

NEWSLETTER

NIPN/NL June 2023

National Information Platforms for Nutrition (NIPN)

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Fifth Annual Gathering in Brussels, Belgium

A delegation of experts drawn from the National Information Platforms for Nutrition (NIPN), Ethiopian Public Health Institute (EPHI), International Food Policy Research Institute (IFPRI), and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) attended the 5th Annual Gathering under the theme "Communication for Informed Decision Making". The event was reportedly the initiative of the European Commission (EC), its partners, and the German Federal Ministry for Economic Cooperation and Development (BMZ). According to the invitation letter addressed to NIPN-Ethiopia, the 5th Global Gathering aimed at bringing together the different NIPN platforms to discuss and work together towards communication for the results and sustainability of the platforms.

Members of the delegation, which was jointly led by Mesay Hailu (PhD), Director General of EPHI, and NIPN Coordinator Aregash Samuel (PhD), including Archana Sarkar, Advisor-NIPN at GIZ; Meron Girma (PhD), Policy Analyst with NIPN; Tadesse Zerfu (PhD), a research fellow with IFPRI; Gebretsadik Keleb, Monitoring and Evaluation Officer from NIPN; and Tirsit Genye, a researcher with IFPRI.

The nine NIPN project implementing countries - Burkina Faso, Cote D'Ivoire, Ethiopia, Guatemala, Kenya, Laos PDR, Niger, Uganda, and Zambia were in attendance at the 5th Annual Gathering. (NIPN/EPHI)



We should join forces and work hand in glove to meet the objectives and goals of our organization.

*Aregash Samuel (PhD)
Coordinator, NIPN*

Message from NIPN Coordinator

Dear all,

Here we are again with the new edition of our quarterly Newsletter of June 2023. I feel this is the last edition for this ending Ethiopian Budget Year.

We have achieved many activities during this ending Ethiopian Fiscal Year (EFY). We conducted researches that are available in magazines, news papers, media archives, proceedings of conferences, or other platforms. This budget year, we have entertained queries forwarded to our Institute by various bodies. We will not forget about the fruitful discussions we had with international partners in different occasions. As a directorate, we have also amassed experiences in the process of involving ourselves in competitions by preparing over 15 Grant Articles and proposal documents. Team members drawn from our organization have also attended the 5th Annual Gathering in Brussels, Belgium. We seized this opportunity to hold side talks with donor agencies regarding issues of project sustainability. In general, our discussions were fruitful. It was also a good opportunity for our team to gain experience through interactions with sisterly organizations drawn from various countries and donors. These were all very limited activities we carried out during the just ending 2022/23 fiscal year (2015 EFY).

Dear all, it does not mean that every step we have taken while accomplishing our activities has been smooth. Yes, there were challenges we faced while accomplishing our development activities during the just ending Ethiopian budget year. The usual poor procurement procedures, lack of laboratory chemical reagents, lack of field vehicles, and others were taken as the challenges we have faced during this budget year. The most important thing is how we can solve these challenges... This should be underscored. I hope our organization will work hard in coordination with the concerned bodies and find the lasting solution to the aforementioned problems.

What is expected of us all is that we should join forces and work hand in glove to meet the objectives and goals of our organization. Every employee should live up to the expectations of the organization. There are many outstanding tasks we have to finalize. Producing grant research essays and proposals, publishing scientific research papers, providing education to the public on healthy diet, keeping nutritional information in database, conducting a seminar on nutrition, producing newsletters and many others are among the activities we are expected to accomplish.

In this edition of our Newsletter, we have come up with new developments. As usual, we are here to magnify our progress. We have news items and research essays. I hope you will love them all. Enjoy reading our NEWSLETTER, June 2023.

Thank you all,

Aregash Samuel (PhD)
Coordinator, NIPN



NIPN News

Virtual panel discussion on Circular Food System

It was on June 20, 2023 NIPN hosted a webinar panel discussion on the Circular Food System (CFS). Researchers, panelists and virtual attendants drawn from renowned international and national universities and organizations have dealt with extensive issues in the realm of CFS.

Opening the panel discussion, Food Science and Nutrition Research Directorate (FSNRD) Director, Masresha Tessema (PhD) said that as the topic, CFS, is timely and important, valuable information will come out of the discussion. "As part of the national interest and initiatives, we would like to hear from the seminar important information that would be helpful for our program and policy", Masresha said.

