

Citation review 2018

This citation review was carried out September to December 2018 by Rachael Butler, Frieda Sossi and Ludovia Ibba (ENN staff and volunteers). Chloe Angood (ENN nutritionist) coordinated the review and authored this report and the project was overseen by Emily Mates (ENN Technical Director).

Key findings

Very few citations of FEX and NEX content were found. This is at least partly due to not having the correct links and tools on our website.

Some ENN publications have been very widely cited, particularly those generated by the WaSt project, as well as the MAMI project.

Very few citations were found of ENN publications from other projects.

ENN authored journal articles are the type of ENN publication cited most frequently.

Actions are needed to ensure that FEX and NEX articles are picked up by search engines and to improve dissemination (both internal and external) and targeting of all ENN publications.

Background

The purpose of this review was to explore how ENN publications are cited and used in external publications to give a measure of their dissemination and uptake. The review aimed to investigate citations of ENN publications 2013 to 2018, including Field Exchange (FEX) both whole issues and individual original articles (issues 50 to 57), Nutrition Exchange (NEX) both whole issues and individual original articles (issues 3 to 9) and ENN authored and co-authored publications. The decision was made to limit the analysis of FEX content to that published from 2015 to make the review achievable (there are many more FEX articles published per issue compared to NEX).

Method

A list of ENN publications (FEX, NEX and other publications) was compiled by the ENN team. A literature search was then performed. Each individual publication was searched for in Google Scholar, Google books, Pubmed and Medline. In addition, ENN staff members were asked to pinpoint places where they knew ENN publications had been referenced and these citations were also added to the list when not already found.

A list of popular nutrition blogs was compiled, and key word searches were performed to find references to ENN publications. Blogs included: Development Horizons, News deeply: Malnutrition deeply: Global panel on agriculture and food systems for nutrition; IFPRI; Scaling up Nutrition; Gain health; Coverage Monitoring Network and Oxfam.

Results were compiled in an excel spreadsheet and analysed.

Results

Field Exchange

There were no citations found of any whole issues of Field Exchange, although notification of issues 50, 51 and 56 were found on the Scaling up Nutrition (SUN) blog and issue 50 on Development Horizons.

Across eight issues (FEX 50-57), there were 15 citations found for eight individual articles, listed in Table 1. These articles varied by topic, with three on the scaling up of acute malnutrition programmes and two on nutrition-sensitive programming. Articles were cited in journals (n=9), other FEX articles (n=4), an agency report (n=1) and a blog post (n=1). The article most frequently cited was a field article describing a combined severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) protocol in the ComPAS study.

Table 1: Field Exchange (FEX) articles cited 2015-2018

Issue	No. original articles cited	Topic of article cited	Type of articles cited	No. citations	Places cited
57 (General)	1	Links between wasting and stunting	Research article	3	2 x journal articles 1 x agency report
56 (Nutrition Cluster theme)	0				
55 (General)	1	Nutrition-sensitive programming (WFP)	News and views	1	1 x blog post (SUN)
54 (General)	2	Scale up of acute malnutrition programming (Ethiopia)	Field article	2	2 x articles in subsequent FEX issues
		Scale up of acute malnutrition programming (Ethiopia)	Field article	2	2 x articles in subsequent FEX issues
Issue 53 (General)	1	Continuum of care (Compas study)	Field article	5	5 x journal articles
Issue 52 (General)	1	Scale up of acute malnutrition programming (CHWs Kenya)	Field article	1	1 x journal article
Issue 51 (Nutrition-sensitive programming)	1	Nutrition-sensitive programming (agriculture)	Field article	1	1 x journal article
Issue 50 (General)	0				
Total		8 articles		15 citations	

Nutrition Exchange

There were no citations found of any whole issues of Nutrition Exchange, except for notification of the release of NEX 3, 7 and 8 in the SUN blog.

Across seven issues of NEX (issues 3-7) there were four citations found for four original articles, listed in Table 2. One article was cited in a published journal article, two on the SUN blog and one in an external report.

Table 2: Nutrition Exchange (NEX) articles cited 2013-2018

Issue	No. original articles cited	Topic of article cited	Type of articles cited	No. citations	Places cited
Issue 9	3	Scale up of acute malnutrition programming (community engagement, Yemen)	Original article	1	1 x external report
		Multi-sectoral nutrition (compendium of actions)	Original article	1	1 x blog (SUN)
		Nutrition coordination (Chad)	Original article	1	1 x blog (SUN)
Issue 8	1	Obesity (Ecuador)	Original article	1	1 x journal article
Issue 7	0				
Issue 6	0				
Issue 5	0				
Issue 4	0				
Issue 3	0				

ENN publications

Of 46 ENN publications, 18 were cited a total of 142 times, as listed in Table 3. ENN publications have been cited in 103 published journal articles. Citations were also found in academic theses, books, unpublished reports, research proposals, policy briefs, on websites and in blog posts. The publication most frequently cited was a journal article on the similarities and differences between wasting and stunting (Briend, Khara and Dolan, 2015), followed by a technical briefing paper on the links between wasting and stunting (Khara and Dolan, 2014) and two journal articles on research priorities in MAMI (Angood et al, 2015) and WaSt (Angood et al, 2016).

