

## Commentary

# SHIFTING MINDSETS: Views of seasoned experts on changes most needed now in global nutrition work

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In preparation for a talk Alan Berg was asked to give at an American Society for Nutrition meeting honoring him, celebrating his 90th birthday, and the 50th anniversary of the publication of his book *The Nutrition Factor*, he asked 11 “nutrition engineers” (experts in public health nutrition, specializing in low-income settings) 3 questions. These are their responses.

As World Food Prize Laureate Lawrence Haddad points out in [A Full Bowl: the Alan Berg Story](#), “We often say that nutrition is both a marker of development, a way of tracking development, but also a maker of development. Alan Berg’s work was the first to recognize that. Hundreds of millions of lives have been improved because of his efforts.” In our own recent [Tribute to Alan Berg](#) as “one of the true giants in our field... [whose] pivotal role regularly ‘took malnutrition out of the laboratory, the medical library and academia and into the real world,’” we noted its serendipitous timing—Alan’s 90<sup>th</sup> birthday coincided with the 50th anniversary of the publication of his monumental Brookings book, *The Nutrition Factor: Its Role in National Development*.

Perhaps prompted by this, the American Society for Nutrition carved out a [special event](#) at its recent NUTRITION 2023, “to Honor the Lifetime Achievements of Alan Berg and the 50th Anniversary of The Nutrition Factor.” There, this pioneer in nutrition policy was lauded for his visionary work as “a prophet” (“Everything he said in 1973 has come to pass.”), for achieving a “revolution” in how malnutrition is perceived, and for his “blueprint” for how it can be addressed in the context of national development. A recording of that event can be viewed on the Society’s [learning platform](#).

The reason World Nutrition revisits the subject now is because, before giving the Boston talk, Alan had been asked if he now were to write a sequel of *The Nutrition Factor*, what the messages would be today. And, in giving thought to that hypothetical request, Alan sought the views of a dozen younger-than-he “nutrition engineer” friends by posing three Bergeque questions: (1) *If you were the all-powerful Queen or King of Nutrition and could push a button for one thing to happen that would have the greatest positive impact on nutrition, what button would you push?* (2) *What is the best-proven nutrition intervention that we already know*

*works, but has not come anywhere near fulfilling its potential? And (3) what is the major constraint today to our seeing more nutrition interventions on a consequential scale? And how to overcome it?*

The answers, he hoped, would provide punchlines for his Boston address. In short, if there were to be a sequel to *The Nutrition Factor*, what would be the marching orders in the final chapter of that imaginary *Nutrition Factor Revisited*?

The “diversified recommendations resulting from his survey,” Berg said, “underline what a multifaceted subject we are dealing with, and the related need for comprehensive, interrelated approaches to address nutrition challenges effectively.” One theme that comes through in many of them—explicitly or implicitly—is the unmet need for a strong political focal point and sustained leadership—and why that is more important for nutrition than other sectors because of its marginal and often fractured status in how most government ministries are organized and budgeted. These replies to his questions that he received confirm that, until now, we haven’t been effective enough in our advocacy. Also, all those working in nutrition and concerned about the consequentiality of their work should, whenever possible, take on that added ‘advocacy’ dimension as part of their role.

Alan considered the insightful responses “as gifts.” And, as time on ASN’s July program didn’t permit discussion of the varied conclusions/proposals, he arranged to “re-gift them” to others who would be interested. This, by having the responses published—for the first time, below, for our readership.

