

# Introduction to a New Online Smart digital Integrated Management of Childhood Illness (Smart dIMCI) course

May 16, 2024

*Co-hosted by WHO and the Digital Health and Innovations subgroup of the Child Health Task Force*



# Smart Digital Integrated Management of Childhood Illness (#Smart dIMCI) Course

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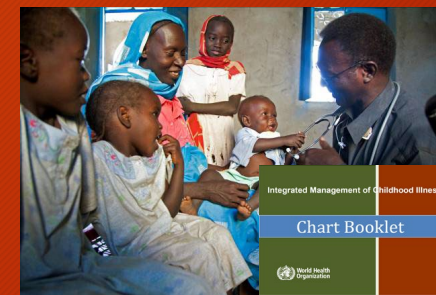
# What is the problem with the management of sick children?

- Millions of sick children are seen at primary health care facilities
- Over 5 million of these children still die every year
- Over 50% these deaths are attributable to poor quality of care

Home/Community



1st level facility



Hospital



Number of Children Seen

Syndromic approach

Specialized care

Case management skills, diagnostics and supplies



# What is Integrated Management of Childhood Illness (IMCI) Strategy?

Knowledge, beliefs  
and skills of caretakers



Improve  
health worker performance

Strengthen health system  
supports

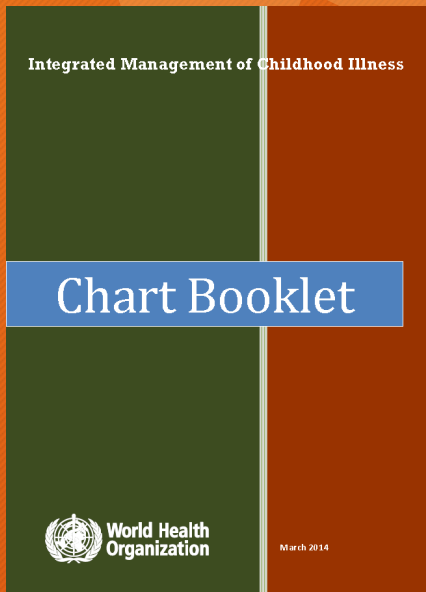
- A strategy developed in the 1990s by WHO and UNICEF with the primary objective of contributing to the reduction of under five childhood mortality
- Purpose:
  1. To improve quality of care by improving case management skills of health workers
  2. Strengthening health system support
  3. Improving knowledge, skills and practices of caregivers
- How does IMCI improve quality of care?
  - By training primary healthcare workers in the use of evidence-based algorithms in the management of common childhood illnesses.





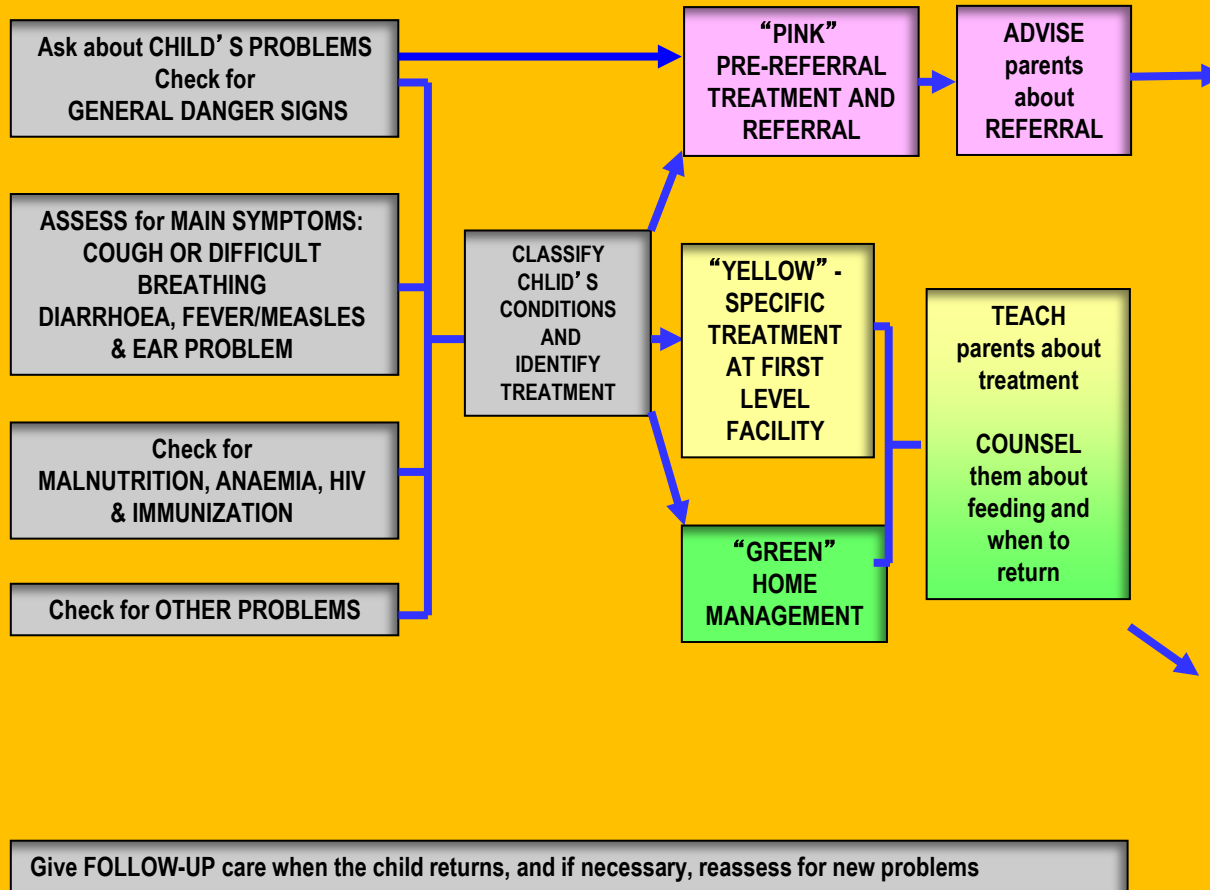
# What are the core principles of IMCI case management?

