Food Fortification: Moving from Knowledge to Alignment to Action through the Formation of a Technical Advisory Group and Global Summit

Introduction
Planning for the upcoming International Congress of Nutrition (ICN), to be held in Buenos Aires, Argentina, from October 15 to 20, 2017, is progressing well. The agenda will include updates on the evidence on many nutrition issues, efficacy of interventions and experience in translating those interventions into programme impact across the globe. Many scientific events occur in the 4 years between the ICN meetings which influence the priorities for the programme. In this article we provide a brief description of an important meeting that took place in Tanzania in September last year.

Background
Over the last 15 years, the fortification of staples and condiments with essential vitamins and minerals has gained global traction. Today over 140 countries implement national salt iodization programs, 85 countries mandate at least one kind of cereal grain fortification and over 40 mandate the fortification of edible oils and ghee (1). Due largely to the fortification of salt with iodine, iodine deficiency disorders are within reach of no longer being a serious public health problem. Important experience in reducing the prevalence of other micronutrient deficiencies through fortification is currently also being compiled, and the health impact of fortification in low- and middle-income countries is accelerating. Despite this, many fortification programs – in particular wheat and maize flour fortification – require targeted and aligned efforts by government, the private sector, academia, consumer groups, international agencies and donors to ensure effective and compliant coverage to achieve optimal and sustained impact.

The Global Summit on Food Fortification
Against this background, the Government of Tanzania and the Global Alliance for Improved Nutrition (GAIN) concluded in late 2014 that there was a need to gather all major partners working in micronutrients to review achievements, challenges and lessons learnt; understand the current evidence; and align with partners on the way forward. In April 2015, the Government of Tanzania, GAIN, the African Union Commission, the Bill and Melinda Gates Foundation (BMGF), the United States Agency for International Development (USAID), UNICEF, the World Food Programme (WFP), and SUN announced plans to co-convene the first-ever international meeting devoted to large-scale food fortification: the #FutureFortified Global Summit on Food Fortification in Tanzania from September 9 to 11, 2015.

Also in April, GAIN and the Government of Tanzania completed a rapid mapping of international fortification stakeholders and established a Technical Advisory Group (TAG) comprising over twenty intergovernmental, governmental, non-governmental, UN and donor organizations (2). The TAG met twice monthly from

For a list of events and adhering/affiliated bodies, please go to www.iuns.org
April 2015 through September 2015 to agree on the scope and agenda for the summit. The event was attended by 450 delegates from 57 countries, including 29 country delegations and leaders from related business, academia and international organizations – focused specifically on what efforts are required for low- and middle-income countries to scale up efforts. Over 70 speeches and presentations reviewed the existing evidence, country experience and opportunities for improvements. A number of plenaries re-enforced the idea that multi-sectoral partnerships are necessary for the success of large-scale fortification. While the success of many national programs was highlighted, there was an openness to look at challenges and evidence gaps, and how the various partners might be able to address these. Lastly, the need to broadly and globally advocate the scaling-up of this intervention to extend its benefits to many more hundreds of millions of those at risk was a major theme.

The health benefits of the intervention were highlighted throughout the summit. A systematic evaluation of 76 studies and 41 contextual reports was presented which demonstrated that in low- and middle-income countries, fortification of staples with vitamin A, iron and iodine can be expected to be effective (3). An impact model for folic acid fortification was presented which outlined that in 18 African and Asian countries where data on coverage of industrial-milled wheat flour is available, there are 136,000 neural tube defects (NTDs) still occurring annually. However, 19,000 are already being averted by fortification but there is potential to increase prevention of NTDs to at least 32,000 if all industrial wheat flour in those countries was to be fortified (4). Similarly, a presentation on current efforts to prevent iodine deficiency disorders (IDD) was provided showing that there are now only 25 countries considered iodine deficient at the national level - a decrease from 110 countries. The presentation indicated what is left to undertake to virtually control IDD and sustain those efforts globally (5).

The economic benefits of fortification were also presented. Two renowned health economists clearly demonstrated the important economic investment which fortification offers: e.g. in the case of iron where the median benefit:cost ratio is 8.7:1; the cost of fortification with vitamin A is estimated to be at USD 81.00/DALY; for iodization of salt the benefit-cost is approximately 30:1; and for folic acid: from 11.8:1 for Chile to 30:1 in South Africa.

