Nutrition Landscape Information System (NLiS)
Results of a user survey
Summary

The Nutrition Landscape Information System (NLiS) links all existing global nutrition databases as well as other relevant nutrition-related data available from partner agencies, and presents these data in the form of automated country profiles.¹ Since the introduction of NLiS in 2009, the World Health Organization (WHO) has worked to improve its structure and quality of content. After the Global Nutrition Monitoring Framework (GNMF) was adopted by the 68th World Health Assembly in 2015 to monitor the achievement of the six Global Nutrition Targets for 2025, NLiS was identified as the platform to incorporate the indicators of the GNMF. Once all 21 indicators of the GNMF had been finalized, it was incorporated into NLiS in December 2017.

This report presents the results of a user survey that was conducted in October–November 2018.

The following are some key findings of the survey:

- 75 respondents representing all WHO regions and various sectors and professions responded to the user survey;
- respondents gave high ratings to both the ease of use of the survey and the quality of the content, with most respondents indicating that the information provided in NLiS is helpful;
- of all indicators monitored in NLiS, including those of GNMF country profiles, 65% of the respondents indicated that they were interested in GNMF primary outcome indicators (i.e. Global Nutrition Targets), 64% in vitamin and mineral deficiency indicators, and 62% in the policy environment and capacity indicators;
- some examples of how respondents benefited from and used the information from the NLiS country profiles include:
  - helping in designing and prioritizing interventions for policy and programme development;
  - supporting countries in developing nutrition surveillance systems;
  - preparing country briefings and case studies with respect to nutrition;
  - preparing for country workshops and university lectures; and
  - preparing donor assessments;
- most respondents (92%) indicated that they would be likely to recommend the use of NLiS to colleagues or professional acquaintances;
- most respondents (90%) indicated that they would be likely to use NLiS again, to obtain required nutrition-related information for countries; and
- respondents thought that the NLiS website was known only to a small, limited group of users – therefore, strengthened advocacy and dissemination strategies would be required to improve its further dissemination (i.e. through channels such as regional workshops and publications, and regular updates through email listservs).

¹ See https://www.who.int/nutrition/nlis/en/
Introduction

The Nutrition Landscape Information System (NLiS) country profiles provide a user-friendly snapshot of a country’s nutrition situation. Dynamically linking all existing World Health Organization (WHO) global nutrition databases, as well as other relevant food and nutrition-related data from partner agencies, NLiS was developed in 2009 as a web-based tool that provides nutrition and nutrition-related health and development data in the form of automated country profiles. Data presented in the country profiles are structured using the United Nations Children’s Fund (UNICEF) conceptual framework for causes of malnutrition. The profiles are intended to give an overview of key indicators of nutrition status in a country, as well as the underlying factors related to food, health and care, and basic factors related to commitment, capacity, policies and programmes.

In 2015, the 68th World Health Assembly adopted the Global Nutrition Monitoring Framework (GNMF) to monitor countries’ progress towards achieving the 2025 Global Nutrition Targets. NLiS was selected as the platform for the 21 indicators of GNMF that cover primary outcome indicators for the six Global Nutrition Target outcomes; intermediate outcome indicators; process indicators; and policy, environment and capacity indicators. Once all 21 indicators of the GNMF had been finalized, a special country profile view with the most recent national data for the 21 GNMF indicator was incorporated into NLiS in December 2017.

The NLiS data search functionality allows users to select and view indicators from the two country profiles, and generate Excel spreadsheets for download.

Since the launch of the NLiS in 2009, WHO has continuously worked to improve the structure and quality of content. To continue improving the user experience, a survey was conducted in October–November 2018.

Methodology

An online user survey was implemented on the WHO Dataform platform. The survey comprised 41 questions covering the following categories:

- personal characteristics of responding users;
- general satisfaction, impression and rating of NLiS;
- questions for new users of NLiS; and
- questions for current users of NLiS:
  - use of principal menu features:
    - NLiS country profiles;
    - GNMF country profiles;
    - NLiS data search;
    - help texts and indicator interpretation guide; and
  - use of data contained on NLiS.

Invitations to participate in the user survey were sent via email from the WHO Department of Nutrition for Health and Development (NHD) listserv and through the United Nations Standing Committee on Nutrition (UNSCN) newsletter in October 2018.

