided.

It was also the era of well-defined gender gap where women, like the young Dr. Barba fondly called by close friends as Cora, were not suitable for certain careers. As an eager high school student at the Rizal Central College preparing for university life, Cora contemplated between nutrition, due to the influence of her father, and chemical engineering, which she was more inclined to pursue. But her uncles warned her that no matter how smart she was, Cora would never be hired as a chemical engineer because it was a man's job.

In 1957, Cora became a freshman enrolled in BS Nutrition at the Philippine Women's University. True to its name, the University at that time was exclusively for women and offered courses that were tailored for that gender and genre such as home economics, nutrition, and education. Cora graduated magna cum laude in 1961, and soon after graduation in the summer, she served in a three month volunteer training program at the Food and Nutrition Research Center (FNRC).

When Cora's career in nutrition began, the Philippine Institute of Nutrition (PIN), which was formed in 1947, was undergoing transformation to strengthen the country's nutrition

research and education. In 1958, PIN became the FNRC, and would later be renamed in 1975 to Food and Nutrition Research Institute (FNRI) where Cora would eventually serve as Director from 1998 to 2004.

Nutrition seemed to be the right career path for Cora while she was studying for a Master's Degree in Food Science in the mid 1960s at the East West Center, University of Hawaii since nutrition was well positioned within the current political setting of the Philippines. Early in the decade, the government of Philippines under President Diosdado Macapagal set up the National Coordinating Council on Food and Nutrition (NCCFN) whose main purpose was to coordinate and direct all nutrition-related activities of the country. The NCCFN later evolved into the National Food and Agriculture Council (NFAC) in 1971 under the Department of Agriculture, headed by Minister Arturo Tanco, Jr., who was a staunch supporter of nutrition. Under NFAC, nutrition was integrated in the Philippine Food and Nutrition Program which was being implemented from 1971 to 1974.

Cora joined the Department of Home Technology at The University of the Philippines in Los Baños in 1975 after earning her Masters Degree in Food Science from the East West Center at the University of Hawaii. At that time, she and her husband the late Dr. Ramon Barba, Plant Breeder and National Scientist, were newly married, and she was exploring for opportunities in Los Baños where they had planned to settle. While the position Cora was applying for was committed to another Faculty member, Professor Bustrillos who was heading the Department requested Cora to apply anyway. Although the other Faculty member, who was holding a research position, was offered the item, Cora was hired into another teaching position because she was highly qualified albeit a contentious decision among the Faculty members. Her qualifications were scrutinized and her abilities were tested with questions about her research skills in particular sensory evaluation which was a far cry from her experience with animal studies. Cora's mother advised her to take the job even if it was not the position she had originally applied for, just so she and her husband Ramon can stay together in Los Baños. Her Mother did not approve of starting the marriage while Ramon was in Los Baños, and Cora was in Manila looking for a job.

In 1975 nutrition was considered a national priority by the Philippine government, and prevalence of underweight among children age 0 to 60 months declined from 39% to 33% in 1980. The Philippines continued to have strong policies and agencies

for nutrition through the mid 70s when President Ferdinand Marcos declared nutrition as a national priority via Presidential Decree (PD) 491 known as the Nutrition Act of the Philippines. With PD 491, the National Nutrition Council (NNC) was established under the Office of the President as the highest level policy-making and coordinating body in nutrition mandated to formulate, monitor, coordinate, and evaluate the national nutrition program. Alongside NNC, the Nutrition Center of the Philippines (NCP) was initiated by First Lady Imelda Marcos as a non-stock, non-profit organization for resource mobilization among the private sector. NCP combined efforts with the Department of Agriculture in implementing direct nutrition interventions that mixed both agriculture and health, social welfare, and education in addressing malnutrition problems.

During a nutrition meeting that was held at the Center for Continuing Education (CEC) in UP Los Baños Cora met Professor Helen Guthrie from the Pennsylvania State University where she eventually enrolled for her PhD from 1976 to 1980. As a student, Cora admired Professor Guthrie whose textbooks were her main reference for her classes. She recalls having long conversations with her future professor which paved the way for her PhD.