Table 3: ENN publications cited 2012-2018

Name publication	Year	Topic of paper cited	Type of paper cited	No. citations	Places cited
Wasting and stunting – similarities and differences https://www.ennonline.net/resources/wastsimilaritiesdifferences	2015	Links between wasting and stunting	Published journal article (Food Nut Bulletin)	48	36 x journal articles 7 x theses 1 x Research proposal 2 x books 1 x unpublished research paper 1 x report
Technical briefing paper on the links between wasting and stunting www.ennonline.net/waststuntreview2014	2014	Links between wasting and stunting	Technical briefing paper	33	23 x journal articles 1 x policy brief 6 x theses 2 x external reports 1 x website
Research priorities MAMI www.ennonline.net/researchprioritiesmami	2015	MAMI	Published journal article	16	11 x journal articles 1 x thesis 1 x book 2 x websites 1 x FEX article
Research priorities on the links between wasting and stunting www.ennonline.net/wastingandstuntinglink	2016	Links between wasting and stunting	Published journal article	14	11 x journal articles 2 x theses 1 x unpublished research article
Children concurrently wasted and stunted: meta-analysis from 84 countries www.ennonline.net/resources/wastmetaanalysis	2017	Links between wasting and stunting	Published journal article	5	1 x report 5 x journal articles
REFANI impact evaluation https://www.ennonline.net/refanirefani	2017	Cash based programming	Published journal article (Plos med)	5	5 x journal articles
Review of methods to detect SAM in infants under 6 months www.ennonline.net/mamicasedetectionreview	2017	MAMI	Review	4	4 x journal articles
Government experiences of CMAM scale up www.ennonline.net/cmamgovernmentlessons	2012	Scale up of acute malnutrition programming	Report	4	3 x journal article 1 x report
UNHCR SOP for BMS use in emergencies www.ennonline.net/iycfsopbmsreference	2015	IYCF-E	Policy document	3	2 x FEX articles 1 x journal article
REFANI literature review www.ennonline.net/refaniliteraturereview	2015	Cash based programming	Report	2	1 x journal article 1 x report
Nutrition coordination Ukraine	2015	Nutrition coordination	Report	1	1 x journal article

www.ennonline.net/nutritioncoordinationinukraine					
Scaling up nutrition services in Yemen www.ennonline.net/scalingupnutryemencasestudy	2015	Nutrition coordination	Report	1	1 x external report
Maternal nutrition in emergencies www.ennonline.net/maternalnutritiontechnicalpaper	2013	Maternal nutrition	Report	1	1 x journal article
MAMI Bangladesh qualitative study www.ennonline.net/resources/acutemalnutbangladeshstudy	2018	MAMI	Published journal article (Clinical medicine insight)	1	1 x journal article
Stunting in emergencies discussion paper https://www.ennonline.net//stuntingprotractedemergencies	2017	Stunting in emergencies	Report	1	1 x blog post (SUN)
Coverage matters https://www.ennonline.net/coverage/matters	2014	Assessment	Report	1	1 x blog post (SUN)
Case study of multi-sector programming at the sub-national level, Senegal www.ennonline.net/mspcasestudy/senegal	2018	Multi-sectoral programming	Report	1	1 x blog post (SUN)
Case study of multi-sector programming at the sub-national level, Kenya www.ennonline.net/mspcasestudy/kenya	2018	Multi-sectoral programming	Report	1	1 x blog post (SUN)

Table 4 shows the number of ENN publications produced 2012 to 2018 by topic and the number of those cited and number of citations. This demonstrates that far and away the topic area with the most publications cited and most citations was the link between wasting and stunting (WaSt), with 100 citations of four ENN-authored publications. ENN publications on the topic of the management of at risk mothers and children (MAMI) were cited 21 times. Others had under ten and some none, including Human development nexus (explained by the publication of only one article late in 2018), resilience and adolescent nutrition.

