

Global Agriculture and Food Policy

Issue Brief Series



Bringing Agriculture to the Table: How Agriculture and Food Can Play a Role in Improving Global Health and Preventing Chronic Disease

By Elizabeth Ramborger

October, 2011 - On September 19, the United Nations met for the second time in history on a health issue. The UN High-Level Meeting on Noncommunicable Diseases (NCDs) brought together heads of state and government to address the prevention and control of NCDs worldwide. Chronic disease is the leading cause of death in the world with some 80 percent of NCD-related deaths concentrated in low- and middle-income countries. The World Economic Forum recently issued a report by experts at the Harvard School of Public Health estimating the cost of preventing and managing NCDs at more than \$47 trillion globally in the next 20 years.ⁱ

The UN Meeting resulted in a political declarationⁱⁱ calling for national NCD plans by 2013 and calling upon businesses to reduce marketing of unhealthy foods to children, produce and promote foods consistent with a healthy diet, and reduce the use of salt in the food industry. The declaration prioritizes creation of health-promoting environments, whole-of-government and whole-of-society approaches, and prevention and control, including reducing the level of exposure to

common modifiable risk factors for NCDs. Although a number of factors contribute to disease, what we eat is the single most *modifiable* influence on our health.

There is no good health without good nutrition. Good nutrition throughout life—the consumption and absorption of food to support physical and mental growth and function—depends on agriculture. However, health solutions to prevent diet-related NCDs such as heart disease, lung disease, diabetes, and certain forms of cancers have traditionally left out the agriculture and food system. A new report released by The Chicago Council on Global Affairs and authored by Dr. Rachel Nugent, *Bringing Agriculture to the Table*, calls on the agriculture and food sector to play a role in the fight against NCDs. This paper presents the findings and recommendations of that report.

Rising Prevalence of NCDs

NCDs caused 63 percent of all global deaths in 2008 and are the leading cause of mortality in low- and middle-income regions, with the exception of Africa. NCDs are projected to outnumber deaths from communicable

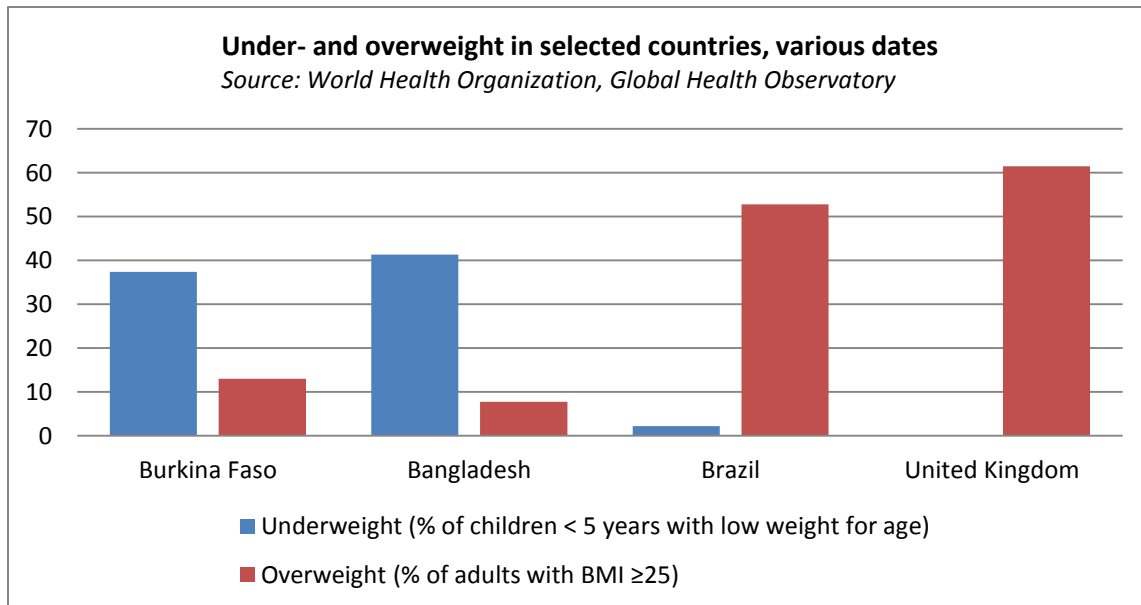
conditions such as HIV/AIDs or malaria by 2030. In some low-income countries, such as India, NCD deaths already outnumber deaths from communicable diseases and other causes.ⁱⁱⁱ While the shift from early death from communicable disease to much longer lives and eventual death from NCDs is primarily a success story—the result of technological, social, and economic progress—many poor countries continue to suffer from infectious diseases at the same time, a “dual burden” of disease. Chronic disease also has a younger face in the developing world than in the developed world. Twice as many deaths occur to people under the age of 60 in low- and middle-income countries (29 percent) than in high-income countries (13 percent).^{iv} This confirms that aging is not the only driving factor in the global rise of NCDs.

