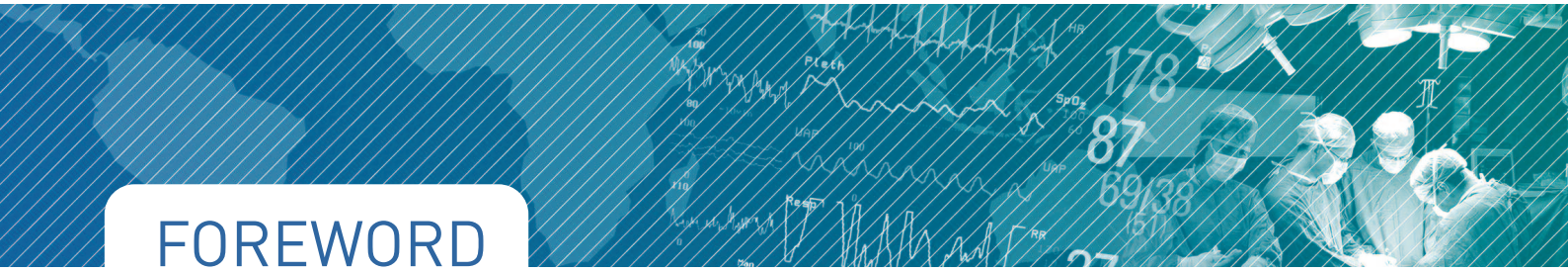
EVALUATION METHOD

FOR MEDICAL EQUIPMENT SUPPORT PROJECTS IN DEVELOPING COUNTRIES

Hum@tem

GROUPE u.r.d. urgence réhabilitation développement



FOREWORD

The considerable amount of dysfunctional medical devices to be found in health facilities in developing countries raises the question of the responsibility of developed countries, particularly regarding the efficacy of the aid they provide to equipment support projects. Indeed, according to figures available from the World Health Organisation (WHO) only 10% to 30% of medical devices donated to developing countries is operational in its new environment, although in some of these countries 80% of all their equipment comes from donations[1]. A lot of medical devices are supplied incomplete, without manuals, have not been serviced and sometimes have already broken down. Others are sent without taking into account the real needs of the recipients' health facilities, of the advice of local authorities or the local environment. Some of these failures seem to be due to a lack of methodology by the international aid organisations in the management of medical equipment support projects, which can often be very complicated.

To improve procedures used by project holders sending medical devices to developing countries, Humatem, an organisation specialising in medical equipment support and Groupe URD, an organisation involved in research on the quality of international aid projects, decided to produce a series of methods and tools dedicated to medical equipment support projects built around a quality reference framework: PRECIS. This evaluation method is one of the document in the series.

This series was devised in the context of an action plan[2] financed by the European Union (EuropeAid) as well as the following French local authorities: the Rhone-Alpes Region, the Haute-Savoie General Council and the municipality of Les Houches. It is also part of the World Initiative for Health Technologies launched by WHO following resolution WHA60.29 of May 2007 on health technologies, which aims to encourage the creation of policies and tools in this domain.
Finally, this series is in conformity with the recommendations regarding the donation of medical equipment published by WHO[3].

The working group called *Medical Devices in the Actions of International Cooperation* was involved in the development of these methods and tools, which ensures that they are based on a common consensus. This working group has been managed by Humatem since 2003, and comprises international aid workers, development education organisations and health professionals.

[1] WHO (2011) « Introduction » in *Medical devices donations: considerations for solicitation and provision*, WHO medical devices technical series, Geneva: WHO, p. 10.
[2] Programme EuropeAid DCI-NSA/2009/205-811 *"Strengthening cooperation tools and structuring the dialogue between donation stakeholders in the provision of medical equipment - To improve practices in medical equipment support projects for healthcare facilities in developing countries"*.
[3] WHO (2000) *Guidelines for health care equipment donations*, Geneva: WHO; WHO (2011) *Medical device donations: considerations for solicitation and provision*, Geneva: WHO.

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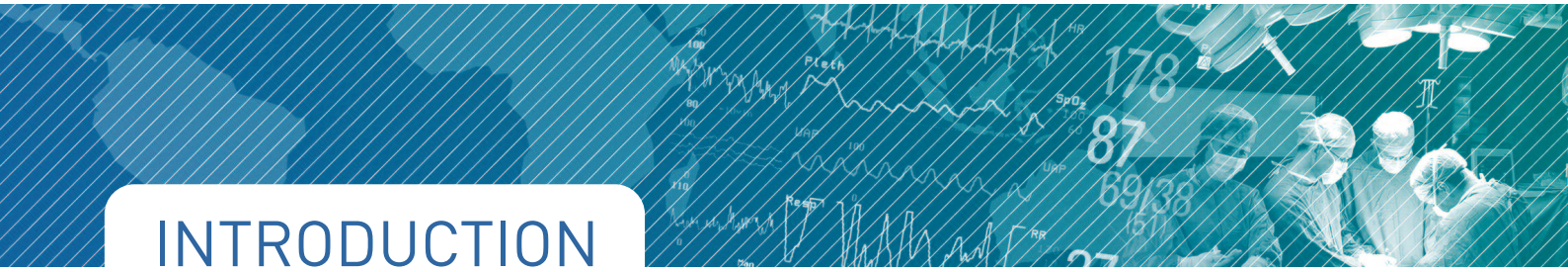


INTRODUCTION

>>> What need is there for a method of evaluation?

Evaluation is an organised, rigorous and methodical process which must not be improvised. This is particularly true in the medical field, because health is a sensitive subject where stakes are high. We have therefore created a method of evaluation, described below, based on the PRECIS quality reference, specifically designed to assist medical equipment support projects.

>>> What is this method for?

This method is designed to serve as practical guidelines during the evaluation of a medical equipment support project with the particular aim of enabling the project holder to carry out a self-evaluation of the project they have carried out. It comprises methodologies and practical factsheets ("information to be collected" and "evaluation according to criteria"). These factsheets can be used to prepare the final evaluation throughout the evaluation process because they list the right questions to ask.

>>> Who is this method designed for?

This method is aimed at international aid players who are providing real support to health facilities in developing countries in order to improve the quality of healthcare. NGOs, associations, local authorities, specialist organisations, students and other people will find in the following pages a method of evaluation which is specific to medical equipment support projects for health facilities.
It could also be useful for contractors or experts who are called upon to carry out an external evaluation in this field.

>>> What this method is not

It is not a theoretical or scholarly document for experts. International aid players in medical equipment support projects are not usually professional evaluators. But they all need to learn and to increase their ability to manage their projects, which are always complex and full of hurdles.

EVALUATION FUNDAMENTALS

>>> Why carry out an evaluation?

Designing and implementing a project, and particularly a medical equipment support project, is very complex. Even people with a great deal of experience can run into problems and realise, whilst the project is running or when it is finished, that the results are not always what they had hoped for. In this difficult situation, in order to avoid getting discouraged, to understand better and to increase their ability to set off in the right direction, organising an evaluation mission is the only right solution.

Evaluating a project means looking at what has been done, describing what has happened (who, how, with what means, etc.) and what the results were. Along with this evaluation there should be an explanation as to how the project went and an opinion expressed based on values covering the whole process. The evaluator's attitude must be as neutral and objective as possible, since the aim is not to seek errors and those responsible for them, but to learn from them in order to redirect current operations and to improve them.

It's the best way to understand a project, to draw lessons and essential points from it and to improve one's own ability to lead a new project. Any type of project can be evaluated, and the evaluation, if it is well conducted, is of benefit to all those involved in it. If the results are those sought-after, the evaluation will make it possible to record the best practices that brought about the conclusive result in order to remember, share and reproduce them. The report will be useful when communicating with donors of devices, financial project partners and the local inhabitants.

