

Comprehensive Newborn Care Package (CNCP) implementation in Kushtia district: learning to support National Newborn Health Program (NNHP) scale-up

Brief 5: Newborn Commodities in Bangladesh Health System

Background

Bangladesh has achieved remarkable reductions in maternal and child mortality in recent decades. Reductions in neonatal mortality have not kept same pace, now 61% of deaths among children under 5 occur during neonatal period.¹ The Government of Bangladesh is committed to achieve the target of neonatal mortality rate of 12 per 1000 live births by 2030.¹

In 2010, the UN Secretary-General’s report, Global Strategy for Women’s and Children’s Health, highlighted the burden of women and children lacking access to life-saving commodities. The report called on the global community to work jointly to save 16 million lives by 2015 through increased access to, and appropriate use of, essential medicines, medical devices, and health supplies. Increased access to these essential commodities could effectively address the main avoidable causes of death during pregnancy, childbirth, and childhood.² It defined life-saving commodities as those medicines, medical devices, and health supplies that effectively address the leading avoidable causes of death during pregnancy, childbirth, and childhood and that, if more widely accessed and properly used, could significantly reduce preventable deaths among women and children.

Bangladesh government adopted evidence-based, newborn death-cause-specific new newborn interventions for national scale-up. In July 2013, the Government of Bangladesh declared its commitment to ending preventable child deaths in the declaration on ‘Ending Preventable Child Deaths by 2035: Bangladesh Call to Action’. This declaration categorically included essential newborn care, new evidence-based interventions for sick newborns and specialized newborn care at district and sub-district level as the strategy to reduce newborn mortality. Some of the newborn health interventions are linked to availability of commodities, such as, 7.1% chlorhexidine. The government is committed to reach the coverage of 7.1% Chlorhexidine application to newborn umbilical cord at 90% by 2020.³



In early 2015, Ministry of Health and Family Welfare (MOHFW) demonstrated Comprehensive Newborn Care Package (CNCP) in Kushtia district, in a typical public health setting, with technical and catalytic support from Save the Children’s Saving Newborn Lives program (SNL). CNCP included demonstration of making the essential commodities available through the public health system. Based on Kushtia experience, in 4th Health Population Nutrition Sector Program (HPNSP), Bangladesh Government incorporated the National Newborn Health Program (NNHP) to implement high impact newborn health services nationwide.⁴ The high impact newborn services are directly linked to some essential commodities that demand logistic management at different levels. Newborn logistic management through the existing system is challenging to combat with newborn program implementation. The challenges are in diverse nature and some of which able to combat by local levels and some needs national consensus for linking with newborn health program implementation. CNCP implementation in Kushtia identified and possible solutions were addressed through strengthening logistic management system as a whole. The brief highlighted the lesson learnt from Kushtia implementation which will provide overview to district and national level managers during future newborn health program implementation at scale.

Newborn logistics management in Bangladesh

Within MOHFW, the procurement, storage and distribution of newborn logistics is managed independently by the Central Medical Store Depot (CMSD) of Directorate General Health Services (DGHS) and Central Warehouse (CWH) of Directorate General Family Planning (DGFP). However, the structured mechanism of procurement and distribution of newborn logistics has not yet been established needed for ensuring uninterrupted supply of newborn commodities at the service delivery points. Unlike logistic management system of Expanded Program on Immunization (EPI), other newborn commodities often face stock-out problems. The following newborn consumable and non-consumable commodities are pre-requisite to implement high impact new newborn interventions at each level of the public health pyramid.

Pilot Implementation

As a part of Comprehensive Newborn Care Package (CNCP) implementation in Kushtia district, Saving Newborn Lives (SNL) program of Save the Children provided necessary technical and catalytic support to DGHS and DGFP to strengthen newborn logistics management at each level. As new intervention, newborn commodities were not in the procurement list of DGHS and DGFP. SNL advocated for incorporating newborn commodities in drug list and streamlining the supply of DGHS & DGFP. Guideline for newborn logistics distribution and use were developed for Kushtia and endorsed by the DGHS and DGFP. Initially, as a part of implementing the CNCP, SNL

program of Save the children procured the selected newborn commodities and supplies the project through existing government channel following national guideline. District Reserve Store (DRS) of DGHS and Regional Warehouse (RWH) of DGFP were involved to distribute the newborn logistics. As per directives, specific amount of CHX, Amoxicillin, Gentamicin, Insulin syringe were distributed to service providers from District and Upazila store following push method with an instruction to keep always 3 months stock based on use. All service providers were supposed to replenishment from Upazila store to keep adequate stock always in hand. Advocacy and technical support also provided to DGFP to include CHX in monthly reporting form (MIS-1 & 2).



