LeMSIC
Needs Assessment Manual
LeMSIC and IFMSA

LeMSIC Lebanon

The Lebanese Medical Students’ International Committee is an independent, student-run, non-partisan, non-governmental and not-for-profit organization. It is a full National Member Organization (NMO) of the International Federation of Medical Students’ Associations (IFMSA). It is an organization run by medical students, which aims to develop empowered healthcare professionals that will provide Lebanon with a sustainable and healthier future through activities, capacity building, international opportunities, and peer-to-peer education on global health issues.

LeMSIC was founded in 1964 by Lebanese medical students. Unfortunately, with the onset of the Lebanese war, all LeMSIC activities were ceased. LeMSIC was reactivated in 1997 with the establishment of the Exchange Program and the 6th international HIV/AIDS summer school. Since then it has grown to embrace hundreds of medical students in its various standing committees and is making its mark internationally. Several LeMSIC members have held high ranking positions in IFMSA, including President of IFMSA.

IFMSA

The International Federation of Medical Students’ Associations (IFMSA), founded in 1951, is one of the world’s oldest and largest student-run organizations. It represents, connects and engages every day with medical students from 135 NMOs in 125 countries around the globe.

Our work is divided into four main global health areas: Public Health, Sexual and Reproductive Health and Rights, Medical Education and Human Rights and Peace. Each year, we organize over 13,000 clinical and research exchanges programs for our students to explore innovations in medicine, healthcare systems and healthcare delivery in other settings. IFMSA brings people together to exchange, discuss and initiate projects to create a healthier world. It trains its members to give them the skills and resources needed to be health leaders. It advocates for the pressing issues that matter to us to shape the world we want. And it does deliver: our projects, our campaigns and our activities positively impact the physicians-to be, the communities they serve, as well as the health systems around the world in which they practice as a trainee and eventually a medical doctor.
Content

I. Introduction
   1. What is Needs Assessment?
   2. Difference between Needs Assessment and Evaluation
   3. Types of needs: Bradshaw’s Typology

II. Importance of Needs Assessment

III. Needs Assessment cycle
   1. Define focus or purpose of Needs Assessment
   2. Identify and organize stakeholders
   3. Assess feasibility
   4. Evaluate organizational context
   5. Design Needs Assessment process and methodology
   6. Data Collection
   7. Analyze data and share results
   8. Take a decision and find a solution
   9. Evaluate success

IV. Tools
   1. Model tools
   2. Guidelines to create tools
Introduction

1. What is Needs Assessment?

Despite the fact that needs assessment is widely used in our everyday life, it can still be a tricky concept to grasp.

A need is the difference between the results we currently have and the ones we aim to achieve.

From a bureaucratic point of view, needs assessment is the process of gathering information about a potential organizational need.

This effective tool benefits an organization by contributing in identifying opportunities, improving performance, and guiding informed decision-making.

When consistently implemented, it helps in preserving the quality of work, and improving it when necessary.

The cycle of needs’ assessment is a continuous and dynamic process that ensures an organization is always evolving towards improvement.

2. Difference between Needs Assessment and Evaluation

Needs assessment, like evaluation, is undeniably crucial to improve the outcomes of an organization. The needs assessment approach to gathering and analyzing information precedes the planning phase as it takes place before any decisions are made. On the other hand, the evaluation process implies that the data collection and analysis occur after the initial decisions are taken.

3. Types of Needs: Bradshaw’s Typology

Jonathan Bradshaw describes 4 different types of needs:

1. Normative need: A normative need is identified according to a norm or standard, generally set by experts.
2. Expressed need: An expressed need is based on the way an individual is acting.
3. Felt need: A felt need is perceived according to what an individual believes or feels that they need. Generally speaking, the individual would be surveyed or interviewed to learn about their felt needs.
4. Comparative need: A comparative need is based on needs of people in a similar situation or with similar attributes.
Importance of Needs Assessment

A needs assessment can have several purposes that are relevant in the practice of healthcare professionals. For example, it serves in the identification of the people who require assistance. In addition, it also informs us about the type of need, its severity, and the type of assistance that is needed to accomplish this.