For readers who were too young to be professionally around at the time: Although *The Nutrition Factor*, because of its 50th anniversary, has been the focus of attention of late, those interested in the evolution of Alan’s thinking about nutrition policy and program implementation will

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find added value in his still-relevant “Malnourished People: a policy view” ([World Bank/1981](#)) and, based on his operations work, “Malnutrition, What Can Be Done?” (You get an abstract if you look up that title on Google Scholar.) Similarly, Alan’s old always-stimulating writings can be pulled up in major publications like *Foreign Affairs*, *Harvard Business Review*, and *the New York Times Magazine*, as well as his often-unusual pieces in professional journals that still are being talked about. For instance, several references were made from the floor at NUTRITION 2023 to his provocative “Sliding Toward Nutrition Malpractice: Time to reconsider and redeploy”; published 30 years ago (and available [here](#)). That paper took on, not in particularly polite terms, the academic establishment for not equipping students for needed analytic and policy/programmatic nutrition work he deemed essential—educating along the lines he successfully initiated at MIT. As I wrote in my earlier editorial, he “launched national institutions and university programs to train the next generation of nutrition ‘doers’ who would create policies and programs to prevent malnutrition in many different countries and sectors.”

Now a word about how the document below was produced. First, the authors WERE given an opportunity to revise their responses up until it went to press (September 30, 2023). Second, in his initial request for responses, Alan asked the authors not to discuss his questions with others before responding. Nor have the authors been allowed (by him or me at least) to see anyone else’s responses.

I’m afraid that I was the least disciplined of Alan’s respondents. He explicitly asked us to provide him with brief responses. But mine were long. I was relieved when he wrote that he found them to be “strong” anyway. I already published them [here](#) in the previous issue of World Nutrition, but to allow this document alone to be used as an easy way to compare and contrast responses, here I will summarize my three responses below.

Finally, the following issues of World Nutrition will provide an opportunity for our readers to weigh in with their own responses [here](#) to his questions or views about the conclusions and proposals presented below.

**— IF YOU WERE THE ALL-POWERFUL QUEEN OR KING OF NUTRITION AND COULD PUSH A BUTTON FOR ONE THING TO HAPPEN THAT WOULD HAVE THE GREATEST POSITIVE IMPACT ON NUTRITION, WHAT BUTTON WOULD YOU PUSH?**

LAWRENCE HADDAD, EXECUTIVE DIRECTOR (HE/HIM), GLOBAL ALLIANCE FOR IMPROVED NUTRITION (GAIN)

I would brainwash national leaders around the world to internalise “the insidious drain of malnutrition on national development” written 56 years ago by a certain A. Berg. Only through such a mindset shift will the political resolve, finance and accountability be mustered to tackle the hydra-headed beast that is malnutrition. Heads of state would worry about the growth of their children as much as the growth of their economies; indeed, they will see the first

driving the other and determining the trajectory of lives and livelihoods for decades to come.

SHAWN BAKER, CHIEF PROGRAM OFFICER, HELEN KELLER INTERNATIONAL

Position nutrition as a marker and maker of quality health care – i.e., get the health sector to take life-saving nutrition interventions seriously. One of the signature messages of the 2021 Lancet nutrition series is “...low coverage of nutrition interventions relative to the reach of their related health services suggests that closing this opportunity gap is a first step for accelerating progress.” The image below illustrates the continuum of five life-saving nutrition actions that I believe we need to enable the health system to deliver (and hold the health sector accountable for them).

HAROLD ALDERMAN, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (IFPRI)

Even if I assume that the All-Powerful King of Nutrition is stronger than, say, Putin, I will assume the s/he has to respect context. Thus, I’ll venture the provision of small quantity lipid-based nutrient supplements along with targeted cash transfers. The ‘targeting’ is aligned with regular observation of where the supplements work best in food insecure settings (see, for example: Keats, E.C., Das, J.K., Salam, R.A., Lassi, Z.S., Imdad, A., Black, R.E. and Bhutta, Z.A., 2021. Effective interventions to address maternal and child malnutrition: an update of the evidence. *The Lancet Child & Adolescent Health*, 5(5), pp.367-384.). It also is consistent with the set of meta-analyses of SQ\_LNS (See the third paper of a set of reviews in AJCN: Prado et al. Prado, Elizabeth L., Charles D. Arnold, K. Ryan Wessells, Christine P. Stewart, Souheila Abbeddou, Seth Adu-Afarwuah, Benjamin F. Arnold et al. “Small-quantity lipid-based nutrient supplements for children age 6–24 months: a systematic review and individual participant data meta-analysis of effects on developmental outcomes and effect modifiers.” *The American journal of clinical nutrition* 114, no. Supplement\_1 (2021): 43S-67S.).