It is therefore always necessary to plan an evaluation phase when launching a project in order to increase the chances of learning, progressing and meeting, as far as possible, the partnership's expectations.

EVALUATE TO EVOLVE RATHER THAN TO PENALISE!
Often perceived as an audit, evaluations can be dreaded, whereas it is an opportunity to draw lessons from experience, to improve the current project, the partnership and to envisage a constructive follow-up.

>>> When to carry out an evaluation?

The evaluation of a medical equipment support project should be carried out on site after the medical devices provided have been in use for a while (about a year). The period of time should be defined with the local partners at the start of the project and ideally included in the partnership agreement.

>>> Who should be included in the evaluation team?

The evaluation of the medical equipment support project should be led by a team of people whose experience is complementary and who are part of the project holder's organisation:

- a medical or paramedical employee (doctor, nurse, etc.),
- a technical employee (engineer or biomedical technician),
- and someone who is able to bring project management know-how.

INTERNAL OR EXTERNAL EVALUATION?
For medium-sized projects, a self-evaluation is the norm. For bigger or more complex projects, the evaluation is usually carried out by experts. Moreover, in order to ensure an impartial finding, the experts are often external consultants.

>>> What should be evaluated?

The evaluation is a finding based on a comparison of the situation "before the project" and the situation "when the project is running" as well as on an analysis of the process leading to the results observed.

Evaluation findings are built on the criteria of the PRECIS quality reference, which were designed to support and evaluate medical equipment support projects.

Was the project
- **P**ertinent?
- **R**igorous?
- **E**ffective ?

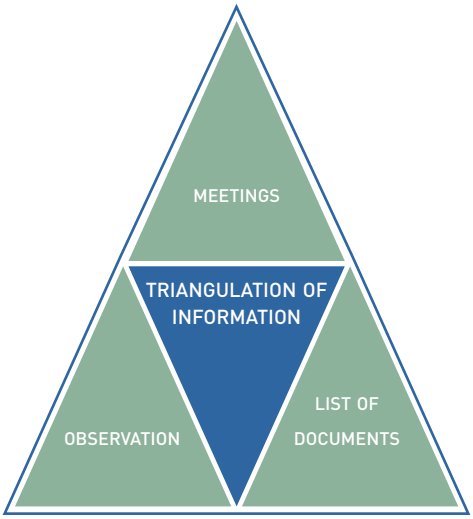
Did the project holder have the necessary
- **C**apabilities?

Did the project have the desired
- **I**mpacts?

and was it carried out in
- **S**ynergy with the other players?

>>> How to proceed?

Evaluation is a process mostly based on the accumulation and analysis of data in order to provide the indicators with data in order to reach a conclusion, and then to draw up recommendations to improve operations. The method of evaluation described in this document includes factsheets entitled "information to be collected" and "evaluation according to criterion". Each factsheet provides the questions that should be asked for each criterion, the source of the information and the opinion one has of the response to the criterion questions.



These evaluation factsheets can be used during the various stages: from the preparation phase – for consideration alone and/or as a team to establish the aims – to the final analysis phase working as a team and writing up the evaluation report, which consists of compiling a lot of information and making recommendations. In a way, an evaluation is investigative work where all sorts of different qualitative and quantitative data has to be gathered, using a variety of techniques (meetings, examination of documents, direct observation, etc.). So it is not only assembling objective and quantifiable elements, but also opinions, impressions, feelings, i.e. qualitative elements.

As highlighted in the *Preliminary Assessment Method* in this series, it is necessary, in order to ensure the validity of the information collected, to use a variety of sources (meetings, observation, documents, etc.) and to triangulate the information obtained from different people.

So, a number of people should be asked the same questions and the information gathered orally should be checked by direct observation or in documents.

>>> The different phases of an evaluation

The method described below is split into three separate phases:

1/ PREPARATION OF THE EVALUATION PRIOR TO DEPARTURE

Initial collection and analysis of documents and information available at the project holder's headquarters.

2/ COLLECTING INFORMATION IN THE FIELD

Assembling monitoring tools, source documents, accumulating information based on direct observation and meetings.

3/ FINALISING THE EVALUATION: ANALYSIS AND REPORT WRITING

Team analysis of the information gathered, organisation of a workshop to discuss feedback and key players's views, then writing the evaluation report (which contains recommendations).

1/ PHASE OF PREPARATION OF THE EVALUATION PRIOR TO DEPARTURE

AIMS

>>> To understand the evaluation method.

>>> To prepare and start the evaluation process.

METHOD

>>> Identify the evaluation questions for each criterion, the information to be gathered as well as the sources of information.

>>> Assemble and analyse information about the project that is available at the project holder's headquarters.

>>> Assemble the team handling the evaluation and set a date for the field mission

>>> First steps using the Evaluation Method

Take the time to understand this method of evaluation. Factsheets entitled "information to be collected" and "evaluation by criterion" are available to you.
It is important to be aware of these factsheets, both as an individual and as a team, to discuss the method and any difficulties you may encounter. For each criterion in the PRECIS quality reference, a list of data to be collected is suggested; based on this you will be able to answer the various evaluation questions according to who you are talking to or the source of the information. The factsheets will also be used for the final analysis of the evaluation.

>>> Collecting information prior to departure

Assemble all the documents regarding the project in your organisation and take the time to analyse them.

Internal documents to assemble and analyse prior to departure

- Partnership agreement;
- Exchanges between your organisation and the partner health facility (correspondence, emails, etc.);
- Preliminary assessment report;
- Correspondence or documents regarding the initial request;
- Document indicating the support of health authorities;
- Reports of your Board of Directors' meetings, Annual General meeting, project team meetings, etc.;
- Documents regarding the medical devices that have been provided; donation certificates signed by the donors, service provider bills (function test, purchase of consumables, accessories, maintenance kits and spare parts, packaging, transport and Customs duties, etc.);
- Project budget (provisional and actual).

Organise internal meetings with the project team to start collecting information that could be useful to the project analysis, particularly all the memories of project participants.

The PROJECT TEAM'S information to be collected factsheet will provide you with particularly useful data. Page 9

>>> Organising the on-site mission

Include the partner health facility as early as possible. Share the aims of the evaluation with them, emphasising that it is a learning opportunity and not an exam.

Ask that a contact person be designated for this evaluation.

With the contact person, start organising appointments with the different actors you need to meet.

PEOPLE YOU SHOULD MEET ON SITE IN THE PARTNER HEALTH FACILITY:
- medical teams in the services involved in the project to be evaluated;
- management of the health facility and financial services;
- biomedical maintenance staff, etc.

EXTERNALLY:
- health authorities, both from the ministry and traditional ones;
- representatives of other health facilities and NGOs operating in the area.

As soon as possible, set a date with the partner to organise a workshop to discuss feedback and key actors views with those working in the health facility who are affected by the project, to be held at the end of the evaluation mission.

Take the time to prepare, particularly to take account of sociocultural aspects and codes. Possibly think about hiring a translator, and, if necessary, take time to talk to them before conducting the meetings to explain the aims of the evaluation, the type of information you are seeking, etc.

HOW LONG TO ALLOW ON SITE

Managing your time will depend on a number of factors such as the size and complexity of the project, duration of the partnership, ease of communications, climate, religious calendar, etc. As a rough guide, for a project providing equipment for a maternity service in a medium-sized health facility, you should allow:

- a half-day for direct observation (visiting the services);
- a half-day for examining documents;
- 1 day for meetings with the director and hospital staff;
- 1 day for meetings with the health authorities, the inhabitants and other players;
- 2 days for group meetings (evaluation team analyses, workshop to discuss feedback and key players' views).

