Distance Learning IMCI

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IMCI Training Approaches

Multiple options needed to reach rapid national coverage

- In service training
  - 11 day in-service (standard IMCI course e.g. for facilitators)
  - Abridged in-service (core competencies only e.g. AFRO version)
- Pre Service Training
  - Several approaches are being used
- Distance learning IMCI – dIMCI

❑All approaches could be implemented using ICATT or other eIMCI platform

Distance learning (DL) definitions

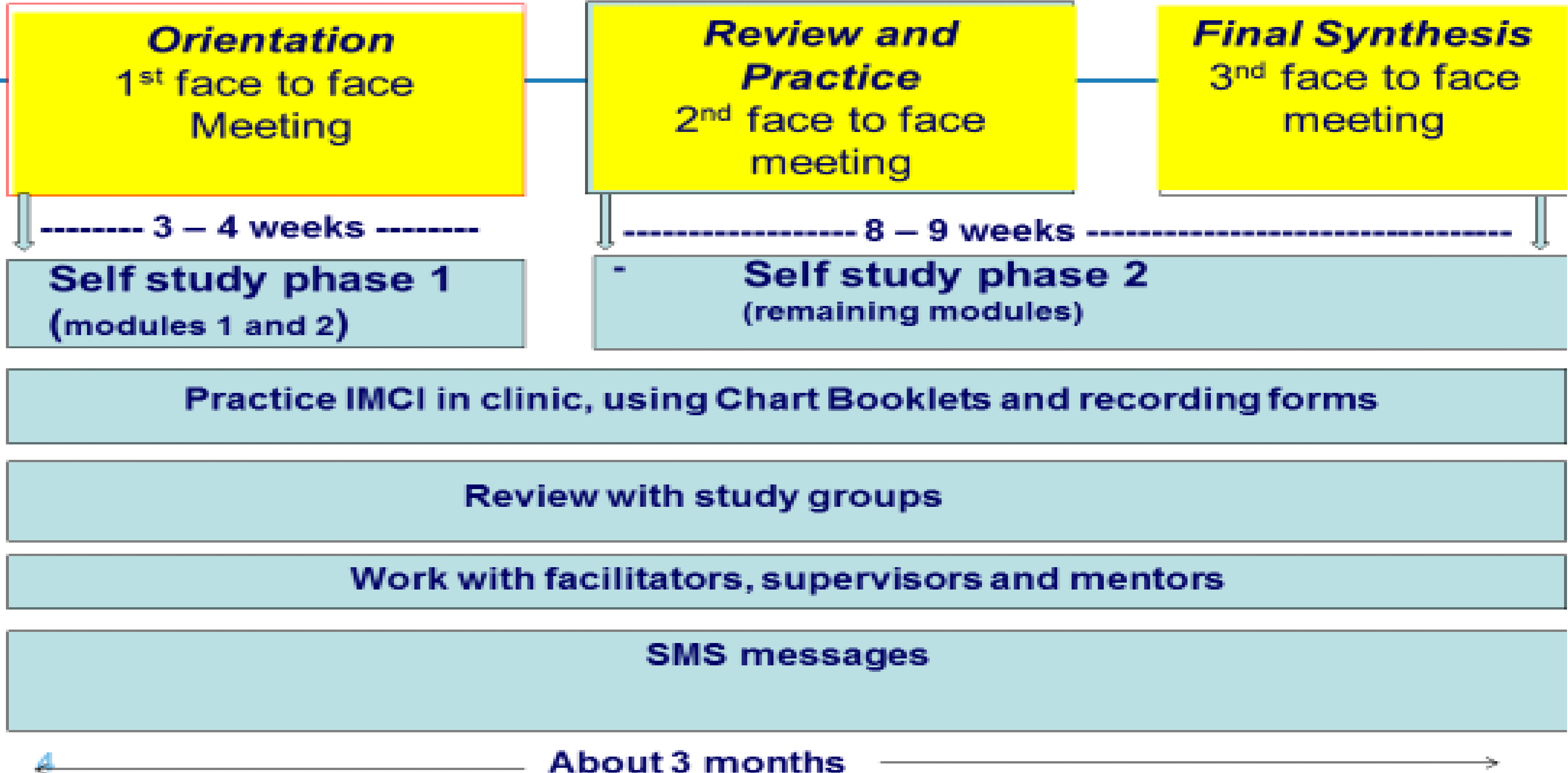
3 components:

- DL is any training approach where learners and trainers are NOT together in a classroom for most of the training time.
- Trainers and learners do not need to be in the same place; could be linked up over a wider geographic area.
- A learner support system in place to provide on-going tutorial support and supervised practical training

Why distance learning IMCI?

