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LIST OF ACRONYMS

AMC	Annual Maintenance Contract
ANM	Auxiliary Nurse and Mid-wife
BR	Beyond Repair
CFC	Chlorofluorocarbons
DF	Deep Freezer
DHQ	District Headquarter
DIO	District Immunization Officer
EPI	Expanded Programme of Immunization
EVSM	Effective Vaccine Store Management
HC	Hydrocarbons
HDI	Human Development Index
HFC	Hydro fluorocarbons
ILR	Ice-Lined Refrigerator
IPPI	Intensified Pulse Polio Immunization
ITPI	IT Power India Pvt. Ltd
LHV	Lady Health Volunteer
MIS	Management Information System
MOiC	Medical Officer in-Charge
PHC	Primary Healthcare Centre
ToR	Terms of Reference
UNICEF	United Nations Children's Fund
UPS	Uninterrupted Power Supply
VVM	Vaccine Vial Monitor
WHO	World Health Organization
WIC	Walk-in Cooler
WIF	Walk-in Freezer

EXECUTIVE SUMMARY

ITPI assessed the cold chain in Jharkhand as part of an UNICEF initiative to equip the government to make informed decisions regarding cold chain rehabilitation in the state. The quantitative and qualitative assessment was conducted over a span of 23 days—from 21.9.2005 to 18.10.2005, excluding four holidays. Three independent teams covered the entire state, assessing the cold chain in 22 district stores and 190 PHCs, reviewing onsite facilities and procedures. Equipped with assessment questionnaires, the teams visited each site, gathering data and information on equipment, both electrical and non-electrical, vaccine management, logistics, maintenance and training. Cold chain staff were interviewed, including the District Immunization Officer (DIO) and the Civil Surgeon (CS). To aid future maintenance/replacement follow-up, all electrical units were assigned asset numbers.

The field assessment enabled identification of the weak links in the cold chain. It becomes the basis for making short-term and long-term recommendations. All findings and suggestions are substantiated with data.

1.1. Major findings

The following are the major findings of the field survey:

- There are 83 PHCs and 12 district stores which require either a Deep Freezer or an Ice-lined Refrigerator as they do not have adequate functional vaccine storage capacity.
- 33% (71 PHCs) sites have inadequate electric supply to operate cold chain equipment; 14% (29 PHCs) have low voltage power supply; 15 % (32 PHCs) have no supply at all. Only 38% of total cold chain sites have adequate power supply.
- Except during catch-up rounds, no funds are available for fuel for generators.
- The solar hybrid refrigerator systems are NOT appropriate for vaccine storage anywhere in Jharkhand unless substantial technical improvements are made to the accessories and the installation standards are improved. Even with appropriate technical improvements, the systems are inadequate to store vaccines at the 32 PHC locations in the state where no electricity supply is available, unless the size of the solar panel is increased by approximately three times. The systems with appropriate technical improvements could provide adequate vaccine storage capacity at 71 other PHC locations, but only if the PHC personnel are trained to conscientiously switch the units from one operating mode to the other during periods of power outage from the electrical grid. This would require that the facility be staffed 7 days/week.
- The T series vaccine was found to be frozen at 9 sites namely Ratu (Ranchi), Ramgarh (Hazaribagh), Kundahit (Jamtara), Nala (Jamtara), Dooranda (Ranchi), Giridih District store, Giridih MCH, Karon (Deogarh) and Ramgarh (Dumka). There is a general lack of awareness regarding loss of vaccine potency due to freezing. It is very likely that immunization sessions are using T series vaccines that lack integrity. In this context, it would be relevant to mention that poor distribution practices have also contributed to vaccine freezing and that there is a total lack of awareness regarding ice-pack conditioning—only frozen ice-packs are used in vaccine carriers.
- Routine immunization is not followed as per schedule at least at these following sites:

Table 1: List of sites where routine immunization is not followed

District	Site	Reason
Jamtara	Jamtara PHC	Door to door immunization preferred
Jamtara	Narayanpur	Equipment not functional
Jamtara	Kundahit	Shortage of ice-packs. DF not operational
West Singhbhum	Jagannathpur	Equipment not functional
Simdega	Kurdeg	Equipment not functional, vaccine not available on regular basis
Dumka	Raneshwar	Equipment not functional
Dumka	Gopikander	Vaccine out of stock for past 2 months
Dumka	Masalia	Equipment not functional
Palamu	Manatu	Equipment not functional
Latehar	Mahuatand	Equipment not functional
Pakur	Litipara	No room for vaccination at PHC

- Cold Chain equipment has been placed in location other than PHC at following sites:

District	Site	Cold Chain equipment installed at
Ranchi	Torpa	Premises of NHPC, Koyal Karo
Saraikela	Ichagarh	Block office, Administration cell
W Singhbhum	Tonto	ACC hospital
W Singhbhum	Kumardungi	Residence of Non Medical Staff
Dumka	Sadar Block	Residence of MOiC
Palamu	Daltenganj Block PHC	Residence of LHV. New Building available but there is no electricity connection yet.
Godda	Boarigor	Mahagama PHC (separate room)
Pakur	Pakudia	Residence of MOiC. There is nether electricity nor wiring done at PHC

- Temperature monitoring devices are not functioning at 64 sites. There is no cold chain monitoring device or freeze indicator accompanying transported vaccine from intermediate sites to health centres and from health centres to outreach sites.
- There is a mismatch between stock indents and available stocks. At some sites, the stocks of consumables are in excess of vaccine stocks.
- There are no full time trained technicians placed for the maintenance of cold chain equipment, there is no workshop and no store for spare parts. Cold chain equipment is maintained by Voltas technicians under a maintenance contract with UNICEF. The average technician response time is in months. At the state-level, no technician has been assigned to the Expanded Programme of Immunization (EPI). No preventive maintenance is undertaken.

- There are no government-initiated technician training programmes. No training has been imparted for handling solar refrigerators and CFC-free equipment.
- At most sites, there is no proper waste disposal method. Broken/used vials and syringes are scattered on the premises.
- Personnel handling cold chain have not received sufficient training. In some cases the incumbent has received no training at all. The lack of training is visible not only in vaccine handling and thermostat adjustments but also routine maintenance and lack of waste disposal practices.
- Recordkeeping is poor whether it has to do with vaccine stocks or temperature monitoring. There is no record of damaged stocks.

1.2. Recommendations

Based on the field assessment, ITPI makes the following recommendations:

1.2.1. Equipment

- Assign and train a team of maintenance technicians with adequate operational budget, or outsource maintenance services.
- Restructure plan for dual mode (solar/electricity) refrigerators and rationalize distribution.
- All CFC machines which are non-operational should not be repaired and should be removed from the inventory.
- 29 CFC-free machines which are not functioning because they have not been repaired should be repaired immediately.
- Procure 30 voltage stabilisers each of 1 KVA capacity to meet the current deficit in the cold chain. Procure additional stabilisers (approx 10% of requirement, 40 units) for purposes of replacement and schedule repair of the 100 units currently out of service.
- Adopt a plan for disposal of obsolete/"beyond repair" equipment and draw up an equipment replacement schedule.
- A preventive maintenance plan should be drawn up and implemented.
- Rationalize assignment of equipment and adopt a 5-year equipment procurement plan.
- Pursue WHO accreditation for Effective Vaccine Store Management (EVSM) for central store of the state.

1.2.2. Management and Logistics

- Prevent freezing of freeze-sensitive vaccines
- Revamp vaccine management and stock control system in accordance with WHO-recommended procedures.
- Adopt and implement a waste management plan.
- Examine vaccine transport facilities afresh and make budgetary allocations.

1.2.3. Personnel

- Motivate personnel through regularizing payment of salaries etc.

- Conduct extensive EPI training at MLM level as per WHO training modules.
- Train ALL health workers who are assigned cold chain responsibilities.

1.2.4. Government of Jharkhand

- Assign dedicated staff at PHC level.
- Strengthen the information system.
- Build capacity (training of MLM in EPI).
- Maintain adequate stock of spare parts and establish maintenance workshops.

1. INTRODUCTION

Immunization is a crucial component of the Public Health Services. Common sense tells us that prevention is better than cure. “Immunization averted about 2 million deaths in 2002. ... In addition, contagion is reduced, strain on the healthcare system is eased and money is frequently saved that can be used on other health services.”¹ Immunisation “is acknowledged among the most cost-effective and highest health-impact interventions.”² The backbone of an efficient immunization system is the cold chain. Cold chain refers to the network of equipment, personnel and processes that ensures that vaccines are transported and stored at appropriate temperatures up to the point of administration, ensuring that they retain their potency. A well-managed cold chain will increase the proportion of effective vaccines that are administered and reduce vaccine wastage.

2. BACKGROUND

Jharkhand gained statehood on 15 November 2000. Having formerly been a part of Bihar, which is categorized among the Bimaru states, Jharkhand inherited the low indices on all development criteria. It is relevant to note that nine out of the 18 poorest districts in the country are in Jharkhand.³ In fact, it ranks very low on the Human Development Index (HDI), indicating poor achievements on the education, standard of living and health dimensions. Among the many goals listed by the state with regard to health is: Universal immunization for pregnant mothers and infants.⁴ To achieve this goal, an efficient cold chain system becomes imperative.

In Jharkhand, the existing vaccine management and logistics system has been adversely affected by a virtually non-existent demand forecasting system, inadequate and/or improper storage conditions, lack of trained manpower, non-existent transportation facilities, exceedingly poor infrastructure in terms of roads in parts of the state, unreliable, and sometimes non-existent, power supply, poor record keeping, wastage, irregular supplies, low motivation among health workers and lack of sufficient financial and material resources.

UNICEF initiated the cold chain assessment in the state in order to support the Jharkhand government in making informed and substantiated decisions on cold chain rehabilitation in the state.

3. SCOPE OF ASSESSMENT

The specific objectives of the assessment included the following:

3.1. Inventory:

3.1.1. Electrical cold chain

- ❑ List the existing number of Ice-Lined Refrigerators (ILRs) and Deep Freezers (DFs), including details regarding date of installation, serial number, make, model, CFC/CFC-

¹ <http://www.who.int/mediacentre/factsheets/fs288/en/>

² <http://www.comminit.com/strategicthinking>

³ fincomidia.nic.in/pubsugg/memo_jkhand.pdf+Human+Development+Index+Jharkhand&hl=en

⁴ Ibid.

free, type, size, functional status and available accessories like thermometers at the district stores and the Public Health Centres (PHC).

- ❑ List the existing number of stabilizers and gensets, including details regarding manufacturer, type, specifications (volts/power), number of machines connected to it (type of machine and size of machine), functional status, quality of wiring and number of plug points and output, PHC and district-wise.

3.1.2. Non- electrical cold chain

- ❑ List the existing number of cold boxes, vaccine carriers, ice-packs PHC and district-wise.

3.2. Logistics and maintenance:

- ❑ List PHCs with normal power supply/low voltage (< 150v)/less than 8 hours of power supply/no power supply/type of power supply—single-phase, two-phase, three-phase—and whether earthing is present.
- ❑ Assess the vaccine delivery system—how vaccines reach from the state vaccine store to the immunization session, covering each link in the chain: responsibilities, transport, and frequency of dispatches.
- ❑ Assess working condition of electrical and non-electrical cold chain equipment at all levels, including ILRs, DFs, temperature monitors, diesel gensets (including typical monthly fuel requirement) and voltage stabilizers, cold boxes, vaccine carriers and ice-packs.
- ❑ Assess whether the existing electrical and non-electrical cold chain equipment is adequate to meet vaccine demands and whether the units are well maintained.
- ❑ Assess the reporting system that exists when electrical and non-electrical cold chain equipment breaks down and the response time; and list the problems that arise both at the PHC and the technician level when the response time is more than 48 hours.
- ❑ Assess the availability and adequacy of spare parts for repair; cost of major and minor repairs of electrical cold chain equipment; and examine procedures followed for addressing minor and major repairs.
- ❑ Determine the availability of skilled maintenance technicians, the average travel distances for them, and the time required to carry out the repairs.

4. METHODOLOGY

The first phase of the project consisted of a briefing with the Government of India, the Department of Health and Family Welfare (DH&FW) and UNICEF. An assessment form was prepared to evaluate the status of the cold chain equipment, maintenance, power situation, vaccine handling, record keeping and staff training at the PHC and district levels. Three independent assessment teams were mobilized to cover the 22 districts and 192 PHCs in the state. The assessment began on 21 September 2005 and continued till 18 October 2005, with a break of four days from 10 to 14 October 2005 due to national holidays. The assessment teams first visited the district stores, followed by the PHCs in the district. They reviewed on-site facilities and procedures, evaluating both electrical and non-electrical equipment. All the electrical units were assigned asset numbers by the assessment team to aid follow-up in the future. The cold chain staff were interviewed to determine skills and efficiency.

Totally, 213 sites were visited, which included 190 PHCs, 22 district stores and central store. The teams were advised against visiting two sites: Gawan (Giridih district) and Satgawan (Koderma district) since they were considered potentially unsafe.

The forms used to record the findings were countersigned by the staff responsible for handling the cold chain. In most cases, the Medical Officer in-Charge (MOiC), or the Lady Health Volunteer (LHV) or 'Computer operator' (an accounts-related post) was interviewed; in the absence of the cold chain in-charge, the Auxiliary Nurse and Mid-wife (ANM) or other staff were interviewed. Wherever possible, all staff related to the cold chain were interviewed.

Based on the feedback and data collected from the field, a list of recommendations has been drawn up.

A more detailed description of the methodology is given below.

4.1. Assessment of site

The assessment team visited each site in the state to review quality of buildings, equipment and transport. Sites were assessed to determine adequacy of space, ventilation, space for packing and loading vaccine for onward despatch, location of burial pit or incineration site used for the disposal of safety boxes, and availability of staff to monitor cold chain in the event of power failure.

4.2. Assessment of electrical cold chain

All the sites were assessed to evaluate vaccine storage capacity, stacking procedures, capacity to produce ice-packs for regular and campaign programmes and functional status of equipment. The power supply connections, stabilizer support, earthing of equipment, and temperature log books were also examined. The equipment was broadly classified into three categories namely: Working (functional), Not Working (non-functional equipment, but could be repaired) and Condemned or Beyond Repair.⁵ Maintenance and record keeping procedures were evaluated.

4.3. Assessment of non-electrical cold chain equipment

Non-electrical cold chain equipment includes cold boxes, vaccine carriers, ice-packs and thermometers. All sites were reviewed for their present stock and condition of the equipment. Cold boxes were physically checked for damage to hinges, locks, handles, lids, gaskets and chains and the body itself.

4.4. Assessment of power situation and back-up power supply mechanism

To evaluate the power supply situation, the staff at the site were interviewed regarding hours of assured supply, usage of the generator, fuel purchase, and funds for fuel. The temperature record book was examined to corroborate information. Information garnered on power supply tended to be rather subjective and was frequently not substantiated by the temperature readings and generator usage recorded.

4.5. Assessment of vaccine storage and delivery mechanism

Stock books used for recording the entry and despatch of vaccines and diluents were checked to evaluate stock management and record keeping. Vaccine consumption during routine im-

⁵ Beyond repair: extensive damage to the body; rusted, damaged CFC-based compressors; the Voltas maintenance technicians have marked the equipment as 'condemned'.

munization, entry of recently delivered vials and despatch to PHCs and sub-centres as well as entry of damaged/expired vaccine was also checked. This was co-related with stock and supply of consumables.

The delivery system and the frequency of procurement/delivery were assessed by interviewing the staff and verifying the indent challans. The vaccine transport mechanism was also evaluated.

4.6. Assessment of sharp waste disposal

Sites were assessed for their sharp waste disposal practices. Usage of safety boxes and hub cutters was assessed and some correlation was sought to be made between vials used and the number of children vaccinated against the number of safety boxes used. Sharp waste disposal locations were inspected and the waste disposal method recorded.

4.7. Assessment of cold chain personnel

The staff responsible for the cold chain operations were interviewed to determine whether they had received sufficient training and to assess their understanding of the cold chain and its operation and maintenance, including defrosting cycle, thermostat setting, and cleaning of equipment. Additionally, information was sought on vaccine handling, shipment and transportation, handling in case of electricity supply breakdown, usage of gensets, record keeping of damaged vaccine, disposal of damaged vials, conditioning of ice-packs, storage of vaccine at different levels within the refrigeration unit, VVM awareness, shake test for the T series vaccines, and the use and disposal of safety boxes.

4.8. Assessment of cold chain equipment maintenance

The staff responsible for the maintenance of electrical and non-electrical equipment were interviewed to assess cold chain equipment maintenance practices.

Assessors met the staff responsible for maintenance of the electrical cold chain in Jamshedpur, East Singhbhum. They spoke to Mr B.K. Ghosh, the Servicing Manager from Voltas in Patna to discuss the nature and scope of Voltas's maintenance contract with UNICEF. An unsuccessful attempt was made to meet one sub-contractor in West Singhbhum, Cool Life, Badi Bazar, Chaibasa. Assessors later learnt that this company no longer held the servicing contract.

5. REQUIREMENT OF COLD CHAIN EQUIPMENT

The requirement of cold chain equipment is calculated based on standards prescribed in the Product Information Sheet (PIS, year 2000 version) document of WHO.

Table 2: Cold chain system requirement as per PIS 2000 (page 6 of general information)

Level	Temperature of storage	Population served	Type of equipment needed	Gross storage volume needed
National or regional stores (4 months stock)	0 to +8°C	Up to 5 M	Refrigerators	500 litres/M
	0 to +8°C	Over 5 M	Cold room	1.2 m ³ /M
	-15 to -20°C	Up to 25 M	Freezers	225 litres/M
	-15 to -20°C	Over 25 M	Cold rooms	0.7 m ³ /M
Transport to region (quarterly deliveries to ten regions simultaneously)	0 to +8°C	No limits	Cold boxes	47 litres/M
Transport to local stores (monthly deliveries to all stores simultaneously)	0 to +8°C	No limits	Cold boxes	16 litres per 100 000
Local stores, including health centres (6 weeks stock)	0 to +8°C	No limits	Refrigerator with icepack freezing	4.4 litres per 10 000

lists the cold chain requirement based on population for each district. A detailed analysis for each site is available in

APPENDIX A. Adequate capacity of the cold chain equipment is calculated based on the population being served through each site.

Table 3: Cold Chain requirement based on population statistics (summarised district-wise)

District	Number of sites	ILR⁶ (Gross Litres)	DF⁶ (Gross Litres)	Cold Box (Gross Litres)
Bokaro	10	1773	1285	606
Chatra	7	743	526	253
Deoghar	8	877	621	299
Dhanbad	9	2019	1361	682
Dumka	11	872	610	296
East Singhbhum	10	1864	1319	635
Garhwa	9	753	533	256
Giridih	13	1748	1226	594
Godda	8	810	573	276
Gumla	11	611	416	207
Hazaribagh	14	1726	1221	588
Jamtara	5	512	362	174
Koderma	4	466	317	158
Latehar	7	439	311	149
Lohardaga	6	272	192	92
Pakur	6	457	302	154
Palamu	11	1330	909	450
Ranchi	24	14111	6886	1839
Sahebganj	8	693	490	236
Saraikela Kharsawan	9	663	468	226
Simdega	9	420	297	134
West Singhbhum	13	960	663	326
Grand Total	212	34119	20885	8629

Table 4 shows the requirement of cold chain equipment at the district stores of the state.

⁶ Net Requirement based on target population

Table 4: Requirement of cold chain equipment at district stores

District	Total Pop-ulation	ILR ⁷	DF ⁷	Cold Box
		(Gross Litres)	(Gross Litres)	(Gross Litres)
Bokaro	1775961	888	400	284
Chatra	790680	395	178	127
Deoghar	933113	467	210	149
Dhanbad	2394434	1197	539	383
Dumka	950853	475	214	152
East Singhbhum	1982988	991	446	317
Garhwa	801350	401	180	128
Giridih	1901564	951	428	304
Godda	861182	431	194	138
Gumla	707555	354	159	113
Hazaribagh	1836068	918	413	294
Jamtara	544856	272	123	87
Koderma	540901	270	122	87
Latehar	467071	234	105	75
Lohardaga	288886	144	65	46
Pakur	564253	282	127	90
Palamu	1533173	767	345	245
Ranchi	2214088	1107	498	354
Sahebganj	736835	368	166	118
Saraikela Khar-sawan	707175	354	159	113
Simdega	446421	223	100	71
West Singhbhum	1080780	540	243	173

6. SITUATIONAL ASSESSMENT

The state immunization policy is implemented under the Reproductive and Child Health (RCH) Programme and covers OPV, BCG, DPT, DT, TT and measles. The state has a good network of PHCs, substantially covering the rural and urban populations. Each PHC ensures optimum coverage of sub-centres and health posts serviced by a network of health and anganwadi workers.

⁷ Net requirement based on target population

EPI was initiated in India in 1978, and in 1985-86 the Universal Immunization Programme was launched. To ensure programme implementation, all PHCs in the state were equipped with an ILR, a DF, and a generator to act as the power supply backup. The DF at the PHC level is required to facilitate the making of ice-packs, which are used in the vaccine carriers to transport vaccines to health posts and rural areas for the regular weekly immunization programme. However, with 12% (43% including beyond repair) of equipment not functional throughout the state, maintaining the cold chain becomes a challenging task. 17% of the equipment has aged and use CFC refrigerants; while 30% of the equipment is beyond repair.

Electricity supply to most of the cold chain sites is inadequate or unreliable with persistently low voltage, which is insufficient to efficiently run the ILRs (even after taking into consideration normal hold-over time). The power supply is unable to support use of DFs at 32 PHCs. Generators were supplied to all sites—184 were recorded at sites throughout the state, of which 53 are not working. Availability of funds for fuel is an issue.

Provision is now being made for hybrid solar refrigerators, which, if supported by relevant training and maintenance and repair, could possibly help towards a long-term and sustainable solution if the load requirement at the PHC is not too heavy. But the current dual mode solar system is NOT suitable for use at any site unless major technical improvements are made with cost implications.

Only 64% of the operational equipment is connected to voltage stabilizers; as a consequence exposing costly equipment to breakdown due to voltage instability.

Supply of vaccine is found to be regular but frequent, probably in order to address the inadequacy of quality storage conditions. There was no report of non-availability of any vaccine at the PHC level. However, supply of AD-syringes and diluents is not recorded and there is no co-relation maintained between vaccine supply and other consumables required for vaccination. At many PHCs and DHQs, the assessors found excess stock of AD syringes.

Transportation of vaccine to the PHCs poses many problems. The vaccine is generally fetched by the PHC staff from the district store (except during campaign rounds such as the Pulse Polio Programme for instance) in preparation for the appointed immunization day (either Wednesday or Thursday). Most PHCs do not possess a vaccine delivery van, but some have ambulances, which are frequently no longer functioning. As a general practice, vaccine is either fetched in the ambulance or public transport is used to fetch the vaccine. The Sahibganj district store is an exception, and vaccine is delivered from here to the PHCs on a weekly basis since infrastructure in terms of roads within the district is very poor, and it takes a district store vehicle a full day to deliver vaccine at all the PHCs in the district.

The following sub-sections describe in greater detail the findings of the field assessment. The findings are followed by recommendations which point towards solutions to strengthen the cold chain in the state.

6.1. Cold Chain network

6.1.1. Central store site assessment

The central store, located at Namkum, Ranchi, has 3 WICs and 1 WIF. All the units are operational. The WICs are connected to auto-start generators, but the generators were under repair at the time of the site assessment. One solar hybrid refrigerator has been installed at central store as a part of the pilot assessment.

A quick evaluation against EVSM criteria reveals that:

- ❑ The pre-shipment and arrival procedures have ensured that all shipments are in a satisfactory condition when received at the primary store.
- ❑ All vaccines have been stored within WHO-recommended temperature ranges, except for measles, which is still being kept in the WIF.
- ❑ The three WICs and 1 WIF hold sufficient cold storage capacity to meet the present vaccine demand.
- ❑ The building and cold chain equipment available to the store is sufficient to run the programme efficiently. Transportation is managed by the district stores, as vaccine is collected on a routine basis from the central store.
- ❑ Stock management has been ineffective. There have been instances of over stocking and stockouts. This is primarily because the vaccine distribution system is on ‘pull’ basis, with no regular and standard intimation in advance.
- ❑ There is no accountability of deliveries of vaccine to the next level for being timely, sufficient and correct.
- ❑ As per the records, no damage has been reported during vaccine distribution.
- ❑ Standard operating procedures are not adhered in toto. There is no reliable backup of staff operating the store, especially on weekends and holidays. There is no temperature alarm system in place. The facility has 24 hrs electricity backup through a centralized generator for the entire complex where the store is located. This ensures good power supply to the cold rooms; however, freeze sensitive vaccines are still vulnerable to freezing.

6.1.2. District store site assessment

There are 22 districts in Jharkhand, with as many district stores. The Sadar (District) Hospital premises normally houses the district store. All the district stores fetch vaccine from the central store at Namkum.

A WIC has been installed at the Giridih district store to ease supply of vaccine in the north-eastern part of the state (Deogarh, Godda, Sahebganj, Pakur, Jamtara and Dumka). However, the WIC at Giridih has not been working since the past three years. The supply of vaccine to these districts therefore poses a challenge as the distance from the central store to these districts is considerable: Sahebganj, for instance, is more than 400 km by road. Vaccine to some of these districts was supplied from the Bhagalpur regional store situated in Bihar before Jharkhand emerged as a separate state.

Table 4 summarizes the number of refrigeration units available at each district store (where the vaccine is held normally for a period of three months).

Table 5: Equipment available at District Stores

District	Operational units				Repairable units			
	ILR		DF		ILR		DF	
	Small (94 Ltr gross)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)	Small	Large	Small	Large
Bokaro	1	1	1	1				
Chatra		3	1	1			1	

Deoghar	1	5		1				4
Dhanbad		2		3				4
Dumka	4	2	1	1		1		3
East Singhbhum	7		2	4				1
Garhwa	2	2		3				
Giridih		1		4				
Godda	2	1	1	1				
Gumla		1		2		1		3
Hazaribagh		4		2				2
Jamtara	3			2	1			
Koderma	3	4	1	2				
Latehar	1		2		1			
Lohardaga	1			2				
Pakur	4	3		3			1	
Palamu	2	2		2				
Ranchi	2	1	1	3				
Sahebganj	7	1	1	2		1	1	1
Saraikela Kharsawan	5		2	2				
Simdega	3	3		3				
West Singhbhum	6	1	3	4	1	1		

At the Sahebganj, Godda, Giridih, Ranchi and Saraikhela Kharsawa district stores, the cold chain equipment is located in congested rooms, preventing easy access to receive and despatch vaccines, as well as prepare cold boxes, vaccine carriers and icepacks for transportation. As for the Pakur district store, a new hall is now being provided by UNICEF. The new location is satisfactory; proper electrical wiring has been done; and there is adequate ventilation and storage space for storing and packing vaccines.

6.1.3. PHC site assessment

At many PHCs, the equipment is stored in damp and ill-ventilated rooms. The normal practice is to close all windows and lock the door at the end of duty hours. Often the surroundings are not clean. Access to some PHCs is jeopardized by bad roads. The assessment team encountered difficulties in spite of 4-wheel vehicles. But the PHC staff mainly go on foot for door to door vaccination, use 2-wheelers or infrequent and congested public transport. In West Singhbhum there is railway line running two trains per day connecting 2 PHCs. The team encountered vaccinators providing OPV on these trains; but it is not evident that health service staff use train service on regular basis.

6.2. *Inventory and status of electrical equipment*

6.2.1. State-level inventory

Jharkhand has 4 WICs and 1 WIF for the storage of vaccine coming into Jharkhand. Three WICs and one WIF are located at the central store at Namkum, Ranchi; and one WIC is installed at the Giridih district store.

➤ *WICs and WIF at the central store, Namkum*

The WICs and WIF at the central store are operational and fairly well maintained. The WIF has a problem with the left hand-side compressor, as the drainage pipe is broken. The right-hand-side compressor is functioning well, but the drainage pipe was without the heating cable which makes drainage pipe vulnerable to freezing and hence blocks the drainage of water outside WIF. There is some ice formation on the compressors. The auto-shift function is not working and has to be operated manually to change from one compressor to the other. The WIC delay start is not functioning and the auto-cut off is unreliable. The generator does not start up in the automatic mode and has again to be manually operated. There is no temperature alarm system in place at the cold room facility.

➤ *WIC at Giridih*

The WIC at the Giridih district store has not been functioning for the past three years. One of the two compressors is not working. When the WIC was rewired, the security controls governing power supply to the WIC were bypassed. The state RCH officer has been attempting to procure a dedicated three-phase power connection for the WIC and funds for rewiring the entire electrical circuit, but has met with little success. A feasible solution is yet to be found to repair the WIC. No manual or technical information on the WIC is available at the store.

Since the past two years, the generator does not switch on automatically and has to be manually operated. In addition, the post of refrigeration mechanic has been lying vacant for many years.

➤ *ILRs and DFs*

The entire state of Jharkhand is equipped with 440 ILRs and 433 DFs allocated to 1 Central store, 22 district stores, 1 district sub depot and 190 PHCs.

An electronic database of the electric and non-electric cold chain, giving the state-level inventory site-wise, in MS Access (2002 version), is provided along with this report. This database can be used as a management tool to incorporate future changes in the cold chain network in the state as well as estimate the storage capacity at each level of the chain.

6.2.2. State-level CFC and CFC-free equipment inventory

Totally, the state has 302 ILRs and 260 DFs using CFC refrigerant, which constitutes 64% of the total cold chain equipment in the state. Out of the 562 CFC units, 228, i.e. 41%, are still operational; the remaining 59% is not functioning or beyond repair. As per the Montréal Protocol, the CFC machines should be replaced by CFC-free equipment as soon as it is economically feasible to do so; till then, the units should be maintained using a CFC refrigerant and serviced as per best practices.

Table 6: Summary of refrigeration units in the state

Status	DF			ILR		
	SMALL	LARGE	Total	SMALL	LARGE	Total

Cold Chain Assessment in Jharkhand

	CFC	CFC-FREE	CFC	CFC-FREE		CFC	CFC-FREE	CFC	CFC-FREE	
Beyond Repair	90	5	52		147	106	4	6	3	119
Not Working	9	9	38	5	61	32	12	1	3	48
Working	18	103	53	51	225	141	92	16	24	273
Grand Total	117	117	143	56	433	279	108	23	30	440

Appendix B lists out the shortage of equipment at each site. This shortage should be addressed as a priority and CFC-free equipment supplied.

Forty-one CFC-free units are reported to be not working or beyond repair. These were probably installed after 1998-2000. Major problems associated with failure of CFC-free equipment include:

- 1) Equipment does not cool after being serviced by technicians; and
- 2) Failure of compressor due to voltage fluctuations (machines connected without stabilizers).

6.2.3. State-level age profile of equipment

The effective age of a refrigeration unit may be considered as roughly 15 years; however, the WHO recommendation is 10 years for a refrigeration unit. In the Jharkhand cold chain, roughly 10% of the equipment is more than 15 years old, of which 7% is not working. More than 27% of the equipment is between 8 and 15 years old, of which 16% is working. Equipment that has aged should be replaced on a priority basis, but this will depend on the replacement plan and the financial resources available.

Table 7 shows the age profile (based on the refrigerant used) to facilitate drawing up an adequate replacement plan.

A detailed age profile of the refrigeration units is available in Appendix G.

Table 7: Age profile of cold chain refrigeration units based on refrigerant used

Equipment Type	CFC				CFC-FREE			
	Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
ILR Operational	18	47	84	8	55	57	4	
ILR Repairable ⁸	3	5	20	5	3	10	2	
ILR Total	21	52	104	13	58	67	6	
DF Operational	11	13	38	10	70	75	8	
DF Repairable	2	4	39	2	5	8	1	
DF Total	13	17	77	12	75	83	9	

6.2.4. District-wise CFC and CFC-free equipment

Table 8 summarizes the inventory of CFC ILRs district-wise. The detailed inventory of CFC ILRs site-wise is available in

⁸ CFC machines should not be repaired if compressor is defective or gas need recharging.

Appendix C.

