Myanmar-UN Co-operation in Universal Childhood Immunization Programme (1988-2005)

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Abstract

In a global village where there is rapid advancement in information technology and communication systems, no country is immune any longer to the consequences of actions of other countries and nations. Hence every health intervention has the multi-sectoral dimension. The role of and functions of the health sector are at a turning point. While age-old public health hazards are still present, new environmental and development problems have emerged, and some of them appear to threaten the entire ecosystem. The key challenges that WHO will address are the reduction in infant and under-five mortality, the expansion/ strengthening of immunization, improving the nutritional status of children under five, school health and adolescent health. To pave the way for a mole integrated approach to women and child health development, WHO promotes the guiding principles of the life cycle approach throughout interventions in child and adolescent health. The WHO, UNICEF, UNDP, UNFPA have been involved in assisting various health care activities. UNDP, UNHCR, JICA, OXFAM, SCF etc are also actively involved in health development activities. Myanmar is actively involved in activities relating to international health development.

Key words : Myanmar ,UN , Co-operation, UCI, Multi-Sectoral dimension

Introduction

UNICEF has been supporting development projects under the World Summit for Children and Expanded Programme for Immunization. In 1991, the Government ratified the World Declaration on the Survival, Protection and Development of the Children. Some of the goals of the declaration such as reduction of infant mortality rate and increase in adult literacy rate have been spelled out in the country's agenda for health development. UNICEF in Myanmar has been an important and effective advocate for the nation's children, contributing to both the signing of *the Declaration of the World*

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Summit for Children by Myanmar in June 1991 as well as ratification of the *Convention on the Rights of the Child* (CRC) by country in July 1991.

The Country Programme is composed of five sectoral programmes including 13 projects. Three projects have been added since 1993. The Myanmar- UNICEF Country Programme of Cooperation for 1991-1995 was formulated in 1989 and 1990. Therefore UNICEF has concentrated its efforts on promoting goal-by-goal with relevant sectoral ministries. Good results have been obtained for example with Neo-natal tetanus, ORT, UCI coverage and BFHI (*UNICEF-Myanmar Annual Report*, 1994, 4). In September 1994, the government commitment to achieve the mid-decade goal of eliminating the neonatal tetanus by the end of 1995 was reaffirmed. A plan was presented, covering the entire country and aiming at vaccinating 80 percent of all pregnant women and all women of childbearing age in high risk areas.

Major achievements of the Programme were the National Immunisation Days (NIDs) and "crash programmes". The NIDs reached 5.5 million children under-five with two doses of polio vaccine in three consecutive years. Crash programmes were introduced to allow for the expansion of immunisation activities to remote areas, resulting in children under the age of three and women of child-bearing age being vaccinated in villages never before reached. The Global Polio Eradication Initiative (PEI) was launched by the world Health Assembly (WHA), the governing body of WHO in 1988. For the past five years, each National Immunization Day (NID) for polio has reached 5 million, over 90 percent of all children. Therefore, Myanmar EPI Program accelerated OPV immunization activities in risk areas with mopping-up OPV immunizations. Polio Eradication activities are: (1) National Immunization Days (2) Acute Flaccid Paralysis Surveillance/AFP Surveillance (3) Mopping-Up OPV Immunization (4) Neonatal Tetanus Elimination activities and Crush Campaign.

Aim and Objectives

Aim:

--To increase awareness among the community to immunize children and pregnant woman.

Objectives:

- To achieve Myanmar-UN Cooperation toward a global goal in the

field of health focus on:
- extending UCI services to all townships especially hard to reach.
- implementing EPI activities to all township,
-strengthening Health Manpower (mobile teams, involvement of hospital staff for expanding EPI Coverage to 100%).