- Child centered care with focus on both the disease and the health of the child.
- Most sick children present with overlap of signs and symptoms.
- Few simple clinical signs for action-oriented classifications rather than exact diagnosis
- Empirical treatment to cover the most likely diseases for each classification.
- Counseling for home care
- Disease prevention, and promotion of health growth and development.



# IMCI case management approach

## FIRST-LEVEL HEALTH FACILITY



## REFERRAL HEALTH FACILITY

EMERGENCY TRIAGE ASSESSMENT AND TREATMENT (ETAT)

DIAGNOSIS AND MANAGEMENT OF COMMON SERIOUS CONDITIONS

## COMMUNITY

ASSESS AND REFER IF DANGER SIGNS

ASSESS AND GIVE ORAL DRUGS FOR COMMON CHILDHOOD CONDITIONS (Pneumonia, Diarrhoea & Fever)  
CHECK AND REFER FOR MALNUTRITION, TB & HIV

GIVE FOOD AND FLUIDS (follow feeding recommendations)  
RETURN TO HEALTH FACILITY WHEN NEEDED



# Cough or difficult breathing

## THEN ASK ABOUT MAIN SYMPTOMS:

Does the child have cough or difficult breathing?

### IF YES, ASK:

### LOOK, LISTEN, AND FEEL\*.

• For how long?

- Count the breaths in one minute.
- Look for chest indrawing.
- Look and listen for stridor.
- Look and listen for wheezing.



CHILD MUST BE CALM

Classify  
COUGH or  
DIFFICULT  
BREATHING

### If wheezing with either fast breathing or chest indrawing:

Give a trial of rapid acting inhaled bronchodilator for up to three times 15-20 minutes apart. Count the breaths and look for chest indrawing again, and then classify.

### If the child is:

2 months up to 12 months  
12 months up to 5 years

### Fast breathing is:

50 breaths per minute or more  
40 breaths per minute or more

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
<ul style="list-style-type: none"> <li>• Any general danger sign or</li> <li>• Stridor in calm child</li> </ul>	<b>SEVERE PNEUMONIA OR VERY SEVERE DISEASE</b>	<ul style="list-style-type: none"> <li>➤ Give first dose of an appropriate antibiotic</li> <li>➤ Refer <b>URGENTLY</b> to hospital **</li> </ul>
<ul style="list-style-type: none"> <li>• Chest Indrawing or</li> <li>• Fast breathing</li> </ul>	<b>PNEUMONIA</b>	<ul style="list-style-type: none"> <li>➤ Give oral <b>Amoxicillin for 5 days</b> ***</li> <li>➤ If wheezing (or disappeared after rapidly acting bronchodilator) give an inhaled bronchodilator for five days ****</li> <li>➤ If chest indrawing in HIV exposed/infected child, give first dose of amoxicillin and refer</li> <li>➤ Soothe the throat and relieve the cough with a safe remedy</li> <li>➤ If coughing for more than 14 days or recurrent wheeze, refer for possible TB or asthma assessment</li> <li>➤ Advise the mother when to return immediately</li> <li>➤ Follow-up in 3 days</li> </ul>
<ul style="list-style-type: none"> <li>• No signs of pneumonia or very severe disease</li> </ul>	<b>COUGH OR COLD</b>	<ul style="list-style-type: none"> <li>➤ If wheezing (even if it disappeared after rapidly acting bronchodilator) give an inhaled bronchodilator for 5 days****</li> <li>➤ Soothe the throat and relieve cough with a safe remedy</li> <li>➤ If coughing for more than 14 days or recurrent wheezing, refer for possible TB or asthma assessment</li> <li>➤ Advise mother when to return immediately</li> <li>➤ Follow up in 5 days if not improving</li> </ul>

\*If pulse oximeter is available, determine oxygen saturation and refer if < 90%.

\*\* If referral is not possible, manage the child as described in the pneumonia section of the national referral guidelines or in WHO Pocket Book for hospital care for children.

\*\*\*Oral Amoxicillin for 3 days could be used in patients with fast breathing but no chest indrawing in low HIV settings.

\*\*\*\* In settings where inhaled bronchodilator is not available, oral salbutamol may be tried but not recommended for treatment of severe acute wheeze.