Fig: Newborn commodities

As there is no structured management mechanism of non-consumable newborn commodities; Save the Children ensured supply and maintenance of baby weighing scale, thermometer, ARI timer and resuscitation device to respective service delivery points.

Under CNCP implementation, SNL has also provided technical support to DGHS & DGFP to develop capacity of all district and upazila level storekeepers and pharmacists on newborn logistic management. Reporting system on monthly consumption has been developed. Storekeeper were oriented to provide monthly stock status to respective managers. During monthly meeting storekeepers shared logistic issues including stock status, short expired medicine, and demand with service providers.

Consumable Commodities	Non-consumable Commodities
7.1 % Chlorhexidine dropper bottle (10 ml)	Baby weighing scale
Inj Gentamycin 80 mg/2ml	Thermometer
Insulin syringe (100 IU)	ARI timer
Amoxicillin Pediatric drop (15 ml)	Neonatal Resuscitation device (HBB Kit)

BRIEF

Newborn commodities availability as per national guideline

Commodity	Distribution and use Guideline	Service provider
7.1% Chlorhexidine	<ul style="list-style-type: none"> - District Hospital and Upazila Health Complex and Mother & Child Welfare Center (MCWC) <ul style="list-style-type: none"> □ Delivery room, Operation theatre □ Outdoor: Pharmacy (distribution during ANC visit after 32 weeks) 	SSN ANC Service provider FWV of MCWC
	<ul style="list-style-type: none"> - Union Health and Family Welfare Center (UH&FWC) where ANC and delivery services available 	FWV
	<ul style="list-style-type: none"> - Community clinic: distribution during ANC visit after 32 weeks 	CHCP
	<ul style="list-style-type: none"> - Community Skilled Birth Attendant (CSBA): Distribution during ANC visit after 32 weeks and application during home delivery 	FWA Female HA
	<ul style="list-style-type: none"> - Home visit: Distribution during home visit after 32 weeks of gestation if CHX not received from source 	Family Welfare Assistant (FWA)
Inj Gentamycin	<ul style="list-style-type: none"> - Union Health and Family Welfare Center (UH&FWC) where sick and young infant (0-59 days) services available 	Sub Assistant Community Medical Officer (SACMO) of DGHS and DGFP
Amoxicillin Pediatric drop		
Insulin syringe		
Baby weighing scale	<ul style="list-style-type: none"> - At delivery room and operation theatre District Hospital and Upazila Health Complex and Mother & Child Welfare Center (MCWC) 	SSN and FWV
	<ul style="list-style-type: none"> - KMC corner - UH&FWC 	SSN SACMO
Thermometer	UH&FWC	SACMO
ARI timer	UH&FWC	SACMO
Neonatal Resuscitation device (HBB Kit)	<ul style="list-style-type: none"> - At delivery room and operation theatre District Hospital and Upazila Health Complex and Mother & Child Welfare Center (MCWC) 	SSN and FWV
	<ul style="list-style-type: none"> - Union Health and Family Welfare Center (UH&FWC) where delivery services available 	FWV
	<ul style="list-style-type: none"> - Community Skilled Birth Attendant (CSBA): for using during home delivery 	FWA Female HA

Some bottlenecks related to newborn logistics and supplies were identified as part of CNCP implementation which included:

- As there was no specific tracking mechanism in DGHS; it was not possible to know the present stock status at store and service delivery points.
- There is no structured system for replenish or maintenance of non-consumable commodities like resuscitation device, baby weighing scale, ARI timer, thermometer in LMIS of both DGHS and DGFP.
- Lack of fund and authority for local purchasing of newborn logistics through local level planning.



Photo 02: Delivery preparedness supply kit

Some logistics challenges as well as interim management according to service delivery point have been highlighted in the below table.