Plus a few days for transport and unexpected hitches!

Have a prior discussion with the evaluation team to decide how you are going to get organised: who will be responsible for what, who will run meetings, who will takes notes, etc.

INFORMATION TO BE COLLECTED FACTSHEET

PROJECT TEAM

- Quantitative and qualitative comparison of the initial request with the devices provided;
- Existence of structured phases, specifically a preliminary assessment of the needs and a follow-up of operations;
- How the decision–making process operates in the project holder organisation;
- Existence of a filing system for documents been set up by the project holder, and is it used effectively, particularly for the key stages of the project: preliminary assessment report, monitoring tools such as documents relating to medical devices (donation certificates signed by the donors, various provider bills, etc.);
- Description of the responsibilities of each actor in the partnership agreement;
- Speed, precision and courtesy in exchanges between partners;
- Comparison between the provisional resources and the resources spent on the project (in terms of time, money, expertise, etc.);
- External support that can be called upon (human or financial resources, shared experience, etc.);
- Compliance with legal obligations (employment law, accounts, visas, transport, import/export, insurance, regulations covering medical devices);
- Budget management (percentage of the project budget dedicated to operating costs, remuneration or team benefits, existence of useless or excessive expenses, etc.);
- Actors identified by the project holder (support structure and/or assistance, funding agencies, donors of medical devices, organisations specialising in medical technology adapted to the developing country, embassies, international aid players, medical or biomedical experts, etc.), the roles attributed (coordination, information exchange, partnership, sharing means, service provision, etc.) and how the relationships work.

2/ PHASE OF INFORMATION GATHERING ON SITE

AIM

>>> To collect information required for the analysis.

METHOD

>>> Conduct a series of meetings with the relevant people both in and external to the health facility.

>>> Visit the health facility, particularly the services affected by the project.

>>> Collect and record all this information (notes, photographs or recordings).

>>> Launching the site visit

Before you do anything else, take time when you arrive to explain what your evaluation mission consists of, so as to allay fears or objections.

To do this, you could call a meeting with the local health facility managers or take advantage of a staff meeting to introduce yourself, outline the aims of the evaluation (and what the evaluation is not) and how you are going to operate. Confirm the date of the workshop to discuss feedback and key player's views straight away, as well as those who are invited to attend it. Ensure that the teams will be available to meet you during direct observation visits and meetings.

Check the list of appointments made with key people internally and external contacts, and possibly add to it. Finalise the logistics of your mission.

>>> Collecting key documents

A certain amount of information will be available from the partner or other healthcare players in the form of reports and different documents. The partner and project holder should be able to provide written documents concerning the project, and documents regarding monitoring of the use of the medical devices provided, etc. All these documents are necessary for the project evaluation.

To identify the monitoring documents, you could use the *Planning Method* (available in this series).

A number of documents that belong to the health facility could also provide useful information for the evaluation:

- The hospital's management documents indicating the effort made to ensure the long-term use of the medical devices, or on the contrary revealing negligence or a disregard of commitments made (for example: bills for the purchase of consumables, accessories, maintenance kits and spare parts, maintenance contracts or bills for maintenance services if they have been outsourced).
- Documents relating to treatment (for example: consultation registry, laboratory tests or surgery) that will indicate by extrapolation, how often the device provided has been used in the context of the support project and to what extent it has attained its health objectives (for example: 150 operations = 150 uses of the operating theatre lighting and the operating table provided; 120 uses of the obstetric scan = x early detection of high-risk pregnancies).

>>> Visiting the different services, direct observation

A great variety of information can be gathered by visiting the health facility premises and in particular the services which have received devices from the project. Of course the visit and observation will always be accompanied by discussions with healthcare staff so that the encounter is pleasant (it's not an investigation), and dialogue will make it easier to understand what you are seeing.

Direct observation consists of looking closely at the devices and their surroundings on site during a period of activity. It needs to be systematic observation in a specific context. You have to be open and curious, but also methodical and organised so that what you have observed is meaningful.

You should particularly examine the medical devices when they are being used, the relationship the staff has with them, what has been set up around the devices to facilitate their use and maintenance. The presence of a small stock of consumables in the service, a protocol of use and maintenance advice stuck on the wall, a device that is obviously in a satisfactory state and that you see working are positive signs. On the contrary, a device sitting in a corner covered with dust should ring alarm bells.

It is essential to visit the biomedical service or their maintenance workshop; you should ask to see the maintenance log covering the medical devices provided, the tools available, consult the scheduling and maintenance procedures, etc.

Finally, visits to annex services, the other important areas of the health facility (sterilisation service, laboratory, waiting room, storage areas, etc.) and external buildings (generator, water treatment) can provide additional information.

You could take photographs to illustrate your evaluation report, being sure to ask for permission first from those concerned.

Indicators to document following the visit of the services and direct observation

- Quantitative and qualitative comparison of the initial request and the devices provided.
- Working order of the device when it was delivered and at the evaluation.
- Number and type of breakdowns since it was provided, duration of the down time and reason (lack of preventive or corrective maintenance, lack of accessories, maintenance kits and/or spare parts); operational problems of the device due to the infrastructure (premises, electricity, air conditioning, distribution or quality of the water).
- How often the different types of device provided are used.
- Existence of a system to deal with the waste produced by the devices themselves, or those relating to their use (such as development products and radiology film, used consumables and accessories, end-of-life spare parts, packaging, etc.) and how does it work.

>>> Meetings

A great deal of information can be gathered by talking with:
- People involved in the project: the management, medical, paramedical and biomedical staff of the partner health facility;
- Other healthcare players working in the same area as the partner health facility;
- Administrative authorities and/or possibly traditional ones;
- Population benefiting from the health care.

A number of tools can be used to collect information (questionnaires, semi-structured meetings, open meetings). In general, the semi-structured meeting is the most appropriate for an evaluation. It provides an opportunity for an informal encounter, and differs from a questionnaire with a fixed list of questions. You will be able to obtain answers to the specific questions you have as well as to adjust discussions during the meeting based on the reactions of the person you are talking with.

To make your life easier, information to be collected factsheets for each person you meet are provided in the following pages.

So that those consulted feel they can talk freely, it is advisable to suggest individual meetings and to guarantee anonymity. However, when visiting services, more informal discussions can be organised, possibly as a group, which may even generate additional individual meetings.

ADVICE ON HOW TO CONDUCT A SEMI-STRUCTURED MEETING

Presentation phase:
- greetings and thanks are important;
- explain the aim of the meeting (remind attendees that the evaluation is not a punishment but could be the basis of a new project);
- introduce yourself and explain the roles and status of all those present;
- provide information about yourself and your duties, invite those present to do the same and suggest they ask questions so as to balance out the length of time everyone speaks. Avoid giving the impression of an interrogation; on the contrary, enter into a real dialogue;
- if the meeting is to be in French, choose the most appropriate form to use, "tu" or "vous".

Managing speaking time:
- beware of all sorts of assumptions, from your bearing to your body language (silences, looks, what is left unsaid, etc.);
- ensure your questions are clear and don't hesitate to share the aim of the question: this puts the person you are talking to at ease;
- give everyone an opportunity to speak (even those in the background);
- as much as possible, reformulate what has been said;
- in conclusion, resume the main points.

Time management:
- ask how much time is available for the meeting, and stick to it;
- avoid digressions;
- do not hesitate to get the meeting back on track.

Closure of the meeting:
- remind everyone of the essential points covered, and confirm them;
- indicate the next steps of the process;
- thank everyone for their presence.