Table 8: Inventory of CFC ILRs, summarised district-wise

District	Number of Sites	SMALL				LARGE			
		Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Bokaro	10	6		9	15	1			1
Chatra	7	1		3	4	1			1
Deoghar	8	6		7	13	3		1	4
Dhanbad	9	4	3	9	16	1		1	2
Dumka	11	6	4	3	13				
East Singhbhum	10	16	1	1	18				
Garhwa	9	5	1	5	11	1			1
Giridih	13	11	2	10	23			1	1
Godda	8	6	3	2	11				
Gumla	11	6	3	4	13			2	2
Hazaribagh	15	6	2	11	19	3			3
Jamtara	5	3	2	1	6				
Koderma	4	5		2	7	4			4
Latehar	7	3		6	9				
Lohardaga	6	5	2	3	10				
Pakur	6	5		5	10	1			1
Palamu	11	6	1	1	8	1			1
Ranchi	24	15	1	13	29			1	1
Sahebganj	8	10	1	1	12				
Saraikela Khar- sawan	9	2	1	2	5				
Simdega	9	6		4	10				
West Singhbhum	13	8	5	4	17		1		1
Grand Total	213	141	32	106	279	16	1	6	23

Table 9 summarizes the inventory of CFC-free ILRs district-wise. The detailed inventory of CFC-free ILRs site-wise is available in

Appendix: D.

Table 9: Inventory of CFC-Free ILRs, summarized district-wise

District	No of Sites	SMALL				LARGE			
		Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Bokaro	10	2	1		3	2			2
Chatra	7	4	1		5	2			2
Deoghar	8	3	1		4	2			2
Dhanbad	9	7			7	1			1
Dumka	11	4		1	5	2	1		3
East Singhbhum	10	2			2				
Garhwa	9	5			5	1			1
Giridih	13	2		1	3	1		1	2
Godda	8	4	2		6	1			1
Gumla	11	2			2	1	1		2
Hazaribagh	15	7	1		8	1			1
Jamtara	5	3			3			1	1
Koderma	4	1			1				
Latehar	7	4	1		5				
Lohardaga	6	4	3	1	8				
Pakur	6	4			4	2			2
Palamu	11	4	1		5	1			1
Ranchi	24	8	1		9	2		2	4
Sahebganj	8	3			3	1	1		2
Saraikela Khar-sawan	9	8		1	9	1			1
Simdega	9	6			6	3			3
West Singhbhum	13	5			5	1			1
Grand Total	213	92	12	4	108	25	3	4	32

Table 10 summarizes the inventory of CFC DFs district-wise. The detailed inventory of CFC DFs site-wise is available in Appendix: E.

Table 10: Inventory of CFC DFs, summarized district-wise

District	No of Sites	SMALL				LARGE			
		Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Bokaro	10			5	5	3	1	4	8
Chatra	7			4	4		1	1	2
Deoghar	8	2		7	9	1	4	1	6
Dhanbad	9		1	2	3	5	8	6	19
Dumka	11		1	1	2		1	4	5
East Singhbhum	10	7		2	9	6	4	2	12
Garhwa	9			5	5	2		1	3
Giridih	13			15	15	7	2	8	17
Godda	8		1		1		2	3	5
Gumla	11		1	5	6	5	4	3	12
Hazaribagh	15		1	13	14	1	3	4	8

District	No of Sites	SMALL				LARGE			
		Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Jamtara	5		1		1	1			1
Koderma	4			1	1		2		2
Latehar	7			4	4				
Lohardaga	6			1	1	4		2	6
Pakur	6								
Palamu	11			2	2	1		2	3
Ranchi	24	1	1	11	13	10	2	5	17
Sahebganj	8	2			2	4	1	1	6
Saraikela Kharsawan	9	2		7	9	1	1	4	6
Simdega	9			1	1	1	1	1	3
West Singhbhum	13	4	2	4	10	1	1		2
Grand Total		18	9	90	117	53	38	52	143

Table 11 summarizes the inventory of CFC-free DFs district-wise. The detailed inventory of CFC-free DFs site-wise is available in Appendix F.

Table 11: Inventory of CFC-Free DFs, summarized district-wise

District	No of Sites	Small				Large			
		Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Bokaro	10	3			3				
Chatra	7	3	2		5	2			2
Deoghar	8	3			3	1			1
Dhanbad	9	7			7	6			6
Dumka	11	4	1	1	6	1	3		4
East Singhbhum	10	3			3	1			1
Garhwa	9	2			2	3			3
Giridih	13	8			8	3			3
Godda	8	4		1	5	2			2
Gumla	11	4	1		5	1			1
Hazaribagh	15	11	1		12	2	1		3
Jamtara	5					2			2
Koderma	4	2			2	3			3
Latehar	7	4	1	1	6		1		1
Lohardaga	6	9			9	3			3
Pakur	6	4	1		5	3			3
Palamu	11	6		1	7	2			2
Ranchi	24	8			8	2			2
Sahebganj	8	6	2		8	1			1
Saraikela Kharsawan	9	4		1	5	2			2
Simdega	9	3			3	8			8
West Singhbhum	13	5			5	3			3
Grand Total	213	103	9	5	117	51	5		56

The existing vaccine storage capacity available at all PHCs and DSs is provided in

Appendix B. This has been further broken up into operational ILRs and DFs at each location. District-wise condemned equipment

Table 12 gives a district-wise summary of the ‘condemned’ units. A detailed list of the condemned equipment is provided in

Appendix N.

Table 12: Number of condemned refrigeration units district-wise

District	Total number of DFs	Total number of ILRs
Bokaro	9	9
Chatra	5	3
Deoghar	8	8
Dhanbad	8	10
Dumka	6	4
East Singhbhum	4	1
Garhwa	6	5
Giridih	23	13
Godda	4	2
Gumla	8	6
Hazaribagh	17	11
Jamtara	0	2
Koderma	1	2
Latehar	5	6
Lohardaga	3	4
Pakur	0	5
Palamu	5	1
Ranchi	16	15
Sahebganj	1	1
Saraikela Kharsawan	12	3
Simdega	2	4
West Singhbhum	4	4
Grand Total	147	119

6.2.5. Stabilizers

Many of the brands, particularly the stock issued by UNICEF at the start of the programme: Sagar, Electrogard and Selvel, cannot deal with low voltage, which is a problem encountered at many PHCs. Voltas has identified a locally manufactured stabilizer, which they have placed at some stores. It has a rating of 100-280 volts, and can handle voltage fluctuation.

Table 13 displays the stock and operational status of the stabilizers summarized district-wise. It also compares the functional stabilizers against the working and repairable units at the site. A minimum of one stabilizer is required to run two refrigeration units. Table 13 shows the net shortage and excess units at each site. (Refer to Appendix J to see the detailed inventory of stabilizer status site-wise.) Table 13 will aid transfer of excess units to those sites where there is a dearth. Shortage and excess of stock has been summarized district-wise to make distribution easier.

Table 13: Summary of operational status of stabilizers

District	No. of sites	Functional & repairable ILR and DF	Total no. of stabilizers	Functional stabilizers	Shortage and Excess	
					Shortage of stabilizers	Excess of stabilizers
Bokaro	10	19	22	18	1	7
Chatra	7	17	13	7	3	1
Deoghar	8	26	20	20	2	8
Dhanbad	9	43	22	12	12	
Dumka	11	28	15	14	4	2
East Singhbhum	10	40	19	14	9	1
Garhwa	9	20	21	17	1	6
Giridih	13	36	29	20	7	4
Godda	8	25	18	15	3	3
Gumla	11	29	19	16	2	2
Hazaribagh	15	40	30	17	9	2
Jamtara	5	12	6	6	1	
Koderma	4	17	10	9	1	1
Latehar	7	14	10	7	1	
Lohardaga	6	30	23	18	2	3
Pakur	6	20	11	10	2	1
Palamu	11	23	19	15	4	5
Ranchi	24	50	43	33	7	11
Sahebganj	8	32	10	9	9	
Saraikela Kharsawan	9	22	18	14	1	2
Simdega	9	28	15	11	7	1
West Singhbhum	13	36	28	20	2	2
Grand Total	213	607	421	322	90	62

As many as 182 of the cold chain appliances were running without stabilizers, which seems to be due to shortage of supply, or non-replacement of non-working stabilizers. In the whole state, there are only 421 stabilizers, of which 322 are functional.

6.2.6. Non-electrical equipment

Table 14, Table 16 and Table 17 give a comprehensive picture of the non-electrical equipment stock site-wise, covering the district stores and the PHCs. It also indicates the number of damaged units at each site.

Table 14: Cold box inventory and status at a glance

Number of cold boxes				Chain		Hinge		Handle		Cover		Gasket	
Size	W	NW	Total	W	NW	W	NW	W	NW	W	NW	W	NW
5 L	930	204	1134	359	775	679	455	1020	114	1057	77	663	471
8 L	59	9	68	23	45	59	9	67	1	66	2	53	15
20 L	660	132	792	556	236	517	275	725	67	743	49	511	281
25 L	28	18	46	45	1	27	19	45	1	43	3	15	31

Table 15 summarizes the status of cold boxes by size for each district. A detailed list of the inventory with present status and net requirement of cold boxes is available in

Appendix M.

Table 15: Operational status of cold boxes, summarized district-wise

District	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (gross ltr)	Net requirement (20 ltr boxes)
	Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Bokaro			42	8	8		37	30	1089	606	17	1
Chatra	1		9	13	3		16	21	309	253	123	9
Deoghar			34				36	6	860	299	21	2
Dhanbad	1		43	12		1	81	32	1290	682		
Dumka			26	4			21	3	625	296	157	9
East Singhbhum	18	18	55				205	1	2575	635	206	11
Garhwa			37	1			50	2	990	256		
Giridih			44	11	2		52	23	1156	594	24	2
Godda			15	13	2	2	37	2	501	276	51	3
Gumla			30	6	1		36	7	788	207		
Hazaribagh	1		37	8	4		42	19	1007	588	90	6
Jamtara			20	2		6	5	3	425	174	22	2
Koderma			24	7	4		13	7	577	158		
Latehar	3		17				29	3	560	149	25	2
Lohardaga			10	1	5		20		340	92		
Pakur			7	15	1		5	7	173	154	93	6
Palamu			36	6	5		35	9	935	450	16	1
Ranchi	3		53	14	4		66	16	1497	709	83	6
Sahebganj			34	4	7		56	2	1016	236	41	3
Saraikela Kharsawan			31				35		795	226	33	2
Simdega			21	1	5		13		525	134	9	1
West Singhbhum	1		35	6	8		40	11	989	203	7	1
Grand Total	28	18	660	132	59	9	930	204	19022	7376	1018	67

There was a mismatch between the physical count of cold boxes available at the site and the record of cold boxes issued. The Pulse Polio Programme was on at the time of the assessment and probably the cold boxes and vaccine carriers were left at the different sites to be collected at the end of the day. Some sites could not furnish the record of cold boxes issued to them; therefore only the number of cold boxes available at the site was recorded and the estimates of cold boxes out in the field were added based on staff interviews.

Vaccine carrier and ice-box inventories were also based on physical count and approximations of units despatched to the field.

Table 16 lists out the inventory of vaccine carriers along with their present status summarized district-wise. The detailed list is available at Appendix L.

Table 16: Status of vaccine carriers, summarized district-wise

District	Number of sites	Good condition	Beyond use
Bokaro	10	1860	203
Chatra	7	804	95
Deoghar	8	937	17
Dhanbad	9	1793	93
Dumka	11	1311	86
East Singhbhum	10	2079	47
Garhwa	9	1208	75
Giridih	13	1376	137
Godda	8	1355	80
Gumla	11	955	69
Hazaribagh	15	1865	310
Jamtara	5	787	27
Koderma	4	452	100
Latehar	7	562	90
Lohardaga	6	599	22
Pakur	6	868	27
Palamu	11	1313	56
Ranchi	24	2631	86
Sahebganj	8	575	26
Saraikela Khar-sawan	9	1521	35
Simdega	9	502	20
West Singhbhum	13	1652	69
Grand Total	213	27005	1770

Table 17 lists out the ice-pack inventory summarized district-wise. A detailed inventory of ice-packs site-wise is available in Appendix K.

Table 17: Summarized inventory of ice-packs

District	Number of sites	Functional	Non functional
Bokaro	10	12549	1348
Chatra	7	5060	890
Deoghar	8	6120	430

District	Number of sites	Functional	Non functional
Dhanbad	9	13290	810
Dumka	11	5134	130
East Singhbhum	10	9000	3020
Garhwa	9	7175	400
Giridih	13	10020	1875
Godda	8	5420	355
Gumla	11	9928	210
Hazaribagh	15	13050	2275
Jamtara	5	5810	110
Koderma	4	2425	1075
Latehar	7	3078	111
Lohardaga	6	3560	400
Pakur	6	7735	800
Palamu	11	7000	650
Ranchi	24	13647	610
Sahebganj	8	6150	50
Saraikela Kharsawan	9	10120	30
Simdega	9	2525	205
West Singhbhum	13	18120	305
Grand Total	213	176916	16089

6.3. Power supply

Crucial to the efficiency of the cold chain equipment is the availability of regular, continuous and reliable power supply with adequate voltage, and, in the case of power failure, the availability of operational and regularly serviced back-up facilities.

Insufficient voltage cannot run an ILR, which requires eight hours of good quality power supply in order to hold over for 16 hours without power⁹. 32 PHCs in the state have no power supply at all. At some sites, the DFs were being used as ILRs due to insufficient voltage, with the DFs being unable to maintain freezing conditions. The reasons for irregular or no power supply ranged from transformer breakdowns to disconnection due to non-payment of dues.

➤ Cold rooms

At the central store, the power supply is dependable with no voltage fluctuation. The site is equipped with 3 WICs and 1 WIF. But the auto-start generators have broken down.

However, at the Giridih district store, which has a WIC, the power supply is unreliable with frequent voltage fluctuations. The WIC was installed here in order to facilitate vaccine distribution. As soon as the WIC is repaired, it is imperative that the automatic power back-up systems be repaired as the 4 generators are manually operated at present.

➤ District stores and PHCs

Only 80 of the 213 sites assessed have reliable power supply. At 71 PHCs, there is less than 8 hours of regular power; 29 sites suffer from low voltage continuously, although the power

⁹ Immunization in practice: Module 3: The Cold Chain: WHO

cuts are few; 32 sites have no power supply at all. The existing voltage stabilizers are unable to cope with voltage below 150 kVa.

Irregular power supply is handled in various ways at different locations. While at some PHCs, short-term needs, for the pulse polio catch-up rounds for instance, are met by buying blocks of ice and using the cold boxes to store the vaccines; at others, the vaccines are transferred to an alternative site when there are extended power breakdowns. In many cases, however, the same system is used for the regular programme too, with the vaccine being held for some days in cold boxes with ice-packs and ice slabs from factories. In order to assure quality vaccine, thermometers must accompany such storage systems, and this is frequently not the case. At Tonto, the MoIC made alternative arrangements by requesting out of scope authorization (to transfer the refrigeration equipment to the ACC plant medical service, where the power supply was considered reliable. The routine programme is now run from this facility, as is the management of Pulse Polio campaigns.

Irregular power supply is most often handled by avoiding long periods of vaccine storage at the PHC site. Vaccine is fetched on a weekly basis, a day prior to the routine immunization day, and only the quantity required to meet the PHC and its sub posts' demands is brought. The vaccine is then stored in cold boxes and vaccine carriers. The surplus vaccine remaining after immunization is returned to the district store; but the practice of returning the unused vials is reported only at a few sites and is not reflected in the stock records.

At Saraikhela Kharsawa, the equipment from the district store has been shifted to Chandil sub depot due to frequent breakdowns and poor voltage at the DHQ.

Appendix H provides an exhaustive list of the sites and the power supply status.

At all the locations with low voltage and poor power supply (Appendix H), high levels of maintenance are required to protect vaccine integrity. Table 18 summarizes the power supply situation in the state.

Table 18: Summary of power supply situation in the state

District	No. of sites	Sites with adequate power supply	Sites with low voltage	Sites with inadequate power supply	Sites with no power supply at all
Bokaro	10	4	2	4	
Chatra	7	1	1	3	2
Deoghar	8	4	1	3	
Dhanbad	9	4	4	1	
Dumka	11	2	3	6	
East Singhbhum	10	8		2	
Garhwa	9	1	3	3	2
Giridih	13	3	1	4	5
Godda	8	4	1	2	1
Gumla	11	3	2	4	2
Hazaribagh	15	6	2	3	4
Jamtara	5	4		1	
Koderma	4	2		1	1
Latehar	7	1	1	4	1
Lohardaga	6	1		5	
Pakur	6	2	2		2
Palamu	11	2	1	5	3
Ranchi	24	13	2	7	1
Sahebganj	8		2	3	3
Saraikela Khar-sawan	9	4		4	1
Simdega	9	4		3	2
West Singhbhum	13	7	1	3	2
Grand Total	213	80	29	71	32

6.4. Back-up power supply

At 131 sites, the generators were working and reported to be used whenever the power cuts extended over eight hours, especially during the Pulse Polio Campaigns. Operationally, funds for generator use are made available under the RCH Programme, and more specifically provided for the Pulse Polio Campaigns. However, many PHCs reported that they had no or insufficient funds for fuel to run the generators when required.

Table 19 Table 19: lists the sites at which the power situation is very bad (less than 8 hours of power available in general, no power supply or consistent low voltage), where, in addition, the generators are not working. (A detailed description of generator availability is given in

Appendix I.

Table 19: Power situation at sites with operational CC equipment and non-functional generator

District	Site	Type	Power status
Bokaro	Kasmar	PHC	
Deoghar	Sarat	PHC	Power supply less than 8 hrs
Dhanbad	Sadar PHC	PHC	Poor supply
Dhanbad	Topchanchi	PHC	Low voltage
Dhanbad	Bhagmara	PHC	Low voltage
Dumka	Shikaripara	PHC	Power supply less than 8 hrs
Dumka	Raneswar	PHC	Poor supply
Dumka	Masalia	PHC	Power supply less than 8 hrs
Dumka	Jama	PHC	Low voltage
East Singhbhum	Potka	PHC	
East Singhbhum	Musabani	PHC	
Giridih	Dumri	PHC	
Giridih	Sadar Block	PHC	Low voltage
Godda	Godda DS	DS	
Godda	Mehorma	PHC	Low voltage
Godda	Sadar Block PHC	PHC	
Hazaribagh	Borhi	PHC	Low voltage
Hazaribagh	Sadar Hospital DS	DS	
Hazaribagh	Mandu	PHC	
Hazaribagh	Chaporan	PHC	
Jamtara	Narayanpur	PHC	
Jamtara	Nala	PHC	
Koderma	Jainagar	PHC	Poor supply
Latehar	Barawadhi	PHC	Poor supply
Latehar	Chandwa	PHC	Low voltage
Lohardaga	Lohardaga DS	DS	Power supply less than 8 hrs
Pakur	Hiranpur	PHC	Low voltage
Ranchi	Aarki	PHC	
Ranchi	Lapung	PHC	Poor supply
Sahebganj	Baharawa	PHC	Low voltage
Sahebganj	Rajmahal	PHC	Poor supply
Saraikele Kharsawan	Kharsawan	PHC	Power supply less than 8 hrs
Saraikele Kharsawan	Ichagarh	PHC	No power supply
Simdega	Kuradeg	PHC	No power supply
Simdega	Simdega	PHC	
West Singhbhum	Manjgaun	PHC	Poor supply
West Singhbhum	Jagganathpur	PHC	
West Singhbhum	Sadar-Chaibasa	PHC	
West Singhbhum	Sonua	PHC	Low voltage
West Singhbhum	Barajamda	PHC	

Table 20 summarizes the status of generators district-wise.

Table 20: Status of generators district-wise

District	Number of sites	Genset available	Genset operational	Genset required
Bokaro	10	8	7	3
Chatra	7	5	4	3
Deoghar	8	7	5	3
Dhanbad	9	9	7	2
Dumka	11	9	5	6
East Singhbhum	10	10	7	3
Garhwa	9	9	6	3
Giridih	13	12	9	4
Godda	8	8	5	3
Gumla	11	10	8	3
Hazaribagh	15	14	9	6
Jamtara	5	4	2	3
Koderma	4	4	4	0
Latehar	7	7	5	2
Lohardaga	6	6	6	0
Pakur	6	2	1	5
Palamu	11	9	6	5
Ranchi	24	20	17	7
Sahebganj	8	7	4	4
Saraikela Kharsawan	9	7	4	5
Simdega	9	7	5	4
West Singhbhum	13	10	5	8
Grand Total	213	184	131	82

6.5. Wiring and power plugs

Wiring for the refrigeration equipment was found to be satisfactory at 113 sites. It was poor for 45 sites. Generally, the quality of wiring is sub-standard, except in East Singhbhum, where the CS managed to get funds to upgrade and install a new 3-phase circuit to ensure proper load distribution among the three phases. Several sites had no proper plugs and sockets and the wires were often directly inserted into the sockets.

It seems to be a common practice to bypass the earthing. In Bokar DS, for example, out 12 total cold chain units, only four had been earthed. The earthing wire was often cut at the equipment, stabilizer or point of supply. This is a cause for concern since improper earthing can harm the operator in case of electrical failure of the equipment. Many sites do not have proper neutral and use the earth as neutral. Under such conditions, the equipment may draw two to three times more current to start running and may eventually fail to start. Again, any open wire/loose contact may result in equipment failure.

All ILRs and DFs originally came with the three-pin plug moulded on the cable. Vestfrost equipment was supplied with a power supply plug designed for special power sockets; these are often not compatible with the three-pin sockets on the stabilizers supplied. Hence, either the original equipment power supply plugs are removed or an electrical extension box is used to connect the equipment to the stabilizer.

6.6. Alternative power supply: the solar energy solution

In areas where there is no power supply or supply is unreliable, solar energy could be an option. But for solar energy to be a viable option, the following criteria have to be met:

- For solar-powered refrigerators: Not less than 3.5kWh/day of global solar insolation during the least sunny month(s) of the year and appropriate sizing of the appliance to match climate and levels of solar energy.¹⁰

Solar equipment is site-specific, requires high investments, is costly to maintain and requires specially trained technicians for smooth operation, so the solar option decision has to be made after considerable thought and planning.

At present, preparations for the installation of solar equipment, which consist of wiring, painting the room, fitting of an exhaust fan with three and sometimes four sockets to plug in equipment, one light point and, frequently, a room fan, have been made at most of the sites except for district Chatra, Pakur, Godda and Sahebganj,. In some instances, the wiring for the solar electrical supply to the refrigerator has been wired into the general electrical circuit. This is considered highly inadvisable as this indicates a much higher load demand than the solar hybrid systems can carry.

It does appear that the proposed solar installation has resulted in the staff adopting a lackadaisical and indifferent attitude towards maintenance of existing equipment

6.6.1. Assessment of dual mode solar system

Three solar hybrid refrigerators have been installed as part of the pilot project (Ranchi central store, Palamu district store and Gumla district store). Procurement of more than 140 units is in process for installation at the selected PHCs. The solar hybrid refrigerators are intended to function either by drawing power from the electrical grid or from solar energy. The model provided requires that it be manually switched from one mode to the other. This will be a significant operational constraint unless PHC personnel are very well trained.

Solar panels were stolen from two locations, and the replacement panels have not been mounted for fear of further theft. The unit installed at Ranchi approximately two years ago no longer operates in the solar mode since the battery is defective. Premature battery failure is due to poor standards of installation and substandard components procured from the local market. The refrigerator cabinet, which has been imported from USA, is of good quality, although not WHO-approved.

The solar hybrid refrigerator systems are NOT appropriate for vaccine storage anywhere in Jharkhand unless substantial technical improvements are made to the accessories and the installation standards are improved. The systems, even with appropriate technical improvement, are inadequate to store vaccines at the 29 PHC locations where no electricity supply is available unless the size of the solar panel is increased by approximately 3 times.

The systems could, with appropriate technical improvements, provide adequate vaccine storage capacity at 60 other PHC locations, but only if the PHC personnel are trained to consci-

¹⁰ Training Module: Management and Rehabilitation of Cold Chain (Draft)

entiously switch the units from one operating mode to the other during periods of power outage from the electrical grid. This would also require that the facility be staffed 7 days/week.

The solar hybrid systems are not required at 125 PHC locations since electricity from the state grid is adequate to power the ILRs. This is a substantially more cost-effective, reliable and simpler solution.

The hybrid solar installations should be addressed urgently to prevent an investment of approximately USD 4,500 per unit, which will not provide adequate storage standard at more than 100 PHC locations as the capacity of these units is less than 1/3 of the standard ILRs provided at the PHCs.

6.7. Vaccine storage, handling and delivery system

➤ Vaccine collection/delivery system

At 181 PHCs, vaccines are collected by the health staff from the district store on fixed days of the week and transported in cold boxes using public transport. This normally coincides with the weekly meetings of MOiCs held at the DHQ. In the case of those sites that have an ambulance or some other vehicle, these vehicles are used to fetch vaccines. Immunization was originally done on Wednesday, but was subsequently changed to Thursday as it was learnt that farming populations did not work in the fields on that day. However, many PHCs continue to operate the regular programme on Wednesday.

Constraints in terms of budgets for fuel or transportation were often expressed. This is particularly relevant since 96 PHCs fetched the vaccine weekly, 63 additional sites fetching on a demand basis; while 40, where electricity supply is more regular, continued to fetch vaccine according to the normal monthly routine. Other sites collect vaccine on fairly irregular pattern.

Once the vaccine is brought to the PHC it is then transferred either to the ILR, or kept in cold boxes, depending on whether the equipment is working or power supply is available. Vaccine is distributed to the LHVs and vaccinators, often on the next day, and they then carry the vials to the outreach posts in vaccine carriers.

➤ Vaccine storage

Staff responsible for maintaining the cold chain are well aware of the storage norms. However due to non-availability or non-use of vaccine trays, or due to negligence, vaccines are stacked inside the unit without sufficient space for air circulation. Further, T series vaccines are stacked at the bottom, rendering the vials vulnerable to freezing. The standard EEFO procedure is not followed anywhere.

At sites where the cold chain is not operational (breakdown of equipment or no power supply), ice blocks are used to maintain the vaccine temperature. At some sites, for example, Sarder Block, Raneshwar, it was observed that ice blocks were used in ILRs, DFs and cold boxes, but there was no maintenance/cleaning of equipment after use, which could damage the equipment.

➤ Conditioning of ice packs

After a training programme was initiated at the state level two years ago, the practice of using frozen ice-packs has been religiously followed by all PHCs. Solid, frozen ice-packs are used for transporting vaccines right from the central store down to the sub-centres. As a result, vaccines frequently come into direct contact with ice-packs or ice. This is particularly rele-

vant where freeze sensitive vaccines are concerned and could explain why frozen (damaged state) ‘T’ series vaccine vials were found at quite a few sites, which included the following district stores: Chenipur, Dumri, Chakulia, and Borio. (ranjit Giridih?)

➤ **Vaccine handling**

All staff can read the VVM indicator and are aware at what stages the vaccine can be used or must be discarded. However, there is very little awareness of the quality indicators for the T series vaccines. None of the staff knew how to perform or interpret the shake test. In fact, when the assessment team pointed out the frozen vials, the staff used their palms to warm the vials.

There is also a lack of awareness of the WHO policy with regard to open vials.

Frequently, storage in wet conditions, either in the cold boxes containing melted ice-packs or in refrigeration equipment where low temperatures cannot be maintained, leads to loss of labels indicating date of manufacture, expiry date, name of vaccine and VVM. As per WHO regulations, unlabelled vials should be discarded.

➤ **Delivery/Fetching**

Usually, public transport is used for bringing vaccine to the PHC and the sub-centre. The state has adopted the vaccine pull method, whereby vaccine is primarily fetched by the PHC from the district stores on fixed days regularly and by the districts stores from the central store. Since all PHCs do not have vaccine vans, they have made their own arrangements to transport the vaccine. Often the visits are clubbed with visits to the district headquarters for training, regular meetings or salary payments, etc.

6.8. Repair and maintenance

Cold chain maintenance at the sites is largely corrective rather than preventive. But even when it comes to corrective maintenance, no complaint seems to have been attended to within seven days of the reported breakdown. There is a dearth of trained technicians, workshops and spare parts. The state does not have a dedicated technician for each district and equipment maintenance and repair has been contracted to Voltas Refrigeration by UNICEF. The service contract was not reviewed during the assessment.

The equipment maintenance record throughout the state is poor. There are no regular cleaning and maintenance schedules for equipment. Thermostat setting is not done in a systematic manner. There are long gaps between the reporting of a breakdown and the visit of the servicing technician. Though technician visits to some PHCs (in Koderma, Godda, and Giridih districts for example) were more regular than to others. This was probably because the maintenance contract in East Singhbhum is held by a contractor who has a wide-reaching service network. At the moment, several different firms have been contracted for maintenance but performance has been unsatisfactory.

Prior to the Pulse Polio Campaign, the servicing technicians made visits to a few sites to review the status of the equipment. During that visit, some machines were labelled as either ‘condemned’ or ‘non-functioning’. In some cases, the CFC-free equipment had been frequently repaired, but had always failed within 24 hours of repair. This could be because the sub-contracted servicing firms had little knowledge of how to correctly service CFC-free equipment.

Masalia PHC, in Dumka district, has an ILR that has never been used. It has apparently been stored at the PHC for the past 10 years as rats have damaged the wiring, which has never been repaired.

6.8.1. Cold chain equipment operational conditions

The overall operational conditions are far from satisfactory. In frequent instances, the rooms where the cold chain equipment is being stored were damp and the ceilings leaked and the buildings were in a general state of disrepair. Often, the rooms in which the equipment is stored were not well ventilated. At night, the common practice was to shut all windows, leaving the rooms airless. It was also found that the equipment was exposed to direct sunlight at some locations. Even at a facility like the Giridih district store, many units did not seem to have been cleaned for a long time and had a thick coat of dust on them. Hygiene and cleanliness of locations is definitely a matter for concern. At more than one location, there was a considerable amount of waste strewn around with insufficient attention to immunization equipment: used needles and opened vials were left in unsafe conditions after regular immunization sessions. The lack of Grade IV staff was cited as the reason. However, the lack of motivation to maintain cleaner surroundings is possibly due to the fact that the health staff are not being paid regularly.

No defrosting or cleaning routine is maintained. There were instances where there was water in the freezer compartment. Internal rusting was also observed in many units.

There are units which do not shut tight; gaskets and hinges require replacement; or the insulation has given away. Most units do not lock properly. In the whole state, only 388 thermometers were counted, of which many were not working. Many units did not contain thermometers, or if they were available, the temperatures were not recorded correctly. There seems to be a lack of awareness regarding thermostat control.

6.8.2. Maintenance of electrical equipment including generator and stabilizer

Preventive maintenance is a must when it comes to cold chain electrical equipment. The regular maintenance routine for refrigeration equipment should include defrosting, drainage of the defrosted water, cleaning of the condenser and checking of the thermostat operation. Refrigeration units should be placed at a minimum distance of 20cm from the walls and 30cm space should be provided between units.

Similarly, the genset requires a periodic change of engine oil and general maintenance. The time allocated for recharging of batteries required to start-up generators requires follow-up and clarification. At 53 sites where the generators had broken down, the problems had arisen some years ago; but neither the CS nor the UNICEF office had responded to the reported problem. In some instances, the maintenance and repair costs were met from the pocket of the MOiC or the cold chain in-charge.

There is no preventive maintenance or replacement plan with allocation for human, material and financial resources. Ideally, visits for preventive maintenance should be carried out to each site by the maintenance technicians under a contract. Site visits should cover all cold chain refrigeration equipment as well as generators. This would help reduce repairs and response time.

6.8.3. Maintenance of non-electrical equipment

There seems to be no maintenance when it comes to non-electrical equipment. The inner surfaces of the cold boxes are very often not cleaned and, all too frequently, water is left in the cold boxes between their use. Some units had cracks and the locks, hinges/handles were not working, but the cold boxes and vaccine carriers continued to be used. The equipment is frequently stored under improper conditions, resulting in rusting of metallic parts, deformation of the plastic body, etc.

6.8.4. Availability of technicians, spares and workshops

The response time after reporting a breakdown has been found to be very long. In some cases, the complaint has yet to be attended to and the machine has not been repaired.

Assessors spoke to Mr B.K. Ghosh in Patna to discuss the contract held with UNICEF. The maintenance of the cold chain is assured under a UNICEF contract with Voltas in Patna. This contract was entered into with Voltas before Jharkhand was formed and is still managed from Patna with sub-contracts issued to different local firms in Jharkhand. The sub-contract in West Singhbhum is managed by Superior Aircon (39 Golmuri Market, Jamshedpur, Tel: 0657 2340212). Technicians at Superior Aircon are well equipped to handle CFC-free repair as they have been trained by Voltas, but it is not evident that the same facilities are available in the other districts.

Servicing in this district is done from Jamshedpur using UNICEF funds for repair of equipment, including transport to Jamshedpur, when necessary, of equipment which is not functioning. It was found that response when breakdown was reported in this district was relatively rapid.

