# Capstone: "Current Status, Continuing Challenges"

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Each of us is acutely aware of the increasing complexity of our food supply and how it affects our work. Today's consumer selects from foods that arrive at our markets from our own fields and streams, as well as from around the world, in a variety of fresh, processed and packaged forms. Our research in food composition and consumption is made even more complex by the tendency for more meals to be eaten outside of the home: in the workplace, the school system, at fast food and conventional restaurants. There is also the delightful addition of foods resulting from the cultural diversity of our society and the foods associated with those cultures. The concern about the relationship between food components and major public health problems - from anemia to cancer - also help explain why we feel overworked, overwhelmed, and overly-challenged.

As I worked with the program committee to organize this conference it seemed that the program that emerged was as diverse, and in some ways, as disconnected as our food supply sometimes seems to be. I wondered if some of the topics would be as transient as many of the 10,000 foods that are reported to move in - and then very quickly out - of our market place each year. Having attended most of the sessions of this 3-day conference, my perception has changed. I see something different, something less frantic emerging. Despite the diversity of topics, I sense a "coming together" to focus more realistically on what we can do now, with what we know now, and on what we must develop for the immediate future without sacrificing long-term vision.

As I was preparing to attend this conference, I looked through some of the previous Databank Conference proceedings. We have made significant progress during the last two decades. I was, however, struck by comments of Dr. Jack Filer at the 11th conference, in 1986 at the University of Georgia: "We need accurate food composition tables that are commensurate with the wide variety of foods eaten so that nutrient intake can be adequately assessed. . . . Unless the nutrient data base is accurate, little purpose is served by attempts to relate dietary intake of these nutrients to health status." (Emphasis mine). I do not disagree with his basic premise, but is appears that Dr. Filer was talking about the "ideal," which I think we have all been striving to achieve for the last 10 to 15 years:

delivering more accurate and precise data now;

providing data for every nutrient of interested to anyone;

forecasting what nutrients or food components will be wanted next by nutritionists or policy makers;

examining and re-examining food intake methods - 24-hr recalls, records, frequencies - to find out which gives the most accurate estimates;

developing and applying new and different methods to examine data - regression, log-linear, probability approaches, factor analysis, cluster analysis, pattern recognition - and determining how we interpret and compare results from such diverse techniques;

trying to deliver complex consumption data faster;

responding to new labeling regulations, with databases developed by individual manufacturers, without driving up the cost of foods or driving consumers away from the very information we believe they need in order to make informed food choices.

Kristin McNutt, in her keynote address, stressed the importance of identifying "what needs fixing now" and "who needs to fix it." She advocated addressing feasible problem areas while identifying information gaps that must be "fixed" for future investigations. Other speakers discussed the importance of identifying how food and nutrient composition data will be utilized because it is the utilization that drives analytical method development, procedures, and need for precision. Also stressed was the need to move forward with current procedures that measure components of interest, at levels that are meaningful in foods, at reasonable cost (including hazardous waste reduction), and that are in those "key foods" that are most commonly consumed by our population.

We have heard this message before. We know we cannot determine exactly what people eat nor analyze every food for every nutrient to the same precision. How then do we decide "who fixes what"? I contend that we all must be involved in the process and three components are critical: key foods, key nutrients and nutrient-related conditions or diseases.

1. What are the most critical current nutrition-related health problems?
   We can all name them: cancer, cardiovascular disease, anemia, hypertension, osteoporosis, obesity...

2. What are the nutrients and measurable components associated with these problems?
   We know many of them: calcium, iron, fatty acids, antioxidants, carbohydrates, sodium, folacin - and more information is needed on fatty acids and carbohydrates and other key components.

3. What are the "key foods"?
   We must focus on key foods:

   · those foods that are the major contributors of nutrients or components of concern;

   · those foods that provide a majority of the weight or caloric value of our diets;

   · those that are major components of Hispanic diets, Oriental diets, major foods of international trade;

   · those foods that are key to the diets of our children, our teenagers, our athletes, our elderly, and our young adults who will set the incidence rates for chronic disease in our society as they move toward middle age.

The users of food data - the scientists, policy-makers, government agencies, senators, representatives, consumers - all of us want accurate and timely composition and consumption data. Our recommendations to producers, manufacturers, and consumers all depend on these data. But, we will lose rather than gain ground if we continue the way we have, with the same, if not more limited, resources. Totally accurate analytical methods, complete composition data, and definitive food consumption data are ideals. We need to focus on what is essential to know, what is possible to do, and what is optimal to expect from our scientists, ourselves.