The phases of introduction of IMCI (Integrated Management of Child Health) or other public health approaches into pre-service education require actions at two levels:

National level

Institutional level

Four main phases characterize this process:

- 1. Preparatory and orientation
- 2. Planning
- 3. Implementation and monitoring
- 4. Review and re-planning

The preparatory and orientation phase for IMCI pre-service is essential for the sustainability of the initiative and aims at creating at both national and institutional levels a conducive supportive environment for implementation.

The planning phase "sets the scene" for the initiative and plays a critical role.

The other two phases relate to the implementation of the intervention and its review to re-plan for a new cycle.

Each phase consists of a number of steps, as described under the "national" and "institutional" levels and shown in <u>this table</u>.

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National level

Phases of introduction of IMCI (Integrated Management of Child Health) into pre-service training / education at national level:

- 1. Preparatory and orientation phase
- 2. Planning phase
- 3. Implementation and monitoring phase
- 4. Review and re-planning phase

1. Preparatory and orientation phase

This phase plays a vital role in creating a supportive environment, which is critical to generate interest and support to IMCI and, then, to its introduction in pre-service education.

Early and regular participation in the main steps and activities of the IMCI strategy in the country

Identification of partners

Raising awareness

Decision-makers' commitment to support pre-service education

Establishment of a national management and coordination structure on IMCI pre-service education

Situation analysis to select institutions

Early and regular participation in the main steps and activities of the IMCI strategy in the country

Experience has shown that regular involvement of professionals from the academia and professional societies in the introduction and implementation of the IMCI strategy in a country since the very early stages is of high importance to:

introduce the public health initiative in the health system;

stimulate teaching institutions' interest in the strategy and public child health approach;

raise awareness about child health problems;

involve professionals in all major aspects and issues of implementation; and

establish closer links and coordination between the academic world, the public health system and other partners.

This approach is key to the country's full ownership of the initiative and further raising child health on the public health agenda.

Examples of involvement of the academia include:

their participation in the national IMCI Task Force and IMCI review committees;

courses for IMCI master trainers and facilitation skills to act as resources for in-service training

follow-up visits after IMCI training to health facilities—gaining invaluable feedback experience;

supervisory activities;

public-child-health-oriented research.

The WHO Regional Office has also made use of the rich expertise of academic staff among those trained in IMCI to assist other countries in the national adaptation of the IMCI clinical guidelines and conducting their first IMCI in-service training courses and follow-up visits.

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Identification of partners

The establishment of effective partnerships is essential to support future efforts in the area of pre-service education. Key partners should be identified since the early introduction of IMCI in a country, so as to define roles and responsibilities when a national plan for IMCI implementation is prepared.

Partners in IMCI pre-service include the relevant departments of the ministry of health, legislative and advisory councils, professional societies and associations, international, multilateral and bilateral organizations.

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Raising awareness

In addition to the activities described above, advocacy initiatives to further promote IMCI among

the academia and partners play an important role to stimulate their interest and create a supportive environment at different levels.

Examples include the inclusion of IMCI as a topic or technical update in the programme of conferences or scientific meetings of professional societies, newsletters, the invitation of professionals from the academia to national public health events, etc.

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Decision-makers' commitment to support pre-service education

As a result of orientation meetings and advocacy on the IMCI strategy, it is important to obtain key decision-makers' formal endorsement of the pre-service initiative in the country as a sustainable approach to strengthening human resource development in child health.

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Establishment of a national management and coordination structure on IMCI pre-service education

The scope of work for the introduction of public health approaches such as IMCI into pre-service education is substantial, especially at the beginning, as it requires intensive contacts, advocacy and close coordination with the teaching institutions and partners involved.

It is recommended therefore that a functional management structure be established for this particular purpose at national level, either within the national IMCI committee or as a separate body linked to it.

Effective coordination requires the designation of a focal point for pre-service education, working full time for this task, to act as a secretariat for the organization of meetings, preparation of minutes and reports, documentation of the experience and dissemination of information among those concerned.

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Situation analysis to select institutions

The type of pre-service education institutions to be targeted by the IMCI pre-service initiative depends on the categories of health providers who deliver primary health care services to children. These are the same categories targeted by IMCI in-service training. The institutions to be targeted will then be those which produce those health professionals.

Attention should be paid also to identifying those facilities where students practise their skills, as these play a key role in the process of skill development and attitudes and should be implementing IMCI.

Finally, to create a supportive environment, it is important to identify those individuals, groups or institutions which can influence pre-service education and represent key partners in the IMCI pre-service education initiative.

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2. Planning phase

Before undertaking any activities, it is essential to develop a national plan for the introduction, implementation and evaluation of IMCI pre-service education.