6.9. *Personnel*

Even with the most sophisticated equipment, finally the efficiency of the cold chain will depend on the personnel managing it. Usually the LHV or ‘Computer’ (an accounts-related post) manages the day-to-day operation of the equipment. Often, no back-up staff is available if the designated staff is absent.

Lack of staff motivation was generally observed. This could have to do with non-payment of salaries—at many of the PHCs, the staff had not received salaries for more than four months. But staff motivation was also highly dependent on the CS, the MOiC and the UNICEF extender’s interest and initiative. There were rare instances where personal motivation was high in spite of the setbacks.

Appendix O provides the complete list of the staff placed at the various sites visited. It also covers the details of the training received.)

6.9.1. Training in cold chain

Only 88 cold chain operators have received any training in cold chain. The records were better for some districts than others. For instance, East Singhbhum had held a training programme at Jamshedpur in May-June 2005. But in most instances where training has been imparted, it has been a one-time programme with no follow-up.

All the staff involved in the cold chain has received training in handling OPV. No specialized training has been provided on equipment maintenance and vaccine storage. The Early Expiry First Out (EEFO) stacking practice is not followed at any site visited. There was no knowledge of bin cards at the staff level. There is considerable ignorance when it comes to handling the T series vaccines.

6.9.2. Training in maintenance of solar equipment

Since solar refrigerators are being introduced in the Jharkhand cold chain for the first time, it is extremely important that staff be trained to operate and maintain the system. A comprehensive initial training programme should be followed by shorter sessions at regular intervals.

6.10. Monitoring and reporting systems

Recording keeping is a very important component of the cold chain. It is important in vaccine forecasting, requisitioning and stock management, assuring the quality of the cold chain through temperature monitoring, tracking wastage, implementing maintenance and repair, drawing up replacement and contingency plans and identifying training needs. It becomes the basis for evaluating the performance of the cold chain.

6.10.1. Temperature monitoring systems

Temperature monitoring seems to lack the kind of accuracy and consistency that is required, although the staff appear to be aware of the purpose of the entire exercise. Temperature readings are manually recorded at 74 sites. Temperature records were not maintained at rest of the sites. Often, the temperature recording in the WHO-recommended temperature booklet (sheets of paper are also used) is done mechanically and do not reflect actual readings. At most sites where temperature recording is done, the twice-a-day routine seems to be followed.

6.10.2. Vaccine stock registers

Vaccine stock registers are fairly well-maintained at 140 sites with clear entries of stock received and dispatched. Stock mismatch in terms of physical vs. book stock was found at some sites. Vaccine wastage is not recorded.

6.10.3. Computerization

At all sites, the cold chain data is manually recorded in registers. In Ranchi district, all PHCs have been computerized as part of the government's computerization programme. The hardware comprises a monitor, a central processing unit, a UPS, a printer, a genset and a specially designed software to collect information related to the cold chain. The hardware has been supplied by Mumbai-based 3DI Systems (India) Pvt. Ltd.

7. MAJOR OBSERVATIONS

7.1. *Buildings, equipment and transport*

- In quite a few instances, the buildings in which the equipment is located are poorly ventilated and damp.
- The current models of stabilizers provided at most PHCs cannot handle low voltage.
- At many sites the equipment has not been earthed properly.
- Often, generators are not run when there are power outages during the routine immunization programme.
- Generators are frequently out of order and need repair or replacement.
- 36% of the equipment run without voltage stabilizers.
- Cold boxes with rusted locks, broken hinges and without gaskets continue to be used.
- Hygiene and cleanliness at most PHCs is neglected. Only a few PHCs have running water supply and usable toilets.
- Most PHCs rely on public transport to fetch routine vaccine supplies.

7.2. *Management and logistics*

- There is no general strategy adopted for disposal of medical waste, which is buried, burnt or stored. At most locations, safety boxes have been provided; some have received hub cutters; but most often these are not being used.
- The allocation and placement of the cold chain equipment is more dependent on assured and reliable power supply than the needs of the programme.
- Functioning thermometers are frequently not available; 30% PHCs do not have any thermometers at all. Thermometers which are not working have not been replaced.
- Temperature reading is not done regularly and accurately at all sites. There were innumerable instances of incorrect temperature recording or recording of the same daily temperature.
- No regular fund is provided to run the generators except during campaigns and IPPI. Interested MoICs succeed in finding their own sources, but are not adequately reimbursed.
- PHCs seem to have access to diesel budgets only during catch-up rounds.
- There are 32 locations which have had no power supply for the past 5 years. In Birni, Tandwa and Kanke there is no 'official' power supply.
- Distribution of funds seems to be unequal within districts; some PHCs have had to pre-finance the solar wiring installation instead of being provided with the funds allocated for this purpose.
- Day carriers have been called back to the central level but have not been replaced.
- The cold chain equipment at Tandwa was delivered two years ago but lies unpacked in a dilapidated building because the village has no power supply.
- Hundreds of used vials were stored in plastic bags in condemned freezers at Raj Dhanwar PHC.

- Some CSs take excellent initiatives to support and prioritize the cold chain programme. Rapid improvement in electrical installations (3-phase) at East Singhbhum is an example.

7.3. Repair and maintenance

- In most instances where the R-134a (CFC-free) units were repaired and failed, the failure seems to be largely due to the fact that the technician was ill-equipped to rectify the problem.
- The post of the refrigeration technician at Giridih district store, which has a WIC, has been lying vacant for several years.
- At Giridih, all the precautionary and safety measures for the WIC have been bypassed.
- Many stabilizers that have been repaired locally have had the delay bypassed, defeating the very purpose of its use.
- There is no stock of stabilizers and no replacement of stabilizers that have failed.
- No instructions have been given with regard to the non-working/beyond repair machines. These occupy the already limited space at the PHCs.
- No product manuals are available for the WICs and WIFs.
- There is no itemised replacement plan.
- No contingency or emergency plans exist.

7.4. Personnel

- There is negligence when it comes to the T series vaccines. The purpose of VVMs on OPV vaccine is well integrated, but there is considerable ignorance regarding the vulnerability of T series vaccines to freezing. Not one person questioned performs the shake test for the T series.
- Improper storage of vaccines in damp and water-logged condition in cold boxes and plastic carry bags leads to the loss of labels, which are important to identify the batch number, vaccine name, manufacturing date, expiry date as well as VVMs.
- It was reported that UNICEF extenders provide unequal support. In some districts such as East Singhbhum, the UNICEF extender does an excellent job and is well supported by the Civil surgeon. However, this approach is not the same in every district.
- The clerk, 'computer' or LHV usually handles the cold chain. Very few staff have undergone any training. Of those who have undergone training, the last training programme they attended was in the year May/June 2005 at Jamshedpur. Other global training on cold chain operation and management seems to date back to 5-6 years.
- The staff lack awareness on how vaccine should be stored in ILRs with no allowance made for air circulation or stacking the same vaccines together. The 'T' series vials are often placed at the bottom of the ILR.
- The general view is that only frozen ice-packs should be used. 'T' series vaccines are placed in the centre in poly bags with no attempt made to isolate the 'T' series from the icepacks by newspaper or cardboard.
- The cold chain staff is unaware of the hazards of leaving vials and used syringes undisposed.

- No training has been provided on the use of safety boxes and hub cutters.

7.5. Record keeping

- Temperature recording is inaccurate.
- The vaccine stock registers do not reflect damaged and returned stocks and are not up-to-date at all sites.
- At quite a few sites, there was a mismatch between stocks available and stocks recorded.
- Maintenance and repair activities (equipment and transport) are not recorded.
- There is no record of training programmes attended.

8. RECOMMENDATIONS

8.1. Short-term

- A plan as to what is to be done with 'beyond repair' and 'non-working' equipment needs to be drawn up. Special care needs to be taken when it comes to disposal of CFC machines.
- The average working life for each piece of equipment needs to be defined and procedures for removing the equipment from the inventory described.
- Units which are rusted externally and internally (CFC/non-CFC) and where the fault lies in the sealed system should not be repaired and should be removed from the inventory.
- All CFC equipment which is not working and the body has rusted (indicating reduced life-span) should not be repaired. All non-CFC units that have been repaired once and become non-functional again should not be repaired. Frequently, the unit has been damaged beyond repair by the local mechanics if the sealed system has been touched.
- Stabilizers need to be repaired centrally with clear instructions not to by-pass any safety control measure.
- Wiring and earthing need to be corrected on a priority basis.
- Voltas now supplies a stabilizer that can deal with low voltage. It is recommended that its performance be observed for some time and if found efficient, it be adopted for use at all PHCs.
- Maintenance should preferably be preventive and not fire-fighting as is the present approach. Funds must be made available through UNICEF for better and more regular maintenance coverage. Contract could be given to one sub-contractor with strict performance-bound contract renewal clauses.
- Some PHCs stock relatively large quantities of vaccine. This is inadvisable when there is insufficient backup power. Although the catch-up programme could be one explanation for the stocks, it is suggested that UNICEF immediately review quality and size of stock at each location.
- An immediate review is required of the proposed solar systems. Although this is a hybrid system, allowance should be made for low grid electricity inputs and frequent breakdowns. The load seems also relatively high: extractor fan, plugs and lights as well as often a room fan. Systems should be sized according to demand, electricity availability and

load. Further substantial technical improvements need to be made to the accessories and the installation standards have to be considerably improved.

- Equipment operation/management instructions should be supplied in the local languages.
- Product manuals must be supplied with all new equipment installed.
- Table 21 summarizes the net requirement (shortage) of refrigeration units. This gap has been determined based on forecasted requirement in the state (as listed in

-
- APPENDIX A). Appendix B gives you a more detailed analysis.

Table 21: Units of equipment required, summarized district-wise

District	Net requirement of new units			
	ILR		DF	
	Small	Large	Small	Large
Bokaro	3	3	9	1
Chatra	2		3	
Deoghar			1	4
Dhanbad	3	4	4	
Dumka	5		8	
East Singhbhum	5	2	4	
Garhwa	1		4	
Giridih	1	4	2	
Godda		1	4	
Gumla	2	1	5	
Hazaribagh	2	1	2	2
Jamtara	1		3	
Koderma	1		2	
Latehar	1	1	6	
Lohardaga		1		
Pakur			1	
Palamu	2	1	5	
Ranchi	5	4	11	
Sahebganj	3			
Saraikela Kharsawan	4		3	
Simdega	2		4	
West Singhbhum	6		7	
Grand Total	49	23	88	7

8.2. Medium-term

- The WIC and the power back-up equipment at the Giridih district store must be repaired in order to supply vaccine to Deogarh, Godda, Sahibganj, Pakur, Dumka, Jamtara, and Koderma. It is recommended that an additional WIC be established at East Singhbhum (Jamshedpur) to supply vaccine to East and West Singhbhum, Saraikela, and Chaibasa districts, and one at Palamu (Daltenganj) to supply vaccine to Chatra, Latehar, and Garhwa districts. Districts like Hazaribagh, Gumla, Lohardaga and Dhanbad can continue to receive vaccine directly from the Ranchi central store.
- An intensive training programme needs to be conducted for all health workers with cold chain responsibilities covering importance of cold chain, equipment operation and maintenance, site maintenance, temperature recording and its importance, handling freeze sensitive vaccines, conducting and interpreting the shake test, sharp waste disposal and efficient record keeping.
- EPI training also needs to be conducted for middle-level managers.
- Technician training programmes also need to be conducted, which should also cover best practices for CFC-free machines.
- Drawing up a policy for systematic disposal of sharps and vaccine.
- Budgetary allocations for fuel to run the generator must be made.

- Appropriate personnel should be identified and trained for the operation and maintenance of solar equipment.
- The contract for the provision of the solar hybrid equipment must be accompanied by a maintenance contract to cover the repair and maintenance of this equipment. This should include a provision for the replacement of solar batteries.
- Itemised replacement plans should be drawn up and financial, material and personnel allocations made.
- All sites should have contingency/emergency plans for sudden breakdowns.

8.3. Long-term

- On-going training must be provided to upgrade skills and knowledge of existing and new staff in the operation and maintenance of equipment, and vaccine handling.
- Developing local capacity for equipment repair and maintenance and manufacturing spares.
- Improve efficiencies in cold chain to pursue WHO accreditation for EVSM.

9. CONCLUSION

To sum up, when evaluated against WHO-recommended standards the cold chain system in the state leaves much to be desired. The conclusion is that quality immunization services cannot be provided reliably and with confidence. The fragile system relies considerably on the goodwill of the health service staff's efforts to sustain the regular programme. Though the Pulse Polio Campaigns and catch-up programmes have additional resources to fill the gaps, the regular programme lacks both financial and material resources. Preventive maintenance is minimal. Speedy corrective maintenance is also not possible due to the lack of trained technicians and spare parts. No official contingency or emergency plans have been drawn up to handle sudden breakdowns. There is no replacement plan for equipment or transport. Training is insufficient and some of the cold chain personnel have received no training at all. There is gross ignorance when it comes to preserving integrity of freeze-sensitive vaccines and none know how to perform or interpret the 'shake test'. Cold Chain Monitors (CCMs) and freeze indicators are not used. Record keeping, whether it is related to stocks, fuel usage, maintenance, or training, is unsatisfactory.

APPENDIX A: REQUIREMENT OF COLD CHAIN EQUIPMENT FOR ALL THE STORE FACILITIES OF STATE

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Bokaro	Bokaro	DS	1775961	888	400	284
Bokaro	Bermo	PHC	212090	93	93	34
Bokaro	Bokaro	PHC	197329	87	87	32
Bokaro	Chandankyari	PHC	193160	85	85	31
Bokaro	Chas	PHC	697690	307	307	112
Bokaro	Gumia	PHC	201989	89	89	32
Bokaro	Jiridih	PHC	68553	30	30	11
Bokaro	Kasmar	PHC	197329	87	87	32
Bokaro	Nawadhi	PHC	129827	57	57	21
Bokaro	Peterwar	PHC	113608	50	50	18
Bokaro Total			3787536	1773	1285	606
Chatra	Chatra	DS	790680	395	178	127
Chatra	Chatra	PHC	131780	58	58	21
Chatra	Hunterganj	PHC	131780	58	58	21
Chatra	Itkhori	PHC	131780	58	58	21
Chatra	Pratappur	PHC	131780	58	58	21
Chatra	Simaria	PHC	131780	58	58	21
Chatra	Tandwa	PHC	131780	58	58	21
Chatra Total			1581360	743	526	253
Deoghar	Deoghar	DS	933113	467	210	149
Deoghar	Jasidih	PHC	133302	59	59	21
Deoghar	Karon	PHC	133302	59	59	21
Deoghar	Madhupur RH	PHC	133302	59	59	21
Deoghar	Mohanpur	PHC	133302	59	59	21

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Deoghar	Palajori	PHC	133302	59	59	21
Deoghar	Sarat	PHC	133302	59	59	21
Deoghar	Sarwan	PHC	133302	59	59	21
Deoghar Total			1866226	877	621	299
Dhanbad	Dhanbad	DS	2394434	1197	539	383
Dhanbad	Bagmara	PHC	302598	133	133	48
Dhanbad	Baliapur	PHC	84802	37	37	14
Dhanbad	Govindpur	PHC	157881	69	69	25
Dhanbad	Johrapokhar	PHC	344624	152	152	55
Dhanbad	Nirsa	PHC	331133	146	146	53
Dhanbad	Sadar PHC	PHC	432839	190	190	69
Dhanbad	Topchanchi	PHC	111024	49	49	18
Dhanbad	Tundi	PHC	102834	45	45	16
Dhanbad Total			4262169	2019	1361	682
Dumka	Dumka DS	DS	950853	475	214	152
Dumka	Gopi Kandar	PHC	31744	14	14	5
Dumka	Jama	PHC	104245	46	46	17
Dumka	Jarmundi	PHC	117204	52	52	19
Dumka	Kathikund	PHC	52801	23	23	8
Dumka	Masalia	PHC	95121	42	42	15
Dumka	Ramgarh	PHC	113705	50	50	18
Dumka	Raneswar	PHC	79797	35	35	13
Dumka	Sadar PHC	PHC	108825	48	48	17
Dumka	Saraya	PHC	101862	45	45	16
Dumka	Shikaripada	PHC	95536	42	42	15
Dumka Total			1851693	872	610	296

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
East Singhbhum	Jamshedpur DHQ	DS	1982988	991	446	317
East Singhbhum	Baharagharah	PHC	149530	66	66	24
East Singhbhum	Chakulia	PHC	108806	48	48	17
East Singhbhum	Dalbhumgarh	PHC	72528	32	32	12
East Singhbhum	Dhumria	PHC	53615	24	24	9
East Singhbhum	Ghatsella	PHC	115130	51	51	18
East Singhbhum	Jugsalai	PHC	1076544	474	474	172
East Singhbhum	Musabani	PHC	104299	46	46	17
East Singhbhum	Patomda	PHC	131879	58	58	21
East Singhbhum	Potka	PHC	170657	75	75	27
East Singhbhum Total			3965976	1864	1319	635
Garhwa	Garhwa DS	DS	801350	401	180	128
Garhwa	Bhandaria	PHC	100169	44	44	16
Garhwa	Bhavaanathpur	PHC	100169	44	44	16
Garhwa	Dhurki	PHC	100169	44	44	16
Garhwa	Garhwa Block	PHC	100169	44	44	16
Garhwa	Majhion	PHC	100169	44	44	16
Garhwa	Meral	PHC	100169	44	44	16
Garhwa	Nagaruntari	PHC	100169	44	44	16

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Garhwa	Ranka	PHC	100169	44	44	16
Garhwa Total			1602700	753	533	256
Giridih	Giridih	DS	1901564	951	428	304
Giridih	Bagodar	PHC	236482	104	104	38
Giridih	Bengabad	PHC	118951	52	52	19
Giridih	Birni	PHC	134425	59	59	22
Giridih	Deori	PHC	140436	62	62	22
Giridih	Dumri	PHC	179114	79	79	29
Giridih	Gandey	PHC	136112	60	60	22
Giridih	Jamua	PHC	210107	92	92	34
Giridih	MCH	PHC	149195	66	66	24
Giridih	Pirtand	PHC	87204	38	38	14
Giridih	Raj Dhanwar	PHC	198145	87	87	32
Giridih	Sadar Block	PHC	149195	66	66	24
Giridih	Tisri	PHC	73604	32	32	12
Giridih Total			3714534	1748	1226	594
Godda	Godda	DS	861182	431	194	138
Godda	Boarijore	PHC	123026	54	54	20
Godda	Mahagama	PHC	123026	54	54	20
Godda	Meharma	PHC	123026	54	54	20
Godda	Patthargama	PHC	123026	54	54	20
Godda	Podayahat	PHC	123026	54	54	20
Godda	Sadar Block	PHC	123026	54	54	20
Godda	Sundarpahari	PHC	123026	54	54	20
Godda Total			1722364	810	573	276
Gumla	Gumla	DS	707555	354	159	113
Gumla	Bharno	PHC	50561	22	22	8

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Gumla	Bishnupur	PHC	41700	18	18	7
Gumla	Chainpur	PHC	44573	20	20	7
Gumla	Dumri	PHC	60059	26	26	10
Gumla	Ghagra	PHC	75056	33	33	12
Gumla	Kamdara	PHC	59626	26	26	10
Gumla	Palkot	PHC	61388	27	27	10
Gumla	Raidih	PHC	55641	24	24	9
Gumla	Sisai RH	PHC	75738	33	33	12
Gumla	Basia	RH	59626	26	26	10
Gumla Total			1291523	611	416	207
Hazaribagh	Hazaribagh	DS	1836068	918	413	294
Hazaribagh	Churchu	FPC	141236	62	62	23
Hazaribagh	Barakatha	PHC	141236	62	62	23
Hazaribagh	Barhi	PHC	141236	62	62	23
Hazaribagh	Berkagaon	PHC	141236	62	62	23
Hazaribagh	Chaparan	PHC	141236	62	62	23
Hazaribagh	Gola	PHC	141236	62	62	23
Hazaribagh	Ichak	PHC	141236	62	62	23
Hazaribagh	Katkamsari	PHC	141236	62	62	23
Hazaribagh	Keredari	PHC	141236	62	62	23
Hazaribagh	Mandu	PHC	141236	62	62	23
Hazaribagh	Patratu	PHC	141236	62	62	23
Hazaribagh	Ramgarh	PHC	141236	62	62	23
Hazaribagh	Vishnugarh	PHC	141236	62	62	23
Hazaribagh Total			3672136	1726	1221	588
Jamtara	Sadar DS	DS	544856	272	123	87

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Jamtara	Jamtara	PHC	136214	60	60	22
Jamtara	Kundahit	PHC	136214	60	60	22
Jamtara	Nala	PHC	136214	60	60	22
Jamtara	Narayanpur	PHC	136214	60	60	22
Jamtara Total			1089712	512	362	174
Koderma	Koderma	DS	540901	270	122	87
Koderma	Jainagar	PHC	119961	53	53	19
Koderma	Koderma (Jhumntalaya) PHC	PHC	221147	97	97	35
Koderma	Markacho	PHC	102479	45	45	16
Koderma Total			984488	466	317	158
Latehar	Latehar	DS	467071	234	105	75
Latehar	Balumath	PHC	77845	34	34	12
Latehar	Barawadhi	PHC	77845	34	34	12
Latehar	Chandwa	PHC	77845	34	34	12
Latehar	Latehar	PHC	77845	34	34	12
Latehar	Mahuatan	PHC	77845	34	34	12
Latehar	Manika	PHC	77845	34	34	12
Latehar Total			934142	439	311	149
Lohardaga	Lohardaga	DS	288886	144	65	46
Lohardaga	Bandra	PHC	57777	25	25	9
Lohardaga	Kisko	PHC	57777	25	25	9
Lohardaga	Kuru	PHC	57777	25	25	9
Lohardaga	Lohardaga	PHC	57777	25	25	9
Lohardaga	Senha	PHC	57777	25	25	9
Lohardaga Total			577772	272	192	92

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Pakur	Pakur	DS	564253	282	127	90
Pakur	Amrapada	PHC	47291	21	21	8
Pakur	Hiranpur	PHC	56331	25	25	9
Pakur	Littipara	PHC	73762	32	32	12
Pakur	Maheshpur	PHC	140665	62	62	23
Pakur	Pakudia	PHC	79612	35	35	13
Pakur Total			961914	457	302	154
Palamu	Daltanganj	DS	1533173	767	345	245
Palamu	Bishrampur	PHC	133862	59	59	21
Palamu	Block PHC	PHC	92078	41	41	15
Palamu	Chainpur	PHC	177013	78	78	28
Palamu	Chattarpur	PHC	166843	73	73	27
Palamu	Hariharganj	PHC	87499	38	38	14
Palamu	Husainabad	PHC	177013	78	78	28
Palamu	Lisliganj	PHC	79345	35	35	13
Palamu	Manatu	PHC	97622	43	43	16
Palamu	Panki	PHC	123820	54	54	20
Palamu	Patan	PHC	146139	64	64	23
Palamu Total			2814407	1330	909	450
Ranchi	Namkum	CS		12030	5414	0
Ranchi	Ranchi DS	DS	2214088	1107	498	354
Ranchi	Aarki	PHC	61931	27	27	10
Ranchi	Anigara	PHC	88554	39	39	14
Ranchi	Bero	PHC	103733	46	46	17
Ranchi	Bundu	PHC	61917	27	27	10
Ranchi	Burmu	PHC	117760	52	52	19

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Ranchi	Chanco	PHC	63734	28	28	10
Ranchi	Kanke	PHC	738686	325	325	118
Ranchi	Karra	PHC	78792	35	35	13
Ranchi	Khunti	PHC	84033	37	37	13
Ranchi	Khunti	PHC		0	0	0
Ranchi	Lapung	PHC	46615	21	21	7
Ranchi	Mander	PHC	78865	35	35	13
Ranchi	MCH	PHC		0	0	0
Ranchi	Murhu	PHC	62696	28	28	10
Ranchi	Namkum	PHC	91451	40	40	15
Ranchi	Oremanjhi	PHC	62514	28	28	10
Ranchi	Rania	PHC	32105	14	14	5
Ranchi	Ratu	PHC	97179	43	43	16
Ranchi	Silli	PHC	94347	42	42	15
Ranchi	Sonahatu	PHC	83231	37	37	13
Ranchi	Tamar	PHC	99132	44	44	16
Ranchi	Torpa	PHC	66773	29	29	11
Ranchi Total			4428136	14111	6886	709
Sahebganj	Sadar Hospital	DS	736835	368	166	118
Sahebganj	Baharawa	PHC	105262	46	46	17
Sahebganj	Barhait	PHC	105262	46	46	17
Sahebganj	Borio	PHC	105262	46	46	17
Sahebganj	Pathna	PHC	105262	46	46	17
Sahebganj	Rajmahal	PHC	105262	46	46	17
Sahebganj	Sadar PHC	PHC	105262	46	46	17
Sahebganj	Taljhari	PHC	105262	46	46	17

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Sahebganj Total			1473670	693	490	236
Saraikela Kharsawan	Chandel (DS)	DS	707175	354	159	113
Saraikela Kharsawan	Chandel	PHC	115295	51	51	18
Saraikela Kharsawan	Ghamaria	PHC	109877	48	48	18
Saraikela Kharsawan	Ichagarh	PHC	93832	41	41	15
Saraikela Kharsawan	Kuchai	PHC	53801	24	24	9
Saraikela Kharsawan	Nemdeah	PHC	82854	36	36	13
Saraikela Kharsawan	Raj Kharsawan	PHC	69889	31	31	11
Saraikela Kharsawan	Rajnagar	PHC	116817	51	51	19
Saraikela Kharsawan	Saraikela Sub Depot	PHC	60294	27	27	10
Saraikela Kharsawan Total			1409834	663	468	226
Simdega	Simdega	DS	446421	223	100	71
Simdega	Bano	PHC	55803	25	25	9
Simdega	Bolba	PHC	55803	25	25	
Simdega	Jaldega	PHC	55803	25	25	9
Simdega	Kolebera	PHC	55803	25	25	9
Simdega	Kurdeg	PHC	55803	25	25	9
Simdega	Simdega	PHC	55803	25	25	9
Simdega	Simdega PHC	PHC	55803	25	25	9

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Simdega	Thethaitnagar	PHC	55803	25	25	9
Simdega Total			892842	420	297	134
West Singhbhum	Chaibasa Sadar	DS	1080780	540	243	51
West Singhbhum	Barajamda	PHC	86763	38	38	14
West Singhbhum	Chakradharpur	PHC	113764	50	50	18
West Singhbhum	Goilkara	PHC	66362	29	29	11
West Singhbhum	Jagganathpur	PHC	159656	70	70	26
West Singhbhum	Jinkpani	PHC	72901	32	32	12
West Singhbhum	Khutpani	PHC	57325	25	25	9
West Singhbhum	Kumardungi	PHC	58924	26	26	9
West Singhbhum	Manjgaun	PHC	48931	22	22	8
West Singhbhum	Manoharpur	PHC	89898	40	40	14
West Singhbhum	Sadar-Chaibasa	PHC	72391	32	32	12
West Singhbhum	Sonua	PHC	73280	32	32	12
West Singhbhum	Tonto	PHC	53911	24	24	9
West Singhbhum Total			2034886	960	663	203
Grand Total			46920020	34119	20885	14415

APPENDIX B: ANALYSIS OF COLD CHAIN EQUIPMENT (SHORTAGE): SITE-WISE

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Gross)	Large (204 Ltr Gross)	Small (94 Ltr gross)	Large (204 Ltr Gross)			Small	Large	Small	Large	Small	Large	Small	Large
Bokaro	Bokaro	DS	888	400	1	1	1	1	-590	-102						3		1
Bokaro	Jiridih	PHC	30	30	1		1		64	64								
Bokaro	Kasmar	PHC	87	87	1				7	-87							1	
Bokaro	Nawadhi	PHC	57	57	1		1		37	37								
Bokaro	Peterwar	PHC	50	50	1			1	44	154								
Bokaro	Bermo	PHC	93	93		1			111	-93	1			1			2	
Bokaro	Bokaro	PHC	87	87		1			117	-87							1	
Bokaro	Chandankyari	PHC	85	85	1			1	9	119								
Bokaro	Chas	PHC	307	307	1				-213	-307					3		4	
Bokaro	Gumia	PHC	89	89	1				5	-89							1	
Bokaro Total			1773	1285	8	3	3	3	-409	-391	1			1	3	3	9	1
Chatra	Chatra	DS	395	178		3	1	1	217	120			1					
Chatra	Chatra	PHC	58	58					-58	-58					1		1	
Chatra	Hunterganj	PHC	58	58	1		1		36	36								
Chatra	Itkhor	PHC	58	58	1		1		36	36	1			1				
Chatra	Pratappur	PHC	58	58	1				36	-58			1				1	
Chatra	Simaria	PHC	58	58				1	-58	146					1			
Chatra	Tandwa	PHC	58	58	2				130	-58							1	
Chatra Total			743	526	5	3	3	2	339	164	1		2	1	2		3	
Deoghar	Deoghar	DS	467	210	1	5		1	647	-6				4				4
Deoghar	Jasidih	PHC	59	59	1		1		35	35	1							
Deoghar	Karon	PHC	59	59	1		1		35	35								
Deoghar	Madhupur RH	PHC	59	59	2				129	-59							1	
Deoghar	Mohanpur	PHC	59	59	1		1		35	35								
Deoghar	Palajori	PHC	59	59	1		1		35	35								
Deoghar	Sarat	PHC	59	59	1			1	35	145								
Deoghar	Sarwan	PHC	59	59	1		1		35	35								
Deoghar Total			877	621	9	5	5	2	989	257	1			4			1	4

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Dhanbad	Dhanbad	DS	1197	539		2		3	-789	73				4		4		
Dhanbad	Bagmara	PHC	133	133	2		1		55	-39				1			2	
Dhanbad	Baliapur	PHC	37	37	2			2	151	371								
Dhanbad	Govindpur	PHC	69	69	1			2	25	339								
Dhanbad	Johrapokhar	PHC	152	152	2			3	36	460			1					
Dhanbad	Nirsa	PHC	146	146	1		2	1	-52	246	1				1			
Dhanbad	Sadar PHC	PHC	190	190	1		1		-96	-96				1	2		2	
Dhanbad	Topchanchi	PHC	49	49	1		1		45	45	1			1				
Dhanbad	Tundi	PHC	45	45	1		2		49	143	1			1				
Dhanbad Total			2019	1361	11	2	7	11	-577	1541	3		1	8	3	4	4	
Dumka	Dumka DS	DS	475	214	4	2	1	1	309	84		1		3				
Dumka	Gopi Kandar	PHC	14	14	1				80	-14			1				1	
Dumka	Jama	PHC	46	46					-46	-46	2		1		2		1	
Dumka	Jarmundi	PHC	52	52	1		1		42	42								
Dumka	Kathikund	PHC	23	23	1				71	-23							1	
Dumka	Masalia	PHC	42	42					-42	-42	1				1		1	
Dumka	Ramgarh	PHC	50	50	1		1		44	44								
Dumka	Raneswar	PHC	35	35					-35	-35					1		1	
Dumka	Sadar PHC	PHC	48	48	1				46	-48							1	
Dumka	Saraya	PHC	45	45	1				49	-45				1			2	
Dumka	Shikaripada	PHC	42	42			1		-42	52	1				1			
Dumka Total			872	610	10	2	4	1	476	-30	4	1	2	4	5		8	
East Singhbhum	Jamshedpur DHQ	DS	991	446	7		2	4	-333	558				1		2		
East Singhbhum	Baharagharah	PHC	66	66	1		1		28	28				1				
East Singhbhum	Chakulia	PHC	48	48	1		1		46	46								
East Singhbhum	Dalbhumgarh	PHC	32	32	1		1		62	62								
East Singhbhum	Dhumria	PHC	24	24	1		1		70	70								
East Singhbhum	Ghatsella	PHC	51	51	2			1	137	153	1							
East Singhbhum	Jugsalai	PHC	474	474	1		2		-380	-286					5		4	