# What are the IMCI Training options?

1. Facilitated classroom paper based training course



2. Paper based distance IMCI learning course

<b>IMCI</b> <b>Distance Learning Course</b>	<b>Module 1</b> General danger sign for the sick child	<b>Module 5</b> Fever
	<b>Module 2</b> The sick young infant	<b>Module 6</b> Malnutrition and anaemia
	<b>Module 3</b> Cough or difficult breathing	<b>Module 7</b> Ear problems
	<b>Module 4</b> Diarrhoea	<b>Module 8</b> HIV/AIDS
	<b>Module 9</b> CARE OF THE WELL CHILD	

3. # Smart digital IMCI self-learning course





# #Smart dIMCI Self-Learning Course



A digital IMCI learning course available  
on the WHO Academy Platform

[Enroll here](#)





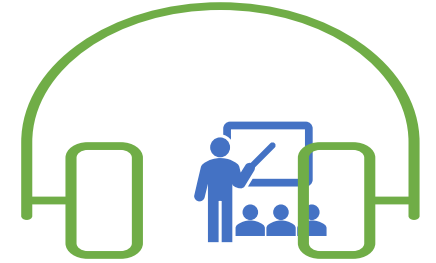
# Why #SMART dIMCI Course?



To facilitate rapid dissemination and access to evidence-based guidelines for continuing professional development



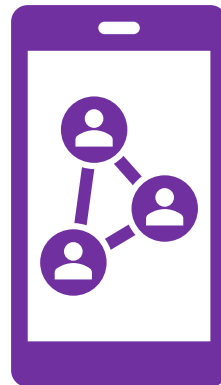
To increase accessibility through digital platforms - laptops, smart phones or tablets.



To improve learning experience and motivation for self-learning:

Smart use of interactive multimedia and other elements to enhance learning.

Tools to foster participatory learning and virtual discussions with trainees and mentors.



# Our mission



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Strengthen, empower and improve performance of all primary healthcare workers managing sick young infants and children.



Who are the target audience and where?

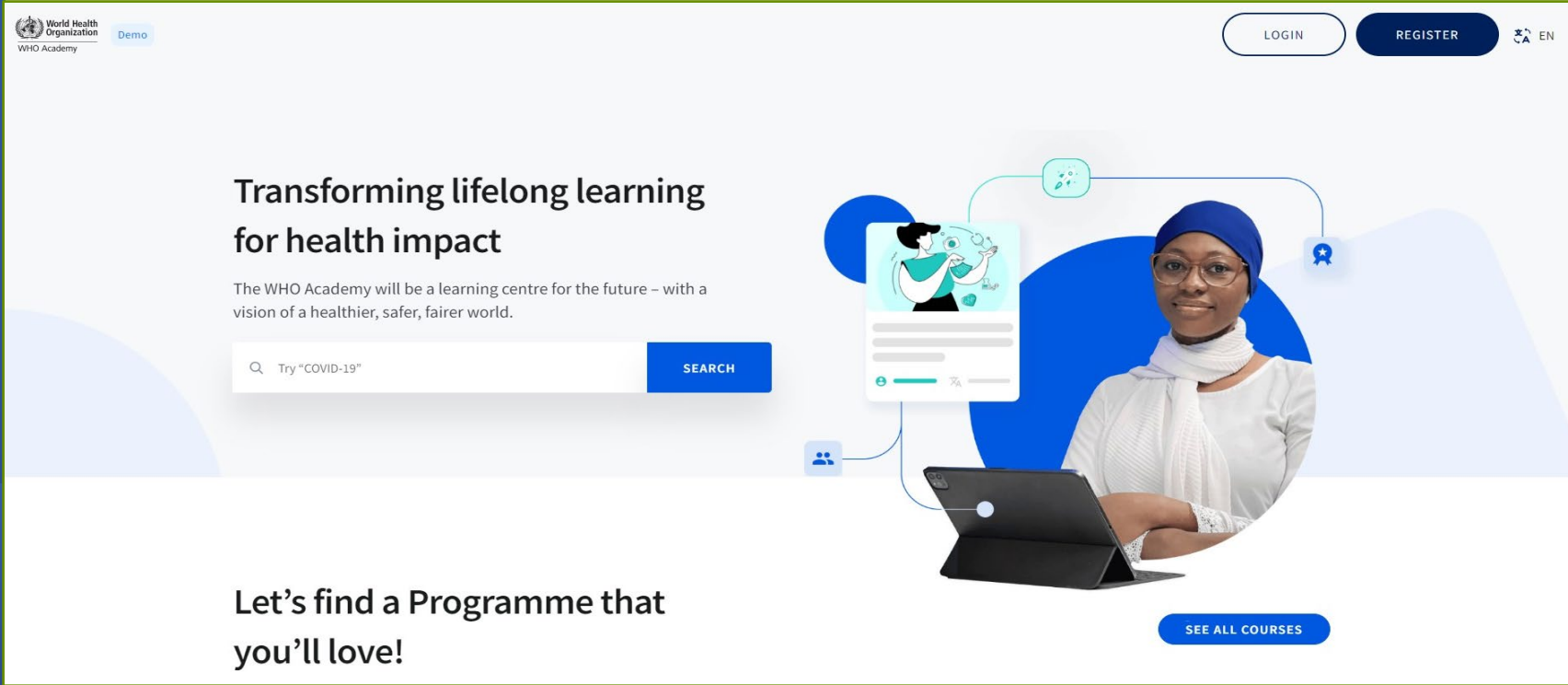


alamy stock photo





# How to access the course



The WHO Academy logo and a 'Demo' button are in the top left. In the top right, there are 'LOGIN' and 'REGISTER' buttons, along with a language selector set to 'EN'. The main heading reads 'Transforming lifelong learning for health impact'. Below this is a sub-heading: 'The WHO Academy will be a learning centre for the future – with a vision of a healthier, safer, fairer world.' A search bar contains the text 'Try "COVID-19"' and a 'SEARCH' button. On the right, a woman in a white headscarf and glasses is shown working on a laptop. To her left, a graphic shows a person with a brain and gears, connected to a laptop icon. A 'SEE ALL COURSES' button is at the bottom right. The main text at the bottom says 'Let's find a Programme that you'll love!'.



