Every child count:
The immunization status of mobile migrant children in Bogale and Mawlamyinegyun Townships, Ayeyarwaddy Region

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Introduction

- Migration
  - movement of people
  - permanent or semi-permanent residence
  - social determinants of health
  - push and pull factors
    - jobs,
    - physical settings & housing,
    - disaster free
    - the lure of family members

Introduction cont.

- International migration
  - usually across a political boundary
- Internal migration
  - move within a country's boundary
- In Myanmar, the internal migrants gradually increased from 10% in 1991 to 14% in 2007 (1)
- Migration in Myanmar, rural-urban migration is third highest flow
- The highest flow of migrants, 14%, was from Ayeyarwaddy ⟶ Yangon

Introduction cont.

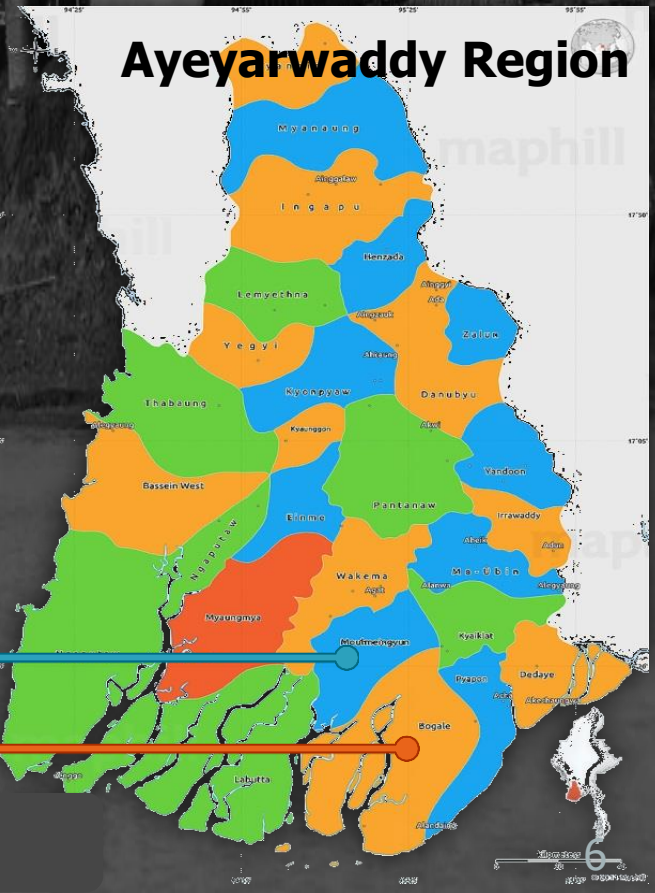
- Expanded Programme on Immunization (EPI) improve child health at low cost [2]
- Immunization prevents an estimated 2.5 million deaths each year [3]
- Migration is one of the main factors affecting the EPI coverage
- The 2030 targets for Sustainable Development Goal: at least 80% coverage of essential health services including EPI regardless of place of residence [4]

Objectives

1. To find out sources of EPI information among migrants
2. To identify the immunization status of migrant children in Ayeyarwaddy Region
3. To explore the barriers and difficulties of migrant children in accessing EPI services

Methodology

- Study Design: Cross-sectional descriptive study and part of the study on "MCH services access by migrants"
- Study Period: Nov to Dec 2014
- Study areas: 87 villages in
  - Mawlamyinegyun
  - Bogale



Sampling procedure

Estimated number of migrant households was obtained from the Voluntary Health Workers using self-administered questionnaire

Selection of RHC with high estimated number of migrants

Selection of villages with high estimated number of migrants

In each village, 493 migrant mothers were identified by snow ball sampling method

Types of internal migrant

- Inbound migrant
- Outbound migrant
- Local mobile
- Mobile hawker

Data collection

Face-to-face interview	Focus-Group-Discussion	Key-informant interview
(493) migrant mothers	(15) Group with migrant mothers	25 BHSs, 56 VHWs, 12 VHC members

