



Ministry of Health and Sports

Previous conducted research and Criteria for prioritization of research question



Dr. Wai wai han
MBBS, MSc (International Health)
Research Scientist
Department of Medical Research





Previous studies

- Total studies published within last 3 years- 37 (International -12, National – 25)
- Area 1: Strengthening demand for immunization services- 6
- Area 2: Implementing cold chain expansion and improvement plan-1
- Area 3: Strengthening leadership management capacity and coordination- 2
- **Area 4: Improving equitable access to service delivery-12**
- Area 5: Strengthening EPI data management, Monitoring and Evaluation system- 0
- Others: 16 (Lab-9, Clinical- 3, Epidemiology-3, HSR-1)



Area 1: Strengthening demand for immunization services



1. Win AYN, Wai KT, Harries AD, Kyaw NTT, Oo T, Than WP, Lin HH, Lin Z. **The burden of Japanese encephalitis the catch-up vaccination campaign, and health service providers' perceptions in Myanmar: 2012-2017.** Trop Med Health. 2020
2. May Oo Khaing; Su Su Hlaing & Ko Ko Zaw . **Factors associated with low knowledge level of rotavirus vaccination among caregivers of under-five children in Mingalartaungnyunt Township, Yangon Region (2019)**
3. Kyaw PP, Shewade HD, Kyaw NTT, et al. **High vaccination coverage, inadequate knowledge and high vector density: Findings from a community-based cross-sectional study on Japanese Encephalitis in Yangon, Myanmar.** F1000Res; 2020.
4. Thinn Thinn; Chan Nyein Aung; Thet Paing Lin; Yamin Thaung & Ko Ko Zaw. **Awareness, perception and vaccination of Japanese Encephalitis vaccine among care givers in Hsipaw Township, Northern Shan State, 2018**
5. Zayar Lynn & Wai Wai Han. **Maternal knowledge towards childhood immunization and reasons for incomplete immunization in peri-urban area of Yangon Region: Implications for health policy (2019)**
6. Naw Tulip Tun. **Knowledge, Attitude and Practice on human papillomavirus vaccine among health care providers**





Area 2: Implementing cold chain expansion and improvement plan

1. Nyein Nyein Chit; Nay Lynn Htet; Thiha Than. Assessment of cold chain logistics and expanded programme on immunization related knowledge and practice of key service providers in selected Townships of Mandalay

Area 3: Strengthening leadership management capacity and coordination



1. Ye Hla. Role of **general practitioners** in surveillance of selected vaccine preventable diseases in Myanmar
2. Sai Myo Nyunt; Lei Lei Win & Kyawt Sann Lwin. Perception of **basic health staff** on immunization and MCH Services in Ye and Mawlamyaing Townships of Mon State according to different immunization coverage



Area 4: Improving equitable access to service delivery



1. Nozaki I, Hachiya M, Kitamura T. Factors influencing **basic vaccination coverage** in Myanmar: secondary analysis of 2015 Myanmar demographic and health survey data. BMC Public Health. 2019
2. Aye HNN, Saw YM, Thar AMC, Oo N, Aung ZZ, Tin H, Than TM, Kariya T, Yamamoto E, Hamajima N. Assessing the **operational costs of routine immunization activities** at the sub-center level in Myanmar: What matters for increasing national immunization coverage? Vaccine. 2018
3. Devine A, Harvey R, Min AM, Gilder MET, Paw MK, Kang J, Watts I, Hanboonkunupakarn B, Nosten F, McGready R. Strategies for the prevention of **perinatal hepatitis B transmission** in a marginalized population on the Thailand-Myanmar border: a cost-effectiveness analysis. BMC Infect Dis. 2017 (cost effectiveness study)
4. Win AYN, Wai KT, Harries AD, Kyaw NTT, Oo T, Than WP, Lin HH, Lin Z. The burden of **Japanese encephalitis**, the **catch-up vaccination** campaign, and health service providers' perceptions in Myanmar: 2012-2017. Trop Med Health. 2020



Area 4: Improving equitable access to service delivery



5. Pinna C, Kaewkungwal J, Hattasingh W, Swaddiwudhipong W, Methakulchart R, Mounsookjareoun A, Lawpoolsri S. Evaluation of Immunization Services for Children of **Migrant Workers Along Thailand-Myanmar Border**: Compliance with Global Vaccine Action Plan (2011-2020). Vaccines (Basel). 2020
6. Yin Yin Htwe; May Tharaphu; D Nyein Myat; Su Su Hlaing & Ko Ko Zaw. **Missed opportunities** for immunization among children under two years and perception to missed opportunities for immunization among midwives in **hilly region, delta region and plain region**
7. May Phyu Lynn; Kyaw Swa Mya & Aung Tin Kyaw. Determinants of **incomplete immunization or no immunization** among children aged 12-23 months in Myanmar: Further analysis of the Myanmar demographic and health survey 2015-16
8. Tin Thitsa Lwin. **GAPS of immunization coverage** among 12-23 months old children in four peri-urban Townships, East District, Yangon Region