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Gross)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
East Singhbhum	Musabani	PHC	46	46	1			1	48	158				1				
East Singhbhum	Patomda	PHC	58	58	1			1	36	36				1				
East Singhbhum	Potka	PHC	75	75	2			1	113	223								
East Singhbhum Total			1864	1319	18			10	-172	1049	1			4	5	2	4	
Garhwa	Garhwa DS	DS	401	180	2	2		3	195	432								
Garhwa	Bhandaria	PHC	44	44	1				50	-44								1
Garhwa	Bhavaanathpur	PHC	44	44	1				50	-44	1							1
Garhwa	Dhurki	PHC	44	44	1				50	-44								1
Garhwa	Garhwa Block	PHC	44	44					-44	-44					1			1
Garhwa	Majhion	PHC	44	44	1			1	50	50								
Garhwa	Meral	PHC	44	44	1			1	50	50								
Garhwa	Nagaruntari	PHC	44	44	1				50	160								
Garhwa	Ranka	PHC	44	44	2				144	160								
Garhwa Total			753	533	10	2	2	5	595	675	1				1			4
Giridih	Giridih	DS	951	428		1		4	-747	388						4		
Giridih	Bagodar	PHC	104	104	1			1	-10	194					1			
Giridih	Bengabad	PHC	52	52	1				42	-52								1
Giridih	Birni	PHC	59	59	1				35	-59								1
Giridih	Deori	PHC	62	62	1			2	32	346								
Giridih	Dumri	PHC	79	79	1			2	15	109	1			1				
Giridih	Gandey	PHC	60	60	1				34	144								
Giridih	Jamua	PHC	92	92	2				96	112								
Giridih	MCH	PHC	66	66	1			1	28	28								
Giridih	Pirtand	PHC	38	38	1			1	56	260								
Giridih	Raj Dhanwar	PHC	87	87	1				7	7								
Giridih	Tisri	PHC	32	32	1				62	62	1							
Giridih	Sadar Block	PHC	66	66	1			1	28	28				1				
Giridih Total			1748	1226	13	1	8	10	-322	1566	2			2	1	4	2	
Godda	Godda	DS	431	194	2	1		1	-39	104						1		
Godda	Boarijore	PHC	54	54	1				40	-54	1							1

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Godda	Mahagama	PHC	54	54	2		1		134	40								
Godda	Meharma	PHC	54	54	1				40	-54							1	
Godda	Patthargama	PHC	54	54	1		1		40	40								
Godda	Podayahat	PHC	54	54	1		1		40	40	2		1	1				
Godda	Sadar Block	PHC	54	54	1				40	-54	1			1			2	
Godda	Sundarpahari	PHC	54	54	1			1	40	150	1							
Godda Total			810	573	10	1	4	2	334	211	5		1	2		1	4	
Gumla	Gumla	DS	354	159		1		2	-150	249		1		3		1		
Gumla	Bharno	PHC	22	22	1		1		72	72								
Gumla	Bishnupur	PHC	18	18	1		1		76	76	1		1					
Gumla	Chainpur	PHC	20	20				1	-20	184	1				1			
Gumla	Dumri	PHC	26	26					-26	-26					1		1	
Gumla	Ghagra	PHC	33	33	1		1	1	61	265								
Gumla	Kamdara	PHC	26	26	1				68	-26							1	
Gumla	Palkot	PHC	27	27	1				67	-27	1						1	
Gumla	Raidih	PHC	24	24	1			1	70	180								
Gumla	Sisai RH	PHC	33	33	1		1	1	61	265			1					
Gumla	Basia	RH	26	26	1				68	-26				1			2	
Gumla Total			611	416	8	1	4	6	345	1184	3	1	2	4	2	1	5	
Hazaribagh	Hazaribagh	DS	918	413		4		2	-102	-5				2		1		2
Hazaribagh	Churchu	FPC	62	62	1		1		32	32	1							
Hazaribagh	Barakatha	PHC	62	62	1		1		32	32								
Hazaribagh	Barhi	PHC	62	62	1		1		32	32				1				
Hazaribagh	Berkagaon	PHC	62	62					-62	-62					1		1	
Hazaribagh	Chaparan	PHC	62	62	1		1		32	32				1				
Hazaribagh	Gola	PHC	62	62	1		2		32	126								
Hazaribagh	Ichak	PHC	62	62					-62	-62			1		1		1	
Hazaribagh	Katkamsari	PHC	62	62	1		1		32	32								
Hazaribagh	Keredari	PHC	62	62	2		1		126	32								
Hazaribagh	Mandu	PHC	62	62	1		1		32	32	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large
Hazaribagh	Patratu	PHC	62	62	1		1		32	32								
Hazaribagh	Ramgarh	PHC	62	62	1			1	32	142	1		1					
Hazaribagh	Vishnugarh	PHC	62	62	2		1		126	32								
Hazaribagh Total			1726	1221	13	4	11	3	312	425	3		2	4	2	1	2	2
Jamtara	Sadar DS	DS	272	123	3			2	10	285	1							
Jamtara	Jamtara	PHC	60	60	1				34	-60							1	
Jamtara	Kundahit	PHC	60	60	1				34	-60							1	
Jamtara	Nala	PHC	60	60	1			1	34	144								
Jamtara	Narayanpur	PHC	60	60					-60	-60	1		1		1		1	
Jamtara Total			512	362	6			3	52	250	2		1		1		3	
Koderma	Koderma	DS	270	122	3	4	1	2	828	380								
Koderma	Jainagar	PHC	53	53	1				41	-53				1			2	
Koderma	Koderma (Jhum-ri Talaya) PHC	PHC	97	97	1			1	-3	107				1	1			
Koderma	Markacho	PHC	45	45	1		1		49	49								
Koderma Total			466	317	6	4	2	3	914	483				2	1		2	
Latehar	Latehar	DS	234	105	1		2		-140	83	1					1		
Latehar	Balumath	PHC	34	34	1		1		60	60								
Latehar	Barawadhi	PHC	34	34	1		1		60	60								
Latehar	Chandwa	PHC	34	34	1				60	-34			1	1			3	
Latehar	Latehar	PHC	34	34	1				60	-34							1	
Latehar	Mahuatan	PHC	34	34					-34	-34					1		1	
Latehar	Manika	PHC	34	34	2				154	-34							1	
Latehar Total			439	311	7		4		219	65	1		1	1	1	1	6	
Lohardaga	Lohardaga	DS	144	65	1			2	-50	343						1		
Lohardaga	Bandra	PHC	25	25	1		1	1	69	273	1							
Lohardaga	Kisko	PHC	25	25	3		3		257	257	1							
Lohardaga	Kuru	PHC	25	25	1		1	2	69	477	1							
Lohardaga	Lohardaga	PHC	25	25	2		2	1	163	367								
Lohardaga	Senha	PHC	25	25	1		2	1	69	367	2							

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Lohardaga Total			272	192	9		9	7	574	2082	5					1		
Pakur	Pakur	DS	282	127	4	3		3	706	485			1					
Pakur	Amrapada	PHC	21	21	1			1	73	73								
Pakur	Hiranpur	PHC	25	25	1			1	69	69								
Pakur	Littipara	PHC	32	32	1			1	62	62								
Pakur	Maheshpur	PHC	62	62	1				32	-62							1	
Pakur	Pakudia	PHC	35	35	1			1	59	59								
Pakur Total			457	302	9	3	4	3	1001	686			1				1	
Palamu	Daltanganj	DS	767	345	2	2		2	-171	63						1		
Palamu	Bishrampur	PHC	59	59	1				35	-59							1	
Palamu	Block PHC	PHC	41	41	1				53	-41							1	
Palamu	Chainpur	PHC	78	78					-78	-78					1		1	
Palamu	Chattarpur	PHC	73	73	1			1	21	21	1							
Palamu	Hariharganj	PHC	38	38	1			1	56	56								
Palamu	Husainabad	PHC	78	78	1			2	16	110								
Palamu	Lisliganj	PHC	35	35	1			1	59	59								
Palamu	Manatu	PHC	43	43					-43	-43					1		1	
Palamu	Panki	PHC	54	54	1				40	-54	1						1	
Palamu	Patan	PHC	64	64	1			1	30	234								
Palamu Total			1330	909	10	2	6	3	18	267	2				2	1	5	
Ranchi	Namkum	CS																
Ranchi	Ranchi DS	DS	1107	498	2	1	1	3	-715	208						4		
Ranchi	Anigara	PHC	39	39	1			1	55	55								
Ranchi	Bero	PHC	46	46	2				142	158								
Ranchi	Bundu	PHC	27	27	1				67	177	1							
Ranchi	Chancho	PHC	28	28	1				66	176								
Ranchi	Karra	PHC	35	35	1				59	-35							1	
Ranchi	Khunti	PHC	37	37	1			1	57	57								
Ranchi	Khunti	PHC						1		298								
Ranchi	Lapung	PHC	21	21					-21	-21	1			1	1		2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large
Ranchi	MCH	PHC			1				94									
Ranchi	Murhu	PHC	28	28	1		1		66	66								
Ranchi	Namkum	PHC	40	40	2		1		148	54								
Ranchi	Oremanjhi	PHC	28	28	1			1	66	176								
Ranchi	Rania	PHC	14	14	1				80	-14			1				1	
Ranchi	Silli	PHC	42	42	1		1	1	52	256								
Ranchi	Sonahatu	PHC	37	37	1			1	57	167								
Ranchi	Tamar	PHC	44	44	1				50	-44				1			2	
Ranchi	Aarki	PHC	27	27					-27	-27					1		1	
Ranchi	Burmu	PHC	52	52	1			1	42	152								
Ranchi	Kanke	PHC	325	325	1		1		-231	-231					3		3	
Ranchi	Mander	PHC	35	35	1			1	59	169								
Ranchi	Ratu	PHC	43	43	1				51	-43							1	
Ranchi	Torpa	PHC	29	29	1		1		65	65								
Ranchi Total			2081	1472	23	1	9	12	285	1822	2		1	2	5	4	11	
Sahebganj	Sadar Hospital	DS	368	166	7	1	1	2	494	336		1	1	1				
Sahebganj	Baharawa	PHC	46	46	1		1	1	48	252								
Sahebganj	Barhait	PHC	46	46	2		1	1	142	252								
Sahebganj	Borio	PHC	46	46			1		-46	48					1			
Sahebganj	Pathna	PHC	46	46	2		2		142	142								
Sahebganj	Rajmahal	PHC	46	46	1			1	48	158	1		1					
Sahebganj	Sadar PHC	PHC	46	46			1		-46	48					1			
Sahebganj	Taljhari	PHC	46	46			1		-46	48					1			
Sahebganj Total			693	490	13	1	8	5	733	1282	1	1	2	1	3			
Saraikela sawan	Khar- Chandel (DS)	DS	354	159	5		2	2	116	437								
Saraikela sawan	Khar- Chandel	PHC	51	51	1			1	43	153								
Saraikela sawan	Khar- Ghamaria	PHC	48	48	1				46	-48							1	

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units				
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF		
					Small (94 Ltr Gross)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large	
Saraikela	Khar-sawan	Ichagarh	PHC	41	41					-41	-41					1		1	
Saraikela	Khar-sawan	Kuchai	PHC	24	24					-24	-24					1		1	
Saraikela	Khar-sawan	Nemdeah	PHC	36	36			1		-36	58	1				1			
Saraikela	Khar-sawan	Raj Kharsawan	PHC	31	31			1		-31	63					1			
Saraikela	Khar-sawan	Rajnagar	PHC	51	51	1		1		43	43								
Saraikela	Khar-sawan	Saraikela Sub Depot	PHC	27	27	2	1	1		365	67						1		
Saraikela Kharsawan Total				663	468	10	1	6	3	481	708	1			1	4		3	
Simdega	Simdega	DS		223	100	3	3		3	671	512								
Simdega	Bano	PHC		25	25	2		1	1	163	273								
Simdega	Bolba	PHC		25	25					-25	-25					1		1	
Simdega	Jaldega	PHC		25	25	1			2	69	383								
Simdega	Kolebera	PHC		25	25	2		1	2	163	477								
Simdega	Kurdeg	PHC		25	25					-25	-25					1		1	
Simdega	Simdega	PHC		25	25	1				69	-25							1	
Simdega	Simdega	PHC		25	25	1				69	-25							1	
Simdega	Thethaitnagar	PHC		25	25	2		1	1	163	273						1		
Simdega Total				420	297	12	3	3	9	1320	1821				1	2		4	
West Singhbhum	Chaibasa Sadar	DS		540	243	6	1	3	4	228	855	1	1						
West Singhbhum	Barajamda	PHC		38	38	1				56	-38			1				1	
West Singhbhum	Chakradharpur	PHC		50	50	2		1		138	44								
West Singhbhum	Goilkara	PHC		29	29			1		-29	65	1				1			
West Singhbhum	Jagganathpur	PHC		70	70	1				24	-70				1			2	
West Singhbhum	Jinkpani	PHC		32	32					-32	-32	1		1		1		1	
West Singhbhum	Khutpani	PHC		25	25					-25	-25					1		1	
West Singhbhum	Kumardungi	PHC		26	26	1				68	-26							1	

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large
West singhbhum	Manjgaun	PHC	22	22	1				72	-22							1	
West Singhbhum	Manoharpur	PHC	40	40			1		-40	54	1				1			
West Singhbhum	Sadar-Chaibasa	PHC	32	32			1		-32	62					1			
West Singhbhum	Sonua	PHC	32	32	1		1		62	62								
West Singhbhum	Tonto	PHC	24	24			1		-24	70	1	1	2	1	1		7	
West Singhbhum Total			960	663	13	1	9	4	466	999	5	1	2	1	6		7	
Grand Total			22088	15472	233	40	121	104	7974	17118	44	4	18	43	49	23	88	7

APPENDIX C: DETAILED INVENTORY OF CFC ILRs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Bokaro	Bokaro	DS	1		2	3	1			1
Bokaro	Jiridih	PHC	1			1				
Bokaro	Kasmar	PHC	1			1				
Bokaro	Nawadhi	PHC	1		1	2				
Bokaro	Peterwar	PHC	1		2	3				
Bokaro	Bermo	PHC			1	1				
Bokaro	Chandankyari	PHC			1	1				
Bokaro	Chas	PHC	1			1				
Bokaro	Gumia	PHC			2	2				
Bokaro Total			6		9	15	1			1
Chatra	Chatra	DS			1	1	1			1
Chatra	Pratappur	PHC	1			1				
Chatra	Simaria	PHC			2	2				
Chatra Total			1		3	4	1			1
Deoghar	Deoghar	DS	1		7	8	3		1	4
Deoghar	Jasidih	PHC	1			1				
Deoghar	Karon	PHC	1			1				
Deoghar	Madhupur RH	PHC	1			1				
Deoghar	Mohanpur	PHC	1			1				
Deoghar	Sarat	PHC	1			1				
Deoghar Total			6		7	13	3		1	4
Dhanbad	Dhanbad	DS			8	8	1		1	2
Dhanbad	Bagmara	PHC	1			1				
Dhanbad	Johrapokhar	PHC	1			1				
Dhanbad	Nirsa	PHC		1	1	2				
Dhanbad	Sadar PHC	PHC	1			1				

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District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Dhanbad	Topchanchi	PHC		1		1				
Dhanbad	Tundi	PHC	1	1		2				
Dhanbad Total			4	3	9	16	1		1	2
Dumka	Dumka DS	DS	2			2				
Dumka	Jama	PHC		2	1	3				
Dumka	Jarmundi	PHC	1		1	2				
Dumka	Kathikund	PHC	1			1				
Dumka	Masalia	PHC		1		1				
Dumka	Raneswar	PHC			1	1				
Dumka	Sadar PHC	PHC	1			1				
Dumka	Saraya	PHC	1			1				
Dumka	Shikaripada	PHC		1		1				
Dumka Total			6	4	3	13				
East Singhbhum	Jamshedpur DHQ	DS	5			5				
East Singhbhum	Baharagharah	PHC	1			1				
East Singhbhum	Chakulia	PHC	1			1				
East Singhbhum	Dalbhunagarh	PHC	1			1				
East Singhbhum	Dhumria	PHC	1			1				
East Singhbhum	Ghatsella	PHC	2	1		3				
East Singhbhum	Jugsalai	PHC	1			1				
East Singhbhum	Musabani	PHC	1			1				
East Singhbhum	Patomda	PHC	1			1				
East Singhbhum	Potka	PHC	2		1	3				
East Singhbhum Total			16	1	1	18				
Garhwa	Garhwa DS	DS					1			1
Garhwa	Bhandaria	PHC	1			1				
Garhwa	Bhavaanathpur	PHC		1		1				

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District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Garhwa	Dhurki	PHC	1			1				
Garhwa	Garhwa Block	PHC			2	2				
Garhwa	Meral	PHC			2	2				
Garhwa	Nagaruntari	PHC	1		1	2				
Garhwa	Ranka	PHC	2			2				
Garhwa Total			5	1	5	11	1			1
Giridih	Giridih	DS							1	1
Giridih	Bagodar	PHC	1		2	3				
Giridih	Bengabad	PHC	1			1				
Giridih	Birni	PHC	1		1	2				
Giridih	Deori	PHC	1		1	2				
Giridih	Dumri	PHC		1		1				
Giridih	Gandey	PHC	1		1	2				
Giridih	Jamua	PHC	1		1	2				
Giridih	MCH	PHC	1			1				
Giridih	Pirtand	PHC	1		1	2				
Giridih	Raj Dhanwar	PHC	1		1	2				
Giridih	Tisri	PHC	1	1	1	3				
Giridih	Sadar Block	PHC	1		1	2				
Giridih Total			11	2	10	23			1	1
Godda	Godda	DS	2		2	4				
Godda	Boarijore	PHC	1	1		2				
Godda	Mahagama	PHC	1			1				
Godda	Meharma	PHC	1			1				
Godda	Patthargama	PHC	1			1				
Godda	Podayahat	PHC		1		1				
Godda	Sadar Block	PHC		1		1				
Godda Total			6	3	2	11				
Gumla	Gumla	DS			3	3			1	1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Gumla	Bharno	PHC	1			1				
Gumla	Bishnupur	PHC	1	1		2				
Gumla	Chainpur	PHC		1		1				
Gumla	Ghagra	PHC			1	1				
Gumla	Kamdara	PHC	1			1				
Gumla	Palkot	PHC	1	1		2				
Gumla	Raidih	PHC	1			1				
Gumla	Sisai RH	PHC							1	1
Gumla	Basia	RH	1			1				
Gumla Total			6	3	4	13			2	2
Hazaribagh	Hazaribagh	DS			1	1	3			3
Hazaribagh	Churchu	FPC		1		1				
Hazaribagh	Barakatha	PHC			2	2				
Hazaribagh	Barhi	PHC	1			1				
Hazaribagh	Berkagaon	PHC			2	2				
Hazaribagh	Chaparan	PHC			1	1				
Hazaribagh	Gola	PHC	1		1	2				
Hazaribagh	Ichak	PHC			1	1				
Hazaribagh	Katkamsari	PHC	1			1				
Hazaribagh	Keredari	PHC	1			1				
Hazaribagh	Mandu	PHC			1	1				
Hazaribagh	Patratu	PHC			1	1				
Hazaribagh	Ramgarh	PHC	1	1		2				
Hazaribagh	Vishnugarh	PHC	1		1	2				
Hazaribagh Total			6	2	11	19	3			3
Jamtara	Sadar DS	DS	1	1		2				
Jamtara	Jamtara	PHC	1			1				
Jamtara	Kundahit	PHC	1			1				
Jamtara	Narayanpur	PHC		1	1	2				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Jamtara Total			3	2	1	6				
Koderma	Koderma	DS	2			2	4			4
Koderma	Jainagar	PHC	1		1	2				
Koderma	Koderma (Jhumri Talaya) PHC	PHC	1			1				
Koderma	Markacho	PHC	1		1	2				
Koderma Total			5		2	7	4			4
Latehar	Latehar	DS			2	2				
Latehar	Barawadhi	PHC	1			1				
Latehar	Chandwa	PHC	1		1	2				
Latehar	Latehar	PHC			1	1				
Latehar	Mahuatan	PHC			1	1				
Latehar	Manika	PHC	1		1	2				
Latehar Total			3		6	9				
Lohardaga	Lohardaga	DS	1		1	2				
Lohardaga	Bandra	PHC	1		1	2				
Lohardaga	Kisko	PHC	1	1		2				
Lohardaga	Kuru	PHC	1			1				
Lohardaga	Lohardaga	PHC	1			1				
Lohardaga	Senha	PHC		1	1	2				
Lohardaga Total			5	2	3	10				
Pakur	Pakur	DS	2		5	7	1			1
Pakur	Amrapada	PHC	1			1				
Pakur	Littipara	PHC	1			1				
Pakur	Pakudia	PHC	1			1				
Pakur Total			5		5	10	1			1
Palamu	Daltanganj	DS					1			1
Palamu	Bishrampur	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Palamu	Block PHC	PHC	1			1				
Palamu	Chattarpur	PHC	1			1				
Palamu	Hariharganj	PHC	1			1				
Palamu	Husainabad	PHC	1			1				
Palamu	Lisliganj	PHC	1		1	2				
Palamu	Panki	PHC		1		1				
Palamu Total			6	1	1	8	1			1
Ranchi	Ranchi DS	DS	1		10	11			1	1
Ranchi	Anigara	PHC	1			1				
Ranchi	Bero	PHC	2			2				
Ranchi	Bundu	PHC	1	1		2				
Ranchi	Chanco	PHC	1			1				
Ranchi	Karra	PHC	1			1				
Ranchi	Khunti	PHC	1		1	2				
Ranchi	MCH	PHC	1			1				
Ranchi	Namkum	PHC	1			1				
Ranchi	Oremanjhi	PHC	1			1				
Ranchi	Rania	PHC	1			1				
Ranchi	Sonahatu	PHC	1			1				
Ranchi	Aarki	PHC			1	1				
Ranchi	Mander	PHC	1			1				
Ranchi	Ratu	PHC	1		1	2				
Ranchi Total			15	1	13	29			1	1
Sahebganj	Sadar Hospital	DS	5			5				
Sahebganj	Baharawa	PHC	1			1				
Sahebganj	Barhait	PHC	1			1				
Sahebganj	Borio	PHC			1	1				
Sahebganj	Pathna	PHC	2			2				
Sahebganj	Rajmahal	PHC	1	1		2				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Sahebganj Total			10	1	1	12				
Saraikela Kharsawan	Ghamaria	PHC	1			1				
Saraikela Kharsawan	Nemdeah	PHC		1		1				
Saraikela Kharsawan	Raj Kharsawan	PHC			1	1				
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1		1	2				
Saraikela Kharsawan Total			2	1	2	5				
Simdega	Simdega	DS	1			1				
Simdega	Bano	PHC	2		1	3				
Simdega	Jaldega	PHC	1		1	2				
Simdega	Kolebera	PHC	1			1				
Simdega	Simdega	PHC			1	1				
Simdega	Simdega PHC	PHC			1	1				
Simdega	Thethaitnagar	PHC	1			1				
Simdega Total			6		4	10				
West Singhbhum	Chaibasa Sadar	DS	4	1		5		1		1
West Singhbhum	Barajamda	PHC	1			1				
West Singhbhum	Chakradharpur	PHC	2			2				
West Singhbhum	Goilkara	PHC		1	1	2				
West Singhbhum	Jagganathpur	PHC			1	1				
West Singhbhum	Jinkpani	PHC		1		1				
West Singhbhum	Kumardungi	PHC	1			1				
West Singhbhum	Manjgaun	PHC			1	1				
West Singhbhum	Manoharpur	PHC		1	1	2				
West Singhbhum	Tonto	PHC		1		1				
West Singhbhum Total			8	5	4	17		1		1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Grand Total			141	32	106	279	16	1	6	23

APPENDIX: D DETAILED INVENTORY OF CFC-FREE ILRs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Bokaro	Bermo	PHC		1		1	1			1
Bokaro	Bokaro	PHC					1			1
Bokaro	Chandankyari	PHC	1			1				
Bokaro	Gumia	PHC	1			1				
Bokaro Total			2	1		3	2			2
Chatra	Chatra	DS					2			2
Chatra	Hunterganj	PHC	1			1				
Chatra	Itkhori	PHC	1	1		2				
Chatra	Tandwa	PHC	2			2				
Chatra Total			4	1		5	2			2
Deoghar	Deoghar	DS					2			2
Deoghar	Jasidih	PHC		1		1				
Deoghar	Madhupur RH	PHC	1			1				
Deoghar	Palajori	PHC	1			1				
Deoghar	Sarwan	PHC	1			1				
Deoghar Total			3	1		4	2			2
Dhanbad	Dhanbad	DS					1			1
Dhanbad	Bagmara	PHC	1			1				
Dhanbad	Baliapur	PHC	2			2				
Dhanbad	Govindpur	PHC	1			1				
Dhanbad	Johrapokhar	PHC	1			1				
Dhanbad	Nirsa	PHC	1			1				
Dhanbad	Topchanchi	PHC	1			1				
Dhanbad Total			7			7	1			1
Dumka	Dumka DS	DS	2			2	2	1		3
Dumka	Gopi Kandar	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Dumka	Ramgarh	PHC	1			1				
Dumka	Raneswar	PHC			1	1				
Dumka Total			4		1	5	2	1		3
East Singhbhum	Jamshedpur DHQ	DS	2			2				
East Singhbhum Total			2			2				
Garhwa	Garhwa DS	DS	2			2	1			1
Garhwa	Bhavaanathpur	PHC	1			1				
Garhwa	Majhion	PHC	1			1				
Garhwa	Meral	PHC	1			1				
Garhwa Total			5			5	1			1
Giridih	Giridih	DS					1			1
Giridih	Dumri	PHC	1			1				
Giridih	Jamua	PHC	1			1				
Giridih	Tisri	PHC			1	1				
Giridih	Sadar Block	PHC							1	1
Giridih Total			2		1	3	1		1	2
Godda	Godda	DS					1			1
Godda	Mahagama	PHC	1			1				
Godda	Podayahat	PHC	1	1		2				
Godda	Sadar Block	PHC	1			1				
Godda	Sundarpahari	PHC	1	1		2				
Godda Total			4	2		6	1			1
Gumla	Gumla	DS					1	1		2
Gumla	Ghagra	PHC	1			1				
Gumla	Sisai RH	PHC	1			1				
Gumla Total			2			2	1	1		2
Hazaribagh	Hazaribagh	DS					1			1
Hazaribagh	Churchu	FPC	1			1				
Hazaribagh	Barakatha	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Hazaribagh	Chaparan	PHC	1			1				
Hazaribagh	Keredari	PHC	1			1				
Hazaribagh	Mandu	PHC	1	1		2				
Hazaribagh	Patratu	PHC	1			1				
Hazaribagh	Vishnugarh	PHC	1			1				
Hazaribagh Total			7	1		8	1			1
Jamtara	Sadar DS	DS	2			2			1	1
Jamtara	Nala	PHC	1			1				
Jamtara Total			3			3			1	1
Koderma	Koderma	DS	1			1				
Koderma Total			1			1				
Latehar	Latehar	DS	1	1		2				
Latehar	Balumath	PHC	1			1				
Latehar	Latehar	PHC	1			1				
Latehar	Manika	PHC	1			1				
Latehar Total			4	1		5				
Lohardaga	Bandra	PHC		1		1				
Lohardaga	Kisko	PHC	2		1	3				
Lohardaga	Kuru	PHC		1		1				
Lohardaga	Lohardaga	PHC	1			1				
Lohardaga	Senha	PHC	1	1		2				
Lohardaga Total			4	3	1	8				
Pakur	Pakur	DS	2			2	2			2
Pakur	Hiranpur	PHC	1			1				
Pakur	Maheshpur	PHC	1			1				
Pakur Total			4			4	2			2
Palamu	Daltanganj	DS	2			2	1			1
Palamu	Chattarpur	PHC		1		1				
Palamu	Panki	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Palamu	Patan	PHC	1			1				
Palamu Total			4	1		5	1			1
Ranchi	Ranchi DS	DS	1			1	1			1
Ranchi	Khunti	PHC						1		1
Ranchi	Lapung	PHC		1		1				
Ranchi	Murhu	PHC	1			1				
Ranchi	Namkum	PHC	1			1				
Ranchi	Silli	PHC	1			1				
Ranchi	Tamar	PHC	1			1				
Ranchi	Burmu	PHC	1			1				
Ranchi	Kanke	PHC	1			1				
Ranchi	Torpa	PHC	1			1				
Ranchi Total			8	1		9	1		1	2
Sahebganj	Sadar Hospital	DS	2			2	1	1		2
Sahebganj	Barhait	PHC	1			1				
Sahebganj Total			3			3	1	1		2
Saraikela Kharsawan	Chandel (DS)	DS	5			5				
Saraikela Kharsawan	Chandel	PHC	1			1				
Saraikela Kharsawan	Kuchai	PHC			1	1				
Saraikela Kharsawan	Rajnagar	PHC	1			1				
Saraikela Kharsawan	Saraikela Sub De-pot	PHC	1			1	1			1
Saraikela Kharsawan Total			8		1	9	1			1
Simdega	Simdega	DS	2			2	3			3
Simdega	Kolebera	PHC	1			1				
Simdega	Simdega	PHC	1			1				
Simdega	Simdega PHC	PHC	1			1				
Simdega	Thethaitnagar	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Simdega Total			6			6	3			3
West Singhbhum	Chaibasa Sadar	DS	2			2	1			1
West Singhbhum	Jagganathpur	PHC	1			1				
West Singhbhum	Manjgaun	PHC	1			1				
West Singhbhum	Sonua	PHC	1			1				
West Singhbhum Total			5			5	1			1
Grand Total			92	12	4	108	24	3	3	30

APPENDIX: E DETAILED INVENTORY OF CFC DFs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Bokaro	Bokaro	DS			3	3	1		3	4
Bokaro	Chandankyari	PHC					1			1
Bokaro	Chas	PHC						1		1
Bokaro	Gumia	PHC			1	1				
Bokaro	Peterwar	PHC			1	1	1			1
Bokaro	Bermo	PHC					1			1
Bokaro Total					5	5	3	1	4	8
Chatra	Hunterganj	PHC						1		1
Chatra	Itkhori	PHC			4	4		1		1
Chatra Total					4	4		1	1	2
Deoghar	Deoghar	DS			7	7	1	4		5
Deoghar	Jasidih	PHC	1			1			1	1
Deoghar	Karon	PHC	1			1				
Deoghar Total			2		7	9	1	4	1	6
Dhanbad	Dhanbad	DS					1	4	3	8
Dhanbad	Bagmara	PHC						1	1	2
Dhanbad	Baliapur	PHC			1	1	1			1
Dhanbad	Govindpur	PHC					1		1	2
Dhanbad	Johrapokhar	PHC		1		1	1			1
Dhanbad	Nirsa	PHC			1	1	1			1
Dhanbad	Sadar PHC	PHC						1		1
Dhanbad	Topchanchi	PHC						1	1	2
Dhanbad	Tundi	PHC						1		1
Dhanbad Total				1	2	3	5	8	6	19
Dumka	Dumka DS	DS							3	3
Dumka	Gopi Kandar	PHC		1		1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Dumka	Jarmundi	PHC			1	1				
Dumka	Sadar PHC	PHC						1	1	
Dumka	Saraya	PHC					1		1	
Dumka Total				1	1	2		1	4	5
East Singhbhum	Jamshedpur DHQ	DS					3	1	2	6
East Singhbhum	Baharagharah	PHC	1			1		1		1
East Singhbhum	Chakulia	PHC	1			1				
East Singhbhum	Dalbhumgarh	PHC	1		1	2				
East Singhbhum	Dhumria	PHC	1			1				
East Singhbhum	Ghatsella	PHC					1			1
East Singhbhum	Jugsalai	PHC	2			2				
East Singhbhum	Musabani	PHC					1	1		2
East Singhbhum	Patomda	PHC	1			1		1		1
East Singhbhum	Potka	PHC			1	1	1			1
East Singhbhum Total			7		2	9	6	4	2	12
Garhwa	Garhwa DS	DS			1	1	1		1	2
Garhwa	Bhandaria	PHC			1	1				
Garhwa	Garhwa Block	PHC			1	1				
Garhwa	Meral	PHC			1	1				
Garhwa	Nagaruntari	PHC			1	1				
Garhwa	Ranka	PHC					1			1
Garhwa Total					5	5	2		1	3
Giridih	Giridih	DS			3	3	2		2	4
Giridih	Bagodar	PHC			1	1	1			1
Giridih	Bengabad	PHC			2	2				
Giridih	Birni	PHC			1	1			1	1
Giridih	Deori	PHC			1	1	1			1
Giridih	Dumri	PHC			2	2		1	1	2

