ANNEXURE-1

CHECK LIST FOR SUPPORTIVE SUPERVISION OF COLD CHAIN POINTS

State : _____ District : _____ Date : ___ /___ /_____

Cold Chain Facility : _____ Level : State / Regional / Divisional / District / PHC

Name of Supervisor : _____ Department : _____

Designation : _____

Available structure and equipment :

1.	Separate designated room for placing cold chain equipment available at facility, as per guidelines.	Yes ☐	No ☐
1.1	If yes - All available electrical equipment are placed in that room	Yes ☐	No ☐
1.2	- Room space is adequate enough for placing available equipment	Yes ☐	No ☐
1.3	- Room is cool and adequately ventilated	Yes ☐	No ☐
1.4	- Physical condition of floor, roof and walls is appropriate	Yes ☐	No ☐
1.5	- There are no empty boxes, garbage or other un-required items in the room	Yes ☐	No ☐
2.1	Proper covered electricity fitting in the room for cold chain equipment	Yes ☐	No ☐
2.2	All functional electrical equipment properly connected with ISI mark plug sockets	Yes ☐	No ☐
2.3	Proper 'Earthing' done for equipment	Yes ☐	No ☐
3.1	Dedicated generator set available for cold chain room	Yes ☐	No ☐
3.2	Adequate fuel available for running of generator set (at the time of visit)	Yes ☐	No ☐
3.3	Generator log book available and adequately maintained	Yes ☐	No ☐
4.	Separate designated person available for maintenance of cold chain equipment	Yes ☐	No ☐

5. Mention numbers of available cold chain equipment at the facility

	WIC	WIF	ILR		DF		Cold box		Vaccine Carrier
			CFC	CFC Free	CFC	CFC Free	5 L	20 L	
Functional									
Non functional									
Total									

Placement of equipment :

All **Available and Functional** electrical cold chain equipment (ILRs' and DFs') are -

6.1	- Correctly placed on wooden or plastic blocks	Yes ☐	No ☐
6.2	- Placed at least 20 cm away from walls and surrounding equipment	Yes ☐	No ☐
6.3	- Placed away from direct exposure to sunlight, moisture and rain	Yes ☐	No ☐
6.4	- Connected through functional Voltage Stabilizers	Yes ☐	No ☐

Temperature Log Books :

7.1	Temperature Log Books available for every functional electrical equipment (ILR and	Yes ☐	No ☐

	DF)		
7.2	Twice daily monitoring of temperature recorded in respective log books	Yes ☐	No ☐
7.3	Record of power failures/cuts recorded in log books	Yes ☐	No ☐
7.4	Record of Defrosting ILRs' and DFs' mentioned in log books	Yes ☐	No ☐
7.5	Log books periodically checked by Facility in-charge (see evidence of signatures)	Yes ☐	No ☐

Comments if any :

Ice Lined Refrigerators (ILR) :

8.1	Functional thermometer placed inside every functional ILR	Yes ☐	No ☐
8.2	Cabinet Temperature of all working ILRs' between +2 to +8°C	Yes ☐	No ☐
8.3	No frost OR frost less than 6mm on inside walls of every working ILR	Yes ☐	No ☐
8.4	Vaccine baskets available inside all functional ILRs in which vaccines are stored	Yes ☐	No ☐
8.5	All vaccine vials correctly arranged inside labeled cartons (with expiry date, batch no.)	Yes ☐	No ☐
8.6	No T-series or Hepatitis B vaccine vials placed in the bottom of any ILR/basket	Yes ☐	No ☐
8.7	No items other than vaccines placed inside any ILR	Yes ☐	No ☐
8.8	All stored vaccines in ILR within expiry dates (check a few vials)	Yes ☐	No ☐
8.9	All vaccine vials in ILR within usable stage of VVM (check a few vials)	Yes ☐	No ☐
8.10	All stored vaccine vials in ILR with appropriate readable labels (check a few vials)	Yes ☐	No ☐
8.11	No reconstituted BCG & Measles vials stored inside any ILR	Yes ☐	No ☐
8.12	Diluents placed in ILR, at least 24 hours before distribution (observe and/or consult)	Yes ☐	No ☐

Deep Freezers (DF) :

9.1	Functional thermometer placed inside every working DF	Yes ☐	No ☐
9.2	Cabinet Temperature of all working DFs' between -15 to -18°C	Yes ☐	No ☐
9.3	No frost OR frost less than 5mm on inside walls of every working DF	Yes ☐	No ☐
9.4	Correct placement of ice packs placed for freezing inside DF (in crisscross manner)	Yes ☐	No ☐
9.5	No RI vaccines stored inside DFs' (including reconstituted vaccines) at PHC level	Yes ☐	No ☐
9.6	Only OPV vials stored inside DF at District level cold chain and above	Yes ☐	No ☐

Vaccine stock and records :

10.	Vaccine Stock Register (with mention of indents and distribution) maintained	Yes ☐	No ☐
11.	Session wise Vaccine Distribution Register maintained and updated (at PHC level)	Yes ☐	No ☐
12.	All sessions conducted in last one calendar month issued at least one vial of each antigen	Yes ☐	No ☐

13. Count and mention available stock of all vaccines and diluents (in vials) in following table

		Actual count	Stock Record			Actual count	Stock record
a.	BCG vials			g.	DT vials		
b.	DPT vials			h.	JE vials		
c.	tOPV vials			i.	BCG diluent		
d.	Measles vials			j.	Measles diluent		
e.	Hepatitis B vials			k.	JE diluent		
f.	TT vials						

14.	Actual physical count of vaccine stock matches with stock register	Yes ☐	No ☐
14	Records for ADS and Reconstitution syringes available and updated	Yes ☐	No ☐
15.	Contingency plan for vaccine storage in emergency conditions available at facility	Yes ☐	No ☐

Comments if any :

Signature of Supervisor

Micro Plan of Immunisation Session

NAME OF THE SC BLOCK: DIST.-BIRBHUM

Sl.No.	NAME OF THE SC	Name of Village	Distance from SC (in K.M)	Distance from Cold Point	A.N.M. Name	Name of the AWW	Name of the ASHA/ Social Mobiliser	Vaccine Delivery Person	Vaccination		VHND session held Y/N	Population	Annual Target		Monthly Target		Beneficiaries per session						Vaccine Vials per session							Injection per session	No. of Sessions	Syringes per session		
									Day	Site			Pregnant Woman	Infants	Pregnant Woman	Infants	TT	BCG	DPT	OPV	HEP B	Measles	TT	BCG	DPT	OPV	HEP B	Measles	Vitamin A			0.1 ml ADS (BCG)	0.5 ml ADS	5 ml Reconstitution

Google

Gmail

More

COMPOSE

Inbox
Important
Sent Mail
Drafts
Spam (1)
Personal
Travel
More

Micro Plan

Inbox x

Shibani Goswami Dear Dr. Thakur, Please see the attached file on RI Micro Planning format and... 4:27 PM (18 hours ago)

Suresh Thakur sureshtsj@gmail.com 7:47 PM (14 hours ago)
to WBSISC, me

Dear Madam,

Thanks for sending the format. I have modified it slightly to make it similar to the RIMP template, a copy of which is also being attached.

Formulae have been given so that after entering the annual and monthly targets, the other figures shall be generated. In columns W to AC, the next higher figure may be generated (round up in number format) - this could not be done as I am working with an earlier version.

The last column on "remarks" is not necessary in the microplan.

I hope the editing is useful.

Regards.

2 attachments — Download all attachments

RIMP Template Final.xls
35K View Open as a Google spreadsheet Download

Government of West Bengal
Department of Health & Family Welfare
SwasthyaBhavan, GN-29, Sector-V,
Salt Lake, Kolkata-91.

Memo No. H/SFWB/2IN-2-2012(Part-II)/464(21) Dated. 1/4/2013.

From: The Commissioner
Department of Health & Family Welfare
Govt. of West Bengal.

To,

The
All CMOH,
CMHO KMC,
DFWB, Kolkata.

Sub : Open vial policy in RI for DPT, TT, Hepatitis B, Oral Polio and Liquid Pentavalent vaccine when available.

As per GOI guideline dated 15th February,2013 memo No T-13011/4/2012-CC&V,Dy Comm. Imm.GOI, for optimal utilization of DPT,TT,Hepatitis B,Polio and Liquid Pentavalent (when introduced) Open Vial Policy is to be introduced with immediate effect.

All are requested to comply with this policy and take immediate steps to implement the same. There will be no Open Vial Policy for BCG, MEASLES and JE vaccines which are to be discarded after 4 hours for BCG & Measles and 2 hours for JE vaccine.

Commissioner(FW)
Department of Health & Family Welfare
Govt. of West Bengal.

Memo No. H/SFWB/2IN-2-2012(Part-II)/464(21)/1(4) Dated 01/4/2013 ~~14/04/2013~~.

Copy for necessary action to:

1. SFWO & ADDL.DHS Department of Health & Family Welfare
2. ADHE(EPI)
3. NPSP, India-East
4. WBSISC.

Commissioner(FW)
Department of Health & Family Welfare
Govt. of West Bengal.

টিকাকরণ কর্মসূচীতে ওপেন ভায়াল (খোলাশিশি) ব্যবহারের নির্দেশাবলী :

১) এই 'ওপেন ভায়াল' পলিসি শুধুমাত্র ডিপিটি, টিটি, হেপাটাইটিস বি, ওরাল পোলিও ভ্যাকসিন (ওপিভি) এবং তরল পেন্টাভ্যালেন্ট (যেখানে প্রযোজ্য) টিকাগুলির বহুমাত্রা ভায়ালের (মাল্টিডোজ ভায়াল) ক্ষেত্রেই প্রযোজ্য। **এই পলিসি হাম (মিজলস্), বিসিজি, জাপানীজ এনকেফেলাইটিস (জে ই) টিকাগুলির ক্ষেত্রে প্রযোজ্য নয়।**

'ওপেন ভায়াল পলিসি' ব্যবহারের পূর্বে নিম্নলিখিত শর্তাবলী পূরণ অবশ্যই হওয়া প্রয়োজন :

২) শুধুমাত্র ডিপিটি, টিটি, হেপাটাইটিস বি, ওরাল পোলিও ভ্যাকসিন (ওপিভি) এবং তরল পেন্টাভ্যালেন্ট (ডিপিটি + হেপবি + হিব) (যেখানে প্রযোজ্য) ভ্যাকসিনগুলিই নির্দিষ্ট অথবা দূরবর্তী টিকাকরণ অধিবেশনস্থানে (আউটরিচ সেশন) খোলার পরেও একাধিকবার চারসপ্তাহ পর্য্যন্ত ব্যবহার করা যাবে, যদি নিম্নোক্ত শর্তগুলি পূরণ করা হয় :

ক) মেয়াদ শেষের তারিখ পেরিয়ে যায়নি।

খ) টিকাগুলি যথাযথভাবে হিমশৃঙ্খলের নির্দেশিত ব্যবস্থাপনার মাধ্যমে পরিবহন এবং কোল্ড চেইন স্টোরেজ পয়েন্টে (সংরক্ষণস্থানে) সংরক্ষণ করা হয়েছে।

গ) টিকার ভায়ালের উপরের রাবারের ঢাকনা জলে ডুবে যায়নি অথবা অন্য কোন প্রকারে সংক্রমিত হয়নি।

ঘ) টিকার ভায়াল থেকে টিকার সমস্ত মাত্রাগুলিই নির্বীজ পদ্ধতিতে বের করা হয়েছে (টানা হয়েছে)।

ঙ) ভ্যাকসিন ভায়াল মনিটর (ভি ভি এম) বাতিলযোগ্য অবস্থায় পৌঁছায়নি এমন।

৩) নিম্নোক্ত অবস্থাগুলির যদি একটি ঘটনাও ঘটে তাহলে সেই সমস্ত টিকার ভায়ালগুলি বর্জন করুন :

ক) মেয়াদ শেষের তারিখ পেরিয়ে গিয়েছে।

খ) ভিভিএম বাতিলযোগ্য অবস্থায় পৌঁছে গিয়েছে (ফ্রিজ ড্রায়েড টিকার ক্ষেত্রে, শুধুমাত্র পূণর্মিশ্রণের আগে) অথবা ভিভিএম ছাড়া টিকার ভায়াল অথবা ভিভিএম বিকৃত হয়ে গিয়েছে এমন।

গ) কোন লেবেল নেই অথবা আংশিক ছেঁড়া লেবেল অথবা লেবেলের লেখা সহজে পড়া যাচ্ছে না।

ঘ) কোন ভায়াল 'হয়ত দূষিত হয়ে গেছে' টিকা বের করার সময়।

ঙ) ওপেন ভায়ালগুলি জলে ডুবে আছে অথবা যে ভ্যাকসিন কেরিয়ার থেকে ভায়াল বার করা হয়েছে সেটাতে জল আছে।

চ) টিকার ভায়াল হিমায়িত হয়ে গিয়েছে অথবা তুষারকণা আছে (ফ্রকিউল)।

৪) কোন ভায়ালগুলি পরবর্তী অধিবেশনে ব্যবহার করা যাবে এবং কোন ভায়াল গুলি বাতিল করতে হবে সেই পার্থক্য বুঝতে স্বাস্থ্যকর্মীরা সক্ষম হবেন। প্রশিক্ষণ এবং তত্ত্বাবধানের উপাদানগুলিও এই নীতিগত পরিবর্তনের সাথে পাল্টানো প্রয়োজন।

হিমশৃঙ্খলের রক্ষণাবেক্ষণ এবং টিকার বন্টন ব্যবস্থা

৫) সমস্ত টিকা এবং ডাইলুয়েন্ট আই এল আরের +২°সেঃ থেকে +৮°সেঃ তাপমাত্রা বজায় রেখে সংরক্ষণ করুন এবং নিয়মিতভাবে দিনে দুবার তাপমাত্রা লক্ষ্য করে নথিভুক্ত করুন (মনিটর)।

৬) টিকা এবং তরলীকরণ পদার্থের প্রস্তুতকারকের নাম, ব্যাচ নম্বর এবং মেয়াদ শেষের তারিখ স্টক রেজিস্টারে লিখে রাখুন।

৭) টিকার সুষ্ঠুভাবে সরবরাহ এবং ব্যবহারের যথাযথ নথিভুক্তিকরণ এবং রিপোর্ট পেশ করার ব্যাপারে নিশ্চিত হউন।

৮) সমস্ত টিকার এবং ডাইলয়েন্টের স্টক আপটুডেট (সাম্প্রতিকরণ) রাখুন, অতিরিক্ত মজুত (ওভার স্টক) অথবা কম মজুত (আন্ডারস্টক) করবেন না।

৯) মাল্টিডোজ ভায়ালের ক্ষেত্রে যদি একটিমাত্র ডোজও বের করা হয়ে থাকে, সেক্ষেত্রে ভায়ালের উপরের রাবার ক্যাপটি সংক্রমিত হবার সম্ভাবনা থাকে। সুতরাং এই সমস্ত ভায়ালগুলি যাতে কখনই জলের ভিতর ডুবে না যায় (উদাহরনস্বরূপ বরফ গলে গেলে) সে ব্যাপারে সতর্ক থাকুন এবং রাবার ক্যাপটি পরিস্কার ও শুকনো রাখুন। নজর রাখুন : ভ্যাকসিন কেরিয়ারে শুধুমাত্র ঢাকনা টাইট করে লাগানো কণ্ডিশন্ড (শর্তপূরণ করা) বরফপ্যাকই যাতে থাকে রাখুন এবং যেখানে টিকার ভায়ালগুলি রাখা হবে সেখানে যাতে জল না জমে সে ব্যাপারে লক্ষ্য রাখুন। টিকার ভায়াল প্লাস্টিক জিপার ব্যাগেই বহন করা উচিত।

১০) 'ফেরত, আংশিক ব্যবহৃত' ভায়ালগুলি আলাদা বাক্সে রাখুন এবং সেই অনুসারে লেবেল করে রাখুন।

১১) 'আগে মেয়াদ শেষের তারিখ' এমন টিকাগুলিই আগে ব্যবহার করা হবে (ই ই এফ ও) - এই পদ্ধতি অনুযায়ী যাতে টিকা সরবরাহ করা হয় (ইসু) সে ব্যাপারে নিশ্চিত থাকুন। যদি টিকার ভায়ালগুলির মেয়াদ শেষের তারিখ একই থাকে, আংশিক ব্যবহৃত টিকার ভায়ালগুলি পুনরায় সরবরাহ করুন (রি-ইসু)। ভায়ালের লেবেলের লেখা অনুযায়ী যে ভায়ালটি আগে খোলা হয়েছে সেটিই প্রথমে সরবরাহ করুন (ইসু)।

১২) বিদ্যুৎ সরবরাহে হঠাৎ বিঘ্ন ঘটা অথবা যন্ত্রপাতি হঠাৎ বিকল হয়ে যাওয়া ইত্যাদি আকস্মিক ঘটনার তাৎক্ষনিক সমাধানের পরিকল্পনা যথাযোগ্য স্থানে টাঙিয়ে রাখুন।

অধিবেশন স্থানে এবং অধিবেশন চলাকালীন

১৩) ভ্যাকসিন ভায়ালে দেখা যাচ্ছে - এমন সংক্রমন আছে কিনা পর্যবেক্ষণ করুন এবং বাতিল করুন (যেমন বাইরে থেকে টিকার কোন পরিবর্তন হয়েছে কিনা অথবা ভাস্যমান কোন কণা আছে কিনা) অথবা অখণ্ডতায় কোন চিড় ধরেছে কিনা (যেমন ফাটল, ফুটো দিয়ে বেরুচ্ছে এমন)।

