NATIONAL STRATEGY ON MATERNAL AND NEONATAL TETANUS ELIMINATION (MNTE) IN CAMBODIA

May 2001

National Immunization Program (NIP)
National Maternal and Child Health Center (NMCHC)
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1. INTRODUCTION

Neonatal tetanus elimination (NTE) - defined as less than 1 case of neonatal tetanus per 1,000 live births in each district - is one of the World Summit Goals for the year 2000.

In addition to tetanus acquired by newborns, an unknown number of mothers die from tetanus infection due to unclean delivery practices or because they have not been adequately immunized with tetanus toxoid (TT) vaccine.

Although there is no accurate estimate for the number of neonatal tetanus cases occurring each year in Cambodia, neonatal tetanus is assumed to be a disease of public health importance based on the following factors:

- Utilization of antenatal care services is low (ANCI = 36%, 1999*).
- Two thirds of deliveries are attended at home by untrained personnel*.
- Immunization coverage rates of TT among women of child-bearing age is low (TT2+ for pregnant women = 33% and about 10% for all child bearing age women in 1999**).
- Traditional practices with application of local remedies on the umbilical stump are widespread***.

Based on the survey from other developing countries and early local data from neonatal death investigations in two operational districts, neonatal tetanus may account for 10% of infant mortality and 25% of neonatal deaths in Cambodia. Assuming 460,000 live births annually, a minimum neonatal tetanus incidence of 5 cases/1000 live births and a mortality rate of 85%, there would be 2,300 cases of neonatal tetanus each year and approximately 1,955 deaths. Complete elimination of neonatal tetanus in Cambodia would contribute to a decrease in the infant mortality rate of 10 to 35 percent.

2. The Objective

(* Defined as less than 1 case of neonatal tetanus per 1,000 live births in each operational district)

| Achieve maternal and neonatal tetanus elimination in all operational districts by 2005* and maintain afterward. |

3. The Main Strategies

- Increase TT coverage for CBAW
- Strengthen surveillance of neonatal tetanus
- Improve clean delivery practices and increase utilization of ANC
- Implement activities in age groups other than CBAW
- Increase public awareness of MNT

Some initial lessons from the 2 pilot ODs (Chhouk & Angkor Chey) can already be drawn. The most important conclusion after this period of intensified surveillance is that neonatal tetanus cases occur everywhere in a non-clustered fashion in the pilot ODs - apart from some
definite clusters in urban slum areas of Phnom Penh. This has implications for prioritizing strategies. That is why it has been decided to focus first on increasing TT coverage for CBAW while NT surveillance is strengthened.

3.1. Increase TT coverage for CBAW

Ilie NIP will assure at least 90% of pregnant women with TT2- through routine immunization in all ODs and at least 90% of all CBAW in selected high-risk districts receive 3 doses of TT in-immunization during SIA by 2005.

3.1.1. Routine immunization service deliveries
- Use all opportunities in HC fixed services especially ANC and Birth Spacing services and other health contacts to immunize all CBAW.
- Register all pregnant women (PW) during outreach activities to allow follow up of defaulters during future activities.
- Immunize during outreach all PW with active search for them and CBAW who present themselves during the session.
- Improve TT immunization in factories through routine TT immunization activities in collaboration with the infirmary of the factories.

3.1.2. Supplement TT activities (SIA)
- Integrate one TT injection for all CBAW in selected remote provinces into the measles supplementation activities (2000-2001) followed by two further TT immunizations with IEC campaign to ensure that all CBAW are well informed.
- Register all CBAW in selected areas prior to SIA implementation Plan and implement three doses of TT in recommended spacing schedule to all CBAW in high-risk ODs, based on the existing surveillance data and other high risk factors.
- In the selected high risk ODs, count all CBAW who come to round one with no TT card as receiving the TT1 (since the previous doses are not counted) whereas during each consecutive round women will be screened for doses of TT given during SIA.
- Validate the outcome of SIA in selected ODs with coverage surveys after third round.
- TT supplementary campaign in factories, large business and high schools where there is high number of CBAW.

3.1.3. Case response activities
- After surveillance system is strengthened, coordinate and implement a focal case response targeting specific high-risk areas.
- Review and finalize existing guidelines for case response procedure.