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Giridih	Gandey	PHC			2	2	1			1
Giridih	Jamua	PHC			1	1	1		1	2
Giridih	Pirtand	PHC					1			1
Giridih	Raj Dhanwar	PHC			1	1			2	2
Giridih	Tisri	PHC							1	1
Giridih	Sadar Block	PHC			1	1		1		1
Giridih Total					15	15	7	2	8	17
Godda	Godda	DS							2	2
Godda	Boarjore	PHC							1	1
Godda	Podayahat	PHC		1		1		1		1
Godda	Sadar Block	PHC						1		1
Godda Total				1		1		2	3	5
Gumla	Gumla	DS			4	4	1	3	3	7
Gumla	Bishnupur	PHC		1		1				
Gumla	Chainpur	PHC					1			1
Gumla	Ghagra	PHC			1	1	1			1
Gumla	Raidih	PHC					1			1
Gumla	Sisai RH	PHC					1			1
Gumla	Basia	RH						1		1
Gumla Total				1	5	6	5	4	3	12
Hazaribagh	Hazaribagh	DS			8	8		1	3	4
Hazaribagh	Churchu	FPC			1	1				
Hazaribagh	Barhi	PHC			1	1		1		1
Hazaribagh	Berkagaon	PHC			2	2			1	1
Hazaribagh	Chaparan	PHC						1		1
Hazaribagh	Patratu	PHC			1	1				
Hazaribagh	Ramgarh	PHC		1		1	1			1
Hazaribagh Total				1	13	14	1	3	4	8

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Jamtara	Nala	PHC					1			1
Jamtara	Narayanpur	PHC		1		1				
Jamtara Total				1		1	1			1
Koderma	Jainagar	PHC			1	1		1		1
Koderma	Koderma (Jhumri Talaya) PHC	PHC						1		1
Koderma Total					1	1		2		2
Latehar	Balumath	PHC			1	1				
Latehar	Latehar	PHC			1	1				
Latehar	Mahuatan	PHC			1	1				
Latehar	Manika	PHC			1	1				
Latehar Total					4	4				
Lohardaga	Lohardaga	DS					1		1	2
Lohardaga	Bandra	PHC					1			1
Lohardaga	Kisko	PHC			1	1			1	1
Lohardaga	Kuru	PHC					2			2
Lohardaga Total					1	1	4		2	6
Palamu	Daltanganj	DS							2	2
Palamu	Bishrampur	PHC			1	1				
Palamu	Panki	PHC			1	1				
Palamu	Patan	PHC					1			1
Palamu Total					2	2	1		2	3
Ranchi	Ranchi DS	DS	1		7	8	1		5	6
Ranchi	Bero	PHC					1			1
Ranchi	Bundu	PHC					1			1
Ranchi	Burmu	PHC					1			1
Ranchi	Chancho	PHC			1	1	1			1
Ranchi	Khunti	PHC			1	1	1			1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Ranchi	Lapung	PHC						1		1
Ranchi	Mander	PHC					1			1
Ranchi	Oremanjhi	PHC					1			1
Ranchi	Rania	PHC		1		1				
Ranchi	Ratu	PHC			1	1				
Ranchi	Silli	PHC					1			1
Ranchi	Sonahatu	PHC					1			1
Ranchi	Tamar	PHC						1		1
Ranchi	Aarki	PHC			1	1				
Ranchi Total			1	1	11	13	10	2	5	17
Sahebganj	Sadar Hospital	DS					1	1		2
Sahebganj	Baharawa	PHC					1			1
Sahebganj	Barhait	PHC					1			1
Sahebganj	Borio	PHC							1	1
Sahebganj	Pathna	PHC	2			2				
Sahebganj	Rajmahal	PHC					1			1
Sahebganj Total			2			2	4	1	1	6
Saraikela Kharsawan	Chandel	PHC					1			1
Saraikela Kharsawan	Ghamaria	PHC			1	1			1	1
Saraikela Kharsawan	Ichagarh	PHC			1	1				
Saraikela Kharsawan	Kuchai	PHC			1	1			1	1
Saraikela Kharsawan	Nemdeah	PHC			2	2				
Saraikela Kharsawan	Raj Kharsawan	PHC			1	1				
Saraikela Kharsawan	Rajnagar	PHC	1			1			2	2
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1		1	2		1		1
Saraikela Kharsawan Total			2		7	9	1	1	4	6
Simdega	Jaldega	PHC			1	1	1			1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Simdega	Kurdeg	PHC						1	1	
Simdega	Thethaitnagar	PHC					1		1	
Simdega Total					1	1	1	1	3	
West Singhbhum	Chaibasa Sadar	DS	1			1	1		1	
West Singhbhum	Barajamda	PHC		1		1				
West Singhbhum	Goilkara	PHC			1	1				
West Singhbhum	Jagganathpur	PHC			1	1	1		1	
West Singhbhum	Jinkpani	PHC		1		1				
West Singhbhum	Manjgaun	PHC			2	2				
West Singhbhum	Manoharpur	PHC	1			1				
West Singhbhum	Sadar-Chaibasa	PHC	1			1				
West Singhbhum	Sonua	PHC	1			1				
West Singhbhum Total			4	2	4	10	1	1	2	
Grand Total			18	9	90	117	53	38	143	

APPENDIX F: DETAILED INVENTORY OF CFC-FREE DFs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Bokaro	Bokaro	DS	1			1				
Bokaro	Jiridih	PHC	1			1				
Bokaro	Nawadhi	PHC	1			1				
Bokaro Total			3			3				
Chatra	Chatra	DS	1	1		2	1			1
Chatra	Hunterganj	PHC	1			1				
Chatra	Itkhor	PHC	1			1				
Chatra	Pratappur	PHC		1		1				
Chatra	Simaria	PHC					1			1
Chatra Total			3	2		5	2			2
Deoghar	Mohanpur	PHC	1			1				
Deoghar	Palajori	PHC	1			1				
Deoghar	Sarat	PHC					1			1
Deoghar	Sarwan	PHC	1			1				
Deoghar Total			3			3	1			1
Dhanbad	Dhanbad	DS					2			2
Dhanbad	Bagmara	PHC	1			1				
Dhanbad	Baliapur	PHC					1			1
Dhanbad	Govindpur	PHC					1			1
Dhanbad	Johrapokhar	PHC					2			2
Dhanbad	Nirsa	PHC	2			2				
Dhanbad	Sadar PHC	PHC	1			1				
Dhanbad	Topchanchi	PHC	1			1				
Dhanbad	Tundi	PHC	2			2				
Dhanbad Total			7			7	6			6
Dumka	Dumka DS	DS	1		1	2	1	3		4

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Dumka	Jama	PHC		1		1				
Dumka	Jarmundi	PHC	1			1				
Dumka	Ramgarh	PHC	1			1				
Dumka	Shikaripada	PHC	1			1				
Dumka Total			4	1	1	6	1	3		4
East Singhbhum	Jamshedpur DHQ	DS	2			2	1			1
East Singhbhum	Potka	PHC	1			1				
East Singhbhum Total			3			3	1			1
Garhwa	Garhwa DS	DS					2			2
Garhwa	Majhion	PHC	1			1				
Garhwa	Meral	PHC	1			1				
Garhwa	Nagaruntari	PHC					1			1
Garhwa Total			2			2	3			3
Giridih	Giridih	DS					2			2
Giridih	Bagodar	PHC	1			1				
Giridih	Deori	PHC					1			1
Giridih	Dumri	PHC	2			2				
Giridih	MCH	PHC	1			1				
Giridih	Pirtand	PHC	1			1				
Giridih	Raj Dhanwar	PHC	1			1				
Giridih	Tisri	PHC	1			1				
Giridih	Sadar Block	PHC	1			1				
Giridih Total			8			8	3			3
Godda	Godda	DS	1			1	1			1
Godda	Mahagama	PHC	1			1				
Godda	Meharma	PHC			1	1				
Godda	Patthargama	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Godda	Podayahat	PHC	1			1				
Godda	Sundarpahari	PHC					1			1
Godda Total			4		1	5	2			2
Gumla	Gumla	DS					1			1
Gumla	Bharno	PHC	1			1				
Gumla	Bishnupur	PHC	1			1				
Gumla	Ghagra	PHC	1			1				
Gumla	Sisai RH	PHC	1	1		2				
Gumla Total			4	1		5	1			1
Hazaribagh	Hazaribagh	DS					2	1		3
Hazaribagh	Churchu	FPC	1			1				
Hazaribagh	Barakatha	PHC	1			1				
Hazaribagh	Barhi	PHC	1			1				
Hazaribagh	Chaparan	PHC	1			1				
Hazaribagh	Gola	PHC	2			2				
Hazaribagh	Ichak	PHC		1		1				
Hazaribagh	Katkamsari	PHC	1			1				
Hazaribagh	Keredari	PHC	1			1				
Hazaribagh	Mandu	PHC	1			1				
Hazaribagh	Patratu	PHC	1			1				
Hazaribagh	Vishnugarh	PHC	1			1				
Hazaribagh Total			11	1		12	2	1		3
Jamtara	Sadar DS	DS					2			2
Jamtara Total							2			2
Koderma	Koderma	DS	1			1	2			2
Koderma	Koderma (Jhumri Talaya) PHC	PHC					1			1
Koderma	Markacho	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Koderma Total			2			2	3			3
Latehar	Latehar	DS	2			2				
Latehar	Balumath	PHC	1			1				
Latehar	Barawadhi	PHC	1			1				
Latehar	Chandwa	PHC		1		1		1		1
Latehar	Latehar	PHC			1	1				
Latehar Total			4	1	1	6		1		1
Lohardaga	Lohardaga	DS					1			1
Lohardaga	Bandra	PHC	1			1				
Lohardaga	Kisko	PHC	3			3				
Lohardaga	Kuru	PHC	1			1				
Lohardaga	Lohardaga	PHC	2			2	1			1
Lohardaga	Senha	PHC	2			2	1			1
Lohardaga Total			9			9	3			3
Pakur	Pakur	DS		1		1	3			3
Pakur	Amrapada	PHC	1			1				
Pakur	Hiranpur	PHC	1			1				
Pakur	Littipara	PHC	1			1				
Pakur	Pakudia	PHC	1			1				
Pakur Total			4	1		5	3			3
Palamu	Daltanganj	DS					2			2
Palamu	Bishrampur	PHC			1	1				
Palamu	Chattarpur	PHC	1			1				
Palamu	Hariharganj	PHC	1			1				
Palamu	Husainabad	PHC	2			2				
Palamu	Lisliganj	PHC	1			1				
Palamu	Patan	PHC	1			1				
Palamu Total			6		1	7	2			2

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Ranchi	Ranchi DS	DS					2			2
Ranchi	Anigara	PHC	1			1				
Ranchi	Khunti	PHC	2			2				
Ranchi	Murhu	PHC	1			1				
Ranchi	Namkum	PHC	1			1				
Ranchi	Silli	PHC	1			1				
Ranchi	Kanke	PHC	1			1				
Ranchi	Torpa	PHC	1			1				
Ranchi Total			8			8	2			2
Sahebganj	Sadar Hospital	DS	1	1		2	1			1
Sahebganj	Baharawa	PHC	1			1				
Sahebganj	Barhait	PHC	1			1				
Sahebganj	Borio	PHC	1			1				
Sahebganj	Rajmahal	PHC		1		1				
Sahebganj	Sadar PHC	PHC	1			1				
Sahebganj	Taljhari	PHC	1			1				
Sahebganj Total			6	2		8	1			1
Saraike sawan	Khar- sawan	Chandel (DS)	2			2	2			2
Saraike sawan	Khar- sawan	Nemdeah	1			1				
Saraike sawan	Khar- sawan	Raj Kharsawan	1			1				
Saraike sawan	Khar- sawan	Saraike Sub De- pot			1	1				
Saraike Kharsawan Total			4		1	5	2			2
Simdega	Simdega	DS					3			3
Simdega	Bano	PHC	1			1	1			1
Simdega	Jaldega	PHC					1			1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Simdega	Kolebera	PHC	1			1	2			2
Simdega	Thethaitnagar	PHC	1			1	1			1
Simdega Total			3			3	8			8
West Singhbhum	Chaibasa Sadar	DS	2			2	3			3
West Singhbhum	Chakradharpur	PHC	1			1				
West Singhbhum	Goilkara	PHC	1			1				
West Singhbhum	Tonto	PHC	1			1				
West Singhbhum Total			5			5	3			3
Grand Total			103	9	5	117	51	5		56

APPENDIX G: AGE PROFILE OF REFRIGERATION UNITS SITE-WISE

(A) AGE PROFILE OF ILR(S)

District	Site	Type	CFC				CFC-FREE				
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15	
Bokaro	Bokaro	DS	1	1							
Bokaro	Bermo	PHC					1	1			
Bokaro	Bokaro	PHC					1				
Bokaro	Chandankyari	PHC					1				
Bokaro	Chas	PHC		1							
Bokaro	Gumia	PHC						1			
Bokaro	Jiridih	PHC		1							
Bokaro	Kasmar	PHC			1						
Bokaro	Nawadhi	PHC			1						
Bokaro	Peterwar	PHC			1						
Bokaro Total			1	3	3		3	2			
Chatra	Chatra	DS		1			2				
Chatra	Hunterganj	PHC					1				
Chatra	Itkhor	PHC					2				
Chatra	Pratappur	PHC		1							
Chatra	Simaria	PHC									
Chatra	Tandwa	PHC					1	1			
Chatra Total				2			6	1			
Deoghar	Deoghar	DS			4			2			
Deoghar	Jasidih	PHC	1					1			
Deoghar	Karon	PHC			1						
Deoghar	Madhupur RH	PHC			1			1			
Deoghar	Mohanpur	PHC			1						

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Deoghar	Palajori	PHC					1			
Deoghar	Sarat	PHC		1						
Deoghar	Sarwan	PHC					1			
Deoghar Total			1	1	7		2	4		
Dhanbad	Dhanbad	DS		1				1		
Dhanbad	Bagmara	PHC		1			1			
Dhanbad	Baliapur	PHC					1	1		
Dhanbad	Govindpur	PHC						1		
Dhanbad	Johrapokhar	PHC		1				1		
Dhanbad	Nirsa	PHC			1			1		
Dhanbad	Sadar PHC	PHC			1					
Dhanbad	Topchanchi	PHC				1	1			
Dhanbad	Tundi	PHC	1		1					
Dhanbad Total			1	3	3	1	3	5		
Dumka	Dumka DS	DS		1	1		1	4		
Dumka	Gopi Kandar	PHC						1		
Dumka	Jama	PHC			2					
Dumka	Jarmundi	PHC		1						
Dumka	Kathikund	PHC			1					
Dumka	Masalia	PHC			1					
Dumka	Ramgarh	PHC						1		
Dumka	Sadar PHC	PHC			1					
Dumka	Saraya	PHC			1					
Dumka	Shikaripada	PHC		1						
Dumka Total				3	7		1	6		
East Singhbhum	Jamshedpur DHQ	DS		5			1	1		
East Singhbhum	Baharagharah	PHC	1							
East Singhbhum	Chakulia	PHC	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
East Singhbhum	Dalbhumgarh	PHC			1					
East Singhbhum	Dhumria	PHC			1					
East Singhbhum	Ghatsella	PHC		2	1					
East Singhbhum	Jugsalai	PHC			1					
East Singhbhum	Musabani	PHC			1					
East Singhbhum	Patomda	PHC			1					
East Singhbhum	Potka	PHC	1		1					
East Singhbhum Total			3	7	7		1	1		
Garhwa	Garhwa DS	DS		1				3		
Garhwa	Bhandaria	PHC				1				
Garhwa	Bhavaanathpur	PHC			1		1			
Garhwa	Dhurki	PHC			1					
Garhwa	Majhion	PHC						1		
Garhwa	Meral	PHC						1		
Garhwa	Nagaruntari	PHC			1					
Garhwa	Ranka	PHC				2				
Garhwa Total				1	3	3		1	5	
Giridih	Giridih	DS					1			
Giridih	Bagodar	PHC		1						
Giridih	Bengabad	PHC			1					
Giridih	Birni	PHC		1						
Giridih	Deori	PHC		1						
Giridih	Dumri	PHC			1			1		
Giridih	Gandey	PHC			1					
Giridih	Jamua	PHC			1		1			
Giridih	MCH	PHC		1						
Giridih	Pirtand	PHC			1					
Giridih	Raj Dhanwar	PHC	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Giridih	Sadar Block	PHC		1						
Giridih	Tisri	PHC	1	1						
Giridih Total			2	6	5		2	1		
Godda	Godda	DS			2			1		
Godda	Boarijore	PHC			1	1				
Godda	Mahagama	PHC	1				1			
Godda	Meharma	PHC			1					
Godda	Patthargama	PHC		1						
Godda	Podayahat	PHC			1		1	1		
Godda	Sadar Block	PHC			1		1			
Godda	Sundarpahari	PHC					1	1		
Godda Total			1	1	6	1	4	3		
Gumla	Gumla	DS							2	
Gumla	Bharno	PHC			1					
Gumla	Bishnupur	PHC			2					
Gumla	Chainpur	PHC	1							
Gumla	Ghagra	PHC					1			
Gumla	Kamdara	PHC	1							
Gumla	Palkot	PHC				2				
Gumla	Raidih	PHC	1							
Gumla	Sisai RH	PHC					1			
Gumla	Basia	RH		1						
Gumla Total			3	1	3	2	2		2	
Hazaribagh	Hazaribagh	DS		3				1		
Hazaribagh	Churchu	FPC			1		1			
Hazaribagh	Barakatha	PHC					1			
Hazaribagh	Barhi	PHC			1					
Hazaribagh	Chaparan	PHC					1			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE				
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15	
Hazaribagh	Gola	PHC		1							
Hazaribagh	Ichak	PHC									
Hazaribagh	Katkamsari	PHC		1							
Hazaribagh	Keredari	PHC		1				1			
Hazaribagh	Mandu	PHC					2				
Hazaribagh	Patratu	PHC					1				
Hazaribagh	Ramgarh	PHC			1	1					
Hazaribagh	Vishnugarh	PHC		1			1				
Hazaribagh Total				7	3	1	7	2			
Jamtara	Sadar DS	DS			2		2				
Jamtara	Jamtara	PHC			1						
Jamtara	Kundahit	PHC			1						
Jamtara	Nala	PHC					1				
Jamtara	Narayanpur	PHC		1							
Jamtara Total				1	4		3				
Koderma	Koderma	DS		3	3		1				
Koderma	Jainagar	PHC			1						
Koderma	Koderma (Jhumri Talaya) PHC	PHC			1						
Koderma	Markacho	PHC			1						
Koderma Total				3	6		1				
Latehar	Latehar	DS						2			
Latehar	Balumath	PHC						1			
Latehar	Barawadhi	PHC			1						
Latehar	Chandwa	PHC		1							
Latehar	Latehar	PHC					1				
Latehar	Manika	PHC		1				1			
Latehar Total				2	1		1	4			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Lohardaga	Lohardaga	DS				1				
Lohardaga	Bandra	PHC			1			1		
Lohardaga	Kisko	PHC		2			2			
Lohardaga	Kuru	PHC		1				1		
Lohardaga	Lohardaga	PHC	1					1		
Lohardaga	Senha	PHC				1	1		1	
Lohardaga Total			1	3	1	2	3	3	1	
Pakur	Pakur	DS			3			4		
Pakur	Amrapada	PHC			1					
Pakur	Hiranpur	PHC					1			
Pakur	Littipara	PHC		1						
Pakur	Maheshpur	PHC					1			
Pakur	Pakudia	PHC	1							
Pakur Total			1	1	4		2	4		
Palamu	Daltanganj	DS		1				3		
Palamu	Bishrampur	PHC			1					
Palamu	Block PHC	PHC			1					
Palamu	Chattarpur	PHC		1				1		
Palamu	Hariharganj	PHC		1						
Palamu	Husainabad	PHC		1						
Palamu	Lisliganj	PHC			1					
Palamu	Panki	PHC		1				1		
Palamu	Patan	PHC						1		
Palamu Total				5	3			6		
Ranchi	Ranchi DS	DS				1		2		
Ranchi	Anigara	PHC			1					
Ranchi	Bero	PHC			1	1				
Ranchi	Bundu	PHC			2					

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Ranchi	Burmu	PHC						1		
Ranchi	Chancho	PHC				1				
Ranchi	Kanke	PHC					1			
Ranchi	Karra	PHC	1							
Ranchi	Khunti	PHC			1					
Ranchi	Lapung	PHC					1			
Ranchi	Mander	PHC			1					
Ranchi	MCH	PHC			1					
Ranchi	Murhu	PHC					1			
Ranchi	Namkum	PHC	1					1		
Ranchi	Oremanjhi	PHC			1					
Ranchi	Rania	PHC			1					
Ranchi	Ratu	PHC			1					
Ranchi	Silli	PHC							1	
Ranchi	Sonahatu	PHC		1						
Ranchi	Tamar	PHC					1			
Ranchi	Torpa	PHC						1		
Ranchi Total			2	1	10	3	4	5	1	
Sahebganj	Sadar Hospital	DS			5			4		
Sahebganj	Baharawa	PHC	1							
Sahebganj	Barhait	PHC			1			1		
Sahebganj	Borio	PHC								
Sahebganj	Pathna	PHC			2					
Sahebganj	Rajmahal	PHC			2					
Sahebganj	Sadar PHC	PHC								
Sahebganj	Taljhari	PHC								
Sahebganj Total			1		10			5		
Saraikela Kharsawan	Chandel (DS)	DS					5			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Saraikela Kharsawan	Chandel	PHC					1			
Saraikela Kharsawan	Ghamaria	PHC			1					
Saraikela Kharsawan	Nimdih	PHC			1					
Saraikela Kharsawan	Raj Kharsawan	PHC								
Saraikela Kharsawan	Rajnagar	PHC					1			
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1				2			
Saraikela Kharsawan Total			1		2		7	2		
Simdega	Simdega	DS			1		5			
Simdega	Bano	PHC			2					
Simdega	Jaldega	PHC			1					
Simdega	Kolebera	PHC		1			1			
Simdega	Simdega	PHC					1			
Simdega	Simdega PHC	PHC					1			
Simdega	Thethaitnagar	PHC			1				1	
Simdega Total				1	5		5	3	1	
West Singhbhum	Chaibasa Sadar	DS			6		3			
West Singhbhum	Barajamda	PHC			1					
West Singhbhum	Chakradharpur	PHC			2					
West Singhbhum	Goilkara	PHC			1					
West Singhbhum	Jagganathpur	PHC							1	
West Singhbhum	Jinkpani	PHC	1							
West Singhbhum	Kumardungi	PHC	1							
West Singhbhum	Manjgaun	PHC					1			
West Singhbhum	Manoharpur	PHC			1					
West Singhbhum	Sadar-Chaibasa	PHC								
West Singhbhum	Sonua	PHC					1			
West Singhbhum	Tonto	PHC	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
West Singhbhum Total			3		11			5	1	
Grand Total			21	52	104	13	58	67	6	

(B) AGE PROFILE OF DF(S)

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Bokaro	Bokaro	DS		1				1		
Bokaro	Bermo	PHC			1					
Bokaro	Bokaro	PHC								
Bokaro	Chandankyari	PHC		1						
Bokaro	Chas	PHC								
Bokaro	Gumia	PHC								
Bokaro	Jiridih	PHC					1			
Bokaro	Kasmar	PHC								
Bokaro	Nawadhi	PHC						1		
Bokaro	Peterwar	PHC			1					
Bokaro Total				2	2		1	2		
Chatra	Chatra	DS					3			
Chatra	Hunterganj	PHC					1			
Chatra	Itkhor	PHC		1			1			
Chatra	Pratappur	PHC					1			
Chatra	Simaria	PHC						1		
Chatra	Tandwa	PHC								
Chatra Total				1			6	1		
Deochar	Deochar	DS			5					
Deochar	Jasidih	PHC	1							
Deochar	Karon	PHC			1					
Deochar	Madhupur RH	PHC								
Deochar	Mohanpur	PHC						1		
Deochar	Palajori	PHC					1			
Deochar	Sarat	PHC						1		

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Deoghar	Sarwan	PHC					1			
Deoghar Total			1		6		2	2		
Dhanbad	Dhanbad	DS			5			2		
Dhanbad	Bagmara	PHC		1			1			
Dhanbad	Baliapur	PHC			1			1		
Dhanbad	Govindpur	PHC				1		1		
Dhanbad	Johrapokhar	PHC		2				2		
Dhanbad	Nirsa	PHC			1		1	1		
Dhanbad	Sadar PHC	PHC			1			1		
Dhanbad	Topchanchi	PHC		1			1			
Dhanbad	Tundi	PHC			1			2		
Dhanbad Total				4	9	1	3	10		
Dumka	Dumka DS	DS					3	2		
Dumka	Gopi Kandar	PHC			1					
Dumka	Jama	PHC						1		
Dumka	Jarmundi	PHC						1		
Dumka	Kathikund	PHC								
Dumka	Masalia	PHC								
Dumka	Ramgarh	PHC						1		
Dumka	Sadar PHC	PHC								
Dumka	Saraya	PHC			1					
Dumka	Shikaripada	PHC						1		
Dumka Total					2		3	6		
East Singhbhum	Jamshedpur DHQ	DS	2		2		3			
East Singhbhum	Baharagharah	PHC		1	1					
East Singhbhum	Chakulia	PHC			1					
East Singhbhum	Dalbhumgarh	PHC			1					

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
East Singhbhum	Dhumria	PHC			1					
East Singhbhum	Ghatsella	PHC		1						
East Singhbhum	Jugsalai	PHC			2					
East Singhbhum	Musabani	PHC			2					
East Singhbhum	Patomda	PHC			2					
East Singhbhum	Potka	PHC			1		1			
East Singhbhum Total			2	2	13		4			
Garhwa	Garhwa DS	DS			1			2		
Garhwa	Bhandaria	PHC								
Garhwa	Bhavaanathpur	PHC								
Garhwa	Dhurki	PHC								
Garhwa	Majhion	PHC						1		
Garhwa	Meral	PHC						1		
Garhwa	Nagaruntari	PHC						1		
Garhwa	Ranka	PHC				1				
Garhwa Total					1	1		5		
Giridih	Giridih	DS	1		1		2			
Giridih	Bagodar	PHC			1		1			
Giridih	Bengabad	PHC								
Giridih	Birmi	PHC								
Giridih	Deori	PHC		1				1		
Giridih	Dumri	PHC			1		2			
Giridih	Gandey	PHC			1					
Giridih	Jamua	PHC			1					
Giridih	MCH	PHC					1			
Giridih	Pirtand	PHC			1				1	

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Giridih	Raj Dhanwar	PHC					1			
Giridih	Sadar Block	PHC			1			1		
Giridih	Tisri	PHC					1			
Giridih Total			1	1	7		8	2	1	
Godda	Godda	DS						2		
Godda	Boarijore	PHC								
Godda	Mahagama	PHC					1			
Godda	Meharma	PHC								
Godda	Patthargama	PHC						1		
Godda	Podayahat	PHC			2		1			
Godda	Sadar Block	PHC			1					
Godda	Sundarpahari	PHC					1			
Godda Total					3		3	3		
Gumla	Gumla	DS			3	1			1	
Gumla	Bharno	PHC						1		
Gumla	Bishnupur	PHC			1				1	
Gumla	Chainpur	PHC	1							
Gumla	Ghagra	PHC			1		1			
Gumla	Kamdara	PHC								
Gumla	Palkot	PHC								
Gumla	Raidih	PHC	1							
Gumla	Sisai RH	PHC			1			2		
Gumla	Basia	RH	1							
Gumla Total			3		6	1	1	3	2	
Hazaribagh	Hazaribagh	DS			1			3		
Hazaribagh	Churchu	FPC						1		
Hazaribagh	Barakatha	PHC					1			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Hazaribagh	Barhi	PHC			1		1			
Hazaribagh	Chaparan	PHC			1		1			
Hazaribagh	Gola	PHC					2			
Hazaribagh	Ichak	PHC					1			
Hazaribagh	Katkamsari	PHC						1		
Hazaribagh	Keredari	PHC					1			
Hazaribagh	Mandu	PHC					1			
Hazaribagh	Patratu	PHC					1			
Hazaribagh	Ramgarh	PHC			1	1				
Hazaribagh	Vishnugarh	PHC						1		
Hazaribagh Total					4	1	9	6		
Jamtara	Sadar DS	DS					2			
Jamtara	Jamtara	PHC								
Jamtara	Kundahit	PHC								
Jamtara	Nala	PHC				1				
Jamtara	Narayanpur	PHC			1					
Jamtara Total					1	1	2			
Koderma	Koderma	DS					3			
Koderma	Jainagar	PHC			1					
Koderma	Koderma (Jhumri Talaya)	PHC			1			1		
Koderma	Markacho	PHC					1			
Koderma Total					2		4	1		
Latehar	Latehar	DS					1	1		
Latehar	Balumath	PHC						1		
Latehar	Barawadhi	PHC						1		
Latehar	Chandwa	PHC					1		1	

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Latehar	Latehar	PHC								
Latehar	Manika	PHC								
Latehar Total							2	3	1	
Lohardaga	Lohardaga	DS				1	1			
Lohardaga	Bandra	PHC			1			1		
Lohardaga	Kisko	PHC					3			
Lohardaga	Kuru	PHC				2		1		
Lohardaga	Lohardaga	PHC					1	2		
Lohardaga	Senha	PHC					1	2		
Lohardaga Total					1	3	6	6		
Pakur	Pakur	DS						4		
Pakur	Amrapada	PHC						1		
Pakur	Hiranpur	PHC						1		
Pakur	Littipara	PHC						1		
Pakur	Maheshpur	PHC								
Pakur	Pakudia	PHC					1			
Pakur Total							1	7		
Palamu	Daltanganj	DS						2		
Palamu	Bishrampur	PHC								
Palamu	Block PHC	PHC								
Palamu	Chattarpur	PHC						1		
Palamu	Hariharganj	PHC					1			
Palamu	Husainabad	PHC						2		
Palamu	Lisliganj	PHC							1	
Palamu	Panki	PHC								
Palamu	Patan	PHC				1			1	
Palamu Total						1	1	5	2	

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Ranchi	Ranchi DS	DS				2		2		
Ranchi	Anigara	PHC						1		
Ranchi	Bero	PHC		1						
Ranchi	Bundu	PHC		1						
Ranchi	Burmu	PHC			1					
Ranchi	Chancho	PHC			1					
Ranchi	Kanke	PHC					1			
Ranchi	Karra	PHC								
Ranchi	Khunti	PHC	1				1			1
Ranchi	Lapung	PHC			1					
Ranchi	Mander	PHC		1						
Ranchi	MCH	PHC								
Ranchi	Murhu	PHC					1			
Ranchi	Namkum	PHC					1			
Ranchi	Oremanjhi	PHC			1					
Ranchi	Rania	PHC			1					
Ranchi	Ratu	PHC								
Ranchi	Silli	PHC		1					1	
Ranchi	Sonahatu	PHC			1					
Ranchi	Tamar	PHC			1					
Ranchi	Torpa	PHC						1		
Ranchi Total			1	4	7	2	4	4	1	1
Sahebganj	Sadar Hospital	DS			2			3		
Sahebganj	Baharawa	PHC	1				1			
Sahebganj	Barhait	PHC			1			1		
Sahebganj	Borio	PHC							1	
Sahebganj	Pathna	PHC			2					

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Sahebganj	Rajmahal	PHC			1		1			
Sahebganj	Sadar PHC	PHC					1			
Sahebganj	Taljhari	PHC					1			
Sahebganj Total			1		6		1	7	1	
Saraikela Khar-sawan	Chandel (DS)	DS					4			
Saraikela Khar-sawan	Chandel	PHC		1						
Saraikela Khar-sawan	Ghamaria	PHC								
Saraikela Khar-sawan	Nimdih	PHC					1			
Saraikela Khar-sawan	Raj Kharsawan	PHC					1			
Saraikela Khar-sawan	Rajnagar	PHC		1						
Saraikela Khar-sawan	Saraikela Sub Depot	PHC	1		1					
Saraikela Khar-sawan Total			1	2	1		4	2		
Simdega	Simdega	DS					3			
Simdega	Bano	PHC					1		1	
Simdega	Jaldega	PHC	1				1			
Simdega	Kolebera	PHC					1	2		
Simdega	Simdega	PHC								
Simdega	Simdega PHC	PHC								
Simdega	Thethaitnagar	PHC			1		1	1		
Simdega Total			1		1		7	3	1	
West Singhbhum	Chaibasa Sadar	DS			2		5			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
West Singhbhum	Barajamda	PHC			1					
West Singhbhum	Chakradharpur	PHC					1			
West Singhbhum	Goilkara	PHC					1			
West Singhbhum	Jagganathpur	PHC				1				
West Singhbhum	Jinkpani	PHC	1							
West Singhbhum	Kumardungi	PHC								
West Singhbhum	Manjgaun	PHC								
West Singhbhum	Manoharpur	PHC	1							
West Singhbhum	Sadar-Chaibasa	PHC			1					
West Singhbhum	Sonua	PHC			1					
West Singhbhum	Tonto	PHC					1			
West Singhbhum Total			2		5	1	3	5		
Grand Total			13	16	77	12	75	83	9	

