

Building Effective Nutrition Policy Demands a Strong Scientific Base

The second Joint FAO/WHO International Conference on Nutrition offers an important opportunity to focus attention on dealing with the burden of malnutrition in a holistic manner. The co-existence of micronutrient deficiencies together with obesity and noncommunicable diseases poses a formidable challenge to public health authorities in many countries.

Previous experience with food and nutrition-related policies and programs has repeatedly demonstrated the importance of evidence-based interventions. Such evidence comprises an initial needs assessment as well as appropriate follow-up and evaluation. Given shrinking resources, it is incumbent on the international and national leadership bodies to promote science-based intervention policies that are both effective and have a low probability of unintended, negative consequences. Policies that are not based on sound science may prove ineffective, representing a waste of human and material resources, effort and time. Global public health needs to manage its resources wisely.

First, it is important to have evidence of a causal relation between the intervention and the intended outcome. As noted in a recent Institute of Medicine (IOM) report in the specific area of obesity prevention, evidence-based data to support policy and environmental approaches are largely absent from the literature and new frameworks are needed to support decision-making (Kumanyika et al. 2010). Prior to developing a new intervention or adopting one that has been used elsewhere, it is important to consider what types of data can be useful to develop strategies that have the highest probability of being effective. Such data should include knowledge of who is eating what, knowledge of nutrition and health status of the targeted population, behavioral factors important to successful implementation and evaluation of outcomes. The nutrition community is familiar and comfortable with dietary intake data and nutrition status data, but perhaps less so with the need for behavioral and evaluation data. The Social Ecological Model (SEM) of health promotion is a multi-level approach to the promotion of health. SEM uses a systems approach with multiple bands of influence acting on each desired health change. For interventions based on SEM to be effective, they need to be well-targeted to the specific population in a specified environment.

Effective individual-based interventions have not proven successful for some of the current nutrition-related public health challenges. Taking an environmental approach is being explored as an alternative. An understanding of the impact of such environmental policies is urgently needed to provide policy-makers with information on successful strategies that improve feasibility, acceptability and effectiveness of programs and enhance the sustainability of these efforts. The LEAF (Linking Education, Activity and Food) program California (Crawford 2006), USA is offered as an example of how evaluation data revealed the potential for the environmental approach and provided guidance for individuals involved in the policy decision-making process.

Specific examples of effective nutrition policies are instructive in terms of the data on which they are based. Biofortification, food fortification, infant complementary foods and micronutrient supplements are strategies designed to address nutrient needs for whole populations or specific subpopulations. Evidence is provided to demonstrate the effectiveness of each strategy. Nutrition labeling is another widely used tool to help individuals improve their diets by reducing intake of food components which are too high in the individual's diet and increasing other components that may be too low. Nutrition labeling and claims have also been shown to induce environmental changes in the food supply.

In summary, the following data are useful for identifying effective policies:

- Relevant population data in order to design nutrition policy that is culturally specific and dietary habit-based.
- Identification of the nutrition problem and its specific cause (including any non-dietary/nutritional factors that are relevant), assessing its magnitude and the proportion of the population that is affected.
- Knowledge of national food standards for foods targeted for nutritional improvement based on basic research and field application to facilitate implementation of the selected nutrition policy.
- Impact/effectiveness of innovative mechanisms to bring foods that have been nutritionally improved into the market and ensure delivery of desired nutrients is effective throughout the whole process.
- Monitoring and evaluation data collected as policy is implemented to understand impact on foods, dietary patterns, and behavior. Such data should facilitate the stages of scaling-up of the intervention.
- Reliability and effectiveness of partnerships among government agencies, as well as public-private partnerships so that there is coordination across all sectors for achieving the nutrition objectives.
- Market data to determine if the nutrition product is available (in the marketplace), accessible to the intended population group, affordable, and acceptable.
- Knowledge of sectors of the food industry, food product development strategy, and food technology that are capable of encouraging health based on adherence to national policies as well as innovation.
- Information on rural market development, including what incentives are needed to facilitate distribution. Channel for free-supplement distribution in (integrated with health care reform system, government, or marketplace) and incentives needed for distribution in purchase market.

The last 10 years have witnessed advances in yield production and processing of foods (extending shelf-life, improving hygiene, introducing friendly nutritional messages) as well as the introduction of several effective nutritional interventions, i.e., biofortification, mass- and market-driven food fortification, infant complementary foods, food supplements and nutrition labeling, for overcoming nutrient deficiencies as well as reducing the risk of NCD. However, rarely are these interventions managed in combination so the combine effects are not known.

It is important to take decisions supported by technical evidence, both for diagnosis of the problems and their causes as well as monitoring and evaluation of the impact of the intervention. Baseline intakes as well as changes due to implementation of interventions should be mandatory program components. Positive changes should be explained through incremental change in nutrient intakes, rather than by documenting use of the delivery mechanism. Using this approach will allow integration of different interventions as well as estimating their proportional contribution to the solution, in terms of nutrient intake and population coverage.

The common feature of all the nutrient interventions aimed to correct deficiencies is provision of additional nutrient intake and at the same time preventing excesses associated with NCD, but effectiveness is the key consideration for policy makers.