Myanmar-UN Co-operation in Universal Childhood Immunization

In Myanmar, EPI activities began in 1978 as one of the service programmes, in the first People's Health Plan (PHP 1978-1982) in 27 townships of the city of Yangon. In the following PHPs and National Health Plans (NHPs) superseding the PHPs, EPI was expanded both in terms of geographical coverage and in the number of antigens administered. Originally, only four antigens were given: tuberculosis (BCG), diphtheria, whooping cough and tetanus (DPT). Polio (OPV) and measles (MSL) were included in 1986 in order to achieve the objective of universal child immunization by 1990. During 1st PHP (1978-82) 104 townships could be implemented. During 2nd PHP (1982-86), another total 72 townships could be extended with 18 townships per year. *The National Programme of Action for the Survival, Protection and Development of Myanmar's Children in the 1990s* (NPA) directed national efforts during the 1990s.
The World Summit for Children set the following goals in 1990:

- Global eradication of poliomyelitis by the year 2000;
- Elimination of neonatal tetanus by 1995;
- Reduction by 95% in measles deaths and reduction by 90% of measles cases compared to pre-immunization levels by 1995, as a major step to global eradication of measles in the long run; and
- Maintenance of a high level of immunization coverage (at least 90% of children under 1 by the year 2000) against diphtheria, pertussis, tetanus, measles, poliomyelitis, tuberculosis and against tetanus for women of childbearing age.

Myanmar has made significant progress in the immunization of children against vaccine preventable diseases, and there is a general downward trend for all diseases. The Expanded Programme of Immunization (EPI) was first initiated in 1978 as a basic health service for 4 antigens (tuberculosis, diphtheria, whooping cough and tetanus) within the city of Yangon. In 1986, polio and measles were added (*Children and Women in Myanmar: A Situation Analysis*, 1999). By 1990, there were 212

townships implementing EPI. As a Myanmar-UNICEF Country Programme Cooperation, Program YH 101, Project No.01 (Code:H01) was implemented with planned expenditure of US $ 1,763,875. The estimated actual expenditure was US $ 1,604, 784. After peaking in 1990, UCI coverage declined a few percentage points in 1991. However, as a result of the dialogue between UNICEF and government counterparts, coverage rates have reached 80 % with the exception of TT2. As documented in the following table, levels of coverage were unsatisfactory as of September. As in 1991, it was expected that the planned targets will be reached when the monsoon season (mid-May to October) had ended and roads were passable.

Table 1. UCI Coverage in 1992

	Operational (209 townships)	**National (318 townships)**
BCG	58.7 % coverage	46.7 %
DPT 3	47.9 % coverage	38.0 %
OPV3	47.9 % coverage	38.0 %
Measles	47.4 % coverage	37.6 %
TT2	49.4 % coverage	39.1 %

(Incomplete reporting) Source: *Country Program Overview*, 1992, 6

Awareness among the community to immunize children and pregnant women increased. DOH enhanced community participation through immunization days in Kayin State. Immunization day was done in Kayin State in under-five for all vaccines. Social mobilization was successful. But due to limitation of funds, the activity had not been conducted in Kayah State. Vaccine shortage had been a serious limitation for repeating this activity. Solar refrigerators were well maintained. DOH and UNICEF recruited 8 engineers permanently and trained them. Engineers for remaining States/Divisions were in the process of consideration. The Government also invited a consultant from WHO to assess the status of solar refrigerators and to recommend actions to be taken for their maintenance. But it had not been achieved. DOH set plans to effectively monitor the cold chain status, with particular emphasis to the solar refrigerators in all townships where solar refrigerators are installed. UNICEF recruited one cold chain consultant for effective monitoring of cold chain. However locally trained engineers were not supported (travel allowances) adequately by the government to carry out their tasks. Engineers did supervision and took necessary corrective actions for cold chain equipment in need of repair as well as for vaccine potency protection. Although cold chain maintenance was monitored, vaccine potency was not

checked. Under the project No.25 / H02, DOH and UNICEF organized two workshops for townships end-users where the solar refrigerators are installed. The workshops were conducted in June 1994 and November 1994. Consequently, solar refrigerators maintenance improved compared with the first year.