3.2. Strengthen surveillance of Neonatal Tetanus

Neonatal tetanus (NT) case definition

*Any neonate with normal ability to suck and cry during the first two days of life, and who between 3 and 28 days of age cannot suck normally, and become stiff or has convulsions (e. i. jerking of muscles) or both.*

*: WHO Standard case definition
3.2.1. **Reporting system for Neonatal Death (ND) and Neonatal Tetanus (NT)**

Facility-based active NT surveillance integrated with AFP surveillance will continue in National Hospitals and expand to provincial and district referral hospitals. Aside from facility-based surveillance, it is considered to add a village-based ND surveillance. In an effort to more accurately estimate the true burden of disease, additional "beyond-heath-facilities" surveillance with members of the community and health staff reporting neonatal deaths on special reporting cards ("ND referral Card") is considered.

Special opportunities for collecting information include outreach services to villages, HC meetings (Feedback Committee and TBA meetings), and use of community volunteers.

- Conduct NT active search (together with AFP/measles active search) in National and Referral hospitals.
- Conduct active search for ND if required.
- Review and finalize the village surveillance system piloted in 6 ODs.
- Expand to other ODs if needed initially selecting five priority provinces representative of different regions of the country.
- Establish this village surveillance system if feasible and where needed with investigation done by district level investigators (initially with support from province- and central level staff) in a timely manner for:
  - All cases diagnosed as NT by a health worker (hospital)
  - All reported neonatal deaths (ND) or cases with any sign of NT
- Maintain NT line-listings and spot mapping at provincial and OD level
- Review the national computerized database and further refine data management processes including data analysis and monitoring system performance.

3.2.2. **Role of serology to detect anti-tetanus antibody**

Sample population-based serological methods to detect anti-tetanus antibody level in CBAW are under development. These methods will help in identification of high-risk areas. NIP should pilot introduction of this new technique when it is made available for the field and implement the recommendation. These methods may be useful after 2 or 3 years of intensified TT immunization activities.

3.2.3. **Role of Protected at birth (PAB) methodology**

Several problems have been encountered with implementation of PAB methodology, such as insufficient knowledge of the HC staff in its use and problems of reliability. However, if properly implemented, PAB could be an effective indicator to identify high-risk districts so the NIP needs to:

- Review the use of the PAB methodology and implement recommendation of the review.

3.3. **Improving clean delivery practices**

This strategy is contributing to NT Elimination and will be implemented by the safe motherhood program.
3.3.1. **Home birth kit (HBK)**
NMC'IIC is currently testing the sale of a HBK to be used by any birth attendant, at home. These activities will be implemented by National Reproductive Health program. Promotion of 1-IRK should be integrated into health education activities during MNTE operations. Nationwide introduction and implementation of home birth kit distribution should however be done as part of regular delivery of health services (ANC. outreach, and meetings in HC with community representatives and TBAs) and other identified channels.
- Review the results of the pilot introduction of the HBK
- Finalize the operational guidelines for HBK
- Develop and implement work plan for distribution
- Orientate TBAs in the use of this HBK

3.3.2. **Delivery by skilled medical staff**
- Increase the proportion of deliveries attended by skilled medical personnel either in health facilities or at home.

3.4. **Implement activities in age groups other than CBAW**

3.4.1. Reach and maintain DPT3 coverage to 80% for infants (< 1 year of age).

3.4.2. Introduce immunization of male and female school children with booster doses of Td during the first three years of school (or up to grade 3) to build on infant immunization and maintain high immunity levels when feasible.

3.5. **Public awareness of maternal and neonatal tetanus (MNT)**
A variety of approaches have been used to increase public demand for TT immunization and awareness of MNT. The National Immunization Program has used every opportunity to disseminate the existing message about the disease and how to prevent it.
- Review the existing IEC package for MNTE and produce additional material as necessary
- Seek support from Government officials and other community leaders for promoting community participation.
- Conduct intensive mass media campaigns to raise the community awareness about NT
- Use the HC outreach sessions, HC feedback committees and the existing community structures to promote MNT awareness.
- Conduct regular public education through different media.
- Implement alternative communication strategies targeted primarily at TBAs to increase the prevalence of clean deliveries and cord care

4. **Injection safety**
In order to assure the immunization safety and the operational implication to immunize almost one fourth of the total population in each village the NIP and partners should make sure that the following injection equipment (*) should be used as follow:

(*) New injection technology such as simple, pre-filled device (UniJet TM, for example) for TT with vaccine vial monitor (VVM) can be kept out of cold chain for a limited period of time should be considered for mass immunization.
To use AD syringes and SB in integrated supplementary TT activities.
To use AD syringes and SB in NT case response activities.
To use the reusable syringes in routine immunization of AD syringe and SB where introduction of AD syringe has been done

5. Monitoring of the MNTE
The following indicators are important to evaluate the implementation of MNTE strategies.

- Proportion of districts estimated as high risk
- Proportion of CBAW at high risk
- Proportion of CBAW protected by a minimum of 2 doses of TT
- TT2+ coverage in pregnant woman
- Proportion of pregnant women who attend ANC clinics
- Proportion of deliveries attended by skilled staff
- Proportion of home deliveries using Home Birth Kit
- Reduction of ND cases after high proportion of CBAW received minimum of 2 doses of TT
- Proportion of new borns protected at birth (PAB)

6. Conclusion
Considering the estimated number of neonatal tetanus cases each year in Cambodia, it is beyond doubt that elimination of neonatal tetanus would have a great impact on child survival. It is realistic to expect that Cambodia will achieve the goal of neonatal tetanus elimination by 2005 by:

- Strengthening OD planning and implementation capacity, focusing on acceleration TT coverage for CBAW through increasing routine immunization during outreach for all PW (including active searches for them) and CBAW who present themselves during the session.
- Integrating one TT injection to all CBAW during measles supplementation activities in selected remote provinces followed by two further doses of TT immunizations with IEC campaign to ensure that all CBAW are informed.
- Planing and implementing three rounds of TT supplementation in selected ODs of the highly-populated provinces based on the surveillance data.
- Strengthening NT surveillance to identify high-risk areas.

To achieve and sustain the MNTE goal, there is a need to maintain high DPT3 coverage and introduce Td for primary school entry as well as maintaining high TT2+ coverage for CBAW through routine immunization services. ANC visits will be important occasion to promote deliveries by skilled medical personnel and clean delivery practices, either in the health facilities or at home.
PHA meeting 6 April 2001 (afternoon meeting)

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Agenda:

1. Minutes and matter arising
2. Briefing ADB/WB morning meeting Maurice
3. Discussion DRAFT Joint Health Sector Review report Aye Aye
4. Update SWiM Henk
5. Boosting Update Jan
6. Other business

1. Correction Minutes 2 March 2001

Page 2: under the table: wrong: does the government change the data in the 2 surveys?
Corrected: Does the government accept the data in NHS and DHS surveys?
2. Briefing ADB/WB morning meeting Maurice

**WB Dr. Vankee report:**
- Delay expected in arrival of equipment: generator, Xrav machine,
- Construction will be finished be plan in September 2001.

**Comments morning meeting:**
- Unicef will have soon equipment for 110 HC in CMS. It is possible to order for WB constructed HC (swap WB equipment with Unicef equipment)
- Need for bigger financial transparency because of possible overlap in financing from different sources: world TB day, supervision

**Proposed solution morning meeting:**
- PCU supervisors will be reminded to visit PHA/PHC during field visits: dates to be communicated.
- WB will invite some PHA to the next PCU meeting begin May.
- WB will send HMA and Memorandum of Understanding with financial breakdown of the budget to all PHA/PHCs.
- Province to check consolidated provincial annual plan with finance from all sources to avoid possible overlap.
- Other donors (WHO, UNICEF, EU, UNFPA, NGOs) to send annual budget plans and expenditure updates to WB.
- P3 document should be discussed in every Prococom meeting.

3. Discussion DRAFT Joint Health Sector Review report Aye Aye

**Presentation Cambodia Health Sector Review (see handouts):**
- Final report waiting for clearance

**Comments:**
- MoH has now to discuss the Health Sector Review document amongst themselves!
- There is now a new outreach guideline,
  - Technical guidelines for outreach with EPI, FP, ANC, ORS,... with very high frequency of visits by village (twice a month !!)
  - It will be presented (UNICEF support) to 2 staff from every district on:
    - 26-27 April for NE and Central in PP
    - 8-9 May for NW region in Battambang
    - 14-15 May for Kampong Cham region
    - 21-22 May for Kampot region
- REMARK 1: cost effectiveness and practical arrangement for integrated outreach is questionable
- REMARK 2: what will be the impact on 24 hours integrated service delivery in the HC? Six staff at HC level is very high compared to neighboring countries.
- Contracting
• Still low involvement of overall MoH. PCL and ADB monitor existing IN and OI/T experiments
• 1 here is not yet experience with contracting to local, private providers. A private providers survey has been conducted already.
• Emphasis has been put on the need for a thorough evaluation of all initiatives in Cambodia: contracting in-out, new deals, boosting experiments.