Table: Newborn logistics management at different level in Kushtia

Service Delivery Level	Challenges	Interim management
Community		
Household	CHX <ul style="list-style-type: none"> - not included in FWA and CSBA commodity list - not included in FWA monthly reporting form - No mechanism exist for distribution by FWA and CSBA 	<ul style="list-style-type: none"> - FWA collected from and reported to FWV - Advocacy and technical support to DGFP to include CHX in monthly reporting form (MIS-1 & 2) - Distributed to CSBA from upazila store as interim basis
	Resuscitation Device: <ul style="list-style-type: none"> - No replenishment mechanism for nonfunctional kits 	<ul style="list-style-type: none"> - No effective mechanism developed to address the issue
Community Clinic	CHX <ul style="list-style-type: none"> - not included in CHCP medicine list 	<ul style="list-style-type: none"> - Distributed to CHCP from upazila store as interim basis
Union		
UH&FWC	CHX <ul style="list-style-type: none"> - not included in Dietary and Drug Supply (DDS) Kits of DGFP Inj Gentamicin and Insulin syringe <ul style="list-style-type: none"> - not included in drug list of both DGHS & DGFP Amoxicillin Pediatric drop <ul style="list-style-type: none"> - included in DGFP drug list but not in DGHS 	<ul style="list-style-type: none"> - supplied to FWV considering UH&FWC as a service delivery and distribution point - Through Upazila store, Inj Gentamicin, Amoxicillin and Insulin Syringe supplied to SACMO - Successful advocacy and technical assistance for incorporating in drug list and

BRIEF

Service Delivery Level	Challenges	Interim management
UH&FWC	<ul style="list-style-type: none"> - no structured distribution mechanism exists in both DGHS and DGFP <p>ARI timer</p> <ul style="list-style-type: none"> - Not available to all SACMO - No replenishment mechanism for non-functional timer <p>Baby Weighing scale and Resuscitation Device:</p> <ul style="list-style-type: none"> - Frequent mechanical error - No mechanism to replace non-functional scale and resuscitation device from DGHS and DGFP 	<ul style="list-style-type: none"> - streamlining the supply system of DGHS & DGFP - Technical assistance and support provided to DGFP to collect ARI timer from IMCI program and distribute to all SACMO of DGHS and DGFP - No effective mechanism developed to address the issue - No effective mechanism developed to address the issue
Sub district		
UHC	<p>CHX</p> <ul style="list-style-type: none"> - Not systematically distributed to pregnant mother during ANC visit after 32 weeks from outdoor. - Frequent stock out from UHC - Date expired of products <p>Baby Weighing scale and Resuscitation Device :</p> <ul style="list-style-type: none"> - No replenishment mechanism for non-functional items 	<ul style="list-style-type: none"> - CHX distributed through medicine slip and instruction on use provided by service providers - Ensure adequate amount of CHX in Upazila store - Redistributed to shortly expired drug to other UHC and district hospital based on need. - No effective mechanism developed to address the issue
District		
General Hospital	<p>Baby Weighing scale and Resuscitation device:</p> <ul style="list-style-type: none"> - No replenishment mechanism for non-functional items 	<ul style="list-style-type: none"> - No effective mechanism developed to address the issue
DRS and RWH	<p>DRS</p> <ul style="list-style-type: none"> - Distribution based on supply from Central Medical Store Depot (CMSD) instead of demand based 	<p>No effective mechanism developed to address the issue</p>

Lessons and recommendations

- Effective forecasting and continuous supply of newborn commodities have to be ensured at appropriate level as per national guideline
- Structured tracking and monitoring mechanism for newborn logistic need to be established
- Mechanism of procurement, distribution and maintenance of non-consumable commodities have to be functionalized
- Local procurement of newborn commodities as per need have to be developed

References:

1. The UN Inter-agency Group for Child Mortality Estimation, 2015
2. UN Secretary-General Ban Ki-moon. Global Strategy for Women's and Children's Health. 2010. http://www.who.int/pmnch/topics/maternal/20100914_gswch_en.pdf. Accessed April 21, 2015.
3. Government of Bangladesh, A Promise Renewed – Ending Preventable Child Deaths by 2035: Bangladesh Call for Action, 2013.
4. Ministry of Health and Family Welfare, Government of Bangladesh, Health, Population and Nutrition Sector Program 2017-2022.

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