INFORMATION TO BE COLLECTED FACTSHEET

PATIENTS

- Patient satisfaction with the health facility which received new medical devices.
- Cost of using the device, and possibility that some patients, due to lack of income, are not benefitting from treatment with the medical devices.
- Measures taken to correct or attenuate any constraints regarding access to treatment using the devices by poor patients (special rates, system to cover costs, possibly through partnerships with other organisations, etc.).
- Quantitative and/or qualitative elements indicating the degree to which health objectives have been met (for example, improvement in diagnoses and/or treatment of different pathologies, reduction in infant mortality rate, etc.).

INFORMATION TO BE COLLECTED FACTSHEET

HEALTH AUTHORITIES

- Support from health authorities.
- Quantitative and/or qualitative elements indicating the degree to which health objectives have been met (for example, improvement in diagnoses and/or treatment of different pathologies, reduction in infant mortality rate, etc.).
- Organisations and people with whom the health facility collaborates (health authorities, health facilities, analytical laboratories, associations, etc.).
- Nature of this collaboration and how it works.

INFORMATION TO BE COLLECTED FACTSHEET

OTHER HEALTHCARE PLAYERS

- Organisations and people with whom the health facility collaborates (health authorities, health facilities, analytical laboratories, associations, etc.).
- Nature of this collaboration and how it works.

INFORMATION TO BE COLLECTED FACTSHEET

THE HEALTH FACILITY'S MANAGEMENT TEAM

(Director, financial controller, etc.)

- Compliance with legal obligations (employment law, accounts, visas, transport, import/export, insurance, regulations covering medical devices).
- Points established by the team which confirm the positive impact of the project, health facility's attendance figures, etc.
- Preventive or corrective measures implemented to avoid accidents linked to incorrect use of the devices (training, awareness or information sessions, controls, etc.).
- Corrective measures implemented to make up for the possible absence of a waste disposal system (waste storage, contact with other centres to create a waste treatment service, transfer of waste to a waste treatment plant, etc.).
- Speed, precision and courtesy in exchanges between partners.
- Employees satisfaction at the health facility.
- Organisations and people with whom the health facility collaborates (health authorities, health facilities, analytical laboratories, associations, etc.); different types of collaboration and how they work.
- Service providers with whom the health facility has established a relationship, what sort of relationship and which services are provided; how these relationships work.
- Availability of a large enough operating budget to cover the cost of operating the devices (human resources, training, energy, maintenance, supplies of consumables, accessories, maintenance kits and spare parts).
- Cost of using the devices, and possibility that some patients, due to lack of income, are not benefitting from treatment with the medical devices.
- Income generated by the use of the medical devices provided (total of amounts paid by patients who have benefitted from the device).
- Elements indicating the health facility's possible budgetary imbalance (linked, for example, to insufficient income to cover the costs incurred by using the medical devices: maintenance, consumables, training, etc.).
- Corrective measures implemented to avoid or limit the health facility's possible budgetary imbalance (some expenses covered by the project holder, patient participation in costs, partnership with other health facilities, etc.).
- Corrective measures implemented to increase access to treatment using the medical devices for poor patients (special rates, system to cover costs, possibly through partnerships with other organisations, etc.).
- Existence of issues of medical devices not reaching their destination or their primary function and/or being monopolised for private interests (excessive use, bribery, etc.).

INFORMATION TO BE COLLECTED FACTSHEET

MEDICAL AND PARAMEDICAL STAFF

(Whether or not they are users of medical devices provided)

- Points established by the team which confirm the positive impact of the project, health facility's attendance figures, etc.
- Do accidents occur due to incorrect use of the medical device (iatrogenic infections, radiation, etc.).
- Preventive or corrective measures implemented to avoid accidents linked to incorrect use of the devices (training, awareness or information sessions, controls, etc.); effect of these measures.
- Are there issues of medical devices not reaching their destination or their primary function and/or being monopolised for private interests (excessive use, bribery, etc.)?
- Quantitative and qualitative comparison of the initial request and the devices provided.
- Nursing staff's view of the health facility with regard to the coherence of the project with the health needs of the area and current health policies.
- Employees satisfaction at the health facility.
- Working order of the medical device at delivery and at the evaluation.
- Number and type of breakdowns since it was provided, duration of the down time and reason (lack of preventive or corrective maintenance, lack of accessories, maintenance kits and/or spare parts).
- Operational problems of the device due to the infrastructure (premises, electricity, air conditioning, distribution or quality of the water, etc.).
- Number of employees trained to use the medical device compared with the planned number.
- Number of employees using the medical device compared with the planned number.
- Number, duration and reason for downtimes in the use of the medical device (consumables out of stock, departure of trained staff, etc.).
- How often the different types of device provided are used.
- Availability of a large enough operating budget to cover the cost of operating the devices (human resources, training, energy, maintenance, supplies of consumables, accessories, maintenance kits and spare parts, etc.).
- Cost of using the devices, and possibility that some patients, due to lack of income, are not benefitting from treatment with the medical devices.
- Presence and capabilities of an internal biomedical maintenance service or an external biomedical maintenance service provider.
- Presence of local suppliers of accessories, maintenance kits, spare parts and what is their capabilities in terms of supplying the health facility.
- Quantitative and/or qualitative elements indicating the degree to which health objectives have been met (for example, improvement in diagnoses and/or treatment of different pathologies, reduction in infant mortality rate, etc.).
- Existence and operation of a system to deal with the waste produced by the devices themselves, or those relating to their use (such as development products and radiology film, used consumables and accessories, out-of-date spare parts, packaging, etc.).
- Service providers with whom the health facility has established a relationship, what sort of relationship and which services are provided? How these relationships work.

INFORMATION TO BE COLLECTED FACTSHEET

BIOMEDICAL MAINTENANCE STAFF

(In the health facility or external service provider)

- Existence and capabilities of an internal biomedical maintenance service or an external biomedical maintenance service provider.
- Working order of the medical device at delivery and at the evaluation.
- Number and type of breakdowns since it was provided, duration of the down time and reason (lack of preventive or corrective maintenance, lack of accessories, maintenance kits and/or spare parts).
- Operational problems of the medical device due to the infrastructure (premises, electricity, air conditioning, distribution or quality of the water, etc.).
- Number of employees trained to use the medical device compared with the planned number.
- Number of employees using the medical device compared with the planned number.
- How often the different types of device provided are used.
- Employees satisfaction at the health facility.
- Avaibility of a large enough operating budget to cover the cost of operating the devices (human resources, training, energy, maintenance, supplies of consumables, accessories, maintenance kits and spare parts, etc.).
- Presence of local suppliers of accessories, maintenance kits, spare parts and what is their capabilities in terms of supplying the health facility.
- Points established which confirm the positive impact on the teams, on the health facility's attendance figures, etc.
- Existence and operation of a system to deal with the waste produced by the devices themselves, or those relating to their use (such as development products and radiology film, used consumables and accessories, end-of-life spare parts, packaging, etc.).
- Do accidents due to incorrect use of the medical device (iatrogenic infections, radiation, etc.).
- Preventive or corrective measures implemented to avoid accidents linked to incorrect use of the devices (training, awareness or information sessions, controls, etc.); effect of these measures.
- Corrective measures implemented to make up for the possible absence of a waste disposal system (waste storage, contact with other centres to create a waste treatment service, despatch of waste to a waste treatment plant etc.).
- Service providers with whom the health facility has established a relationship.

3/ PHASE OF FINALISING THE EVALUATION: ANALYSIS AND REPORT WRITING

AIMS

>>> To analyse the information collected.

>>> To share the preliminary results of the evaluation.

>>> To make recommendations.

METHOD

>>> Drawing-up a collective analysis based on the information gathered and recorded by criterion in the analysis factsheets.

>>> Sharing this preliminary analysis with the teams on site.