Hannah Van Zanten (PhD), Associate Professor at the Wageningen University and Research, had her presentation on the CFS by reflecting on her experiences on the potential of redesigning the European Food System towards the CFS. Hannah said that CFS is the system that all wish to work towards in the future. "It should make sure we produce enough food within the boundaries of our planet." Hannah has emphasized on using a little land and a little water so as not to exhaust resources while still providing enough food for everyone. Reflecting on the experiences of Europe, she raised the need to cut the consumption of animal products if there is a real desire to move towards a CFS.

One of the panelists, Kaleab Baye (PhD), Associate Professor, and a former Director of the Center for Food Science and Nutrition at Addis Ababa University, shared his reflections by associating experiences witnessed in Ethiopia. He said that much of the circularity is being implemented in Ethiopia. Kaleab is of the opinion that it is high time to consider CFS at the country level; but not just in the way that is traditionally done in the local food system. Kaleab emphasized the significance of considering the CFS as supported by more evidence and diagnostics.

Namukulo Covic (PhD), International Livestock Research Institute (ILRI) Director General's Representative to Ethiopia is the other panelist who reflected views on the presentation of Dr. Hannah. She has touched on both what Dr. Hannah referred to and what Dr. Kaleab has reflected on. Raising the experiences in Ethiopia using resources to have a balanced diet, she said that there need to be asked about how to move ahead for better outcomes.

Taking the case of Ethiopia, Namukulo said that to produce a healthy food baskets, we need to work on the treatment of degraded soil. The challenges are not limited, according to Namukulo. There are also challenges related to population growth and the limited availability of fertilizer. If these problems are not addressed, the food security issue will be in jeopardy, she said.

The other panelist is Belay Terefe, Alliance Bioversity-CIAT, Ethiopia Country Coordinator for SHIFT initiative. Belay reflected general views on the food system and circularity. He touched on the interactions along the food value chain from input supply and production of crops to livestock, fish and other agricultural commodities. Belay underscored the significance of safeguarding the environment, ecology, equity, including cultural and traditional socio-economic values in order for food system activities to be sustainable.

In the course of the discussion questions and comments were posed by virtual participants through chat box. Presenters and panelists responded to the questions forwarded to them.

At long last, Dr. Namukulo has come up with the way forward. She said that the food system actors are expected to find their entry points to contribute positively. The other thing she raised is the sustainability component. The way forward should be determined by taking all these and other related issues in to consideration, according to her. Namukulo gave much emphasis on the case in Ethiopia. She raised the multiple bouts of climate challenges. To move forward the different diverse sectors in the FS need to take these challenges in to consideration, she said. "We already have a food system transformation pathway and the FS resilience program that has just been launched. The Ministry of Agriculture is implementing this. The question is how the rest of us will be involved.

Namukulo said that all should come on board to contribute his/her best. "We need to actually engage in discussion to look at different entry points... and work together building on what Kaleab said. The kind of coordination that is required now is even more complex than what we failed to do when we were thinking about multi-sectoral nutrition," she said. Namukulo stressed how we should leverage the coordination structure that has been put in place by the government.

Tadesse Zerfu (PhD), a research fellow from the International Food Policy Research Institute (IFPRI) moderated the webinar panel discussion which was attended by 95 virtual audiences. (NIPN/EPHI).



Partners 4 Change meeting held in Berlin

The National Information Platform for Nutrition (NIPN) Ethiopia, supported by GIZ and the EU, participated in a high level Partners 4 Change meeting in Berlin organized by the German Federal Ministry for Economic Co-operation (BMZ) and GIZ. Over 200 delegates, including Ministries from different partner countries of GIZ, came to Berlin, Germany, to deliberate and develop joint policy recommendations on the transformation of agricultural and food systems. The evidence and experiences of the implementation of GIZ programmes were included in a joint Consultation process to develop the final recommendations to be handed over to the State Secretary, Mr. Jochen Flasbarth from BMZ.