১৪) সমস্ত টিকার ভায়ালগুলি প্রথম ব্যবহারের সময়ই খোলার তারিখ ও সময় লিখে রাখুন।

১৫) প্রত্যেকটি ভ্যাকসিন ভায়াল ও ডাইলুয়েন্ট এর প্রস্তুতকারকের নাম, ব্যাচ নাম্বার এবং মেয়াদ শেষের তারিখ ট্যালিশিটে লিখে রাখুন।

১৬) সর্বদা নির্বীজ (স্টেরাইল নিড্ল) সূঁচ দ্বারাই মাল্টিভোজ ভায়ালের রাবার ক্যাপ ফুটো করে টিকা টানুন। কেবলমাত্র ওরাল পোলিও টিকা যেটা ২ ফোঁটা মুখে খাওয়ানো হয়, প্রত্যেকবার ব্যবহারের পর ঢাকনা লাগিয়ে রাখা দরকার।

টিকাকরণ অধিবেশন শেষ হবার পর

১৭) অধিবেশন শেষ হবার সাথে সাথেই যাতে টিকার ভায়ালগুলি ভ্যাকসিন কেরিয়ারে করে অধিবেশন স্থান থেকে কোল্ড চেইন পয়েন্টে বিকল্প টিকা সরবরাহ ব্যবস্থার মাধ্যমে (অল্টারনেট ভ্যাকসিন ডেলিভারী) বিপরীতমুখী হিমশৃঙ্খলের দ্বারা (রিভার্স কোল্ড চেইন) ফেরত আসে সেই ব্যাপারটা নিশ্চিত করুন।

১৮) কোন অবস্থাতেই ভ্যাকসিন কেরিয়ার / টিকাগুলি বাইরে রাখবেন না, এই রকম কোন ঘটনা ঘটে থাকলে সেই সমস্ত টিকাগুলি বাতিল করুন এবং পরবর্তী অধিবেশনে ব্যবহার করবেন না।

১৯) নির্দিষ্ট কোল্ড চেইন পয়েন্ট ছাড়া অন্য কোথাও টিকা সংরক্ষণ অনুমোদিত নয়। কোনও টিকা এ এন এম/এল এইচ ভি অথবা অন্য কোন স্বাস্থ্যকর্মী / আশার বাড়িতে সংরক্ষণ করা উচিত নয়।

ওপেন ভায়াল পলিসি অনুসরণ করার ব্যাপারে বিশেষ সতর্কীকরণ :

২০) এই পলিসি প্রযোজ্য নয় খোলা পুনর্মিশ্রিত টিকাগুলির ক্ষেত্রে যেমন হাম, বিসিজি এবং জেই, যে টিকাগুলি নিম্নোক্ত নির্দেশাবলী অনুসরণ করেই ব্যবহার করা উচিত এবং ব্যবহারের পরে সঙ্গে সঙ্গেই বাতিল করতে হবে :

ক) পুণর্মিশ্রনের আগেই টিকাটি মেয়াদ শেষের তারিখের মধ্যে আছে কিনা দেখুন এবং ভি ভি এম বাতিল যোগ্য অবস্থায় পৌঁছায়নি সেটা দেখুন। শুধুমাত্র ঐ টিকার ব্যাচের সাথে প্রস্তুতকারক যে ডাইলুয়েন্ট সরবরাহ করেছেন **সেটা দিয়েই টিকাটি পুণর্মিশ্রন করুন**।

খ) অধিবেশনের শুরুতেই পুণর্মিশ্রনের তারিখ ও সময় ভায়ালের লেবেলে লিখে রাখুন।

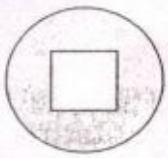
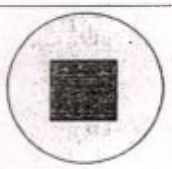
গ) পুণর্মিশ্রিত ভায়ালগুলি শুধুমাত্র একটি অধিবেশনেই ব্যবহার করা হবে, এমনকি কাছেই যদি অন্য একটি টিকাকরন অধিবেশন থাকে - তাহলেও এই পুর্ণমিশ্রিত ভায়াল একটি অধিবেশন থেকে অন্য অধিবেশনে নিয়ে গিয়ে ব্যবহার করা যাবে না।

ঘ) বিসিজি এবং হাম (মিজলস্) - ভায়ালগুলি পুর্ণমিশ্রনের **৪ ঘন্টার** মধ্যেই অথবা অধিবেশনের শেষে যেটি আগে হবে, বাতিল করতে হবে।

ঙ) জেই টিকার ভায়াল পুর্ণমিশ্রনের **২ ঘন্টা** পরে অথবা অধিবেশনের শেষে যেটা আগে হবে, বাতিল করতে হবে।

২১) সমস্ত টিকাই ভিভি এম লাগানো অবস্থায় সরবরাহ করা হয়। অনুগ্রহ করে লক্ষ্য করুন ভিভি এম এর কেবলমাত্র তিনটি অবস্থা হয়।

যথা - (ক) ব্যবহারযোগ্য অবস্থা (খ) শেষ অবস্থা (ব্যবহার অযোগ্য) (গ) শেষ অবস্থা পেরিয়ে (ব্যবহার অযোগ্য)

শুরুর অবস্থা		চৌকো অংশ বৃত্ত অপেক্ষা হাল্কা থাকে। যদি মেয়াদ শেষের তারিখ না পেরোয় টিকা ব্যবহার করুন।
শেষ অবস্থা		চৌকো অংশের রঙ বৃত্তের রঙের সাথে মিলে গেছে। টিকা ব্যবহার করবেন না।
শেষ অবস্থা পেরিয়ে		চৌকো অংশের রঙ বৃত্তের রঙ অপেক্ষা গাঢ়। টিকা ব্যবহার করবেন না।

Government of West Bengal

State Family Welfare Bureau
Swasthya Bhawan, "A"-Wing, 3rd Floor, GN - 29
Sector - V, Salt Lake City, Kolkata - 700091.

No. H/SFWB/998(19) Dated, Kolkata...04/09/..2012.

To
The CMOH, All districts
The DFWO, Kolkata

Sub: Revised Guideline for implementing Universal Immunization Programme with effect from 1st Aug 2012.

As per revised guideline of GoI Memo No. T13011 /01/2012- CC & V dated 25th May 2012 for implementing Universal Immunization Programme; the financial norms of selected activities have been revised. State has already received fund according to revised financial norms through State PIP 2012-13. Districts are requested to follow the revised guideline and financial norms for implementing UIP.

The details revised norms are enclosed for your reference.

4/9/12
SFWO & Addl. DHS
Govt. of West Bengal.

No. H/SFWB/998/1(6) Dated, Kolkata...04/09/..2012.

Copy forwarded for information and necessary action to:

1. The DHS & Ex-Officio Secretary, Govt. of West Bengal.
2. The Commissioner (FW) and Secretary, Govt. of West Bengal.
3. The Jt. Secretary (FW), Govt. of West Bengal.
4. The Dy.DHS (MCH), Govt. of West Bengal.
5. The ADHS (EPI), Govt. of West Bengal
6. The Dy. Secretary IT ,Dept. of H&FW Govt. of West Bengal for web posting

4/9/12
SFWO & Addl. DHS
Govt. of West Bengal.

Revised Guideline and Norms: Universal Immunization Programme

Mobility Support for supervision at District Level/Block Level.

Guideline:

Supportive supervision at block level: Each block will get @Rs.800/month as mobility support for conducting supervisory visits at Sub Centers. Monitoring checklist for SRI should be filled up for each visit.

Supportive supervision at District level: All district level officers and Sub divisional ACMOHs will visit 2 low performing Sub Centers in each block/month and all cold chain points of the district. Cost for Mobility support will be allotted. Monitoring checklist for SRI should be filled up for each visit.

District wise allotment of Fund for supportive supervision:

DISTRICT	BLOCK	District	Total Amt. (Rs. in Lakhs)
	Fund Approved (Rs. in Lakhs)	Fund Approved (Rs. in Lakhs)	
CBR	1.15	0.57	1.72
BANKURA	2.11	0.87	2.98
BIR	1.82	0.79	2.61
BWN	2.97	1.4	4.37
DARJ	1.15	0.53	1.68
DD	0.77	0.26	1.03
HOWRAH	1.34	0.78	2.12
HUGHLY	1.73	0.97	2.70
JAL	1.25	0.71	1.96
KOL	0	0.20	0.20
MLD	1.44	0.53	1.97
MED-E	2.4	1.03	3.43
MED-W	2.78	1.3	4.08
MSD	2.49	0.95	3.44
N24	2.11	1.02	3.13
NADIA	1.63	0.79	2.42
PUR	1.92	0.73	2.65
S24	2.78	1.03	3.81
UD	0.86	0.33	1.19
WB-TOTAL	32.71	14.79	47.50

Quarterly Review Meetings:

Review Meeting at District Level:
Guideline: Tea and Lunch -@ Rs.100/participant, Block MO, ICDS CDPO and other stakeholders.

Review Meeting at Block Level:
Guideline: @Rs.50/participant as honorarium for ASHAs travel and Rs.25 /person at the disposal of MO/IC for meeting expenses (refreshments, stationery and misc. expenses)

Hiring of ANM/GNM:

Guideline: Fund for hiring of ANM/GNM for conducting session in un-served and underserved areas in both rural and urban areas @Rs.450/session.

Mobilization Cost:
Guideline: Mobilization of children through frontline workers including ASHA @ Rs.150/session

Alternative vaccine delivery (AVD)

Alternative vaccine delivery in hard to reach areas
Guideline: session site more than 30 km from cold chain points, river crossing, hilly areas. @Rs. 150/ session

Alternative vaccine delivery in other areas
Guideline: @ Rs.75/session

Micro Planning
To develop micro plans at sub-centre /urban immunization unit
Guideline: For Rural and Urban immunization unit @Rs.100/ Unit

Consolidations of micro plans at block and district level
Guideline: block/ULB level @ Rs.1500/block or ULB and @ Rs.2000/ District

POL for vaccine delivery
From State to district and from district to PHC/CHCs.

Guideline: From State HQ to district HQ @Rs.400/km/year
From District to Block/ULB: Rs.1000/block or ULB/Year
From Block to other Cold Chain points: Rs.500/CCP/year

Consumables for computer including provision for internet.
Guideline: @Rs.400/month/district

Procurement of Red/Black plastic bags for waste segregation at immunization sessions
Guideline: @Rs.3/Bag/session

Procurement of Hub Cutter/ Bleach/ Hypochlorite solution/ Twin bucket
Guideline : @Rs.1200 / block per year

Computer Assistants support for District level
Honorarium to DEO at district level: @Rs.13800/- per month/DEO

ASHA incentive

Guideline: For full immunization /child (up to one year of age) Rs.100/child for full immunization in 1st year of age.

Rs.50 /child for ensuring complete immunization up to 2nd year of age of child (all vaccination received between 1st and 2nd year of age after completing full immunization at 1 year of age

Government of West Bengal
Directorate of Health Services
State Family Welfare Bureau
Swasthya Bhawan, A-wing, 3rd floor
GN- 29, Sector – V, Salt Lake City
Kolkata- 700091

Memo No. H/SFWB/ 713 (18) date: 29/06/2012

To
1-18. The Chief Medical Officer of Health (All districts)

Sub: Reporting of performance under RCH by ULBs & JSY

This is for your information that about 30%-35% population of an ULB is covered by ULB under HHW scheme thus it is not expected that Health Officer of ULB will be able to report for the total population of that ULB. Besides there is a problem faced by Health Officer of ULB as to in which format the performance report will be submitted by them to the respective district health authority.

Now as resolved in a meeting with SUDA on 28/06/2012, it has been decided that

(1) The sub centre run by ULB will report its performance (only the performance of the clinic which has actually done at the clinic throughout the month and not the performance of their field work) in the sub centre reporting format as existing for State run sub centre. The compiled report of the entire sub centre along with the performance report of the Maternity Home if available will be submitted by the Health Officer to the respective district health authority monthly within first week of the next month in PHC reporting format.

(2) The JSY card that has to use by ULB was designed by Department of Health & Family Welfare and shared with SUDA. It has brought to the notice of the undersigned that payment after institutional delivery is not been done by some of the health institutions as the card is to some extent different from the card used by the sub centre. This is highly irregular. All the public health institutions may kindly be informed that the card used by ULB is valid and payment can be made based on the card.

(3) In some of the districts, by violating government order, district health authority tried to provide fund for payment to JSY beneficiaries to ULBs from the available fund lying with them. The policy of the government is-- " State will provide fund to SUDA who in turn will distribute the same to ULBs. ULB will submit the performance report and utilization of fund to SUDA who after compilation will submit to State."

As the health wing of ULB is a supporting partner of the department of Health and Family Welfare in respect of providing services to the community it is expected that district health authority will provide necessary logistic support like Vaccine, Syringes, FP materials etc. Please share the Memo with all concerned.

29/6/12

Additional Director of Health Services (FW) &
State Family Welfare Officer

Contd: Overleaf

Government of West Bengal
Directorate of Health Services (FW Br)
3rd Floor, "A" Wing, Swasthya Bhawan,
GN-29, Sector V, Salt Lake, Kolkata-700091.

Memo No. H/SFWB/ 115 (19) Dated 3rd Feb, 2012

To

1.-18. The Chief Medical Officer of Health,
All Districts.

19. The D.F.W.O., Kolkata

Sub: Guidelines for effective Cold Chain, Vaccines and Logistics management.

Sir/Madam,

Enclosed please find herewith the guidelines agreed upon during the EVM debriefing meeting on 9th November 2011 subsequent to the Effective Vaccine Management Assessment undertaken in the State in September 2011. You are requested to share the guidelines with all concerned and ensure implementation of the guidelines at the earliest to ensure the highest standards of Cold Chain and Vaccine-Logistics management.

Enclo: As stated above.

3/2/12

Addl. DHS (FW) & SFWO,
West Bengal.

Memo No. H/SFWB/ 115 (19)/1(8) Dated 3rd Feb, 2012

Copy forwarded for kind information to:-

1. The Principal Secretary, Dept. of H & FW, GoWB.
2. The Director of Health Services, GoWB.
3. The Director, Medical Education, GoWB.
4. The Mission Director (NRHM), Secretary (H) & Commissioner (FW), GoWB.
5. The Chief Municipal Health Officer, Kolkata Municipal Corporation.
6. The Regional Team Leader, NPSP-India (East), BF-124, Salt Lake, Kolkata-64.
7. The Health & HIV Specialist, UNICEF, Kolkata.
8. The Senior Technical Adviser, WBSISC and Head, Department of Community Medicine, Medical College, Kolkata.

3/2/12

Addl. DHS (FW) & SFWO,
West Bengal.

Guidelines for implementation of Recommendations of Effective Vaccine Management

1. Temperature monitoring
    - Temperature records of all electrical Cold Chain Equipment at District Vaccine Store are to be reviewed at least once weekly by district officials. Graphic temperature recorders of Walk-in-Cooler (WIC) are to be changed once a week in the presence of DMCHO / Dy. CMOH III.
    - Temperature records are to be maintained twice daily for 7 days a week including weekends and holidays at all levels. District may take appropriate action to ensure that this is followed at all levels.
    - All Cold Chain Equipment (CCE) should have separate temperature records. Temperature records must be verified by Officials at least once a week.
    - BPHN/PHN shall be accountable for temperature monitoring, stock registers and routine maintenance of Cold Chain Equipment at Block and sub-Block level.
    - Quality Assurance of freeze sensitive vaccines should be supported by documented shake test for every instance of suspected freeze damage at all Cold Chain points.

2. Storage of Vaccines should be strictly as per GoI guidelines at all Cold Chain (CC) points. Wherever baskets are not available, two rows of empty ice packs are to be kept at the bottom of ILR. All UIP Vaccines and diluents are to be kept in ILR vide this office Memo No. H/SFWB/21-03-2009/322(19) dated 10th May 2011.

3. The storage of NON-UIP supplies that needs storage in Cold Chain should be stored separately from UIP vaccines. At Jalpaiguri and Bardhaman, the storage of UIP/Non UIP supplies temporarily at common Walk-in-Coolers should be in orderly manner by earmarking and labeling the dedicated racks.

4. DMCHO should review the Cold Chain performance of the district and furnish the causes of sickness rate of Cold Chain Equipments to State on a monthly basis. Buffer stock of ILR/DF and non-electrical equipment should be kept at district stores. All the cold chain units and dry stock of North 24 Parganas and Paschim Medinipur District Vaccine Stores should be relocated preferably near DFWB office.

5. Supply of vaccines at health facilities should be planned and optimised to ensure coverage of birth doses at various levels, reduce vaccine wastage & prevent incidence of AEFI.
    - Facilities conducting 10 or more deliveries/day should administer 0-dose OPV, BCG and Hep-B birth dose vaccines daily at PP units/Indoor while those with less than this should administer it on 2-3 days/week. Lower burden units should be linked to local Health Sub-centres.
    - Partially used vaccines are to be discarded as per GoI norm at all RI sessions. However, for birth doses of Hep B and OPV in institutional deliveries, open vial policy is to be followed in accordance with the guidelines mentioned vide this office Memo No. H/SFWB/21-03-2009/866(19) dated 27th October 2011.
    - Unopened vials with unusable VVM or expired vials should be discarded with proper documentation and information to higher authorities.
    - Service delivery units should receive vaccines on indent basis as & when needed.
    - AVD should be provided with a copy of microplan on the basis of which vaccines have been indented.
    - AVD should return unused vials, logistics and immunisation waste to concerned Cold Chain point where staff must be present to receive and preserve Vaccines & Diluents in proper cold chain. Immunisation waste brought to CC points should be disinfected and disposed as per guidelines.

- Surplus stock of unopened vials of m-OPV for IPPI/SIA should be kept at district level not later than expiry date or usable VVM in standard Cold Chain.