I say context matters because what works for undernutrition, which, of course, was what one worried about in 1973, does not address double burden issues. While low birth weight is actually a risk factor for subsequent obesity and NCDs, much of the double burden is about transitions away from food insecurity. There is evidence that taxation and regulation of ultra-processed foods chips away at unhealthy diets but there is no simple solution (or decree) that I can recognize. Subsidies for healthy foods, as is often mooted, strikes me as a bad idea; cost may be the issue for poor consumers, but they will receive a tiny share of overall subsidies.

PAUL ISENMAN, CONSULTANT ON HUMAN DEVELOPMENT, FORMER MANAGER AT THE WORLD BANK AND OECD

What is needed is not a single button but a renewal in spirit, 50 years later, of what Alan Berg did in writing and dis-

seminating “The Nutrition Factor” and what he then did while at the World Bank to help countries and their external partners operationalize that vision. That means mobilizing evidence-based advocacy that catalyzes needed political and financial support as well as sound institutional development and that leads to implementation of scaled up nutrition programs that significantly improve nutrition outcomes. There has been great progress since then, as shown by reductions over time in undernutrition globally and in most countries – although there has been a recent and challenging reversal largely attributed to severe problems of climate change, conflict and COVID. Today, we know a lot more than 50 years ago about what works and where. And thanks in large part to accomplishments of nutrition researchers, nutrition is widely-recognized, even among skeptical economists, as a key, highly cost-effective input into children’s physical and mental development – and hence to human capital, poverty reduction and growth. But progress in nutrition is far from adequate. Undernutrition, both chronic and transitory, remains a serious problem in many lower middle income as well as low income countries. And the increasing level of childhood and adult obesity, the gateway to diabetes and other serious health issues, adds to the urgency of addressing nutrition’s ‘double burden’. Unlike 50 years ago, what is needed now would come not just from one or a small group of founder-catalysts but from an acceleration of progress by a broad-based coalition going well beyond the nutrition community per se. And there is a real need today for a sharper focus on nutrition outcomes, not just on coordination and other intermediate objectives or even on the size of programs or of their financing.

JIM LEVINSON, DIRECTOR, INTERNATIONAL FOOD AND NUTRITION CENTER, TUFTS UNIVERSITY (RETIRED)

The remarkable reductions in malnutrition in recent decades have been reversed in recent years by climate change (along with COVID and conflict.) Let’s turn that around with large financial transfers to countries most affected by climate disasters (funds generated through a levy on fossil fuel production or an international carbon border tax) with the understanding that these funds will be used to address the newly emerging determinants of maternal and child malnutrition and mortality.

BARRY POPKIN, PROFESSOR, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

First, I would create a subsidy program to allow low-income households money to be used only for truly healthy food – and then put a serious tax on ultra-processed food with half of the funds going to support these subsidies. I strongly believe when there is increased demand for fruits, vegetables, legumes and other truly healthy food, the supply will be there as we show in case studies from six African and 2 Asian countries in a forthcoming paper.

MARIE RUEL, DIRECTOR, POVERTY, HEALTH AND NUTRITION AT INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE (IFPRI)

Improving maternal nutrition (ideally starting with adolescent girls) and continuing with life stages including pregnancy, lactation, and next pregnancy. And if we had only one intervention, I would promote maternal multiple micronutrient supplementation (see Bourassa, Megan W., Saskia JM Osendarp, Seth Adu-Afarwuah, Saima Ahmed, Clayton Ajello, Gilles Bergeron, Robert Black et al. “Review of the evidence regarding the use of antenatal multiple micronutrient supplementation in low-and middle-income countries.” *Annals of the New York Academy of Sciences* 1444, no. 1 (2019): 6-21, summarized [here](#).)