The WHO Academy logo and 'Demo' button are in the top left. 'LOGIN' and 'REGISTER' buttons, along with a language selector set to 'EN', are in the top right. The course title is 'Integrated Management of Childhood Illness (IMCI)'. Below the title, it says '16 Modules'. A colorful graphic with flowers and abstract shapes is on the left. On the right, a box contains the text 'Register to start learning' and a large 'ENROLL' button. Below the button, it lists: 'Enroll by Dec 1st, 2025', 'Self-paced', 'English', and 'Started on Jan 1st, 2022 Ending on Dec 1st, 2025'. A 'Share' button is at the bottom of this box. At the bottom of the page, there are tabs for 'Programme Overview', 'Modules', and 'Credentials'.

Go to the [WHO Academy platform](https://web-staging.lxp.academy.who.int/) and register

<https://web-staging.lxp.academy.who.int/>

[Enroll here](#)

# Navigation

Accessing modules



Forums



Adding a post



Resource download



The screenshot displays a mobile application interface for a learning module. At the top, there is a navigation bar with an 'Exit' button, a menu icon, and tabs for 'Learning' and 'Forums' (with a notification badge '4'). An 'Add post' button is also visible. Below the navigation bar is a sidebar menu with 'All posts' and several module categories (Module 0, 1, 2, 3). The main content area shows a lesson titled 'Assessing and classifying diarrhoea' under the heading 'Integrated Management of Childhood Illness (IMCI) | Lesson 2: Case management process'. The lesson content includes a video player with a 'Play video' label and a red arrow pointing to the play button. Below the video, there is text explaining that diarrhoea is a common reason to bring a child to the clinic and provides instructions on how to assess a young infant with diarrhoea. A 'Next page' label with a red arrow points to the right arrow in the bottom right corner of the page. The page number '2/9' is also visible at the bottom.

Play video



Next page



# #Smart dIMCI Course: Approach to learning

1

**READ**



Using smart tools for improved learning experience

4

**TEST**



2

**SEE**



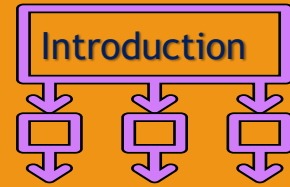
3

**PRACTICE**





# #Smart dIMCI Course Organization



1. Introduction to IMCI - **Compulsory**



2. Sick Young Infant aged 0 up to 2 months- **Module 1**



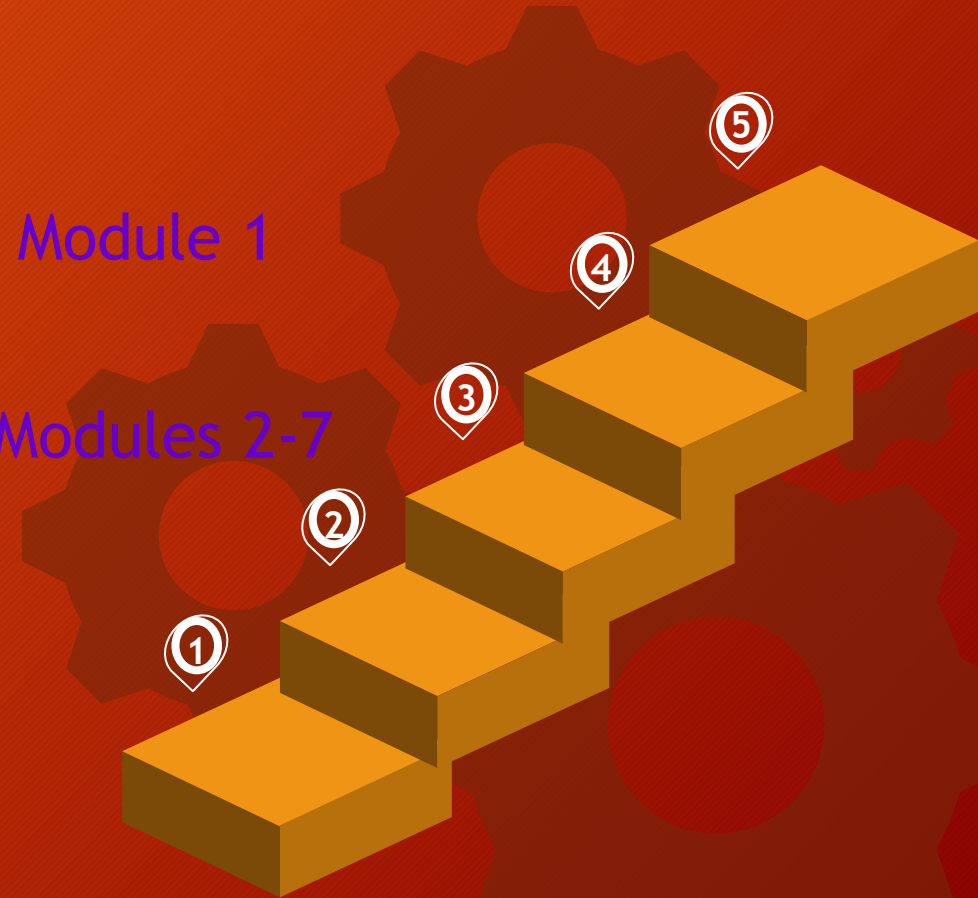
3. Sick child aged 2 months up to 5 years - **Modules 2-7**