6. Printing and dissemination of Standard Stock Registers, Distribution/Issue registers, Indent and supply forms, Temperature log books shall be done by SFWB. Orientation training on these standard recording formats should be organised for all Cold Chain Handlers and store keepers at District /Sub-District/Block/ULB/sub-block Vaccine Stores and all other cold chain points.

7. The stock control system should be computerised and maintained at all Vaccine Stores.
   - Stock levels should be maintained and distribution of supplies should be optimized.
   - The standardised manual stock ledgers should be maintained at District /Sub-District/Block/sub-block and all other cold chain points and updated within 24 hrs of every receipt and issue of vaccine & diluents, syringes, droppers, hub cutters and other immunization related supplies. These ledgers should be preserved for at least 3 years.
   - At all levels, every record of receipt & issue of UIP supplies should include information on manufacturer details, vial presentation, quantity in doses (including loss/damage), batch no, expiry date and VVM/FREEZE indicator status.
   - All Vaccine Stores must have & consult the micro-plan/requirement of lower level stores/service points prior to distribution of Vaccines and logistics as per standard procedures.
   - Block and Urban micro-plans must be updated and consolidated at the distribution points.
   - Documented physical stock reconciliation is to be carried out once a month at block and sub-block Cold Chain points and once every quarter at District Vaccine Stores.
   - Dy. CMOH- III should ensure digitization of vaccine-logistic data by RCH Computer Assistant.

8. The standard conditioned ice-packs (0.4 L) should be used for transportation of vaccines using Cold Boxes at District and Block levels and using vaccine carriers for session sites.
   - All non standard ice packs including gel based and other sizes should be returned to State Vaccine Store.
   - Dedicated space like tables/folding tables/benches/plastic sheets etc. should be available for conditioning of ice packs at all vaccine issuing stores.
   - At all levels, staff should be motivated to use only conditioned ice packs before supplying or receiving vaccines.

9. Records of supportive supervision.
   - Supervisory plan should be prepared at District and Block levels and the attached check list should be used.
   - Knowledge and practice of Shake test should be ensured during supervisory visits.
   - Inspection book should be available at all CC points.
   - Monitoring & supervisory findings & feedback should be documented in the inspection book.
   - Program officers should share feedback of their supportive supervisory visits with Block officials.
   - Reports of monthly supportive supervisions (identified problems & outcomes) should be reviewed at District level and included in the presentation for State Review meetings.

10. Posting and induction training of staff for UIP Stores should be timely. Information of retirement/transfer/change of storekeeper at District Vaccine Stores must be communicated to State immediately. Induction at State Vaccine Stores or otherwise should be an integral part of newly recruited/positioned staff of district vaccine stores. Otherwise it may lead to increased "avoidable" vaccine wastage & increased incidence of AEFI.

Annex-7: Session Monitoring Format for Routine Immunization

Name of Monitor:	**Organization:** ☐ Govt.☐ NPSP☐ UNICEF☐ Others		**Designation:**	
Date: dd / mm / yy	**Time**	**Day:** ☐ Wed ☐ Other	Last polio SIA..... Next polio SIA.....	
State				
District				
Block/ Urban Local body			**Planning Unit:**	
Sub Center / Urban Post				
Address of the Area		**Live Births in last yr:**	**Population:**	
***Reason for selection[1]:** ☐H1 ☐MG ☐L 1 ☐S1 ☐R1 ☐VS ☐M1 ☐N1 ☐U1 ☐V1 ☐W1 ☐O1		**Session Site[2]:** ☐SC ☐NS ☐AW ☐NW ☐PV	**Polio HRA:** ☐ Yes ☐ No	
How many times this site has been monitored in last 3 months:		☐ Never ☐ Once ☐ More.....		

☑ *Tick, whichever is applicable : Q1 to Q 21 to be noted by observation*

1.	a) Whether Session held :☐Y ☐N	b)If a=Y, is session as per plan: ☐Y ☐N	c) if b=N, change in*: ☐ANM ☐Site ☐Time	
	d) If a= 'N', Reason for session not held[3]: ☐ A3 ☐ B3☐ C3☐ D3 ☐ E3			
	e) If ANM is absent, why? ☐ Vacant ☐ Leave ☐ Other.....	f) Status of Plan* : ☐ NA ☐ No map ☐ Incomplete ☐ Complete		
2	Is the session synchronized with Village Health & Nutrition Day (VHND)?	☐ Yes ☐ No		
3.	Beneficiaries are being mobilized to session site by [4] **(By interviewing three caregivers)***	**Caregiver 1**	**Caregiver 2**	**Caregiver 3**
4.	How Vaccines & logistics were brought to session site ☐ AVD# ☐ ANM ☐ Supervisor ☐ Other ...			
5.	a) Vaccine & diluent kept in VC : ☐ Yes ☐ No	b) How many icepacks are in the VC: ☐ 4 ☐ Less than 4		
	c) Vac & diluent in zipper bag: ☐Y ☐ N	d) Vac & Diluent bundled: ☐ Y ☐ N	e) Ice-packs conditioned : ☐Y ☐N ☐NOB[5]	

6.	Which of the vaccines/diluents are available at session site*	☐ BCG ☐ Measles ☐ tOPV	☐ BCG Diluent ☐ Measles Diluent ☐ Pentavalent	☐ DPT ☐ DT ☐ TT	☐ JE ☐ JE Diluent ☐ HepB
7.	Whether any vaccine vial is found ***"in use" or " discarded" (ENCIRCLE)*** in the mentioned condition, if 'Yes', ***Tick*** ☑ and ***record*** the vaccine*	☐ Without label..... / ☐ Unreadable label ..... (in use/ discarded) ☐ VVM **Unusable Stage** (III or IV) ..... (in use/ discarded) ☐ **Expired** Vaccine Vial ..... (in use/ discarded) ☐ **Frozen** Vaccine (DPT, TT, Hepatitis -B) ..... (in use/ discarded) ☐ Any vaccine reconstituted ***more*** than **4 hours** back...(in use/ discarded)			
8.	Which of the mentioned Logistics are ***adequately*** available * ☐ Due list found with **ANM**	☐ AD (0.1ml) Syringes ☐ AD (0.5 ml) Syringes ☐ 5ml Syringes (Recons.)	☐ Vitamin-A Solution ☐ Plastic Spoon/cap for Vit-A ☐ Nutritional Supplements ☐ Zinc Tablet	☐ ORS Packet ☐ IFA Tablet ☐ Paracetamol ☐ Weighing machine	

	☐ Due list found with *mobilizers*	☐ Functional Hub Cutter ☐ Blank RI/MCP# Card	☐ **Counterfoils** ☐ Tracking Bag		☐ B P Apparatus
9.	Whether Time of reconstitution written on reconstituted vial/s		☐ Yes ☐No ☐ NOB	If no, why.....	
10	Whether AD syringe is used for injectable vaccines*		☐ Yes ☐Glass syringe ☐ Disposable Syr ☐ NOB		
11	Whether DPT vaccine given on outer (anterolateral) aspect of mid thigh		☐ Yes ☐Other site..... ☐ NOB		
12	Whether Measles vaccine given by *sub-cutaneous route on Rt arm**		☐SC ☐IM☐ ID	☐Rt arm ☐ Other	☐ NOB
13	Whether ANM is touching any part of the needle while giving injection		☐ Yes ☐ No ☐ NOB		
14	Whether ANM is recapping the needle after giving injection		☐ Yes ☐ No ☐ NOB		
15	Whether each used syringe being cut with hub cutter just after use		☐Yes ☐No	If No,Why$ ☐A5☐B5☐C5 ☐D5☐E5*	
16	How the session waste is segregated		☐ Red & Black bag ☐ other ☐ Not done		
17	Whether record is maintained for each child vaccinated		☐ No ☐ Tally sheet ☐ Other_____		
18	Whether 4 Key Messages are explained to the care-givers		☐ Yes ☐ No ☐ NOB		
19	If 4 Messages are **not** delivered, the *most commonly missed* message*		☐Msg 1 ☐Msg 2 ☐Msg 3 ☐Msg 4		
20	Whether the care-giver is advised to wait for 30 mins after vaccination		☐ Yes ☐ No ☐ NOB		
21	Is AEFI management kit available at the session site		☐ Yes ☐ No ☐ Incomplete kit		
22	Whether the ANM has noted the following*	☐ Vac Batch ☐ Diluent Exp date	☐ Vac Exp dt	☐ Diluent batch	
Q23 to Q 29 By Interviewing the ANM/ Vaccinator and Checking the records, if needed					
23	How many AEFIs have been reported by her in last 3 months (number)		☐NIL Rep done, Nonserious..... Serious....		
24	Ask If a child comes with mild fever(1) or loose motions(2), will she vaccinate?		(1) ☐ Yes ☐ No	(2) ☐ Yes ☐ No	
25	How the session-waste is disposed of&		☐ A6 ☐ B6 ☐C 6 ☐D6		
26	Whether this service-provider has been visited by any supervisor in last 2 mths		☐ None ☐ HS ☐ MO ☐ Other.....		
27	How many newborns have been enrolled for vaccination by her in last one mth		.....(number)		
28	How many sessions have been planned and conducted by ANM in last 3 mths		Planned..... Conducted.....		
29	If ANM has experienced any stock-out of vaccine/ logistic in last 3 months*		☐ No ☐ DPT ☐ Measles ☐ Others		

30. If, any Vaccine or logistic is not available or ANM is absent, please visit the PHC and ascertain the reason of non-availability:

_____

*** Multiple responses applicable** $NOB=Not Observed #AVD=Alternate Vaccine Delivery

@MCP=Mother and Child Protection Card *(Signature)*

!HT= Hard to reach, MG= Migrant, LT= Large catchment, SL= Slum, RT= Refusing community, VS= Vacant SC, M1= MOB in last 1 year.

N1= Newly inducted in RI microplan, U1= Untrained/ new vaccinator, V1=VDPV area, W1= WPV in last 3 yrs, O1=Other

2 SC= Sub Centre, NS= Non-SC fixed site, AW= Outreach at AWC, NW= Non-AWC outreach, PV= Private site(Private clinic/ NGO etc)

3 (Q. 1g): **A3= Not part of RI microplan, B3=** Neither ANM/ Vaccinator nor vaccines/logistics is available, **C3 =** ANM/vaccinator present but vaccine/logistics not available, **D3=** Vaccine/ logistics available but ANM/ vaccinator absent, **E3=**Others (specify)

4 Use codes: 1=ASHA, 2=ICDS worker, 3= Relative/ neighbour, 4= SHG, 5= PRI personnel, 6= NGO, 7= other, 8= None

5 A5= Hubcutter not available, B5= Hubcutter not functioning, C5=Untrained ANM, D5= Other, E5= Not Observed

6 A6= At onsite pit, B6= Carried to PHC, C6= Open onsite burning, D6= Others

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING
"ILGUS BHAVAN"
H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No. .....**SUDA-Health/530 Pt./09/248(126)** *Date* **15.12.2011**

From : Director, SUDA

To : The Commissioner, Kolkata Municipal Corporation

The Mayor / Chairman

..... Municipal Corporation / Municipality

Sub. : Use of zip lock polythene bag in vaccine carrier.

Sir / Madam,

Enclosed kindly find herewith communication of Jt. DHS (FW) and SFWO, Department of Health & Family Welfare bearing no. H/SFWB/979(19)/1(7) dt. 12.12.2011 which speaks for itself.

You are requested to instruct your Health Wing to follow the said guideline.

Thanking you.

Yours faithfully,

Enclo. : As stated.

Director, SUDA

SUDA-Health/530 Pt./09/248(126)/1(4) **Dt. .. 15.12.2011**

CC

1. **The Commissioner (FW) & Mission Director (NRHM), DHWB**
2. **The Jt. DHS (FW) & SFWO, DHFW**
3. **The Project Director, WBSISC, Dept. of Community Medicine, Medical College, Kolkata**
4. **The Regional Team Leader (East), WHO, NPSP**

Director, SUDA

Tel/Fax No.: 359-3184

Government of West Bengal
Directorate of Health Services (FW Br)
3rd Floor, "A" wing, Swasthya Bhavan,
GN-29, Sector-V, Salt Lake, Kol-91.

PD(H)

Memo No. H/SFWB/ 979 (19)

dated 12th Dec, 2011.

1.-18. The Chief Medical Officers of Health,
All districts.

19. The D.F.W.O., Kolkata.

Sub: Use of zip lock polythene bag in vaccine carrier.

It has been noted that in some blocks and sub centres, plastic containers with or without holes are used for transportation of vaccine vials / diluents ampoules in vaccine carriers from cold chain points to the immunization sessions. A plastic container without any hole may not have the desired temperature (2-8°C) within it. As a result, heat-sensitive vaccines may get damaged. On the other hand, a plastic container with holes may have the desired temperature within it but water may seep inside the container causing damage or peeling off of the labels containing vaccine name, VVM, mfg date, exp date, etc on the vials / ampoules. To avoid these hazards, zip lock polythene bags should be used for transportation of vaccine vials / diluent ampoules in vaccine carriers from cold chain points to immunization sessions. A formal communication in this regard may please be made to all concerned from your end to avoid vaccine wastages as well as Adverse Events Following Immunization.

Joint DHS (FW) & SFWO,
West Bengal.

Memo No. H/SFWB/ 979 (19) / 1(5)

dated 12th Dec, 2011.

Copy forwarded for kind information to:-

1. The Commissioner (FW), Mission director (NRHM) & Secretary (H), GoWB.
2. The Joint Secretary (NRHM), GoWB.
3. The Chief Municipal Health Officer, KMC.
4. Dr Kaninika Mitra, Health & HIV Specialist, UNICEF, Kolkata.
5. The Regional Coordinator, NPSP-India (East), BF-124, Sector-I, Kol-700064.
6. The Project Director, WBSISC, Dept of Community Medicine, Medical College, Kolkata.
7. Project Officer, SUDA.

Joint DHS (FW) & SFWO,
West Bengal.

Government of West Bengal
Directorate of Health Services (F W Br)
3rd Floor, "A" Wing, Swasthya Bhavan,
GN-29, Sector-V, Salt Lake, Kol-91.

Memo No. H/SFWB/ 484 (19) dated, 11th July, 2011.

To

1.-18. The Chief Medical Officers of Health,
All distyricts.
19. The D.F.W.O., Kolkata.

Sub: MCV2 (Measles Containing Vaccine-2) in Routine Immunization.

Sir / Madam,

As recommended by the Government of India, a second dose of measles vaccine is to be given to all 16-24 months old children under Universal Immunization Programme in 17 states including West Bengal. This 2nd dose will be given to all 16-24 months old children irrespective of his or her measles vaccination status. ***A two-paged document named, "Measles Second Dose in Routine Immunization" is enclosed herewith for your kind perusal and sharing it with all concerned.*** The district officials (Dy CMOH-III, DMCHO, DPHNO) have already been sensitized on the subject in Feb'11 & May'11 State Quarterly Review Meetings as well as in the recent state workshop on Routine Immunization held on 17-18 June, 2011. Similarly, functionaries of the district (other than Dy CMOH-III, DMCHO & DPHNO) / subdivision / block / municipality / subcentre / urban immunization units should be sensitized accordingly. Sectors like General Administration, PRI, ICDS, Education may also be sensitized. Representatives from support partners like NPSP-WHO, UNICEF, IMA, IAP should be included. For sensitization of the community, conventional communication channels including IPC may be undertaken.

You are requested to start the preparatory activities at the earliest so that the administration of 2nd dose of measles vaccine to the recommended beneficiaries can be started as soon as the vaccines & other logistics are available.

Yours faithfully,

Enclo: as stated above.

11/7/11
Jt DHS (FW) & SFWO,
West Bengal.

Memo No. H/SFWB/ 484 (19)/1(11) dated, 11th July, 2011.

Copy forwarded for kind information to:-

1. The Principal Secretary, Dept of H & FW, West Bengal.
2. The Director of Health Services, West Bengal.
3. The Director of Medical Education, West Bengal.
4. The Mission Director (NRHM), Commissioner (FW) & Secretary (Health), West Bengal.
5. The Director, Women & Child Development Dept, West Bengal.
6. The State Cold Chain Officer, West Bengal.
7. The Chief Municipal Health Officer, Kolkata Municipal Corporation, Kolkata.
8. The Director, State Urban Development Agency, Salt Lake.
9. The Regional Director, NPSP-WHO, India (East), Salt Lake, Kol-64.
10. The Project Director, WBSISC, dept of Community Medicine, Medical College, Kolkata.
11. Dr K. Mitra, Health & HIV Specialist, UNICEF,Kolkata.

11.07.11.
Assistant Director of Health Services (EPI),
West Bengal.

Government of West Bengal
Directorate of Health Services (F W Br)
3rd Floor, "A" Wing, Swasthya Bhavan,
GN-29, Sector-V, Salt Lake, Kol-91.

Memo No. H/SFWB/ 484 (19) dated, 11th July, 2011.

To

1.-18. The Chief Medical Officers of Health,
All distyricts.
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As recommended by the Government of India, a second dose of measles vaccine is to be given to all 16-24 months old children under Universal Immunization Programme in 17 states including West Bengal. This 2nd dose will be given to all 16-24 months old children irrespective of his or her measles vaccination status. ***A two-paged document named, "Measles Second Dose in Routine Immunization" is enclosed herewith for your kind perusal and sharing it with all concerned.*** The district officials (Dy CMOH-III, DMCHO, DPHNO) have already been sensitized on the subject in Feb'11 & May'11 State Quarterly Review Meetings as well as in the recent state workshop on Routine Immunization held on 17-18 June, 2011. Similarly, functionaries of the district (other than Dy CMOH-III, DMCHO & DPHNO) / subdivision / block / municipality / subcentre / urban immunization units should be sensitized accordingly. Sectors like General Administration, PRI, ICDS, Education may also be sensitized. Representatives from support partners like NPSP-WHO, UNICEF, IMA, IAP should be included. For sensitization of the community, conventional communication channels including IPC may be undertaken.