RICHARD SKOLNIK, FORMER DIRECTOR FOR HEALTH, NUTRITION, AND POPULATION FOR SOUTH ASIA AT THE WORLD BANK

I would encourage any country that faces significant nutrition issues to have an “all in government nutrition commission in the president’s office.” This office would pull together the range of actors and actions needed to enhance nutrition.

DENISH MOORTHY, MICRONUTRIENT CONSULTANT TO USAID AND OTHER ORGANIZATIONS

Increased certainty regarding the causes of malnutrition. We are still, after 60 years, stuck in the quagmire when trying to decipher the degree to which the various known causes—dietary inadequacy, infection and disease, genetics, poverty/food access and affordability, etc. cause malnutrition (both hunger and micronutrient malnutrition). If I had a button that let me know with certainty what causes what and to what degree, I would act with more intensity on the important issues and not, as we do today, act superficially on *all* causes. We end up spending a lot of resources on not doing much because we are not tackling the most important causes and the impact is diluted by the spending on the non-contributory causes.

MARCIA GRIFFITHS, EXECUTIVE DIRECTOR, THE MANOFF GROUP, INC.

It is difficult to name just one, and so I will take the prerogative of all-powerful Queen of Nutrition to name two that must be pressed simultaneously. The first is the recognition across the nutrition community that behavior / behavior change is the bedrock of everything that we want to accomplish. As a community we need to recognize that for more pro-nutrition action to take place, a variety of people need to do something differently than they are doing it today. And therefore, every program, every initiative must bring to bear the full force of what we know about how to influence peoples’ behavior. To date, we have been too reliant on finding a technological fix, forgetting that the “solution,” whether a food, implement or scheme must be

tried, used appropriately, and continued if it will support nutrition well-being.

With the push of this button all nutrition policy and program managers would don behavior lenses to 1) always consider the factors in a given situation that are influencing the nutrition behaviors affecting the nutrition outcomes of critical populations—the most vulnerable; those at risk for chronic disease; those in nutritionally stressful periods of life such as pregnancy and the first 2 years of life; 2) put in place actions specifically designed to address the structural, social and individual factors motivating and inhibiting change among defined population segments; 3) realize that everything we do affects behavior—a tax, a subsidy, the hours a clinic is open, the care expressed by a health worker or market vendor; the ease with which someone can obtain a commodity; the support and acceptance someone gets from a particular practice—changing behavior is not about education or information provision only; 4) monitor change with the intended populations to ensure the action is having the intended behavioral outcome. And note, if behavior is not affected, nutritional outcomes should not be expected to change.

The second button would enable nutrition policy and program managers to engage deeply with people in their area of work, starting with those most affected by poor nutritional conditions. Each manager would spend time in communities and households observing, talking with and remembering or imagining a change of place with the individual or family. They would think about the things important in their everyday lives: convenience, kindness, support, and relate these basic needs to reducing the burden of the challenges confronted everyday by the people in front of them. This is not to say that these managers are not focused on people, but it is easy to lose perspective on basic elements that will make a difference for these individuals/families and focus instead on more refined products, technologies or information that unfortunately too often do not meet their needs. The button would allow for keener listening and watching and inquiry beyond one's own interest.

TED GREINER, EDITOR, WORLD NUTRITION

I presented a [report to the SCN](#) in 1989 on the efforts of the Swedish International Development Cooperation Agency (Sida) to build institutional nutrition capacity in four African countries. Without access to both local “nutrition engineers” (a term coined by Berg in 1993, referring to those dedicated to and knowledgeable about how to make impacts on public health nutrition) and local government resources, the kind of broad and long-term work needed to really solve public health nutrition problems cannot be mobilized and countries are stuck mainly with the kind of externally guided and financed “pilot projects” that most bilateral and other donors often make believe provide the needed solutions. (This, and the two below, are summaries of my responses. My full response was published in our previous issue [here](#).)