In May 1983, the Cebu Longitudinal Health and Nutrition Survey (CLHN) began with more than 3000 women included at baseline. Cora by this time was collecting data at the Cebu Institute of Medicine (CIM) for her PhD when she was tapped to be part of the team of researchers which included Dr. Barry Popkin, Nutrition, and Fellow, Carolina Population Center, University of North Carolina, who first coordinated the research; Dr. Linda Adaire; Dr. Florentino Solon; Dr. Socorro Gultiano, Ph.D. (Demography); and Dr. Judith Borja (Nutrition) to name a few. While conducting research, Cora learned much about the mothers involved in the study especially when it comes to providing food for their children with very limited financial resources, and gaining as much relevant information as possible through effective means of communication. She emphasizes the importance of probing questions at the same time earning the trust of the mothers during the interview process, while educating them about food associated with certain myths and that may go against their traditional beliefs. Knowing the health situation of the area of study put Cora in the advantage in her role in the study, which was more of her initiative than part of the research protocol. The study was one of largest population based survey with follow up surveys until 2009 producing several publications which have been well cited even at present time. Although Cora was included in many of the publications of CLHN, she refused to be included in any paper where her contribution was minimal or none at all, a practice she followed even while holding the top positions later in her career.

With strong political and budgetary support in the 1980s, hands-on nutrition leadership, and engagement of local government down to the barangay level, the Philippines set the standard in eliminating malnutrition, in particular, Marasmus-Kwashiorkor, with significant reduction of underweight. As Dr. Barba recalls, the nutrition community did not track micronutrient deficiencies until the 1990s when the global community on nutrition began talking about the concept of hidden hunger. However, cases of vitamin B deficiency such as beri beri were identified during the national nutrition surveys of

FNRI. The Philippines was model to other ASEAN countries struggling with high prevalence of protein-energy malnutrition. With the aftermath of war with the United States, Vietnam grappled with high prevalence of underweight, and micronutrient deficiencies, with child mortality of about 50 per 1000 livebirths among 0 to 5 months old towards the early 1990s. In the same period, child mortality rate in Cambodia was double that of Vietnam. During this time, several students in nutrition and allied fields from Asian countries including Bangladesh, Cambodia, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Thailand and Vietnam were enrolling at the Institute of Human Nutrition and Food in UP Los Baños, where Dr. Barba served as faculty and Director until her retirement in 2006.

“It is always gratifying to hear when I attend international conferences where my former ASEAN graduate students are presenting malnutrition problems in their countries and they acknowledge that their progress and successes have been based on what they learned from the Philippines while they were students at UPLB,” recalls Dr. Barba.

Nutrition programs and innovations in the Philippines were well recognized globally, with courses in Nutrition Planning under the United Nations University World Hunger Program were being conducted at NCP. However, human rights issues in the Philippines was also gaining prominence, which would eventually end the Presidency of Ferdinand Marcos in 1986. Along with the government transition to the Aquino administration throughout that year came organizational and operational reforms in the political environment as well as in nutrition. In 1987, President Corazon Aquino issued Executive Order (EO) 234 or “Reorganization Act of the National Nutrition Council” which included the Department of Labor and Employment (DOLE), the Department of Trade and Industry (DTI), and the National Economic Development Agency (NEDA) as members of NNC, with the Department of Social Welfare and Development (DSWD) as Chair.

It was in late 1988 that the Institute of Human and Nutrition and Foods at the College of Human Ecology of the University of the Philippines in Los Baños was established, which Dr. Barba considers as one of the highlights of her career. As Department Chair, Dr. Barba played a critical role in elevating the Department of Human Nutrition and Food to an institute, making Nutrition a separate discipline under the College of Human Ecology. During her recent visit to the university, as she was passing through the College of Agriculture and Food Science (CAFS), she reminisced on when they were working on instituting the Department of Human Nutrition and Food. During this period, the Food Science was an institute under the College of Agriculture (CA) and the Department of Human Nutrition and Food could have potentially moved to the Institute of Food Science. Although part of Dr. Barba’s academic background was on Food Science, she wondered if Nutrition would be a good fit in IFS, which comprised of more PhD Faculty members compared to the Department of Human Nutrition and Food where most of the Faculty had yet to earn their doctorates. IFS had well designated laboratories for its existing Faculty Members, and moving the Department of Human Nutrition and Food to IFS might displace the Home Technology Faculty. At that time, Home Technology from

which Nutrition had evolved from, was not highly regarded as a course. However, being situated in a small college such as Human Ecology, Home Technology and Nutrition under the Department of Human Nutrition and Food was prominently positioned with the highest number of enrollees compared to the other departments in the college. Also, other departments at the CHE were concerned about the impact of moving the Department of Human Nutrition and Foods to another college given the number of enrollees it would take away from the CHE. Although elevating the Department of Human Nutrition and Foods was widely supported, Dr. Barba could not help sensing negative impressions from individuals who thought that this endeavor was highly ambitious. Nevertheless, Dr. Barba was determined that establishing the Institute would be an advantage because they would have a separate budget allocation. Once the Institute of Human Nutrition and Foods was formed, Dr. Barba became its first Director. With the creation of IHNF, the UPLB-CHE's food, nutrition and dietetics undergraduate and graduate programs were strengthened, particularly the BS Nutrition and MPS Food and Nutrition Planning curricula and the institution of the PhD program in Nutrition. Although the current standing of IHNF as a leading institution in Nutrition can be credited to the efforts of Dr. Barba, she recognizes the hardworking faculty from way back to its Home Technology origins to the present for its success, especially for having a consistent 100% passing in the Licensure Exam for Nutritionists-Dietitians.

