High Level Meeting on Cost Efficiency in Procurement of Vaccines and Quality Data Coverage of Vaccination in Iraq

Meeting Minutes

January 2019

High Level Meeting on Cost efficiency in Procurement of Vaccines and Quality Data for Coverage of Vaccination in Iraq MOH with support of WHO and UNICEF 14-15 Jan 2019 Baghdad – Iraq

WHO, UNICEF, MOH, **Minutes of Meetings** **Jan. 14-15, 2019** **Iraq, Baghdad**	**Convened by:** WHO	**Meeting minutes written by**: Firas Al-khafaji, Iskandar Hanna/ Alaa Rahi, Moazzem Hossain, Nadia Teleb
	Start: 14 Jan. **End:** 15 Jan.	**Venue:** Al-Rasheed Hotel Baghdad- Iraq

Agenda items:

1. Registration and Introduction of meeting participants
2. Objective of the meeting.
3. Discuss Current situation of EPI achievements and progress in Iraq, with brief discussion on challenges facing the improvement of the coverage rate districts, quality of RI data and risks facing the importation of vaccine (with risk of stock out) of high financial burden.
4. A historical background on using Hexa Vaccine versus Penta + Standalone IPV. NITAG to advise on the way forward based on the technical and financial implication to the program.
5. Discuss the importance of maintaining the Pneumococcal conjugated vaccine within the Routine vaccination Schedule of Iraq.
6. Discussions on issues at the low performing districts and quality of RI data. Recommend way forward to improve RI coverage with high quality data production.
7. Recommendations.

Participants:

1. HE Minister of Health
2. DG of Public Health Directorate / MOH
3. National EPI manager
4. National AFP surveillance coordinator
5. NITAG members
6. CDC / MOH representation
7. Kemadia representation
8. Technical affair directorate representative
9. National Vaccine Warehouse representation
10. WHO Regional Adviser on VPI
11. WHO Acting Representative for IRAQ
12. UNICEF deputy Representative Iraq
13. UNICEF and WHO CO EPI teams
14. EMPHNET representation

Introductory session:

The Minister of Health of Iraq, in his address, underlined the importance the government of Iraq is giving to child health, including EPI in Iraq. He expressed concern about the low immunization coverage in Iraq despite the huge financial investment. He underlined the necessity of reviewing and

optimizing the vaccination schedule in order to ensure highest protection of the children while saving cost where possible. He also urged the importance of probing the reasons for low Routine Vaccination coverage at district level as well as quality of immunization data and tailoring the blue prints for fixing the problems in 2019. He highlighted that the transparency and professionalism of the NITAG members towards the expected goal of this meeting is of utmost importance.

DG of Public Health Directorate explained that objective of the meeting are to:

1. Harmonizing vaccination schedule and update Routine Vaccination Schedule of Iraq:
   Cost of procurement of currently used vaccines and how to find alternatives with ensuring quality, safety and effectiveness of the vaccines, specifically in relation to:
   a. using Penta cellular + standalone IPV vs the Hexa vaccine
   b. maintaining the Pneumococcal conjugate vaccination (PCV) in the RI schedule and using PCV13 vs PCV10 vaccine
2. Discuss routine immunization coverage and agreeing on way forward to increase coverage
3. Discuss immunization data quality in Iraq and possible ways for improving it.

National EPI manager presented the program updates in Iraq showing the following:

a. Iraq population has a high growth rate of 3.4
b. Iraq has 2183 PHCCs, out of them, 1748 centers provide EPI services

The volatile security situation in parts of the country and subsequent population movement poses a threat for the RI coverage with a considerable number of children left unvaccinated and prone to Killer diseases that can be prevented if reached by the RI program. Adding to it the current financial crisis due to the fluctuation of Oil prices and the subsequent risk of Stock out of vaccine that occurred over the last couple of years.

c. Several corrective actions were tried through capacity building (microplanning training and Data Quality Self-Assessment (DQSA) as well as the Effective Vaccine management training and cold chain assessment at district level; but challenges are still immense since more critical factors do still affect the program reach including the effective EPI communication.

1. Discussion on Harmonizing vaccination schedule:

1.1. Use of Hexa versus Penta + standalone IPV

As per the presentation of the EPI manager, vaccination schedule in Iraq includes 5 doses of IPV-containing vaccine with acellular component of Pertussis vaccine. Meanwhile, vaccination schedule in Iraq includes six doses of oral polio vaccine.

NITAG members had extensive discussion on the subject and enquired, in details, on the circumstances for introduction of the 5 doses of the hexa/penta/tetra vaccines and how the decision was taken. They also examined WHO position paper and searched on the internet to get more information on the different vaccines, available information and recommendations. They also asked specifically about availability of the different vaccines and vaccine price.