You are requested to start the preparatory activities at the earliest so that the administration of 2nd dose of measles vaccine to the recommended beneficiaries can be started as soon as the vaccines & other logistics are available.

Yours faithfully,

Enclo: as stated above.

Jt DHS (FW) & SFWO,
West Bengal.

Memo No. H/SFWB/ 484 (19)/1(11) dated, 11th July, 2011.

Copy forwarded for kind information to:-

1. The Principal Secretary, Dept of H & FW, West Bengal.
2. The Director of Health Services, West Bengal.
3. The Director of Medical Education, West Bengal.
4. The Mission Director (NRHM), Commissioner (FW) & Secretary (Health), West Bengal.
5. The Director, Women & Child Development Dept, West Bengal.
6. The State Cold Chain Officer, West Bengal.
7. The Chief Municipal Health Officer, Kolkata Municipal Corporation, Kolkata.
8. The Director, State Urban Development Agency, Salt Lake.
9. The Regional Director, NPSP-WHO, India (East), Salt Lake, Kol-64.
10. The Project Director, WBSISC, dept of Community Medicine, Medical College, Kolkata.
11. Dr K. Mitra, Health & HIV Specialist, UNICEF,Kolkata.

11.07.11.

Assistant Director of Health Services (EPI),
West Bengal.

Government of West Bengal
Directorate of Health Services (F W Br)
3rd Floor, "A" Wing, Swasthya Bhavan, GN-29, Sector-V, Salt Lake, Kolkata-91.

Memo No. H/SFWB/ 544 (19) dated 26th July, 2011.

To

1.-18. The Chief Medical Officers of Health,
All districts.
19. The D.F.W.O., Kolkata.

Sub: Measles second opportunity (MCV2) in Routine Immunization (U.I.P.).

Sir / Madam,

Please refer to my earlier letter bearing no. H/SFWB/484 (19) dated 11th July, 2011 in regard to the subject above. Now, you are requested to start administration of Measles (second dose) in Routine immunization to all children aged 16–24 months w.e.f. first week of August, 2011 irrespective of their measles vaccination status. Measles vaccines are available at CFW Store, Bagbazar.

A two-paged document on "Measles second dose in Routine Immunization" is enclosed with this letter again for your kind perusal and sharing the same with all concerned.

Yours faithfully,

Enclo: as stated above.

Jt. DHS (FW) & SFWO,
West Bengal.

Memo No. H/SFWB/ 544 (19)/1(12) dated 26th July, 2011.

Copy forwarded for kind information to:-

1. The Principal Secretary, Dept of H & FW, West Bengal.
2. The Director of Health Services, West Bengal.
3. The Director of Medical Education, West Bengal.
4. The Mission Director (NRHM), Commissioner (FW) & Secretary (Health), West Bengal.
5. The Director, Women & Child Development Dept, West Bengal.
6. The State Cold Chain Officer, West Bengal.
7. The Chief Municipal Health Officer, Kolkata Municipal Corporation, Kolkata.
8. The Director, State Urban Development Agency, Salt Lake.
9. The Regional Coordinator, NPSP-WHO, India (East), Salt Lake, Kol-64.
10. The Project Director, WBSISC, Dept of Community Medicine, Medical College, Kolkata.
11. Dr K. Mitra, Health & HIV Specialist, UNICEF,Kolkata.
12. The Project Manager, WBSISC, Dept of Community Medicine, Medical College, Kolkata.

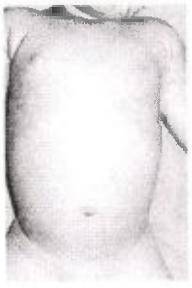
26.07.11.

Assistant Director of Health Services (EPI),
West Bengal.

Measles Second Dose in Routine Immunization

What is measles?

Measles is one of the most infectious diseases. Measles is an acute viral illness caused by a virus from the *paramyxovirus* family. Almost all children with low immunity contract measles if exposed to the virus. As a respiratory disease, the measles virus



Measles virus reduces immunity and children may die of pneumonia, diarrhoea and encephalitis after measles. They may also suffer permanent disability (blindness, encephalitis.). Measles is a human disease with no known animal reservoir. Measles remains a leading cause of death among young children despite the availability of a safe and effective vaccine for the past 40 years.

Who are the most at risk?

Non-immunized people, especially young children, are at highest risk for measles and its complications, including death.

What is the current measles situation?

Global: While measles is now rare in many industrialized countries, it remains a common illness in many developing countries. In 1980, before the use of measles vaccine was widespread, WHO estimates there were 2.6 million deaths from measles worldwide. During 2000–2008, global measles mortality declined by 78%, from an estimated 733 000 deaths in 2000 to 164 000 in 2008. In countries where measles has been largely eliminated, cases imported from other countries remain an important source of infection.

India: While India has made

WHO/UNICEF priority countries for measles mortality reduction

significant progress in child survival, measles remains a leading cause of death and disability among young children. An estimated 50,000 to 100,000 children die from measles annually, making it one of the leading causes of child death. National routine measles vaccination coverage is 69% (DLHS-3). When vaccine efficacy of 85% at 9 months of age, is taken into account approximately 41% (31% un-immunized + 15% of immunized who failed to seroconvert) of children in each birth cohort remain susceptible to measles due to

dropout, left out, and failure to develop immunity.

How is the disease prevented?

Measles can be prevented by immunizing children with measles vaccine. This vaccine is a safe and effective. As per the national immunization schedule, one dose is given at 9-12 months of age through subcutaneous route.

Why measles second dose?

Although good routine immunization services exist in the country to immunize children <1 year of age, however measles vaccination confers immunity in only 85% of children when given at 9 months of age. The presence of circulating maternal antibodies to measles virus interferes with the immunization response and reduces measles vaccine efficacy. Therefore, even in states with more than 80% MCV1 evaluated coverage a substantial number of children remains unprotected in spite of vaccination. Maternal antibodies levels fall with time making many children susceptible to measles by 9 months of age and the levels are practically negligible beyond 1 year of age. Hence a second dose of measles through routine immunization at 16-24 months offers a 2nd opportunity to the susceptible group of children and a way to maintain population immunity against measles and sustain high measles vaccination coverage. A dose of measles vaccine given above 1 year of age will produce immunity in ~95% of recipients.

Adverse Events Following Immunization (AEFI)

Measles vaccine has been in use for more than 40 years and has an excellent track record for safety and efficacy. In very rare instances, measles vaccine may give rise to anaphylaxis reaction which must be treated urgently.

The vaccine must also be handled properly to prevent AEFI due to 'program errors'. All vaccine vials have a vaccine vial monitor (VVM) on the cap which will help vaccinators monitor the cold chain until the vaccine is reconstituted. After reconstitution, the vaccine must be kept at +2 to +8^0 Celsius and **must be discarded after 4 hours**.

The Heterogeneity of Measles Epidemiology in India: Implications for Improving Control Measures

Manoj V. Murhekar, Yvan J. Hutin, Ramachandran Ramakrishnan, Vidya Ramachandran, Asit K. Biswas, Prasun K. Das, Surender N. Gupta, Dipankar Maji, Harish Chandra Singh Martolia, Armugam Mohan, and Mohan D. Gupte

Field Epidemiology Training Programme, National Institute of Epidemiology, Chennai, India

Background. Measles vaccination coverage varies in India. Trainees of the Field Epidemiology Training Programme (FETP) investigated 8 outbreaks from 2004 through 2006 in Himachal Pradesh, Uttaranchal, Tamil Nadu, and West Bengal. We reviewed these outbreaks to contribute to the description of the epidemiology of measles and propose recommendations for control.

Methods. FETP trainees searched for measles cases through stimulated passive surveillance or door-to-door case search; estimated attack rates, case fatality, and the median age of case patients; interviewed mothers about vaccination status of their children; and collected serum samples for immunoglobulin M serological testing whenever possible. For 3 outbreaks, the trainees estimated the vaccine efficacy for children >12 months of age through cohort studies.

Results. Six of the 8 outbreaks were serologically confirmed. Compared with outbreaks in other states, outbreaks in states with vaccination coverage of >90% had a higher median age among case patients and a lower median attack rate. Six deaths (case fatality rate, 1.5%) occurred during the 5 outbreaks for which vitamin A was not used. The vaccine efficacy was 84% (95% confidence interval [CI], 74%–91%) in Himachal Pradesh. In West Bengal, it was 66% (95% CI, 44%–80%) in 2005 and 81% (95% CI, 67%–89%) in 2006.

Conclusions. In states with higher coverage, attack rates were lower and case patients were older. Although states with coverage of <90% should increase 1-dose coverage and address coverage in pockets that are poorly reached, a second opportunity for measles vaccination could be considered in states such as Himachal Pradesh and Tamil Nadu. Use of vitamin A for case management needs to be generalized.

In 2001, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) adopted a strategy for measles mortality reduction and regional elimination [1]. The goal of this strategy was to reduce measles mortality by 50% in 2005 relative to 1999 estimates, and its 4 components were (1) achieving at least 90% routine vaccination coverage with at least 1 dose of measles vaccine, (2) provision of a second opportunity for measles vaccination for all children, (3) measles surveillance, and (4) improved management of complicated cases. Measles surveillance emphasizes (1) regular reporting of cases, (2) investigating outbreaks, and (3) monitoring vaccination coverage. Investigations of outbreaks provide information that allows prevention of future ones. This includes identification of high-risk groups, description of changes in measles epidemiology, and detection of weaknesses in routine immunization. In addition, outbreak investigation is followed by administration to case patients of vitamin A, an intervention that is effective in reducing the case fatality [2]. In 2005, WHO considered that from 1999 through 2005, measles deaths had been reduced by 60% globally [3]. However, India accounted for a substantial part of the remaining burden.

All countries in the WHO South-East Asia region introduced measles vaccine in their immunization

Potential conflicts of interest: none reported.

Supplement sponsorship: This article is part of a supplement entitled "Global Progress Toward Measles Eradication and Prevention of Rubella and Congenital Rubella Syndrome", which was sponsored by the Centers for Disease Control and Prevention.

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programs during the 1980s. Subsequent to the global measles elimination initiative, the reported immunization coverage increased in the region from <59% in 1999 to 65% in 2005 [3, 4]. As a consequence, the estimated number of cases decreased by 27% from 1999 to 2005 [3]. During 2005 and 2006, 321 and 357 measles outbreaks were reported from the region, respectively [5, 6]. Four countries in the region have already initiated surveillance for measles elimination. However, India, Bangladesh, Myanmar, Timor Leste, and Nepal still face challenges in measles control. In 2005, in these countries, the reported coverage ranged between 48%–81% and the annual incidence was .15–2.7 cases per million people, respectively [4].

In India, measles vaccination was introduced in 1985 [7]. The country is setting up surveillance for outbreak prevention while continuing to address the challenges of measles control. In 2005, a national strategic plan was formulated to reduce measles mortality by two-thirds by the year 2010 as compared with the 2000 estimates [8]. One of the elements of the plan emphasized achieving at least 90% vaccination coverage in 80% of the districts by 2009. Little information is available about measles epidemiology in India. Reliable surveillance data are missing and few outbreaks are investigated. In 2001, the National Institute of Epidemiology of the Indian Council of Medical Research initiated a 2-year, competency-based Field Epidemiology Training Programme (FETP) that assigned epidemiologists in training to various states of the country [9]. We reviewed the results of the measles outbreak investigations conducted by the FETP in India from 2004–2006 to contribute to the description of the epidemiology of measles and to propose recommendations for the measles control.

METHODS

Descriptive Epidemiology

In our investigations of measles outbreaks, we defined measles cases according to the WHO criteria [10] or as the combination of fever and rash. We searched for cases actively (ie, door-to-door) or through stimulated passive surveillance and calculated attack rates and case-fatality ratios.

Vaccination Coverage

We obtained administrative measles vaccination coverage estimates from public health officials. We also estimated vaccination coverage in the population by means of interviews with mothers, vaccination cards, and health care facility records.

Vaccine Efficacy

For selected outbreaks, we conducted cohort studies among the affected age groups to estimate vaccine efficacy. We defined a case of measles according to WHO criteria [10] and ascertained the vaccination status by use of 1 or more of the following 3 criteria: immunization cards, health care facility records, and mothers' history. We calculated the relative risk associated with measles vaccination and estimated the vaccine efficacy by means of the relative-risk formula [11].

Laboratory Investigations

We organized laboratory investigations where logistically feasible. Serum samples were tested for immunoglobulin M antibodies against measles at either the National Institute of Virology in Pune or the King Institute in Chennai.

Abstraction of Information About Outbreaks

We reviewed our measles outbreak investigation reports during the period from 2004 through 2006. Using a standardized abstraction form, we abstracted information about attack rates and case-fatality ratios to estimate overall medians. We reviewed the distribution of cases over time to estimate the duration of the outbreaks and identify the months of occurrence. We identified the settings (rural or urban) of each outbreak and states where they occurred. We noted the median age of case patients, the median proportion of male case patients, and the median proportions of case patients who were vaccinated. We compared data from states that had reached the national 90% coverage target with those from other states. We compared the vaccination coverage estimated through mothers' interviews with the coverage estimated by the Reproductive and Child Health–District Level Household Survey 2 (RCH-DLHS 2) for the corresponding district from 2002 through 2004 [12]. We merged the 2 cohort studies conducted in 2006 in Purulia district of West Bengal to increase the precision of the vaccine efficacy estimate. We reviewed the data available regarding the use of vitamin A for management.

RESULTS

Descriptive Epidemiology

We investigated 8 measles outbreaks from 2004 through 2006 (3 outbreaks in 2004, 2 outbreaks in 2005, and 3 outbreaks in 2006) (Table 1). All outbreaks were in rural areas of 4 states: 2 outbreaks in Uttaranchal [13, 14]; 3 outbreaks in West Bengal ([15, 16], 1 outbreak in Ahartore village of Purulia district, West Bengal [D. Maji, unpublished data, 2006]); 2 outbreaks in Tamil Nadu ([17], 1 outbreak in Paramkudi village, Ramanathpuram district, Tamilnadu [A. Mohan, unpublished data, 2004]); and 1 outbreak in Himachal Pradesh [18]. We used the WHO case definition in 7 outbreaks. For 1 outbreak in Nainital district, Uttaranchal, we defined measles as fever and rash. We actively searched for cases in 7 outbreaks because these had occurred in a specific village. In 1 outbreak that involved many villages in Cuddalore district, Tamilnadu, we used stimulated passive surveillance [17].

We identified 432 measles cases (median no. of cases per outbreak, 48; range, 22–101). The overall median attack rate

Table 1. Selected Characteristics of the Measles Outbreaks Investigated by the Indian Field Epidemiology Training Programme of India, 2003–2006

Characteristic	Himalayan states			Other states				
	Uttaranchal		Himachal Pradesh	West Bengal			Tamil Nadu	
Location								
District	Nainital	Nainital	Kangra	Purulia	Purulia	Purulia	Ramnathapuran	Cuddalore
Setting	Rural	Rural	Rural	Rural	Rural	Rural	Rural	Rural
Year	2004	2004	2006	2005	2006	2006	2004	2005
Diagnosis								
Case definition used	Fever and rash	WHO	WHO	WHO	WHO	WHO	WHO	WHO
Serological test result	Negative	IgM	IgM	Negative	IgM	IgM	IgM	IgM
Virus isolation	No	No	Yes	No	Yes	No	No	Yes
Magnitude								
No. of cases	37	87	51	68	22	44	22	101
Attack rate, %	33[a]	46[a]	9.8[b]	57[c]	11[a]	9[a]	5.3[a]	.01[a]
Severity								
No. of deaths (case fatality rate, %)	0 (0)	1 (2)	0 (0)	3 (4)	0 (0)	2 (5)	0 (0)	0 (0)
Vitamin A treatment	No	No	Yes	No	95% coverage	Delayed	No	No
Demographic characteristics								
Median age, years	7	7	9	2	5	4	4	5
Proportion of male case patients, %	54	45	65	53	46	50	32	45
Proportion of case patients vaccinated, %[d]	2	19	69	22	68	32	50	97
Measles vaccination coverage, %								
Administrative data	99	99	113	75	84	75	100	100
Survey data								
Interviews with mothers	...	...	93	44	88	72	...	...
Vaccination cards	...	...	...	NA	35	37	...	...
Health care facility records				42	57	46	...	...
Coverage in the district as per RCH-DLHS 2[e]	78	78	95	70	70	70	98	94
Method used to determine vaccine efficacy	...	...	Cohort study	Cohort study	Cohort study	Cohort study	...	...
Vaccine efficacy, % (95% CI)								
Interviews with mothers	...	...	82 (70–90)	...	81 (67–89)	81 (67–89)	...	...
Vaccination cards	...	...	...	...	...	...	...	...
Health care facility records	...	...	...	66 (44–80)[f]	...	...	...	...

NOTE. CI, confidence interval; IgM, immunoglobulin M; RCH-DLHS 2, Reproductive and Child Health–District Level Household Survey 2; Government of India.

[a] Among patients ≤14 years of age.

[b] Among patients 6–14 years of age.

[c] Among patients ≤10 years of age.

[d] According to mothers.

[e] According to the Reproductive and Child Health–District Level Household Survey 2002–2004.

