Adaptation of the IMCI technical guidelines and training materials

Introduction

Guidelines and training materials for the Integrated Management of Childhood Illness (IMCI) need to be adapted by each country before they are used. Adaptation ensures that the most important childhood illnesses that first-level health workers must be able to treat are included, that materials are consistent with national treatment guidelines and other policies, and that it is feasible to implement the guidelines through the health system.

The adaptation process is, therefore, a key element in national preparations for implementing IMCI. It is also a mechanism for developing consensus on technical issues, and helps to mobilize a range of expertise from within and outside of ministries of health to contribute to a common effort to improve the quality of health care for children.

The WHO Department of Child and Adolescent Health and Development (CAH) has developed an Adaptation Guide to assist national programme staff and expert advisors with the adaptation process.

The need for national adaptation

Generic case management guidelines, charts, and related training materials were developed by WHO and UNICEF to be appropriate in the majority of developing countries where infant mortality is higher than 40 per 1000 live births, and where there is transmission of P. falciparum malaria. These generic materials concentrate on the five conditions that together cause more than 70% of mortality in children under the age of five years: ARI (acute respiratory infections, mostly pneumonia), diarrhoea, malaria, measles, and malnutrition. These five conditions are the reason also for a high proportion of visits to health facilities. Although not a major contributor to childhood mortality, ear infection is a significant cause of disability and a common reason for children to be brought to a health facility. For this reason, ear infection is also covered in the generic guidelines.

The extent of adaptation required has been minimized by making the generic materials as widely applicable as possible. Case management guide-
lines must, however, cover the most serious illnesses that contribute to child mortality in a specific country. Consensus is, therefore, needed on which childhood conditions to cover. In countries where there is no transmission of *P. falciparum* malaria, for example, malaria can be removed from the guidelines and training materials. Other countries where dengue haemorrhagic fever is an important problem have modified the materials to include this condition.

The adaptation process involves a detailed review of existing guidelines and a comparison between them and the generic IMCI guidelines. The intention is not just to adapt the generic IMCI guidelines to national ones or to adapt national guidelines to the generic IMCI chart. The final adaptation should reflect the most technically effective and practical aspects of both.

**Types of adaptations**

Certain adaptations to the guidelines are essential, while examination and discussion of some other parts of the guidelines may only be necessary to allow consensus to be reached on coherent treatment guidelines. Once consensus among key ministry of health officials and other national experts is reached on the guidelines, changes need to be made to the generic IMCI charts and throughout the training materials.

The following are adaptations essential in all countries, illustrated by examples of the adaptation decisions made in Uganda:

- The selection of effective first-line and second-line antibiotics for treating pneumonia, dysentery and cholera. These must be antibiotics to which organisms in the country are sensitive and which can be made available in first-level facilities.

  Uganda selected cotrimoxazole and amoxycillin for treatment of pneumonia; cotrimoxazole and nalidixic acid for dysentery; cotrimoxazole and erythromycin for cholera.

- The identification of appropriate complementary foods for children of different age groups. These foods must be readily available, affordable, and culturally acceptable.

  After a study of locally appropriate and available foods in the Central Region, Uganda made this recommendation for complementary foods for children aged 6 months up to 12 months: *Thick porridge made out of either maize or cassava or millet or soya flour. Add sugar and oil mixed with either milk or pounded groundnuts.*

- The identification of specific terms for signs of illness that are used in the communities in which IMCI is being implemented. These terms help health workers to assess the child’s illness, and help mothers to recognize when to take a child to the health worker for care.

  In the Central Region, there was no commonly understood term for fever. A study found that the best term that described fever without other signs or conditions of illness, was *ayokya onubiri* (hot skin). The study
also revealed that caretakers may not spontaneously volunteer the information that a child has had *olukusense* (the local word for measles) for fear of spreading the illness to other children in the house by naming it. Other words, such as *mulangira* (The Prince), may be used to avoid the name.