>>> Writing the evaluation report by answering the evaluation questions and making recommendations.

>>> Team analysis of the information collected

All the qualitative and quantitative information collected must be analysed to answer the essential evaluation questions mentioned in the introduction.

Was the project
- Pertinent?
- Rigorous?
- Effective?

Did the project holder have the necessary
- Capabilities?

Did the project have the desired
- Impacts?

and was it carried out in
- Synergy with the other players?

A period of analysis with evaluation team members should make it possible to:
- pool and analyse all the information collected in order to formulate a conclusion.
- prepare the feedback and collective reflection workshop with the partner health facility.

The analysis of the information collected makes it possible to begin to come to a judgment and to make relevant recommendations. This work will allow you to ensure that important information has not been omitted, and if it has, to obtain it.

At this stage, the EVALUATION BY CRITERION factsheets will guide your thoughts to help you summarise all the information gathered and come to a judgment. Pages 21 à 38.

This period of teamwork is essential to create a shared analysis and conclusion. It is not always easy, but if there is discord within the team it is important to resolve it before presenting the partner facility with the results.

This initial exercise usually exposes the key positive and negative factors and identifies the critical points for the preparation of the joint workshop.

Allow at least a full day for this work, and as far as possible, in a calm location, far from the health facility, so that everyone feels free to express their opinions and analyses.

>>> Organising the feeback and collective reflection workshop

This is an important workshop because it allows you to share the results of the evaluation, to validate them and to refine or develop them if necessary. These exchanges favour understanding and acceptance of the evaluation process and its results, and provides an opportunity to test the feasibility of different recommendations. Finally, the exchanges bring the partnership to a life beyond the provision of aid.

ADVICE ON HOW TO ORGANISE THE WORKSHOP

- Invite about fifteen people: general and financial management staff; medical and paramedical staff from the different services which have received medical devices, biomedical maintenance staff, representatives of the inhabitants (traditional authorities, etc.).
- Allow half a day for the workshop.
- Choose somewhere calm where everyone can sit down and feel relaxed. Avoid a set up or behaviour that could reinforce feelings of fear relating to an evaluation exercise.
- Ensure that participants in the workshop are not disturbed, other than in an emergency, of course.
- Begin by explaining once again what an evaluation is, and what the objectives are in this precise context. Rapidly describe the six criteria which will enable you to come to a decision about the project. Reiterate the way the information was assembled and using what methods, thanking all those who organised your evaluation visit, who provided documents and gave you their time.
- Then present the main points of your evaluation, always based on the information collected: records, weaknesses, strengths (do not forget the latter!). It is also important, as a project holder, to be aware of your own actions and responsibilities, strengths and weaknesses.
- Then suggest that participants have a discussion and ask questions to clarify various points, go into more depth regarding a record, or to express an opinion or a different finding to yours. Stimulate reflection rather than debate.
- Ensure everyone has an opportunity to speak, not just managers or leaders, by regulating their speaking time.
- Finally, present your overall conclusion and recommendations and discuss them with the group. It is not essential for the evaluation team to obtain agreement with the partner on each point: different views to the partner's can remain (you will have to explain the necessary independence of an evaluation). The group discussion may also make the evaluation team's conclusions evolve. In the end, it is your organisation's evaluation team that will have sole responsibility and will sign the report.
- Explain that the last stage of the evaluation consists of writing a final report which will be given to the leaders of your organisation; it will be discussed internally and will serve as the basis for a decision regarding the possible future of the project which has been evaluated.
- Finally, thank everyone for attending the workshop and for their contributions.

>>> Writing the evaluation report

As soon as you return from your site visit, you will have to write a final evaluation report to present the methods used and the results.

The report should provide a global view, of a maximum of 30 pages, with, ideally, an initial summary highlighting the key points of the evaluation.

PROPOSED STRUCTURE OF THE EVALUATION REPORT

- Introduction: reminder of the evaluation's objectives, the method used and its limitations.
- Records: reminder of the project and its objectives, then highlight the records, structured either by criterion, or more briefly, strengths, weaknesses and line of argument.
- Recommendations: should always be based on records, separating those for the project holder from those regarding the partner health facility; the recommendations must always be precise, realistic, accompanied by an implementation agenda and a description of those responsible for carrying them out. Also indicate in this section the future perspectives, that is to say what could become of the project (several different alternatives could be suggested).

>>> Use of the evaluation

The evaluation document will be given to the decision-making entity in your organisation for discussion, debate and validation.
This entity will then decide on:
- the possible wider diffusion of the evaluation report: it could be shared in its entirety or not, with the partner health facility, the funders or the partners, etc.);
- what to do about the project.

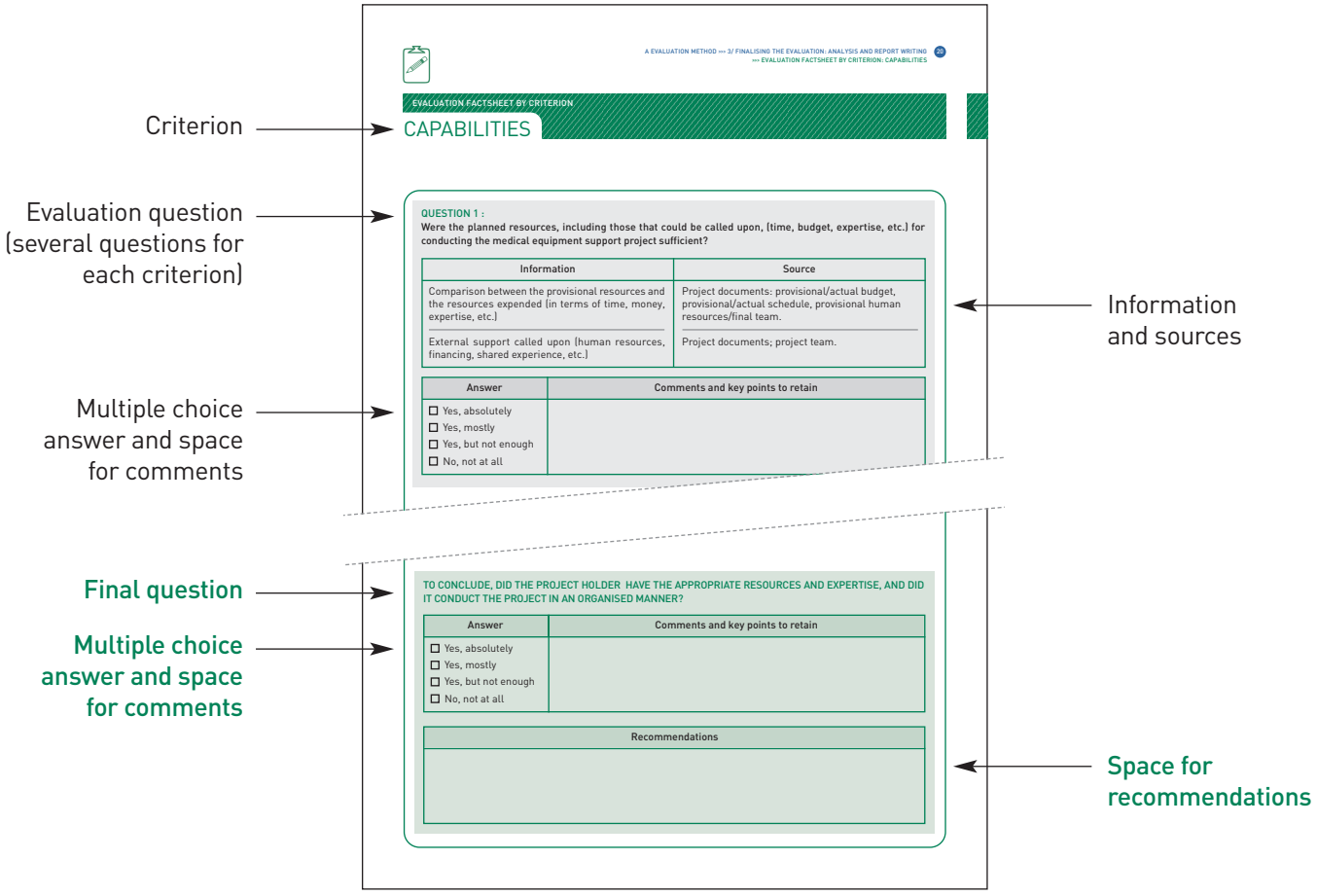
They will also have to pilot implementation of the recommendations they have validated.