APPENDIX H: STATUS OF POWER SUPPLY SITUATION

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Bokaro	Bokaro	DS	Good Power Supply	No	No	Yes
Bokaro	Bermo	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Bokaro	PHC	Good Power Supply	No	No	Yes
Bokaro	Chandankyari	PHC	Low voltage	Yes	Yes	No
Bokaro	Chas	PHC	Good Power Supply	Yes	Yes	No
Bokaro	Gumia	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Jiridih	PHC	Low voltage	Yes	Yes	No
Bokaro	Kasmar	PHC	Good Power Supply	Yes	No	Yes
Bokaro	Nawadhi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Peterwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro Total		10		8	7	3
Chatra	Chatra	DS	Power Supply less than 8 Hrs	Yes	No	Yes
Chatra	Chatra	PHC	Power Supply less than 8 Hrs	No	No	Yes
Chatra	Hunterganj	PHC	Low voltage	Yes	Yes	No
Chatra	Itkhorih	PHC	Good Power Supply	No	No	Yes
Chatra	Pratappur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Chatra	Simaria	PHC	No Power Supply	Yes	Yes	No
Chatra	Tandwa	PHC	No Power Supply	Yes	Yes	No
Chatra Total		7		5	4	3
Deoghar	Deoghar	DS	Good Power Supply	Yes	Yes	No
Deoghar	Jasidih	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Karon	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Madhupur RH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Deoghar	Mohanpur	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Palajori	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Deoghar	Sarat	PHC	Power Supply less than 8 Hrs	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Deoghar	Sarwan	PHC	Low voltage	Yes	Yes	No
Deoghar Total		8		7	5	3
Dhanbad	Dhanbad	DS	Low voltage	Yes	Yes	No
Dhanbad	Bagmara	PHC	Low voltage	Yes	No	Yes
Dhanbad	Baliapur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Govindpur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Johrapokhar	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Nirsa	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Sadar PHC	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dhanbad	Topchanchi	PHC	Low voltage	Yes	Yes	No
Dhanbad	Tundi	PHC	Low voltage	Yes	Yes	No
Dhanbad Total		9		9	7	2
Dumka	Dumka DS	DS	Low voltage	No	No	Yes
Dumka	Gopi Kandar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Jama	PHC	Low voltage	Yes	No	Yes
Dumka	Jarmundi	PHC	Good Power Supply	Yes	Yes	No
Dumka	Kathikund	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Masalia	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Ramgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Raneswar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Sadar PHC	PHC	Low voltage	No	No	Yes
Dumka	Saraya	PHC	Good Power Supply	Yes	Yes	No
Dumka	Shikaripada	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka Total		11		9	5	6
East Singhbhum	Jamshedpur DHQ	DS	Good Power Supply	Yes	No	Yes
East Singhbhum	Baharagharah	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Chakulia	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Dalbhumgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
East Singhbhum	Dhumria	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Ghatsella	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Jugsalai	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Musabani	PHC	Good Power Supply	Yes	No	Yes
East Singhbhum	Patomda	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
East Singhbhum	Potka	PHC	Good Power Supply	Yes	No	Yes
East Singhbhum Total		10		10	7	3
Garhwa	Garhwa DS	DS	Good Power Supply	Yes	Yes	No
Garhwa	Bhandaria	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Bhavaanathpur	PHC	Low voltage	Yes	No	Yes
Garhwa	Dhurki	PHC	No Power Supply	Yes	Yes	No
Garhwa	Garhwa Block	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Garhwa	Majhion	PHC	Low voltage	Yes	Yes	No
Garhwa	Meral	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Nagaruntari	PHC	No Power Supply	Yes	No	Yes
Garhwa	Ranka	PHC	Low voltage	Yes	Yes	No
Garhwa Total		9		9	6	3
Giridih	Giridih	DS	Good Power Supply	Yes	Yes	No
Giridih	Bagodar	PHC	No Power Supply	Yes	Yes	No
Giridih	Bengabad	PHC	No Power Supply	Yes	No	Yes
Giridih	Birmi	PHC	No Power Supply	Yes	Yes	No
Giridih	Deori	PHC	No Power Supply	Yes	Yes	No
Giridih	Dumri	PHC	Good Power Supply	Yes	No	Yes
Giridih	Gandey	PHC	Good Power Supply	Yes	Yes	No
Giridih	Jamua	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih	MCH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Giridih	Pirtand	PHC	No Power Supply	Yes	Yes	No
Giridih	Raj Dhanwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Giridih	Sadar Block	PHC	Low voltage	Yes	No	Yes
Giridih	Tisri	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih Total		13		12	9	4
Godda	Godda	DS	Good Power Supply	Yes	No	Yes
Godda	Boarjore	PHC	No Power Supply	Yes	Yes	No
Godda	Mahagama	PHC	Good Power Supply	Yes	Yes	No
Godda	Meharma	PHC	Low voltage	Yes	No	Yes
Godda	Patthargama	PHC	Good Power Supply	Yes	Yes	No
Godda	Podayahat	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda	Sadar Block	PHC	Good Power Supply	Yes	No	Yes
Godda	Sundarpahari	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda Total		8		8	5	3
Gumla	Gumla	DS	Good Power Supply	Yes	Yes	No
Gumla	Bharno	PHC	No Power Supply	Yes	Yes	No
Gumla	Bishnupur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Chainpur	PHC	Power Supply less than 8 Hrs	No	No	Yes
Gumla	Dumri	PHC	No Power Supply	Yes	No	Yes
Gumla	Ghagra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Kamdara	PHC	Good Power Supply	Yes	No	Yes
Gumla	Palkot	PHC	Good Power Supply	Yes	Yes	No
Gumla	Raidih	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Sisai RH	PHC	Low voltage	Yes	Yes	No
Gumla	Basia	RH	Low voltage	Yes	Yes	No
Gumla Total		11		10	8	3
Hazaribagh	Hazaribagh	DS	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	FPC	Good Power Supply	Yes	Yes	No
Hazaribagh	Barakatha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Barhi	PHC	Low voltage	Yes	No	Yes

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Hazaribagh	Berkagaon	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Chaparan	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	PHC	No Power Supply	No	No	Yes
Hazaribagh	Gola	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Ichak	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Katkamsari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Keredari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Mandu	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Patratu	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Ramgarh	PHC	Good Power Supply	Yes	Yes	No
Hazaribagh	Vishnugarh	PHC	Low voltage	Yes	Yes	No
Hazaribagh Total		15		14	9	6
Jamtara	Sadar DS	DS	Good Power Supply	No	No	Yes
Jamtara	Jamtara	PHC	Good Power Supply	Yes	Yes	No
Jamtara	Kundahit	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Jamtara	Nala	PHC	Good Power Supply	Yes	No	Yes
Jamtara	Narayanpur	PHC	Good Power Supply	Yes	No	Yes
Jamtara Total		5		4	2	3
Koderma	Koderma	DS	Good Power Supply	Yes	Yes	No
Koderma	Jainagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Koderma	Koderma (Jhumri Talaya) PHC	PHC	Good Power Supply	Yes	Yes	No
Koderma	Markacho	PHC	No Power Supply	Yes	Yes	No
Koderma Total		4		4	4	0
Latehar	Latehar	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Balumath	PHC	No Power Supply	Yes	Yes	No
Latehar	Barawadhi	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Latehar	Chandwa	PHC	Low voltage	Yes	No	Yes
Latehar	Latehar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Latehar	Mahuatan	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Manika	PHC	Good Power Supply	Yes	Yes	No
Latehar Total		7		7	5	2
Lohardaga	Lohardaga	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Bandra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kisko	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kuru	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Lohardaga	PHC	Good Power Supply	Yes	Yes	No
Lohardaga	Senha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga Total		6		6	6	0
Pakur	Pakur	DS	Good Power Supply	Yes	Yes	No
Pakur	Amrapada	PHC	Low voltage	No	No	Yes
Pakur	Hiranpur	PHC	Low voltage	Yes	No	Yes
Pakur	Littipara	PHC	Good Power Supply	No	No	Yes
Pakur	Maheshpur	PHC	No Power Supply	No	No	Yes
Pakur	Pakudia	PHC	No Power Supply	No	No	Yes
Pakur Total		6		2	1	5
Palamu	Daltanganj	DS	Good Power Supply	Yes	Yes	No
Palamu	Bishrampur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Block PHC	PHC	No Power Supply	No	No	Yes
Palamu	Chainpur	PHC	Good Power Supply	Yes	No	Yes
Palamu	Chattarpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Hariharganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Husainabad	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Palamu	Lisliganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Manatu	PHC	No Power Supply	No	No	Yes
Palamu	Panki	PHC	No Power Supply	Yes	Yes	No
Palamu	Patan	PHC	Low voltage	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Palamu Total		11		9	6	5
Ranchi	Namkum	CS	Good Power Supply	Yes	Yes	No
Ranchi	Ranchi DS	DS	Good Power Supply	Yes	Yes	No
Ranchi	Aarki	PHC	Good Power Supply	Yes	No	Yes
Ranchi	Anigara	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bero	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bundu	PHC		Yes	Yes	No
Ranchi	Burmu	PHC	Low voltage	Yes	Yes	No
Ranchi	Chancho	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Kanke	PHC	No Power Supply	Yes	Yes	No
Ranchi	Karra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes
Ranchi	Lapung	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Mander	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	MCH	PHC	Good Power Supply	No	No	Yes
Ranchi	Murhu	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Namkum	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Oremanjhi	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Rania	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Ratu	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Silli	PHC	Good Power Supply	No	No	Yes
Ranchi	Sonahatu	PHC	Low voltage	Yes	Yes	No
Ranchi	Tamar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi	Torpa	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi Total		24		20	17	7
Sahebganj	Sadar Hospital	DS	Low voltage	Yes	Yes	No
Sahebganj	Baharawa	PHC	Low voltage	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Sahebganj	Barhait	PHC	No Power Supply	Yes	Yes	No
Sahebganj	Borio	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Sahebganj	Pathna	PHC	No Power Supply	Yes	No	Yes
Sahebganj	Rajmahal	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Sahebganj	Sadar PHC	PHC	Power Supply less than 8 Hrs	No	No	Yes
Sahebganj	Taljhari	PHC	No Power Supply	Yes	Yes	No
Sahebganj Total		8		7	4	4
Saraikela Kharsawan	Chandel (DS)	DS	Good Power Supply	No	No	Yes
Saraikela Kharsawan	Chandel	PHC	Good Power Supply	No	No	Yes
Saraikela Kharsawan	Ghamaria	PHC	Good Power Supply	Yes	Yes	No
Saraikela Kharsawan	Ichagarh	PHC	No Power Supply	Yes	No	Yes
Saraikela Kharsawan	Kuchai	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan	Nimdih	PHC	Good Power Supply	Yes	No	Yes
Saraikela Kharsawan	Raj Kharsawan	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Saraikela Kharsawan	Rajnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan	Saraikela Sub Depot	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan Total		9		7	4	5
Simdega	Simdega	DS	Good Power Supply	No	No	Yes
Simdega	Bano	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Bolba	PHC	No Power Supply	Yes	Yes	No
Simdega	Jaldega	PHC	Good Power Supply	Yes	Yes	No
Simdega	Kolebera	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Kurdeg	PHC	No Power Supply	Yes	No	Yes
Simdega	Simdega	PHC	Good Power Supply	Yes	No	Yes
Simdega	Simdega PHC	PHC	Good Power Supply	No	No	Yes
Simdega	Thethaitnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega Total		9		7	5	4
West Singhbhum	Chaibasa Sadar	DS	Good Power Supply	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
West singhbhum	Barajamda	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Chakradharpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West Singhbhum	Goilkara	PHC	Good Power Supply	Yes	Yes	No
West singhbhum	Jagganathpur	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Jinkpani	PHC	Good Power Supply	No	No	Yes
West singhbhum	Khutpani	PHC	No Power Supply	No	No	Yes
West Singhbhum	Kumardungi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West singhbhum	Manjgaun	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
West Singhbhum	Manoharpur	PHC	Good Power Supply	Yes	Yes	No
West Singhbhum	Sadar-Chaibasa	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Sonua	PHC	Low voltage	Yes	No	Yes
West Singhbhum	Tonto	PHC	No Power Supply	No	No	Yes
West Singhbhum Total		13		10	5	8
Grand Total		213		184	131	82

APPENDIX I: DETAILED LIST OF GENERATOR STATUS SITE-WISE

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Bokaro	Bokaro	DS	Good Power Supply	No	No	Yes
Bokaro	Bermo	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Bokaro	PHC	Good Power Supply	No	No	Yes
Bokaro	Chandankyari	PHC	Low voltage	Yes	Yes	No
Bokaro	Chas	PHC	Good Power Supply	Yes	Yes	No
Bokaro	Gumia	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Jiridih	PHC	Low voltage	Yes	Yes	No
Bokaro	Kasmar	PHC	Good Power Supply	Yes	No	Yes
Bokaro	Nawadhi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Peterwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro Total		10		8	7	3
Chatra	Chatra	DS	Power Supply less than 8 Hrs	Yes	No	Yes
Chatra	Chatra	PHC	Power Supply less than 8 Hrs	No	No	Yes
Chatra	Hunterganj	PHC	Low voltage	Yes	Yes	No
Chatra	Itkhori	PHC	Good Power Supply	No	No	Yes
Chatra	Pratappur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Chatra	Simaria	PHC	No Power Supply	Yes	Yes	No
Chatra	Tandwa	PHC	No Power Supply	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Chatra Total		7		5	4	3
Deoghar	Deoghar	DS	Good Power Supply	Yes	Yes	No
Deoghar	Jasidih	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Karon	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Madhupur RH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Deoghar	Mohanpur	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Palajori	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Deoghar	Sarat	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Deoghar	Sarwan	PHC	Low voltage	Yes	Yes	No
Deoghar Total		8		7	5	3
Dhanbad	Dhanbad	DS	Low voltage	Yes	Yes	No
Dhanbad	Bagmara	PHC	Low voltage	Yes	No	Yes
Dhanbad	Baliapur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Govindpur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Johrapokhar	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Nirsa	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Sadar PHC	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dhanbad	Topchanchi	PHC	Low voltage	Yes	Yes	No
Dhanbad	Tundi	PHC	Low voltage	Yes	Yes	No
Dhanbad Total		9		9	7	2

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Dumka	Dumka DS	DS	Low voltage	No	No	Yes
Dumka	Gopi Kandar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Jama	PHC	Low voltage	Yes	No	Yes
Dumka	Jarmundi	PHC	Good Power Supply	Yes	Yes	No
Dumka	Kathikund	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Masalia	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Ramgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Raneswar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Sadar PHC	PHC	Low voltage	No	No	Yes
Dumka	Saraya	PHC	Good Power Supply	Yes	Yes	No
Dumka	Shikaripada	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka Total		11		9	5	6
East Singhbhum	Jamshedpur DHQ	DS	Good Power Supply	Yes	No	Yes
East Singhbhum	Baharagharah	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Chakulia	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Dalbhumgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
East Singhbhum	Dhumria	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Ghatsella	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Jugsalai	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Musabani	PHC	Good Power Supply	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
East Singhbhum	Patomda	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
East Singhbhum	Potka	PHC	Good Power Supply	Yes	No	Yes
East Singhbhum Total		10		10	7	3
Garhwa	Garhwa DS	DS	Good Power Supply	Yes	Yes	No
Garhwa	Bhandaria	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Bhavaanathpur	PHC	Low voltage	Yes	No	Yes
Garhwa	Dhurki	PHC	No Power Supply	Yes	Yes	No
Garhwa	Garhwa Block	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Garhwa	Majhion	PHC	Low voltage	Yes	Yes	No
Garhwa	Meral	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Nagaruntari	PHC	No Power Supply	Yes	No	Yes
Garhwa	Ranka	PHC	Low voltage	Yes	Yes	No
Garhwa Total		9		9	6	3
Giridih	Giridih	DS	Good Power Supply	Yes	Yes	No
Giridih	Bagodar	PHC	No Power Supply	Yes	Yes	No
Giridih	Bengabad	PHC	No Power Supply	Yes	No	Yes
Giridih	Birni	PHC	No Power Supply	Yes	Yes	No
Giridih	Deori	PHC	No Power Supply	Yes	Yes	No
Giridih	Dumri	PHC	Good Power Supply	Yes	No	Yes
Giridih	Gandey	PHC	Good Power Supply	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Giridih	Jamua	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih	MCH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Giridih	Pirtand	PHC	No Power Supply	Yes	Yes	No
Giridih	Raj Dhanwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih	Sadar Block	PHC	Low voltage	Yes	No	Yes
Giridih	Tisri	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih Total		13		12	9	4
Godda	Godda	DS	Good Power Supply	Yes	No	Yes
Godda	Boarijore	PHC	No Power Supply	Yes	Yes	No
Godda	Mahagama	PHC	Good Power Supply	Yes	Yes	No
Godda	Meharma	PHC	Low voltage	Yes	No	Yes
Godda	Patthargama	PHC	Good Power Supply	Yes	Yes	No
Godda	Podayahat	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda	Sadar Block	PHC	Good Power Supply	Yes	No	Yes
Godda	Sundarpahari	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda Total		8		8	5	3
Gumla	Gumla	DS	Good Power Supply	Yes	Yes	No
Gumla	Bharno	PHC	No Power Supply	Yes	Yes	No
Gumla	Bishnupur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Chainpur	PHC	Power Supply less than 8 Hrs	No	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Gumla	Dumri	PHC	No Power Supply	Yes	No	Yes
Gumla	Ghagra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Kamdara	PHC	Good Power Supply	Yes	No	Yes
Gumla	Palkot	PHC	Good Power Supply	Yes	Yes	No
Gumla	Raidih	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Sisai RH	PHC	Low voltage	Yes	Yes	No
Gumla	Basia	RH	Low voltage	Yes	Yes	No
Gumla Total		11		10	8	3
Hazaribagh	Hazaribagh	DS	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	FPC	Good Power Supply	Yes	Yes	No
Hazaribagh	Barakatha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Barhi	PHC	Low voltage	Yes	No	Yes
Hazaribagh	Berkagaon	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Chaparan	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	PHC	No Power Supply	No	No	Yes
Hazaribagh	Gola	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Ichak	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Katkamsari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Keredari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Mandu	PHC	Good Power Supply	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Hazaribagh	Patratu	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Ramgarh	PHC	Good Power Supply	Yes	Yes	No
Hazaribagh	Vishnugarh	PHC	Low voltage	Yes	Yes	No
Hazaribagh Total		15		14	9	6
Jamtara	Sadar DS	DS	Good Power Supply	No	No	Yes
Jamtara	Jamtara	PHC	Good Power Supply	Yes	Yes	No
Jamtara	Kundahit	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Jamtara	Nala	PHC	Good Power Supply	Yes	No	Yes
Jamtara	Narayanpur	PHC	Good Power Supply	Yes	No	Yes
Jamtara Total		5		4	2	3
Koderma	Koderma	DS	Good Power Supply	Yes	Yes	No
Koderma	Jainagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Koderma	Koderma (Jhumri Talaya) PHC	PHC	Good Power Supply	Yes	Yes	No
Koderma	Markacho	PHC	No Power Supply	Yes	Yes	No
Koderma Total		4		4	4	0
Latehar	Latehar	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Balumath	PHC	No Power Supply	Yes	Yes	No
Latehar	Barawadhi	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Latehar	Chandwa	PHC	Low voltage	Yes	No	Yes
Latehar	Latehar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Latehar	Mahuatan	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Manika	PHC	Good Power Supply	Yes	Yes	No
Latehar Total		7		7	5	2
Lohardaga	Lohardaga	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Bandra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kisko	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kuru	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Lohardaga	PHC	Good Power Supply	Yes	Yes	No
Lohardaga	Senha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga Total		6		6	6	0
Pakur	Pakur	DS	Good Power Supply	Yes	Yes	No
Pakur	Amrapada	PHC	Low voltage	No	No	Yes
Pakur	Hiranpur	PHC	Low voltage	Yes	No	Yes
Pakur	Littipara	PHC	Good Power Supply	No	No	Yes
Pakur	Maheshpur	PHC	No Power Supply	No	No	Yes
Pakur	Pakudia	PHC	No Power Supply	No	No	Yes
Pakur Total		6		2	1	5
Palamu	Daltanganj	DS	Good Power Supply	Yes	Yes	No
Palamu	Bishrampur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Block PHC	PHC	No Power Supply	No	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Palamu	Chainpur	PHC	Good Power Supply	Yes	No	Yes
Palamu	Chattarpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Hariharganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Husainabad	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Palamu	Lisliganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Manatu	PHC	No Power Supply	No	No	Yes
Palamu	Panki	PHC	No Power Supply	Yes	Yes	No
Palamu	Patan	PHC	Low voltage	Yes	No	Yes
Palamu Total		11		9	6	5
Ranchi	Namkum	CS	Good Power Supply	Yes	Yes	No
Ranchi	Ranchi DS	DS	Good Power Supply	Yes	Yes	No
Ranchi	Aarki	PHC	Good Power Supply	Yes	No	Yes
Ranchi	Anigara	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bero	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bundu	PHC		Yes	Yes	No
Ranchi	Burmu	PHC	Low voltage	Yes	Yes	No
Ranchi	Chancho	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Kanke	PHC	No Power Supply	Yes	Yes	No
Ranchi	Karra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes
Ranchi	Lapung	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Mander	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	MCH	PHC	Good Power Supply	No	No	Yes
Ranchi	Murhu	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Namkum	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Oremanjhi	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Rania	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Ratu	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Silli	PHC	Good Power Supply	No	No	Yes
Ranchi	Sonahatu	PHC	Low voltage	Yes	Yes	No
Ranchi	Tamar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi	Torpa	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi Total		24		20	17	7
Sahebganj	Sadar Hospital	DS	Low voltage	Yes	Yes	No
Sahebganj	Baharawa	PHC	Low voltage	Yes	No	Yes
Sahebganj	Barhait	PHC	No Power Supply	Yes	Yes	No
Sahebganj	Borio	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Sahebganj	Pathna	PHC	No Power Supply	Yes	No	Yes
Sahebganj	Rajmahal	PHC	Power Supply less than 8 Hrs	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Sahebganj	Sadar PHC	PHC	Power Supply less than 8 Hrs	No	No	Yes
Sahebganj	Taljhari	PHC	No Power Supply	Yes	Yes	No
Sahebganj Total		8		7	4	4
Saraikela Khar-sawan	Chandel (DS)	DS	Good Power Supply	No	No	Yes
Saraikela Khar-sawan	Chandel	PHC	Good Power Supply	No	No	Yes
Saraikela Khar-sawan	Ghamaria	PHC	Good Power Supply	Yes	Yes	No
Saraikela Khar-sawan	Ichagarh	PHC	No Power Supply	Yes	No	Yes
Saraikela Khar-sawan	Kuchai	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Khar-sawan	Nimdih	PHC	Good Power Supply	Yes	No	Yes
Saraikela Khar-sawan	Raj Kharsawan	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Saraikela Khar-sawan	Rajnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Khar-sawan	Saraikela Sub Depot	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan Total		9		7	4	5
Simdega	Simdega	DS	Good Power Supply	No	No	Yes
Simdega	Bano	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Bolba	PHC	No Power Supply	Yes	Yes	No
Simdega	Jaldega	PHC	Good Power Supply	Yes	Yes	No
Simdega	Kolebera	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Kurdeg	PHC	No Power Supply	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Simdega	Simdega	PHC	Good Power Supply	Yes	No	Yes
Simdega	Simdega PHC	PHC	Good Power Supply	No	No	Yes
Simdega	Thethaitnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega Total		9		7	5	4
West Singhbhum	Chaibasa Sadar	DS	Good Power Supply	Yes	Yes	No
West singhbhum	Barajamda	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Chakradharpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West Singhbhum	Goilkara	PHC	Good Power Supply	Yes	Yes	No
West singhbhum	Jagganathpur	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Jinkpani	PHC	Good Power Supply	No	No	Yes
West singhbhum	Khutpani	PHC	No Power Supply	No	No	Yes
West Singhbhum	Kumardungi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West singhbhum	Manjgaun	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
West Singhbhum	Manoharpur	PHC	Good Power Supply	Yes	Yes	No
West Singhbhum	Sadar-Chaibasa	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Sonua	PHC	Low voltage	Yes	No	Yes
West Singhbhum	Tonto	PHC	No Power Supply	No	No	Yes
West Singhbhum Total		13		10	5	8
Grand Total		213		184	131	82

APPENDIX J: DETAILED ANALYSIS ON ADEQUACY OF STABILIZERS

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Bokaro	Bokaro	DS	4	6	4		2
Bokaro	Bermo	PHC	3	3	2		
Bokaro	Bokaro	PHC	1			1	
Bokaro	Chandankyari	PHC	2	3	3		2
Bokaro	Chas	PHC	1	3	2		1
Bokaro	Gumia	PHC	1	1	1		
Bokaro	Jiridih	PHC	2	2	2		1
Bokaro	Kasmar	PHC	1	1	1		
Bokaro	Nawadhi	PHC	2	1	1		
Bokaro	Peterwar	PHC	2	2	2		1
Bokaro Total		10	19	22	18	1	7
Chatra	Chatra	DS	6	6	4		1
Chatra	Chatra	PHC					
Chatra	Hunterganj	PHC	2	1	1		
Chatra	Itkhori	PHC	4	2		2	
Chatra	Pratappur	PHC	2	2	1		
Chatra	Simaria	PHC	1	1		1	
Chatra	Tandwa	PHC	2	1	1		
Chatra Total		7	17	13	7	3	1
Deoghar	Deoghar	DS	11	12	12		6
Deoghar	Jasidih	PHC	3	1	1	1	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Deoghar	Karon	PHC	2	2	2		1
Deoghar	Madhupur RH	PHC	2			1	
Deoghar	Mohanpur	PHC	2	1	1		
Deoghar	Palajori	PHC	2	1	1		
Deoghar	Sarat	PHC	2	2	2		1
Deoghar	Sarwan	PHC	2	1	1		
Deoghar Total		8	26	20	20	2	8
Dhanbad	Dhanbad	DS	9	2	2	3	
Dhanbad	Bagmara	PHC	4	3		2	
Dhanbad	Baliapur	PHC	4	2	2		
Dhanbad	Govindpur	PHC	3	2	2		
Dhanbad	Johrapokhar	PHC	6	3	2	1	
Dhanbad	Nirsa	PHC	5	4	2	1	
Dhanbad	Sadar PHC	PHC	3	2	1	1	
Dhanbad	Topchanchi	PHC	4	1	1	1	
Dhanbad	Tundi	PHC	5	3		3	
Dhanbad Total		9	43	22	12	12	
Dumka	Dumka DS	DS	12	7	7		1
Dumka	Gopi Kandar	PHC	2	1	1		
Dumka	Jama	PHC	3			2	
Dumka	Jarmundi	PHC	2	1	1		
Dumka	Kathikund	PHC	1	1	1		

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Dumka	Masalia	PHC	1			1	
Dumka	Ramgarh	PHC	2	1	1		
Dumka	Raneswar	PHC		1	1		1
Dumka	Sadar PHC	PHC	1			1	
Dumka	Saraya	PHC	2	2	1		
Dumka	Shikaripada	PHC	2	1	1		
Dumka Total		11	28	15	14	4	2
East Singhbhum	Jamshedpur DHQ	DS	14	8	8		1
East Singhbhum	Baharagharah	PHC	3	1	1	1	
East Singhbhum	Chakulia	PHC	2	1	1		
East Singhbhum	Dalbhumgarh	PHC	2	1		1	
East Singhbhum	Dhumria	PHC	2			1	
East Singhbhum	Ghatsella	PHC	4	2	1	1	
East Singhbhum	Jugsalai	PHC	3			2	
East Singhbhum	Musabani	PHC	3	1	1	1	
East Singhbhum	Patomda	PHC	3	4	2		
East Singhbhum	Potka	PHC	4	1		2	
East Singhbhum Total		10	40	19	14	9	1
Garhwa	Garhwa DS	DS	7	9	9		5

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Garhwa	Bhandaria	PHC	1	1	1		
Garhwa	Bhavaanathpur	PHC	2	2	2		1
Garhwa	Dhurki	PHC	1			1	
Garhwa	Garhwa Block	PHC					
Garhwa	Majhion	PHC	2	1	1		
Garhwa	Meral	PHC	2	4	1		
Garhwa	Nagaruntari	PHC	2	1	1		
Garhwa	Ranka	PHC	3	3	2		
Garhwa Total		9	20	21	17	1	6
Giridih	Giridih	DS	5	9	6		3
Giridih	Bagodar	PHC	3	1	1	1	
Giridih	Bengabad	PHC	1	1	1		
Giridih	Birni	PHC	1	1	1		
Giridih	Deori	PHC	3	2	2		
Giridih	Dumri	PHC	5	1	1	2	
Giridih	Gandey	PHC	2	1	1		
Giridih	Jamua	PHC	3	2	1	1	
Giridih	MCH	PHC	2	2	1		
Giridih	Pirtand	PHC	3	3	2		
Giridih	Raj Dhanwar	PHC	2	3	2		1
Giridih	Sadar Block	PHC	3	2	1	1	
Giridih	Tisri	PHC	3	1		2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Giridih Total		13	36	29	20	7	4
Godda	Godda	DS	5	6	5		2
Godda	Boarijore	PHC	2	2		1	
Godda	Mahagama	PHC	3	2	2		
Godda	Meharma	PHC	1	2	2		1
Godda	Patthargama	PHC	2	1	1		
Godda	Podayahat	PHC	6	1	1	2	
Godda	Sadar Block	PHC	3	2	2		
Godda	Sundarpahari	PHC	3	2	2		
Godda Total		8	25	18	15	3	3
Gumla	Gumla	DS	7	5	3	1	
Gumla	Bharno	PHC	2	1	1		
Gumla	Bishnupur	PHC	4	2	1	1	
Gumla	Chainpur	PHC	2	1	1		
Gumla	Dumri	PHC					
Gumla	Ghagra	PHC	3	2	2		
Gumla	Kamdara	PHC	1	1	1		
Gumla	Palkot	PHC	2	1	1		
Gumla	Raidih	PHC	2	2	2		1
Gumla	Sisai RH	PHC	4	3	3		1
Gumla	Basia	RH	2	1	1		
Gumla Total		11	29	19	16	2	2

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Hazaribagh	Hazaribagh	DS	8	6	5		1
Hazaribagh	Churchu	FPC	3	2	1	1	
Hazaribagh	Barakatha	PHC	2	2	2		1
Hazaribagh	Barhi	PHC	3	2	2		
Hazaribagh	Berkagaon	PHC		1			
Hazaribagh	Chaparan	PHC	3	3		2	
Hazaribagh	Churchu	PHC					
Hazaribagh	Gola	PHC	3	1		2	
Hazaribagh	Ichak	PHC	1	1		1	
Hazaribagh	Katkamsari	PHC	2	1	1		
Hazaribagh	Keredari	PHC	3	1		2	
Hazaribagh	Mandu	PHC	3	4	1	1	
Hazaribagh	Patratu	PHC	2	1	1		
Hazaribagh	Ramgarh	PHC	4	3	2		
Hazaribagh	Vishnugarh	PHC	3	2	2		
Hazaribagh Total		15	40	30	17	9	2
Jamtara	Sadar DS	DS	6	3	3		
Jamtara	Jamtara	PHC	1	1	1		
Jamtara	Kundahit	PHC	1	1	1		
Jamtara	Nala	PHC	2	1	1		
Jamtara	Narayanpur	PHC	2			1	
Jamtara Total		5	12	6	6	1	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Koderma	Koderma	DS	10	5	5		
Koderma	Jainagar	PHC	2	2	2		1
Koderma	Koderma (Jhumri Talaya) PHC	PHC	3	1	1	1	
Koderma	Markacho	PHC	2	2	1		
Koderma Total		4	17	10	9	1	1
Latehar	Latehar	DS	4	1	1	1	
Latehar	Balumath	PHC	2	1	1		
Latehar	Barawadhi	PHC	2	1	1		
Latehar	Chandwa	PHC	3	2	2		
Latehar	Latehar	PHC	1	4	1		
Latehar	Mahuatan	PHC					
Latehar	Manika	PHC	2	1	1		
Latehar Total		7	14	10	7	1	
Lohardaga	Lohardaga	DS	3	3	3		1
Lohardaga	Bandra	PHC	4	2	1	1	
Lohardaga	Kisko	PHC	7	6	5		1
Lohardaga	Kuru	PHC	5	2	2	1	
Lohardaga	Lohardaga	PHC	5	7	4		1
Lohardaga	Senha	PHC	6	3	3		
Lohardaga Total		6	30	23	18	2	3
Pakur	Pakur	DS	11	7	7		1

