NHF's Report on Recent Codex Nutrition Committee Meeting In Germany

Six Years Later …

The benefits of NHF's hard stand on nutrition at Codex come home

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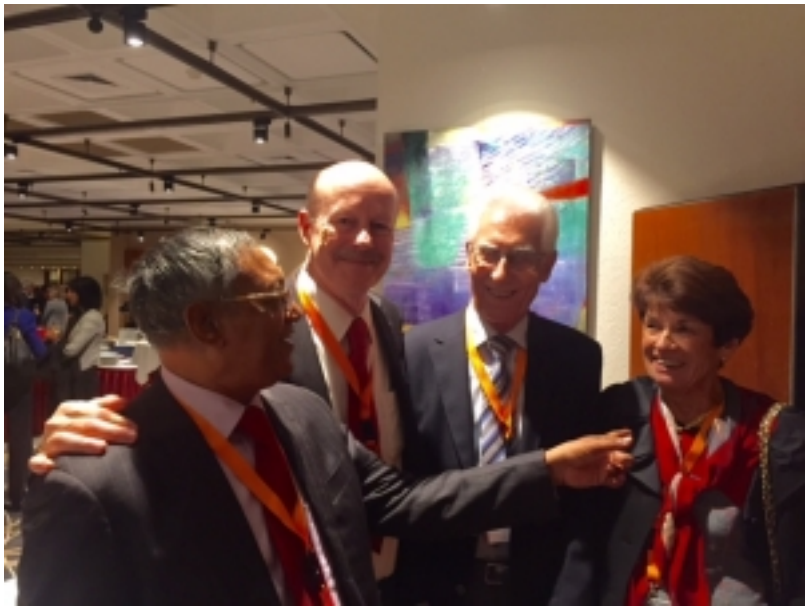
Category: Codex
Published: 11 December 2015

When you and I were six years old, six years was literally a lifetime. As we all have grown older, each year has come to represent an increasingly smaller percentage of our lives and thus seems to pass more rapidly than when we were youngsters. One year at age 6 represents nearly 17% of our life; but at age 60, it is only 1.6% of our life. At age 100, one year will only be 1% of the lifetime of anyone living that long. Perversely, then, Time appears to accelerate.

So, although my hard-fought stand on behalf of the National Health Federation (NHF) and true nutrition back in 2009 at the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) meeting held in Dusseldorf, Germany seems so long ago, the time has also passed very quickly.



Bangladesh, NHF, and Swiss delegates speaking

Nutrient Reference Values

Those who have been following the NHF's efforts at Codex since the mid-1990s will recall that at that 2009 Codex nutrition committee meeting, the NHF singlehandedly launched the opposition that had stopped the Australian delegation and others from drastically "dumbing down" the Nutrient Reference Values (NRVs) for vitamins and minerals.

Incredibly, Australia and its supporters had actually proposed that *lower* NRVs be adopted for most vitamins and minerals, including Vitamin C. For example, the "Proposed Draft Additional or Revised

NRVs for Labelling Purposes in the Codex Guidelines on Nutrition Labelling" suggested reducing the Vitamin-A NRV from 800 micrograms down to 550 micrograms, Vitamin C from an already-abysmally-low 60 milligrams down to 45 milligrams, thiamin from 1.4 milligrams down to 1.2 milligrams, niacin from 18 milligrams down to 15 milligrams, magnesium from 300 milligrams down to 240 milligrams, and so forth.

These values are already at subsistence levels, and most persons need far more than the miserable amounts that Codex – trapped in its world of two-dimensional nutrition – would parsimoniously dole out to them in order to enjoy optimal and robust health. Yet Australia and its supporters were so fixated on *reducing* the values even more that they had blinded themselves to the real science showing the absolute need for ***more*** nutrient intake, not less.

Fortunately, thanks to NHF and its key supporters India and Iraq – as well as the surprising but welcome decision of retiring CCNFSDU Chairman Rolf Grossklaus – at the 2009 meeting, the Committee wisely chose not to move forward with the proposed NRVs and instead held them back for further review and study. Importantly, the momentum for reducing the NRVs was killed and the process slowly restarted.

Fast Forward to 2015

Five CCNFSDU meetings have passed between the 2009 and 2015 meetings as the Committee haltingly crept through the NRV agenda. Last year at the Committee meeting in Bali, we saw the NRV for Vitamin C actually increased by 220%. This year the Committee met in Bad Soden, Germany, during Thanksgiving week, and was to have finalized establishing NRV levels for its last list of vitamins and minerals.

