



OMEGA-3 FATTY ACID ADDITION DURING PREGNANCY



Pregnancy is a crucial time in the life of a woman. The care received by women during pregnancy can have important implications on the outcomes for mother and child. One of the important elements in the care of pregnant women is adequate nutrition. The World Health Organization (WHO) recommendations on antenatal care (ANC) for a positive pregnancy experience,¹ emphasizes the need for adequate nutrition for pregnant women. Apart from a nutritious diet, these recommendations include the need for certain nutritional supplements such as iron and folic acid, and in certain situations, calcium, to improve neonatal and maternal outcomes.

Increased intake of foods or supplements containing Omega 3 long chain polyunsaturated fatty acids (LCPUFA) during pregnancy has been suggested as a strategy to improve outcomes in pregnancy. An update of a systematic review which was first carried out in 2006 was recently published by Middleton and colleagues². The review sought to determine "the effects of omega-3 LCPUFA, as supplements or as

dietary additions, during pregnancy on maternal, perinatal, and neonatal outcomes and longer-term outcomes for mother and child". Seventy trials involving a total of 19,927 women, were included in the study. The women in the study had varied risks of

poor pregnancy outcomes i.e. low, mixed or high risk.

The World Health Organization does not yet recommend the routine use of Omega-3 rich oils or supplements in pregnancy in a guideline but states the following:

"Studies that have investigated these mechanisms and their potential health benefits for mothers and children have, however, been inconsistent in their results. The most encouraging conclusions from a recent systematic review suggest that although there is not yet enough evidence to support the routine supplementation with marine oil during pregnancy to reduce the risk of pre-eclampsia, preterm birth or low birth weight, pregnant women could benefit from marine oil supplementation as a means to increase the length of gestation" (*World Health Organization. E-library of Evidence for Nutrition Actions*)³.

The researchers found high-certainty evidence that in women who received omega 3 LCPUFA, the risk of having low birth weight babies was reduced. The results of the research also showed that the risk of preterm birth before 37 weeks of pregnancy and early preterm birth (before 34 weeks of pregnancy), was reduced in women who received omega-3 compared to those who did not receive Omega-3

(high certainty evidence). Additionally, the findings showed that addition of Omega 3 in pregnancy could possibly reduce the risk of perinatal death (death of the baby during or just after delivery) and neonatal care admission. The researchers found a possible increase in risk of large-for-gestational age babies with omega-3 (moderate certainty evidence) and that it probably increased the incidence of pregnancies going beyond 42 weeks (moderate certainty evidence).

There was no difference between women who received omega 3 and those who did not, with regard to

incidence of serious adverse events and post natal depression. Little or no difference was also observed between the two groups with regard to

child development and growth.

The researchers concluded that addition of omega 3 in pregnancy reduces the incidence of preterm birth and low birth weight babies but probably increases the incidence of post-term pregnancies.

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birth or low-birth weight, pregnant women could benefit from marine oil supplementation as a means to increase the length of gestation" (World Health Organization. E-library of Evidence for Nutrition Actions)³.

References

1. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. *World Health Organization*; 2016.

2. Middleton P, Gomersall JC, Gould JF, Shepherd E, Olsen SF, Makrides M. Omega-3 fatty acid addition during pregnancy. *Cochrane Database of Systematic Reviews* 2018, Issue 11. Art. No.: CD003402. DOI: 10.1002/14651858.CD003402.pub3.
3. Marine oil supplementation to improve pregnancy outcomes. e-Library of Evidence for Nutrition Actions (eLENA). https://www.who.int/elena/titles/bbc/fish_oil_pregnancy/en/ accessed June 2019.

EVIDENCE AT YOUR FINGERTIPS

(From the Cochrane Library)

TECHNICAL SUMMARY

ENVIRONMENTAL INTERVENTIONS TO REDUCE THE CONSUMPTION OF SUGAR-SWEETENED BEVERAGES AND THEIR EFFECTS ON HEALTH

Background

Sugar-sweetened beverages include drinks to which caloric sweeteners have been added such as carbonated soft drinks, fruit juices which do not have 100% fruit content and which contain added sugars, sugar-sweetened energy and sports drinks, sugar-sweetened vitamin waters and flavoured water, and sugar-sweetened coffee and tea beverages. The regular consumption of sugar-sweetened beverages (SSBs) has been linked to a number of adverse health outcomes such as diabetes, cardiovascular disease, dental caries, obesity and overweight.