In addition to these essential adaptations, consensus must be reached on treatment guidelines for each of the conditions covered in the course. These may or may not require adaptation of the generic guidelines. For example:

- Different countries have different policies on which children should be given vitamin A. These policies are based on the epidemiology of vitamin A deficiency and the feasibility of implementing various supplementation plans through first-level health facilities. The generic guidelines on vitamin A, therefore, need to be reviewed and, if necessary adapted, to fit with national policies and conditions affecting their implementation through the health system.

- Management of fever in the IMCI guidelines depends on the risk of malaria. Where the risk of malaria in a country is different from the generic guidelines it is necessary to adapt the guidelines to suit the epidemiological situation. The section on management of fever is the one that has required most adaptation.

- Where HIV infection is highly prevalent, countries may need to consider several adaptations to the generic training materials, including how to manage the child with related infections that does not respond to initial treatment and how to counsel mothers on breastfeeding. Adaptation of the latter will reflect, for example, the availability of HIV testing, training of staff to counsel mothers, and accessibility of sufficient supplies of adequate breastmilk substitutes for mothers with HIV who choose not to breastfeed, and the ability of the individual mother to give the substitute safely and in adequate amounts.

### EXAMPLES OF COMMON ADAPTATIONS MADE TO FIRST-LEVEL IMCI GUIDELINES

<table>
<thead>
<tr>
<th>Country</th>
<th>Malaria risk categories included</th>
<th>Laboratory diagnosis of malaria added</th>
<th>Vitamin A supplementation added</th>
<th>Other additions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>No, low, high malaria risk</td>
<td>_</td>
<td>_</td>
<td>Sore throat, wheeze</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Malaria, no malaria risk</td>
<td>Yes</td>
<td>_</td>
<td>Dengue haemorrhagic fever</td>
</tr>
<tr>
<td>Indonesia</td>
<td>No, low, high malaria risk</td>
<td>Yes</td>
<td>Yes</td>
<td>Routine deworming</td>
</tr>
<tr>
<td>Nepal</td>
<td>No, low, high malaria risk</td>
<td>Yes</td>
<td>Yes</td>
<td>Sore throat, wheeze</td>
</tr>
<tr>
<td>Peru</td>
<td>Malaria, no malaria risk</td>
<td>Yes</td>
<td>_</td>
<td>Dengue haemorrhagic fever</td>
</tr>
<tr>
<td>Philippines</td>
<td>Low Malaria, no malaria risk</td>
<td>Yes</td>
<td>Yes</td>
<td>Management of convulsions</td>
</tr>
<tr>
<td>Tanzania</td>
<td>High malaria risk only</td>
<td>_</td>
<td>Yes</td>
<td>Management of convulsions</td>
</tr>
<tr>
<td>Uganda</td>
<td>High malaria risk only</td>
<td>_</td>
<td>Yes</td>
<td>Management of convulsions</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Malaria, no malaria risk</td>
<td>Yes</td>
<td>_</td>
<td>Dengue haemorrhagic fever</td>
</tr>
</tbody>
</table>
The Adaptation Guide

The Adaptation Guide describes the process of making adaptation decisions, and changes to the IMCI training materials. It includes:

- A description of the steps in the adaptation process and guidance on implementing them.
- The technical basis for the generic guidelines, including references to the research which supports the generic recommendations.
- The technical basis for a range of possible adaptations.
- Three simple-to-use protocols for gathering and organizing information related to improving home care and communication with mothers: (1) to adapt the feeding recommendations, (2) to identify and validate locally-used terms for signs of illness, and (3) to design and test a card for counselling mothers.
- Instructions on how to make the changes in the charts and IMCI training modules.
- Details of the changes that must be made throughout the materials if specific adaptations are introduced.

Accompanying the Adaptation Guide are tools to assist in the adaptation process, including computer files containing the generic charts and modules and an illustration book for use in producing camera-ready copies for local production.

CAH provides training for key national staff and consultants involved in assisting countries with the adaptation of materials, and has trained nearly 150 people to date.