— *WHAT IS THE BEST-PROVEN NUTRITION INTERVENTION THAT WE ALREADY KNOW WORKS, BUT HAS NOT COME ANYWHERE NEAR FULFILLING ITS POTENTIAL?*

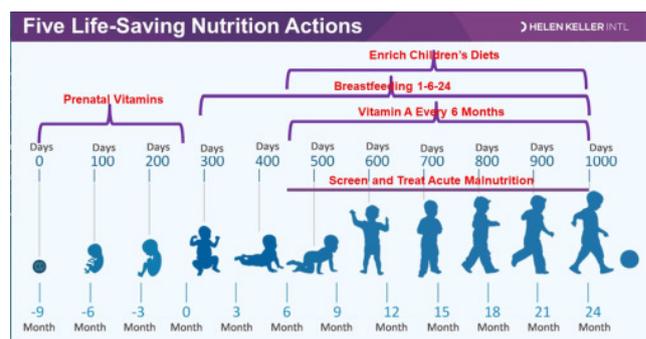
LAWRENCE HADDAD

In the short run, large scale food fortification. It may sound self-serving given that 20% of GAIN's portfolio is in this area, but how else can we get micronutrients to the 3 billion people who cannot afford healthy diets? The benefit-cost ratios are off the charts at >40:1. And there are more countries without legislation to fortify staples than with it.

Running alongside that, make vegetables cheaper, safer and more delicious. Investment in vegetables is a true no regret action, with increased consumption combatting malnutrition in all its forms: undernutrition, obesity, diabetes etc. But vegetables secure hardly any R&D investment from the public sector, are considered unsafe due to the need to wash them in unclean water to remove fertilizer and herbicides, and local vegetables are often framed as “goat food” – the public sector health campaigns for them are unable to spark emotion.

SHAWN BAKER

Building on the point above (and the illustration below – I would prefer to say the continuum of the five best-proven, but if I had to choose among these five, I would still cheat a bit and go with breastfeeding and early detection and treatment of acute malnutrition. (Vitamin A does not get on the list because it is one of the few that has gone to quite considerable scale.) An important point to stress is moving from fragmented delivery of these five interventions to ensuring this continuum at high coverage and quality.



HAROLD ALDERMAN

I think that a defining attribute of any program deserving of being called “best” or “proven” is that it has, indeed, lived up to its potential. However, I would include nutrition sensitive social protection among the set of interventions that have not delivered what their proponents envisioned. Meta-analyses of transfer programs have found favorable but small overall impacts on stunting. I believe this reflects the fact that only a subset of transfer programs include

well-implemented design features aimed at enhancing nutritional impact. The smaller than anticipated impact also reflects the fact that the gap between the resources of the poor and what is needed to be able to afford a healthy diet is wider than indicated by conventional poverty lines. Hence, many transfers programs that are able to reduce poverty, as commonly measured, are not adequate to enable the recipients to afford a diverse diet.

PAUL ISENMAN

We have learned that there is no single “magic bullet” nutrition intervention to improve nutritional status or even one that stands head and shoulders above others. One category of interventions that has been proven effective yet is grossly underutilized, though, is government regulation and taxation. That applies to both aspects of the “double burden”, particularly to prevention of obesity. The record is clear from research on tobacco and alcohol, as well as to some extent from sugary sweetened beverages, that specific “excise” taxes on products posing severe nutrition and health risks are highly effective in reducing consumption. The same applies to regulation, where there is ample precedent for limiting or banning substances harmful to health in foods and, for example, for banning smoking in public areas. What is needed is to broaden and deepen the reach of taxation and regulation. For example, countries with high levels of iron deficiency could pick up on what Alan Berg, Venkatesh Mannar and others have been urging for decades – ‘double fortification’ of salt with iron as well as iodine. Countries with high levels of iron deficiency could, after an introductory period of subsidization, prohibit commercial sales of salt that is not double fortified. Or they could at least impose high taxes on those that are not double-fortified. Similarly, if there are well-justified and effective taxes on sugary sweetened beverages, why not on highly sugary snack foods, on which manufacturers devote substantial efforts to maximize their semi-addictive appeal, as well? And, more boldly, why not an across-the-board tax on sugar, which would be more effective and administratively, if not politically, easier to implement?