Data analysis

- Quantitative data:
  - analyzed using SPSS version 16
  - Chi-squared test was used to determine differences among immunization status among migrant
- Qualitative data:
  - Atlas ti version 6 was used to analyze qualitative data
  - Thematic analysis

Limitations

- The study was done on migrant population and difficult to validate immunization status with EPI records and immunization cards

Ethical consideration

- Ethical approval was obtained from Institutional Ethics Review Committee, Department of Medical Research
- Researchers followed ethical procedure

Finding

Background characteristics

Table 1. Education status of migrant mothers of under 2 years old migrant children

	Education status of mothers	Number	Percentage
Not passed primary (67.6%)	Illiterate	74	15.0
	Read and write	54	11.0
	Primary	205	41.6
Passed primary (31.8%)	Passed primary	121	24.5
	Passed middle	28	5.7
	Graduate	8	1.6

- Mean Age of migrant mothers – 28 ± 6.7 years
- Mean Age of under 2 years old migrant children – 13.23 ± 7.6 months
- Migrant mothers with 4 times of AN care – 84 (17%), Migrant mothers with <4 times of AN care – 409 (83%)

Types of migrant in Bogale and Mawlamyinegyun Townships, 2014

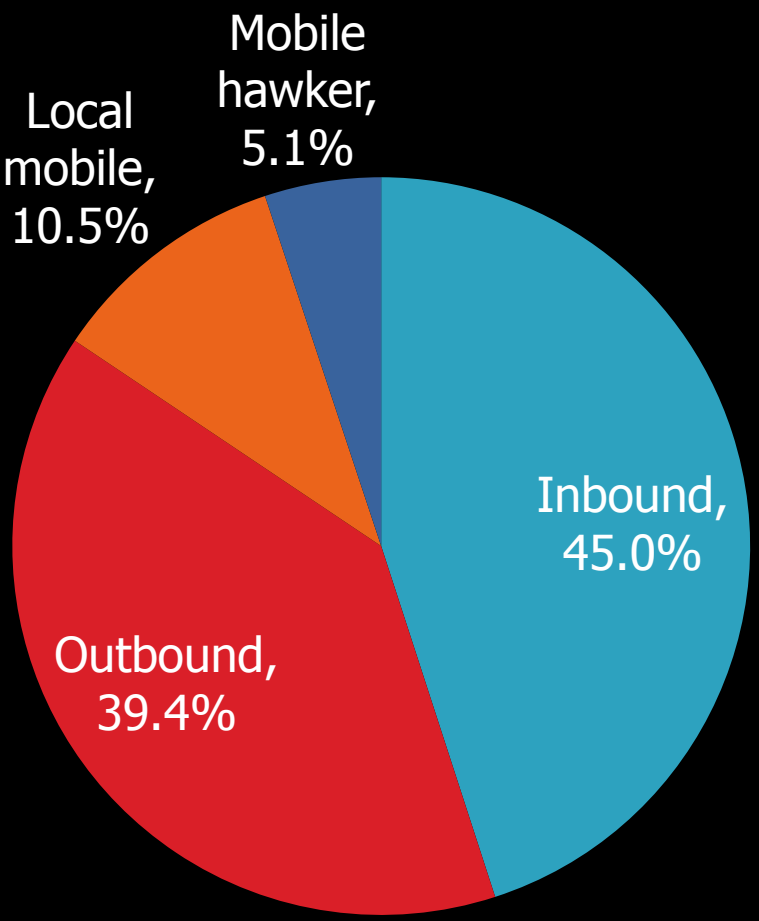


Figure 1. Types of migrants of under 2 years old migrant children (n=493)

Source of information on EPI

- Major source, through loudspeakers from village
- Through neighbourhood
- Few VHW go and informed
- Through village scout

"We announced the time and place of vaccination through loudspeaker from monastery. And also invite individually."