As in any plan, also this plan should clearly:

list objectives, indicators to be monitored and targets to be achieved;

list <u>selection criteria</u> for targeted institutions by phase—if a phased approach is used;

list the main activities to be conducted, including also monitoring and evaluation;

define and assign responsibilities among all those involved—including partners;

identify the resources required-both human and financial; and

include a time-frame.

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3. Implementation and monitoring phase

The central team which coordinates IMCI pre-service activities will closely cooperate with the teaching institutions to facilitate the process.

Follow-up visits are important to sustain the interest, identify gaps and promptly address issues.

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4. Review and re-planning phase

In the same way as public health programmes are evaluated and their approaches are reviewed, the pre-service education initiative should be regularly reviewed and periodically evaluated to maximize the use of resources, strengthen its approach and improve results.

This information can then be used to advocate with key decision-makers and partners for further policy and financial support and collaboration.

The central team is expected to work closely with the teaching institutions, reviewing with them the information that is collected as the initiative is implemented in each school and collaborating in structured evaluations of students and graduates, when feasible.

Both ministries of health and schools have much to benefit from this initiative and have different expertise available in their domains which well complement each other when reviewing the pre-service education experience.

Finally, a major undertaking is the <u>evaluation</u> of IMCI pre-service education, which may take place after 3-5 years of well documented experience but should be planned since the very beginning, to ensure that key information is collected over time.

At national level, the evaluation will look at costs, benefits and effectiveness of the initiative. It helps understand to which extent IMCI pre-service education has succeeded in accomplishing its original objectives, that is not only student competency but also health provider performance in the field.

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Institutional level

Phases of introduction of IMCI (Integrated Management of Child Health) into pre-service education at institutional level:

1. Preparatory and orientation phase

- 2. Planning phase
- 3. Implementation and monitoring phase
- 4. Review and re-planning phase

1. Preparatory and orientation phase

As seen for the same phase at national level, adequate preparatory work is necessary to establish the required conditions to introduce IMCI into pre-service education and institutionalize it for long-term sustainability.

This has been a major lesson learnt from the past, when other public health approaches were introduced into pre-service training but were not sustained over time, as preparatory and planning work had not addressed key issues effectively.

Identification of concerned departments within the teaching institution

Orientation workshop

Establishment of an IMCI working group

Training of key teaching staff in IMCI

Study tours and experience-sharing

Identification of concerned departments within the teaching institution

To define the target group for the initiative, first the departments to be involved within the academic institution should be identified.

This task requires a preliminary situation analysis and is usually carried out jointly by the national IMCI pre-service management structure and the institution concerned.

In this Region, the departments involved have usually included the paediatrics, community and family medicine departments, according to the organization of the school.

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Orientation workshop

A workshop to orient academic institution decision makers and key teaching staff is then conducted.

In this Region, this activity has been well structured, based on the vast and rich experience acquired over the years in conducting it in many schools in different countries. It has in most cases been conducted together with the participation of WHO Regional Office CAH unit staff. It leads to key commitments and decisions.

This workshop plays a key role, since the following outcomes are expected:

official endorsement of the introduction of IMCI elements and approach in the teaching programme of the relevant departments by the university chancellor, faculty dean, and department head and council, or correspondent governing bodies;

decision on the **establishment of an IMCI pre-service working group** within the institution to coordinate all related activities, with designation of a focal point and definition of terms of reference.

identification of learning objectives of each of the departments involved, given their complementary role to ensure the coverage of all IMCI tasks within the existing teaching subjects and activities.

plan for training of key teaching staff in IMCI. A short, 5-day course has been used in the Region for senior professors, while the standard 11-day course has been used for all the other teaching staff.

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Establishment of an IMCI working group

The establishment of an IMCI working group and a focal point in each concerned school helps coordinate and follow up all activities of the various departments concerned within the school in relation to IMCI pre-service education.

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Training of key teaching staff in IMCI

A few, key teaching staff with decision-making responsibilities, including members of the school IMCI working group, undergo an IMCI training course to become more acquainted with the content and methodology. This provides them with background useful for planning.

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Study tours and experience-sharing

The Regional Office has in selected cases organized and supported "study tours" to model medical schools and <u>meetings</u> —also at intercountry level—to share and review IMCI pre-service education experiences and expose new schools to them.

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2. Planning phase

Placement of IMCI related elements in the teaching programme of relevant departments

Learning objectives

Teaching options

Teaching process, indicators and resources

Budget

Monitoring, review and re-planning

Endorsement of the plan

Placement of IMCI related elements in the teaching programme of relevant departments

It should be stressed that "IMCI" is not a "subject" on its own. It should therefore be properly placed in the teaching programmes of the relevant departments and not be introduced as a "subject" in teaching.