Dr. Masresha Tessema, Director, Food Science and Nutrition Research Directorate at the Ethiopian Public Health Institute and Programme Manager for NIPN Ethiopia, and NIPN partners from sectors including the head for the Food and Nutrition Office at the Ministry of Agriculture, Mrs Alemtsehay Sergawi, and Senior Programme Manager, Seqota Declaration, Federal Programme Delivery Unit, Ministry of Health, Dr. Sisay Sinamo, along with other Ethiopian delegates, travelled to Berlin from June 13 to 17, 2023, to attend the series of meetings around #Partners4Change organized by the Global Programmes, Gespräch zur Internatinalen Zusammenarbeit, etc. Dr. Archana Sarkar, GIZ Advisor, NIPN, also participated along with the Ethiopian delegation.

Dr. Masresha Tessema, said, 'It was a pleasure to attend the Partners for Change meeting in Berlin. National Information Nutrition Platform (NIPN) Ethiopia, supported by GIZ and the EU, exchanged with partners in Berlin on bringing evidence from nutrition and food security to build a resilient food system (FS). The Ethiopia team played an active role in GIZ's global planning of FS implementation, and we proposed priority areas for implementation in Ethiopia. Those priorities were handed over to both BMZ and GIZ'. (EPHI/NIPN)



Discussion on FSNRD's Annual work plan of 2023/24 EFY

Food Science and Nutrition Research Directorate (FSNRD) tabled on June 12, 2023 a draft annual work plan of 2023/24 Ethiopian Fiscal Year (EFY) for discussion and final shape up. The execution of the annual plan, which indicates monthly detailed activities, is supervised by assigned coordinators or team leaders. Employees working for FSNRD have been grouped in five case teams. These case teams are Food Science and Technology, Laboratory, Nutrition and Dietetics, Environment and Food Safety. Leaders of the five case teams briefed discussants about the work plan that will be in the pipe line for the upcoming EFY.

Opening the discussion, FSNRD Director, Masresha Tessema (PhD) has given an overall view of the annual work plan. The director raised in his briefing about the major strong sides of activities accomplished in the just ending EFY. Formulating protocol to establish supervision system to improve food security situation in Ethiopia, making available researches through magazine, news, conferences or other platforms, entertaining queries forwarded by various bodies, conducting discussion with international partners (with a good case in point is the discussion held with Florida University under the theme "Improving Food Safety Status and Reducing Burden of Food-borne disease")... These were among the appreciable achievements of the directorate, according to Masresha. The other thing raised as an encouraging activity was the execution of tasks, which had not been included in the previous plan.

FSNRD Director has also touched on the challenges the directorate faced while accomplishing activities during the just ending budget year. Accordingly, he said that poor procurement execution, unforeseen shortcomings that should have been included in the plan; (like recruiting human power), lack of laboratory chemical reagents, lack of field vehicles were among the challenges faced during the 2022/23 FY.

Masresha underscored that intensified efforts would be exerted to accomplish activities during the coming budget year. Producing grant research essays and proposals, publishing scientific research papers, providing education to the public on healthy dietary, keeping nutritional information in data base, conducting seminar on nutrition and newsletter production were among the activities to be accomplished during the coming EFY, according to FSNRD Director.

Masresha has also announced that FSNRD/EPHI got a grant for the center of excellence on Periodic Table of Food Initiative (PTFI) in East and Central Africa. He said that the title was given as an award for the meritorious works of the entire team members of the directorate and EPHI. He attributed this progress to all hard-working employees of the directorate and EPHI. However, Masresha reminded the staff members that if the ongoing efforts ebb away, the award will be taken back.

The Director said that every concerned employee should do the best of his/her capacity to the accomplishment of the annual work plan. "Outstanding activities will have to be given due emphasis during the coming budget year." Comprehensive appraisal meeting on activities would be held in the near future, according to the Director. Employees of the directorate numbering about 30 were involved in the half-day discussion held at the premises of Ethiopian Public Health Institution. (NIPN/EPHI).

Side discussion amid Global Gathering

NIPN/EPHI team members had a side discussion with project funding partners on 07 June 2023 amid the recently held 5th Annual Global Gathering in Brussels, Belgium.

NIPN-Ethiopia Coordinator, Aregash Samuel (PhD) said that the side discussion was held with Xavier Pavard from the European Commission (EU) and Christoph Langenkamp from GIZ with the aim of exchanging ideas on the scaling-up of measures towards sustainability of NIPN after projects' life span.