(KII with BHS)

EPI status of migrant children

- Out of 493 children
  - EPI Zero dose = 111/493 (22.5%)
- 17 months and above children (n =197)
  - Full dose of immunization=35 (17.8%)
  - Incomplete dose of immunization=162 (82.2%)

Association between mothers AN care status & EPI status

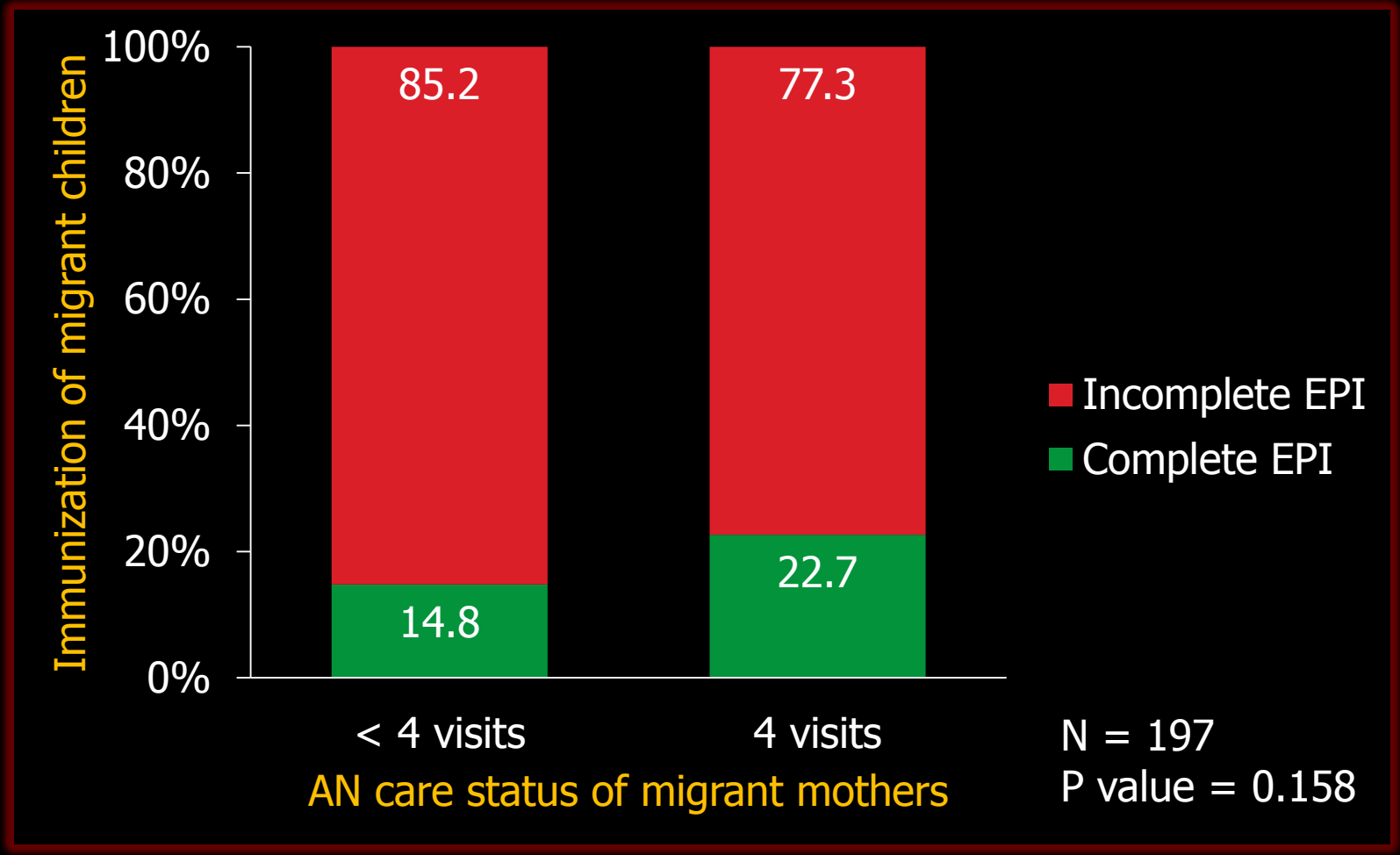


Figure 2. Association between migrant mothers' AN care status & their children EPI status