1 See https://www.who.int/nutrition/nlis/en/
2 WHA Decision 68(14).
Results

Respondents

A total of 136 responses were initiated, of which 75 respondents answered in full and were considered in the survey results presented here. The 75 responses were received from users in 36 different countries across all the WHO regions. The largest number of responses came from the WHO Region of the Americas, followed by South-East Asia, and Africa and Europe (Fig. 1).

In this user survey, the academic/research sector had the highest representation of respondents, followed by nongovernmental organizations (NGOs) (Fig. 2). The primary professional roles of respondents were mainly in academia/research and provision of technical guidance, as well as policies and programmes (Fig. 3). Forty-nine of the respondents reported having used NLIS before the survey, whereas 25 were new users (one respondent did not answer this question).

Fig. 1. WHO region of residence (n=75)

Fig. 2. Sector of respondents (n=75)

Fig. 3. Primary professional role (n=75)

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1 Number and country of respondents from the WHO African Region (13): Ethiopia (1), Ghana (3), Kenya (3), Madagascar (1), Nigeria (2), South Sudan (1), Uganda (1) and the United Republic of Tanzania (1); WHO Region of the Americas (21): Brazil (1), Canada (5), Chile (1), Mexico (1), Nicaragua (1), Paraguay (2) and the United States of America (10); WHO Eastern Mediterranean Region (6): Egypt (1), Iran (2), Jordan (1), Lebanon (1) and Yemen (1); WHO European Region (13): France (1), Greece (1), Italy (2), Netherlands (1), Slovakia (1), Switzerland (5) and the United Kingdom of Great Britain and Northern Ireland (2); WHO South-East Asia Region (18): Bangladesh (3), India (11), Myanmar (1), Pakistan (1), Sri Lanka (1) and Thailand (1); and the WHO Western Pacific Region (4): Australia (2), Philippines (1) and South Korea (1).
Overall impression of NLiS

Most of the respondents found the NLiS website to be easy or very easy to use, with no respondents indicating any difficulties navigating the site (Fig. 4). On a scale from 1 to 10, the average rating of the ease of use of NLiS was 7.7, and the average rating of the quality of its content was 7.9. Respondents more often rated NLiS towards the higher end of the scale (Fig. 5 and Fig. 6).
Most of the respondents reported that they would be likely or very likely to recommend NLiS to colleagues or professional acquaintances (Fig. 7).

Among the 25 new users that responded to the survey, 22 indicated that they were likely or very likely to use NLiS again. Although 47% of respondents thought that awareness of NLiS was high or very high (Fig. 8), many thought it could be improved. Suggestions for increasing awareness of NLiS included increasing advertising and communication on NLiS through channels such as regional workshops and publications, and regular updates through email listservs.

Feedback from current NLiS users

Over a third of the 49 respondents who had visited NLiS before the survey had first learned about it through the WHO website (Fig. 9). Many had also learned about NLiS through the WHO nutrition department newsletter.

Fig. 7. Likeliness to recommend NLiS (n=68)

- Very likely: 6%
- Likely: 43%
- Neither likely nor unlikely: 31%
- Unlikely: 19%
- I don't know: 1%

Fig. 8. Awareness of NLiS (n=68)

- Very high: 16%
- High: 22%
- Neither high nor low: 19%
- Low: 31%
- Very low: 19%
- I don't know: 1%

Fig. 9. First learning of NLiS (n=46)

- WHO website: 39%
- WHO nutrition department newsletter: 35%
- Personal or professional referral: 7%
- WHO publication: 9%
- Link from partner organization website (e.g. SUN, REACH, GAIN): 2%
- Google or another internet browser search: 4%
- Peer-reviewed journal: 2%
The current user respondents usually visited the database every month or less than once per month (Fig. 10). The features most often used were the NLiS country profiles, followed by the GNMF country profiles (Fig. 11). The data search feature and links to data sources were also used by around a third of respondents.