4. Child with HIV/AIDS - **Module 8**

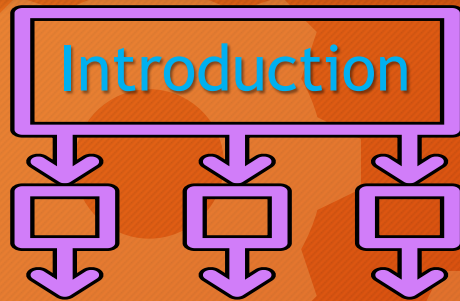


5. Care for the well child - **Module 9**





# Section 1: INTRODUCTION TO IMCI CASE MANAGEMENT PROCESS



- Lesson 1: What is IMCI?
- Lesson 2: IMCI case management process
- Lesson 3: Assess and classify
- Lesson 4: Identify treatment and treat
- Lesson 5: Counsel the caregiver
- Lesson 6: Follow up care
- Lesson 7: Practice your skills

Integrated Management of Childhood Illness (IMCI) | Lesson 2: Case management process

## The IMCI case management process

There are six steps in the IMCI case management process.

Select each step to learn more.



1. Assess



2. Classify



3. Identify treatment



4. Treat



5. Counsel



6. Follow-up







# Section 2: CARE FOR SICK YOUNG INFANT AGED 0 UP TO 2 MONTHS

## Module 1

- Part 1: Introduction
- Part 2: Assess and Classify
- Part 3: Identify the correct treatment and treat
- Part 4: Counsel the mother
- Part 5: Follow up
- Part 6: In your clinical practice

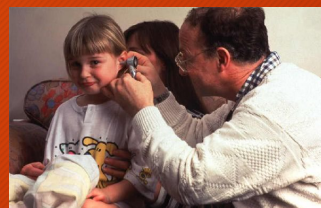






# Section 3: CARE OF SICK CHILD AGED 2 MONTHS UP TO 5 YEARS

- Module 2: General Danger Signs
- Module 3: Cough or difficult breathing
- Module 4: Diarrhoea
- Module 5: Fever
- Module 6a: Acute malnutrition
- Module 6b: Anaemia
- Module 7: Ear problem



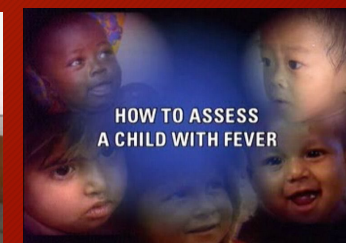
Lesson 2:  
**Recognising the General Danger Signs**

Scroll down to continue.

To assess a child for General Danger Signs, you must complete a four-step process. This involves asking questions and looking to observe the child's behaviour.

Select each icon to find out more.

1 2 3 4







# Section 4: SICK YOUNG INFANT AND CHILD WITH HIV/AIDS

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## MODULE 8

1. Introduction
2. Testing for HIV infection
3. Assessment & classification of SYI or child with HIV infection
4. Identification of treatment for HIV infected or exposed
5. Treatment for HIV infected SYI or child
6. Prophylaxis and preventive measures
7. Counseling caregiver
8. Follow up care
9. Clinical practice

A screenshot of a digital learning module interface. The top navigation bar includes 'Exit', 'Learning', and 'Forums 4'. The main content area features a collage of four photographs: a young girl being examined by a healthcare worker, a close-up of a child's face, a healthcare worker examining a child's arm, and a close-up of a child's face. To the right of the images, the text reads: **Introduction**  
Do you know that worldwide, 1.7 million children below 15 years were living with HIV and 98 000 had died from HIV related causes in 2021?  
This lesson introduces you to HIV, assessment of the disease and treatment interventions that will help to reduce the risk of children dying from HIV.  
A black 'Start' button is located below the text. The interface is decorated with colorful geometric shapes like sunbursts and circles.

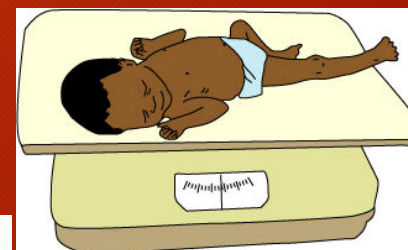
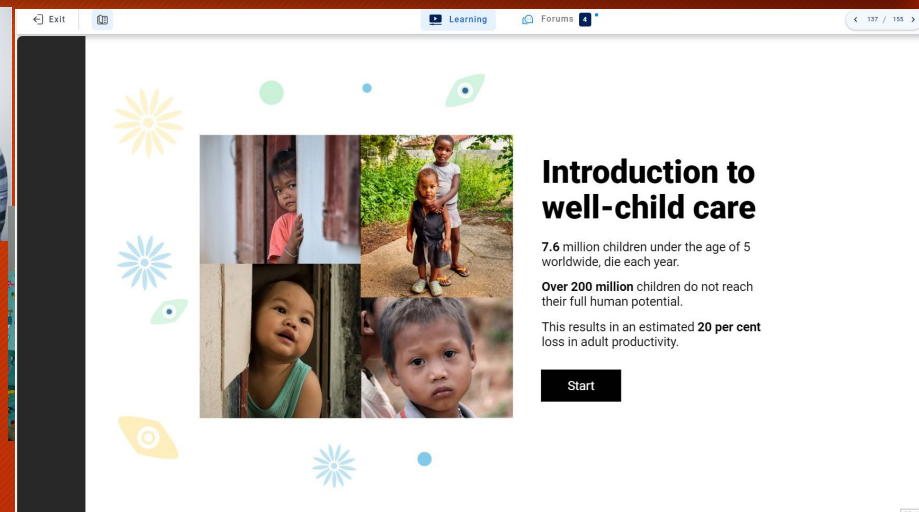