UCI was implemented in all townships of Chin and Rakhine States. UNICEF recruited two consultants for the two states. Two local consultants served effectively since January for Rakhine and since July for Chin State. Microplans were also drawn for Chin State and Rakhine State. But due to the weather and poor communication, 4 townships in Chin state could be reached only after monsoon. DOH and the consultants trained, managed operations and monitored UCI activities. On-the-job training as well as re-orientation training for mid-level managers had been given (*UNICEF-Myanmar-Annual Report*, 1994, 29-34) (*UNICEF-Myanmar Annual Report*, 1994, 7). In 1994; the number of townships in which UCI is operational was increased from 209 to 302 leaving only 18 most inaccessible and scarcely populated townships of the country (which will hopefully be reached in 1995).

Around 50% of the total country programme budget for 1995 was used for supporting health and nutrition activities. Supplementary funding had been secured from AusAID, Rotary International, the Japanese National Committee for UNICEF and the Nippon Foundation for UCI, HIV/AIDS and CHMF. No donor funding had been secured for nutrition activities. Bilateral funding through the Japan International Cooperation Agency or JICA (for measles vaccines and vaccine carrier) and through the Nippon Foundation (for essential drugs) had further consolidated the primary health care activities supported by UNICEF.

Table 2. Immunization Coverage (1989-1990)

Immunization	1989	1990	1995	1997	1998
Children aged 0-1 (%)immunized against					
Tuberculosis	50	68	83	87	91
Diphtheria/ pertusis/ tetanus	36	69	75	80	87
Poliomyelitis	29	70	75	82	88
Measles	32	68	75	81	85
Pregnant women (%)immunized against tetanus	29	56	83	78	78

Source: *UNICEF-Myanmar Progress Report*, 1998, 31

In 1990, Myanmar endorsed the Global Goal of Poliomyelitis Eradication by the year 2000. To this end, the Government established a Plan of Action for the Eradication of Poliomyelitis by the year 2000, and has subscribed to the worldwide strategy of conducting National Immunization Days (NIDs) to stop the spread of the polio virus. The NIDs had not taken place, with a fourth plan for December 1998 and January 1999. The 1996, 1996-97 and 1997-1998 NIDs had already been implemented. During the first three NIDs, 5.8 million people (approximately 95% of the target population) received 2 supplemental doses of OPV. The second round of the 3rd NIDs and the first round of the 4th NIDs were successfully completed. The 3rd NIDs reached more than 95% of all children under 5 to vaccinate them against poliomyelitis, irrespective of their previous vaccination status. The fourth NIDs were conducted on 12th December 1998 and 17th January 1999, during the low season for transmission of the poliomyelitis virus. The objective were to administer two rounds of OPV, at an interval of four weeks to all children under five years of age, irrespective of their immunisation status.

Table 3. Fourth NIDs Funding Status (December 1998-January 1999)

Budget Item	Funds Committed or Expected (USS)			
	National Government	Partner Agency	Name of Partner Agency	Establishment
Vaccine		429,022	UNICEF-Rotary Int.	
		211,059	UNICEF-JCV	
		152,044	UNICEF-CDC, Atlanta	
		416,520	Government of Japan	1,208,645
Cold Chain	5,000			5,000
Logistics		5,000	WHO	5,000
Social Mobilization	232,550	37,000	WHO	320,550
Training			WHO	37,000
Personnel	116,275			116,275
Operations	43,864			43,864
Grand Total	397,689	1,338,645		1,736,334

Source: *Diplomas' Visit of UNICEF-Assisted Projects in Mandalay, Magway & Sagaing Division*, 1999, 20.