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Pakur	Amrapada	PHC	2	1		1	
Pakur	Hiranpur	PHC	2	1	1		
Pakur	Littipara	PHC	2	1	1		
Pakur	Maheshpur	PHC	1			1	
Pakur	Pakudia	PHC	2	1	1		
Pakur Total		6	20	11	10	2	1
Palamu	Daltanganj	DS	6	7	7		4
Palamu	Bishrampur	PHC	1	1		1	
Palamu	Block PHC	PHC	1	1	1		
Palamu	Chainpur	PHC					
Palamu	Chattarpur	PHC	3	3	1	1	
Palamu	Hariharganj	PHC	2	2	2		1
Palamu	Husainabad	PHC	3	2	1	1	
Palamu	Lisliganj	PHC	2	1	1		
Palamu	Manatu	PHC					
Palamu	Panki	PHC	2			1	
Palamu	Patan	PHC	3	2	2		
Palamu Total		11	23	19	15	4	5
Ranchi	Namkum	CS					
Ranchi	Ranchi DS	DS	7	6	6		2
Ranchi	Aarki	PHC		1			
Ranchi	Anigara	PHC	2	2	1		

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Ranchi	Bero	PHC	3	3	3		1
Ranchi	Bundu	PHC	3	1	1	1	
Ranchi	Burmu	PHC	2	2	2		1
Ranchi	Chancho	PHC	2	2	2		1
Ranchi	Kanke	PHC	2	2	2		1
Ranchi	Karra	PHC	1			1	
Ranchi	Khunti	PHC	2	1	1		
Ranchi	Khunti	PHC	2	1	1		
Ranchi	Lapung	PHC	2	2		1	
Ranchi	Mander	PHC	2	2	2		1
Ranchi	MCH	PHC	1	1	1		
Ranchi	Murhu	PHC	2	4	2		1
Ranchi	Namkum	PHC	3	1	1	1	
Ranchi	Oremanjhi	PHC	2	2	2		1
Ranchi	Rania	PHC	2			1	
Ranchi	Ratu	PHC	1	2	1		
Ranchi	Silli	PHC	3	2		2	
Ranchi	Sonahatu	PHC	2	2	2		1
Ranchi	Tamar	PHC	2	2	2		1
Ranchi	Torpa	PHC	2	2	1		
Ranchi Total		24	50	43	33	7	11
Sahebganj	Sadar Hospital	DS	14	6	5	2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Sahebganj	Baharawa	PHC	3			2	
Sahebganj	Barhait	PHC	4	1	1	1	
Sahebganj	Borio	PHC	1	1	1		
Sahebganj	Pathna	PHC	4			2	
Sahebganj	Rajmahal	PHC	4	1	1	1	
Sahebganj	Sadar PHC	PHC	1	1	1		
Sahebganj	Taljhari	PHC	1			1	
Sahebganj Total		8	32	10	9	9	
Saraikela Kharsawan	Chandel (DS)	DS	9	9	6		1
Saraikela Kharsawan	Chandel	PHC	2	1	1		
Saraikela Kharsawan	Ghamaria	PHC	1	1	1		
Saraikela Kharsawan	Ichagarh	PHC					
Saraikela Kharsawan	Kuchai	PHC		1	1		1
Saraikela Kharsawan	Nimdih	PHC	2	1	1		
Saraikela Kharsawan	Raj Kharsawan	PHC	1	1	1		
Saraikela Kharsawan	Rajnagar	PHC	2	1		1	
Saraikela Kharsawan	Saraikela Sub Depot	PHC	5	3	3		
Saraikela Kharsawan Total		9	22	18	14	1	2
Simdega	Simdega	DS	9	3	3	2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Simdega	Bano	PHC	4	2	2		
Simdega	Bolba	PHC					
Simdega	Jaldega	PHC	3	3	1	1	
Simdega	Kolebera	PHC	5	4	4		1
Simdega	Kurdeg	PHC		1			
Simdega	Simdega	PHC	1			1	
Simdega	Simdega PHC	PHC	1			1	
Simdega	Thethaitnagar	PHC	5	2	1	2	
Simdega Total		9	28	15	11	7	1
West Singhbhum	Chaibasa Sadar	DS	16	9	8		
West Singhbhum	Barajamda	PHC	2	3	1		
West Singhbhum	Chakradharpur	PHC	3	3	3		1
West Singhbhum	Goilkara	PHC	2	1		1	
West Singhbhum	Jagganathpur	PHC	2	3	1		
West Singhbhum	Jinkpani	PHC	2	1		1	
West Singhbhum	Khutpani	PHC					
West Singhbhum	Kumardungi	PHC	1	1	1		
West Singhbhum	Manjgaun	PHC	1	1	1		
West Singhbhum	Manoharpur	PHC	2	2	1		

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
West Singhbhum	Sadar-Chaibasa	PHC	1	1	1		
West Singhbhum	Sonua	PHC	2	2	2		1
West Singhbhum	Tonto	PHC	2	1	1		
West Singhbhum Total		13	36	28	20	2	2
Grand Total		213	607	421	322	90	62

APPENDIX K: DETAILED INVENTORY OF ICE-PACKS SITE-WISE

District	Site	Type	Functional	Non-functional
Bokaro	Bokaro	DS	1360	0
Bokaro	Bermo	PHC	1200	400
Bokaro	Bokaro	PHC	1200	200
Bokaro	Chandankyari	PHC	750	32
Bokaro	Chas	PHC	2999	266
Bokaro	Gumia	PHC	1800	100
Bokaro	Jiridih	PHC	800	0
Bokaro	Kasmar	PHC	890	0
Bokaro	Nawadhi	PHC	600	300
Bokaro	Peterwar	PHC	950	50
Bokaro Total		10	12549	1348
Chatra	Chatra	DS	1400	100
Chatra	Chatra	PHC	600	200
Chatra	Hunterganj	PHC	650	0
Chatra	Itkhorri	PHC	600	400
Chatra	Pratappur	PHC	700	100
Chatra	Simaria	PHC	560	40
Chatra	Tandwa	PHC	550	50
Chatra Total		7	5060	890
Deoghar	Deoghar	DS	1000	250
Deoghar	Jasidih	PHC	720	30
Deoghar	Karon	PHC	950	50
Deoghar	Madhupur RH	PHC	0	0
Deoghar	Mohanpur	PHC	900	0
Deoghar	Palajori	PHC	1100	100
Deoghar	Sarat	PHC	550	0
Deoghar	Sarwan	PHC	900	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Deoghar Total		8	6120	430
Dhanbad	Dhanbad	DS	500	0
Dhanbad	Bagmara	PHC	2190	10
Dhanbad	Baliapur	PHC	500	100
Dhanbad	Govindpur	PHC	800	50
Dhanbad	Johrapokhar	PHC	2450	0
Dhanbad	Nirsa	PHC	1700	500
Dhanbad	Sadar PHC	PHC	3300	100
Dhanbad	Topchanchi	PHC	850	50
Dhanbad	Tundi	PHC	1000	0
Dhanbad Total		9	13290	810
Dumka	Dumka DS	DS	0	0
Dumka	Gopi Kandar	PHC	280	0
Dumka	Jama	PHC	500	0
Dumka	Jarmundi	PHC	800	100
Dumka	Kathikund	PHC	350	10
Dumka	Masalia	PHC	520	0
Dumka	Ramgarh	PHC	800	0
Dumka	Raneswar	PHC	620	0
Dumka	Sadar PHC	PHC	480	20
Dumka	Saraya	PHC	64	0
Dumka	Shikaripada	PHC	720	0
Dumka Total		11	5134	130
East Singhbhum	Jamshedpur DHQ	DS	600	3000
East Singhbhum	Baharagharah	PHC	3480	20
East Singhbhum	Chakulia	PHC	200	0
East Singhbhum	Dalbhumgarh	PHC	300	0
East Singhbhum	Dhumria	PHC	220	0
East Singhbhum	Ghatsella	PHC	800	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
East Singhbhum	Jugsalai	PHC	1500	0
East Singhbhum	Musabani	PHC	600	0
East Singhbhum	Patomda	PHC	800	0
East Singhbhum	Potka	PHC	500	0
East Singhbhum Total		10	9000	3020
Garhwa	Garhwa DS	DS	800	200
Garhwa	Bhandaria	PHC	300	150
Garhwa	Bhavaanathpur	PHC	800	0
Garhwa	Dhurki	PHC	800	0
Garhwa	Garhwa Block	PHC	650	50
Garhwa	Majhion	PHC	1100	0
Garhwa	Meral	PHC	525	0
Garhwa	Nagaruntari	PHC	1200	0
Garhwa	Ranka	PHC	1000	0
Garhwa Total		9	7175	400
Giridih	Giridih	DS	800	150
Giridih	Bagodar	PHC	950	0
Giridih	Bengabad	PHC	545	55
Giridih	Birni	PHC	815	100
Giridih	Deori	PHC	780	100
Giridih	Dumri	PHC	900	100
Giridih	Gandey	PHC	950	100
Giridih	Jamua	PHC	1050	0
Giridih	MCH	PHC	100	0
Giridih	Pirtand	PHC	450	200
Giridih	Raj Dhanwar	PHC	1180	50
Giridih	Sadar Block	PHC	1000	1000
Giridih	Tisri	PHC	500	20
Giridih Total		13	10020	1875

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Godda	Godda	DS	650	0
Godda	Boarijore	PHC	1000	0
Godda	Mahagama	PHC	950	200
Godda	Meharma	PHC	750	0
Godda	Patthargama	PHC	600	155
Godda	Podayahat	PHC	0	0
Godda	Sadar Block	PHC	1020	0
Godda	Sundarpahari	PHC	450	0
Godda Total		8	5420	355
Gumla	Gumla	DS	4800	0
Gumla	Bharno	PHC	400	0
Gumla	Bishnupur	PHC	500	0
Gumla	Chainpur	PHC	400	0
Gumla	Dumri	PHC	720	200
Gumla	Ghagra	PHC	590	10
Gumla	Kamdara	PHC	500	0
Gumla	Palkot	PHC	400	0
Gumla	Raidih	PHC	300	0
Gumla	Sisai RH	PHC	818	0
Gumla	Basia	RH	500	0
Gumla Total		11	9928	210
Hazaribagh	Hazaribagh	DS	2700	300
Hazaribagh	Churchu	FPC	700	0
Hazaribagh	Barakatha	PHC	750	50
Hazaribagh	Barhi	PHC	500	500
Hazaribagh	Berkagaon	PHC	900	100
Hazaribagh	Chaparan	PHC	1700	200
Hazaribagh	Churchu	PHC	0	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Hazaribagh	Gola	PHC	950	50
Hazaribagh	Ichak	PHC	800	200
Hazaribagh	Katkamsari	PHC	500	300
Hazaribagh	Keredari	PHC	700	300
Hazaribagh	Mandu	PHC	600	100
Hazaribagh	Patratu	PHC	500	100
Hazaribagh	Ramgarh	PHC	1000	25
Hazaribagh	Vishnugarh	PHC	750	50
Hazaribagh Total		15	13050	2275
Jamtara	Sadar DS	DS	2900	100
Jamtara	Jamtara	PHC	1210	10
Jamtara	Kundahit	PHC	600	0
Jamtara	Nala	PHC	300	0
Jamtara	Narayanpur	PHC	800	0
Jamtara Total		5	5810	110
Koderma	Koderma	DS	300	0
Koderma	Jainagar	PHC	400	200
Koderma	Koderma (Jhumri Talaya) PHC	PHC	800	500
Koderma	Markacho	PHC	925	375
Koderma Total		4	2425	1075
Latehar	Latehar	DS	100	0
Latehar	Balumath	PHC	1000	0
Latehar	Barawadhi	PHC	0	0
Latehar	Chandwa	PHC	426	101
Latehar	Latehar	PHC	620	10
Latehar	Mahuatan	PHC	532	0
Latehar	Manika	PHC	400	0
Latehar Total		7	3078	111

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Lohardaga	Lohardaga	DS	1000	200
Lohardaga	Bandra	PHC	510	150
Lohardaga	Kisko	PHC	750	50
Lohardaga	Kuru	PHC	600	0
Lohardaga	Lohardaga	PHC	700	0
Lohardaga	Senha	PHC	0	0
Lohardaga Total		6	3560	400
Pakur	Pakur	DS	4200	300
Pakur	Amrapada	PHC	400	0
Pakur	Hiranpur	PHC	435	0
Pakur	Littipara	PHC	500	0
Pakur	Maheshpur	PHC	1600	400
Pakur	Pakudia	PHC	600	100
Pakur Total		6	7735	800
Palamu	Daltanganj	DS	450	0
Palamu	Bishrampur	PHC	750	250
Palamu	Block PHC	PHC	800	15
Palamu	Chainpur	PHC	700	0
Palamu	Chattarpur	PHC	0	0
Palamu	Hariharganj	PHC	700	50
Palamu	Husainabad	PHC	900	35
Palamu	Lisliganj	PHC	700	0
Palamu	Manatu	PHC	0	0
Palamu	Panki	PHC	1000	100
Palamu	Patan	PHC	1000	200
Palamu Total		11	7000	650
Ranchi	Namkum	CS	0	0
Ranchi	Ranchi DS	DS	5554	100
Ranchi	Aarki	PHC	300	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Ranchi	Anigara	PHC	250	100
Ranchi	Bero	PHC	1050	150
Ranchi	Bundu	PHC	0	0
Ranchi	Burmu	PHC	300	0
Ranchi	Chanco	PHC	470	0
Ranchi	Kanke	PHC	600	50
Ranchi	Karra	PHC	300	0
Ranchi	Khunti	PHC	350	50
Ranchi	Khunti	PHC	150	0
Ranchi	Lapung	PHC	350	50
Ranchi	Mander	PHC	673	0
Ranchi	MCH	PHC	20	0
Ranchi	Murhu	PHC	180	20
Ranchi	Namkum	PHC	60	0
Ranchi	Oremanjhi	PHC	600	0
Ranchi	Rania	PHC	0	0
Ranchi	Ratu	PHC	500	0
Ranchi	Silli	PHC	440	60
Ranchi	Sonahatu	PHC	500	0
Ranchi	Tamar	PHC	200	30
Ranchi	Torpa	PHC	800	0
Ranchi Total		24	13647	610
Sahebganj	Sadar Hospital	DS	4000	0
Sahebganj	Baharawa	PHC	600	50
Sahebganj	Barhait	PHC	0	0
Sahebganj	Borio	PHC	480	0
Sahebganj	Pathna	PHC	400	0
Sahebganj	Rajmahal	PHC	0	0
Sahebganj	Sadar PHC	PHC	100	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Sahebganj	Taljhari	PHC	570	0
Sahebganj Total		8	6150	50
Saraikela Kharsawan	Chandel (DS)	DS	4900	0
Saraikela Kharsawan	Chandel	PHC	0	0
Saraikela Kharsawan	Ghamaria	PHC	950	0
Saraikela Kharsawan	Ichagarh	PHC	0	0
Saraikela Kharsawan	Kuchai	PHC	700	0
Saraikela Kharsawan	Nimdih	PHC	950	0
Saraikela Kharsawan	Raj Kharsawan	PHC	800	0
Saraikela Kharsawan	Rajnagar	PHC	1200	0
Saraikela Kharsawan	Saraikela Sub Depot	PHC	620	30
Saraikela Kharsawan Total		9	10120	30
Simdega	Simdega	DS	0	0
Simdega	Bano	PHC	500	0
Simdega	Bolba	PHC	0	0
Simdega	Jaldega	PHC	400	30
Simdega	Kolebera	PHC	575	25
Simdega	Kurdeg	PHC	400	0
Simdega	Simdega	PHC	650	150
Simdega	Simdega PHC	PHC	0	0
Simdega	Thethaitnagar	PHC	0	0
Simdega Total		9	2525	205
West Singhbhum	Chaibasa Sadar	DS	8500	0
West singhbhum	Barajamda	PHC	1000	0
West Singhbhum	Chakradharpur	PHC	1300	0
West Singhbhum	Goilkara	PHC	1600	0
West singhbhum	Jagganathpur	PHC	750	50
West Singhbhum	Jinkpani	PHC	770	30
West singhbhum	Khutpani	PHC	600	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
West Singhbhum	Kumardungi	PHC	590	0
West singhbhum	Manjgaun	PHC	530	20
West Singhbhum	Manoharpur	PHC	540	5
West Singhbhum	Sadar-Chaibasa	PHC	900	200
West Singhbhum	Sonua	PHC	560	0
West Singhbhum	Tonto	PHC	480	0
West Singhbhum Total		13	18120	305
Grand Total		213	176916	16089

APPENDIX L: DETAILED INVENTORY OF VACCINE CARRIERS SITE-WISE

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Bokaro	DS	21	
Bokaro	PHC	157	55
Bokaro	PHC	126	30
Bokaro	PHC	214	6
Bokaro	PHC	400	68
Bokaro	PHC	300	19
Bokaro	PHC	100	10
Bokaro	PHC	156	
Bokaro	PHC	220	5
Bokaro	PHC	166	10
Bokaro Total	10	1860	203
Chatra	DS	8	
Chatra	PHC	150	50
Chatra	PHC	151	10
Chatra	PHC	140	
Chatra	PHC	120	20
Chatra	PHC	135	
Chatra	PHC	100	15
Chatra Total	7	804	95
Deochar	DS	150	1
Deochar	PHC	135	1
Deochar	PHC	120	
Deochar	PHC		
Deochar	PHC	166	
Deochar	PHC	110	10
Deochar	PHC	136	

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Deoghar	PHC	120	5
Deoghar Total	8	937	17
Dhanbad	DS	8	
Dhanbad	PHC	220	10
Dhanbad	PHC	118	2
Dhanbad	PHC	177	10
Dhanbad	PHC	300	54
Dhanbad	PHC	310	
Dhanbad	PHC	420	7
Dhanbad	PHC	130	
Dhanbad	PHC	110	10
Dhanbad Total	9	1793	93
Dumka	DS		
Dumka	PHC	64	6
Dumka	PHC	100	15
Dumka	PHC	175	15
Dumka	PHC	86	3
Dumka	PHC	130	
Dumka	PHC	172	
Dumka	PHC	130	30
Dumka	PHC	128	2
Dumka	PHC	151	10
Dumka	PHC	175	5
Dumka Total	11	1311	86
East Singhbhum	DS	245	10
East Singhbhum	PHC	224	1
East Singhbhum	PHC	170	
East Singhbhum	PHC	150	10
East Singhbhum	PHC	220	
East Singhbhum	PHC	200	10

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
East Singhbhum	PHC	374	
East Singhbhum	PHC	130	
East Singhbhum	PHC	210	16
East Singhbhum	PHC	156	
East Singhbhum Total	10	2079	47
Garhwa	DS	10	
Garhwa	PHC	65	15
Garhwa	PHC	175	5
Garhwa	PHC	123	20
Garhwa	PHC	180	25
Garhwa	PHC	225	
Garhwa	PHC	125	
Garhwa	PHC	225	5
Garhwa	PHC	80	5
Garhwa Total	9	1208	75
Giridih	DS		
Giridih	PHC	202	10
Giridih	PHC	35	25
Giridih	PHC	125	5
Giridih	PHC	101	27
Giridih	PHC	104	10
Giridih	PHC	140	
Giridih	PHC	169	10
Giridih	PHC	2	
Giridih	PHC	95	10
Giridih	PHC	150	5
Giridih	PHC	160	28
Giridih	PHC	93	7
Giridih Total	13	1376	137

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Godda	DS	150	
Godda	PHC	190	10
Godda	PHC	145	
Godda	PHC	200	
Godda	PHC	200	20
Godda	PHC	175	
Godda	PHC	195	25
Godda	PHC	100	25
Godda Total	8	1355	80
Gumla	DS		
Gumla	PHC	100	
Gumla	PHC	100	
Gumla	PHC	83	2
Gumla	PHC	90	30
Gumla	PHC	123	10
Gumla	PHC	79	7
Gumla	PHC	92	10
Gumla	PHC	60	
Gumla	PHC	136	10
Gumla	RH	92	
Gumla Total	11	955	69
Hazaribagh	DS	14	
Hazaribagh	FPC	127	5
Hazaribagh	PHC	170	12
Hazaribagh	PHC	100	35
Hazaribagh	PHC	98	
Hazaribagh	PHC	175	35
Hazaribagh	PHC		
Hazaribagh	PHC	200	25
Hazaribagh	PHC	130	10

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Hazaribagh	PHC	210	
Hazaribagh	PHC	80	34
Hazaribagh	PHC	130	5
Hazaribagh	PHC	130	30
Hazaribagh	PHC	201	89
Hazaribagh	PHC	100	30
Hazaribagh Total	15	1865	310
Jamtara	DS		
Jamtara	PHC	255	4
Jamtara	PHC	130	15
Jamtara	PHC	230	
Jamtara	PHC	172	8
Jamtara Total	5	787	27
Koderma	DS	30	
Koderma	PHC	48	96
Koderma	PHC	199	1
Koderma	PHC	175	3
Koderma Total	4	452	100
Latehar	DS	12	
Latehar	PHC	100	20
Latehar	PHC	120	
Latehar	PHC	117	
Latehar	PHC	67	30
Latehar	PHC	61	40
Latehar	PHC	85	
Latehar Total	7	562	90
Lohardaga	DS	80	
Lohardaga	PHC	144	6
Lohardaga	PHC	125	15
Lohardaga	PHC	150	

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Lohardaga	PHC	100	1
Lohardaga	PHC		
Lohardaga Total	6	599	22
Pakur	DS	8	
Pakur	PHC	84	5
Pakur	PHC	133	
Pakur	PHC	135	
Pakur	PHC	390	10
Pakur	PHC	118	12
Pakur Total	6	868	27
Palamu	DS	4	
Palamu	PHC	138	10
Palamu	PHC	129	
Palamu	PHC	350	
Palamu	PHC		
Palamu	PHC	70	2
Palamu	PHC	196	4
Palamu	PHC	160	
Palamu	PHC	20	
Palamu	PHC	164	10
Palamu	PHC	82	30
Palamu Total	11	1313	56
Ranchi	CS		
Ranchi	DS		
Ranchi	PHC	61	12
Ranchi	PHC	142	10
Ranchi	PHC	102	8
Ranchi	PHC		
Ranchi	PHC	130	
Ranchi	PHC	74	10

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Ranchi	PHC	600	
Ranchi	PHC	82	5
Ranchi	PHC	98	2
Ranchi	PHC	49	
Ranchi	PHC	74	
Ranchi	PHC	147	10
Ranchi	PHC	3	
Ranchi	PHC	71	
Ranchi	PHC	185	
Ranchi	PHC	150	
Ranchi	PHC		
Ranchi	PHC	168	
Ranchi	PHC	118	
Ranchi	PHC	90	24
Ranchi	PHC	162	5
Ranchi	PHC	125	
Ranchi Total	24	2631	86
Sahebganj	DS		
Sahebganj	PHC	200	26
Sahebganj	PHC		
Sahebganj	PHC	80	
Sahebganj	PHC	99	
Sahebganj	PHC		
Sahebganj	PHC	50	
Sahebganj	PHC	146	
Sahebganj Total	8	575	26
Saraikela Kharsawan	DS	598	
Saraikela Kharsawan	PHC		
Saraikela Kharsawan	PHC	215	1
Saraikela Kharsawan	PHC		

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Saraikela Kharsawan	PHC	100	
Saraikela Kharsawan	PHC	215	15
Saraikela Kharsawan	PHC	110	
Saraikela Kharsawan	PHC	156	4
Saraikela Kharsawan	PHC	127	15
Saraikela Kharsawan Total	9	1521	35
Simdega	DS		
Simdega	PHC	90	
Simdega	PHC		
Simdega	PHC	109	2
Simdega	PHC	80	2
Simdega	PHC	98	6
Simdega	PHC	125	10
Simdega	PHC		
Simdega	PHC		
Simdega Total	9	502	20
West Singhbhum	DS	9	
West Singhbhum	PHC	180	20
West Singhbhum	PHC	180	20
West Singhbhum	PHC	148	
West Singhbhum	PHC	140	
West Singhbhum	PHC	145	
West Singhbhum	PHC	115	10
West Singhbhum	PHC	100	
West Singhbhum	PHC	127	8
West Singhbhum	PHC	140	
West Singhbhum	PHC	110	
West Singhbhum	PHC	138	8
West Singhbhum	PHC	120	3

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
West Singhbhum Total	13	1652	69
Grand Total	213	27005	1770

APPENDIX M: DETAILED INVENTORY OF COLD BOXES AND CALCULATION OF NET REQUIREMENT FOR THE STATE

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Bokaro	Bokaro	DS			19	1	8		2		454	284		
Bokaro	Bermo	PHC			2	2			3	4	55	34		
Bokaro	Bokaro	PHC			2	2			2	2	50	32		
Bokaro	Chandankyari	PHC			4					5	80	31		
Bokaro	Chas	PHC			6					14	120	112		
Bokaro	Gumia	PHC				3			3	5	15	32	17	1
Bokaro	Jiridih	PHC			3				5		85	11		
Bokaro	Kasmar	PHC			1				6		50	32		
Bokaro	Nawadhi	PHC			3				8		100	21		
Bokaro	Peterwar	PHC			2				8		80	18		
Bokaro Total					42	8	8		37	30	1089	606	17	1
Chatra	Chatra	DS					2		2		26	127	101	6
Chatra	Chatra	PHC				2				4		21	21	2
Chatra	Hunterganj	PHC			4	3				4	80	21		
Chatra	Itkhorih	PHC				2			4	3	20	21	1	1
Chatra	Pratappur	PHC			3	2			3	4	75	21		
Chatra	Simaria	PHC			1	2			3	4	35	21		
Chatra	Tandwa	PHC	1		1	2	1		4	2	73	21		
Chatra Total			1		9	13	3		16	21	309	253	123	9
Deoghar	Deoghar	DS			18				5		385	149		
Deoghar	Jasidih	PHC			2				6		70	21		
Deoghar	Karon	PHC			2				4		60	21		
Deoghar	Madhupur RH	PHC										21	21	2

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Deoghar	Mohanpur	PHC			2				9		85	21		
Deoghar	Palajori	PHC			3				5	2	85	21		
Deoghar	Sarat	PHC			5				3		115	21		
Deoghar	Sarwan	PHC			2				4	4	60	21		
Deoghar Total					34				36	6	860	299	21	2
Dhanbad	Dhanbad	DS			20				4		420	383		
Dhanbad	Bagmara	PHC			3	4			5	5	85	48		
Dhanbad	Baliapur	PHC			1			1	8		60	14		
Dhanbad	Govindpur	PHC				3			10	3	50	25		
Dhanbad	Johrapokhar	PHC	1		8				10	12	235	55		
Dhanbad	Nirsa	PHC			6				18	5	210	53		
Dhanbad	Sadar PHC	PHC			2				11		95	69		
Dhanbad	Topchanchi	PHC			2	2			7	5	75	18		
Dhanbad	Tundi	PHC			1	3			8	2	60	16		
Dhanbad Total					1	43	12	1	81	32	1290	682		
Dumka	Dumka DS	DS										152	152	8
Dumka	Gopi Kandar	PHC										5	5	1
Dumka	Jama	PHC			1						20	17		
Dumka	Jarmundi	PHC			2				4		60	19		
Dumka	Kathikund	PHC			1						20	8		
Dumka	Masalia	PHC			5				2		110	15		
Dumka	Ramgarh	PHC			5				6		130	18		
Dumka	Raneswar	PHC			4	1					80	13		
Dumka	Sadar PHC	PHC			2	1			2	1	50	17		
Dumka	Saraya	PHC			4	2			5		105	16		
Dumka	Shikaripada	PHC			2				2	2	50	15		
Dumka Total						26	4		21	3	625	296	157	9

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
East Singhbhum	Jamshedpur DHQ	DS	18	18	36				185		2095	317		
East Singhbhum	Baharagharah	PHC			9				6		210	24		
East Singhbhum	Chakulia	PHC										17	17	1
East Singhbhum	Dalbhumgarh	PHC			1				1		25	12		
East Singhbhum	Dhumria	PHC			1				3		35	9		
East Singhbhum	Ghatsella	PHC			4						80	18		
East Singhbhum	Jugsalai	PHC										172	172	9
East Singhbhum	Musabani	PHC							1			17	17	1
East Singhbhum	Patomda	PHC			3				5		85	21		
East Singhbhum	Potka	PHC			1				5		45	27		
East Singhbhum Total			18	18	55				205	1	2575	635	206	11
Garhwa	Garhwa DS	DS			14				3		295	128		
Garhwa	Bhandaria	PHC			4	1			3	1	95	16		
Garhwa	Bhavaanathpur	PHC			1				8		60	16		
Garhwa	Dhurki	PHC			3				8		100	16		
Garhwa	Garhwa Block	PHC							5		25	16		
Garhwa	Majhion	PHC			3				5		85	16		
Garhwa	Meral	PHC			4				5		105	16		
Garhwa	Nagaruntari	PHC			2				9		85	16		
Garhwa	Ranka	PHC			6				4	1	140	16		
Garhwa Total					37	1			50	2	990	256		
Giridih	Giridih	DS			20						400	304		
Giridih	Bagodar	PHC			3				4	3	80	38		
Giridih	Bengabad	PHC			1	4			3	3	35	19		
Giridih	Birni	PHC			3				5		85	22		
Giridih	Deori	PHC			3				7		95	22		
Giridih	Dumri	PHC			2				6		70	29		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Giridih	Gandey	PHC			2				3	4	55	22		
Giridih	Jamua	PHC			1		2		10		86	34		
Giridih	MCH	PHC										24	24	2
Giridih	Pirtand	PHC			1	1			8	2	60	14		
Giridih	Raj Dhanwar	PHC			4	2			5		105	32		
Giridih	Sadar Block	PHC			2	4				7	40	24		
Giridih	Tisri	PHC			2				1	4	45	12		
Giridih Total					44	11	2		52	23	1156	594	24	2
Godda	Godda	DS			4	4	2	2	2	2	106	138	32	2
Godda	Boarijore	PHC			2	2			5		65	20		
Godda	Mahagama	PHC			3				8		100	20		
Godda	Meharma	PHC			2				11		95	20		
Godda	Patthargama	PHC				4			6		30	20		
Godda	Podayahat	PHC										20	20	1
Godda	Sadar Block	PHC			2				4		60	20		
Godda	Sundarpahari	PHC			2	3			1		45	20		
Godda Total					15	13	2	2	37	2	501	276	51	3
Gumla	Gumla	DS			5		1		3		123	113		
Gumla	Bharno	PHC			2				5		65	8		
Gumla	Bishnupur	PHC			3				5		85	7		
Gumla	Chainpur	PHC			2				3		55	7		
Gumla	Dumri	PHC			5				3	3	115	10		
Gumla	Ghagra	PHC			1				5		45	12		
Gumla	Kamdara	PHC			3	2			3	1	75	10		
Gumla	Palkot	PHC			4				2		90	10		
Gumla	Raidih	PHC			3	1			3		75	9		
Gumla	Sisai RH	PHC				2			3	3	15	12		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Gumla	Basia	RH			2	1			1		45	10		
Gumla Total					30	6	1		36	7	788	207		
Hazaribagh	Hazaribagh	DS			9	1	2		2		206	294	88	5
Hazaribagh	Churchu	FPC			2				3	1	55	23		
Hazaribagh	Barakatha	PHC			2				2	1	50	23		
Hazaribagh	Barhi	PHC			2				3	2	55	23		
Hazaribagh	Berkagaon	PHC			2				6		70	23		
Hazaribagh	Chaparan	PHC			4				4	2	100	23		
Hazaribagh	Gola	PHC				2			4		20	23	3	1
Hazaribagh	Ichak	PHC			2				4	1	60	23		
Hazaribagh	Katkamsari	PHC			2				5	1	65	23		
Hazaribagh	Keredari	PHC			1	2			2	1	30	23		
Hazaribagh	Mandu	PHC			3	2			3	2	75	23		
Hazaribagh	Patratu	PHC			2		1		1	2	53	23		
Hazaribagh	Ramgarh	PHC	1		3				2	3	95	23		
Hazaribagh	Vishnugarh	PHC			3	1	1		1	3	73	23		
Hazaribagh Total			1		37	8	4		42	19	1007	588	90	6
Jamtara	Sadar DS	DS			16			6	2		330	87		
Jamtara	Jamtara	PHC			1				1		25	22		
Jamtara	Kundahit	PHC			1	2			2	3	30	22		
Jamtara	Nala	PHC			2						40	22		
Jamtara	Narayanpur	PHC										22	22	2
Jamtara Total					20	2		6	5	3	425	174	22	2
Koderma	Koderma	DS			4		2		4		116	87		
Koderma	Jainagar	PHC			9	2			3	4	195	19		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Koderma	Koderma (Jhumri Talaya) PHC	PHC			3		2		5	3	101	35		
Koderma	Markacho	PHC			8	5			1		165	16		
Koderma Total					24	7	4		13	7	577	158		
Latehar	Latehar	DS			2				2		50	75	25	2
Latehar	Balumath	PHC			2				5	3	65	12		
Latehar	Barawadhi	PHC			5				4		120	12		
Latehar	Chandwa	PHC							7		35	12		
Latehar	Latehar	PHC	3						8		115	12		
Latehar	Mahuatan	PHC			5				2		110	12		
Latehar	Manika	PHC			3				1		65	12		
Latehar Total			3		17				29	3	560	149	25	2
Lohardaga	Lohardaga	DS			2	1	2		3		71	46		
Lohardaga	Bandra	PHC			1		1		2		38	9		
Lohardaga	Kisko	PHC			3				6		90	9		
Lohardaga	Kuru	PHC			2				3		55	9		
Lohardaga	Lohardaga	PHC			2		1		4		68	9		
Lohardaga	Senha	PHC					1		2		18	9		
Lohardaga Total					10	1	5		20		340	92		
Pakur	Pakur	DS										90	90	5
Pakur	Amrapada	PHC				2			1	1	5	8	3	1
Pakur	Hiranpur	PHC							2	1	10	9		
Pakur	Littipara	PHC			2		1		1		53	12		
Pakur	Maheshpur	PHC			3	10				5	60	23		
Pakur	Pakudia	PHC			2	3			1		45	13		
Pakur Total					7	15	1		5	7	173	154	93	6