# Section 5: CARE FOR THE WELL CHILD

## MODULE 9

1. Module 9A: Growth monitoring and feeding
  - Introduction to well childcare
  - Growth monitoring
  - Assessment of common feeding and nutrition problems
  - Counseling on feeding recommendations
2. Module 9B: Monitoring a child's development
  - Child development
  - Counselling on responsive caregiving and early learning
  - Developmental monitoring and counselling
3. Module 9C: Immunization and other preventive measures
  - Immunization
  - Vitamin A, deworming and insecticide treated nets
  - Clean and safe home environment
  - Preventing accidents and injuries





# What is the place of #Smart dIMCI Course in IMCI training?

- Continuing professional development in-service :
  - a course for formal initial IMCI training
  - a resource for refresher self-learning and update
  - a reference tool for health workers
- Pre-service training:
  - a teaching and learning resource for students on IMCI
  - a resource for combined individual or group IMCI training for students.
  - reference source materials on IMCI for students



# Possible models for self-study and clinical practice

Individual self-learning



1

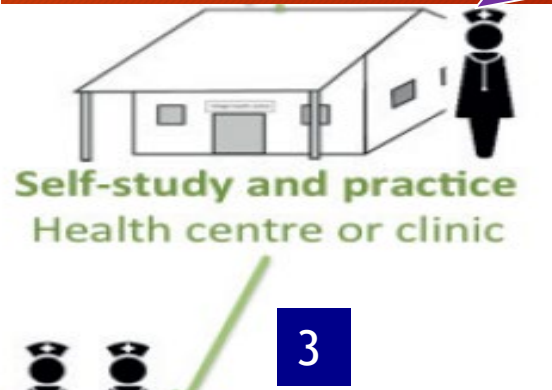


2

Group study and practice  
Same health facility



Self-study and practice  
Health centre or clinic



Self-study and practice  
Health centre or clinic

3

Group study and practice  
Health centre or clinic

Group self-learning



Please disseminate across your networks



# Summary

1. #Smart dIMCI course is designed as an option for IMCI training for both:
  - **Pre-service** - training institutions (medical universities, medical and paramedical schools)
  - **In-service** - to train or refresh healthcare providers
2. IMCI training should be part of paediatric CPD but inclusive of clinical practice to ensure clinical skills acquisition & certification.
3. Different training/learning approaches can be used to scale up training in countries.

Enroll and/or disseminate to the primary care workforce

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# WHO Academy

Building skills and competencies  
for a healthier world



WHO Academy





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## Rationale for the Academy

- 1 Part of WHO's transformation agenda to make the Organization more efficient
- 2 Centralize and build a unified learning ecosystem for capacity building on health
- 3 Increase impact of learning and support the achievement of SDG 3
- 4 Work with Member States to integrate learning needs on current and emerging public health priorities at the global, regional, national, and community levels





# Transforming learning for health impact

\*By 2030,  
globally 350 mn  
people will be  
working to  
improve public  
health

Swift pace of  
scientific  
discovery  
requires health  
professionals to  
stay in tune with  
latest health  
guidances

WHO works with  
Member States  
to implement  
life-saving  
health information

Academy is  
well-positioned to  
deliver trusted,  
evidence-based and  
actionable health  
guidance WHO has  
been producing and  
disseminating for  
75 years



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# Vision, mission and strategic objectives

## Vision:

“A world in which health workers, policy makers and WHO staff have the skills and competencies they need to contribute to all attaining the highest possible level of health”.

## Mission:

Build a lifelong learning ecosystem that enables health professionals to develop their capabilities and enhances global health literacy.

## Strategic objective:

To expand and enhance learning opportunities for health professionals globally.

"The WHO Academy is an investment in health, education, knowledge and technology, but ultimately it's an investment in people, and in a healthier, safer, fairer future."

— Dr Tedros Adhanom

Ghebreyesus

Director-General, WHO



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# The goals that deliver our strategic objective are...



**1.** Provide innovative learning content on WHO priorities



**2.** Provide high-quality, learner-oriented courses.



**3.** Build partnership-based global learning ecosystem that promotes innovative lifelong learning practices in the health sector.