Area 4: Improving equitable access to service delivery

9. Hnin Wutyee Win; Kyaw Thiha; Su Hlaing Myint. **Measles and rubella immunization status** among 18-59 months old children and knowledge, attitude related to these infections among their caregivers in Hlaing Tharyar Township
10. Nyein Myat; May Tharaphu; Yin Yin Htwe. Factors related and perception to **missed opportunities** for immunization among under-two children in hilly delta and plain regions
11. Shwe Yee N, Yu Naing A, Gil Cuesta J, Das M, Dave K. **Gaps in Hepatitis B Vaccination Completion** and Sero-Protection for People Who Inject Drugs in Hpakant, Myanmar, 2015-2018. Trop Med Infect Dis. 2020
12. Thar AMC, Wai KT, Harries AD, Show KL, Mon LL, Lin HH. Reported **Measles** cases, measles-related deaths and measles vaccination coverage in Myanmar from 2014 to 2018. Trop Med Health. 2020





Others

Laboratory studies

1. Khaing EM, Hurtado PR, Hurtado E, Zaw A, White J, Warrell DA, Alfred S, Mahmood MA, Peh CA. Development of an ELISA assay to determine neutralizing capacity of horse serum following immunisation with **Daboia siamensis venom** in Myanmar. Toxicon. 2018
2. Sandar Nyunt; Kay Khine Soe; Nu Nu Lwin; Kyaw Zayya; Lynn Pa Pa Aye; Kham Mo Aung; Mu Mu Shwe; Win Maw Tun & Win Aung. Seroprevalence of **Hepatitis A virus infection among children**, adolescents and adults attending the Vaccine and Diagnostic Clinic, DMR
3. Mya Mya Aye; Win Min Than; May Thet Hnin & Khin Khin Nyunt Win. Antibody response to **hepatitis B vaccine** among staff from the University of Medical Technology, Mandalay
4. Thiri Zaw. Antibody response to **hepatitis B vaccine** in term and preterm infants (2018)
5. Han Win; Khin Saw Aye; Khin Pyone Kyi; Myat Sabai Hlaing; Ssu Wynn Mon; Myat Tin Htwe Kyaw; Kyi May Htwe; Myat Phone Kyaw & Kyaw Zin That. **Safety and Immunogenicity of Recombinant hepatitis B vaccine** Produced by Beijing Tiantan Biological Products, China (2017)





Others

Laboratory studies

6. Htin Lin; Theingi Win Myat; Khaing Moe Aung; Win Mar; Khin Sandar Aye; Thida Kyaw; Moh Moh Htun & Hlaing Myat Thu. **Influenza B** Lineages Circulating among Children Attending Yangon Children's Hospital
7. Lynn Pa Pa Aye; Khin Nyo Thein; Kyaw Zin Wai; Thazin Mon; Kay Khine Soe; Mu Mu Shwe; Win Maw Tun; Win Aung and Kyaw Zin Thant. **Antibody** status of children under 3.5 years of age after **immunization with Pentavalent Vaccine** according to EPI Schedule (2017)
8. Hnin Phyu Phyu Soe; Wah Wah Oo & Aye Aye Myint. Antibody response to first and second dose of **measles vaccination** in children (2018)
9. Zeyar Min. Humoral immune response to **rubella vaccine** in children (2017)



Others

Clinical Studies

1. Kyaw AK, Ngwe Tun MM, Nabeshima T, Buerano CC, Ando T, Inoue S, Hayasaka D, Lim CK, Saijo M, Thu HM, Thant KZ, Morita K. Japanese Encephalitis- and Dengue- Associated Acute Encephalitis Syndrome Cases in Myanmar. Am J Trop Med Hyg. 2019
2. Theingi Win Myat; Nway Nway Thin Aung; Hlaing Myat Thu; Aye Aye; Nyo Nyo Win; Maung Maung Lwin; Htin Lin; Nang Sarm Hom & Moh Moh Htun. Intussusception among children less than 2 years of age; vital baseline information for rotavirus vaccination plan in 2020
3. Theingi Win Myat; Hlaing Myat Thu; Ye Myint Kyaw; Nang Sarm Hom; Myat Mo Zar Kham; Win Mar; Khin Sandar Aye; Hla Myo Thu & Kyaw Zin Thant. Surveillance of rotavirus gastroenteritis (2015-2017); vital information for pre-and post-rotavirus vaccination in Myanmar (2018)



