

First I would like to express my gratitude to the Iowa soybean farmers for sponsoring this lovely breakfast and the World Initiative for Soy in Human Health (WISHH) for affording this opportunity to briefly share thoughts from a medical community point-of-view on the issue of HIV/AIDS and food and nutrition. WISHH is a soybean farmer-funded program with the mission to explore the role of soyfoods in human health and to efficiently address the anticipated shortfalls in meeting protein needs for the world's populations over the next decades. As such, their mission coincides quite well with the mission of HIV/AIDS care providers. WISHH has a table outside which will be manned by the Executive Director, Jim Hershey. Jim will be happy to talk with any of you more about WISHH activities and provide you with a "sample pack" of soyfood products that are being used.

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In many situations we say, "Practice precedes science." That is, we decide to take action without a clear idea of what works best and what the impact will be. However, practice and actions without the development of the evidence to support them is not likely to last and could have us headed down exactly the wrong road.

In 1987 I worked at the center that was said to "set the standard" for care in HIV infection, San Francisco General Hospital. At that time I was told many times in many ways that the wasting that I saw was a disease issue, a part of the natural history of AIDS. After spending many pot luck and Domino's Pizza evenings on the AIDS ward, where the sickest of the group were admitted, it just didn't ring true. Given the opportunity, we fed people with AIDS. We got them off of expensive respirators and sent them home. We extended their lives for an average of 1 ½ to 2 years beyond what was considered "long-term survival." It wasn't until 1989 that the evidence was formally reported in peer-reviewed scientific publications that the timing of death in HIV infection is more related to nutritional status, particularly the body's protein stores (we call them muscles and organs) than to opportunistic infections or the virus itself. So wasting is NOT a part of the natural history of HIV infection and it is nutritional status of the person that determines when they will die. That was a profound moment for me.

While the introduction of anti-HIV drugs is important to address the pandemic, it is not the full answer. People on anti-HIV drugs still reduce their food intake and still waste. We even have new problems of accelerated diabetes, cardiovascular disease, and osteoporosis.

1. We need to remember to treat the body as well as the bug. Survival is still most closely related to the maintenance of weight and protein stores. Without adequate supplies of body protein, a body won't process medications as effectively and efficiently as it should.
2. We know that to hang onto muscle and organ tissues with chronic HIV infection you must have enough calories and protein. Recent studies suggest that high quality protein is directly related to the ability to maintain these tissues and support survival in people with HIV infection.

3. We know that preventing losses is better than regaining ground after losses exist.
4. We know that the choices for nutrient-dense calories and quality protein are important to maintain health in HIV infection. In the United States and Canada, we have been recommending high quality protein diets from the beginning. This is not such a difficult task for our patients here in the US and Canada because we tend to consume around twice the recommended amount of protein on a daily basis. We continue to make these recommendations and have added the preference for soy as a protein source because of its many other potential health benefits.

While it is true that we badly need vaccines, at this time we don't see one close enough on the horizon to stem the tide of HIV transmission. We do know that keeping a nutritionally sound body can extend survival in chronic HIV infection, which is the highest priority.

As speakers yesterday emphasized, more than talk is needed. In line with this, at WISHH we have been working collaboratively with several groups to take action toward problem solving, program development and implementation, and supporting the process of gathering evidence. WISHH agrees with the efforts of farmers in developing countries to improve their productivity and hopes to complement their efforts by addressing the common shortfalls in quality protein and improving their survival. We are looking at creative ways to enhance the food supply in resource-limited settings and show how soy can fill that need.

The example I would like to share with you is based in Uganda. USAID has funded an effort to augment feeding with corn-soy blend and vegetable oil for 12,000 people living with HIV infection and their families totaling 60,000 people for a period of 5 years. WISHH worked with the program managers at ACIDI/VOCA and its partners to develop and implement a study to determine the impact of this program on health, quality of life, living situations, and survival of a subset of the beneficiaries. This project is a rigorous look at these criteria that has been reviewed and approved by the Institute of Public Health at Makerere University and the Uganda National Centre for Science and Technology.

Specific improvements we hope to see include improved weight and strength, improved growth and catch-up growth in children, improved quality of life, and overall improved health. The serial measures of the impact of food intervention will allow us to determine which aspects of health a food program can change and improve for people infected and affected by HIV.

The HIV pandemic has confounded efforts in recent years to tackle world hunger. Working to address the issues related to HIV/AIDS is essential to achieving our overriding goal to defeat hunger and famine.

Though there is much more to share, I am certain my time is up, but I would like to again thank you for this opportunity and your kind attention.