The Arusha Statement on Food Fortification
The event culminated in the Arusha Statement on Food Fortification (6). This declaration outlines five recommendations for fortification in low- and middle-income countries: 1) increase investments, 2) improve regulatory monitoring, 3) expand advocacy efforts, 4) improve the evidence base; and 5) increase transparent reporting (7). These are summarized below.

1. Conservative new investments are required. Governments need to re-invest in technical capacity, oversight and monitoring. The additional donor costs over 15 years to build, improve and sustain national fortification programs in 25 low- and middle-income countries for multiple food vehicles was estimated (at the lower end) to be approximately USD 150m. This would help to improve nutrient intake among an additional billion people and unlock co-investment by the private and public sectors.

2. A major effort is needed to improve quality control of national food fortification programs. Poor quality and overall compliance with laws and regulations – which may be as low as 50% on average in low- and middle-income countries – is an obstacle limiting impact. Improved inspection and enforcement systems require increased national prioritization.

3. Advocacy remains a high priority, and all partners and stakeholders must link fortification to the broader food, nutrition and development agendas. Additionally, advocating for greater attention by governments, private sector, donors and civil society is needed.

4. There is a need to generate more evidence of impact to guide fortification programs, in order to improve programs and demonstrate impact. This includes more effective translation of evidence into policy and practice.

5. Progress requires more accountability and global reporting. The Statement calls for a global data repository and more frequent reporting.
Post Summit Discussions and Actions
The summit and the Arusha Statement called for the TAG to work together after the event in order to consolidate and elaborate on the recommendations of the Statement. From October 2015 until March 2016, the TAG continued to meet regularly and formed three thematic working groups (regulatory monitoring, evidence and advocacy).

The first working group on regulatory monitoring focused on barriers faced in countries that have adopted mandatory fortification programs, outlined preliminary solutions with documented examples from country-specific programs, and suggested methods for disseminating proposed practices, as well as means for tracking global compliance.

The second working group on evidence identified the critical evidence gaps where timely research can enable donors, policy-makers, advocates, regulatory authorities, researchers, businesses and governments to initiate and sustain efficient, effective and equitable mandatory, large-scale fortification programs with high potential to improve health/nutrition outcomes.

The final working group on advocacy identified opportunities for the nutrition sector to advocate to national policy makers and government officials and their influencers to implement and improve mandatory fortification programs. These TAG working group deliberations are being published along with the summit proceedings in a 2016 Sight and Life supplement. The reports will also include a roadmap for establishing a global food fortification repository to harmonize and streamline global databases tracking food fortification programs.

Conclusion
The inclusive approach used to develop the summit agenda and post-summit discussions helped align diverse actors around priorities in low- and middle-income countries as articulated in the Arusha Statement on Food Fortification and in the forthcoming TAG report (8). It is anticipated that the summit, the Arusha Statement and this post-summit report together will help nutrition program practitioners – including implementing agencies, policy makers and donors – to improve collaboration and alignment in the nutrition and food sector in order to strengthen, scale up and ensure sustainability and optimal impact of national fortification programs.

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References
(2) The Fortification Technical Advisory Group comprised the African Union Commission; Bill & Melinda Gates Foundation; FHI360/FANTA; ETH Zurich; Food and Agriculture Organization of the United Nations (FAO); Food Fortification Initiative (FFI); Global Alliance for Improved Nutrition (GAIN); Government of Tanzania; Helen Keller International (HKI); Iodine Global Network (IGN); Micronutrient Forum; Micronutrient Initiative (MI); PATH; Project Healthy Children (PHC); Scaling Up Nutrition Movement Secretariat; Sight and Life; Smarter Futures; UNICEF; U.S. Agency for International Development (US-AID); U.S. Centers for Disease Control and Prevention; World Food Programme (WFP).
(3) Bhutta, ZA. Systematic Review of Large-scale Food Fortification: available at https://www.dropbox.com/sh/3bd3zu1wzvvucq/AAD5M3PiVerRJe-Z2eZHL470a?dl=0&preview=Day+2_Systematic+Review_Bhutta.mp4
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(5) Zimmerman, M. Salt iodization: weighing the risks against the benefits: available at https://www.dropbox.com/sh/3bd3zu1wzvvucq/AAD_A0dBC6JPw8PvHmXrWqa/Day%201_Session%205_Zimmerman.pdf?dl=0
(8) The #FutureFortified Global Summit on Food Fortification: Event Proceedings and Recommendations for Food Fortification Programs. Sight and Life Special Supplement (forthcoming)