Unlike previous years, the 2015 discussion was not ever seriously about lowering the NRVs but was about either raising them or at least keeping them at the same level as before. Keep in mind that the NRV levels are not set at ***optimal*** health levels because Codex is not concerned with optimal health. Instead, the levels are set at minimal subsistence amounts, just enough to keep a person a few steps ahead of the grave.

With that in mind, NHF still enjoyed a tremendous success in keeping most of the NRV levels out of the gutter. Certain countries – such as South Africa, Indonesia, Bangladesh, and Malaysia – were extraordinarily great at consistently supporting higher and healthier NRV levels. Unfortunately, after the first day, Bangladesh's able spokesman, Dr. S. Roy, was muzzled on a technicality and could no longer speak out for true nutrition. But, by then, the NRV issues had been discussed.

The NRV for Vitamin A was the first up for discussion. The Electronic Working Group (of which NHF was a member) recommended to the Committee that the original value of 800 (2666 IUs) micrograms per day be maintained, but the European Union (EU) immediately objected that it should be lowered to 700 mcg/day. New Zealand, Norway, and Brazil supported the EU, while South Africa, Morocco, Chile, Togo, Uganda, Ghana, Uruguay, China, Kenya, Canada, Malaysia, the United States, Mali, Nigeria, Egypt, and the NHF argued that the 800 mcg/day value be kept (with NHF arguing that the value should be more than doubled). In light of the overwhelming support for the higher value, the CCNFSDU Chairwoman Pia Noble asked the Committee for consensus on the higher value and everyone agreed.

Vitamin D was next. Six years ago the Committee was going to leave the NRV for Vitamin D at an insulting 5 micrograms per day (200 IUs/day). Now, in a very scary move for many Codex members, some Committee members were suggesting that the NRV be inched up to 10 mcg/day (400 IUs/day) or even a breath-taking 15 mcg/day (600 IUs/day). Completely ignorant of the latest nutritional research showing that 4,000-5,000 IUs/day of Vitamin D should be the standard, and ignoring NHF's written comments showing that the Institutes of Medicine (IOM) had miscalculated the NRV for Vitamin D which by its own standards should be 8,666 IUs/day, the Committee actually had delegations arguing for retaining the 200 IUs/day level (Senegal, Togo, India, Uganda, and a few others). Others, such as Canada, the United States, Iran, Turkey, Uruguay, Indonesia, Chile, and South Africa, argued for the highest (15 mcg/day) of the proposed three levels, with the NHF of course arguing strongly for a level many times higher; but in the end, the Chairwoman decided that the Committee should wait for the forthcoming European Food Safety Authority opinion on Vitamin D levels, due out in February 2016, with the current value of 5 mcg/day being retained until the next meeting.

Vitamin E followed in quick succession. It had taken the Committee thirty minutes to reach a decision on Vitamin D; it took another 27 minutes to discuss the Vitamin-E NRV. The rush was on and it followed an all-too-predictable path with many delegations arguing for a higher (albeit still too low) value but the Chairwoman overruling them so as to set the value at its lowest level. In this case, Australia, Senegal, and the World Health Organization argued for the lowest value of 9 mg/day (about 13.5 IUs/day) while the EU suggested the middle ground of 12 mg/day (18 IUs/day) as "a safe landing space." Too many others caved and went for the safe "middle ground" of 12 mg/day even though a preference was expressed for the highest value of 15 mg/day (22.5 IUs/day). These were Indonesia, Bangladesh, South Africa, Malaysia, Indonesia, Russia, and the International Alliance of Dietary Food Supplement Associations (IADSA). NHF alone argued that these three values were all significantly too low. Despite the preponderance of delegations in favor of the 12 mg/day NRV for Vitamin E, the Chairwoman completely ignored them in her rush to dive for the lowest possible value of 9 mg/day. So, the NRV was set as the Chairwoman desired and not as the Committee had wished. Codex "consensus" in action!

Next came the NRV for Iron. For 12 years at Codex, NHF had consistently argued that Iron overload is a greatly unrecognized health problem and that any NRV for Iron must be differentiated by sex and not averaged between men and women as averaging would shortchange women and overload men (and post-menopausal women) with iron. But why should Codex change now? Ignoring NHF's impassioned plea, the Committee accepted the Electronic Working Group's recommendation to set an NRV for Iron at 14 mg/day and 22 mg/day depending upon the absorption rate. That took a mere ten minutes for the Committee to butcher male and post-menopausal female health.