- Primarily learner driven and therefore more likely sustained learning.
- Learners can organize their own study to fit in their own work and timetable.
- Learners can follow their own pace, at their own time.
- Services are not interrupted because staff has to attend in-service training.
- With good planning, high coverage can be reached in a short time.

Distance Learning Course Structure



Learning Materials: same as in-service IMCI EXCEPT:

- Modules are re-written so that they are self contained i.e. from assessment to follow up
  - Open case study
  - Self assessment exercises with answers
  - Relevant photos/videos DVDs
- Facilitator guide for face to face meetings
  - Formulation of study groups
  - Identification of mentors/tutors
- Logbooks created for progressive assessment

Example schedule of parallel dIMCI courses, Tanzania

Centre	1st Face to face			2nd Face to face			3rd Face to face		
Date	24 Oct	25 Oct	26 Oct	27 Nov	28 Nov	29 Nov	8 Jan	9 Jan	10 Jan
Same centre (18 Pax)									
Gonja centre(18Pax)									
Hedaru centre(18pax)									

dIMCI implementation experiences

- Tanzania - Scale up of IMCI through distance learning is ongoing - 3270 health workers were trained and supervised in 56 districts
- Zanzibar – probably all health facilities in Zanzibar and Pemba
- South Africa – Eastern Cape and national level - ?%
- Eswatini and Zimbabwe introduced and completed the first cohort of d IMNCI learning health workers with 98% completion in Zimbabwe in two districts and about 80% completion in Eswatini
- Flexibility of approach allowed addition of new topics: HIV, Tuberculosis, Supply Chain Management and Well Child care, etc.

Experiences from SA, Zanzibar: DVD and SMS use

DVD Used?			
	Engcobo, SA	Buffalo City, SA	Zanzibar
Yes	14	11	25
No	5	3	0

Whose DVD / PC did you use?			
	Engcobo, SA	Buffalo City, SA	Zanzibar
Own	12	10	8
Friend	3	0	3
Other	0	1	14

SMS/mobile phones used?			
	Engcobo	Buffalo City	Zanzibar
Yes	All	14	All
No	0	0	0