Aregash said that the side discussion was of great importance in exchanging views for the common goals of enhancing efforts to meet NIPN's objectives in a much better way. "It was informative and productive conversation. We have come to terms and better understanding on wise management of supports coming from EC and GIZ. I'm grateful for the opportunity to have met with Xavier and Christoph and I look forward to continuing the conversation in the future," Aregash said.

Meanwhile, the NIPN/EPHI delegation which had attended the 5th Annual Global Gathering under the theme "Communication for Informed Decision Making" has returned home after a week-long stay in Brussels.

According to information obtained from participants of the annual meeting, major issues related to NIPN's activities were raised in the course of the discussion. Communicating scientific evidence to policy makers, gender inclusion in nutrition research, sustainability issue of NIPN or dealing with plans to sustain projects of NIPN and experience sharing among member countries were high in the agendas for discussion. Team from NIPN-Ethiopia briefed participants, among other things, on sustainability approaches of NIPN's activities. Points on strategic option, advantages and disadvantages were raised in the briefing. (NIPN/EPHI)



Training on Basic STATA

A four-day training on "Basic STATA using Health and Nutrition Data" was given on 22 May 2023, at the premises of the Ethiopian Public Health Institute (EPHI). The training, organized in collaboration with EPHI, the National Information Platform for Nutrition (NIPN), and International Food Policy Research Institute (IFPRI), aimed at enabling trainees to analyze data properly and generate evidence. Trainers drawn from different directorates of EPHI said that the training would help boost the capacity of researchers. Gebretsadik Keleb, Monitoring and Evaluation Officer, said that the training would help the trainees analyze various regularly collected surveys and use them to generate evidence that would help make evidence-based decisions. "Generally, we are working on capacity building in the realm of generating evidence," Gebretsadik said.

Trainees include researchers and PhD candidates drawn from Regional Public Health Institutes, University of Gondar, Addis Ababa University and EPHI.

Experienced data managers and researchers from EPHI are in charge of providing the four days of training. Among them are Tirsit Genye, a researcher from the IFPRI; Bedassa Tessema, data manager at the NIPN/Food Science and Nutrition Research Directorate (FSNRD); and Alemayehu Hussen, data manager and analyst at the FSNRD.

Trainees are provided with the necessary software and inputs during the training session, Gebretsadik said.

Gebretsadik further noted that similar capacity building trainings have been given regularly to researchers and public health professionals serving at the Regional Public Health Institutions, Universities, Federal Ministry of Health, and EPHI. A plan is in the pipeline to provide advanced training on STATA in the future, Gebretsadik said. (EPHI/NIPN).





The Hidden Costs of Aflatoxin

A one-day seminar on the impact of aflatoxins B1 and M1 regulations on global trade, economics, and health was held on May 11, 2023, at the EPHI National Training Center. The seminar addressed the global concern of aflatoxins, which are highly toxic and carcinogenic substances produced by fungi in warm climates.

More than 40 nutrition researchers and public health professionals from different institutions and organizations attended the seminar. Professor Felicia Wu of Michigan State University's Department of Food Science and Human Nutrition gave a presentation on "A Tale of Two Aflatoxins: How Aflatoxin Regulations Affect Global Trade, Economics, and Health."

The seminar was moderated by Dr. Masresha Tessema, Food Science and Nutrition Research Directorate Director at EPHI. Two prominent researchers, Dr. Amare Ayalew (PhD), Manager of the Partnership for Aflatoxin Control in Africa (PACA) at the African Union Commission, and Ato Wosenyeleh Ambaw (EFDA), were on hand to offer their thoughts and reflections on the presentation of Professor Felicia Wu. Dr. Masresha acknowledged the presence of Dr. Getachew Tollera, Deputy Director General of EPHI, and Negash Sime, Deputy Director General of EFDA. He expressed gratitude to the presenters, participants, and virtual attendees, emphasizing the importance of translating global evidence into practical solutions to address aflatoxin contamination.

At the beginning of the seminar, Dr. Aregash Samuel, Senior Researcher and NIPN Project Coordinator expressed her hope that the participants would greatly benefit from the discussions.

During her presentation, Professor Felicia Wu discussed the severe health consequences of aflatoxin contamination in food sources, which can cause liver cancer, immune dysfunction, child stunting, acute liver failure, and even death. She also highlighted the economic impacts of strict aflatoxin standards, which can cost Africa \$670 million each year in exports of cereals, dried fruit, and nuts.