illness and early deaths from NCDs. According to the World Health Organization (WHO), the specific dietary contributors to high blood pressure, high cholesterol, overweight, obesity, and development of NCDs are insufficient intake of fruit and vegetables, pulses, nuts, and whole grains, and excess intake of salt, saturated fat, and trans-fatty acids. The WHO estimates that 1.7 million deaths worldwide are associated with a diet low in fruit and vegetable intake. Globally, 51 percent of deaths from stroke and 45 percent of deaths from cardiovascular disease are attributed to high blood pressure, which is linked to diets high in sodium. Cardiovascular disease and strokes are also linked to high cholesterol, which is associated with diets high in saturated fats. About 44 percent of all diabetes cases, 23 percent of cardiovascular diseases, and 7 to 14 percent of cancers are related to overweight or obesity.^v

Diet and Health

Imbalanced diets, empty calories, and overconsumption play a significant role in

Overconsumption is generally thought to be a characteristic of high-income countries. The change in diet that accompanies changes in income, termed the “nutrition transition,” is



characterized by a shift toward higher value and energy-dense foods. Increasingly, however, low-income nations can afford more energy-dense diets at much lower levels of GDP—corresponding with rapidly rising occurrence of diet-related disease in the developing world.

Along the development path, countries are encountering an additional “dual burden,” that of malnutrition, in which hunger is commonplace, while incidence of overweight, obesity, and nutrition-related NCDs are occurring among adults. In general, traditional diets are gradually being replaced with increasing intake of fats, animal products, sweeteners, and processed foods. Per capita calorie availability has increased even in low income countries. The largest per capita increases in consumption in low- and middle-income countries are in meat, oils, dairy, and sugar.^{vi}

A Prescription for Good Health



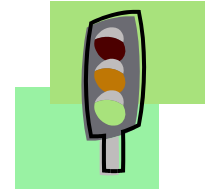
While affordability and accessibility of adequate food remain a challenge for many people, what we know about the paths to good nutrition and good health is relatively simple. A key feature of healthy diet is diversity—consuming a variety of foods across and within food groups to improve the intake of essential nutrition. Because dietary patterns differ from place to place, specific food items in food groups must be established according to the cultural context, the local foods available, and their nutritional content. A simple

prescription for a healthy and diverse diet is as follows:^{vii}

Emphasize: Fruits, vegetables, quality carbohydrates such as whole grains and fiber, nuts, fish, healthy vegetable oils

Moderate: Dairy products

Limit: Processed foods, especially processed meats; sugar-sweetened beverages; industrial trans fat; and salt



The Agricultural and Food System— Stakeholders in Global Health

The present agriculture and food system can be credited with making food more widely available and affordable to large portions of the world. Whether it is providing enough food, or ensuring more balanced and healthy diets, farm and food systems must produce and equitably distribute affordable, diverse, and healthy food.