![Fig. 10. Frequency of use (n=49)](chart)

- Every day: 4%
- Every week: 22%
- Every month: 29%
- Less than once a month: 45%

![Fig. 11. Features used (n=48)](chart)

- NLiS country profiles: 69%
- GNMF country profiles: 54%
- NLiS data search: 31%
- Help texts: 8%
- Links to data sources: 38%
- Interpretation guide: 13%
The NLiS and GNMF country profiles were most commonly used to gain an overview of the nutrition landscape, and to identify the nutrition problems and contributing factors to malnutrition in countries (Fig. 12). Raising awareness and advocating on nutrition problems was mostly directed towards stakeholders in the government and NGO sectors. Respondents raised awareness and advocated to these stakeholders on a variety of nutrition issues; for example, direct and underlying causes of all forms of malnutrition, with equal concern for problems of undernutrition as well as overweight and obesity. A few respondents provided examples of how they benefited from using NLiS including:

- helping in designing and prioritizing interventions for policy and programme development;
- supporting countries in developing nutrition surveillance systems;
- preparing country briefings and case studies with respect to nutrition;
- preparing for country workshops and university lectures; and
- preparing donor assessments.

**Fig. 12. Uses of NLiS and GNMF country profiles (n=42)**

- Gain an overview of the nutrition landscape: 64%
- Identify nutrition problems and contributing factors: 62%
- Make informed policy and programme decisions: 26%
- Monitor country progress towards the achievement of the 2025 global nutrition targets: 31%
- Identify nutrition problems and related intermediate, process and policy factors: 52%
- Raise awareness/advocate to address nutrition issues: 36%
- Raise awareness/advocate to different stakeholders: 26%
- Analysis/research: 45%
Feedback on the NLiS country profiles

Users most frequently sought information from the NLiS country profiles regarding child malnutrition and vitamin and mineral deficiencies, often for multiple countries (Fig. 13). Respondents less often used the NLiS countries to find capacity indicators and meta-indicators, but these categories were still accessed by over a quarter of the respondents.

Fig. 13. Data sought from the NLiS country profiles (n=33)


Of the 33 respondents that had previously used the NLiS country profiles, 32 found the information to be helpful or very helpful. Several respondents indicated the importance of updating the data frequently, and suggested that it would be helpful to indicate not only the date of the data, but also the date on which the profile was last refreshed or updated. Other suggestions for additional useful information in the NLiS profiles included per capita coverage of health professions (e.g. doctors and psychiatrists), prevalence of undernutrition among women of reproductive age including adolescent girls and lactating women, and country history of cosponsoring World Health Assembly and United Nations General Assembly resolutions related to nutrition. One respondent questioned the utility of scoring nutrition governance; for example, if WHO has already scored a country’s nutrition governance as “high”, then that would not help partners’ efforts to advocate for actions such as better coordination.
Feedback on the GNMF country profiles
Respondents who had previously accessed the GNMF country profiles were more interested in finding data for multiple countries than for one country (Fig. 14). They were also most interested in the primary outcome indicators (e.g. stunting, anaemia, low birth weight, overweight, exclusive breastfeeding and wasting) and indicators of policy, environment and capacity (e.g. density of nutrition professionals, legal status of the code on marketing of breast-milk substitutes, and maternity protection).

Of the 24 respondents that had previously used the GNMF country profiles, 23 found the information to be helpful or very helpful. A suggestion for additional information that could be included in the GNMF country profiles was an indication of whether the country has adopted national policy goals that cover all or some of the Global Nutrition Targets.

Feedback on data search
Of the 15 respondents that used the data search function, 14 were interested in data sets from the NLIS country profiles rather than the GNMF country profiles. The lower level of interest in the GNMF data sets is probably due to the GNMF country profiles being a recent addition to the NLIS website and having been available for less than a year at the time of the survey. Of these 15 respondents, 13 thought that it was useful to have all the indicators in one place, rather than accessing the data through the original data sources individually.
Summary of feedback

The 75 respondents from countries in all WHO regions gave a high rating to both the ease of use and the quality of content of NLiS. Many respondents reported that the NLiS and GNMF country profiles were useful in their professional work, particularly when they want to access nutrition-related data from multiple sources. Respondents thought that the NLiS website was known to many users, but it may still be limited to a small group of users. Therefore, strengthened advocacy and dissemination strategies may be required to improve its further dissemination; for example, through channels such as regional workshops and publications, and regular updates through email listservs.

Several areas for potential follow-up and improvement were identified, the main ones being to:

- promote the use of NLiS through regional workshops, publications, social media and email listservs;
- include information on when the data in the country profiles were last refreshed or updated; and
- add indicators on adoption of policy goals covering the Global Nutrition Targets in national policies to the GNMF country profiles.

The WHO Secretariat will continue to update the NLiS and GNMF country profiles, and will look into developing responses to the requests expressed in the user survey. WHO is also updating the NLiS country profile indicators interpretation guide.¹