Dr. Amare Ayalew, on his part, emphasized the need to apply different measures to control the health problems caused by aflatoxin contamination and to apply precautionary measures and set reasonable limits. He also stressed that AFB1 is ten times more dangerous than AFM1, and there is no logic in applying strict regulation to M1.

The next speaker, Ato Wosenyeleh Ambaw discussed Ethiopia's large livestock population and pointed out that the country's annual milk production is estimated to be 22 billion liters, while the current annual milk production is only 4.6 billion liters, almost one-fourth of the country's total milk production capacity. He also highlighted that in Ethiopia, the annual milk consumption per capita is only 19 liters, while in Kenya and Uganda, it is 115 and 65 liters, respectively.

At the end of the presentations, several questions were raised, and the speakers provided answers and engaged in further discussion with the participants.

During the seminar's closing session, Ato Negash Sime thanked Professor Felicia, Dr. Amare, and Ato Wosenyeleh for their valuable contributions and emphasized the importance of evidence-based regulations to avoid overlooking crucial aspects of food safety. He stressed the need for collaboration and coordination between stakeholders to ensure food safety and highlighted the role of EPHI in generating evidence for policy direction.

Dr. Getachew Tollera, Deputy Director General of EPHI, delivered the closing remarks, expressing his gratitude to Professor Felicia Wu, Dr. Amare, Ato Wosenyeleh, Ato Negash, and the NIPN team for their contributions in facilitating and organizing the seminar. Dr. Getachew highlighted that Professor Felicia's presentation highlighted the complex relationship between aflatoxins, human health, trade, and the economy. He emphasized the significant impact of aflatoxin on the country's economy and the importance of considering the well-being of humans, agricultural food security, trade, and the overall economy.

It is believed that the seminar provided a platform for participants to engage in discussions concerning strategies to reduce the impact of aflatoxin contamination on global trade, economics, and health. It was a great opportunity for participants to learn from each other and share knowledge and experiences. The seminar was a success, and the participants left with a better understanding of the challenges and opportunities in this important area of research. (NIPN/EPHI)



Grant Writing Training

From April 24-26, 2023, the National Information Platform for Nutrition (NiPN) Ethiopia, in collaboration with the National Training Center, organized a three-day grant writing training for 28 researchers drawn from EPHI, universities, and regional public health institutes. The training aimed to equip researchers with essential skills and knowledge of writing potentially fundable proposals.

The training covered a range of topics, including identifying funding sources, understanding the grant application process, developing a strong proposal, and points to consider in budgeting for a project. The training incorporated practical exercises to help participants apply the concepts they acquired in a real-world context. Further more the training covered ethics in public health research.

One of the key benefits of the training was to give opportunity for researchers to establish networking and experience sharing among different institutions. The participants had the chance to learn from each other, ask questions, and discuss common challenges in grant writing.

The grant writing training was provided by senior researchers (Dr. Dawit Wolday and Dr. Adamu Addissie) with extensive experience in grant writing and public health research. They provided guidance and feedback to participants throughout the training, helping them to develop their proposals and increase their chances of securing funding. (NiPN/EPHI)



Data visualization training using Power BI

EPHI and the International Food Policy Research Institute (IFPRI) jointly organized a training program early April 2023 for three days on data visualization using Power BI software. The training given by a senior guest expert from IFPRI was proved to be very interactive, practical, and useful for the trainees. The trainer has dealt with a wide range of topics, including an introduction to Power BI, basic concepts, visualizations in Power BI, creating the first visualization, interface exploration, formatting visualizations, creating a dashboard for publication, concluding with a Power BI and data visualization practical session.

The trainees were encouraged to provide feedback on what they learned the day before and reflect their expectations for the following session, which enhanced the program's applicability and usefulness. Moreover, at the end of the training, the participants used their own data to practice using Power BI and presented their visualizations to the other participants. Finally, all participants received certification from EPHI and IFPRI for their successful completion of the course.