NIDs involve massive social mobilization and coordination efforts and include input from the national authorities, UNICEF, WHO and

international donors such as Rotary, CDC-Atlanta, JICA and JCV. Support from donors is crucial for the continued success of the NIDs. A complex funding environment faced Myanmar, characterised by the absence of many traditional donors and international financial institutions, general donor fatigue as well as sanctions. Consequently, there is only a limited pool of international resources available to meet the needs of women and children of Myanmar (*Myanmar-UNICEF Mid-Term Review, 1998*, 24). Despite these constraints, US $ 9.0 millions was mobilised in supplementary funding from 17 donors during the first half of the (1996-2000) Country Programme.

The elimination of neonatal tetanus (NNT) by the Year 2000 has been another target for 1998. With support from Aus AID, routine vaccinations of TT2 were administered to pregnant women and "crash" programmes initiated where routine services are unavailable. (*UNICEF-Myanmar Progress Report*, 1998, 7). *A National Plan of Action for NNT Elimination 1999/2000* has been prepared by the Ministry of Health. WHO and UNICEF with financial support from Japan's Grant Aid assistance.

Elimination of neonatal tetanus remains a challenge. Reporting of neonatal tetanus cases still remains weak and even though the reported coverage rate for 2 doses of tetanus toxoid (TT) among pregnant women reached 80% in 1994, it could not be sustained in 1998. Based on TT coverage among pregnant women and on the reported neonatal cases, high-risk areas were identified and specific campaigns were conducted during 1999 and 2000 to provide their doses of TT to women of child bearing age.

NNT elimination guideline was drawn and high risk approach strategy was established. High risk criteria were defined as any area or township with TT2 coverage less than 80% or NNT incidence of greater than 1 per 1000 births based on 1997 or 1998 data. Based on the criteria, a total of 91 townships had been identified as high risk. Out of 91 the 54 townships were chosen for phase 1 townships to be conducted in 1999. In April 1999, state/divisional and townships level training of trainers were conducted and advocacies were also carried out in those level.

The Fifth NIDs implemented in 1999/2000 covered 81% and 83% respectively. The Sixth NIDs implemented in 2000/2001 covered 97% and 99%. *The six cycles of National Immunization Days* (NIDs) achieved significant success in drastically reducing the cases of wild poliomyelitis virus, from over 60 cases in the early 1990s to only 2 cases at the beginning

of 2000. Each round of NID had reached approximately 5 million or over 90 per cent of children annually in Myanmar. Vitamin A supplementation was also introduced in the last two NIDs, reaching all children between 6 months to 5 years of age (5.6 million) (*End cycle Assessment of Myanmar-UNICEF Country Programme, 1996*, 13). In the year 2001, another (41) townships was conducted in May 2001 for TT1, June 2001 for TT2 (*Annual PH Strategies Report*, 2003, 24) (*Information from EPI central*, 2005, 6). These activities were supported by UNICEF, WHO, CIDA.

Table 4. National Immunization Days

	1st NIDs	2nd NIDs	3rd NIDs	4th NIDs	5th NIDs	6th NIDs
Date - 1st round - 2nd round	10-2-96 10-3-96	15-12-26 18-1-97	14-12-98 17-1-99	12-12-98 17-1-99	12-12-99 16-1-00	10-12-00 14-1-01
Target Population (5 years)	5,529,343	5,586,609	5,698,341	5,793,163	5,890,807	6,008,381
No. of Immunization Teams	33,000	35,000	37,000	37,000	37,000	37,000
No.of Members involved in Immunization Teams	150,000	170,000	180,000	180,000	180,000	180,000
Coverage - 1st round - 2nd round	95% 96%	98% 99%	96% 97%	97% 97%	98% 97%	97% 98%

Source: *Health in Myanmar*, 2001, 42

The 7th NIDs were implemented in 2001, TT campaigns in NNT high risk townships were implemented in 41 townships: 3 townships in Kachin state, 1 township in Kayin State, 1 township in Kayah state, 2 townships in Mon State, 2 townships in Shan (N), 1 township in Shan (S), 8 townships in Yangon Division, 5 townships in Mandalay Division, 5 townships. As the country moved closer to the target of polio eradication, NIDs were replaced by sub national immunization days. House-to-House mop-up activities continued in high risk areas where wild polio virus was known to be circulating and in other areas that are at risk either because of low coverage rate, poor accessibility and weak AFP surveillance (*Myanmar-*

UNICEF: Country Programme Cooperation (2001-2005), 41).