While offered as a package in in-service training, the approach used in pre-service education differs, as it needs to take into consideration the existing certificate, diploma or degree programmes.

It is the IMCI elements and clinical approach—knowledge and especially skills—that should be placed in the existing teaching programme of departments such as paediatrics and community and family medicine, which cover subjects related to the areas addressed by IMCI.

It should also be emphasized that IMCI is in no way comprehensive paediatrics, as it focuses on the most important and common conditions in children under-five.

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Learning objectives

Learning objectives need to be identified very clearly to guide any other decision.

This process, including the placement of IMCI related elements in the teaching programme of relevant departments, often requires re-distribution of time allocated to some existing topics and lessons.

The Regional office has included in the <u>IMCI pre-service education package</u> a guide on teaching sessions, including lessons plans with learning objectives, content and procedures of each session.

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Teaching options

Several teaching options have been proposed for IMCI pre-service education:

"scattered" or "staggered" option, distributing its elements over the existing teaching programme;

"staggered with synthesis block" option, following the above "staggered" approach but adding a "synthesis block" at the end of the programme and/or as part of the paediatric rotation or specialty training, or house officer training;

"one block" option, delivering it as one "block", i.e. one course—similarly to IMCI in-service training.

All teaching institutions which have introduced IMCI in their teaching programmes in the Region, except only for one country, have adopted the second option, that is the "staggered with synthesis block" option.

The delivery of an IMCI course (the "one block" option), as done in in-service training, has been largely discouraged. This option:

is a very intensive approach, unlikely to be sustainable over time;

requires additional time, overstretching the existing curriculum;

does not fit the existing teaching and remains unlinked with the content and methodology of what has been taught earlier.

A recent review of experience from schools in another Region has confirmed those concerns and come up with similar conclusions, recommending the other two approaches described above.

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Teaching process, indicators and resources

As part of the teaching process, when planning decisions are made on:

definition of student learning objectives;

which teaching methods to be adopted for the different topics;

which resources to use for both teachers and students;

which steps to prepare the training sites for clinical practice and the teachers themselves (training on IMCI case management and facilitation skills);

which student-to-teacher ratio to choose according to the various sessions and methods employed

how to assess students; and

which teaching programme to use.

Decisions on these aspects are important as they relate to indicators on the quality of teaching which can be monitored and provide useful feedback.

Furthermore, any decision has to take into consideration the issue of long-term sustainability, as the pre-service initiative accomplishes its objective only if schools develop and implement approaches that the schools themselves can support over time.

The incorporation of questions in student examinations ("summative evaluation") has proved to be very useful, as students "usually study what is in the exams".

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Budget

The additional costs involved in preparing the institution (e.g., training of teaching staff, preparation of clinical sites) and performing teaching (e.g., type and number of references for teachers and students) need to be calculated and be part of the plan.

The source of these financial requirements needs to be identified by each item in the plan.

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Monitoring, review and re-planning

The plan needs to include also indicators and activities to monitor its implementation, including a review at the end of the process.

The findings of the review form the basis to develop a revised plan. Issues related to future sustainability of the approach followed need to be addressed very specifically.

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Endorsement of the plan

The plan so developed needs to be formally endorsed in writing by the departments concerned and the school council.

This is a central and fundamental step, translating all the preparatory work and decisions made into "the" policy of the teaching institution and laying the foundation for the future sustainability of the IMCI pre-service initiative.

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3. Implementation and monitoring phase

This is the phase when the plan is implemented.

First, preparations are made to prepare for teaching.

Faculty involved in teaching in the respective departments receive training in the IMCI guidelines and facilitation skills.

Resources for teaching and references for students are developed and reproduced.

Training sites for clinical practice are prepared.

Next, teaching starts.

Information to document the experience and monitor its progress is collected.

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4. Review and re-planning phase

The whole process needs to be reviewed annually. The findings form the basis for re-planning, thus closing one teaching cycle and opening a new one.

All the various steps described for each phase should be reviewed critically to address key issues and "re-model" the approach.

Attitude and satisfaction of teaching staff and students towards the IMCI content and teaching methodology—including supervised clinical practice—should also be reviewed, as they are among the factors determining success and sustainability of the initiative in the long term.

A standard evaluation of teaching, both in terms of process and outcomes, provides further information to strengthen teaching. The Regional office has developed a <u>guide</u> to this type of evaluations as part of the IMCI pre-service education package.

Evaluations help understand to which extent IMCI pre-service education has succeeded in accomplishing its original objectives, i.e. student competency and health provider performance in the field. The latter aspect is usually coordinated by the ministry of health with involvement of academic institutions.

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