Objective

To assess the effects of environmental interventions (excluding taxation) on the consumption of sugar-sweetened beverages and sugar-sweetened milk, diet-related anthropometric measures and health outcomes, and on any reported unintended consequences or adverse outcomes.

Main Results

- This systematic review included 58 studies involving a total of 1,180,096 participants who were children, teenagers and adults.
- The included studies were of various study designs: 22 randomized controlled trials, 3 non-randomized controlled trials, 14 controlled before- after studies, and 19 interrupted time series.



The authors included various types of interventions in the review. They classified these interventions into 8 categories: labelling interventions (nutrition label standards and regulations on the use of claims and implied claims on foods); nutrition standards in public institutions; economic tools; advertisement regulation; whole food supply interventions; action across sectors (harnessing the food supply chain and actions across sectors to ensure coherence with health); and home-based interventions.

- The interventions were carried out in a broad variety of settings, including schools, homes, retailing establishments, restaurants and cafes, and other settings.
- The comparisons were no intervention, minimal or alternative intervention.
- Primary outcomes were: direct and indirect measures of SSB intake; diet-related anthropometric measures and health outcomes; any reported adverse outcomes or unintended consequences. Secondary outcomes were: Measures of financial and economic viability; diet-related psychosocial variables; target group perceptions of the intervention; consumption of beverages other than SSB.

The authors found the following:

- **Labelling interventions** (8 studies): Traffic-light labelling is associated with lower sales of SSBs (moderate-certainty evidence); nutritional rating score labelling is associated with lower sales of SSB (low-certainty evidence) and the effects of menu board calorie labelling on the sale of SSB was varied.
- **Nutrition standards in public institutions** (16 studies): Reducing the availability of SSB in schools is associated with decreased consumption of SSBs (low-certainty evidence); Improving the availability of drinking water in schools and school fruit programmes were also associated with decreased SSB consumption (very low-certainty evidence).
- **Economic tools** (7 studies): Increasing the price of SSBs is associated with decrease in SSB sales (moderate-certainty evidence). The effect that price discounts on low-calorie beverages had on SSB sales varied.
- **Whole food supply interventions** (3 studies): The associations between voluntary industry initiatives to improve the whole food supply and SSB sales varied between studies.
- **Retail and food service interventions** (7 studies): Healthier default beverages in children's menus in chain restaurants are associated with lower SSB sales (low-certainty evidence) and in-store promotion of healthier beverages in supermarkets is associated with lower SSB sales (moderate-certainty evidence).
- **Urban planning** (8 studies): Urban planning restrictions on new fast-food restaurants and on the number of stores selling SSBs in remote communities are also associated with lower SSB sales (very low-certainty evidence). The associations between promotion of healthier beverages in vending machines and consumption or sale of SSBs varied between studies.
- **Intersectoral approaches** (8 studies): Government food benefit programmes that restrict the purchasing of SSBs are associated with reduction in SSB intake (moderate-certainty evidence). The reported effects varied for unrestricted food benefit programmes. Multicomponent community campaigns which focused on SSBs are associated with reduction in the sale of SSBs (moderate-certainty evidence). The associations between trade and investment liberalisation and the sale of SSBs as reported in the studies, varied.
- **Home-based interventions** (7 studies): Improving the availability of low-calorie beverages in the home is associated with reduced intake of SSBs (moderate-certainty evidence), and decreased body weight among overweight or obese adolescents who had a high baseline consumption of SSBs (high-certainty evidence)
- **Adverse outcomes** – Adverse outcomes reported by some studies include decreasing revenue, discontentment of stakeholders, compensatory consumption of SSB outside school, reduced consumption of milk, among others. The

certainty of evidence on most adverse outcomes ranged from low to very low.

- **Sugar-sweetened milk:** The authors analysed interventions focusing on sugar sweetened milk separately. They found that emotion labelling and giving small prizes to children who choose healthier beverages in elementary school cafeterias are associated with reduced consumption of sugar-sweetened milk (low- to moderate-certainty evidence). Improving the placement of plain milk in school cafeterias is not associated with a reduction in the consumption of sugar-sweetened milk (low-certainty evidence).