[f] According to health care facility data (for children <5 years old) and mothers' history (for children >5 years old).

among children 0–14 years of age was 10% (range, .01%–57%). It was >10% in most outbreaks in Uttaranchal and West Bengal, where the vaccination coverage, as assessed by the survey conducted by the trainees or by RCH-DLHS 2, was below the 90% target. The attack rate was lower (median, 5%; range, .01%–6%) in Tamilnadu and Himachal Pradesh, where coverage was >90%. There were 6 deaths during 3 of the outbreaks (overall case fatality, 1.4%; range, 0%–5%). In 2 of these 3 outbreaks, vitamin A was not used, whereas in the third outbreak, it was used at a later stage of the outbreak. The median duration of the outbreaks was 45 days (range, 30–93 days). The outbreaks occurred throughout the year, in January (n = 1),

March (n = 1), April (n = 2), September (n = 1), October (n = 1), and December (n = 2).

The overall median age of case patients was 5 years (range, 2–9 years). In the Himalayan states, it was higher in Himachal Pradesh (9 years) than in Uttaranchal (7 years). In the non-Himalayan states, the median age was 5 years in Tamil Nadu and 4 years in West Bengal. The median proportion of male patients among case patients was 48% (range, 32%–65%). The proportion of the case patients whom their mothers said had been vaccinated was 2%–97% (median, 41%).

Vaccination Coverage

The administrative measles vaccination coverage among children aged 12–23 months was 75%–113% (median, 99%). Four investigations estimated vaccination coverage through surveys (Table 1). Coverage according to surveys was generally lower than that according to administrative estimates. Coverage according to mothers' interviews was 44%–93%. In 3 of the 4 surveys, the vaccination coverage was comparable to that estimated by the RCH-DLHS 2.

Vaccine Efficacy

We conducted cohort studies in 3 outbreaks. In Himachal Pradesh, vaccine efficacy was 82% (95% confidence interval [CI], 70%–90%). In Purulia district, West Bengal, vaccine efficacy was 66% (95% CI, 44%–80%) in 2005 and 81% (95% CI, 67%–89%) in 2006 (pooled analysis of the 2 outbreaks that occurred in the district that year).

Laboratory Investigations

We sent 45 serum samples for serological testing during 6 of the 8 outbreaks. Serological testing detected measles immunoglobulin M antibodies in 35 (78%) of the samples.

DISCUSSION

Three outbreaks were investigated in the Himalayan states of Uttaranchal and Himachal Pradesh, which have a scarce population living in remote villages. In Himachal Pradesh, where vaccination coverage reached the 90% national target, the attack rate was lower and the median age of the case patients was older (9 years). In Uttaranchal, where vaccination coverage was <90% [18], the attack rates were >4 times higher than in Himachal Pradesh and the median age of the case patients was younger (7 years). Epidemiological features of the outbreaks also differed in non-Himalayan states. In Tamil Nadu, where vaccination coverage was 100%, attack rates were lower than in West Bengal, where the coverage did not reach the 90% target. The median age of case patients was also slightly higher in Tamil Nadu than in West Bengal, although the difference was less marked than that between Himachal Pradesh and Uttaranchal: the median age of patients with measles was higher in West Bengal (5 years) than in Tamil Nadu (3 years) in the prevaccination era [19]. These differences between states with high coverage and those with low coverage suggested that the higher 1-dose coverage reduced the attack rates during outbreaks and delayed the age at which children were exposed to the virus.

In Uttaranchal and West Bengal, the 1-dose coverage was substantially lower than the national target. Furthermore, the 2005 measles outbreak in Purulia district, West Bengal, occurred among members of a religious minority for whom the coverage was lower than the mean coverage of the district. Pockets of lower coverage may exist in spite of high overall coverage [20] and have led to outbreaks in slums [21]. Thus, in Uttaranchal and West Bengal, priorities should be to increase 1-dose coverage and to target potential pockets of lower vaccination coverage. In contrast, for outbreaks in Himachal Pradesh and Tamil Nadu, 1-dose coverage was high, exceeding the 90% target. However, a small number of susceptible children may have accumulated in the community until a threshold was reached that allowed transmission. Such accumulations are typically caused by the combination of the expected measles vaccine efficacy (around 85%) and the children left unimmunized each year [22]. They can be addressed through a second measles immunization opportunity. Two of the studies conducted during these outbreaks generated evidence sufficient to suggest that the efficacy of the vaccine was consistent with the 85% efficacy expected in India [23]. The vaccine efficacy suggested by the third study [15] was lower than expected, although the upper limit of the CI was still compatible with a normal efficacy, all the more because the poor documentation of vaccination status could have led to an underestimation of the vaccine efficacy.

The estimated 1-dose measles vaccination coverage in India was 56% in 2005 [5] Thus, a large number of measles outbreaks would be expected to occur. Of these, the surveillance system would detect only a subset. Three studies indicated that the surveillance system captured <5% of the measles cases that happen in India [23–25]. Of those outbreaks detected, only a proportion lead to a detailed epidemiological investigation. Of those investigated, only a proportion lead to a report made publicly available that could be used to make decisions. From 2000 through 2006, 6 reports of measles outbreaks in India were published in the indexed literature, for a mean of 1 study per year [17, 21, 26–29]. Over 3 years, FETP epidemiologists in training investigated 8 outbreaks that occurred in 5 districts of 4 states where the trainees were assigned. This number exceeded the national level of outbreak detection and investigation, suggesting that assignment of FETP trainees in the district improved outbreak detection and investigation. However, FETP trainees cannot capture all outbreaks. All of the outbreaks that they investigated were in rural areas, but outbreaks would be occurring in urban areas as well.

WHO and UNICEF recommend laboratory confirmation for outbreaks as a part of enhancement of measles surveillance [1]. Laboratory confirmation was available for 6 of the 8 outbreaks.

FETP trainees accessed reference laboratory facilities through special means in the absence of a routine system for specimen collection, transportation, and analysis. Such special means may not be available to most rapid response teams in the country. Thus, laboratory confirmation of a suspected measles outbreak remains difficult.

In India, where the prevalence of undernutrition among children <3 years of age during 2005 was 46% [30], the measles case-fatality ratio can be high. The case fatality rate was >20% in a remote rural area of India where access to quality health care was not possible for the treatment of complications [31]. A review of measles outbreaks in India suggested that the mean case fatality rate was 2.5% in the country [32]. Overall case fatality during our outbreaks was somewhat lower (1.4%).

Our report suffers from 2 limitations. First, trainees used different methods for different aspects of their investigations. This limited our capacity to compare specific parameters or to aggregate data. To address this limitation, starting in 2006, we developed a training module that included an applied problem-solving-based exercise (now available online at http://searo.who.int/phi). This led to better standardization of the latest investigations, conducted in 2006 [16, 18]. Second, this set of investigations was performed in districts where an epidemiologist in training was assigned. As a result, the states with lower vaccination coverage (eg, Uttar Pradesh, Bihar, and Madhya Pradesh) that do not have a large participation in the FETP were not represented. Although this set of investigations captured key determinants of measles outbreaks in India, it underrepresented epidemiological evidence pointing to the importance of increasing the 1-dose coverage in states where it is the lowest. In the future, wider use of field epidemiology methods through engagement of additional states in the FETP should provide a more comprehensive picture of measles epidemiology in India.

In India, use of measles vaccine increased the age of individuals with measles virus infection and decreased the attack rates during outbreaks. Mechanisms involved in measles outbreaks include (1) low 1-dose coverage in some states and (2) a progressive accumulation of susceptible individuals despite high 1-dose coverage in other states. Outbreak detection, investigation, and reporting remain insufficient, particularly in urban areas. Laboratory confirmation remains a challenge. Vitamin A is underused. On the basis of these conclusions, we can formulate recommendations. First, higher 1-dose coverage is needed in the 32 of the 35 states that have not reached the 90% national coverage target, through strengthening of the routine system and in a way that addresses pockets of lower vaccination coverage [8]. Outreach methods may be required [1]. Measles vaccination coverage requires better documentation, including through measures to increase card retention and regular validations. Second, provision could be made for introduction of a second vaccination opportunity in states with 1-dose coverage exceeding the national target. Third, enhanced surveillance through the Integrated Disease Surveillance Project (IDSP) should provide better documentation of measles outbreaks and response. Fourth, IDSP must organize the availability of laboratory confirmation for measles outbreaks through routine mechanisms at the state level. Fourth, universal use of vitamin A needs to be ensured and documented to further decrease the case-fatality ratio.

Funding

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Government of West Bengal
Directorate of Health Services (F W Br)
3rd Floor, "A" Wing, Swasthya Bhavan, GN-29, Sector-V, Salt Lake, Koklkata-91.

Memo No. H/SFWB/ 544 (19) dated 26th July, 2011.

To

1.-18. The Chief Medical Officers of Health,
All districts.
19. The D.F.W.O., Kolkata.

Sub: Measles second opportunity (MCV2) in Routine Immunization (U.I.P.).

Sir / Madam,

Please refer to my earlier letter bearing no. H/SFWB/484 (19) dated 11th July, 2011 in regard to the subject above. Now, you are requested to start administration of Measles (second dose) in Routine immunization to all children aged 16–24 months w.e.f. first week of August, 2011 irrespective of their measles vaccination status. Measles vaccines are available at CFW Store, Bagbazar.

A two-paged document on "Measles second dose in Routine Immunization" is enclosed with this letter again for your kind perusal and sharing the same with all concerned.

Yours faithfully,

Enclo: as stated above.

Jt. DHS (FW) & SFWO,
West Bengal.

Memo No. H/SFWB/ 544 (19)/1(12) dated 26th July, 2011.

Copy forwarded for kind information to:-

1. The Principal Secretary, Dept of H & FW, West Bengal.
2. The Director of Health Services, West Bengal.
3. The Director of Medical Education, West Bengal.
4. The Mission Director (NRHM), Commissioner (FW) & Secretary (Health), West Bengal.
5. The Director, Women & Child Development Dept, West Bengal.
6. The State Cold Chain Officer, West Bengal.
7. The Chief Municipal Health Officer, Kolkata Municipal Corporation, Kolkata.
8. The Director, State Urban Development Agency, Salt Lake.
9. The Regional Coordinator, NPSP-WHO, India (East), Salt Lake, Kol-64.
10. The Project Director, WBSISC, Dept of Community Medicine, Medical College, Kolkata.
11. Dr K. Mitra, Health & HIV Specialist, UNICEF,Kolkata.
12. The Project Manager, WBSISC, Dept of Community Medicine, Medical College, Kolkata.

26.07.11.

Assistant Director of Health Services (EPI),
West Bengal.

Government of West Bengal
Office of the Chief Medical Officer of Health
Cooch Behar
Tel : 228874 (03582) Fax : 228966
E-mail : cmoh_cbr@wbhealth.gov.in

PD(H) 21/1

Memo No.X-XIV/_____/ Date. Cooch Behar the 14th January,2010

To
The Chairman,
CoochBehar/Dinhata/Tufanganj/
Mathabhanga/Mekhliganj/Haldibari Municipality,
CoochBehar

Sub : Guidelines in regard to Routine Immunization in Urban Local Bodies (ULBs)

Ref : Memo No.H/SFWB/14 (18) dated 6th January,10 of Jt DHS (FW) & SFWO, West Bengal.

Sir,

Please find enclosed herewith a copy of the memo under reference in regard guidelines on Routine Immunization having (i) Session Norms & Injection Load (ii) National Immunization Schedule (iii) Vaccinator (iv) Logistics & Cold Chain (v) Delivery/Distribution (vi) Mobilization and (vii) Recording/Reporting. This may please be implemented for strengthening Routine Immunization Programme.

Yours faithfully,

Enclo : As stated

(Dr R R Banik) 14/01/10
Chief Medical Officer of Health
CoochBehar

Memo No.X-XIV/177/(6) Date. Cooch Behar the 14th January,2010

Copy along with a copy of the enclose forwarded for information and necessary action to :-

1. The Commissioner (FW) & Mission Director (NRHM),WB
2. The Director,SUDA,Ilgus Bhavan,Sector-III,Salt Lake, Kolkata -700091
3. The Jt DHS (FW) & SFWO,WB
4-5. The DMCHO/Dy CMOH-III, CoochBehar.
6. They DPHNO, Dist FW Bureau, CoochBehar.

They (Sl.No.4-6) are requested to monitor the ULBs for smooth implementation of the R I prog.

(Dr R R Banik) 14/01/10
Chief Medical Officer of Health
CoochBehar

GOVERNMENT OF WEST BENGAL
OFFICE OF THE CHIEF MEDICAL OFFICER OF HEALTH
DISTRICT FAMILY WELFARE BUREAU
BURDWAN

Memo No. DFWB/ 985 *Dated, Burdwan, the* 08 / 01 /2010

To
The Mayor
Asansol Municipal Corporation
Burdwan.

Sub: - Financial support for alternative vaccine delivery to 50 RI center under Asansol Corporation area

Sir,

Kindly refer to Commissioner, Family Welfare & Special Secretary vide Memo No. H/359/18/CFW/2008 dated 27th June 2008 for alternative vaccine delivery in slum & under-served area of West Bengal, In this connection you are provided financial support for alternative vaccine delivery at your Corporation areas of 50 RI center through ACMOH office [According the sum of Rs. 50.00/ X 50 nos X 4 week X 12 months = 1, 20,000.00 (One lake twenty thousand only) / year] vide your Memo No. 386/RCH/AMC dated 20.11.09 and ACMOH Memo No.ACMOH/ASL/663 dated 25.11.09 vide this office cheque no. 843160 dated 22.12.09 for amount Rs. 1,20000.00/- (One lake twenty thousand only) in f/o Mayor, Asansol Municipal Corporation.

So, you are hereby requested you send your authorized person to collect cheque from DFWB, 325, G.T. Road (near Tinkonia Bus Stand), Burdwan and send quarterly utilization certificate through ACMOH office Asansol to District and oblige.

Thanking you, yours faithfully

Dy. Chief Medical Officer of Health - III
Burdwan

Chief Medical Officer of Health
Burdwan

Memo No. DFWB/ 985/(1) (3) *Dated, Burdwan, the* 08 / 01 /2010

Copy forwarded for information & necessary action to:-

1. The Chief Executive Officer, Asansol Municipal Corporation, Asansol.
2. The ACMOH, Asansol sub-division, Burdwan.
3. The Project Director, WBSISC, Medical College Kolkata.

Dy. Chief Medical Officer of Health – III
Burdwan

Chief Medical Officer of Health
Burdwan

MONTHLY IMMUNIZATION REPORT

Name of ULB : ..... **Month :** .....

Name & Address of R.I Centre: .....

Ward No. : .....

Sl No.	Vaccines	Numbers Reported	Total
1	TTI		
2	TT2		
3	TT-B		

4	BCG	Male		
		Female		
5	DPT-1	Male		
		Female		
6	DPT-2	Male		
		Female		
7	DPT-3	Male		
		Female		
8	OPV-0 (Birth Dose)	Male		
		Female		
9	OPV-1	Male		
		Female		
10	OPV-2	Male		
		Female		
11	OPV-3	Male		
		Female		
12	Hep B (Birth Dose)	Male		
		Female		
13	Hep B-1	Male		
		Female		
14	Hep B-2	Male		
		Female		
15	Hep B -3	Male		
		Female		
16	Measles	Male		
		Female		
17	VA-1	Male		
		Female		

Sl No.	Vaccines		Numbers Reported	Total
18	DPT-B	Male		
		Female		
19	OPV-B	Male		
		Female		
20	MR	Male		
		Female		

21	DPT at 5 Yrs	Male		
		Female		
22	TT-10 Yrs	Male		
		Female		
23	TT-16 Yrs	Male		
		Female		

24	VA-2	Male		
		Female		
25	VA-3	Male		
		Female		
26	VA-4	Male		
		Female		
27	VA-5	Male		
		Female		
28	VA-6	Male		
		Female		
29	VA-7	Male		
		Female		
30	VA-8	Male		
		Female		
31	VA-9	Male		
		Female		

FULL IMMUNIZATION	Male		
	Female		

Signature of Centre incharge with date

Can OPV and vitamin A be given together with DPT-Booste

Yes.

Can an infant be breastfed immediately after OPV?

Yes.

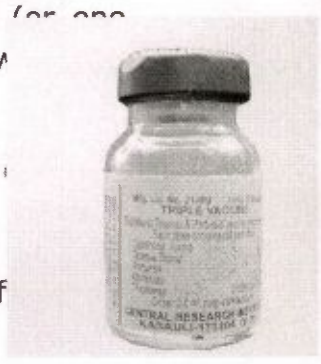
DPT VACCINE

If a child could not receive DPT1, 2, 3 and OPV 1, 2, 3 acc... to the schedule, till what age can the vaccine be given?

The DPT vaccine can be given until 7 years of age and OPV can be given till 5 years of age. If a child has received previous doses but not completed the schedule, do not restart the schedule and instead administer the remaining doses needed to complete the series.

If a child comes between the ages of 2 to 5 years without having received any vaccine, what vaccines should be given?

If the child comes between 2 to 5 years without any vaccination, three doses of DPT can be given with OPV with a minimum gap of 4 weeks (or one month). A single dose of measles vaccine also needs to be given w... dose of DPT.



Why should there be a minimum gap of 4 weeks between two ... of DPT?

This is because decreasing the interval between two doses may interf... the antibody response and protection.

Why give the DPT vaccine in the antero-lateral mid thigh and not the gluteal region (buttocks)?

DPT is given in the antero-lateral mid-thigh and not the gluteal region to prevent damage to the sciatic nerve. Moreover, the vaccine deposited in the fat of gluteal region does not invoke the appropriate immune response.

What should one do if the child is found allergic to DPT or develops encephalopathy after DPT?

A child who is allergic to DPT or develops encephalopathy after DPT should be given the DTaP / DT vaccine instead of DPT for the remaining doses, as it is usually the P (whole cell Pertussis) component of the vaccine which causes the allergy/encephalopathy. If these are not available, at least TT should be given.