Fifteen Participants drawn from the National Information Platform for Nutrition (NiPN) Ethiopia, representatives, from the Food Science and Nutrition Research Directorate at EPHI, IFPRI, GIZ, and the Ministries of Health and Education were in attendance at the training program. (NiPN/EPHI)





From Our Research Files

In the quest for identifying simple and reliable tool for community-based screening of overweight and obesity in resource-constrained context

Contributed by: Abraham Habtamu(MSc) and Elazar Tadesse (PhD)

Body Mass Index (BMI) is a widely used method for diagnosing overweight and obesity, both in clinical and community settings. However, BMI measurement requires measuring both weight and height, which demands skill, equipment, and adequate space, making it unsuitable for community-based screening for early detection of overweight and obesity. Therefore, researchers have focused on developing an easy-to-use, inexpensive, and reliable screening tool for diagnosing overweight and obesity among adults. One potential alternative tool for identifying obesity and overweight among women with under five children is Mid-Upper Arm Circumference (MUAC). However, it has not yet been studied if the same can be found among the general population. Therefore, the overall aim of this study is to determine if MUAC can be used as an alternative tool for screening and diagnosing overweight and obesity in adults aged 15-64 years.

This was a community-based cross-sectional study conducted among 606 adults (258 males and 348 females) aged 15 to 64 years residing in the Kolfe-keraniyo sub-city of Addis Ababa city administration. A multi-stage sampling technique was used to identify participants, and data collection was conducted through home-to-home visits to selected households in the study area. Trained data collectors collected anthropometric data, including weight, height, and Mid-Upper Arm Circumference. The prevalence of overweight and obesity were computed, and the accuracy of MUAC compared to BMI in identifying overweight and obesity was examined using receiver operating characteristic (ROC) curve analysis. The Table below shows how BMI and MUAC were categorized, and nutritional status was defined.

	Normal	Overweight	Obesity
BMI	18-24 kg/m ²	25-29 kg/m ²	>30 kg/m ²
MUAC	23-29.9 cm	29.9-31.1 cm	>31.1 cm

Source: Amegovu AK, Chewere T, Mawadri M. Mid-Upper Arm Circumference (MUAC) Cut-Offs to Diagnose Overweight and Obesity among Adults. J Clin Community Med. 2020;2(3):184–90.

MUAC was strongly correlated with BMI, $r = 0.844$ (95% CI: 0.042–0.116). The area under the ROC (AUC) of MUAC was 0.95 (with a sensitivity of 94% and specificity of 91%;95% CI, 0.92–0.971), with an average optimism (significance of asymptote) of 0.013. Moreover, the prevalence of overweight and obesity in the population of Kolfe-Keraniyo Sub-City was 26.6%. According to BMI, 17.5% of the population was overweight and 9.1% were diagnosed as obese, while according to MUAC 16.1% of the population was overweight and 11.1% were diagnosed as obese. Using MUAC, a total, 27.2% of the population were diagnosed as either overweight or obese.

According to the study, MUAC has relatively equivalent accuracy with BMI in identifying overweight and obesity among adults aged 15– 65 years old. Therefore, MUAC could be considered as an alternative tool for identifying overweight and obesity in community-based prevention and control programs. It is a simple, reliable, and inexpensive tool that does not require trained measurer. However, further research should be conducted in a larger population as well as in clinical settings to confirm these findings.





Does prevalence of iron deficiency, and iron deficiency anaemia differ between preschool children consuming camel and bovine milk?

Contributed by: **Anbissa Muleta (PhD)**

Iron deficiency (ID) and iron-deficiency anaemia (IDA) continue to be significant public health concerns. ID is the most widespread nutritional deficiency and it is particularly prevalent among pre-school children and women of reproductive age. Globally, over 1 billion people are affected by ID. There are several factors that contribute to ID and IDA such as insufficient intake of iron-rich foods, the presence of parasitic infection, geographic location, high intake of absorption inhibitors (such as phytate, and polyphenols) and increased iron requirements for specific groups including infants, young children, adolescents, and women.

Research has indicated that children who consume cow's milk have higher rates of ID and IDA, which may be attributed to the low iron and vitamin C content of cow's milk. However, camel milk (CaM) has a comparable chemistry to breast milk for infants and contains roughly the same concentration of zinc and copper minerals as cow's milk. Furthermore, CaM has a higher amount of iron and Vitamin C than cow's milk, which may help to reduce the risk of ID and IDA. Despite this, no studies have been found that demonstrate a clear association between CaM consumption and a reduced risk of ID or IDA among children.