Research has shown that the apparent anti-poor (regressive) effect of such taxes is bogus once one takes account of the skewing of health benefits in favor of the poor (who have more elastic demand). But it emphasizes the political as well as moral desirability of using the proceeds of such health taxes for pro-poor programs. Taxation and regulation should, however, be done on a limited scale, where their feasibility and the underlying science are clear; it is important not go from excessive reliance on market forces to micro-management of individual consumption choices by government. But advocates of expanded use of taxes and regulation should not shy away from bold recommendations for needed policy changes, such as sugar taxes, even if it would take some years to build the necessary political support to turn them into reality. In the meanwhile, spreading and deepening more immediately feasible taxation and regulation can accomplish a good deal while strengthening the argument and political support for wider-reaching action.

JIM LEVINSON

We need to give far more attention to the social and cultural practices that influence the nutrition status of children and pregnant and lactating women, meaning a greater focus on women empowerment, on adolescent girls, on strong community-based implementation and on efforts to discourage early marriage and childbearing. (Double fortified salt comes in second)

BARRY POPKIN

- Taxation of not only sugar-sweetened beverages but also ultra-processed food most likely using the high in added sugar, added sodium, added saturated fat (HSSF) measures plus the 12 additive classes from Codex that NOVA notes.
- Others: impactful-warning labels on food with HSSF criteria with cutoffs based on PAHO or other WHO regional office cutoffs and then build demand for ultra-processed food and then add designation of ultra-processed food not covered by the HSSF cutoffs; marketing bans from 6am to midnight based on the same no warning label (and build warning messages on those foods between midnight and 6am); and school procurement of truly healthy minimally processed/real food. Include a serious social marketing ban on influencers and all social media advertisements.

MARIE RUEL

- Same as my response to the first question, above
- But also large-scale fortification of staples

RICHARD SKOLNIK

Others will be much more up to date than me on what works but has not been taken to scale. However, my sense is that the biggest gaps, in this respect, may be on the side of obesity and overweight. There have been almost no successes at scale at reducing rates of overweight and obesity, despite a known package of interventions that could do so.

DENISH MOORTHY

Fortification comes to mind at once. We have used fortification as a hammer all these years, because the hidden hunger was so widespread that everything that looked like a nail (potential deficiency) turned out to be a nail (true deficiency). However, we have made great strides in getting micronutrients delivered to the population, and we now stand at a crossroads - do we continue to hammer the nail (which is not a nail anymore, as hidden hunger is not as widespread as before *and* we have other micronutrient delivery tools at our disposal) or do we use fortification like a surgeon uses a scalpel. Thus, for fortification to fulfill its potential, it's time to move from everyone gets everything to - figuring out who needs what and use fortified foods to get the necessary micronutrients to them. This would necessi-

tate changes in regulations and program implementation, but it can be done even at the population level. It's like precision medicine but called precision population health.

Nevertheless, I am not convinced that nutrition interventions alone will do the job anymore. In this web of program actions, nutritional interventions sit to the side, and don't attract as many flies as the flashy infectious disease programs (not for want of effort from the nutrition folks, they do beat the drum quite loudly!).