Too many evaluation reports lie dormant in cupboards without ever being used: this is a waste of money, time and energy, and above all, a missed opportunity to advance and constantly improve health services, which are the aims of a whole string of actors.

The real value of an evaluation resides in the use made of it, the implementation of the recommendations and the improvement in practices it generates!

>>> The evaluation factsheets by criterion

Several evaluation questions must be asked for each criterion. For each question, the information collected and its sources must be noted.
The replies to evaluation questions are multiple choice between "yes, absolutely" and "no not at all". Comments are essential. They explain your point of view.
At the end of each factsheet, a final question will lead you to expressing a finding and making recommendations regarding the criterion.



EVALUATION FACTSHEET BY CRITERION

PERTINENT

QUESTION 1:

Was the initial request completed by a preliminary assessment mission to check, validate and define the real need for medical devices, their limits and possible constraints as well as the potential partners close to the health facility?

Information	Source
Existence and quality of preliminary assessment.	Preliminary assessment report: project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2:

Was the health facility's request coherent with the health needs in the area and the current health policies?

Information	Source
Support from health authorities.	Health authorities' documents of support; meetings with health authorities.
Nursing staff's view of the health facility.	Meetings with the health facility's medical and paramedical staff.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 3:

Was the health facility's request granted? Did the devices provided correspond to the quantity and quality of the needs expressed by the health facility?

Information	Source
Quantitative and qualitative comparison between the initial request and the devices provided.	Initial request documents, documents certifying that the medical devices were provided and direct observation of the devices; project team; meetings with medical and paramedical staff.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 4:

Were the devices provided appropriate in the context of the health facility (infrastructure, size, number of patients, professional skills, budget, etc.)?

Information	Source
Employee satisfaction at the health facility (nursing, biomedical maintenance and administrative staff).	Meetings with the different categories of the health facility's staff.
How often the different types of device provided are used.	Consultation registry/operations, etc.
Satisfaction of patients at the health facility who have benefitted from the new medical devices.	Meetings with the health facility's patients.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, DID THE MEDICAL EQUIPMENT SUPPORT PROJECT MEET THE NEEDS?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations

EVALUATION FACTSHEET BY CRITERION

RIGOUR

QUESTION 1:

As the project holder organisation, were the key decisions based on rigorous gathering and analysis of information, from the preliminary assessment of needs to the end of the project?

Information	Source
Existence of structured stages, particularly a preliminary assessment of needs and activity monitoring.	Project documents, emails and correspondence exchanged with the project, monitoring logs, etc.; project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2:

As the project holder organisation, were the key decisions taken during an appropriate collective meeting (board of directors' meeting, executive meeting, etc.) along with the partner when necessary?

Information	Source
Decision-taking process in the project holder organisation.	Reports of the project holder's decision-taking meetings and executive meetings, etc.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 3:

As the project holder organisation, is there a filing system of key stage documents allowing you to lead the project and make any necessary adjustments?

Information	Source
Existence of a filing system set up by the project holder, and its effective use, particularly with regard to the key stages of the project: preliminary assessment report, documents regarding the medical devices, such as donation certificates signed by the donors, bills from service providers, etc.	Examination of documents at the headquarters of your project holder's organisation.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 4:

Have the terms of the partnership between your project holder organisation and the health facility been clearly defined, and have they led to an efficient implementation of the project?

Information	Source
Description of the responsibilities of each stakeholder in the partnership agreement.	Partnership agreement; project team.
Respect of the commitments by the project holder and by the partner health facility.	Meetings, correspondence and emails exchanged with the partner.
Speed, precision and courtesy in exchanges between partners.	Meetings with the main contacts at the partner health facility; correspondence and emails exchanged with the partner; project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, WAS THE MEDICAL EQUIPMENT SUPPORT PROJECT SET UP IN A METHODICAL AND STRUCTURED WAY?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations

EVALUATION FACTSHEET BY CRITERION

EFFECTIVE

QUESTION 1:

Does the device provided work?

Information	Source
Working order of the medical device when delivered and at the evaluation.	Date of entry into service form, direct observation of the medical devices in the context of their use; meetings with medical, paramedical and biomedical maintenance staff.
Number and type of breakdowns since it was provided, duration and down times in the use of the medical device (lack of preventive or corrective maintenance, lack of accessories, maintenance kits and/or spare parts).	Direct observation, meetings with users and biomedical maintenance staff; examination of maintenance logs and forms.
Operational problems of the medical device due to the infrastructure (premises, electricity, air conditioning, distribution or quality of the water, etc.).	Direct observation, meetings with users and biomedical maintenance staff; examination of maintenance logs and forms.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2:

Is the medical device used?

Information	Source
Number of employees trained to use the medical device compared with the planned number.	Meetings with users, management and biomedical maintenance staff; examination of training attendance forms; project documents.
Number of employees using the medical device compared with the planned number.	Meetings with users and biomedical maintenance staff; examination of monitoring logs for the use of the medical devices and the registry of consultations/ operations; project documents.
Number, duration and reason for down times in the use of the medical device (consumables out of stock, departure of trained staff, etc.).	Meetings with users, the person in charge of supplies and suppliers; examination of monitoring logs for the use of the medical devices and the registry of consultations/operations.
How often the different types of medical device provided are used.	Direct observation; meetings with users and biomedical maintenance staff; examination of monitoring logs for the use of the medical devices and the registry of consultations/operations.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 3:

Will there be long-term funding for the medical equipment?

Information	Source
Does the partner health facility have a large enough operating budget to cover the cost of operating the medical devices (human resources, training, energy, biomedical maintenance, supplies of consumables, accessories, maintenance kits and spare parts etc.)?	Meetings with the health facility's financial controller, the users and the biomedical maintenance staff; examination of the health facility's accounts.
Income generated by the use of the medical devices provided (total of amounts paid by patients who have benefitted from the device).	Meetings with the financial controller; examination of the health facility's accounts.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 4 :

Can preventive and corrective maintenance be ensured? Are the accessories, maintenance kits and spare parts readily available?

Information	Source
Presence and capabilities of an internal biomedical maintenance service or an external biomedical maintenance service provider.	Meetings with users and biomedical maintenance staff.
Presence of local suppliers of accessories, maintenance kits, spare parts and what is their capabilities in terms of supplying the health facility.	Meetings with users, biomedical maintenance staff and suppliers.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, WAS THE MEDICAL EQUIPMENT SUPPORT PROJECT EFFECTIVE AND DID IT ATTAIN ITS LONG AND SHORT-TERM OBJECTIVES?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations

EVALUATION FACTSHEET BY CRITERION

CAPABILITY

QUESTION 1:

Were the planned resources, including those that could be called upon, (time, budget, expertise, etc.) for conducting the medical equipment support project sufficient?