The 1990's marked further attempts of the government to enact and establish nutrition specific interventions, especially in addressing micronutrient deficiencies or hidden hunger. These interventions include the ASIN Law in 1995, alongside the formation of the Salt Iodization Advisory Board (SIAB); the adoption of the first Philippine Plan of Action on Nutrition (PPAN) in 1993, which was designed as the country's blueprint for achieving nutritional adequacy for all Filipinos; enforcement of food fortification; and distribution of micronutrient supplementation as the Philippine government's commitment to eradicating hunger and malnutrition under President Fidel Ramos (1992 to 1998). The Nutritional Guidelines for Filipinos, formulated in the 1970s was updated to include messages on diet diversity, especially higher consumption of vitamin A and iron rich foods, fish and meats. Aside from the implementation of nutrition specific interventions, the government enacted the Local Government Code RA 7160 "Local Government Code of 1991" which included nutrition as one of the basic services.

Despite the government's efforts in policy and legislation on nutrition, the prevalence of underweight children from 0 to 6 months increased from 23.6% in 1996 to 25.6% in 1998 (World Bank-FNRI, 2015).

Before the Director position at Department of Science and Technology, Food and Nutrition Research Institute (DOST-FNRI) was opened to applicants, Dr. Barba was identified to lead the National Nutrition Council but her inclination was more for research than coordination. In 1998, Dr. Barba finally attained her long time dream of working at FNRI, not just as a regular staff but as Director. Throughout her career, she kept herself up to date with the work of FNRI allowing her to become familiar with the different aspects of the research agency including its research, operations, its people, and especially the different problems that go with all that, which helped her

navigate and face the challenges that came with her leadership role. While FNRI is responsible for gathering nutrition data that describes the nutrition situation of the country, reporting of the data and making it more accessible were major issues that needed to be strengthened. Although much information can be generated from the National Nutrition Surveys, Dr. Barba thought that it could be static at times and much deeper analysis must be conducted to be able to extract the full extent of the nutrition situation and gain a deeper understanding. During Dr. Barba's time as Director at FNRI, the 5th National Nutrition Survey of 1998 was released in a timely manner, which led to the formulation of new and clearly-defined policy directions toward food fortification, and increased nutritional awareness. She initiated the production of the Philippine Nutrition Facts and Figures, a body of reference on the nutrition situation of the country, and the development of the urgently needed nutrition education tools and publications that were made available through successful campaigns among different stakeholders. Moreover, the FNRI's Food Analytical Service Laboratory became the first government food testing facility to be ISO-certified. It was during her time as Director of FNRI where she saw how poverty and water and sanitation, and effective leadership and the lack of it has greatly contributed to the nutrition problems of the Philippines.

After serving as Director of FNRI, and retiring from the university, Dr. Barba was bestowed the title of Professor Emeritus. During retirement, Dr. Barba served as Resident Adviser for the A2Z Project of the Academy for Educational Development (FHI 360), and the USAID Micronutrient Project, and as consultant to several non-governmental organizations such as the World Food Programme (WFP), and the Zuellig Family Foundation.

Dr. Barba recognizes the need for strong leadership with in-depth understanding of nutrition, as well as political will as instrumental to fighting malnutrition successfully, making her the perfect resource person for the nutrition governance program of the Zuellig Family Foundation.

"My initial involvement with Zuellig Family Foundation was as a lecturer in their program on Developing Governance Models on Health Systems for local government officials and their health officers. Dr. Marilen Danguilan who was then board member for the foundation, and had previously worked with former Senator Edgardo Angara on the development of the RH bill, recognized the need to integrate nutrition in the ZFF's health leadership and governance program and suggested that I be invited as a resource person in Nutrition," recalls Dr. Barba.

The urban nutrition governance was a spin off of the ZFF initiative on LGU mobilization to reduce stunting, which was first implemented in Looc, Romblon and in Gamay, Northern Samar in late 2016. The city mayors of both towns, together with their provincial health officer (PHO) or municipal health officer (MHO) as well as the project planning development officer (PPDO) participated in the training program. Both Looc and Gamay were selected because of their nutrition profile which needed much improvement. They lack nutrition interventions, in particular, micronutrient supplementation, and were ill equipped for anthropometric measurements to monitor their malnourished children. Antenatal services were limited and their nutrition

education campaigns were weak and ineffective. In terms of governance, both Looc and Gamay did not have a clear vision and mission for nutrition, had weak municipal nutrition committees, (MNC) and did not have a strong municipal nutrition action officer (MNAO) in place or it did not exist at all. During the training program, mayors of both municipalities, who were medical doctors by training, were enlightened with the critical period of the first 1000 days of life, the importance of nutrition during this period, and the imperative need to implement effective nutrition specific programs. The training program required the mayors to tackle their nutrition problems with a “deep dive” approach by personally visiting their problematic communities and realize the gravity of their nutrition situation.