Furthermore, the needs assessment can help to

1. Acquire a systematic approach to guide the decision-making and accomplishment processes.
2. Justify the decisions before they are made.
3. Improve over time to ensure that the constant changes in the community and population’s needs are covered.
4. Tailor a project to any specific size, budget and time frame.
5. Allow for the achievement of interdisciplinary solutions to complex problems.
Needs Assessment Cycle

1. Define focus or purpose of Needs Assessment
2. Identify and organize stakeholders
3. Assess feasibility
4. Evaluate organizational context
5. Design Needs Assessment methodology
6. Data Collection
7. Analyze data and share results
8. Take a decision and find a solution
9. Evaluate success
1. Define focus or purpose of Needs Assessment

The purpose of a needs assessment is linked to the factors motivating it. Certain circumstances can serve as a catalyst for an internal development needs assessment, most frequently handover periods with changes in positions and responsibilities.

The purpose of the needs assessment is to adapt smoothly to the challenges that may be faced, among which:

- A change in the organizational mission.
- A shift in funding requirements such as a change in the mission of the funding source or the unavailability of the usual funding source.
- Accreditation requirements.
- Culture shift or policy change.
- Strategic planning.
- Organizational restructuring.

In case the expectations of the NA are not clear, it is recommended to ask the following questions:

1. What is the driving motivation behind the needs assessment?
2. What is the purpose of the needs assessment?
3. What data is needed?
4. How will the needs assessment be used?
5. What do we hope to accomplish with the needs assessment?
6. How much urgency is there?

2. Identify and organize stakeholders

It is considered the second step in needs assessment due to its impact on the progress of the work. Basically it is a search for supporters: you might need financial support, expertise and relations...

Possible stakeholders would include anyone who contributes to the problem, is impacted by the issue, has expertise or information that can help generate a solution or plan, or with power to either support or obstruct the project.

In order to decide on whom to address, it is crucial to understand the problem's nature, dynamics as well as the structure of the organization. In addition, in an attempt to obtain applicable and effective solutions and good-quality information, it is important to gather stakeholders with different perspectives.

---

[Diagram showing stakeholder power and interest matrix]

**Meet their Needs**

**Key Player**

**Low Priority**

**Keep Informed**

---

lemsiclb.org | @LeMSIC | @lemsic.lebanon | @LeMSICLebanon
3. Assess feasibility

Factors such as the availability of resources, the urgency of the problem to be addressed, and the time constraints, all need to be considered relative to the feasibility of the project. Establishing what resources are possible to use and defining the limits and scope of the needs assessment will provide the necessary structure for those beginning to make plans for the assessment.

Feasibility study is an analysis that takes all of a project’s relevant factors into account to ascertain the likelihood of completing the project successfully. According to the TELOS framework; it is divided into 5 main categories or sets of questions: legal, economic, technical, schedule and operational.

4. Evaluate organizational context

The Organization’s Vision, Mission, and Goals

In order to ensure the consistency of any organization, strategic planning is conducted. The objectives should be in line with the organization’s mission and vision. Accordingly, priorities are set regarding needs assessment in order to spend resources wisely without affecting the accomplishment of main goals set by the team.

It is also crucial to respect norms and values of the organization and society. This will help during the process by reducing resistance and increasing cooperation from the targeted population.
In addition, it will ensure meeting the expectations of the stakeholders involved in the work. Working in a team requires a wise leadership style taking into consideration the team dynamics. It should be flexible, able to solve problems internally and externally throughout the process and establish trustful relationships with externals and team members. Applying the convenient leadership style can prevent resistance and ensure a smooth process with reliable outcomes. Finally, assessment and improvement of involved people’s motivation will affect the progress of the work. As such, enhancing communication between the team and involving members in decision-making will motivate them to be part of the needs assessment and the change later on.

5. Design NA process and methodology

The final goal of a needs assessment is not data collection per se, but rather the ability to use the information gathered to address a problem and improve both performance and quality of work within an organization.

Although the cooperation of the members is crucial to successfully fulfill this objective, their degree of participation in the needs assessment process might vary based on the approach adopted.

“Top-down” Management Approach

- **What is it:** The needs assessment is prepared with no or little input from others, thus solely relying on the expertise of the person heading the organization. This approach can be interpreted as denigration for team input.

- **When to use it:** "Top-down" approach is used to act on a defined and focused need or an urgent emergency for which the organization is short on time.

Management Team Planning Approach

- **What is it:** This approach implies involving several people in charge of different realms in the organization, hence including various viewpoints. Although this approach depends on diverse inputs, it still prioritizes the management’s over that of the members.

- **When to use it:** This approach is recommended in organizations where management and members are on good terms, as management will be representing the members’ opinions during the needs assessment process.
5. Design NA process and methodology

**Collaborative Committee Planning**

- **What is it:** This model entails the creation of a collaborative committee willing to take care of the needs assessment process. This strategy authorizes the involvement of members regardless of their position in the organizational structure.