Information	Source
Comparison between the provisional resources and the resources expended (in terms of time, money, expertise, etc.).	Project documents: provisional/actual budget, provisional/actual schedule, provisional human resources/final team.
External support called upon (human resources, financing, shared experience, etc.).	Project documents; project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2:

Was your system (logistics, administrative and financial management) competent and adapted to the size and complexity of the project? Was management of the project totally disinterested and in line with international aid sector ethics?

Information	Source
Compliance with legal obligations (employment law, accounts, visas, transport, import/export, insurance, regulations covering medical devices, etc.).	Examination of project documents; project team; meeting with the health facility's management.
Financial management (percentage of the project budget allocated to operating costs, team remuneration or benefits, any useless or excessive expenses, etc.).	Project documents (actual budget); project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, DID THE PROJECT HOLDER HAVE THE APPROPRIATE RESOURCES AND EXPERTISE, AND DID IT CONDUCT THE PROJECT IN AN ORGANISED MANNER?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations

EVALUATION FACTSHEET BY CRITERION

POSITIVE IMPACT

QUESTION 1 :

Were the healthcare objectives which the project sought attained? To what extend?

Information	Source
Quantitative and/or qualitative elements indicating the degree to which health objectives have been met (for example, improvement in diagnoses and/or treatment of different pathologies, reduction in infant mortality rate, etc.).	Depending on the circumstances, epidemiological data, registry of consultations/operations, health facility's activity report, meetings with users of the devices, patients and health authorities.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2 :

Did the project have other positive impacts (for example, on the motivation of the project holder's or the partner health facility's teams, number of patients at the health facility, etc.).

Information	Source
Points established by the team which confirm the positive impacts of the project, health facility's attendance figures, etc.	Meetings with health facility staff; registry of consultations/operations, health facility's activity report.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, DID THE PROJECT ACHIEVE ANY POSITIVE IMPACTS OVER AND ABOVE MEDICAL EQUIPMENT SUPPORT?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations

EVALUATION FACTSHEET BY CRITERION

NEGATIVE IMPACT

QUESTION 1:

Has the risk of a negative impact on patient or user staff's health been identified and have effective measures to correct or reduce it been implemented?

Information	Source
Do accidents due to incorrect use of the medical device (iatrogenic infections, radiation, etc.).	Meetings with the health facility's staff.
Preventive or corrective measures implemented to avoid accidents linked to incorrect use of the devices (training, awareness or information sessions, controls, etc.); effect of these measures.	Project team; meeting with the health facility's staff; project documents (such as: documents used to make people aware of risks, etc.).

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2:

Has the risk of a negative impact on the environment been identified and have effective measures to correct or reduce it been implemented?

Information	Source
Existence and operation of a system to deal with the waste disposal (for end-of-life devices or waste produced by the devices themselves (such as development products and radiology film, used consumables and accessories, out-of-date spare parts, packaging, etc.).	Direct observation; meetings with users and biomedical maintenance staff.
Measures have been implemented to correct or reduce any negative impact to make up for the possible absence of a waste disposal system (waste storage, contact with other centres to create a waste treatment service, transfer of waste to a waste treatment plant, etc.).	Meetings with management and biomedical maintenance staff; project documents (such as: procedures, partnerships, projects that have been proposed or implemented, etc.); project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 3:

Is there a risk of a negative impact on the health facility's financial balance due to the use of the devices? Have the risks been identified and have effective measures to correct or reduce them been implemented?

Information	Source
Elements indicating the health facility's possible budgetary imbalance (linked, for example, to insufficient income to cover the costs incurred by using the medical devices: maintenance, consumables, training, etc.).	Meeting with the financial controller; examination of the health facility's accounts.
Corrective measures implemented to avoid or limit the health facility's possible budgetary imbalance (some expenses covered by the project holder, patient participation in costs, partnership with other health facilities, etc.).	Meeting with the financial controller; examination of the health facility's accounts.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 4:

Is there a risk of inequality of access to healthcare, as well as the risk of reducing the poorest patient's capital? Has it been identified and have effective measures to correct or reduce it been implemented?

Information	Source
Cost of using the medical device, and possibility that some patients, due to lack of income, are not benefitting from treatment using the medical devices.	Meetings with the local population, user staff, biomedical maintenance staff and the health facility's financial controller.
Measures taken to correct or attenuate any constraints regarding access to treatment using the medical devices by poor patients: special rates, system to cover costs, possibly through partnerships with other organisations, etc.	Meetings with the local population and the health facility's financial controller.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 5:

Has a risk of a negative impact on professional ethics been identified and have effective measures to correct or reduce it been implemented?

Information	Source
Existence of issues of medical devices not reaching their destination or their primary function and/or being monopolised for private interests (excessive use, bribery, etc.).	Meetings with medical and paramedical staff as well as the management.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, HAVE ANY NEGATIVE IMPACTS OF THE MEDICAL EQUIPMENT SUPPORT PROJECT BEEN AVOIDED OR LIMITED?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations

EVALUATION FACTSHEET BY CRITERION

SYNERGY

QUESTION 1:

Has your organisation, as the project holder, identified other players who are complementary to your involvement and has a relationship been established with them which would be useful to the project?

Information	Source
People identified by your organisation (support structure and/or assistance, donors of medical devices, organisations specialising in medical technology adapted to the developing country, embassies, international aid workers, medical or biomedical experts, etc.).	Meetings with the players involved in the project; examination of partnership agreements, contracts; project team.
Their roles (coordination, information exchange, partnership, sharing means, service provision, etc.).	Meetings with the players involved in the project; examination of partnership agreements, contracts; project team.
How the relationships works.	Meetings with the players involved in the project; examination of partnership agreements, contracts; project team.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 2:

Following the increase in the health care it can offer thanks to the arrival of new medical devices, has the partner health facility established or strengthened relationships of useful cooperation with the health authorities and other health and social workers in the area?

Information	Source
Organisations and actors with whom the health facility collaborates (health authorities, health facilities, analytical laboratories, associations, etc.);	Meetings with management, health authorities and the health and social workers that are involved in the project; examination of existing agreements.
Different types of collaboration and how they work.	Meetings with management, health authorities and the health and social workers that are involved in the project; examination of existing agreements.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

QUESTION 3:

Has the partner health facility established or strengthened its relationships with maintenance service providers, suppliers of consumables, accessories, maintenance kits and spare parts, those providing training, those working on building or renovating the facility, etc.?

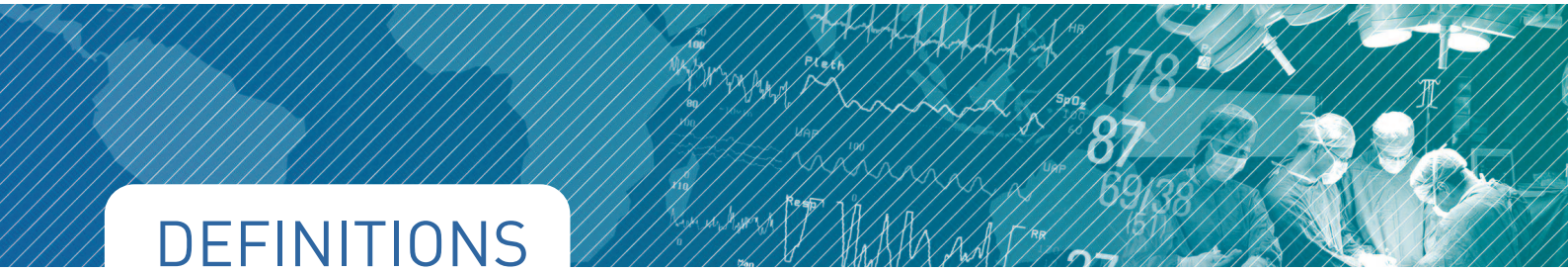
Information	Source
Service providers with whom the health facility has established a relationship.	Meetings with the health facility's staff, the service providers involved; examination of bills and service contracts.
Type of relationship established and services provided.	Meetings with the health facility's staff, the service providers involved; examination of bills and service contracts.
How these relationships work.	Meetings with the health facility's staff, the service providers involved; examination of bills and service contracts.