TT VACCINE

If a girl received all doses of DPT and TT as per the NIS till 16 years of age and she gets pregnant at 18 years, should she get one dose of TT during pregnancy?

Give 2 doses of TT during the pregnancy as per the schedule.

HEPATITIS B VACCINE

Can Hepatitis B vaccine be mixed in the same syringe with DPT and given as one injection?

No, DPT and Hepatitis B vaccine (if supplied separately) cannot be mixed or administered through the same syringe.

Until what age can Hepatitis B vaccine be given?

According to the National Immunization Schedule, Hepatitis B vaccine should be given with the first, second and third doses of DPT till one year of age.

Why give the birth dose of Hepatitis B vaccine only within 24 hours of birth?

The birth dose of Hepatitis B vaccine (within the first 24 hours) is effective in preventing peri-natal transmission of Hepatitis B.

years of age. The Booster doses can be given at a minimum of 6 months after administering OPV3/DPT3.

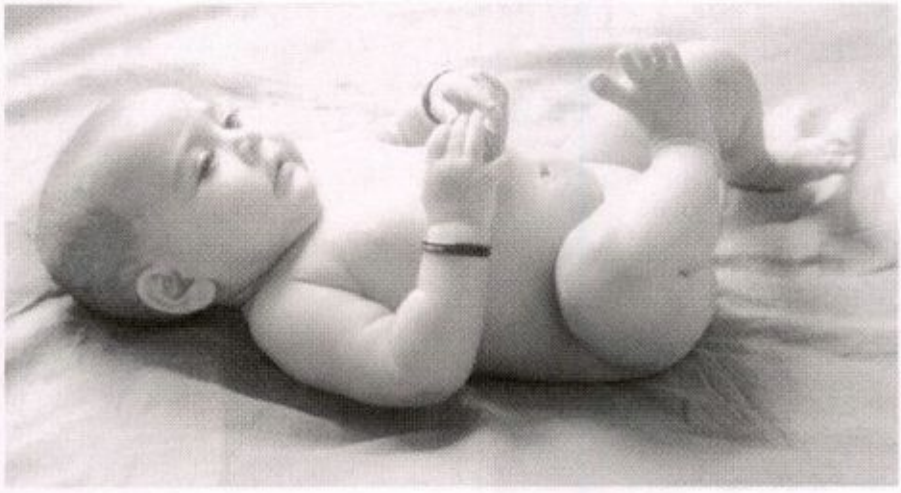
What vaccines should one give to a child who is brought after 6 years of age for the first time?

Give the child 3 doses of DPT one month apart.

Why is it not advisable to clean the injection site with a spirit swab before vaccination?

This is because some of the live components of the vaccine are killed if they come in contact with spirit.

Emphasize the need for completing immunization at the correct age. Even If a child comes beyond the due date for a vaccine, the child should receive all the due vaccines.



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BCG	At birth or as early as possible till one year of age	0.1ml (0.05ml until 1 month age)	Intra-dermal	Left Upper Arm
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OPV-0	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1,2 & 3	At 6 weeks, 10 weeks & 14 weeks	2 drops	Oral	Oral
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Measles	9 completed months-12 months. (give up to 5 years if not received at 9-12 months age)	0.5 ml	Sub-cutaneous	Right upper Arm
Vitamin A (1stdose)	At 9 months with measles	1 ml (1 lakh IU)	Oral	Oral
For Children				
DPT booster MCV-2	16-24 months	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
OPV Booster	16-24 months	2 drops	Oral	Oral
Japanese Encephalitis**	16-24 months with DPT/OPV booster	0.5 ml	Sub-cutaneous	Left Upper Arm
Vitamin A* (2nd to 9th dose)**	16 months with DPT/OPV booster Then, one dose every 6 months up to the age of 5 years.	2 ml (2 lakh IU)	Oral	Oral
DPT Booster	5-6 years	0.5 ml.	Intra-muscular	Upper Arm
TT	10 years & 16 years	0.5 ml	Intra-muscular	Upper Arm

*Give TT-2 or Booster doses before 36 weeks of pregnancy. However, give these even if more than 36 weeks have passed. Give TT to a woman in labour, if she has not previously received TT.

** SA 14-14-2 Vaccine, in select endemic districts after the campaign.

*** The 2nd to 9th doses of Vitamin A can be administered to children 1-5 years old during biannual rounds, in collaboration with ICDS.

**** In select states, districts and cities.

Proposed Changes in the National Immunization Schedule: 2009-10

- In select well-performing states, MR to be given with DPT Booster at 16-24 months (Dose: 0.5 ml; Route: Sub-cutaneous; Site: Right Upper Arm)
- DPT and HepB vaccines at 6, 10 and 14 weeks to be replaced by DPT-HepB-Hib (Pentavalent) vaccine.

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING
"ILGUS BHAVAN"
H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No. **SUDA-Health/530 Pt./09/556(126)** *Date* **08.01.2010**

From : Director, SUDA

To : The Mayor / Chairman

..... Municipal Corporation / Municipality

Sub. : Guidelines on Routine Immunisation in Urban Local Bodies.

Sir / Madam,

Enclosed kindly find herewith communication of Jt. DHS (FW) & SFWO, Dept. of Health & Family Welfare bearing no. H/SFWB/14(18) dt. 06.01.2010 along with guidelines on Routine Immunisation in Urban Local Bodies.

You are requested to follow the said guideline to strengthen Routine Immunisation and provide quality service to all the population of your ULB.

Thanking you.

Yours faithfully,

Director, SUDA

SUDA-Health/530 Pt./09/556(126)/1(1) **Dt. .. 08.01.2010**

CC

HO / AHO, ... Municipal Corporation / Municipality

Director, SUDA

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SUDA

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8/1/2010

Director, SUDA

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Tel/Fax No.: 359-3184

Government of West Bengal
Directorate of Health Services (F.W. Br)
3rd Floor, "A" Wing, Swasthya Bhavan,
GN-29, Sector-V, Salt Lake, Kolkata-700091.

Memo No. H / SFWB / 14 (18) dated, 6th January, 2010.

To

1.-18. The **Chief Medical Officers of Health,**
All districts.

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Sir / Madam,

Enclosed please find herewith the guidelines for implementation & strengthening of Routine Immunization under UIP in urban areas. In the absence of a separate guideline for urban areas, this may please be shared with all concerned for effective implementation of the R.I. Program in Urban Local Bodies. This envisages the general guidelines provided by GoI for Routine Immunization as well as some important issues relating to ULBs as suggested by the Project Officer (Health), SUDA. A copy of the National Immunization Schedule is also enclosed for kind perusal of all.

You are requested to circulate this to the concerned ULB authorities of your districts after sharing it with the Dy CMOH-III / DMCHO / DPHNO.

Encl : as stated above.

Yours faithfully,

SDD Dasgupta 06/01/10
Jt DHS (FW) & SFWO,
West Bengal.

Memo No. H / SFWB / 14 (18) / 1 (4) dated, 6th January, 2010.
Copy forwarded for kind information to:-

1. The Commissioner (FW) & Mission Director (NRHM), West Bengal.
2. The Director, SUDA, Ilgus Bhavan, Sector-III, Salt Lake, Kolkata-700091.
3. Dr Sibani Goswami, Project Officer (Health), SUDA, Salt Lake, Kolkata-700091.
4. The A.D.H.S. (EPI), West Bengal.

SDD Dasgupta 06/01/10
Jt DHS (FW) & SFWO,
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Guidelines for implementation of Routine Immunization under Universal Immunization Program (UIP) in Urban Local Bodies (ULB):-

A. SESSION NORMS & INJECTION LOAD:

- R.I. activities should be held on every / alternate **Wednesday** (National Immunization Day) at fixed sites
- Frequency or number of immunization sessions of an ULB in a month should be determined according to the monthly injection load as per beneficiaries of the catchment area
- At a fixed site, **one session should be held for every 40-70 injections**. If the injection load is more than 70, two sessions should be held. With higher injection load more sessions should be considered.
- In general, **for every infant there will be 12 (twelve) injections** i.e. 2 TT + 1 BCG, 5 DPT, 3 Hep B & 1 Measles injections. In districts where J.E. vaccination has been integrated with R.I. there will be an additional injection of J.E.
- Accordingly, rational microplan should be prepared on the basis of entire population (both BPL as well as non-BPL) of the catchment area of an ULB area

B. NATIONAL IMMUNIZATION SCHEDULE :

- **All vaccines** (TT, BCG, DPT, OPV, Hep B, Measles) **should be made available in all R.I. sessions.** JE vaccine should be available in all sessions of ULBs of Burdwan, Birbhum, West Midnapur, Howrah & Hooghly. ***The practice, if any, of different dates for different vaccines, should be abandoned immediately.***
- **DT vaccine at 5 yrs of age has been replaced by DPT (2nd Booster).**
- The **national immunization schedule** of GoI indicating vaccine, age of administration, dose, route & site is enclosed with the guidelines for perusal of everybody. The schedule should be displayed at a convenient place of the ULB.

C. VACCINATOR:

- Services of **trained FTSs** should be utilized as vaccinators.
- Services of untrained FTSs / HHWs, if utilized as vaccinators, should be under supervision of a Medical Officer / Health Officer.
- **Before reconstitution / administration, all vaccine vials should be checked for correct vaccine, VVM status and Expiry Date.**
- For BCG & Measles (also J.E.) vaccine, the **reconstitution time must be noted on the body of the vials.**

D. LOGISTICS & COLD CHAIN:

- **AD syringes** (0.1 ml / 0.5 ml) should be used for administration injectable vaccines. **5 ml disposable syringes** should be used for reconstitution of BCG & Measles vaccine (JE vaccine for 5 districts stated earlier).
- **Vaccines should be stored in ILRs.**
- **All vaccines should be kept in the basket of the ILR.**
- **OPV, Measles & BCG vials should be placed at the bottom of the basket within the ILR.**

- **T-series & Hep B vials and diluent ampoules should be placed in the upper part of the basket within the ILR.**
- **Deep Freezers should be used for preparing ice-packs.**
- ULB having at least one functional ILR should act as a site with vaccine storage facility. Holding sessions at these ULBs will be treated as fixed site sessions.
- Holding sessions at sites having no ILR / no storage facility should be treated as outreach sessions.

E. DELIVERY / DISTRIBUTION:

- For transportation of vaccines & diluents to the immunization sites on session days, **4 icepack vaccine carriers** should be used.
- During transportation of vaccines in vaccine carriers to session sites, **diluents should also be carried within the carrier** so that they are at the same temperature as that of the vaccines, at the time of reconstitution.
- Vaccines, diluents, syringes, droppers, etc. should be collected from the PP unit / Block, where the ULBs (having no ILR / storage facility) are located.
- ULB will identify a nodal person who, on the morning of the session day, will collect logistics from the source, distribute them to the session sites and at the end of the session will return the unused articles to the source on the same day. **The unused vaccines with identification mark / tag should be stored in ILR.** ***If any vaccine remains unused after 3 consecutive returns, it should be discarded even if the VVM or Expiry Date remains within usable limit.***
- Fund required for transportation of vaccines & logistics should be borne by the ULBs. ***The district / block authorities may help subject to availability of adequate funds at their ends.***

F. MOBILIZATION:

- For mobilization of beneficiaries, services of **Urban ICDS workers** may be utilized. **Co-ordination meetings** should be organized with Workers / Supervisors of ICDS and CDPOs.
- Referral / Due Slips may be used for referring the beneficiaries to the RI sites.

G. RECORDING / REPORTING:

- **Immunization Cards** provided by the District / Block authorities should be used. **Counterfoils** of the cards should be preserved at the session site by the vaccinator.
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Government of West Bengal
Directorate of Health Services (F.W. Br)
3rd Floor, "A" Wing, Swasthya Bhavan,
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SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING
"ILGUS BHAVAN"
H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No. ....**SUDA-Health/530 Pt./09/528** Date **29.12.2009**

From : Director, SUDA

To : Dr. S.P. Banerjee
State Family Welfare Officer & Jt. DHS
Dept. of Health & Family Welfare
Swasthya Bhavan
Salt Lake City.

Sub. : Guideline for implementation of Routine Immunisation programme by the Urban Local Bodies.

Sir,

You may be aware that State Urban Development Agency (SUDA) is responsible for implementing, monitoring & supervising different Urban Health Programmes i.e. CUDP III, CSIP, IPP-VIII, IPP-VIII (Extn.), RCH Sub-Project, HHW Scheme, Community Based Primary Health Care Services Programme in the Urban Local Bodies (ULBs). During monitoring & supervision it is observed that Routine Immunization (RI) activities in the ULBs is facing major challenges due to shortage of trained vaccinators. As a result, the ULBs are unable to expand RI services in different wards especially in slums and vulnerable areas. At the same time entire ULBs populations are to be covered under RI activities to address Public Health.

With this issue SUDA, CMU, West Bengal State Immunization support cell (WBSISC) and State Family Welfare Dept. decided to train First Tier Supervisors of the ULBs on RI with hands on training for 25 days at Nursing Training Schools of the districts. This training includes RI Micro-planning, Cold Chain, Injection safety and other related issues.

In the mean time, 704 out of 1743 nos. of FTSs have already been trained in batches. The RI activities i.e. starting from vaccination date, RI sites, RI schedule, collection of vaccines, maintenance of cold chain etc. are varied in nature in the ULBs. It is felt that to maintain uniformity in the ULBs, a guideline on RI following Govt. of India norms may be issued.

Under the circumstances stated above a guideline for implementation of RI programme by the ULBs has been prepared which is enclosed for your opinion so that this can be circulated to the ULBs to strengthen RI activities.

Yours faithfully,

Enclo. : As stated.

Director, SUDA

Guideline for implementation of Routine Immunisation Programme by the ULBs

- The frequency of Routine Immunisation (RI) sessions should be based on rational Micro-Plan based on estimated no. of beneficiaries at the session sites taking into account all population of catchment area (not only BPL population).
- All ULB RI activities shall be on a fixed day i.e. Wednesday to keep parity with National Immunisation day, and at fixed sites.
- Frequency of RI session shall be preferably once in a week or once in a fortnight depending upon the estimated no. of beneficiaries.
- The dose, route, site and UIP schedule must be maintained as per National Guidelines. All available vaccines including Hepatitis B shall be given to the beneficiaries.
- All trained FTSs of the ULBs shall act as vaccinator.
- Immunisation activities must be carried out by Auto Disposable syringes (ADS) which will be supplied from the concerned Block / ACMOH office along with vaccines. Similarly, for reconstitution of BCG and Measles vaccines separate 5 ml. disposable syringes must be used which will also be supplied along with the vaccines.
- All the vaccines must be made available on all vaccination days. The practice of fixation of different dates for different vaccination should be stopped.
- Currently, State Health & FW Dept. do not allow domestic refrigerator for keeping vaccines for the sake of vaccine potency. Hence, domestic refrigerator which are still in use for keeping vaccines should be discontinued immediately.
- ILR is to be used for keeping Vaccines.
- If at least one functional ILR and Deep Freezer are available with the ULB, Vaccines are to be supplied from the ULB itself. If ILR and Deep Freezer are not available with the ULB, vaccines are to brought from nearest BPHC/ PP Unit on the day of immunisation in vaccine carrier by the respective ULB. Vaccine lifting plan should be finalized by the Health Officer of the ULB in consultation with ACMOH/ BMOH concerned.
- One person be identified by the ULB to collect vaccines from the source on the day of Immunisation, distribute to the RI sites and return the unused vaccines vials to the said source on the same day after completion of RI session.
- Fund requirement for vaccines transportation may be met by the ULB concerned at beginning. Later on ULB may submit a consolidated funding requirement to CMOH with copy to Dy. CMOH III through concerned ACMOH. The calculation of funding requirement will be @ Rs.50/- per centre per frequency of monthly session x 12 months.

Contd. to P-2.

- ULB should involve Urban ICDS to mobilize the beneficiaries to the fixed vaccination sites. For this purpose a co-ordination meeting should be organised with ICDS workers/ supervisors/ CDPO and other organization wherever existing to share list of vaccination sites.
- Referral slip may be used for referring the beneficiaries to the RI sites either by ICDS / other organizations to the ULB RI sites or the vice versa, as the case may be. RI sites will keep referral slip. It will help to evaluate the strength of referral mechanism.
- GOI approved Universal Immunisation Card which will be supplied by the respective District Health Office, must be used for all the beneficiaries. No other Immunisation Card will be allowed. However, all organization may use their Rubber Stamp on the Cards.
- Report on vaccination is to be submitted by the ULB to the CMOH as per their prescribed proforma with a copy to SUDA. This reporting proforma is to be obtained from the District Health office by the ULB.
- ULB should take a proactive role in strengthening Urban Routine Immunisation and provide quality RI service to all people under the ULB.