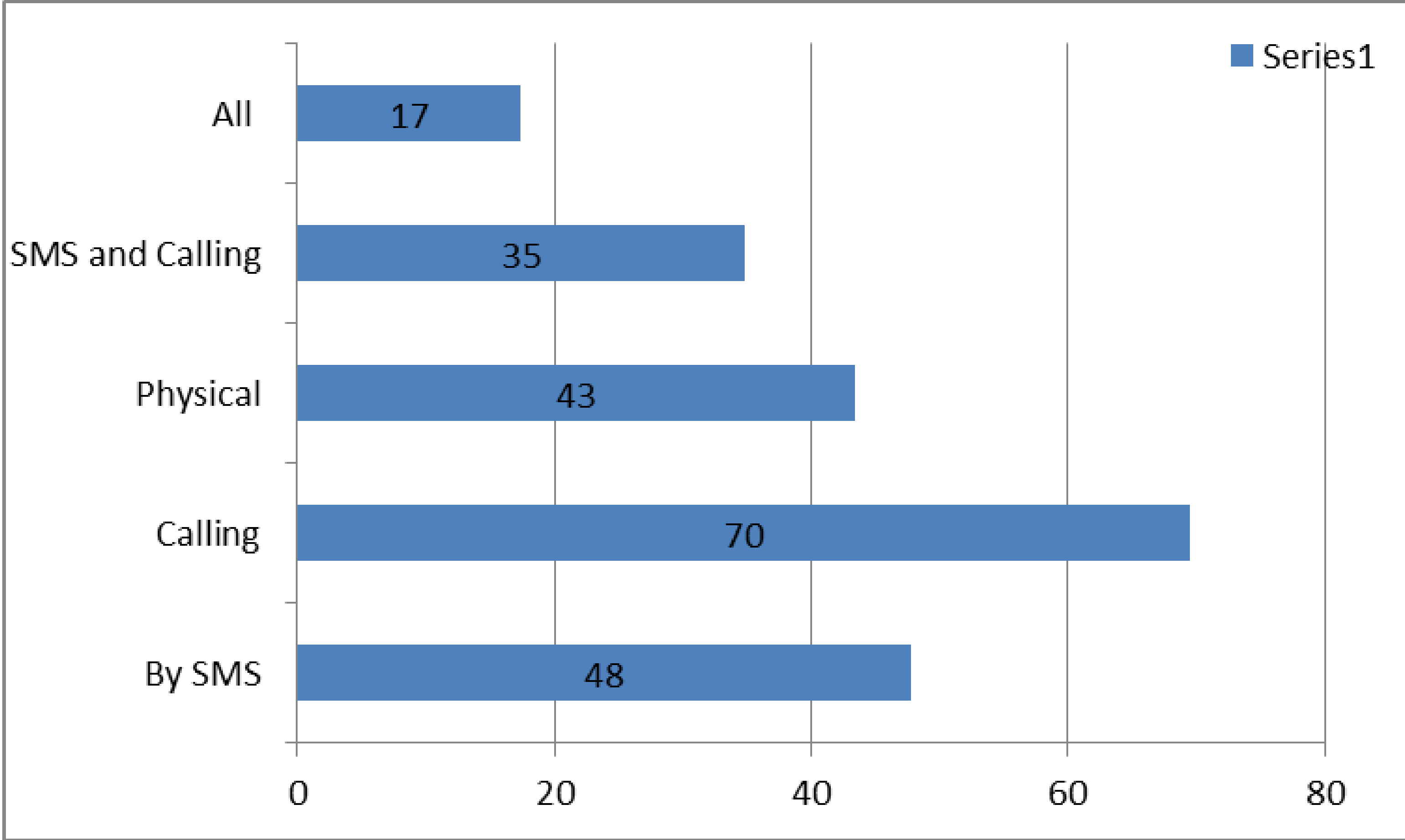
Clinical practice - self & group work

Arrangements for Clinical Practice			
	Engcobo, SA	Buffalo City, SA	Zanzibar
Part of job	8	13	10
Special arrangements	9	1	8

Used study groups?			
	Engcobo	Buffalo City	Zanzibar
Yes	15	0	12
No	5	14	5

Mentors used?			
	Engcobo	Buffalo City	Zanzibar
Yes	12	11	18
No	9	4	0

Accessing mentor/supervisor (Zanzibar)(%)



Cost per participant USD 983 in sIMCI and USD 298 in dIMCI - a 70% cost reduction

Components of cost	standard IMCI		distance learning IMCI	
	TSH	USD*	TSH	USD**
Human resources: facilitators	50400,000	24585	17280,000	7680
Human resources: participants	138240000	67434	40320000	17920
Transportation and fuel	5060000	2468	2770800	1231
Refreshments, conference pack	46650000	22756	15180000	6747
Training materials and tools	1480000	722	4920000	2187
TOTAL	**41830000**	**117966**	**80470800**	**35765**

Performance of HCP trained in dIMCI vs sIMCI

Priority indicators for IMCI	Distance learning IMCI districts (N= 582)	Standard IMCI districts (N=70)	95% Confidence Interval	Significance level
Proportion (%)HCPs assessed Danger Signs appropriately	89.7	78.6	1.7776 to 22.7754	P=0.006
Proportion (%) HCPs assessed Main Symptoms appropriately	88.6	82.9	-2.7492 to 16.8577	P=0.1661
Proportion (%) HCPs Treated Sick Child Appropriately	76.8	67.1	-1.6683 to 22.4214	P=0.0738
Proportion (%) HCPs Counselled Caretakers on feeding Appropriately	61.5	70.0	-4.2670 to19.6540	P=0.1657

Lessons Learned

- Learning can be blended with many components; add new topics
- Encourages peer-learning, team work: group study/group clinical practice
- Accessing a mentor/tutor in person, through mobile phones, SMS messages is feasible – a system needs to be established
- Practicing IMCI skills in home facilities is feasible and may be more appropriate than tertiary hospitals
- Attractive for health workers who cannot leave their clinics for too many days; including the private and those with family/children
- Can contribute to reduced costs
- Coordination is key for success

Challenges

- Quite different process from traditional facilitation - IMCI facilitators have difficulty unlearning.
- Sustaining rigorous supervision/ follow up/ mentoring.
- A few students will not make it until final evaluation.
- Sustained motivation and committed facilitators.

Integrating PSBI into dIMCI

- A quick adaptation of the existing SYI chart booklet, recording form, participant manual and facilitator notes needed to include:
  - ➢ Fast breathing for 0-6 days old as the only sign – should be referred; if referral is not possible, outpatient Rx
  - ➢ Fast breathing for 7-59 days old as the only sign of illness, Rx as outpatient
  - ➢ Clinical severe infection for infants 0-59 days old: Classify as SEVERE DISEASE/PSBI; refer urgently, if referral is not possible – re-classify and Rx as outpatient.
  - ➢ Procedures and training on giving gentamicin injections.

CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE OR PNEUMONIA OR LOCAL BACTERIAL INFECTION

ASK:

- Is the infant having difficulty in feeding?
- Has the infant had convulsions (fits)?

LOOK AND FEEL:

- Count the breaths in one minute. Repeat the count if 60 or more breaths per minute.
- Look for severe chest indrawing

YOUNG INFANT MUST BE CALM

- Measure axillary temperature.
- Look at the young infant's movements. *If infant is sleeping, ask the mother to wake him/her.*
  - Does the infant move on his/her own? *If the infant is not moving, gently stimulate him/her.*
  - Does the infant move only when stimulated but then stops?
  - Does the infant not move at all?
- Look at the umbilicus. Is it red or draining pus?
- Look for skin pustules.