**4.** Develop and disseminate quality standards and competency-based recognition framework for health courses delivered by WHO and partner institutions



**5.** Facilitate skills development and foster a culture of continuous learning within WHO

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# Our target learners

Health care  
workforce

Decision-makers

General public

WHO's global  
workforce





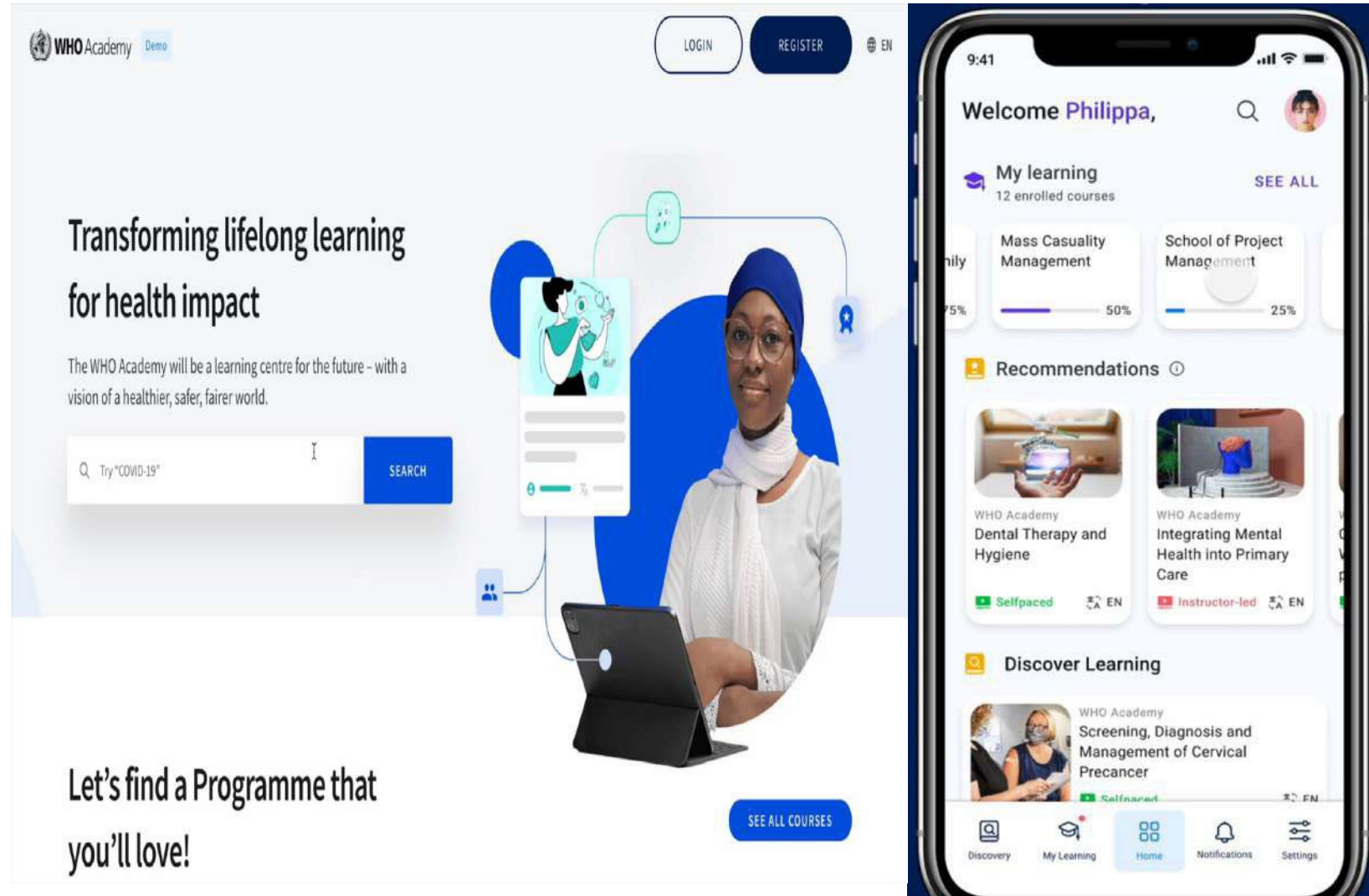
# Our learning solutions





# Types of courses on Academy platform

1. **Courses** available on Academy's Learning Experience platform (LXP), which allows learners to complete courses on the Academy's platform
2. **Courses produced** -
  - ✓ In-house by Academy with WHO technical units
  - ✓ Also co-produced with external collaborators
3. **Hosted courses** produced by external partners, but hosted on Academy's platform
4. **Gateway courses** provide access to courses that meet quality standards, but are produced and hosted on external platforms