PO, Health, SUDA

A Status on existing Urban Health Services vis-à-vis Immediate Requirement for Improvement

Sl. No.	Name of ULB	District	Programme	No. of Sub-Centre Total	No. of Vaccine Centre	No. of ILR	No. of Deep Freezer	No. of Vacciner Carrier
1	ALIPURDUAR	JALPAIGURI	IPP-VIII (Extn.)	7	7	1	1	8
2	ARAMBAG	HOOGLY	CBPHC Scheme	4	0	0	0	0
3	ASANSOL MC	BURDWAN	RCH	97	50	2	2	110
4	ASHOKENAGAR	NORTH 24 PARGANAS	CBPHC Scheme	8	8	1	0	0
5	BADURIA	NORTH 24 PARGANAS	CBPHC Scheme	4	4	1	1	55
6	BAIDYABATI	HOOGLY	CUDP & IPP VIII	16	23	2	2	100
7	BALLY	HOWRAH	CUDP & IPP VIII	25	8	1	1	250
8	BALURGHAT	DAKSHIN DINAJPUR	IPP-VIII (Extn.)	12	6	0	0	6
9	BANGAON	NORTH 24 PARGANAS	CBPHC Scheme	7	8	1	1	84
10	BANKURA	BANKURA	HHW Scheme	6	6	0	0	6
11	BANSBERIA	HOOGLY	CUDP & IPP VIII	20	9	2	2	100
12	BARANAGAR	NORTH 24 PARGANAS	CUDP & IPP VIII	11	7	0	0	60
13	BARASAT	NORTH 24 PARGANAS	CUDP & IPP VIII	47	48	2	1	157
14	BARRACKPUR	NORTH 24 PARGANAS	CUDP & IPP VIII	17	17	1	1	100
15	BARUIPUR	SOUTH 24 PARGANAS	CUDP	5	5	1	1	29
16	BASIRHAT	NORTH 24 PARGANAS	CBPHC Scheme	8	9	1	1	104
17	BELDANGA	MURSHIDABAD	CBPHC Scheme	3	3	0	0	0
18	BERHAMPUR	MURSHIDABAD	HHW Scheme	8	8	0	0	8
19	BHADRESWAR	HOOGLY	CUDP & IPP VIII	23	8	1	1	70
20	BHATPARA	NORTH 24 PARGANAS	IPP-VIII	38	20	1	1	230
21	BIDHANNAGAR	NORTH 24 PARGANAS	IPP-VIII	6	1	0	0	0
22	BIRNAGAR	NADIA	CBPHC Scheme	3	3	0	0	0
23	BISHNUPUR	BANKURA	HHW Scheme	3	3	0	0	3
24	BOLPUR	BIRBHUM	HHW Scheme	3	3	0	0	3
25	BUDGE BUDGE	SOUTH 24 PARGANAS	CUDP & IPP VIII	13	10	1	2	45
26	BURDWAN	BURDWAN	IPP-VIII (Extn.)	27	35	2	1	35
27	CHAKDAH	NADIA	CBPHC Scheme	4	4	0	0	0
28	CHAMPDANI	HOOGLY	CUDP & IPP VIII	17	3	1	1	80
29	CHANDANNAGAR MC	HOOGLY	CUDP & IPP VIII	18	18	1	2	131
30	CHANDRAKONA	MEDINIPUR (WEST)	CBPHC Scheme	3	0	0	0	0
31	CONTAI	MEDINIPUR (EAST)	CBPHC Scheme	5	2	1	1	0
32	COOCH BEHAR	COOCH BEHAR	HHW Scheme	4	5	1	0	4
33	COOPERS CAMP	NADIA	CBPHC Scheme	3	4	0	0	0
34	DAINHAT	BURDWAN	CBPHC Scheme	3	3	1	0	6
35	DALKHOLA	UTTAR DINAJPUR	CBPHC Scheme	3	0	0	0	0
36	DARJEELING	DARJEELING	IPP-VIII (Extn.)	16	3	[illegible]	1	7
37	DHULIAN	MURSHIDABAD	CBPHC Scheme	4	8	1	1	8
38	DHUPGURI	JALPAIGURI	CBPHC Scheme	4	4	1	1	4
39	DIAMOND HARBOUR	SOUTH 24 PARGANAS	CBPHC Scheme	4	4	1	1	4
40	DINHATA	COOCH BEHAR	CBPHC Scheme	4	1	0	0	0

F/N on 27/7 – H/O will talk to chairman about starting RI

Sl. No.	Name of ULB	District	Programme	No. of Sub-Centre	No. of			
				Total	Vaccine Centre	ILR	Deep Freezer	Vacciner Carrier
41	DUBRAJPUR	BIRBHUM	CBPHC Scheme	4	4	1	1	21
42	DUM DUM	NORTH 24 PARGANAS	CUDP & IPP VIII	10	10	1	1	50
43	DURGAPUR MC	BURDWAN	IPP-VIII (Extn.)	57	40	1	1	67
44	EGRA	MEDINIPUR (EAST)	CBPHC Scheme	3	3	1	1	0
45	ENGLISH BAZAR	MALDA	IPP-VIII (Extn.)	14	16	1	4	8
46	GANGARAMPUR	DAKSHIN DINAJPUR	CBPHC Scheme	4	4	1	1	0
47	GARULIA	NORTH 24 PARGANAS	CUDP & IPP VIII	19	1	1	1	70
48	GAYESHPUR	NADIA	CUDP & IPP VIII	13	13	0	0	120
49	GHATAL	MEDINIPUR (WEST)	CBPHC Scheme	4	0	0	0	0
50	GOBARDANGA	NORTH 24 PARGANAS	CBPHC Scheme	4	4	1	1	20
51	GUSHKARA	BURDWAN	CBPHC Scheme	4				
52	HABRA	NORTH 24 PARGANAS	CBPHC Scheme	8	8	1	1	18
53	HALDIA	MEDINIPUR (EAST)	CBPHC Scheme	9				
54	HALDIBARI	COOCH BEHAR	CBPHC Scheme	3	3	0	0	11
55	HALISAHAR	NORTH 24 PARGANAS	CUDP & IPP VIII	19	20	1	1	50
56	HOOGHLY CHINSURAH	HOOGLY	CUDP & IPP VIII	33	33	0	0	33
57	HOWRAH MC	HOWRAH	CUDP & IPP VIII	78	64	10	15	575
58	ISLAMPUR	UTTAR DINAJPUR	CBPHC Scheme	4	5	1	2	95
59	JALPAIGURI	JALPAIGURI	IPP-VIII (Extn.)	12	13	1	1	15
60	JAMURIA	BURDWAN	CBPHC Scheme	6	0	0	0	0
61	JANGIPUR	MURSHIDABAD	HHW Scheme	4	6	1	1	6
62	JAYNAGAR MAZILPUR	SOUTH 24 PARGANAS	CBPHC Scheme	3	4	1	1	50
63	JHALDA	PURULIA	CBPHC Scheme	3	1	1	1	0
64	JHARGRAM	MEDINIPUR (WEST)	CBPHC Scheme	4	4	0	0	4
65	JIAGANJ- AZIMGANJ	MURSHIDABAD	CBPHC Scheme	4	4	2	4	2
66	KALIAGANJ	UTTAR DINAJPUR	CBPHC Scheme	4	4	0	0	54
67	KALIMPONG	DARJEELING	CBPHC Scheme	5	1	0	0	0
68	KALNA	BURDWAN	HHW Scheme	3	4	1	1	30
69	KALYANI	NADIA	IPP-VIII	7	7	0	0	7
70	KAMARHATI	NORTH 24 PARGANAS	IPP-VIII	27	28	1	2	113
71	KANCHRAPARA	NORTH 24 PARGANAS	CUDP & IPP VIII	19	6	0	0	13
72	KANDI	MURSHIDABAD	CBPHC Scheme	4	5	0	0	0
73	KATWA	BURDWAN	CBPHC Scheme	5	5	1	2	50
74	KHARAGPUR	MEDINIPUR (WEST)	IPP-VIII (Extn.)	30	15	1	1	20
75	KHARAR	MEDINIPUR (WEST)	CBPHC Scheme	2	0	0	0	0
76	KHARDAH	NORTH 24 PARGANAS	CUDP & IPP VIII	25	20	1	0	30
77	KHIRPAI	MEDINIPUR (WEST)	CBPHC Scheme	2	0	0	0	2
78	KONNAGAR	HOOGLY	CUDP & IPP VIII	13	13	1	1	55
79	KRISHNAGAR	NADIA	HHW Scheme	7	8	0	0	7
80	KURSEONG	DARJEELING	CBPHC Scheme	4	0	0	0	0
81	MADHYAMGRAM	NORTH 24 PARGANAS	IPP-VIII	19	19	1	1	200
82	MAHESHTALA	SOUTH 24 PARGANAS	IPP-VIII	42	42	3	5	400
83	MAL	JALPAIGURI	CBPHC Scheme	4	0	1	1	4

Sl No.	Name of UHC	District	Programme	No. of Sub Centre	No. of			
				Total	Vaccine Carrier	ILR	Deep Freezer	Vaccine Carrier
84	MATHABHANGA	COOCH BEHAR	CBPHC Scheme	3	0	0	0	3
85	MEDINIPUR	MEDINIPUR (WEST)	HHW Scheme	8	15	1	1	8
86	MEKHLIGANJ	COOCH BEHAR	CBPHC Scheme	2	0	0	0	0
87	MEMARI	BURDWAN	CBPHC Scheme	4	0	0	0	0
88	MIRIK	DARJEELING	CBPHC Scheme	2	0	0	0	0
89	MURSHIDABAD	MURSHIDABAD	CBPHC Scheme	4	0	0	0	0
90	NABADWIP	NADIA	CBPHC Scheme	8	8	0	0	8
91	NAIHATI	NORTH 24 PARGANAS	CUDP & IPP VIII	18	20	0	0	110
92	NALHATI	BIRBHUM	CBPHC Scheme	4	3	0	0	4
93	NEW BARRACKPUR	NORTH 24 PARGANAS	CUDP & IPP VIII	15	16	1	1	50
94	NORTH BARRACKPUR	NORTH 24 PARGANAS	CUDP & IPP VIII	24	24	1	1	30
95	NORTH DUM DUM	NORTH 24 PARGANAS	CUDP & IPP VIII	25	18	1	1	90
96	OLD MALDA	MALDA	CBPHC Scheme	4	0	0	0	0
97	PANIHATI	NORTH 24 PARGANAS	CUDP & IPP VIII	39	40	1	3	200
98	PANSKURA	MEDINIPUR (EAST)	CBPHC Scheme	4	8	0	0	4
99	PUJALI	SOUTH 24 PARGANAS	IPP-VIII	7	7	2	1	28
100	PURULIA	PURULIA	HHW Scheme	6	6	1	1	12
101	RAGHUNATHPUR	PURULIA	CBPHC Scheme	2	0	0	0	0
102	RAIGANJ	UTTAR DINAJPUR	IPP-VIII (Extn.)	14	17	1	1	50
103	RAJARHAT GOPALPUR	NORTH 24 PARGANAS	IPP-VIII	38	46	2	2	0
104	RAJPUR SONARPUR	SOUTH 24 PARGANAS	CUDP & IPP VIII	34				
105	RAMJIBANPUR	MEDINIPUR (WEST)	CBPHC Scheme	3	0	0	0	3
106	RAMPURHAT	BIRBHUM	CBPHC Scheme	4	4	1	1	4
107	RANAGHAT	NADIA	CBPHC Scheme	4	2	0	0	4
108	RANIGANJ	BURDWAN	CBPHC Scheme	7	7	1	1	0
109	RISHRA	HOOGLY	CUDP & IPP VIII	24	24	1	1	70
110	SAINTHIA	BIRBHUM	CBPHC Scheme	4	8	1	1	4
111	SANTIPUR	NADIA	CBPHC Scheme	9	7	0	0	9
112	SERAMPORE	HOOGLY	CUDP & IPP VIII	30	34	1	1	110
113	SILIGURI MC	DARJEELING	IPP-VIII (Extn.)	61	40	3	4	400
114	SONAMUKHI	BANKURA	CBPHC Scheme	3	1	0	0	0
115	SOUTH DUM DUM	NORTH 24 PARGANAS	IPP-VIII	40	41	3	2	220
116	SURI	BIRBHUM	HHW Scheme	3	5	0	0	2
117	TAHERPUR	NADIA	CBPHC Scheme	3	3	0	0	0
118	TAKI	NORTH 24 PARGANAS	CBPHC Scheme	4	4	1	1	4
119	TAMLUK	MEDINIPUR (EAST)	CBPHC Scheme	5	4	1	1	
120	TARAKESHWAR	HOOGLY	CBPHC Scheme	3	3	0	0	
121	TITAGARH	NORTH 24 PARGANAS	IPP-VIII	11	12	0	0	
122	TUFANGANJ	COOCH BEHAR	CBPHC Scheme	3	0	0	0	
123	ULUBERIA	HOWRAH	CUDP & IPP VIII	20	2	1	1	
124	UTTARPARA KOTRUNG	HOOGLY	CUDP & IPP VIII	26	26	3	2	
	Total =>			1593	1104	82	89	

Non-functioning

No.Y.11011/4/2007-CC&V
Government of India
Ministry of Health & Family Welfare

Nirman Bhawan, New Delhi
Dated;

To,

Directors (FW) of all States/UTs

Sub:- Guidelines for Cold Chain - matter regarding

Sir,

Kindly refer Ministry's letter dated.—the deep freezers along with stabilizers supplied by M/s Haier Appliances are being transported by GMSDs to the states as per the allocation and consignee addresses. The ILRs are also being supplied shortly.

According to the supply order, the equipments will be installed by the consignees by the help of their local refrigerator mechanics. The guidelines for installation, operation instructions, installation report and checklist for installation is enclosed.

The installation of all the equipments are to be done immediately and installation report be send to M/s Haier Appliances on following address with a copy to the Ministry so that routine check up of the equipments may be done and training to the cold chain handler on Haier equipments may be started:

Mr. Som Nath Rampal,
M/s Haier Appliances Ltd.

Installation and Operational Instruction of Ice-lined Refrigerator

A. Environment for Installation and Placement:

1. ILR should be placed on level ground with dry air and no dusty.
2. ILR should be placed far away fire (hot origin) without direct sunshine and good ventilation.
3. ILR should be placed by some spaces left around machine. The space between other solid (like room wall or others) to the ILR cabinet should be more than 10 cm in order to keep good ventilation and hot exhaust to outside. ILR CANNOT be used as built-in type into some other solid constructions.
4. The better working condition for ILR is ambient temperature range 10 to 43□, no rainfall.
5. ILR should not be installed in the place with heavy humid environment or easy to splash water.
6. ILR should be placed near with socket with full room for stabilizer.

B. Before ILR installation

1. Unpacking all the outer carton\inner foam\inner package\bottom foam.


2. Open the door; remove the protection pad for door sealing. Pull out the user manual and other accessories to be kept in other places for review. Before using the ILR, user should read manual carefully and operate the manual accordingly.
3. Take away from all tapes for trays and boxes and pull out the trays and boxes. Take away the tapes and fixed foam for the tray on the step. After that, be remembered to keep trays and boxes together. Using clean cloth and neutral detergent to clean the interior cabinet of ILR



4. Put back the trays and boxes according to the instruction on the ILR door.
5. Before using the ILR, user should read carefully the using instruction packed on the ILR door and keep in mind of the using instruction during the ILR operation.

C. Operating ILR

1. Check ILR stand by level or not and you can get level by adjustment on ILR foot.
2. Connect stabilizer with power, open the power switch and check the power indicator of stabilizer

3. After more than half of hour ILR standing only (please note: switch of ILR should be closed), plug the ILR with stabilizer. Open the ILR switch, ILR start to run with alarm by thermostat. Press any key on thermostat to get rid of the audible alarm and find the temperature from displayer.

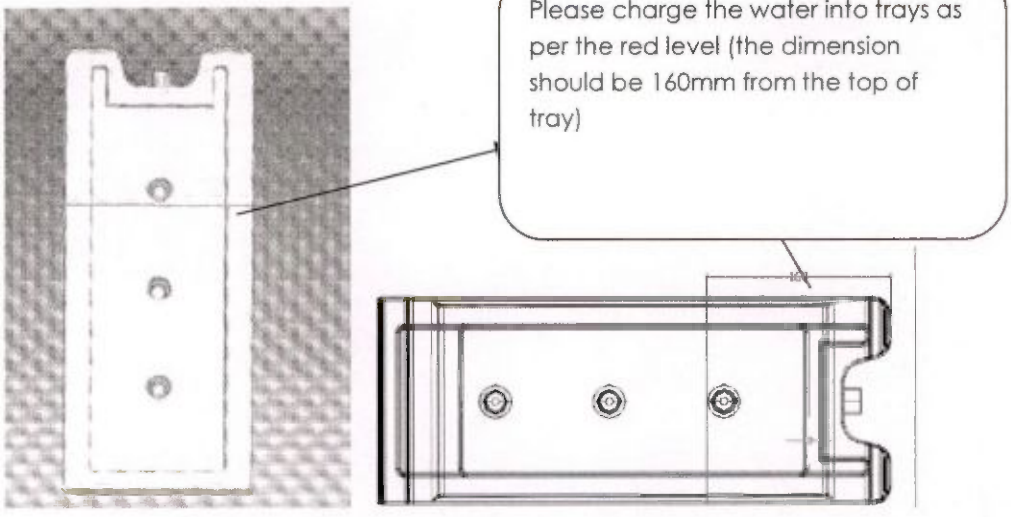
4. During the operation of ILR, the thermostat set point of ILR should be around 4□. If the temperature inside ILR is too high or too low, please adjust the set point of thermostat to get the right temperature what you want.

5. During the ILR running with first time, compressor will continue to work and the cooling time will be a little bit longer that because ILR will froze the icepacks inside first. On the other hand, surrounding of ILR will because hot (temperature rising).