MARCIA GRIFFITHS

“Best-proven”: there are many of these interventions because we continue to focus on proving the efficacy of the action rather than the effectiveness in a program setting and how that effectiveness changes or needs to be supported in different ecosystems, thus enabling scaling that reaches the most vulnerable. Given my answer to the first question, one might expect that I would say SBC (social and behavior change) but SBC is an outcome that usually needs a strategic mix of interventions to be realized. I would prefer to look at the intervention mix, rather than any one intervention. However, I believe we too often ignore the power of policy/legislation/codes. Although they are difficult to enact, especially for people working at the sub-national level, they can set the stage for important change.

If I were to pick an area where I believe we continue to stumble with our “interventions,” it is young child feeding, particularly, complementary feeding. Complementary feeding is proven to have significant and life-long impact when the interventions required for a defined population converge. We know what needs to happen in that period, yet in most parts of the world, the mix of interventions aligned for the context is seldom brought together to make an at-scale difference in poor complementary feeding. The complementary feeding solution is not a one-size-fits-all intervention. Programs and services need flexibility and resources from leadership – nutrition leaders – to be able to work with and understand families and tackle complex needs at the local level rather than looking for the silver bullet. Program evaluations often lament the absence of interventions from food access to quality services to gender norm change when explaining why complementary feeding programming has not produced expected results. Perhaps, more attention needs to be given to the convergence of interventions rather than any one alone.

TED GREINER

Even in the most “nutrition engineering”-oriented advanced education in public health nutrition, I doubt that cooking and gardening are included. (I would be delighted if any reader can share examples to the contrary!) There used to be an excuse for this, because we did not realize how important they would become. Now that we know that the best way to identify the harmful foods that are causing the global obesity and NCD epidemics are their degree of processing, that is no longer true. While taxation and regulating the advertising and promotion of junk foods are important, in low-income settings, to my mind, empow-

ering people and communities to produce healthy, whole foods and to prepare them (community gardens and community kitchens especially need to be tested and implemented more widely) are the best ways out of this commercially-created disaster.

— *WHAT IS THE MAJOR CONSTRAINT TODAY TO OUR SEEING MORE NUTRITION INTERVENTIONS ON A CONSEQUENTIAL SCALE? AND HOW TO OVERCOME IT?*

LAWRENCE HADDAD

In addition to our inability to brainwash heads of state (see above), I think the nutrition community has lacked the imagination or boldness to “get nutrition in” at every opportunity. For example, social protection spending exploded during COVID, but very little of that expansion was designed to reduce malnutrition by adding social and behavior change communication to income transfers. Another example: climate finance dwarfs nutrition finance, and yet climate action would be accelerated by paying more attention to, say, reducing food loss of nutritious foods, and making healthier diets more affordable. This is good for climate action and nutrition action and yet the nutrition community remains curiously uncurious about identifying, partnering and exploiting these synergies.

SHAWN BAKER

It sadly remains adequate funding. While there has been incremental progress, it is still, to my mind, the most egregiously neglected sector as compared to potential for impact. I think that, unfortunately, an unintended negative consequence of multi-sectoral nutrition is that too many plans have become kitchen sink approaches with no sense of prioritization. We need more rigorous prioritization, and definition of the costs to scale, and then the returns that will result.

PAUL ISENMAN

Nutrition continues to suffer from well-known issues such as being a between-ministries orphan and having devastating effects that most often show up only over the medium to long term and so are insufficiently recognized. What continues to be needed, as 50 years ago, is mobilization of evidence, advocacy, and political support for feasible, cost-effective programs and for the institutional and financial capacity needed to sustain them. The mix of policies, scientific advances, programs, and specific interventions would lead to the best feasible and sustainable nutrition outcomes will vary by country. Crucial for every country, however, as for external partners, is mobilization of strong political support. This means going well beyond the nutrition community to finance ministers, top political leadership, and key civil society actors and opinion makers. The most striking example of the need for broader outreach to generate complementarity and mutual support is the importance for nutrition of the increasingly negative impact of

climate change on agricultural production in most developing countries. To end at the beginning, once again what is needed is a renewal of the inspiration provided by the foundational work of Alan Berg – but applied to acceleration of progress already being made by the global nutrition community and others who understand the profound importance of nutrition in the development process.