Association between types of migrant and EPI status

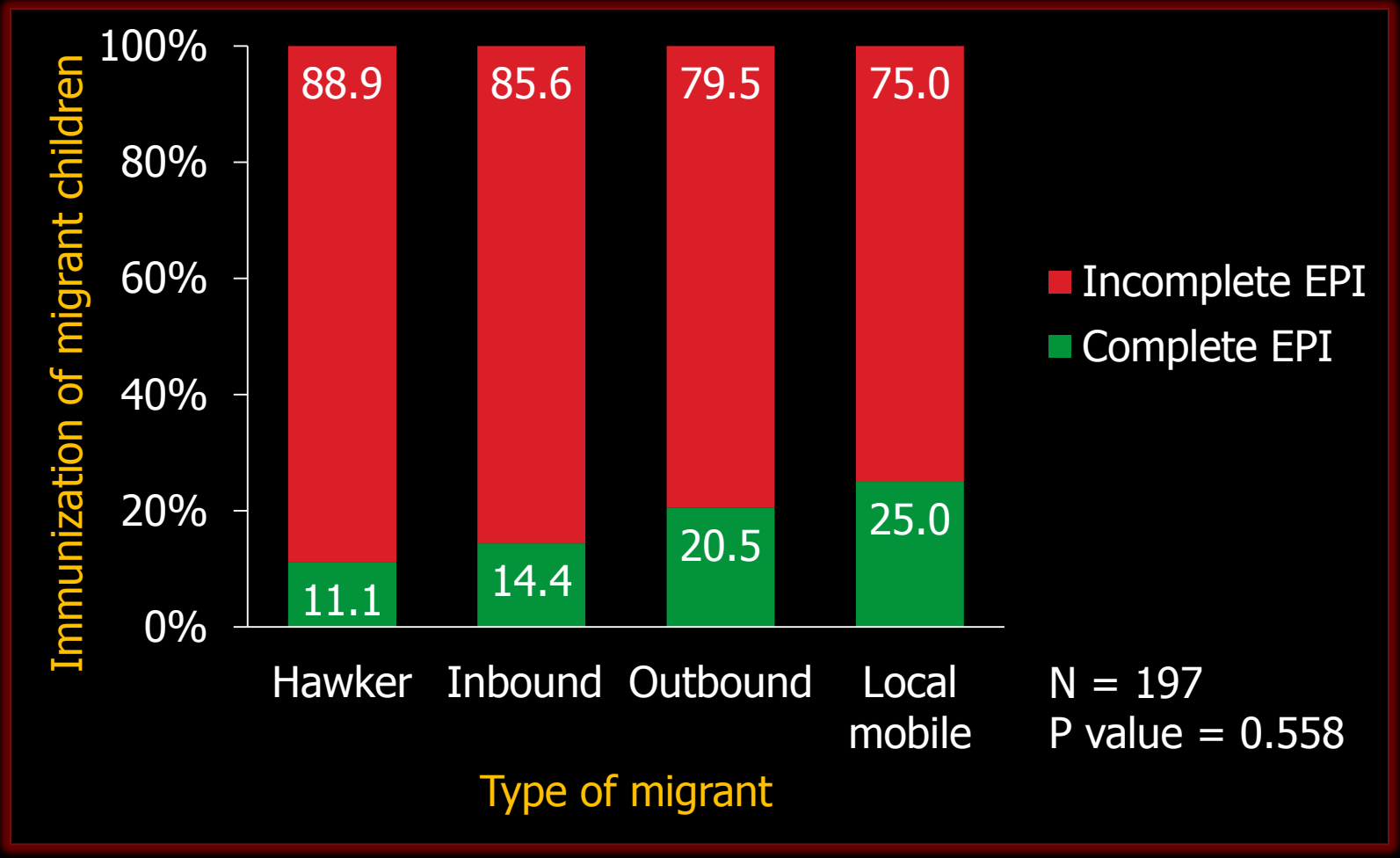
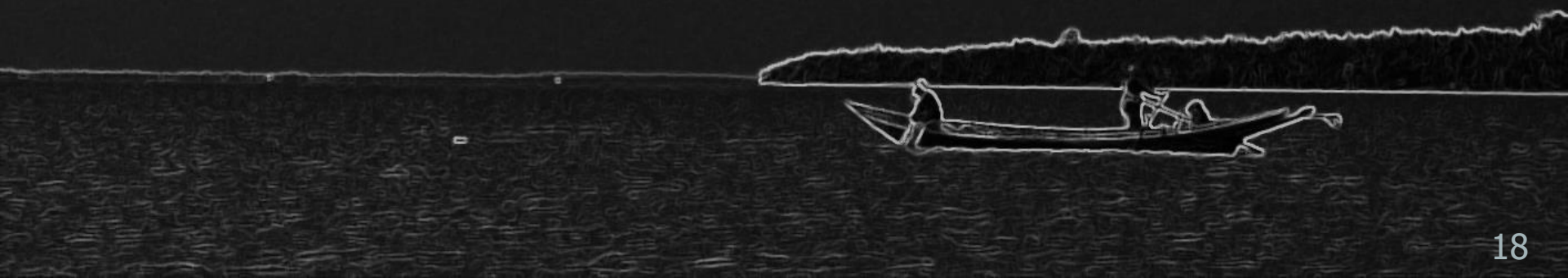


