THE DGAC Report is Out: What's Next?
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The DGAC report is out and as I write this, still open for public comment. I'm not the first to observe that it is controversial. The point of this piece, however, is not to critique the report, (there are many others who are speaking to that issue), but rather to look forward and pose the question, what's next? I'd like to offer two concrete ideas: (1) identify, advocate for, fund and implement research to fill the knowledge gaps identified by the committee, especially knowledge needed to create better food policy and dietary guidelines for the future; and (2) create coalitions.

## Address the Research Gaps

Simply put, the research gaps and recommendations identified in the 2010 and 2015 DGAC reports should drive future research funding. Research goes where the money is, and sadly, food and dietary pattern research is not in vogue. So, gaps in our knowledge base occur because of a lack of evidence. Of course, gaps in the report may also occur because certain questions are not asked of the literature. We have to be careful to discern which.

That said, there is a clear lack of strong evidence across the board in terms of food and nutrition behavior, interventions and environmental settings. Beyond dietary patterns, how do people access, prepare, use and store the foods they serve and eat? There is also a lack of evidence about minority groups in all respects—behavior, dietary intake, dietary patterns and preferences, physical activity, etc. Add to that, there is a lack of evidence about different aged individuals, especially adolescents and older adults, particularly in terms of impact on weight status. In our graying society, the lack of data also begs the question, what is worth changing in the diets of adults aged 60, 70, and 80 yrs old?

To turn the focus more specifically to food (which both the 2010 and 2015 reports did), there is a lack of evidence (or at least recent evidence) about dietary quality and dietary patterns, including the quantities, kind, proportion, variety and combinations of different foods and beverages in the diet. The roles of different macronutrient combinations and changes in our food supply have also been neglected. For example, most of the research done on vegetarian diets was conducted 30-40 years ago. The food choices and options for vegetarians in the U.S. have changed almost in their entirety. Thus, we cannot presume the literature is relevant to the impact of this dietary pattern on weight status, nutrient intake, health risk or any other health outcome. Given the public need for sound information, it is also important to examine the impact of certain other popular diets or dietary patterns, including low carbohydrate diets.

Perhaps the single biggest unresolved need for further research is for better data collection methods, harmonized across studies to allow for valid comparisons. This need

includes, but is not limited to, biomarkers. The assumptions used in food modeling also need to be examined, but more importantly, these models need to be tested prospectively. Do they work as predicted? It is also possible to "back engineer" food patterns from existent data sets (NHANES) to document how a vegetarian of Southeastern Asia culture eats vs a vegetarian from Boston. Regardless of the model or research design, however, it is critical to disentangle the definition or meanings of certain terms (e.g., red meat, fiber, even vegetables!) without which we cannot make sound comparisons across studies. The conflation of some concepts, e.g. caffeine and coffee recommendations, is also troubling. At present, much of the evidence cited in the 2015 report is unacceptably muddy due to confusion in the literature—through no fault of the committee!

Unsurprisingly, there is a lack of evidence about the role of individual differences and epigenetics; consider the 4P's of personalized health: predictive, personalized, preventive and participatory. I suggest the 4P's be used to organize ideas and review next time around.

## **Build Coalitions**

We need more collaboration across federal agencies, especially for research sponsored by USDA and DHHS. Nutrition has never been given a proper place in the system nor due respect. Further, we should consider a broader set of stakeholders in our education and public service implementation and intervention efforts. Some categories to consider include:

- Allied health professionals (physicians, nurses, dentists, public health advocates)
- Food and nutrition scientists (nutrition biochemists, food scientists, community nutritionists, clinical dietitians)
- Food producers and manufacturers (farmers, processors, distributors, and retailers)
- Related businesses (both small and large, ranging from local farmers' markets to representatives from the global food chain)
- Related expertise (food economists, sociologists, epidemiologists, food policy wonks)
- Consumers of different ages, cultures, ethnicities, life stage, geography and socioeconomic levels

Most especially coalitions need to include representatives from our public schools, not only teachers, but curriculum specialists and school leadership. Nutrition simply is not in our school curricula—it is not in the Common Core, it is not on the high stakes tests, it is not required by state law, and with the precipitous decline of Family and Consumer Science (or Home Economics) in schools, it is not being taught. Even in the best of circumstances, a school lunch cannot be expected to function as the primary or best vehicle for teaching good nutrition or sound dietary habits.

A caveat: Dogmas inevitably interfere with coalition building (because proponents feel as if they have a duty to lead everyone to share the same belief or priority). Dogmas are dangerous because they interfere with raising and pursuing important, alternative

questions and they are problematic when they vilify certain foods. The power of dogma is even worse when that belief does not hold up to evidence. Consider what has happened with the notion that dietary cholesterol is a primary determinant of circulating cholesterol. Are we in a similar situation with a dogma about red meat or low fat diets? Dogmas and their rise and demise break public trust in our advice about food and nutrition and about the public's trust in science more generally.

On an even larger stage, we need to determine our philosophical base for dietary guidelines, i.e., whether the guidelines should present the ideal diet or a pragmatic, practical approach. Are they a feasible set of best practices to improve the American diet, or the best possible diet? Are they for healthy Americans or all Americans? This is important point to consider when one-third of adults have chronic disease and two-thirds are overwt or obese. The guideline philosophy will impact the success of coalitions and adherence in the future, too.

There are three other issues we need to be careful of in our coalition building and efforts. As we try to bring the DGAC report to meld with policy, we must also avoid:

- Unintended consequences,
- Contradictory advice and conclusions, and
- Inconsistent advice.

The 2015 report is littered with all three. For example, if Americans actually ate all whole grains and ditched all added salt, they might risk creating nutrient deficiencies that were largely eliminated with enriched white flour and iodized salt. Moreover, if aspartame is declared safe, then why does the report indicate that we should not drink artificially sweetened soda? In addition, if the preferred drink is water with a concomitant emphasis on sustainability, why is there no mention of the problems plastic water bottles present to waste and landfill operations?

These challenges aside, what will make coalitions happen? There is no need to wait until the final Dietary Guidelines for Americans is released. I offer the following suggestions:

- First, we need to recognize the urgency. Where there is a will, there is a way.
- Second, we need collaborative funding; federal agencies need to work together, in terms of research funding and in programming, education and various interventions. The research gaps identified in the DGAC reports should drive this funding.
- Third, public and private sectors need to work together.
- Fourth, remember (always!) to question. The science is not settled and science is not perfect. We need to make allowances; avoid dogmas; and stay with the evidence.
- Fifth, recognize there is more than one way to skin a cat. Different dietary patterns will work more or less for different groups and for different individuals within the group.

Finally, it is worth reiterating that the Dietary Guidelines for Americans are supposed to be for the entire U.S population. As policy, the Guidelines are impact almost every

American whether or not they know it. We understand they are difficult to translate to the individual level and it will take a major effort. We don't have to wait.

This work can begin now.

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