- **When to use it:** This approach should be used when it is essential to have different levels of responsibility and discipline within the organization participate in the implementation of changes for it to be successful.

**Team Process Model**

- **What is it:** The team process model fosters members' participation at the beginning of the needs assessment. The planning process kicks off when an issue is spotted.

- **When to use it:** This democratic process is based on reliable members who will have the responsibility to identify needs and tailor the focus of the needs assessment accordingly.
## Needs Assessment Cycle

### 6. Data Collection

<table>
<thead>
<tr>
<th>Tool</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document or data review</td>
<td>To review a variety of existing sources with the intention of collecting independently variable data and information.</td>
</tr>
<tr>
<td>Guided Expert Reviews</td>
<td>To gain informed perspectives from valued experts who are outside the system on which the needs assessment is focused.</td>
</tr>
<tr>
<td>Focus Groups</td>
<td>To collect information from a small group in a systematic and structured format.</td>
</tr>
<tr>
<td>Interviews</td>
<td>To collect information from a single person through a format that may range from structured, to semi-structured, to unstructured.</td>
</tr>
<tr>
<td>Dual-response surveys</td>
<td>To collect information from a wide variety of individuals, usually those located in multiple locations, regarding both current and desired performance.</td>
</tr>
<tr>
<td>SWOT</td>
<td>To identify, organize and prioritize the strengths, weaknesses, opportunities and threats that influence the planning, design, development, implementation and evaluation of any program or project.</td>
</tr>
<tr>
<td>World Café</td>
<td>To get deeper insights on pressing issues while relying on collaboration.</td>
</tr>
<tr>
<td>Delphi Technique</td>
<td>To gather data and opinions from experts; and lead a group conversation.</td>
</tr>
<tr>
<td>Performance Observations</td>
<td>To accurately document the steps, procedures, tools and decisions used to accomplish current performance.</td>
</tr>
<tr>
<td>Task analysis</td>
<td>To find the best method to perform a task and the best sequence of steps to accomplish the task.</td>
</tr>
<tr>
<td>Cognitive Task Analysis</td>
<td>To systematically define the decision requirements and psychological processes used by experts in accomplishing results.</td>
</tr>
</tbody>
</table>
7. Analyze data and share results

Analyze:

Quantitative data Analysis:
Quantitative data analysis includes the organization, analysis, and interpretation of numeric or numerically coded data. It has 4 main steps that aim to transfer raw data to measurable and interpretable information. These are: data coding, data cleaning, frequencies and univariate analysis, and examining relationships between two or more variables.

1. Data coding:
It is when categories are replaced by numbers or codes to be able to enter data to software such as SPSS for analysis later on.

2. Data cleaning and analysis preparation:
This step depends on the methodology used. In case the data is directly linked to SPSS or excel sheet, then by sorting it, you might find illogical numbers or findings.

Example: In a study on women in the reproductive age group, you find a case aged 2. This is considered an error. When you find errors, you have 2 solutions at hand: either go back to the initial files if possible or delete the case. It is important to keep in mind that deleting a case in a small sample size will largely affect the final results and lead to generalization of possible findings, so this option should be avoided when possible.

When there is a database established, the use of frequency distribution could help find errors. Frequency distribution is an overview of all distinct values in some variable and the number of times they occur.

Finally, after you detect errors and correct as much as possible, it is helpful to create a new file named “cleaned data” to be able to return back to your data if needed in the future.

3. Frequencies and univariate analysis: This method is also known as descriptive analysis. It is the first level of analysis which helps researchers find absolute numbers to summarize individual variables and find patterns. It includes frequency (number of occurrence), mode (most common value), mean (numerical average), range and percentage.

4. Examining relationships between two or more variables:
This method is also known as inferential analysis. It is when a question in your needs assessment requires identification of relation between two variables.

<table>
<thead>
<tr>
<th>Categorical</th>
<th>Numerical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square Test</td>
<td>T-Test Anova</td>
</tr>
<tr>
<td>Regression</td>
<td>Correlation Test</td>
</tr>
</tbody>
</table>
### a. Crosstab or contingency table

Shows the relationship between 2 different variables. It not only allows you to see the frequencies and proportions of one variable in relation to another, but also lends itself to testing for statistical significance.

The choice of statistical significance test depends on the type of variables (nominal, ordinal and categorical). There are many options including:

- **Chi square**: based on the extent to which proportions of values within each of the cells in a crosstab differ from each other.