Not content with the damage done to human health just minutes earlier, the Chairwoman then launched the Committee at Magnesium. Remember, the CCNFSDU had wanted the NRV for Calcium set at a silly 1,000 mg/day while proposing that the NRV for Magnesium be ***lowered*** from 300 mg/day to 240 mg/day. NHF had stopped both back in 2009, but Australia and Ms. Noble had succeeded in 2014 in getting the high level for Calcium approved by the Committee. Keeping in mind that Calcium and Magnesium are twin macro-minerals and that nutritional science has generally set their ratio at from 2:1 to 1:2, taking the worst case scenario into account would mean that with an NRV of 1,000 mg/day already set for Calcium, the CCNFSDU would then have to set the NRV for Magnesium at no less than 500 mg/day. By current nutritional standards, the Committee had boxed itself in when it pre-set the NRV for Calcium. But since when did good nutritional science ever deter this Committee?

Of course, I argued for NHF and countless consumers that the NRV for Magnesium must be set at no less than 400-500 mg per day. Yet the choices presented to the Committee were 300 mg/day, 310 mg/day, and 365 mg/day. Ms. Andiswa Ngqaka of South Africa strongly and ardently argued for a level higher than 365 mg/day but faced with only three choices could then do nothing other than support the 365mg/day level. Bangladesh agreed. The Chairwoman, though, somehow intuitively smelled Committee support for the 310 mg/day value and so it was set at that amount. So much for "science based" standards, or even basic consensus!

The day's end was drawing close so we quickly rushed through Phosphorus (NRV set at 700 mg/day "in a spirit of compromise" and not science), Copper (NRV set at 900 micrograms/day instead of 1.5 mg/day), and Chromium (no NRV set "due to limited scientific evidence of the essentiality of this element"). In the last case, the United States argued for the setting of the NRV for Copper at 30 mcg while Bangladesh intelligently questioned how the Committee was even arriving at 30 mcg/day when 120 mcg/day would be more in order. I argued that the National Academy of Sciences in 1989 had established an estimated safe and adequate daily dietary intake range of 50-200 mcg/day for this mineral and so the Codex NRV should be set in that area. The Chairwoman disagreed with us, stating that it was not necessary to establish an NRV. "But," I interjected, "at least establish one in the near future then." So, the meeting's Report states that "It [an NRV] could be considered at a future date." Yes, solid science "wins" again.

The NRV for Chloride was briefly discussed but it was late in the day and with the Chairwoman constantly reminding everyone how tired they must be (great negative programming), she made the decision that the Committee would not establish an NRV for chloride. The Committee then adjourned and left for its reception.

The next morning the Committee took up the issue of Vitamin E isomers. Would Vitamin E be defined simply as the alpha-tocopherol portion of the Vitamin-E complex or would the beta-, delta-, and gamma-tocopherol isomers as well as the tocotrienols be included? Of course, never one to miss a chance to daydream as if it were still the 1950s, the WHO representative argued that "alpha tocopherol was the only isomer with Vitamin E activity." Some others agreed, including, sadly enough, the EU, Canada, New

Zealand, the United States, and even a professor speaking for the Institute for Food Technology. They all should have known better. The Malaysian delegates certainly did, schooled as they are in 21st-Century nutrition, as Malaysia argued eloquently for the multiple forms of Vitamin E. The Philippines, Indonesia, South Africa, India, Senegal, Zimbabwe, and NHF strongly supported the Malaysian position. The Chairwoman wisely found no consensus on this issue and adopted Australia's pragmatic suggestion that this issue be tabled until next year's session.

Compared to 2009's prospects for vitamin and mineral NRVs, the outcome in 2015 was a distinct improvement. Although NHF argued for much higher values in most cases, we were successful in avoiding many of the disastrous levels proposed in 2009. (See chart immediately below.) Most encouraging was that NHF was no longer alone in its fight for true nutrition, numerous country delegations truly interested in the health of their citizens argued for higher vitamin and mineral levels.