A community-based comparative cross-sectional study was conducted on 388 preschool children aged 24-59 months in rural pastoral districts of Somali Region in eastern Ethiopia. We sampled 185 consumers of camel milk (CaM) and 203 who consumed bovine milk (BM). Children were selected from random households with lactating camels or cows. Independent samples t-tests were used to identify significant differences in each of iron-status indices based on the type of milk consumed. Furthermore, a multivariable logistic regression model was used in SPSS version 20.0 to examine independent predictors associated with ID and IDA.

The study findings provide evidence that children in pastoral regions are susceptible to childhood ID and IDA. The Ethiopia Food consumption Survey Report indicates that milk and cereals are the primary components of the diet consumed by a pastoralist child.

According to the descriptive analysis in the present study, about 44% of the pre-schoolers had ID, 30% had IDA, 54% had iron-deficient erythropoiesis (IDE), and 32% had combined IDE and anaemia when adjusted for inflammation, and 52% had intestinal parasitic infection. A significantly lower proportion of pre-schoolers who consumed CaM had ID (40.9% vs 59.1%, $P = 0.002$), IDA (30% vs 70%, $P < 0.001$), IDE (42% vs 58%, $P = 0.004$) and IPI (36.7% vs 60.2%, $P = 0.003$) compared to those who consumed BM.

Multivariable logistic regression analysis showed that pre-schoolers who consumed BM had more than three times higher odds of ID, IDA and IDE, respectively, than CaM consumers. In general, CaM consumption was associated with a lower incidence of ID, IDA and combined IDE and anaemia compared to BM. Enhancing the consumption of CaM in pastoralist and semi-pastoralist areas may help to reduce nutrient related iron-deficiency as well as anaemia.





Physicochemical quality of drinking water sources in Ethiopia and its health impact: a retrospective study

Contributed by: Zinabu Assefa, Kirubel Tesfaye , Tsigereda Assefa, Kifle Habte and Sisay Derso

Background: This retrospective study aimed to examine the distribution of some physicochemical parameters and their health impact on selected drinking water sources across Ethiopia. The study analyzed 983 water samples collected from different regions of the country between 2003 and 2011. These samples, which were collected from eight regions and two administrative cities, were tested in the Environmental Health Laboratory at the Ethiopian Public Health Institute. The samples were classified based on the source type as spring, well, and tap water.

Methods: The physicochemical parameters were analyzed using standard method. Microsoft Excel and IBM SPSS Statistical software were employed to calculate the median and create graphs for statistical analysis.

Results: The median results indicate that certain values such as PH, magnesium, chloride and sodium in both spring and tap water, fall within the acceptable range. However, some measured values in certain regions exceeded recommended limits, such as total hardness and calcium levels in spring, tap, and well water. Additionally, very high concentrations of sodium and chloride were recorded in spring, tap, and well water sources in regions such as Somali, Afar, and Oromia.

Conclusions: Water sources that do not conform to National Standard may pose long-term public health risks. Therefore, local water authority should strengthen their water quality monitoring and control systems as well as implement risk assessment and management mechanisms to ensure the safety of drinking water for the public.





Pictorial



About NIPN

The National Information Platform for Nutrition (NIPN) supports evidence-based decision making for nutrition. It was launched as a global initiative to support the Scaling Up Nutrition (SUN) movement by the European Commission to support countries with a large burden of under nutrition. The initiative is currently implemented in nine countries around the globe.

NIPN Ethiopia

The National Information Platform for Nutrition (NIPN) was launched in Ethiopia in 2018. The NIPN promotes evidence-based decision making for nutrition and supports the implementation of the National Food and Nutrition Policy.

The NIPN is hosted by the Ethiopian Public Health Institute but works under the national nutrition governance system and collaborates with many multi-sectoral stakeholders of the National Nutrition Program.

The overall guidance to the NIPN is provided by the National Nutrition Monitoring, Evaluation and Research Steering Committee and a high level dedicated multi-sectoral NIPN Advisory Committee. Together, the involvement of these two committees ensures that each step of the NIPN happens in a relevant, appropriate, and timely manner.

Through seminars, webinars, and consultative workshops, the NIPN creates opportunities that bring researchers, nutrition experts, program implementers, and decision-makers together. Thus, promoting a positive environment which provides networking opportunities, allows for informal discussions and sharing of ideas.

The NIPN produces evidence-based analysis to inform national policymakers and program planners and to support their decisions for improved nutrition. It convenes research findings through clear communication and actionable messages.

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NIPN/NL June 2023