JIM LEVINSON

The absence of strong community-based involvement and implementation. We need to be giving far more attention to assuring the sustainability of often time-limited interventions, usually meaning increased local ownership.

BARRY POPKIN

Industry interference, by far. Expose, get the public involved in a major campaign.

MARIE RUEL

- High level commitment, funding, and financing
- Implementation barriers

RICHARD SKOLNIK

However trite, the main constraint to successfully addressing critical nutrition issues is a lack of social and political will. Rather, too many in the world are willing to accept the world as undernourished, overweight, and obese as it is. Nutrition needs a movement like HIV and childhood vaccines have had. Short of this, efforts to address nutrition will largely be one country at a time.

DENISH MOORTHY

Nutrition as a sector/concept is intricately related to health, agriculture, poverty, and social protection sectors, and also to the food industry (whether we like it or not). We, the nutrition world, keep talking about making connections with other sectors but we make no inroads. We don't speak their language, and they don't speak our language. The motivations of all these sectors are misaligned because their funding priorities are determined in silos. As a result, we pay the price because our words indicate one thing (commitment to ending hunger and malnutrition) and our actions reveal the opposite (our budgets do not give us a mandate to do what we said we would do).

MARCIA GRIFFITHS

The major constraint is skilled marketing with honest accountability for outcomes. True, money and political will are fundamental, but we bring these to the cause through strategic, honest marketing efforts. This means not only a stream of "success stories" or evidence reviews. Those are

important inputs, but not the whole picture. It takes a concerted, system-wide, strategic, and in important moments, personal effort to provide the right motivation, at the right time to the right person or constituency for pro-nutrition decision making. Making nutrition a factor in development programming has been a 50-year undertaking. The journey has provided lessons, but many go unrecognized or are not given their proper importance because they are difficult to replicate, tied too much to individuals' passion, dedication, and innate skills and not enough to easily teachable skills. Good marketing falls into this category; however, there are some aspects of marketing we can all pick up and nutrition's positioning in development might be the better for it.

I take a few lessons from Alan Berg's career shepherding the ideas he laid out in *The Nutrition Factor* to great effect in the development community. The first, never lose sight that the effort is about people; get to know them, engage with them and importantly, genuinely listen to what they say. A good marketer will not ignore the human element and in fact will seek it out. Second, stay on strategy, looking for the win for nutrition even if the winds blow in a different direction. Find the opening, the one policy or program idea and support the colleagues who continue "on strategy" even when it might be unpopular. Third, support and share proof that the concept works, that there is change. Fourth, keep the work growing and relevant. This means getting commitments from people to try new policies and practices. (Commitment and trial are important steps in the change process). To do this well, the marketer must know the issues at hand, inside and out, to find the pain points and the opportunities for growth. Plus, above all, know how to appeal to people (often the personal touch that Alan uses to great effect) to achieve that first step, trial of a new practice. Fifth, find champions, nurture and recognize them: this is often referred to as the "inside job of marketing". (Remember Alan's *New and Noteworthy in Nutrition*? It was an excellent example of this.) Don't be too busy communicating "outside", that you forget about the people doing the work.

TED GREINER

In an internal document I had access to as Sida's nutrition advisor (1985-2004), they admitted that reaching the poorest of the poor was something they did not know how to do. Succeeding in doing so is important in the public health nutrition context because most problems of undernutrition and deficiency diseases (and, increasingly, even the non-communicable formerly-termed "diseases of the wealthy") tend to cluster among the poorest groups. If the poorest are not adequately reached, even seemingly successful large-scale interventions will be found to have a limited impact on such problems.

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