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BACKGROUND: The ability to develop evidence-based clinical guidance and effective programs and policies to achieve global health promotion and disease prevention goals depends on the availability of valid and reliable data. With specific regard to the role of food and nutrition in achieving those goals, relevant data are developed with the use of biomarkers that reflect nutrient exposure, status, and functional effect. A need exists to promote the discovery, development, and use of biomarkers across a range of applications. In addition, a process is needed to harmonize the global health community's decision making about what biomarkers are best suited for a given use under specific conditions and settings.

OBJECTIVE: To address these needs, the Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health, US Department of Health and Human Services, organized a conference entitled "Biomarkers of Nutrition for Development: Building a Consensus," which was hosted by the International Atomic Energy Agency. Partners included key multilateral, US agencies and public and private organizations. The assembly endorsed the utility of this initiative and the need for the BOND (Biomarkers of Nutrition for Development) project to continue. A consensus was reached on the requirement to develop a process to inform the community about the relative strengths or weaknesses and specific applications of various biomarkers under defined conditions.

SUMMARY: The articles in this supplement summarize the deliberations of the 4 working groups: research, clinical, policy, and programmatic. Also described are content presentations on the harmonization processes, the evidence base for biomarkers for 5 case-study micronutrients, and new frontiers in science and technology.

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