The present agricultural and food system has evolved to become more commercial, more global, and more complex, with a greater range and number of actors between farm to fork. Each set of actors in the food supply chain does things—choosing what to plant, who to sell to, how much to process, how quickly to get food to market, what to add to it, how to package and sell it, in what sizes, and to whom—that will ultimately affect someone’s health. Food supply is especially influenced by decisions made in the agrifood business sector.

External actors, including donors, governments, and international institutions play a role through funding and policies that influence food production decisions. Policymakers are challenged to better leverage agriculture to produce desirable health and nutrition outcomes. Consumers

have ultimate responsibility for the health of their diets and can signal to food manufacturers what choices they want available, and seek assistance from governments to create healthy food environments.

Food supply chain and actors



Adapted from Corinna Hawkes and Per Pinstrup-Andersen

Recommendations

Health is influenced by decisions taken in a number of different sectors and requires cooperation across government and society. In the future, decision makers at all levels, both public and private, must participate in creating and fostering a food environment that extends and improves people’s lives with interesting, affordable, and healthy diets. They must all contribute in the areas of **governance, policymaking**, increasing knowledge through **research and education**, and **technology development, financing**, and personal **behavior choices**.

What:		Who: NATIONAL GOVERNMENTS
Governance	<ul style="list-style-type: none"> Align government policies across sectors in ways that support prevention of nutrition-related chronic diseases. Conduct a cross-sectoral dialogue among government ministries — especially agriculture, trade, infrastructure, and health—led by a supraministerial body and reporting to the head of state. 	
Policy	<ul style="list-style-type: none"> Use fiscal, trade, and regulatory instruments where feasible and proven effective. Define and pursue mutual metrics that can be used to measure and evaluate the contributions of each relevant sector to improving diet and health outcomes. 	
Research and Education	<ul style="list-style-type: none"> Include food and health links in nutrition, food, and agricultural science education at all levels. 	
Financing	<ul style="list-style-type: none"> Build incentives into socially financed health care and insurance that encourage all covered people to eat healthy diets, tailored to their age and sex. 	

What:		Who: INTERNATIONAL INSTITUTIONS
Governance	<ul style="list-style-type: none"> Develop mutual metrics to guide operational programs toward agricultural and health policy alignment and common goals. 	
Policy	<ul style="list-style-type: none"> Form cross-sectoral technical assistance teams to devise development plans and policies in countries that go beyond coordination to mutual support and accountability. 	
Technology	<ul style="list-style-type: none"> Provide farmer organizations and contract farmers with financial and market risk-reduction tools and training. 	
Research and Education	<ul style="list-style-type: none"> In research departments, prioritize research on the connections among agriculture, food, and nutrition-related chronic diseases in order to better calibrate policies at the country level. Conduct research on how diet-related chronic diseases affect economic development prospects. 	
Financing	<ul style="list-style-type: none"> Provide a supplement to countries and incentives to the technical staff when they make development loans following the principles of policy alignment across agriculture and health. 	

What:	Who: OFFICIAL AND PRIVATE DONORS OF FOREIGN ASSISTANCE
Governance	<ul style="list-style-type: none"> Facilitate country and civil society cross-sectoral planning and programming between agriculture and health.
Policy	<ul style="list-style-type: none"> Redesign nutrition programs to reflect an understanding of the dual burden of malnutrition in countries and households and the early origins of health and development. Source food aid locally where possible and appropriate to meet the nutritional needs of those in crisis.
Technology	<ul style="list-style-type: none"> Adopt and develop low-cost technologies for primary processing that retain nutrient values. Develop local solutions to postharvest food losses.
Research and Education	<ul style="list-style-type: none"> Support operations research on how a “nutrition-sensitive” agriculture can address the dual burden of malnutrition. Require and fund rigorous evaluations of agriculture and health programs in a transparent and comparable manner.
Financing	<ul style="list-style-type: none"> Directly support the national NCD planning process in developing countries only if it is multisectoral.
Personal Behavior	<ul style="list-style-type: none"> Assess structural and programmatic opportunities for linked programming among agriculture, nutrition, and health programs.