others

Epidemiological studies

1. Zhou R, Yuan S, Yu W, Li L, Li Q, Guo L, Zhao Z, Song Z. **Measles immunity** in the China-Myanmar border region, Lincang city, Yunnan province, 2017. Hum Vaccin Immunother. 2020
2. Moh Moh Kyi; Tin Thitsa Lwin; Yamin Thaung & Ko Ko Zaw. **Distribution and Trend of Japanese Encephalitis** in Yangon Region, 2014-2016 and Future Response (2019)
3. Chan Nyein Aung; Thet Paing Lin; Thinn Thinn. Descriptive **epidemiology of Japanese Encephalitis** vaccination for Japanese Encephalitis in Shan State (2018)

HSR

1. Mu TT, Sein AA, Soe C, Phyu Aung NP, Kyi TT, Hanson J. **Rabies** in Myanmar: Prevalent, Preventable but not Prioritized. Am J Trop Med Hyg. 2017





7 Criteria for prioritization of research question

1. Relevance (widespread, who is affected, severity)
2. Avoidance of duplication
3. Feasibility (available resources)
4. Political acceptability
5. Applicability
6. Urgency
7. Ethical applicability



1. Relevance

- How large or widespread is the problem?
- Who is affected?
- How severe is the problem?

- Score 1: Low relevance
- Score 2: Somewhat relevant
- Score 3: Moderate relevance
- Score 4: Substantial relevance
- Score 5: Highly relevant

- According to the priority problems for EPI program (in each area)
- Global & local trend



2. Avoidance of duplication

Find out whether the suggested topic has been investigated before either within the proposed study area or in another area with similar conditions

- Score 1: High duplication
- Score 2: Substantial duplication
- Score 3: Moderate duplication
- Score 4: Little duplication
- Score 5: No duplication

- To consider based on previous studies done under each area

3. Feasibility



- Resources required to conduct the study
- Manpower, time, equipment & money locally available
- Possibility of obtaining technical and financial assistance from external sources

- Score 1: Not feasible at all
- Score 2: Somewhat feasible
- Score 3: Moderate feasibility
- Score 4: Substantial feasibility
- Score 5: Very high feasibility

- To consider funding opportunities: MOHS-IR grant, WHO/UN, INGO
- To consider global





4. Political acceptability

- Do research on a topic which has the interest and support of the local/national authorities
- Score 1: Very low chance of political acceptability
- Score 2: Some chance of political acceptability
- Score 3: Moderate chance of political acceptability
- Score 4: Substantial chance
- Score 5: Very high chance

5. Applicability of results/ recommendation



- Is it likely that the recommendations from the study will be applied?

- Score 1: Not applicable at all
- Score 4: Somewhat applicable
- Score 5: Moderate applicability
- Score 6: Substantial applicability
- Score 7: Very high applicability

Weight- +2 in each score

5. Applicability of results/ recommendation



- Responsibilities lie in both sides: program and researchers
- Most research results were indirectly taken up by the program



6. Urgency

- How urgently are the results needed for making a decision or developing interventions at various levels (from community to policy)?
 - Consider which research should be done first and which can be done later
-
- Score 1: No urgency
 - Score 4: Somewhat urgency
 - Score 5: Moderate urgency
 - Score 6: Substantial urgency
 - Score 7: Very high urgency
- Weight- +2 in each score



7. Ethical applicability

- Possibility that we may inflict harm on others while carrying out research
 - Benefits versus risks
 - Any physical, social & psychological risks
-
- Score 1: Not acceptable at all
 - Score 2: Somewhat acceptable
 - Score 3: Moderate acceptability
 - Score 4: Substantial acceptability
 - Score 5: Very high acceptability





Group work guide

1. List all the research questions after refinement (within the group)
2. In each group, participants will prioritize the research questions by using a rating scale (“1” to “5”) applied to the seven criteria
3. In each group, sort the Research Questions from the largest to smallest score.



Proposed topic	1. Relevance	2. Avoidance of duplication	3. Urgency	4. Political acceptability	5. Feasibility	6. Applicability	7. Ethical acceptability	Total no. of points



Thank you





Questions, comments and suggestion