WHO EMRO Regional Advisor, explained thoroughly WHO recommendations and the scientific aspect of using Hexa Vs Penta + IPV standalone vaccines to the NITAG members highlighting the benefits of each of the vaccines both in terms of safety, efficacy and financial burdens that it poses. WHO stand is to provide at least one dose of IPV containing vaccine at the age of 4 months. Secondly, DTwP and DTaP have equivalent safety while the first is more immunogenic as mentioned in dertails in WHO position paper on use of pertussis vaccine (WHO position paper was distributed and presented to NITAG members and participants of the meeting).

WHO regional adviser has also mentioned the cost of the different vaccines as per available global

information. And highlighted that NITAG should take informed decision on use of the suitable formulation of the vaccine based on country context and available information on vaccine safety, efficacy and availability

UNICEF Chief of Health mentioned that if requested, UNICEF would be happy to procure vaccines for MoH which would have the following provisions:

- UNICEF will ensure minimum 18 months of expiry or shelf-life when they arrive the country, but no compensation for the vaccines that will expire after they arrive in the country.
- Vaccine can be provided on quarterly basis as per the forecast, hence, space would not be a problem and it could ensure ease smooth payment of agreed installments as well
- UNICEF will support the countries with vaccine management practices to ensure vaccine availability in addition to real-time forecasting and stock management tools like ViVa and web-VSSM.
- WHO prequalified vaccines which are tested in the country of origin in a WHO certified labs
- UNICEF will need an official request from MoH to respond regarding the availability, sources and cost of vaccines if supplied by UNICEF.
- Optimum lead time for switch of vaccine schedules should be at least one year from the time of decision making. However, given the priority and urgency for IPV supple, we have been informed by UNICEF SD that around 1 million doses of IPV can be made available in 2019 from Bilthoven (Netherlands), which is a 5 doses vial.
- Pentavalent supply is not a problem and have several choices (WHO mentioned the same).
- UNICEF would not accept testing the vaccines after they arrive in the country but we would be happy to provide Certificate of Analysis (CoA) that approved the testing of the vaccine are doing for each shipment with all required tests by a WHO ceritifed Lab "which are continuously assessed by the WHO to ensure the standards of the testing" and other documents for review before they are shipped to the country.
- MOH could use the current MoU under which BCG is being procured in order to save time for any new MoU to be signed but UNICEF needs official requests soonest.
- A provisional decision for switch should be made keeping in mind that final availability of Vaccines, Sources and Prices can be made available only when UNICEF gets the official request from MOH

1.2. Use of Pneumococcal conjugate vaccine (PCV13)

The great step taken by Iraq MOH to include the Pneumococcal conjugate vaccine (PCV13) in the Routine Immunization schedule has been highly appreciated by the global health community. This will definitely protect more children against deadly respiratory tract infections and rationalize the use of antibiotics.

As the necessity of continuation of PCV13 vaccination program in Iraq was questioned, WHO regional adviser clarified that invasive pneumococcal diseases (IPD) include, mainly, pneumonia, meningitis and septicemia. Case fatality rate among infants in developing countries may reach 20% in septicemia and 50% in meningitis. Considerable percentage of survivors from pneumococcal meningitis suffers long term sequels. In addition, antimicrobial resistance to streptococcal pneumoniae is on the increase.

She has also informed the meeting that WHO recommends the inclusion of PCV as a priority in childhood immunization programmes world-wide, in particular in countries with high childhood mortality. PCV13 covers more invasive serotypes than PCV10

NITAG members discussed the subject and formulating their recommendations

2. Routine immunization coverage and immunization data quality:

Routine immunization coverage in Iraq has been dropping over the past several years as indicated by the results of MICs survey and WHO-UNICEF estimates of national immunization coverage.
Main concern on related information in presentation of the EPI manager, Iraq included:

- The frequent stock out of all types of vaccines for long period, despite the huge financial investment of the government of Iraq
- The high drop-out rates.
- The high number of PHCCs that are not providing EPI services (around 20% of the total number of PHCCs)

WHO and UNICEF presented data on vaccination coverage, vaccine stock-out and immunization data quality. The following were the main points and related discussion:

- Districts with high number of unvaccinated children, which, if well addressed, can result in rapid improvement in vaccination coverage
- Coverage rate for the last 5 years compared to the periods of stock outs of vaccine which showed the importance of the proper forecast for vaccine purchase. The analysis of vaccine stock-out for last 5 years showed that almost 47 months out of 60 months, some antigens had a stock-out include basic vaccines like BCG, Hex and Measles.