Authors' conclusions

The authors concluded that the evidence from the review indicates effective, scalable interventions, which may reduce consumption of SSBs are available at a population level. More research, using appropriate study design, is needed on the long-term effects of interventions implemented on a large scale.

Reference

1. von Philipsborn P, Stratil JM, Burns J, Busert LK, Pfadenhauer LM, Polus S, Holzapfel C, Hauner H, Rehfues E. *Environmental interventions to reduce the consumption of sugar-sweetened beverages and their effects on health. Cochrane Database of Systematic Reviews 2019, Issue 6. Art. No.: CD012292. DOI: 10.1002/14651858.CD012292.pub2.*

PLAIN LANGUAGE SUMMARIES

PROVISION AND UPTAKE OF ROUTINE ANTENATAL SERVICES

What is the aim of this review?

The aim of this Cochrane qualitative evidence synthesis is to explore women's and healthcare workers'

views and experiences of antenatal care. We collected and analyzed all relevant qualitative studies to answer this question, and include 85 studies.

The synthesis links to the Cochrane Reviews of the effectiveness of different antenatal models of care. The synthesis was designed to inform the World Health Organiza-

tion guidelines for a positive pregnancy experience.

Key messages

Three areas of antenatal care are important to both women and service providers in all regions of the world. These are: the need to recognize and take account of the socio-cultural context

in which care is provided; the need to ensure that service design and provision are appropriate, accessible, acceptable and of high quality; and that what matters to women and staff is personalised supportive care, information, and safety.

What was studied in this review?

Antenatal care is the health care women get while they are pregnant. During antenatal care visits, pregnant women are provided with support, reassurance, and information about pregnancy and birth, as well as tests and examinations to see if they and their babies are healthy. If any issues or problems are discovered, these can be managed during the clinic visit. If needed, women can be referred to other care providers. Different types of healthcare workers can give antenatal care. These include midwives, doctors, nurses, and, sometimes, traditional birth attendants.

The World Health Organization recommends that all pregnant women get antenatal care, but pregnant women do not always use this care. This may be because they do not think it is important, or because they cannot get to the healthcare facility. It may also be because the antenatal care they receive is of poor quality or because they are badly treated when they are there. By looking at studies of women's and healthcare workers' views and experiences of antenatal care, we aimed to learn more about what might help women to use antenatal care, and what might stop them using it.

What are the main findings of this review?

We included 85 studies in our synthesis. Forty-six studies explored the views and experiences of women who were pregnant or who had recently given birth. 17 studies explored the views and experiences of healthcare providers, including lay or community health workers, and 22 studies included the views of both women and healthcare

providers. The studies took place in eight high-income countries, 18 middle-income countries and 12 low-income countries, in rural and urban locations.

Our findings suggest that women use antenatal care if they find it is a positive experience that fits with their beliefs and values, is easy for them to access, affordable, and treats them as an individual. They want care that helps them to feel that they and their baby are safe, and that is provided by kind, caring, culturally sensitive, flexible, and respectful staff that have time to give them support and reassurance about the health and well-being of them and their babies. They also value tests and treatments that are offered when they need them, and information and advice that is relevant to them.

Our findings also suggest that healthcare staff want to be able to offer this kind of care. They would like to work in antenatal services that are properly funded, and that give them proper support, pay, training and education. They believe this will help them to have enough time to treat each pregnant woman as an individual, and to have the knowledge, skills resources and equipment to do their job well.

How up-to-date is this review?

The review authors searched for studies that had been published up to February 2019.

Reference

Downe S, Finlayson K, Tunçalp Ö, Gülmezoglu AM. Provision and uptake of routine antenatal services: a qualitative evidence synthesis. *Cochrane Database of Systematic Reviews* 2019, Issue 6. Art. No.: CD012392. DOI: 10.1002/14651858.CD012392.pub2.

EFFECTS OF STARTING ANTI-RETROVIRAL THERAPY WITHIN ONE WEEK OF DIAGNOSIS ON PEOPLE LIVING WITH HIV

What is the aim of this review?