The LGUs efforts in Gamay and Looc paid off. In 2019, their stunting rate (0-23 months) had a 21% reduction, wasting rate (0-23 months) decreased by 28.57%, anemia among children (6-23 months) declined by 30.43%, and maternal anemia (pregnant women) decreased by 33.77%.

According to Dr. Barba, several lessons were derived from the Gamay and Looc experience that can benefit the country. First, effective targeting practices should include both anthropometric measurements with biochemical screening procedure, combined with identification of social determinants such as sanitation and food practices, and income, especially in geographically isolated areas where prevalence of anemia remain high. Second, the PPAN must be integrated in the local planning of LCEs. This will require a well-qualified full time MNAO with well defined duties, and substantial compensation and incentives. To sustain the operations of the PPAN in the local level, the MNC must be equipped with knowledge and skills to enable them to deal with the different factors contributing to their nutrition problems, and are able to develop a comprehensive plan that will involve multi sectoral participation in providing reputable services for the First 1000 days.

“In my more than 50 years in this profession, I have witnessed the evolution of nutrition landscape in the Philippines in most, if not all, the exerted efforts in enacting laws and developing policies on both nutrition specific and nutrition sensitive interventions. I have been involved in many of these interventions and have seen their successes and failures. Nevertheless, we have yet to reclaim the glory days of being the model in nutrition as we did in the 1970s and early 80s. More important, the country must strive to achieve nutrition targets set by the WHO for 2025, and the United Nations Sustainable Development Goals (SDG) 2 to end hunger by 2030. As the Philippine economy grows comes the double burden of malnutrition, with increasing prevalence in stunting, underweight and overweight and even obesity. Our health and nutrition should be reflective of our country’s progress, as such, our children, as well as pregnant and lactating women should be better nourished with our current economic standing. While several laws and interventions on micronutrient deficiencies are in place similar to our neighboring Asian countries who have had their share of success in improving their nutrition situation, we continue to face several challenges in reaching out to vulnerable and nutritionally at risk populations especially in the geographically isolated areas and the indigenous groups of

people. Location and access to the services and servicing to their areas have become a hindrance to better nutrition. Also, cultural beliefs and distrust towards health workers who do not belong to their tribe have hindered effective nutrition messages. We need to consider a different approach in monitoring nutrition among the IPs by possibly separating data for this group when conducting OPT Plus, as well as designating a barangay health worker (BHW) or a Barangay Nutrition Scholar (BNS) from within their group, one who can gain trust and cooperation, and has the capability to coordinate with their non-IP counterpart in the barangay.

Micronutrient supplements, though available, have not reached full coverage of target groups because the national supply of micronutrient supplements have not all been distributed to the LGUs, which are not equipped with proper storage. Perhaps part of the government support to the LGUs is to ensure that they have the capacity to store micronutrient supplements, and other medical and nutrition supplies that should be provided to the community on a regular basis. Availability and accessibility are crucial to a successful coverage of micronutrient supplements, and this can only be achieved if the supply chain from the national level down to the barangay or community is well structured.

Despite the challenges, I remain optimistic with our prospects in solving the malnutrition problem in the country given the political will, substantial financing scheme coming from the UHC act that should explicitly include nutrition, and existing policies and programs laid out in the PPAN. When the first 1000 days was launched in 2016 by DOH, it was received more as a concept rather than an intervention and the lack of deeper understanding of this critical period created some missed opportunities in improving nutrition. LGU mobilization by organizations such as ZFF and by government agencies has become an important mode in including the first 1000 days in the community development plans and the investment frameworks of municipalities. To sustain these efforts, dedicated and skilled nutrition experts must make up a solid policy making agency aligned with reliable research and academic institutions that can provide a foundation for evidence-base policies. We must have proper program implementation, accountability, and strong system of monitoring and evaluation, which are all very important in ending all forms of malnutrition in the Philippines. Nutrition deserves its own position in the structure of governance and must stand out in policies and laws. Otherwise, it will remain incidental to health, agriculture, education, and social welfare, and even worse, possibly forgotten.” – Dr. Corazon Veron Cruz Barba, Professor Emeritus, University of the Philippines, Los Baños; an icon of excellence in Human Nutrition in the Philippines.