The 8th year NIDs and SNIDs were successfully carried out for the whole country including all the bordering areas with the neighbouring countries during December 2003 and January 2004.Supplemental immunization in the form of NIDs were carried out in all areas of the country as part of the global effort to eradicate polio. The 8th year NIDs was carried on 8-12-2002 and 12-1-2003 successfully. The coverage achievement was 97% for first round and second round. under 5 children was about 6.3 millions. Immunization coverage for each antigen for the Targetting whole country increased slightly from the coverage level of 2001 (BCG, MSL, DPT3, OPV3 and TT2) (*Expanded Programme on Immunization*, 2005, 2). In 2003, TT campaigns were conducted in NNT high risk townships totalling 12: 7 townships in Rakhine state, and 5 townships in Ayeyarwaddy Division covering TT1-91%; TT2-87% and TT3-83%. For the year 2004, TT campaigns had been conducted in 18 MNT high risk townships: 2 townships in Kachin State, 6 townships in Mandalay Division and 10 townships in Northern Shan State. Vaccine coverage was TT1-76%, TT2-66% and TT3-66%. The 8th NIDs (2002/2003) covered 87% and 89%. In 2003, 2004 and 2005 only sub-NIDs were implemented.

Measles immunization started in 1987. Children were immunized at the age of 9 months. There was remarkable decrease of measles cases and deaths. After 1990 onwards up to 1992, measles cases showed a decline. However, there was steady rise in 1993 and 1994. In Myanmar, routine reports show that there were 2682 cases and 15 deaths in 1993, 1853 cases and 25 deaths in 1994, 1170 cases and 6 deaths in 1995 and 1306 cases and 8 deaths in 1996 (*Assessment of sub National Mass Measles Campaign*, 1997, 1). However, measles is a grossly under reported disease. With an underreporting factor of 10^3, measles continued to be a major cause of morbidity and mortality in children of Myanmar. Additional campaigns for measles and neonatal tetanus were conducted in high-risk areas based on mutually agreed criteria.

Conclusion

Awareness among the community to immunize children and pregnant women increased. Social mobilization was successful. The Government also invited a consultant from WHO to assess the status of

Solar refrigerators and to recommend actions to be taken for their maintenance. But it had not been achieved. UCI was implemented in all townships of Chin and Rakhine States. UNICEF recruited two consultants for the two states. Two local consultants served effectively since January for Rakhine and since July for Chin State. Microplans were also drawn for Chin State and Rakhine State. The second campaign was conducted during September and October of 1997 in all townships of the two divisions targeting six month to five year olds in Yangon Division and nine month to five-year olds in Mandalay Division. the second Mass-Measles Campaign achieved high reported coverage among the children targetted.

Major achievements of the Programme were the National Immunisation Days (NIDs) and "crash programmes". The NIDs reached 5.5 million children under-five with two doses of polio vaccine in three consecutive years. Crash programme were introduced to allow for the expansion of immunisation activities to remote areas, resulting in children under the age of three and women of child-bearing age being vaccinated in villages never before reached. The Global Polio Eradication Initiative (PEI) was launched by the world Health Assembly (WHA), the governing body of WHO in 1988. For the past five years, each National Immunization Day (NID) for polio has reached 5 million, over 90 percent of all children. Therefore, Myanmar EPI Program accelerated OPV immunization activities in risk areas with mopping-up OPV immunizations. Polio Eradication activities are: (1) National Immunization Days (2) Acute Flaccid Paralysis Surveillance/AFP Surveillance (3) Mopping-Up OPV Immunization (4) Neonatal Tetanus Elimination activities and Crush Campaign.

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