Classify ALL YOUNG INFANTS

SIGNS	CLASSIFY	IDENTIFY TREATMENT (Urgent pre-referral treatments are in bold print)
Any one or more of the following signs: • Not able to feed at all or not feeding well or • Convulsions or • Severe chest indrawing or • High body temperature (38°C* or above) or • Low body temperature (less than 35.5°C*) or • Movement only when stimulated or no movement at all, or • Fast breathing (60 breaths per minute or more) in infants less than 7 days old	POSSIBLE SERIOUS BACTERIAL INFECTION or VERY SEVERE DISEASE	➢ ***Give first dose of intramuscular antibiotics.*** ➢ ***Treat to prevent low blood sugar.*** ➢ ***Advise the mother how to keep the infant warm on the way to the hospital.*** ➢ ***Refer URGENTLY to hospital.*** ***OR*** ➢ ***If referral is REFUSED or NOT FEASIBLE, treat in the clinic till refrral is feasible (see chart where referral is resfused or not feasible)*****
• Fast breathing (60 breaths per minute or more) in infants 7 to 59 days old	PNEUMONIA	➢ Give oral amoxicillin for 7 days. ➢ Advise mother to give home care for the young infant. ➢ Follow up in 3 days.
• Umbilicus red or draining pus • Skin pustules	LOCAL BACTERIAL INFECTION	➢ Give amoxicillin for 5 days. ➢ Teach mother to treat local infections at home. ➢ Advise mother to give home care for the young infant. ➢ Follow up in 2 days
• No signs of bacterial infection or very severe disease	INFECTION UNLIKELY	➢ Advise mother to give home care for the young infant.

* *These thresholds are based on axillary temperature.*
** *If referral is refused or not feasible, treatment in the clinic till referral is feasible (see page 14).*

WHERE REFERRAL IS REFUSED OR NOT POSSIBLE, FURTHER ASSESS AND CLASSIFY THE SICK YOUNG INFANT WITH POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

Assess	Classify	Identify Treatment
Young infant has any one of the following: • Convulsions • Unable to feed at all • No movement on stimulation • Unable to cry • Bulging fontanelle • Cyanosis	**CRITICAL ILLNESS**	➢ *Give first dose of both ampicillin and gentamicin intramuscularly.* ➢ *Explain to the caregiver that the infant is very sick and needs urgent referral for hospital care.* ➢ *Treat to prevent low blood sugar.* ➢ *Teach the mother how to keep the young infant warm on the way to the hospital.* ➢ *Refer URGENTLY to hospital.* ➢ *If referral is still not possible, continue treatment with daily IM gentamicin and twice-daily IM ampicillin until referral is possible (up to 7 days).*

Young infant has any one of the following:
• Not feeding well on observation
• Temperature 38°C or more
• Temperature less than 35.5° C
• Severe chest indrawing
• Movement only when stimulated
	CLINICAL SEVERE INFECTION	➢ *Explain to the caregiver that the infant is very sick and needs urgent referral for hospital care.*
		➢ *Treat to prevent low blood sugar.*
		➢ *Teach the mother how to keep the young infant warm on the way to the hospital.*
		➢ *Refer URGENTLY to hospital.*
		➢ *If referral still is not possible,*
		    ➢ Treat at outpatient clinic with daily intramuscular gentamicin*.
		    ➢ Give oral amoxicillin for 7 days.
		    ➢ Teach the mother how to give the oral amoxicillin twice daily.
		    ➢ Advise mother to return for the next injection thefollowing day.
		    ➢ Treat also for any other classifications that the young infant has.
		    ➢ Reassess the young infant at each visit (see Follow-up Care, p. 22).

Young infant has: • Fast breathing (60 breaths per minute or more) in infants <u>less than 7 days old</u>**	**SEVERE PNEUMONIA**	➢ Refer urgently to hospital. If referral not possible : ➢ Give oral amoxicillin for 7 days. ➢ Teach the mother how to give the oral amoxicillin twice daily. ➢ Treat also for any other classifications that the young infant has. ➢ Advise the mother to return for follow up on day 4.

*Countries may decide to treat with IM gentamicin for 7 days or 2 days. If a country chooses 2 days, then there is a mandatory follow-up visit on day 4.
**Note that a young infant 7-59 days old having fast breathing (60 breaths per minute or more) does NOT need to be referred; treat at outpatient clinic with oral amoxicillin.

Way forward

- PSBI should be an integral part of IMCI Young Infant Module and thus be part of IMNCI training
- Distance learning approach should be viewed as one of the options for scaling up training coverage
- Need accelerated implementation of PSBI; newborns are dying – 7000 every day !