Figure 3. Association between types of migrant & EPI status of ≥17 months old migrant children

Reasons for missing EPI in migrant children

- Migration
- Lack of information
- Misbelieve over immunization
- Transportation barrier



Migration

About two third of respondents said that migration was the main reason of missing EPI

> *"They (parents) go out to the sea for fishing during the whole summer and take their children along with them. So, their children missed EPI throughout the summer"*
>
> *(KII with BHS)*

Lack of information about EPI

- Announcement through loudspeaker was difficult to be heard by migrants living in remote area
- Sometimes, Midwife (MW) delayed to provide information about time and date of immunization
- Some migrants thought that they could not receive immunization in other areas apart from their native village

"I lived quite far from Sayarma (VHW) and when village headman announced (about vaccination), we haven't heard and so haven't received vaccination"

(FGD with migrant mothers)

Misbelieve over immunization

Nearly half of respondents stated the knowledge of migrants was too low and they had false belief over immunization

> *"Some worried that their children will get fever after vaccination and so they did not come to focal point of vaccination intentionally"*
>
> *(FGD with migrant mothers)*

Transportation barrier

Some respondents mentioned that some migrant mothers hard to reach focal point of immunization because of transportation barriers like rising tides and travel costs

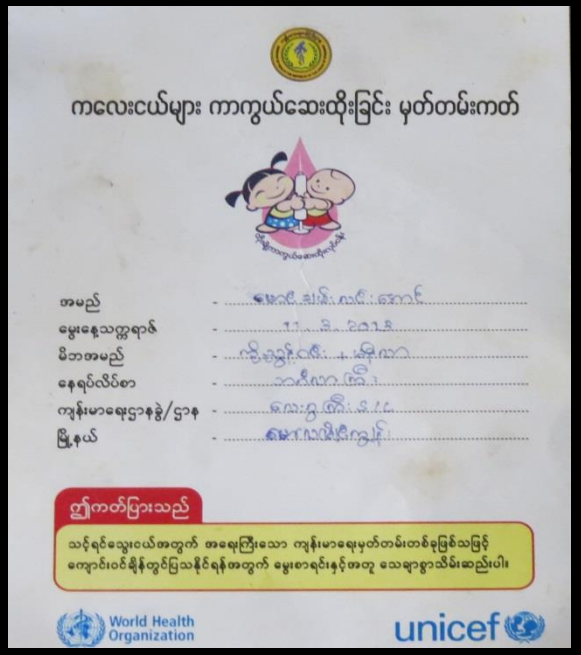
> *"We lived in the field and we don't have any boat to go and take immunization. Although we got information about immunization, we could not go there"*
>
> *(FGD with migrant mothers)*