- **T-test and ANOVA**: examine differences in means across groups. A value lower than 0.05 indicates that this finding is statistically significant.

- **Correlation**: examines the relationship between two interval level variables. The result is a number the nearer to 1 the stronger the relation. There are positive and negative relations.

### b. Regression

Examine multiple: examines a number of variables as predictors of some outcome variable. A special form of regression analysis is logistic regression which aims to find the proportion of contribution of each predictor by evaluating odd ratios.

---

**Qualitative data Analysis:**

It includes the narrative data collected during the assessment such as open ended questions or interviews. This method relies on the transformation of paragraphs or texts to coded data and categories or meaningful units of information. According to sample size and team capacity and after data cleaning, data could be analyzed using a software like NVivo or Nud*ist or manually by the team. To ensure that the meaning is perfectly extracted from the paragraph, “constant comparative analysis” is applied by repeating the process. On the other hand, it is recommended to do this step by different team members to elevate possible bias during interpretation.

**Content analysis:**

It is searching for and counting keywords, phrases, or concepts in communication. It can be retrospective or prospective. Content analysis can be used in conjunction with other qualitative analytic approaches to identify themes.
All in all, the decision on the analysis depends on many factors including type of data, the design used, population size and team’s capacity. The table below guides the selection of data analysis approach:

<table>
<thead>
<tr>
<th>Data Collection Design</th>
<th>Type of Data</th>
<th>Possible Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Group</td>
<td>Open-ended Questions, either field notes or audiotaped of responses</td>
<td>Qualitative, Content analysis</td>
</tr>
<tr>
<td>Community Forum</td>
<td>Open-ended Questions, either field notes or audiotaped of responses</td>
<td>Qualitative, Content analysis</td>
</tr>
<tr>
<td>Agency Files (therapist narratives or progress notes)</td>
<td>Field notes</td>
<td>Qualitative, Content analysis</td>
</tr>
<tr>
<td></td>
<td>MIS system data or needs assessment team event counts</td>
<td>Qualitative, Content analysis</td>
</tr>
<tr>
<td>Surveys or interviews with non-structured with open ended questions</td>
<td>Open-ended Questions, either field notes or audiotaped of responses</td>
<td>Qualitative, Content analysis</td>
</tr>
<tr>
<td></td>
<td>Either continuous or categorical data</td>
<td>Quantitative, univariate, bivariate or multivariate</td>
</tr>
</tbody>
</table>

Share Results:

Report:
First, it is very important to determine the target population to which the report is addressed. From a general point of view, a report is addressed to people with average knowledge. After precising the audience, the writing style should be adjusted accordingly. For example, if you are addressing the general population, it is preferable to avoid using technical words without definition and further elaboration.
Needs Assessment Cycle

The report has 4 main paragraphs:

**Introduction:**

- a. Describe problem
- b. Provide statistics
- c. Explain the purpose (goal, objective, or rationale)
- d. Case or story if present as a trigger for the needs assessment

**Methodology:**

It describes the strategy used during data collection and sampling. While drafting the methodology, it is important for the following questions to find answers:

- Which procedure was adopted?
- According to which criteria were the participants recruited?
- What were the questions asked?
- What tools were used?
- What about the response rate?
- Who collected the data?
- How was the data analyzed?

**Findings:**

For the reader, this section is the most interesting as it represents what is discovered after the study, based on which a concrete decision can be made.

The flow of information is based on the importance of each part with respect to the aim of the study or based on the topics. While presenting the results gathered from the study, there is no need to mention all the details discovered, rather than to focus on the aim of the study and show the most relevant information. In addition, the information should be clearly presented using visual aids such as tables or graphs. The usage of proportions and percentages make it easy for the reader to analyze and understand the presented data.

Finally, it is recommended to revise the section several times to avoid repetition and misleading information.

A report could be ended by a set of recommendations as part of an advocacy program, or can simply be shared with the community to draw conclusions by themselves.

In order to preserve the objectivity of the study, it is crucial not to jump to conclusions and recommendations except from strong base information, while avoiding overgeneralization. All of these must be discussed with involved stakeholders and sponsors.
Limitations

They can be divided into two categories: minor or major limitations.

Minor limitations are not easy to detect. However, since they do not affect the results, they can be ignored.

Major limitations are bias and errors that are impossible to ignore such as not reaching the sample due to low response rate.

The Executive Summary:

It is a shorter version of the report; however, it is much longer than an abstract. It aims to help readers who do not have enough time to get the final findings and understand the study.