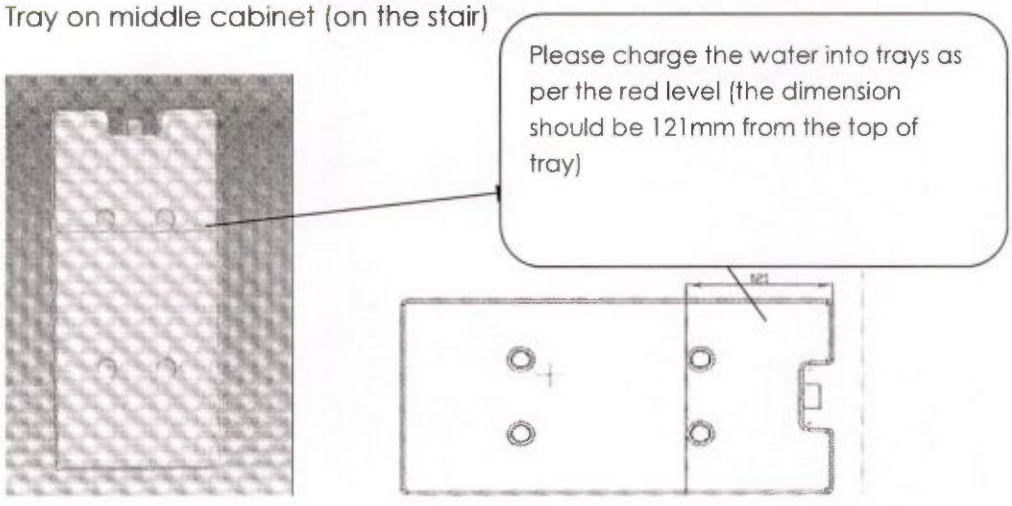
6. After 48 hours at least for ILR continuous running, the temperature inside will be around 4□. If only temperature is between 2 to 8□, there will be normal with ILR not running for a long time or continuous working for a long time since there are many icepacks inside.

7. After temperature inside come to stable, please place the vaccines by batches. **Never put full load into cabinet at one time.**

Note: the water inside of trays has been charged in the factory, the user doesn't need charge water. During long time use, the water inside of trays is less, and need to be charged again, please follow up the steps as below:



Tray on middle cabinet (on the stair)



Installation and Operating Instructions for Deep Freezer

(Icepack Freezer)

A. Environment for installation and placement:

1. DF should be placed on level ground with dry air and no dusty.

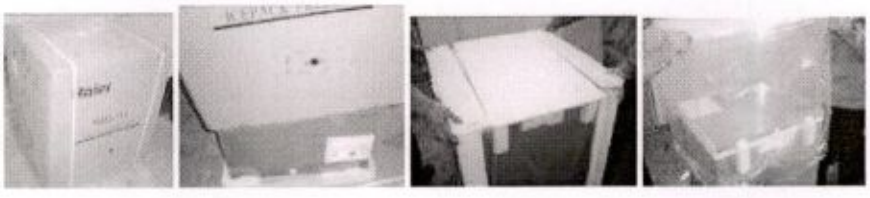
2. DF should be placed far away fire (hot origin) without direct sunshine and good ventilation.

3. Take away all tapes from trays and boxes and pull out the trays and boxes. Take away the tapes and fixed foam for the tray on the step. After that, be remembered to keep trays and boxes together.
4. The better working condition for DF is ambient temperature range 10 to 43□, no rainfall.
5. DF should not be installed in the place with heavy humid environment or easy to be splashed with water.

6. DF should be placed near with socket with full space for stabilizer.

B. Before DF installation

1. Unpacking all the outer carton\inner foam\inner package\bottom foam.



2. Open the door; remove the protection pad for door sealing. Pull out the user manual and other accessories to be kept in safe places for review in the future. Before using the DF, user should read manual carefully and operate the manual accordingly.

3. Take away from all tapes for trays and boxes and pull out the trays and boxes. Take away the tapes and fixed foam for the tray on the step. After that, be remembered to keep trays and boxes together. Using clean cloth and neutral detergent to clean the interior cabinet of DF.

4. Put back the trays and boxes according to the instruction on the DF door.

5. Before using the DF, user should read carefully the using instruction packed on the DF door and keep in mind of the using instruction during the Operating DF (icepack freezer)

C:- **Installation Instructions:**

1. Check DF placed by level or not and you can get level by adjustment on the foot.

2. Connect stabilizer with power, open the power switch and check the power indicator of Stabilizer

3. After more than half of hour DF standing only (please note: switch of DF should be closed), plug the DF with stabilizer. Open the DF switch, DF start to run.

4. During the DF operation, check the set of controller. It should be set as Number 3. The temperature inside will be under -15□. If the temperature inside is too high or too low, you can adjust the controller to get the right temperature what you want. Please note: the bigger of set number, the lower temperature inside.

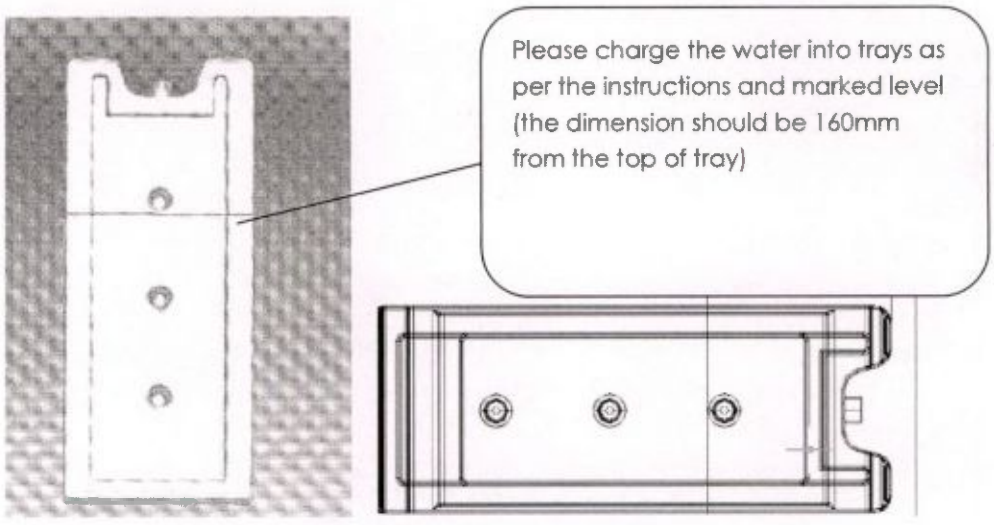
5. During the DF continuous operation, the surrounding of DF cabinet will be hot (temperature will rise up). It is normal.

6. After 48 hours at least for DF continuous operation, temperature inside will be kept under -15□ and DF will have normal compressor circulation. After temperature inside come to stable, user can put vaccines by batches. Never put full load into cabinet at one time.

7. If user wants to freeze the icepacks with bigger capacity, trays can be pulled out and get more frozen space for icepacks frozen. Trays are used to keep cold inside and harmful temperature zone out for vaccines storage use.

Note: The water inside of trays have been charged in the factory, the user don't need charge water. During long time use, the water inside of trays is less, and need to be charged again, please follow up the steps as below:

Tray on the storage boxes and bottom:



Installation of Cold Chain Equipments

Performa no.-1

State : District : _____Date : ___/___/_____

_____

Name of the Cold Chain Facility: _____

Level : State / Regional / Divisional / District / CHC/PHC

Name of technician : _____ Name of the cold chain handler ----------

S.No	Cold Chain Equipment (ILR/DF/stabilizer)	Make	Model	Machine Sr. No.	Gross capacity in litters	Date of receipt	Date of installation	Remarks if any
1								
2								
3								
4								
5								
6								
7								

Check List for installation of cold chain equipments

S.No.	Items	Yes/No
1	Equipment received in good condition at cold chain facility (Un-pack and check physically)	Yes/No
2	Instruction and service manual is received	Yes/No
3	Baskets are provided with the equipments	Yes/No
4	Fixed foam is provided with the equipments	Yes/No
5	Placed in the room having sufficient space	Yes/No
6	Cold Chain room is well ventilated, dry air and no dust	Yes/No
7	No Direct Sun light on the equipment	Yes/No
8	Equipment placed on leveled ground and level adjusted by adjusting screws	Yes/No
9	Equipment placed at least 10 cms away from surrounding in all sides	Yes/No
10	The ambient temperature is less than 43 deg. Celsius	Yes/No
11	Proper earthing is available in the power socket	Yes/No
12	The power socket is ISI marked and equipment placed near to it (No extension cord is used)	Yes/No
13	Voltage stabilizer is connected and input voltage is in normal range (230 volt +/- 5%)	Yes/No
14	Thermostat alarm is in function	Yes/No
15	Equipment run for 48 hrs before loading of vaccines	Yes/No
16	Inside temperature is (-) 15/(+)4 deg. C and stable before loading any vaccine/icepacks	Yes/No
17	Door (Lid) have lock in key	Yes/No

BD SoloShot™ Syringe Family

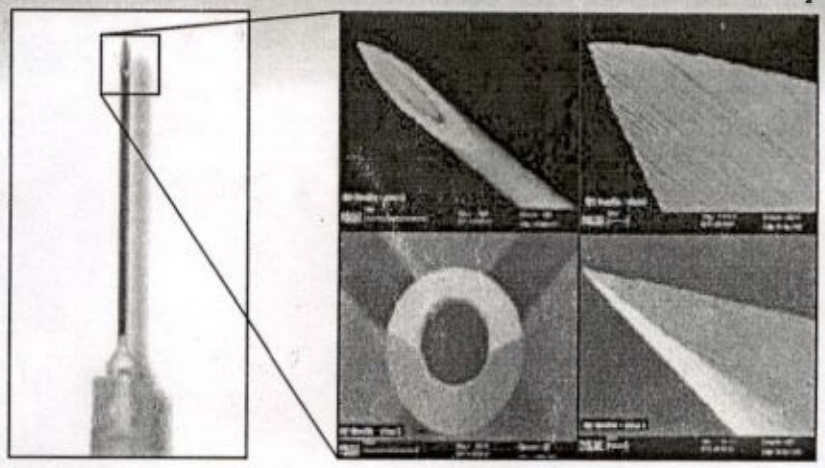
Auto-Disable Syringe

Needle Quality

Setting the Standard

Needle tip quality is evident under the microscope. BD's continuous commitment to the highest quality components and manufacturing processes ensures a clinically superior injection device.

BD™ Needle Bevel and Tip



A Complete Range of Auto-Disable Devices

	Catalogue #	Size	Gauge	Needle Length
BD SoloShot™ IX With ISO colour-coded plunger rod for immunization**	301860	0.5ml	23G (0.60mm)	1" (25mm)
	Not Yet Assigned*	0.5ml	24G (0.55mm)	3/4" (20mm)
	301865	0.5ml	25G (0.50mm)	1" (25mm)
	301885[1]	0.5ml	25G (0.50mm)	1" (25mm)
	301780[2]	0.5ml	23G (0.60mm)	1" (25mm)
	301887	0.5ml	25G (0.50mm)	5/8" (16mm)
	301888	1.0ml	22G (0.70mm)	1" (25mm)
	Not Yet Assigned*	1.0ml	25G (0.50mm)	1" (25mm)
BD SoloShot™ IX For BCG and other low dose vaccine administrations	301792	0.05ml	27G (0.40mm)	3/8" (10mm)
	301793	0.1ml	27G (0.40mm)	3/8" (10mm)
	302600	0.2ml	27G (0.40mm)	5/8" (16mm)
	303212	0.05ml-0.1ml combo	27G (0.40mm)	3/8" (10mm)
BD Uniject™ Prefilled injection device	471443	0.25ml	25G (0.50mm)	5/8" (16mm)
	471412	0.5ml	25G (0.50mm)	5/8" (16mm)
	471508	0.5ml	23G (0.60mm)	1" (25mm)
	471413	0.5ml	23G (0.60mm)	1 1/4" (31mm)
	471414	1.0ml	25G (0.50mm)	5/8" (16mm)
	471415	1.0ml	23G (0.60mm)	1" (25mm)
	471416	1.0ml	23G (0.60mm)	1 1/4" (31mm)
	471458	1.0ml	22G (0.70mm)	1 1/2" (38mm)

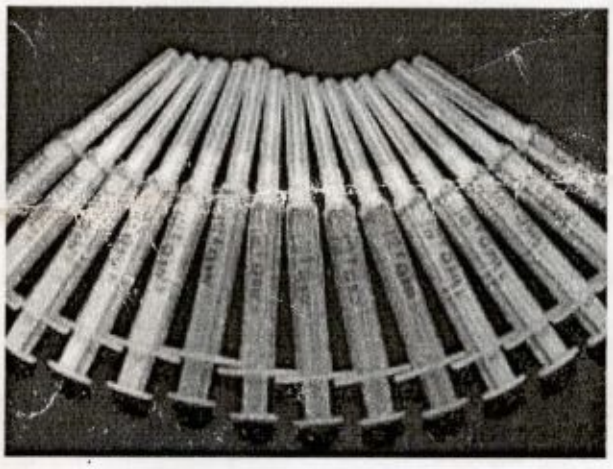
*Please consult your local sales representative for product availability.

** ISO colour codes for needle gauges: black for 22G, blue for 23G, purple for 24G and orange for 25G

1) With Chinese graphics

2) With Measles Initiatives Logo

Selected Soloshot™ IX Products



BD

Making a World of Difference

As the world's leading manufacturer of injection devices, BD is closely tied to the success of immunization programs worldwide. We are dedicated to the continuous promotion of safe injection practices. We have locations across the world that link BD to geographic, cultural and political challenges posed by immunization efforts. BD is committed to innovative and safe vaccine delivery technologies, and would like new improvements to reach and benefit people all around the world, helping all peple live healthy lives.

Visit us at: www.bd.com/immunization

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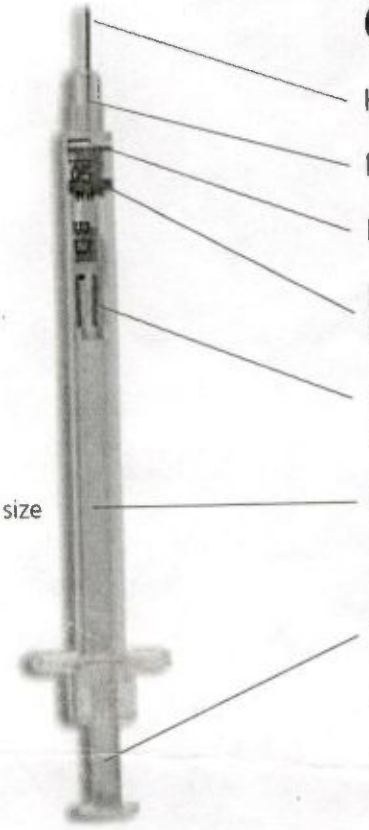
Printed in USA BD 7/03 7017E-Rev1

The Safe Immunization Choice



actual size

- High quality needle
- Permanently attached needle
- Minimal dead space
- Preset volume and bold scale markings
- Patented clip Auto-Disable mechanism
- Clear barrel
- Low injection/pull forces
- Tamper-resistant plunger rod
- Individual sterile package
- Latex-free (LATEX)

BD SoloShot™ LX

100 Units Per Pack, 8 Packs Per Case

High Quality Integrated Needle	For greater patient comfort
Dead Space 3.1 Microliters	Minimizes vaccine waste
Average Injection Force 3.5 Newtons	Low forces optimize vaccine administration
Average Aspiration Force 1.9 Newtons	
Clip Auto-Disable Mechanism	Cuts plunger face, scratches barrel, locks plunger, and prevents reuse
Sterilization Method	Gamma Industry Standard
Material Make-up	PS, PP, Stainless Steel
Bold Scale Markings	Facilitates accurate dose measurement
Clear Barrel and Sleeve	Makes syringe content easier to see and measure
Efficient Blister Packaging	Maintains content sterility when unopened and not damaged

The Expanded Program on Immunization (EPI) was established by the World Health Organization (WHO) in 1974 to reduce death and disability from vaccine-preventable diseases by making immunization accessible to children throughout the world.

Syringes and needles play an important role in immunizing the world's children. However, the misuse of syringes and needles can potentially lead to the transmission of bloodborne diseases such as Hepatitis B or HIV/AIDS.

To prevent inappropriate reuse of disposable syringes and needles, and to enhance public confidence in the EPI, WHO and the United Nations Children's Fund (UNICEF) sought development of an auto-disable syringe that is automatically rendered non-reusable after a single injection.

The BD SoloShot™ LX syringe is an auto-disable syringe developed in close collaboration with WHO and several international health agencies. Its use in the EPI can help ensure that the syringes and needles used to immunize children do not become vehicles for transmitting infectious disease.

India

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Arnab Roy, *IAS*
Special Secretary
Municipal Affairs Department
Government of West Bengal

Memo No. .. 34 - SS/08 Dt. .. 27.10.2008
29

From : Special Secretary
to the Govt. of West Bengal
Dept. of Municipal Affairs
Writers' Building.

To : Shri A.K. Das, IAS
Commissioner (FW) &
Spl. Secretary, West Bengal
Dept. of Health & Family Welfare
Swasthya Bhawan, 3rd Floor, Wing – "B"
GN – 29, Sector – V, Salt Lake City,
Kolkata – 700 091.

Sub. : Supply of Vaccines i.e. DPT, DT & TT to Urban Local Bodies.

Sir,

It has been learnt from the different ULBs that they are not getting supply of vaccines particularly DPT, DT & TT from the District Health Offices for about last nine months. As a result, immunisation coverage of target population has been affected very badly which may result in public health problem in near future.

Simultaneously, the community are pressing hard to the ULBs for addressal of vaccination gap. Many of the ULBs have proposed to purchase such vaccine from open market.

You are requested to provide clear guidance in respect of purchase of said vaccines from the open market by the ULBs at the earliest as immediate measure. You are also requested to look into the matter and to ensure regular supply of vaccines to the ULBs who have been vested with the responsibility of implementing Community Based Urban Health Programme.

Thanking you.

Yours faithfully,

Special Secretary
to the Govt. of West Bengal
Dept. of Municipal Affairs

Contd. to P-2.

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E-mail : kuspcmu@vsnl.net, Website : www.changekolkata.org

Memo No. .. 34/SS/08/1(4)

Dt. .. 27.10.2008
29

CC

1) SFWO, DHFW
2) Project Director, WBSISC
3) Project Manager, WBSISC
4) Health Expert, CMU

Special Secretary
to the Govt. of West Bengal
Dept. of Municipal Affairs