Table 4: ENN publications 2012-2018 and citations by topic area

Topic	No. publications	No. publications cited	No. citations
WaSt	6	4	100
MAMI	7	3	21
Cash-based programming (REFANI)	3	2	7
Scale up of acute malnutrition services (CMAM)	4	1	4
IYCF-E	4	1	3

Nutrition coordination	6	2	2
Multi-sectoral programming	4	2	2
Stunting in emergencies	2	1	1
Assessment	2	1	1
Maternal nutrition	1	1	1
HDN	1	0	0
Resilience	1	0	0
Anaemia	1	0	0
General (technical meeting)	1	0	0
WaSt and MAMI (joint meeting)	1	0	0
Adolescent nutrition	2	0	0
TOTALS	46	18	139

Discussion

Results show that FEX and NEX content was cited very infrequently in external publications. This does not necessarily demonstrate low uptake of these publications (subscription figures for both remain at high levels) but a lack of uptake by those writing external literature, including academics and those in external agencies producing reports, technical briefs and policy documents. The fact that these documents cover the same areas as ENN publications frequently cited suggests that this is a problem of dissemination, rather than of the lack of applicability or usefulness of FEX and NEX content. In digging further, the authors of this report found that in order to be picked up by search engines articles should be in a pdf format with individual DOIs. It was also found that more can be done on the ENN website to make it easier for academics to cite individual articles, such as integrating reference management software into our site. In order to influence global research, policy and programming, changes such as these must be made urgently to facilitate access of academics and key agencies to FEX and NEX content.

There has been excellent uptake of some ENN publications, in particular, a published research article and technical brief on the links between wasting and stunting and two papers on research priorities in MAMI and WaSt. The wide citation of the latter two documents is possibly due to their purpose, which is to influence the global research agenda. Results clearly show that WaSt is the topic of most interest to those publishing external materials in the sector, followed by MAMI. This suggests that these are 'hot topics' in the nutrition sector currently, justifying investment of ENN's time and resources.

Common to both projects in ENN (WaSt and MAMI) is the committed involvement of a group of technical experts (the WaSt technical interest group and the MAMI special interest group) including well known academics. The engagement of these individuals in the development of materials and their subsequent dissemination, as well as citation in their own academic papers, may have greatly helped the high uptake of related documents. This learning may be transferable to other ENN projects.

Journal articles are the type of ENN publications most frequently cited. This is likely because, once published in a journal, the publication is included in all academic search engines and therefore is easily found by academics. This suggests that if other ENN publications are picked up by academic search engines, they too will be cited more frequently. It also shows the merit of publishing ENN content in academic journals, in spite of the time, effort and cost required.

There were few external citations of other ENN publications. This citation review does not capture uptake and use of ENN publications by agencies and individuals who do not produce documentation. Anecdotal evidence from the 2018 User Survey shows that many programmers use and apply learning from ENN publications in the course of their work in a wide variety of contexts. However, the result of the review suggest that more could be done to disseminate documents going forward in order to increase their uptake and impact.

Recommendations

Website changes

- Create pdfs of every NEX and FEX individual article (of original content) and include DOIs to ensure they are picked up by search engines (this could be done retrospectively if resources allow)
- Integrate reference management software into ENN's website to enable academics to more easily cite articles.
- Integrate citation monitoring software into ENN's website to enable closer monitoring of the uptake of different ENN publications and schedule regular reviews of this information.

Develop dissemination protocols

- Create a protocol for the dissemination of every ENN publication using ENN channels, including ENN's website (newsroom, ENN latest, homepage, media hub), en-net, FEX, NEX, social media (twitter, facebook, linkedin) and e-notifications using ENN's database of contacts. Specify who should do what, when.
- Create a protocol of the dissemination of every ENN publication using external channels. This could include the development of a list of external blogs, listservs and gatekeepers within major networks and agencies that new content can be mailed to routinely across all ENN projects and publications. Specify who should use it, when.

Target academics and key agencies

- Consider creating a new mailing list of academics in the nutrition sector and circulating quarterly a list of new ENN publications (including ENN publications, FEX articles and NEX articles) with links ordered by topic for quick reference (as academic journals do).

Actions for ENN projects

- All ENN projects to consider involving a range of stakeholders in the development of publications, included in which are academics most likely to cite and use the publication, learning from the WaSt and MAMI examples.
- Considering that most citations of ENN publication are of those published in journals, strive to publish as much content as possible.
- Target content to writers of blogs and strategic individuals related to the specific project when new ENN publications come out.
- Each project to critically analyse itself on the basis of the findings of this review: could more have been done to disseminate publications in the past? Are the topics/ findings/ papers of relevance to the sector? Have they had sufficient/ intended impact? How can we act on the recommendations above in future to increase uptake?

Monitor progress

- Include indicators in ENN's MAE database to routinely measure citations (using new software integrated into our website) and feed this into the results framework.
- Analyse these data each quarter and make this information available to every TD to analyse progress.