NUTRIENT	OLD CODEX NRV	CODEX Proposed NRV	NHF Proposed NRV	NEW CODEX NRV
Vitamin A	800 mcg	550 mcg	1500 mcg	800 mcg
Vitamin C	60 mg	45 mg	500 mg (120 mg)	100 mg
Vitamin D	5 mcg	5 mcg	25 mcg	TBD
Vitamin E	None	9 mg	15-25 mg	9 mg
Magnesium	300 mg	240 mg	400-500 mg	310 mg
Chromium	None	30 mcg	50-200 mcg	TBD
Selenium	None	30 mcg	200 mcg	60 mcg
Zinc	15 mg	11-14 mg	15 mg	11-14 mg (per absorption %)

Follow-Up Formula for Infants

Another contentious Codex issue was the proposed standard for Follow-Up Formula (or FUF as it's called at Codex). The New Zealand-led Working Group presented its findings, with several consumer groups strongly challenging the need for this formula at all, seeing it as nothing more than a commercial marketing ploy to pry older infants away from both breastfeeding and local foods. In particular, the International Baby Formula Action Network (IBFAN), the International Association of Consumer Food Organizations (IACFO), the Helen Keller International, and the NHF argued for inclusion of language that "the use of [FUF] product should not replace breast milk." This position was also strongly advocated by South Africa, Ecuador, Nepal, WHO, and others. Unfortunately, the Chairwoman agreed with those in the Committee who opposed the wording and so it was removed.

The rest of the day was spent discussing the individual vitamin and mineral, protein, and sucrose levels of FUF in an attempt to set minimums and maximums. In the case of sucrose, South Africa, India, and WHO especially objected to its inclusion in any FUF. Regardless, the Committee's review of this standard was far from finished and will continue for many years in the future. In the meantime, millions of children will suffer the abuse of a sub-standard, needless product brought to market merely to "make a market" of them; and adding insult to injury, the majority of the delegates and INGOs agreed.

Biofortification

Day Three of the meeting began with clean-up work on the FUF agenda item but then moved on to Biofortification, which needed first of all to be defined. An electronic Working Group, headed by South Africa and Zimbabwe, proposed four possible definitions to the Committee, but the discussions swirled around the hot topic of whether or not genetically modified (recombinant-DNA) technology should be included in the definition.

Those pushing a standard for Biofortification, particularly the International Food Policy Research Institute (IFPRI) led at Codex by the redoubtable Dr. Anne Mackenzie of Canada, eloquently argue that Biofortification itself as a concept is neutral and that it would be up to each jurisdiction to decide for itself whether Biofortification would include recombinant-DNA technology or not. To Dr. Mackenzie, Biofortification is simply the process by which the nutritional quality of food crops is improved through plant breeding with the aim of making the nutrients bioavailable after digestion. To most of us that means "conventional" plant breeding.

Iran, India, and Sudan quickly took the floor to argue strongly that the Biofortification definition should exclude GM techniques. They were soon joined by Nepal, Ghana, Paraguay, Uganda, and surprisingly enough Australia. Australia quite reasonably argued that if the Committee were to go back to the original document in 2012 regarding the Scope of Biofortification, it would tell us that Biofortification only refers to conventional breeding and so we should clearly exclude GM techniques. When NHF was called upon to speak, I supported Australia's and the other anti-GM delegations' comments, adding that consumers could be fooled if GM techniques were not excluded from the definition. Of course, Canada, the United States, and New Zealand wanted a broad definition that includes biotechnology. And IACFO asked the sensible, but apparently rhetorical question, "Who owns these new foods?" In the end, nothing was resolved and the Chairwoman ruled that further discussion on the definition was needed.

But before the Biofortification issue completely fizzled out, the Chairwoman dragged the body through several other sticky points, including one near and dear to NHF: "decreasing anti-nutrients in foods." The EU was keen to decrease so-called "anti-nutrients" in biofortified foods; but I pointed out to the delegates that the term had not even been defined, so I asked them exactly what were "anti-nutrients"? Answering my own question, I then said that if they included phytates, they were barking up the wrong tree as phytates had positive health effects and their reduction might actually be counter-productive. I then recited a long list of those benefits to the Committee.

Nepal, NHF & Malaysia delegates

EPA/DHA Omega-3 Fatty Acids

The Russian and Chilean delegations had led an electronic Working Group to establish an NRV (for non-communicable diseases) for EPA and DHA long-chain Omega-3 fatty acids and Russia presented its report at the meeting. The eWG had established an NRV of 250 mg/day as the consumption value that would reduce the risk of coronary heart disease mortality. Astoundingly, objections to an NRV for EPA/DHA (which are, after all, *essential* fatty acids, meaning that we do not make them and must consume them) were quick to erupt. New Zealand, Canada, and Brazil all claimed that no relationship had been proven and so no NRV was necessary here. Norway and China strongly disagreed and supported establishing an NRV, whereupon the United States jumped in with its anti-NRV position.

