

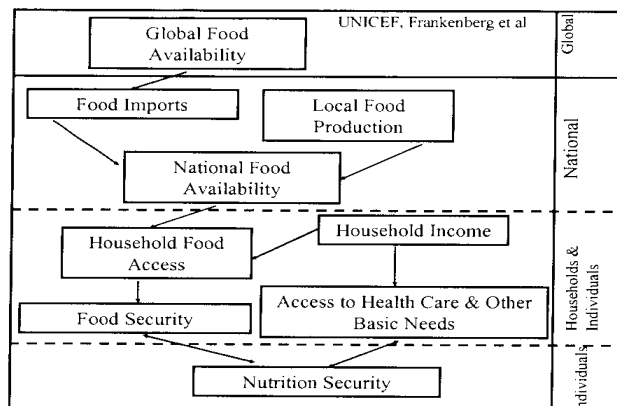
Title: Planting Seeds, Building Capacity: The Brazilian Household Food Insecurity Measurement Project

Presenter: Rafael Perez-Escamilla, Ph.D., Professor of Nutritional Sciences and Director of the Center for Eliminating Health Disparities among Latinos (ECHDL), University of Connecticut.

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At the first guest lecture of the 2007 CHHD colloquium series, Dr. Rafael Perez-Escamilla traced the evolution of his collaboration with Dr. Ana Maria Segall-Correa of the University of Campinas (Brazil) to create a measure of food insecurity for use in Brazil that they have since validated in rural and urban Brazilian populations^{1,2}. Dr. Perez-Escamilla was on a sabbatical appointment as a professor of epidemiology at the University of Campinas when the then-newly elected government of President Luiz Inacio Lula da Silva began working on the problem of Brazilian food insecurity. This initiative is now known in Brazil as the *Fome Zero* (No Hunger) Program. At that time, Drs. Perez-Escamilla and Segall-Correa proposed creation of a culturally sensitive and valid measure of food security as a primary step in understanding and addressing the social and nutritional components of food insecurity in Brazilian communities. With governmental support, they adapted a measure of food insecurity used in the United States to reflect the circumstances and cultural meanings of food security and insecurity within rural and urban Brazilian communities.

As a background to the discussion of this measure, Dr. Perez-Escamilla made several key points about food access and food insecurity at global and individual, experiential levels. Using the UNICEF model³ below, he outlined points of access to nutritional security from individual to global levels.



¹ Perez-Escamilla, R., Segall-Correa, A.M., Kurdian Maranh, L., Sampaio Md Mde F, Marin-Leon, L., Panigassi, G. (2004). *An adapted version of the U.S. Department of Agriculture Food Insecurity module is a valid tool for assessing household food insecurity in Campinas, Brazil.* Journal of Nutrition, 134, 1923-1928.

² Melgar-Quinonez, H., Nord, M., Perez-Escamilla, R., & Segall-Correa, A.M. (provisionally accepted) *Psychometric properties of a modified U.S. Household Food Security Survey Module in Campinas, Brazil.* European Journal of Clinical Nutrition.

³ UNICEF, Frankenberg et al.

At and between each level of this model, we can trace the relationship of food availability and pathways of access from an individual to local, national, and global food supplies.

Also at the level of the individual, he talked about the different dimensions of food insecurity⁴ – including quantity and quality of calories available; whether the food sources are sustainable in the sense of being culturally appropriate foods; the psychological aspects of anxiety and depression that accompany food insecurity; and finally the social aspects of how individuals can acquire their food – do they have money to buy it, or do they need to beg for or steal food? He proposed that any valid measure of food insecurity should evaluate each of these dimensions.

Finally, to further illuminate the experience of food insecurity at individual levels, Dr. Perez-Escamilla also outlined a model of what happens to individuals and families as food supplies become insecure: concerns about food supply or management of the food leads to decreased food for the adults, who typically give most of their resources to their children, and then when food is very scarce, there is a decrease in food even for the children until finally everyone goes hungry.

To show the complexity of food insecurity he placed these ideas in the context of Brazil as one of the world's major food exporters that, in fact, produces enough food to provide its own citizens with appropriate nutrition. Despite the availability of food, the Brazilian embassy estimates that 46 million people in Brazil were living with food insecurity in 2002, at the time Drs. Perez-Escamilla and Segall-Correa began to adapt a measure for use in Brazilian communities.⁵

Over the course of several years, with the help of a myriad of enthusiastic international colleagues and using mixed methodology, Drs. Perez-Escamilla and Segall-Correa developed and validated a culturally appropriate adaptation of the U.S.D.A. Food Insecurity Module. They used their community specific knowledge about Brazilian culture and the models of individual experience with food insecurity to modify the American measure to be conceptually and culturally valid for use in Brazilian communities. In administering the measure within Brazil, they found that food security and access to particular foods such as nutritionally valuable fruits, vegetables and meats with income in a positive step-wise relationship, with individuals who have higher incomes having the greatest access to nutrition and food security.

Recently, Dr. Perez-Escamilla was invited by the Brazilian government to participate in a press conference about the Brazilian national food insecurity measurement project. He and his colleagues are continuing their work helping Brazilians and other communities fight food insecurity using culturally relevant measures.

Summary: Mary A. Sutherland

⁴ Boyle, 2003.

⁵ “Zero Hunger: A Food Security policy for Brazil” accessed via www.brisilemb.org/social_issues/zero_hunger_program.shtml on February 18, 2007.