The aim was to determine whether starting antiretroviral therapy (ART) within one week of HIV diagnosis

(rapid ART) resulted in a lower risk of dying or better suppression of the virus in people's blood than standard care; as well as studying the effect of this intervention on whether people start taking ART and continue to be engaged in care after 12 months.

Key messages

Offering ART to people living with HIV (PLWH) within one week of diagnosis probably increases the number of people initiating the therapy at 12 months and the number of PLWH whose virus has been suppressed in the blood at 12 months. It may also improve the number of people who are still in contact with healthcare services at 12 months. We don't know the effect this has on people dying. We found that several other changes need to be made alongside rapid ART for services to achieve these outcomes.

What was studied in the review?

HIV is a leading cause of death worldwide. Although more people are taking ART than ever before, there is a large percentage of PLWH who are not being treated. One of the reasons identified is the long period between being diagnosed with HIV and starting ART. Rapid ART has been proposed as a way to increase the number of PLWH being started on ART and improve HIV-related outcomes.

What are the main results of the review?

We found seven studies that met the inclusion criteria of the review and assessed the effect of rapid ART on PLWH. Rapid ART probably increases the number of people being initiated on ART at 12 months and the number of PLWH with no detectable virus in their blood at 12 months (moderate-certainty evidence). Based on low-certainty evidence, rapid ART may increase the number of PLWH being retained in care. We don't know whether rapid ART has an effect on the number of deaths (very low-certainty evidence).

We found that if healthcare services aim to offer ART within a week of diagnosis, changes to how these systems operate will need to be made.

How up to date is the review?

We searched for relevant trials up to 14 August 2018.

Reference

Mateo-Urdiales A, Johnson S, Smith R, Nachege JB, Eshun-Wilson I. Rapid initiation of antiretroviral therapy for people living with HIV. *Cochrane Database of Systematic Reviews* 2019, Issue 6. Art. No.: CD012962. DOI: 10.1002/14651858.CD012962.pub2.

RECENT EVENTS

GRADE WORKSHOP

The GRADE (Grading of Recommendations Assessment, Development and Evaluation) System is used in Systematic Reviews and Clinical practice guidelines for assessing the certainty of evidence, creating evidence to decision tables and a number of other purposes. Depending of the study design, GRADE system assesses the quality of evidence from studies included in a systematic review based on a number of domains including risk of bias, inconsistency, indirectness, imprecision, publication bias, large effect, plausible confounding and dose response gradient. GRADing of evidence is a necessary part of systematic reviews; as such review authors need skills on how to GRADE evidence.

Cochrane Nigeria provides training on how to GRADE evidence for systematic reviews in addition to other types of capacity building. A workshop was held by Cochrane Nigeria, on 27-28 May 2019 at the Institute of Tropical Diseases Research and Prevention Calabar on GRADE. Fourteen persons attended the workshop. The workshop, which was facilitated by Prof. Martin Meremikwu, Dr. Emmanuel Effa and Dr. Ekpereonne Esu, included sessions on risk of bias assessment, hands



on sessions on using GRADEPro GDT Software (the software for GRADing evidence), Creating Summary of Findings tables, Integrating GRADE quality of evidence into Cochrane reviews and Using GRADE evidence in Guideline recommendations among others. The training was well received and the participants learned a lot through the workshop.



Consumer network members

CONSUMER NETWORK MEETING

Cochrane Nigeria is building a local network of consumers who are passionate about promoting evidence based health care. It facilitated a meeting with the local network of Cochrane Consumers in Calabar, Cross River State, Nigeria on 21 May 2019 with 18 persons in attendance. The meeting was one of the quarterly meetings of the network which was attended by representatives from various civil society and consumer health organizations.

During the meeting, Cochrane Nigeria shared evidence from two Cochrane Systematic Reviews – *Omega-3 fatty acid addition during pregnancy* and *Portion, package or tableware size for changing selection and consumption of food, alcohol and tobacco* – with the network. These reviews formed the basis for a practical session on how to advocate for evidence with different audiences. These audiences represent various stakeholders that consumers may need to advocate for use of evidence such as general public, groups affected by a condition or policy makers. It was a lively session, as some of the members did role plays to show how they would advocate for specific evidence to different target audiences such as the general public and policy makers.