What:	Who: AGRIFOOD BUSINESSES
Governance	<ul style="list-style-type: none"> Use value chain analysis to identify places where mutually beneficial partnerships with NGOs and governments create feasible commercial opportunities to shift sourcing from unhealthy to healthy food ingredients. Support the development of national and international norms, standards, policies, and guidelines in the agriculture and food sector that are designed to improve nutrition and health.
Policy	<ul style="list-style-type: none"> Define a value chain for each major product and work with suppliers and customers to maximize private and social values. Maintain high food-safety standards and procedures throughout global dispersed operations by building compliance capacity in low-resource settings.
Technology	<ul style="list-style-type: none"> Set targets and deadlines for developing and reformulating a product lineup with greater nutritional benefits appropriate to the needs of the customer base and consistent with national dietary and health guidelines. Work with researchers in developing countries to characterize the food supply and composition of the diet.
Financing	<ul style="list-style-type: none"> Make achievement of targets a criterion for management compensation and build employee enthusiasm by rewarding tactical innovations that can accelerate progress toward goals.
Personal Behavior	<ul style="list-style-type: none"> Build a shared value ethos into media and government relations operations.

Who: CONSUMERS AND THEIR REPRESENTATIVES <i>Families, schools, employers, and public institutions</i>	
What:	
Governance	<ul style="list-style-type: none"> • Work with businesses to better connect retail food outlets with consumer needs for more affordable, healthy options.
Policy	<ul style="list-style-type: none"> • Actively select food and beverage companies that share health goals and work together to build political will for policy change. The civil society role is especially important for educating policymakers about the risks and costs of unhealthy diets. • Prepare model policies to regulate the food industry that can be adapted to country conditions where appropriate.
Research and Education	<ul style="list-style-type: none"> • Include food and health links in nutrition, food, and agricultural science education at all levels.
Financing	<ul style="list-style-type: none"> • Apply knowledge about individual and community-based cognitive and behavior change to encourage healthy eating. • Reduce food losses and waste in the community by finding ways to utilize perishable foods.

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- ⁱ D.E. Bloom, E.T Cafiero, E. Jané-Llopis, S. Abrahams-Gessel, L.R. Bloom, S. Fathima, A.B. Feigl, T. Gaziano, M. Mowafi, A. Pandya, K. Prettnner, L. Rosenberg, B. Seligman, A. Stein, and C. Weinstein, *The Global Economic Burden of Non-communicable Diseases* (Geneva: World Economic Forum, 2011), www.weforum.org/EconomicsOfNCD
- ⁱⁱ United Nations, *Political Declaration of the High-Level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases*, A/66/L.1, September 16, 2011, http://www.un.org/ga/search/view_doc.asp?symbol=A%2F66%2FL.1&Lang=E
- ⁱⁱⁱ World Health Organization, Disease and injury country estimates and projections, www.who.int/healthinfo/global_burden_disease/projections/en/index.html, www.who.int/healthinfo/global_burden_disease/estimates/en/index.html.
- ^{iv} World Health Organization, *World health statistics* (Geneva: World Health Organization, 2009).
- ^v World Health Organization, *Global Status Report on Noncommunicable Diseases 2010* (Geneva: World Health Organization, 2011); *Report on Global Health Risks: Mortality and burden of disease attributable to selection major risks* (Geneva: World Health Organization, 2009).
- ^{vi} Jelle Bruinsma, ed., *World agriculture: towards 2030/2050: Interim Report* (Rome: Global Perspective Studies Unite, Food and Agriculture Organization of the United Nations, 2006).
- ^{vii} Darius Mozaffarian, personal communication, April 26, 2011.

For more information

The Chicago Council's new report *Bringing Agriculture to the Table: How Agriculture and Food Can Play a Role in Preventing Chronic Disease*, by Dr. Rachel Nugent, identifies new opportunities for those in health and agriculture to work together to mitigate the rising occurrence of NCDs around the world. Visit the project's website at: www.thechicagocouncil.org/HealthyAgandNCD.

The Chicago Council on Global Affairs

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