I then had a chance to speak and asked Canada and the United States how they could possibly hold an anti-NRV position here when Health Canada has an approved therapeutic claim and the U.S. FDA has had for 15 years an approved qualified health claim for exactly these same Omega-3 fatty acids. I suggested that if the Committee had a problem with the amount of EPA/DHA, then it could simply put the value of 250 mg in brackets, which would mean that we would consider that value at the next meeting.

Incensed at being taken to task by NHF, the U.S. delegate haughtily read from the actual FDA-approved qualified claim as if that proved her point that there was no conclusive proof that these substances helped reduce coronary disease mortality. All it did, though, was prove her ignorance of the history of the health claim in the United States, where the FDA had to be dragged, kicking and screaming and gouging eyes all along the way, into accepting a qualified health claim and even then only after inserting all sorts of weasel words into the claim.

The Canadian delegate was more sanguine and merely said that Canada was not certain whether the 250 mg/day value was the correct one. Later on, in fact, Canada would save this NRV from extinction.

The IADSA spokesman, Professor David Richardson, was absolutely brilliant in his defense of an NRV for EPA/DHA. He laid out the scientific case for EPA and DHA and their health benefits in a very measured and convincing fashion, asking the delegates the very sensible question: "Isn't this recommendation better than no recommendation at all?" The spokesman for the Council for Responsible Nutrition (CRN) agreed and quoted Voltaire when he said "Perfect is the enemy of good." Finally, the Global Organization for EPA and DHA Omega-3s (GOED) (yes, such an organization does exist) also supported an NRV for EPA/DHA.

Then, in a curious temper-tantrum that one doesn't often see at Codex, the WHO representative, Dr. Chizuru Nishida, suddenly erupted with a series of complaints, asking "Is our work not good enough? Should we no longer participate at Codex?" Dr. Nishida wanted the Committee to wait for a review by one of WHO/FAO's scientific bodies; and the capable Codex Secretariat, Tom Heilandt, quickly reassured her that Codex did indeed look to WHO and FAO as its primary sources of scientific advice. "We have a great program here," Dr. Nishida weakly implored. The FAO representative sympathized with her, while the Chairwoman looked around for a way out. It came to her. "There's no consensus," Dr. Noble said, "and some member states doubt whether evidence exists to support an NRV here." After much back and forth about which scientific body would review the evidence, I took the floor again to remind the Committee that WHO had already given its opinion on the evidence and that it was all right there for the Committee to see on the projected screen: three WHO and FAO consultation reports! I asked, "Do we really need yet another WHO report to confirm what it has already said three times?"

But the Chairwoman had had enough. "We will discontinue this work. We can take this up again when the evidence is there." Chile quickly leapt in to argue against discontinuing the work. Russia, Canada, and Senegal supported Chile, with Canada arguing NHF's point that the way forward was to simply place the 250 mg/day value in square brackets (signifying that it's still open for discussion) and continue working on it at next year's meeting. Convinced by these arguments and especially Canada's "brackets" suggestion, the Chairwoman agreed and said that the NRV would still be on the table for next year's meeting, but yet not without WHO's pitiful parting plea, "Our work should not be ignored next year!"

CCNFSDU Meeting Room

The Scorecard

Ernest Hemingway once wrote, "Never mistake motion for action." And, unfortunately, there is a lot of motion at Codex that is mistaken for action. Time and again, "scientific" values were arrived at not by deciding which of them was scientifically correct or even the best value but instead simply by reaching a compromise that *averaged* questionable values to reach a final decision. This approach is akin to "averaging" Ptolemaic, Newtonian, and Einsteinian physics in order to arrive at the "truth." The scientific world does not, or at least should not, work that way if it wants to accurately reflect reality.

Equally troubling was the strange lack of knowledge concerning recent advances in nutritional knowledge. That any supposedly well-informed delegates would even consider, for example, arguing for a 200-IU/day NRV for Vitamin D shows such an incredibly profound poverty of nutritional scholarship that it is stunning. Have they been in a cave for 20 years? Do they not read? *Where have they been all this time?*

Still, despite the widespread affection for "two-dimensional" science and nutrition at Codex, six years after the "Dusseldorf Miracle," I see numerous delegations arguing for higher nutritional standards, whereas six years ago NHF was virtually alone, supported only by India and Iraq. Now, the line forms to the left; and what I find is a resurgent South Africa refusing to back down from positions supporting *optimal* nutrition. The South African Codex delegation is, in my opinion, truly concerned about the health of its citizens, as are the Iranian, Malaysian, Bangladeshi, Indian, Nepalese, and many other country delegations.