Tips for writing an executive summary:

- Write it after you finalize the report.
- All information in the summary should already be mentioned in the report.
- Should be between 3 and 9 pages.
- No need to add tables and graphs.
- It is good to have bullet points.
- Follow the order followed in the report.
- Respect your audience.

Disseminating the findings:

There are two types of dissemination: either internally or externally.

Internal dissemination is simpler and does not require a formal presentation. It could be shared through email or simply discussed during meetings.

External dissemination usually requires more attention to details, formal writing and formatting. Nevertheless, it is important to keep in mind the fact that most external readers tend to read the full report.
## 8. Decision Making Tools:

<table>
<thead>
<tr>
<th>Decision Making Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Group Technique</td>
<td>- Individuals assembled for the purpose of pooling ideas around a particular issue and ranking them.</td>
</tr>
<tr>
<td></td>
<td>- The nominal group technique can be a valuable tool for facilitating group decision making, and it can also be useful for data collection (i.e.: for generating a list of the possible causes of a particular problem).</td>
</tr>
<tr>
<td>Tabletop Analysis</td>
<td>- Facilitator-led discussions that are used in a wide variety of settings to identify gaps, performance deficiencies, and communication problems in a given system.</td>
</tr>
<tr>
<td>Pair- Wise Comparison</td>
<td>- A process of comparing entities in pairs to judge which of each entity is preferred, or has a greater amount of some quantitative property, or whether or not the two entities are identical.</td>
</tr>
<tr>
<td>2×2 Matrix Decision Aids</td>
<td>- Examination of multiple perspectives on issues identified during a needs assessment.</td>
</tr>
<tr>
<td>Fishbone Diagrams</td>
<td>- Fishbone diagrams provide a structure for a group’s discussion about the potential causes of a problem.</td>
</tr>
<tr>
<td>Scenarios</td>
<td>- Contextual explorations of the potential strengths and weaknesses of different combinations of performance improvement interventions.</td>
</tr>
</tbody>
</table>
Needs Assessment Cycle

<table>
<thead>
<tr>
<th>Decision Making Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fault Tree Analysis</td>
<td>• Step-by-step procedure that is used to logically identify, evaluate, and quantify potential problem causes for a performance gap (failure) in a system and to determine strategies for preventing these causes</td>
</tr>
<tr>
<td>Concept Mapping</td>
<td>• Visual representation (picture or map) of concepts or ideas and to illustrate their relationships.</td>
</tr>
<tr>
<td>Future Wheel</td>
<td>• Analyze and explore effects of a trend, event, circumstance, or issue with future orientation.</td>
</tr>
</tbody>
</table>

9. Evaluate success

In order to monitor and evaluate the effectiveness of anything easily, the establishment of clear, measurable goals and objectives at the onset is a must. These will serve to set clearly defined indicators that can help to conduct the evaluation. Multiple indicators can be used to fully monitor progress. In addition, change is easier to assess if a baseline is obtained prior to training.

Evaluation is important as it contributes in the identification of a new problem or in the revelation that additional action is necessary to fully address the original need. These findings may also indicate the need to restart with the needs assessment process again.
I. Model tools

1. SDG inclusion in creativity
2. Medical curriculum
3. NMO management
4. Exchanges

II. Guidelines to create tools

1. Identify the objective(s) of the assessment.
2. Plan what to do with the results of the assessment.
3. Assign someone to interpret the data and report it.
4. Define the target population and collect background information.
5. Recognize the problem(s) to address.
6. Determine the focus of the assessment.
7. Pick among question formats that are easy to answer, including but not limited to:
   - **Multiple choice** → to measure knowledge and reasoning when more than one option can apply.
   - **True or false** → to evaluate cause to effect, or effect to cause.
   - **Short answer** → to identify a unique opinion and foster a creative approach.
   - **Rating scale** → to estimate degrees of knowledge and opinions held by the participants regarding a specific topic or issue.
   - **Ranking scale** → to judge the importance of each item to the participants.
8. Communicate direct instructions for filling the survey.
9. Draft the questions and put them in logical order.


Contributors

This manual was developed during the term 2020-2021 with the contribution of:

**Core Manual**

Dana Andari - Assistant Local Public Health Officer - AUB

Amal Naim - VPPRC Publications Assistant

Carmen Al Haddad - VPCB Evaluation Assistant

Sarah Beaini - National Officer on Research Exchanges

Muriel Slim - Vice-President for Capacity Building

**Tools Contributors**

Grace El Bejjani

Vanessa Daou

and designed by

Amal Naim – VPPRC Publications Assistant