• Narrow the scope of public services
  • Difficult for MPA because already designed as Minimal Package but possible for hospital services and non constructed HC (roughly 30%). This would mean to redefine coverage plan especially for referral hospitals (CPA+, CPA, CPA-). Present construction agreements might complicate this exercise.
  • Preventive care only done by public sector and therefore should get more stress. Eventually it could be expanded to the private sector.

• Assure Quality of training
  • Until now there is a weak follow up of training. Past trainings have to be evaluated whether they made a difference: eg. MPA module, FHCT training, many National Programme trainings, etc.

• Assure Quality of care
  • several bottlenecks: different perception of what means quality (TA versus staff, (potential) clients), uncontrolled private sector, problems in salaries,....
  • no IECs have been developed to rationalize demand.
  • more demand orientation might mean to take flexibility and compromises more in consideration.

4. Update SWiM

SWiM is still somewhat unclear because the MoH has still to decide what, when, how (consultation process etc.) and who in the Ministry of Health will take the SWIM process forward. The two Director Generals play a key role in those decisions and have therefore to be more involved in the process. It is expected that during the current WB mission the Ministry of Health will inform all stakeholders their position. A meeting is scheduled on the 11 "of April 2001.

Comments:
• It seems the MoH is desperately waiting for the Public Administration Reform to proceed and increase civil servants salaries. However, the government is kept tight by the IMF (and WB) limit not to spend more than 1 7 % of GDP rule on civil salary costs and it's reluctance not to reduce the seize of the civil service. External consultants shared government's concern about reducing the civil service and at the same time demobilize soldiers. Ministry of Health has expressed the need to re-distribute staff according to needs in order to bring the right people to the right place and to clean the payroll from ghost servants.
5. **Boosting Update**

- Nancy Fronczak finalized some missing documents on Boosting strategy: monitoring and evaluation framework, etc. Contracts between MoH-PHD-OD will be sent soon. The planned workshop to increase ownership feeling in the MoH has been postponed. First the working group around Boosting has to meet (expected for next week). Dr. Mean Chi Vun might become the Boosting Ambassador. The meeting with senior MoH managers around Boosting is expected for May 2001. Later the proposals can be sent to the donor community, most probably without a wide external open discussion amongst NGOs.

- It was questioned by Dr. Mean Chi Vun whether it would be possible to make a real contract between MoEF-donor and MoH because of the long time frame (5 years). The MoEF would never fix now what it will give in $/capita. A percentage of GDP with a forecast might be more realistic. He thought an agreement letter therefore would be more realistic. A contract would be possible between MoH-PHD-OD.

**Comments:**

- The sustainability of the Boosting relies on the government commitment to increase $/capita health expenditure. The fact that they do not want to put it on paper potentially jeopardizes the possible success of the Boosting Initiative.

- At the moment the bonus range varies in all the initiatives between 30 and 300 $. There is an urgent need for uniformity to avoid future problems.

- It is clear that in the contracts every level (QD, PHD, MoH) should specify which kind of Technical Assistance it needs to be able to fulfill the contract.

- SwiM is part of the better resource management proposed in the Boosting initiative.

6. **Other business**

- The second draft for the User fee evaluation is waiting to be signed by H.E. Ens? Huot.

- The New Deal in Sotrnikum faces problems to receive PAP budget for the OD. It is felt that the consolidated bookkeeping might be the stumbling block for the midlevel officials. National level does not seem to find the key to solve the problem. The official explanation is an incompetence from OD level to apply for the PAP allocation following the proper procedures. In any case the province should assist the district in applying properly. MSF will not fill up the gap. So, especially the hospital has to choose now between closing or asking extra fees from the client to give food, run generator. The future seems unsure and the -New Deal' risks to become an -Old Deal' very soon.

**NEXT MEETING: UNICEF CONFERENCE ROOM. 4 MAY 2001**