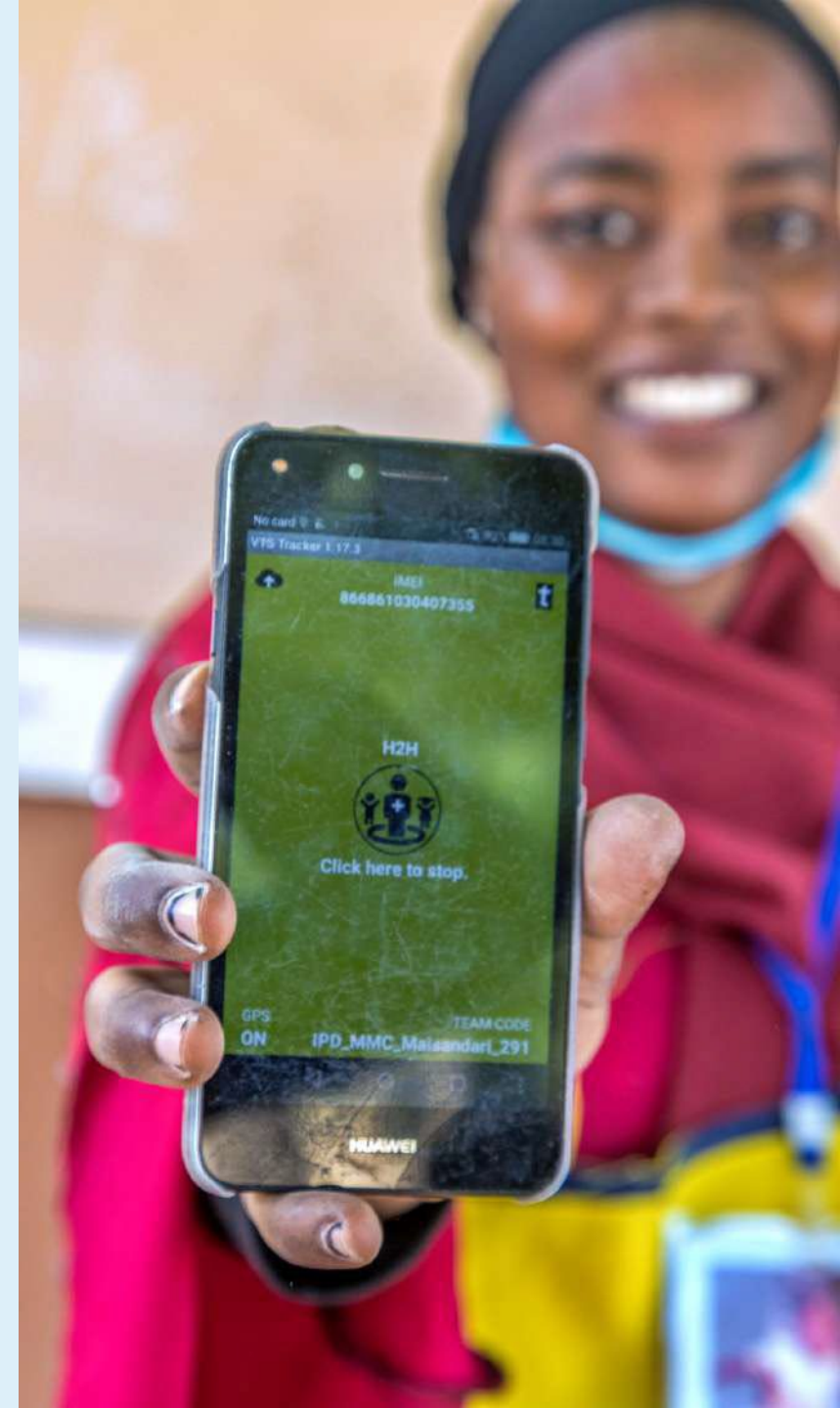




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## How learning content is produced and hosted

1. Digital learning platform powered by Cutting-edge technology, AI, machine learning and web assistive technologies
2. Custom-built Learner-experience-platform (LXP) using open-source software to enable collaborations with a wide range of tech partners
3. Limited dependency on corporate proprietary solutions
4. LXP compatible with gamification, augmented and virtual reality solutions



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## Quality assurance and credentials

### Quality assurance framework:

- **Quality by design:** a 9-stage process for designing and producing courses
- **Quality assurance processes:** quality reviews conducted at different stages
- **Quality assurance tools:** standards for course design, delivery and assessment

### Credentials:

- Award of Completion
- Micro-credential badge
- Competency certificate

*Evidence-based assessment design and data from learner assessment to substantiate credentials are at the core of our learning recognition framework*





Anchored on  
partnerships





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## WHO Academy — a thriving ecosystem

- Content and knowledge development
- Trainings, workshops, seminars, conferences and exhibitions for health experts, clinicians
- Work with WHO Collaborating Centres, a network of over 800 research institutes/universities
- Leverage knowledge partnerships with health and allied sectors





# Academy campus in Lyon, France





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# Specs

Inclusive, eco-friendly facility,  
built around learner needs

- 9 floors | 11 000 square metres
- State-of-the-art integrated technologies
- Virtual and hybrid learning spaces
- Virtual reality labs
- Bespoke simulation centre, where hospital floorplans and crises situations can be replicated to offer real-world training scenarios





Thank you

Pierre Berendes



The screenshot shows the WHO Academy interface for the Integrated Management of Childhood Illness (IMCI) course. The top navigation bar includes the WHO logo, 'World Health Organization WHO Academy', a 'Demo' label, and a search bar. A left sidebar contains menu items: Home, Discovery, My Learning, Settings, and Feedback. The main content area features a large, colorful illustration of a child's face and a sun. Below the illustration, there are tabs for 'Programme Overview', 'Modules', and 'Credentials'. The text on the page reads: 'Learn to prevent, assess, and manage common childhood illnesses to reduce mortality and improve quality of care.' It also includes a section for 'Early-release course' with a disclaimer: 'You are accessing an early-release version of the IMCI course, produced by the WHO Academy. We encourage you to provide feedback on your learning experience, which we will use to adapt and improve the course and the WHO Academy online platform.' At the bottom, there is a section for 'About this course' with the text: 'The Integrated Management of Childhood Illness (IMCI) approach aims to reduce childhood mortality and improve the quality of care for major childhood illnesses, especially at first-level'.

[https://web-staging.lxp.academy.who.int/coursewares/course-v1:WHOA+0009\\_IMCI\\_EN+2022\\_EN](https://web-staging.lxp.academy.who.int/coursewares/course-v1:WHOA+0009_IMCI_EN+2022_EN)