- High drop-out rates: Although the first contact (BCG) is high, drop-out rates are also too high. The reason that need immediate action would include mainly:

    - Poor interpersonal communication (IPC) during vaccination session. Hence, it is important to add IPC as a major component in the next (refresher) training of vaccinators and there should be social awareness like campaign in selected districts with low coverage.
    - Frequent vaccine stock-out and, hence, losing interest of the parents to seek unavailable services
    - Inaccessibility of health services with the high number of PHCCs that are not providing EPI services
    - Inadequate awareness about availability and importance of immunization

- Remarkable discrepancy between administrative coverage data and data from other sources, including MICs and WHO-UNICEF estimates. While the administrative coverage data denoted 85% coverage of DTP3-containing vaccine in 2017, WHO and UNICEF estimated that coverage to be 63% in the same year. DTP3 coverage data collected from Non polio AFP cases indicates that coverage has been dropping during the past few years and coverage is lower than what was reported.

NITAG members and participants of the meeting discussed the situation and came up with the related recommendations

Recommendations:

1. Harmonizing vaccination schedule:

After thorough discussions, NITAG issued the recommendations on reviewing the vaccination schedule in Iraq as follows:

1) DTP-containing vaccine:
NITAG noted that Pentavalent vaccine with the whole cell component of Pertussis is safe, effective and less costly. The following was recommended:

1.1. Pentavalent vaccine (DTwP-Hib-HepB) and at least one dose of standalone IPV vaccine are efficient and cost effective to the current situation in Iraq. They should replace the Hexavalent vaccine in the first year of life
1.2. Booster dose at 18 months of age: tetravalent vaccine (DTwP+Hib) is to replace penta acellular vaccine (DTaP-Hib-IPV)
1.3. Booster dose at school entry (4-6 years): one dose DTwP.

2) IPV vaccine:
at least one dose of IPV containing vaccine at the age of 4 months while a second dose at 6 months if stocks are made available

3) Pneumococcal conjugate vaccine: PCV13 is to be maintained in the immunization programme as per current schedule.

4) The first MMR dose to be given at age of 12 months instead of 15 months, while the booster at the age of 18 months instead of 4-6 years cohort for better coverage.

NITAG members endorsed the below revised vaccination schedule:

Age	**Type of vaccine**
0-1 Week	OPV0 , HepB1 , BCG
2 months	Penta1(DwPT+HIB+Hep-B) OPV1,ROTarix1+PCV 13-1
4 months	Penta 2 (DwPT+HIB+Hep-B),ROTarix2,OPV2-PCV 13-2 + IPV1
6 months	Penta 3 (DwPT+HIB+Hep-B) ,OPV3 –PCV13-3 +IPV2
9 months	Measles + VIT A (100,000 I,U)
12 months	MMR (Measles , Mumps , Rubella)
18 months	Tetra (DwPT+Hib), OPV booster 1 + VIT A (200,000 I,U) +MMR
4-6 years	DwPT+OPV booster 2

2. Improving vaccination coverage:

- Ensuring continuous availability of all vaccines through optimizing vaccine procurement and management system at all levels (point 4 below)
- Instituting effective system for defaulter tracing in order to minimize the drop out rate, taking BCG coverage as the dose of comparison with all doses of the different vaccines (BCG-Penta1

drop out rate, BCG-Penta3 drop-out rate, BCG-MMR1 drop-out rate,…)

- Instituting a system for minimizing missed opportunities for vaccination. and look for the missed opportunities for vaccination (Outreach or mobile team activities). The BCG coverage data is the best base line for defaulter tracing
- Assessment of situation of PHCCs that are not providing vaccination services and include them in the system
- Improve monitoring and supervision, including supportive supervision, regular data analysis, feedback and follow up of the low performing districts and health centers with recognition for the well performing provinces/districts/facilities
- Conducting EPI review meetings at district level on a monthly basis (with all PHCs in the district), quarterly review meeting at governorate (DoH) level (involving all districts in the DoH) and bi-annually National Review meeting (involving all governorates) to follow up on performance.
- Conduct EPI desk review for situation analysis at district level, prioritizing districts for immediate action, based on WHO prioritization process for microplanning, design tailored solution for each priority district and develop sound and realistic districts microplans
- Generate population demand to vaccination through a comprehensive communication and social mobilization strategy

3. Improving immunization data quality;

- Conduct external data quality assessment using WHO data quality assessment protocol
- Develop and implement data quality improvement plan

4. Vaccine procurement and vaccine stock out:

- Reviewing vaccine procurement and management system and ensuring accurate vaccine forecasting and procurement system to avoid stock out.
- Conducting assessment of effective vaccine management system and developing EVM improvement plan