Mrs. Cecilia Ofum and Comrade Bernard Enyia (consumer network members) doing a role play on advocating for evidence from Cochrane Systematic Reviews.



New and Updated Reviews from the Cochrane Library

The following new and updated reviews, published recently in the Cochrane Library, were authored or co-authored by Nigerians.

New or Updated Review

- Artemether for Severe Malaria **by** *Ekpereonne B Esu, Emmanuel E Effa, Oko N Opi and Martin M Meremikwu*. Issue 6, 2019.
- Palliative interventions for controlling vaginal bleeding in advanced cervical cancer **by** *George U Eleje, Ahizechukwu C Eke, Gabriel O Igberase, Anthony O Igwegbe, and Lydia I Eleje*. Issue 3, 2019.
- Vaccines for preventing rotavirus diarrhoea: vaccines in use **by** *Karla Soares-Weiser, Hanna Bergman, Nicholas Henschke, Femi Pitan and Nigel Cunliffe*. Issue 3, 2019.
- Ethosuximide, sodium valproate or lamotrigine for absence seizures in children and adolescents **by** *Francesco Brigo, Stanley C Igwe and Simona Lattanzi*. Issue 2, 2019.
- Educational interventions for improving primary caregiver complementary feeding practices for children aged 24 months and under **by** *Dachi Arikpo, Ededet Sewanu Edet, Moriam T Chibuzor, Friday Odey and Deborah M Caldwell*. Issue 5, 2018.
- Phytomedicines (medicines derived from plants) for sickle cell disease **by** *Oluseyi Oniyangi and Damian H Cohall*. Issue 2, 2018.
- Honey for acute cough in children **by** *Olabisi Odunwole, Ekong E Udoh, Angela Oyo-Ita and Martin M Meremikwu*. Issue 4, 2018.
- Contracting out to improve the use of clinical health services and health outcomes in low- and middle-income countries **by** *Willem A Odendaal, Kim Ward, Jesse Uneke, Henry Uro-Chukwu, Dereck Chitama, Yusentha Balakrishna and Tamara Kredo*. Issue 4, 2018
- **Stiripentol add-on therapy for focal refractory epilepsy** **by** *Francesco Brigo, Stanley C Igwe and Nicola Luigi Bragazzi* Issue 5, 2018.

OTHER RECENT REVIEWS

- Vaccines for preventing invasive salmonella infections in people with sickle cell disease **by** *Friday Odey, Uduak Okomo, and Angela Oyo-Ita*. Issue 12, 2018.

ANNOUNCEMENTS

- **Appointment of New Editor in Chief for the Cochrane Library:**

Dr. Karla Soares-Weiser has been appointed the new Editor-in-chief of the Cochrane library. She replaces Dr. David Tovey who has served excellently in this capacity over the last ten years.

- **2018 Journal Impact Factor - Cochrane Database of Systematic Reviews:**

The 2018 journal impact factor for the Cochrane Database of Systematic Reviews is 7.755. This means that a Cochrane Review was cited on average, once every 8 minutes in 2018! This is an increase over the 2017 Impact Factor, which was 6.754.

- **Cochrane Colloquium Santiago - Registration Open**

Registration has opened for the 26th Cochrane Colloquium which will take place at the CasaPiedra in Santiago, Chile from the 22-25 October 2019. The theme of the Colloquium is “**Embracing Diversity**”.

For more information and key dates, visit the Colloquium site: <https://colloquium2019.cochrane.org>



- **Cochrane Interactive learning - New Module on Network Meta-analysis:** Cochrane training has recently included a new module (Module 10) on Network Meta-analysis in its Online Interactive training modules. You can have free access to this and other modules if you are a Cochrane Author or if you are resident in a WHO Hinari Group A or B country (Nigeria included).

To access this course: <https://training.cochrane.org/interactivelearning>

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Please visit our website: nigeria.cochrane.org

Email us at: cochranenigeria@yahoo.co.uk

CALL US ON:

Moriam:+234 (0)8039733998

Bisi:+234 (0) 8056071976

Emmanuel: +234 (0) 8037236919



Address:

Cochrane Nigeria

Calabar Institute of Tropical Diseases Research and Prevention
University of Calabar Teaching Hospital, Moore Road
GPO Box 3134, Calabar, Cross River State

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