Even our opposition was more muted and restrained. Australia, our key opponent for years in this Committee, was quieter and even helpful at times. Remember, they did not support including GM techniques in the Biofortification definition. Delegations are waking up to the idea of optimal nutrition even if they are not yet altogether there yet.

It is true that if anyone with a smidgeon of nutritional knowledge looks at the current NRVs for vitamins and minerals, they could smirk and call them a joke because they are still too low for optimal nutrition. Yet, considering where they might have been had NHF not succeeded six years ago, we are all far better off than had that alternative universe of possibilities taken us downward instead. The momentum has changed. No longer are delegations talking about reducing vitamin and mineral values; instead, the discussion looks upward and NHF has helped pave the way. That is progress. And hope for what the future portends. Better nutrition for the World? Dare we hope? Yes, most definitely; but act we must.

1. Not to be confused with Maximum Upper Permitted Limits, NRVs are nothing more than souped-up RDAs. These are numerical values assigned to specified nutrients that will supposedly cover 98% of the population's nutritional needs for that nutrient. By referring to the NRV for a vitamin or mineral, the consumer is supposed to know whether he or she is getting an adequate intake of that nutrient, even if the NRV is defined at an appallingly low and unhealthy level. These values are claimed to be set according to rigorous scientific evidence; but, in reality, "science" at Codex levels is often nothing more than a flimsy set of assumptions and erroneous conclusions cobbled together to justify keeping consumers "safe" from "dangerous" vitamins and minerals.

2. The proposed Codex NRVs were: Vitamin A (dropped from 800 mcg to 550 mcg); Vitamin D (5 mcg or 200 IUs); Vitamin E (8.8 mg); Vitamin K (60 mcg); Vitamin C (dropped from 60 mg to 45 mg); Thiamin (dropped from 1.4 to 1.2 mg); Riboflavin (dropped from 1.6 mg to 1.2 mg); Niacin (dropped from 18 mg to 15 mg); Vitamin B6 (dropped from 2 mg to 1.3 mg); Folate (*raised* to 400 mcg); Vitamin B12 (2.4 mcg); Pantothenate (5 mg); biotin (30 mcg); Calcium (*raised* from 800 mg to 1,000 mg); Magnesium (dropped from 300 mg to 240 mg); Iodine (150 mcg); Iron (14.3-43.1 mg depending upon bioavailability); Zinc (dropped from 15 mg to 3.6–11.9, depending upon bioavailability); Selenium (30 mcg); Phosphorus (700 mg); Chloride (2.3 grams); Copper (900 mcg); Fluoride (3.5 mg); Manganese (2.1 mg); Chromium (30 mcg); and Molybdenum (45 mcg).

3. The final group of vitamins and minerals to be considered at the 2015 meeting were: Vitamins A, D, E, Magnesium, Phosphorus, Chromium, Copper, Chloride, and Iron.

4. *See* NHF's submitted comments on Agenda Item 4 (Nutrient Reference Values), issued by CCNFSDU as Conference Room Document (CRD) 14 and found online at http://www.thenhf.com/pdf/NHF-on-NRVs_Agenda4.pdf.

5. *See Pearson v. Shalala*, 164 F.3d 650 (D.C. Cir. 1999), *rehearing den.*, 172 F.3d 72 (D.C. Cir. 1999). Also, contrary to the U.S. delegate's statement, the FDA's own Commissioner has supported this claim: "Coronary heart disease is one of the top killers of Americans today," said Lester M. Crawford, acting FDA commissioner. "It causes approximately 500,000 deaths annually in the United States. The new qualified health claim for omega-3 fatty acids will empower consumers with more information to help combat this disease and improve their health by identifying foods that contain these important compounds. This is also an important step for FDA's Better Nutrition Initiative announced in December 2002." *See* "FDA Announces Qualified Health Claim for Omega-3 Fatty Acids," *Natural Products Insider*, Sept 8, 2004, at http://www.naturalproductsinsider.com/news/2004/09/fda-announces-qualified-health-claim-for-omega-3-f.aspx.

6. Perhaps my 2014 expose' article about the Australian Codex Office had had its intended effect. *See* https://thenhf.com/codex/our-work-at-codex/codex-library/the-great-australian-health-mystery/