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

TO CONCLUDE, HAS THE MEDICAL EQUIPMENT SUPPORT PROJECT INTEGRATED WITH THE LOCAL AREA?

Answer	Comments and key points to retain
☐ Yes, absolutely ☐ Yes, mostly ☐ Yes, but not enough ☐ No, not at all	

Recommendations



DEFINITIONS

FOR A CLEAR UNDERSTANDING OF THE EVALUATION METHOD

ACCESSORY: in the medical field, an object that is used in conjunction with medical equipment and is usually essential to its function: defibrillator paddles, ECG cables, handle for an electrosurgical generator, etc.

CONSUMABLE: in the medical field, this is an essential supply for an action, which is normally replaced after use. For example: bandages, compresses, gloves, masks, printing paper, X-Ray film, scan gel, sterile towels, diathermy knife blades, etc.

PARTNERSHIP AGREEMENT: formal document/agreement which dictates the relationship between several parties who have agreed to work in partnership and which defines their respective duties.

MEDICAL EQUIPMENT: medical device requiring maintenance, on which users need training, and that need to be overhauled – activities that are usually the job of biomedical engineers. It can be used alone or in conjunction with accessories, consumables and/or other medical devices.

MAINTENANCE KIT: a set of element that is required to carry out preventive maintenance on a specific piece of medical equipment. A maintenance kit could, for example, consist of filters, joints, valves, etc.

MAINTENANCE: in the biomedical field, action plan to maintain a medical device in an optimal operating mode. There are different sorts of maintenance:

> **PREVENTIVE MAINTENANCE:** planned action to reduce the likelihood of a breakdown of an equipment and maintaining it in a state of optimal operation.
>
> **CORRECTIVE MAINTENANCE:** action carrying out repairs following a breakdown or malfunction noticed on an equipment, with the aim of rendering it durably operational again.

MEDICAL DEVICES: the term medical devices as used in this document applies to all medical devices as defined by article L.5211-1 in the French public health Code as indicated below (which specifically includes medical devices) as well as the technical equipment for hospitals which is not considered to be medical devices (furniture and minor hospital instruments)

Article L.5211-1 of the French public health Code, article 1 item 2 in directive 2007/47/CE defines medical devices as: "any instrument, machine, device, software, material or other article, used alone or in conjunction with another, as well as any other accessory, including software designed by the manufacturer to be used specifically for diagnoses and/or therapy, and necessary for it to work properly, intended by the manufacturer for use on humans for the purposes of:

- Diagnosis, prevention, control, treatment or alleviation of an illness;
- Diagnosis, control, treatment, alleviation or to compensate for a wound or a disability;
- Examination, replacement or modification to the anatomy, or for a physiological process;
- Implementing a design, the desired principal action of which, in or on a human body, cannot be obtained by pharmacological or immunological means nor by metabolism, but the operation of which can be assisted by such means."

STOCK OF MEDICAL DEVICES/EQUIPMENT: all the medical devices available to a health facility.

PARTNERSHIP: in the field of international solidarity, relationship between legal entities which have decided to carry out a project in order to achieve common objectives. It is a dynamic process, usually long-lasting, based on principles of cooperation, equality, and exchange, confidence and reciprocity. It can be conveyed by a formal agreement, which often takes the form of a partnership agreement.

PROJECT HOLDER: in this document, a person or legal entity responsible for coordinating all the tasks and the stages necessary for the success of the medical equipment support project (preliminary assessment, definition of the aims, planning, recruiting partners, fund raising, management and implementation of human resources, equipment and financing, communication, logistics, monitoring, evaluation, etc.).

MEDICAL EQUIPMENT SUPPORT PROJECT: international aid project aiming to reinforce the quality and capability of care in a health facility by the provision of medical devices that is appropriate in the context and local resources.

BIOMEDICAL HUMAN RESOURCES:

> **BIOMEDICAL ENGINEER:** healthcare professional who designs, leads and controls the investment and maintenance policy of medical equipment in conjunction with the healthcare facility's policies and the desired levels of quality and safety. They are usually in charge of a team of biomedical technicians, they keep up with technological innovation, the regulations and precautions regarding medical devices and manage all the facility's equipment throughout its life span, from procurement to withdrawal.
>
> **BIOMEDICAL TECHNICIAN:** healthcare professional who ensures the maintenance of medical equipment. They are responsible for the installation of equipment and management of the stock of spare parts, accessories and maintenance kits. They train and inform the operators and participate in the detection of risks to the safety of patients and operating staff. The biomedical technician usually works under the supervision of a biomedical engineer.

BIOMEDICAL MAINTENANCE SERVICE: service responsible for the management and maintenance of medical equipment in a health facility.

HOW TO OBTAIN SUPPORT OR GET TRAINING

There are a number of organisations that can provide assistance to project holders committing to the evaluation of medical equipment support project in a health facility. Their support can take the form of personal interviews, distribution of documents and tools and specific training on project methodology. In France, these organisations are mainly regional networks which support international aid providers, resource centres and specialist organisations. Examples are listed below.

Look for organisations in your own country that could provide assistance.

HUMATEM

Provides methodological support, the supply of all sorts of medical devices and technical services on your devices.

www.humatem.org

GROUPE URD

Provides support on quality control and field expert report missions.

www.urd.org

BIOLOGIE SANS FRONTIÈRES

Provides methodological support, supplies of laboratory devices and technical services on them.

www.bsf.asso.fr

BIOPORT

Provides technical support with international logistics.

www.bioport.asso.free.fr

CAP SOLIDARITÉS

Provides assistance in setting up a project.

www.capsolidarites.asso.fr

ENTRAIDE BIOMÉDICALE

Provides imaging devices and technical services on this type of device.

www.entraide-biomedicale.org

MISSION AIR

Provides made-to-measure solutions for humanitarian transport needs.

www.mission-air.com

TRANSHUMA

For national and international road transport.

www.transhuma.org

RECOMMENDED READING

Beaud, Stéphane et Florence Weber (2010) *Le guide de l'enquête de terrain*, Paris: La Découverte.

Beaudoux E., De Cambrugghe, *et al* (1992) *Cheminements d'une action de développement, de l'identification à l'évaluation*, Paris: L'Harmattan.

Bioforce (2006) *La gestion de projets dans la réalisation des programmes de solidarité*, Formation GPSI (available on-line).

Cerapcoop- F3E (2006) *Suivi et évaluation d'un projet de solidarité internationale*, Clermont-Ferrand (available on-line).

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Coordination Sud (2006) *Guide partenariat. Outils pratiques à l'usage des partenaires du Nord et du Sud*, Paris: Coordination Sud.

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Graugnard, Gilbert et Ana Maria Oliveira (2009) *Éducation au développement et à la solidarité internationale. Comment auto-évaluer ses actions.* Guide Méthodologique, Lyon: CIEDEL (available on-line).

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EVALUATION METHOD

This Evaluation Method is designed for international aid players who have carried out a medical equipment support project and would like to evaluate it. It may also be a guide for contractors who are asked to carry out an external evaluation in this field.

It consists of a methodology and practical factsheets. It provides formulas, using pre-defined criteria, on how to collect and analyse quantitative and qualitative data, relevant both in the field and for the project holder organisation. They will help the project holder to draw essential lessons from their experience, to envisage a follow-up to the partnership and to develop their ability to run new projects.

This document is part of a series of methods and tools designed to improve the quality of medical equipment support projects.

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