Difficulties of MWs

- Lost of immunization card
- Over estimation of EPI doses
- Travel cost
- Insecure to go and inform the migrants who lived in remote area of village

"Some migrant mothers lost their children immunization cards and could not tell which dose of immunization they received, so we did not know which vaccine and which dose to administer"

(KII with BHS)



Suggestions for better EPI coverage

1. Role of local authority

Most of the respondents said that local authority should make overnight guest lists of migrants including their age

"If migrants want to stay in the village they must come and submit for overnight guest lists including age of their children. And we would permit them to stay in village if they promise to come and take vaccination monthly. Therefore, immunization status of migrant children will be improved"

(KII with VHW)

2. Early informing about EPI

Some VHWs suggested that MW should inform the time and place of immunization before vaccination date

"I told MWs to inform about the date and time of immunization 4 to 5 days prior to vaccination date, so that I could visit and invite caregivers of children individually"

(KII with VHW)

3. Report from field owners

Some of VHWs highlighted role of paddy fields owners in informing about migrants they had hired

"Some field owners informed us about the migrants they hired. So we can include them in EPI"

(KII with VHW)

4. Proper health care system for migrants

I. Health care system targeted to migrant

Some key informants suggested that there should be a health care system targeted to migrant including AN care and EPI

"We should take the list of migrants and share the list to their native area's MWs at township meeting. Migrants should get any health care services wherever they go"

(KII with BHS)

II. EPI in working places

A few migrant mothers want MWs to provide EPI in their working places

"It would be convenience if MW comes and provides vaccination in our working areas. It was difficult for me to go there (focal point)".

(FGD with migrant mothers)

Discussion

Internal migration

- Less attention
- Weakness of information on vital statistics
- Major health and right issue within the country

Source of Information about EPI

- Most of migrants in our study received information through loudspeakers in village
- Thailand, the schedule about vaccination was provided to migrant parents of school children by phone (5)

Immunization status

- Only 17.8% of ≥17 months old migrant children received full dose of EPI while 78% of children in general population got full dose
- Most of 2 years old migrant children got EPI 3 times, and they missed measles vaccine
- About 90% of children from Bogale & Mawlamyinegyun received 3 doses of Pentavalent while 78% from Bogale and 88% from Mawlamyinegyun achieved full dose of measles vaccine (6)

Reasons for missing EPI

- Migration, lack of information and misbelieve on immunization are major reasons of missing EPI in migrants
- This finding is in line with a study on children of seasonal migrant sugarcane harvesting laborers in India [7]
- And a study in Tak province, Thailand also found that migration and misbeliefs of side effects of vaccines were barriers of immunization [8]

Difficulties for providing EPI

- Some of BHSs in our study stated that they could not determine which dose to administer because some migrant children had not have immunization card and this finding is consistent with previous study in Myanmar-Thailand border[5]

Conclusion

- Immunization status of migrant children is low
- Main reasons were related to providers, migrants & other factors
- To solve this problems, collaborative action is required
- Strategy for migrants should involve not only from Health sector but also from other related sectors such as administrative authorities and employers are crucial

Recommendations

- Establishing strong collaboration between health care providers, local authorities and employers to get information of migrants
- Developing a specific service delivery and new workforce for migrants ensuring the better childhood immunization coverage

Dissemination & Application of Research Findings

- Findings were disseminated at all levels (township, national and regional levels)
- Plan of action for migrants' access to MCH were drawn at the Regional Workshop.

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Thank You

Types of migrant

- Inbound migrant: originates from outside of the village and has lived in the area or made intermittent day time or overnight visits into the village
- Outbound migrant: originate from the village and moved outside of the village intended to stay > 30 days. E.g. Farmers, Brick kiln workers
- Local mobile: originate from the village made intermittent day time or overnight visits outside of the village intended to stay not > 30 days in each visit. It includes forest goers and fishermen
- Mobile hawker: regularly move around various locations from one place to another within the Region in relatively shorter time-span (days or weeks) for selling goods on their boat