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Palamu	Daltanganj	DS			12		5				280	245		
Palamu	Bishrampur	PHC			2				6	2	70	21		
Palamu	Block PHC	PHC			2	2			4		60	15		
Palamu	Chainpur	PHC			1				4		40	28		
Palamu	Chattarpur	PHC			4				4		100	27		
Palamu	Hariharganj	PHC			2				5		65	14		
Palamu	Husainabad	PHC			7				4		160	28		
Palamu	Lisliganj	PHC			1	1			2	4	30	13		
Palamu	Manatu	PHC										16	16	1
Palamu	Panki	PHC			5	3					100	20		
Palamu	Patan	PHC							6	3	30	23		
Palamu Total					36	6	5		35	9	935	450	16	1
Ranchi	Namkum	CS												
Ranchi	Ranchi DS	DS			20				2		410	354		
Ranchi	Aarki	PHC				1			5	3	25	10		
Ranchi	Anigara	PHC			1	2			2		30	14		
Ranchi	Bero	PHC			1	1			4	1	40	17		
Ranchi	Bundu	PHC										10	10	1
Ranchi	Burmu	PHC			3				4		80	19		
Ranchi	Chancho	PHC	3		2				3		130	10		
Ranchi	Kanke	PHC			2	3			2	4	50	118	68	4
Ranchi	Karra	PHC			2	1			4		60	13		
Ranchi	Khunti	PHC							3		15	13		
Ranchi	Khunti	PHC			1	1	1		1		33			
Ranchi	Lapung	PHC			1	2			2	1	30	7		
Ranchi	Mander	PHC			4				6		110	13		
Ranchi	MCH	PHC												

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Ranchi	Murhu	PHC			2				1	2	45	10		
Ranchi	Namkum	PHC			2		1		2		58	15		
Ranchi	Oremanjhi	PHC			2	1			4	3	60	10		
Ranchi	Rania	PHC										5	5	1
Ranchi	Ratu	PHC			1	2			5		45	16		
Ranchi	Silli	PHC			1		2		3		51	15		
Ranchi	Sonahatu	PHC			2				5		65	13		
Ranchi	Tamar	PHC			3				3		75	16		
Ranchi	Torpa	PHC			3				5	2	85	11		
Ranchi Total			3		53	14	4		66	16	1497	709	83	6
Sahebganj	Sadar Hospital	DS			25				45		725	118		
Sahebganj	Baharawa	PHC			2	4			2		50	17		
Sahebganj	Barhait	PHC			2				1		45	17		
Sahebganj	Borio	PHC			2		1		4	2	68	17		
Sahebganj	Pathna	PHC										17	17	1
Sahebganj	Rajmahal	PHC			3		6		2		118	17		
Sahebganj	Sadar PHC	PHC										17	17	1
Sahebganj	Taljhari	PHC							2		10	17	7	1
Sahebganj Total					34	4	7		56	2	1016	236	41	3
Saraikela Khar-sawan	Chandel (DS)	DS			19				21		485	113		
Saraikela Khar-sawan	Chandel	PHC										18	18	1
Saraikela Khar-sawan	Ghamaria	PHC			2				5		65	18		
Saraikela Khar-sawan	Ichagarh	PHC										15	15	1

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Saraikela Kharsawan	Kuchai	PHC			3				2		70	9		
Saraikela Kharsawan	Nimdih	PHC			1						20	13		
Saraikela Kharsawan	Raj Kharsawan	PHC			2				2		50	11		
Saraikela Kharsawan	Rajnagar	PHC			2				2		50	19		
Saraikela Kharsawan	Saraikela Sub Depot	PHC			2				3		55	10		
Saraikela Kharsawan Total					31				35		795	226	33	2
Simdega	Simdega	DS			4		5				120	71		
Simdega	Bano	PHC			2				2		50	9		
Simdega	Bolba	PHC			2						40			
Simdega	Jaldega	PHC			2	1			4		60	9		
Simdega	Kolebera	PHC			1				3		35	9		
Simdega	Kurdeg	PHC			4				1		85	9		
Simdega	Simdega	PHC			3				1		65	9		
Simdega	Simdega PHC	PHC										9	9	1
Simdega	Thethaitnagar	PHC			3				2		70	9		
Simdega Total					21	1	5		13		525	134	9	1
West Singhbhum	Chaibasa Sadar	DS	1		14		7		3		376	51		
West Singhbhum	Barajamda	PHC			3		1		3	1	83	14		
West Singhbhum	Chakradharpur	PHC			2	3			5		65	18		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
West Singhbhum	Goilkara	PHC			1				5		45	11		
West Singhbhum	Jagganathpur	PHC			2				3	2	55	26		
West Singhbhum	Jinkpani	PHC			4				4		100	12		
West Singhbhum	Khutpani	PHC			2				5	2	65	9		
West Singhbhum	Kumardungi	PHC			1	1				2	20	9		
West Singhbhum	Manjgaun	PHC			1	1			1	2	25	8		
West Singhbhum	Manoharpur	PHC			2				3		55	14		
West Singhbhum	Sadar-Chaibasa	PHC				1			1		5	12	7	1
West Singhbhum	Sonua	PHC			3				5		85	12		
West Singhbhum	Tonto	PHC							2	2	10	9		
West Singhbhum Total			1		35	6	8		40	11	989	203	7	1
Grand Total			28	18	660	132	59	9	930	204	19022	7376	1018	67

APPENDIX N: DETAILED INVENTORY OF CONDEMNED REFRIGERATION UNITS IN THE STATE

District	Site	Type	Deep Freezer					Ice Lined Refrigerator				
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Bokaro	Bokaro	PHC	3		3		6	2				2
Bokaro	Chandankyari	PHC						1				1
Bokaro	Chas	PHC			1		1					
Bokaro	Gumia	PHC	1				1	2				2
Bokaro	Nawadhi	PHC						1				1
Bokaro	Peterwar	PHC	1				1	2				2
Bokaro	Bermo	PHC						1				1
Bokaro Total			5		4		9	9				9
Chatra	Chatra	PHC						1				1
Chatra	Hunterganj	PHC			1		1					
Chatra	Itkhori	PHC	4				4					
Chatra	Simaria	PHC						2				2
Chatra Total			4		1		5	3				3
Deoghar	Deoghar	PHC	7				7	7		1		8
Deoghar	Jasidih	PHC			1		1					
Deoghar Total			7		1		8	7		1		8
Dhanbad	Bagmara	PHC			1		1					
Dhanbad	Baliapur	PHC	1				1					
Dhanbad	Dhanbad	PHC			3		3	8		1		9
Dhanbad	Govindpur	PHC			1		1					
Dhanbad	Nirsa	PHC	1				1	1				1
Dhanbad	Topchanchi	PHC			1		1					
Dhanbad Total			2		6		8	9		1		10

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer				Ice Lined Refrigerator					
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Dumka	Dumka DS	DS		1	3							
Dumka	Jama	PHC					1					1
Dumka	Jarmundi	PHC	1				1					1
Dumka	Raneswar	PHC					1	1				2
Dumka	Sadar PHC	PHC			1							1
Dumka Total			1	1	4		3	1				4
East Singhbhum	Jamshedpur DHQ	DS			2							2
East Singhbhum	Dalbhumergarh	PHC	1									1
East Singhbhum	Potka	PHC	1				1					1
East Singhbhum Total			2		2		1					1
Garhwa	Garhwa DS	DS	1		1							2
Garhwa	Bhandaria	PHC	1									1
Garhwa	Garhwa Block	PHC	1				1	2				2
Garhwa	Meral	PHC	1				1	2				2
Garhwa	Nagaruntari	PHC	1				1	1				1
Garhwa Total			5		1		6	5				5
Giridih	Bagodar	PHC	1				1	2				2
Giridih	Bengabad	PHC	2									2
Giridih	Birni	PHC	1		1		2	1				1
Giridih	Deori	PHC	1				1	1				1
Giridih	Dumri	PHC	2		1		3					3
Giridih	Gandey	PHC	2				2	1				1
Giridih	Giridih	PHC	3		2		5			1		1
Giridih	Jamua	PHC	1		1		2	1				1
Giridih	Pirtand	PHC						1				1
Giridih	Raj Dhanwar	PHC	1		2		3	1				1

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer					Ice Lined Refrigerator				
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Giridih	Tisri	PHC			1		1	1	1			2
Giridih	Sadar Block	PHC	1				1	1			1	2
Giridih Total			15		8		23	10	1	1	1	13
Godda	Boarijore	PHC			1		1					
Godda	Godda	PHC			2		2	2				2
Godda	Meharma	PHC		1			1					
Godda Total				1	3		4	2				2
Gumla	Ghagra	PHC	1				1	1				1
Gumla	Gumla	PHC	4		3		7	3		1		4
Gumla	Sisai RH	RH								1		1
Gumla Total			5		3		8	4		2		6
Hazaribagh	Barakatha	PHC						2				2
Hazaribagh	Barhi	PHC	1				1					
Hazaribagh	Berkagaon	PHC	2		1		3	2				2
Hazaribagh	Chaparan	PHC						1				1
Hazaribagh	Churchu	PHC	1				1					
Hazaribagh	Gola	PHC						1				1
Hazaribagh	Hazaribagh	PHC	8		3		11	1				1
Hazaribagh	Ichak	PHC						1				1
Hazaribagh	Mandu	PHC						1				1
Hazaribagh	Patratu	PHC	1				1	1				1
Hazaribagh	Vishnugarh	PHC						1				1
Hazaribagh Total			13		4		17	11				11
Jamtara	Sadar DS	DS									1	1
Jamtara	Narayanpur	PHC						1				1
Jamtara Total								1			1	2
Koderma	Jainagar	PHC	1				1	1				1

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer				Ice Lined Refrigerator					
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Koderma	Markacho	PHC					1					1
Koderma Total			1				1	2				2
Latehar	Balumath	PHC	1				1					
Latehar	Chandwa	PHC					1					1
Latehar	Latehar	PHC	1	1			2	3				3
Latehar	Mahuatan	PHC	1				1	1				1
Latehar	Manika	PHC	1				1	1				1
Latehar Total			4	1			5	6				6
Lohardaga	Bandra	PHC					1					1
Lohardaga	Kisko	PHC	1		1		2		1			1
Lohardaga	Lohardaga	PHC			1		1	1				1
Lohardaga	Senha	PHC					1					1
Lohardaga Total			1		2		3	3	1			4
Pakur	Pakur	PHC					5					5
Pakur Total							5					5
Palamu	Bishrampur	PHC	1	1			2					
Palamu	Daltanganj	PHC			2		2					
Palamu	Lisliganj	PHC					1					1
Palamu	Panki	PHC	1				1					
Palamu Total			2	1	2		5	1				1
Ranchi	Ranchi DS	DS	7		5		12	10		1		11
Ranchi	Chancho	PHC	1				1					
Ranchi	Khunti	PHC	1				1	1			1	2
Ranchi	Ratu	PHC	1				1	1				1
Ranchi	Aarki	PHC	1				1	1				1
Ranchi Total			11		5		16	13		1	1	15
Sahebganj	Borio	PHC			1		1	1				1

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer				Ice Lined Refrigerator					
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Sahebganj Total					1		1	1				1
Saraikela Kharsawan	Ghamaria	PHC	1		1		2					
Saraikela Kharsawan	Ichagarh	PHC	1				1					
Saraikela Kharsawan	Kuchai	PHC	1		1		2		1			1
Saraikela Kharsawan	Nemdeah	PHC	2				2					
Saraikela Kharsawan	Raj Kharsawan	PHC	1				1	1				1
Saraikela Kharsawan	Rajnagar	PHC			2		2					
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1	1			2	1				1
Saraikela Kharsawan Total			7	1	4		12	2	1			3
Simdega	Bano	PHC						1				1
Simdega	Jaldega	PHC	1				1	1				1
Simdega	Kurdeg	PHC			1		1					
Simdega	Simdega	PHC						1				1
Simdega	Simdega PHC	PHC						1				1
Simdega Total			1		1		2	4				4
West Singhbhum	Goilkara	PHC	1				1	1				1
West Singhbhum	Jagganathpur	PHC	1				1	1				1
West Singhbhum	Manjgaun	PHC	2				2	1				1
West Singhbhum	Manoharpur	PHC						1				1
West Singhbhum Total			4				4	4				4
Grand Total			90	5	52		147	106	4	6	3	119

APPENDIX O: LIST OF PERSONNEL PLACED AT SITE WITH TRAINING STATUS

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Bokaro	Bokaro	DS	Shashi Kumar Malik	Accountant	Yes	4	-	-
			Ram Prakash Singh	Driver	No		-	-
			Jay Jeevan Guddu Horo	Clerk	No		-	-
			Dr. P.N. Pandey	CS	No		-	-
Bokaro	Bermo	PHC	Jai Prakash Jha	Vaccinator	No		-	-
			Babita	ANM	No		-	-
			Cicilya Beek	LHV	No		-	No Cold chain training
			Gangadhar Mishra	Vaccinator	No		-	-
			Satendra Narayan Singh	Computer Operator	No		-	-
Bokaro	Bokaro	PHC	Shiv Poojan Ram	Health Inspector	No		-	-
			Dhaneshwar Mazi	Health Inspector	No		-	-
			Saroj K. Tiwari	Assistant Director (Public Health)	No		-	-
Bokaro	Chandankyari	PHC	Ramesh Kumar	Clerk	Yes	1	Namkum	-
			Ramesh Kumar	Clerk	No		-	-
			Ajit Kumar Singh	Clerk	No		Bokaro	Pulse polio cold chain
Bokaro	Chas	PHC	Shekhar Kumar	Clerk	No		-	-
			Dr. Firoz Ahmed	Grade I MO	No		-	-
			Shekar	Store keeper	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Binda Kumari./Urmila Devi	LHV	No		-	-
			Dr. Shobhak Prasad	MOIC	No		-	-
			Dr. Phiraj Ahmed	MOIC	No		-	-
Bokaro	Gumia	PHC	Parveen Kujur	Clerk	Yes	1		-
			Dilip Kumar	Family planning worker	No			-
			Dr. Chakkaborty	Medical Officer	No		-	-
Bokaro	Jiridih	PHC	Suman Prasad	Assistant Accountant	No		-	-
			Rani Kumari	LHV	No		-	-
			Raj Kumari	LHV	No		-	-
Bokaro	Kasmar	PHC	Indira Hemrom	LHV	Yes	1	-	-
			Pankaj Kumar	FWP	No		-	-
Bokaro	Nawadhi	PHC	Mahadev Dey	Family planning worker	Yes	10	-	Immunization
Bokaro	Peterwar	PHC	Hatima Murmur	ANM	Yes	5	-	-
			Hatima Murmu	ANM	Yes	5	-	-
			Dr. P.N. Prasad	Clerk	No		-	-
			Dr. Panchandad Prasad	MOIC	No		-	-
Chatra	Chatra	DS	Jaled Ansari	Warden	No		-	-
			Dr. E. Tigga	CS	No		-	-
			Satyender Singh	Clerk	No		-	-
Chatra	Chatra	PHC	Suresh Yadav	Store Keeper	Yes	3	-	-
			Dr. Suresh Sahu	MOIC	No		-	-
			Ansar Ahmed	Clerk	No		-	-
Chatra	Hunterganj	PHC	Verender Prasad	Family planning worker & cc in	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
				charge				
			Dr. K.P Lal	MOIC	No		-	-
Chatra	Itkhor	PHC	Sarju Prasad	Assistant	No		-	-
Chatra	Pratappur	PHC	Vijay Shankar Singh	Computer Operator	Yes	7	Patna	-
			Dr. Shiv Narayan Singh	MOIC	No		-	-
			Radha Ram Singh	Family planning worker	No		-	-
Chatra	Simaria	PHC	Dr. S.K. Pathak	MOIC	No		-	-
			Kameshwar/Shambu	Vaccinator	No		-	-
Chatra	Tandwa	PHC	Shoba Kujur	Nurse	No		-	-
			Priyanka Kumari	Nurse	No		-	-
			Dr. Surendra Prasad Singh	MOIC	No		-	-
Deoghar	Deoghar	DS	Bishwanath Das	Grade IV	No		-	On deputation
			Somnath Mukherjee	Assistant Dist. RCH officer	No		-	-
Deoghar	Jasidih	PHC	Babul Mehtan	Grade IV	Yes		-	-
			Dr. S.S. P Singh	MOIC	No		-	-
			Dr. Sudhir Prasad	Immunization officer	No		-	-
			Manju Kumar	Nurse	No	1	Deoghar	-
Deoghar	Karon	PHC	Usha Kumari	ANM	No		-	-
Deoghar	Madhupur RH	PHC	Raja	Polio coordinator	No		-	-
Deoghar	Mohanpur	PHC	Kajal Kiran	Grade A Nurse	Yes	1	-	-
			Asha Kumari	ANM	No		-	-
			Kajal Kiran	Grade A Nurse	No		-	-
			Hemant Mishra	Store keeper	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Ajay Kumar Das	MOIC	No		-	-
Deoghar	Palajori	PHC	Dr. Ramesh Prasad	MOIC	No		-	-
			Magdali Aind	Head ANM	No		-	-
			Mridula Kumari	Grade A Nurse	No		-	-
Deoghar	Sarat	PHC	Salom Kishu	ANM	No		-	-
			Babita Kumari	Grade A Nurse	No		-	-
			Minoti Das	ANM	No		-	-
Deoghar	Sarwan	PHC	Alo Banarji	LHV	No		-	-
			Sulochna Devi	ANM	No		-	-
			Neelam Kumari	ANM	No		-	Trained by MOIC
			Dr. Deepak Kumar singh	MOIC	No		-	-
			Sholam Lal	Grade IV	No		-	-
Dhanbad	Dhanbad	DS	Ram Parvesh Paswan	Asst Investigator	No		-	-
			Arun Kumar	Clerk	No		-	-
Dhanbad	Bagmara	PHC	Hemant Kumar	Clerk-cold chain	No		-	-
			Dr. Kalavaty Pandey	MOIC	No		-	-
Dhanbad	Baliapur	PHC	Thakur Prasad Das	Clerk	No		-	-
			Dr. Akilesh Sharma	MOIC	No		-	-
Dhanbad	Govindpur	PHC	Dr. Digvijay Kumar	MOIC	No		-	-
			Dr. Digvijay Singh	MOIC	No		-	-
			Amulya Rani	LHV	No		-	-
			Chandeshwar Singh	Grade IV	No		-	-
Dhanbad	Johrapokhar	PHC	Govinda Topo	BHI	No		-	-
			Dr. Jaima Lakra	AC	No		-	-
			Roopa Kumari	ANM	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. Shashi Bhushan	MOIC	No		-	-
Dhanbad	Nirsa	PHC	Geeta Sinha	LHV	No		-	-
			Sameer Kumar Pal	Family planning worker	No		-	-
			Vinod Ranjan Sinha	Computer Operator	No		-	-
			Prasad Singh	MOIC	No		-	-
			Dr. Shahi Bhusan	MOIC	No		-	-
			Saroj Sinha	ANM	No		-	-
Dhanbad	Sadar PHC	PHC	Gangadhar	Computer Operator	Yes	1	-	-
			Ratna Bhattacharya	ANM	Yes	1	-	-
			Dr. Ashutosh Kumar Singh	MOIC	No		-	-
Dhanbad	Topchanchi	PHC	Bahalen Gudiya	LHV	Yes	1	Numkum	-
			N.K. Ram	Clerk	No		-	-
			Dr. M.M.P. Singh	MD	No		-	-
			Kumari Madhavi	ANM	No		-	-
Dhanbad	Tundi	PHC	Raja Ram pd. Singh	Clerk	Yes	11	Dhanbad	-
			Saloni Anando	LHV	Yes		-	-
			Arvind Tirki	Health Educator	No		-	-
			Raja Ram pd. Singh	Clerk	No		-	-
Dumka	Gopi Kandar	PHC	Nirmala Hembram	ANM	No		-	-
			Dr. Narendra Kumar	MO	No		-	-
			Dr. Surya Narayan Pradhan	MOIC	No		-	-
			Dr. Narendra Kumar	MO	No		-	-
Dumka	Jama	PHC	Grashila Marandi	LHV	Yes	5	-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Savitri Sinha	LHV	Yes	5	-	-
			Grashila Marande	LHV	No		-	-
			Dr. Sakaldeep Mandal	MOIC	No		-	-
Dumka	Jarmundi	PHC	Vimla Das	LHV	Yes	20	Dumka	-
			Vimal Das	LHV	No		-	-
			Dr. Virendrakumar Singh	MOIC	No		-	-
Dumka	Kathikund	PHC	Dr. D.K. Mishra	MOIC	No		-	-
			Ramhari Prasad	Extension Educator	No		-	-
			Malti Sorin	LHV	No		-	-
Dumka	Masalia	PHC	Kokil Manto	Pharmacist	No		-	-
			Dr. Sanjay Kumar	MOIC	No		-	-
			Dr. Mohd. Javed	MOIC	No		-	-
Dumka	Ramgarh	PHC	Bipin Kumar Singh	Clerk	No		-	-
			Savitri	ANM	No		-	-
			Dr. R.D. Singh	MOIC	No		-	-
Dumka	Raneswar	PHC	Sushila Kumar	LMV	No		-	-
			Dr. Mohd Nazirudin	Medical Officer	No		-	-
Dumka	Sadar PHC	PHC	Philomina Hembran	LHV	No		-	-
			Heera mani	LHV	No	1	-	-
Dumka	Saraya	PHC	Arjun Yadav	Clerk	No		-	-
			Ashok Mitra	LHV	No		-	-
			Jaikant Devi	LHV	No		-	-
			Sarojini Kumari	ANM	No		-	-
			Raj Devi	LHV	No		-	-
Dumka	Shikaripada	PHC	Navin Kuma Singh	Health Worker	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. D. Hembram	MO	No		-	-
			Hariballab Singh	Store incharge	No		-	-
			Dr. S. Prasad	MOIC	No		-	-
East Singhbhum	Jamshedpur DHQ	DS	M.K. Prasad	Clerk	No		-	-
			M.K. Prasad	Clerk	No	1	Jaipur	-
East Singhbhum	Baharagharah	PHC	Jitendranath Das	Male family planning worker	Yes	4	Jamshedpur	-
			Dr. C.N Jha	MOIC	No		-	-
			Hidsi Kesgiri	Clerk	No		-	-
East Singhbhum	Chakulia	PHC	Manju Kumari	ANM	Yes	5	Tatana gar	-
			Tirki	LHV	Yes	5	Tatana gar	-
			P Tiriki	-	No		-	-
			Dr. H.K. Alok	MOIC	No		-	-
East Singhbhum	Dalbhumgarh	PHC	R.N. Manna	Supervisor	Yes	5	Jamshedpur	-
			Dankapuri	Male Ward Attendent	Yes	1	-	-
			Dashpurh	Male Ward Attendent	No		-	-
			R.N Manna	Supervisor	No		-	-
East Singhbhum	Dhumria	PHC	Dr. Shashi Kumar Singh	Medical Officer	No		-	-
			Shadeo Ram	VHW	No		-	-
East Singhbhum	Ghatsella	PHC	Bimal Kr. DAs	BHW	No		-	-
			P.L Mishra	Clerk	No		-	-
East	Jugsalai	PHC	Rajendra Kalindi	Grade IV	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Singhbhum			Ramchandra	Clerk	No		-	Attended two times in 2004 & 2005
			Ramachandra Singh	Clerk	No		-	-
			Dr. M.L. Keshari	MOIC	No		-	-
East Singhbhum	Musabani	PHC	Shaber Alam	Clerk	No		-	-
			Meenu Maya	LHV	No	2	Jamshed-pur	-
East Singhbhum	Patomda	PHC	Dr. A.A. Ekka	MOIC	No		-	-
			Vivekanand Chand	Storekeeper/Clerk	No		-	-
East Singhbhum	Potka	PHC	Dr. Paul Astha	MOIC	No		-	-
			Mani Manzi	LGV	No		-	-
			Mantu Chandras	Health worker	No		-	-
Garhwa	Garhwa DS	DS	Vijay	Computer Operator	Yes	6	-	-
			Dr. Raja K	RCM Officer	No		-	-
Garhwa	Bhandaria	PHC	Roop mandal	LHV	No		-	-
			Dr. Rajendra Prasad singh	MOIC	No		-	-
			Sikendar Kumar	Grade IV	No		-	-
			Dr. Ravi Prakash	MOIC	No		-	-
			Arun Nagendra	Peon	No		-	To fetch Vaccines
			Rajani Kirkela	ANM	No		-	-
Garhwa	Bhavaanathpur	PHC	Kerolina Eleka	LHV	Yes	5	-	-
			Kerolina Eleka	LHV	No		-	-
Garhwa	Dhurki	PHC	D. Laleada	LHV	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			D. Laleada	LHV	No		-	-
			Dr. R.K. Choudhari	MO	No		-	-
			Dr. V.K. Gupta	MO	No		-	-
Garhwa	Garhwa Block	PHC	Sushi Phulmati Kumari	LHV	Yes		-	-
			Shashi Bhashan Ram	MOIC	No		-	-
			Dr. Virendra K. Tiwari	MOIC	No		-	-
Garhwa	Majhion	PHC	Dr. Sohail Akhtar Ansari	MOIC	No		-	-
			Shilwanti Surgan	LHV	No	3	-	-
Garhwa	Meral	PHC	Jenet Fransis	ANM	No		-	-
			Dr. Jaiswal	MOIC	No		-	-
			Dr. Premchandran Shuka	Medical Officer	No		-	-
			Kanij Fatma	LHV	No		-	-
Garhwa	Nagaruntari	PHC	Mohini Minz	LHV	No	3	-	-
			Dr. Ravindra prasad	MOIC	No		-	-
Garhwa	Ranka	PHC	Usha Kumari	ANM	Yes	4	Cold Chain RCH-Ranchi	-
			Ramjanam Singh	Clerk/Servilene Inspector	No		-	-
			Dr. M. P. Singh	MOIC	No		-	-
			Arun Lakda	Clerk	No		-	-
			Geela Kumari	ANM	No		-	-
Giridih	Giridih	DS	Prem Kumar	Assistant clerk	Yes	1	Ranchi	-
			Dr. Bijay kumar Sharma	CS	No		-	-
			Prem kumar	Assistant clerk	No		-	-
Giridih	Bagodar	PHC	Lakshmi Devi	LHV	No		Giridih	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. R.N Singh	MOIC	No		-	-
			Gyansham	Accountant	No		-	-
Giridih	Bengabad	PHC	Arvind singh	Vaccinator	Yes	3	-	-
			Dr. Richards Raj Shekhar	MOIC	No		-	-
			Anant prasad Tiwari	Computer Operator	No		-	-
Giridih	Birni	PHC	Kamla Devi	LHV	No		Gindih	-
			Mohd. Sallahudin	Computer Operator	No		-	-
Giridih	Deori	PHC	Shivanand Mishra	Computer Operator	No		-	-
			Dr. Hasan	MOIC	No		-	-
			Sukhdev Rain Bhagat	Computer Operator	No		-	-
Giridih	Dumri	PHC	Sheela Ghosh	LHV	Yes	5	-	-
			Beena Sinha	ANM	No		-	Received LHV training
Giridih	Gandey	PHC	Sarojni Devi	LHV	No		-	-
			Kalavati	ANM	No		-	-
Giridih	Jamua	PHC	K.P. Verma	Staff	No		-	-
			Jageshwar Prasad Singh	Head clerk	No		-	-
			Govind prasad	-	No		-	Trained by MOIC
			Dr. Harihar Prasad Singh	MOIC	No		-	-
Giridih	MCH	PHC			Yes	3	Gi-ridih-sadar hospital	-
			Sandhya Jaiswal	LHV				
			Shakuntla Sinha	ANM	Yes	3	Gi-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
							ridih-sadar Hospital	
Giridih	Pirtand	PHC	Celestina Toppo	LHV	No		-	-
			Dr. Mahavir Oraon	MOIC	No		-	-
			Kumari Rosi Rani	ANM	No		-	-
Giridih	Raj Dhanwar	PHC	Dr. Vijayakumar	MOIC	No		-	-
			Shivani Chakravathy	ANM	No		-	-
Giridih	Sadar Block	PHC	Mahamaya Devi	LHV	No		-	-
			Dr. Nitranand Singh	MOIC	No		-	-
			Sant Kumar sinha	Block Extensive Educator	No		-	-
			Kamla Ramot	LHV	No		-	-
Giridih	Tisri	PHC	Savitri Sinha	LHV	Yes	4	Giridih	-
			Kedar Prasad Sharma	Computer Operator	No		-	-
			Birendra Kumar	Pharmacist	No		-	-
			M.S.K Ahmed	MO	No		-	-
Godda	Godda	DS	Dr. Jitender Kumar	CS	No		-	-
			Subodh Kumar Das	Clerk	No		-	-
			Rajnikant Hazari	Peon	No		-	-
			S.K. Das	Clerk	No		-	-
			Dr. Ram Jee Ram	RCH	No		-	-
			Subodh K	-	No		-	-
Godda	Boarijore	PHC	Manju Murthur	ANM	Yes	3	-	-
			Manju Murmu	ANM	No		-	-
			Dr. Y.N. Singh	MOIC	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Godda	Mahagama	PHC	Pankaj Kumar	Clerk	Yes	2	-	-
			Pankaj Kumar	Clerk	No		-	-
			Dr. Laxmi Narayan Sharma	MOIC	No		-	-
Godda	Meharma	PHC	Nepal Mandal	Clerk	No		-	-
			Pradeep Singh	Clerk	No		-	-
			Nandakumar Jha	Computer Operator	No		-	-
			Savita Devi	LHV	No		-	-
Godda	Patthargama	PHC	Nagendra Kumar	SFW	No		-	-
			Sr. S.N. Chowdary	MOIC	No		-	-
Godda	Podayahat	PHC	Mahesh Thakur	Block Extension Educator	No	1	Godda	-
			Syan and Sinha	Grade IV	No		-	-
			Lchha/Sarawati Toppo	LHV Immunization	No		-	-
			Kanita Gupta	-	No		-	-
			Dr. V.R. Razzah	MOIC	No		-	-
Godda	Sadar Block	PHC	Pahnath	Health worker	Yes	1	-	-
			Dr. V.K. Bhagat	MOIC	No		-	-
Godda	Sundarpahari	PHC	Om Prakash	Computer Operator	No		-	-
			Susheela Devi	LHV	No		-	Immunization
			B.N. Singh	Family planning worker	No	1	Godda	-
			Sanjeev Kumar Varma	Pharmacist	No		-	-
			Mayarani Das	ANM	No		-	Immunization
Gumla	Gumla	DS	Anjula Dube	Computer Opera-	Yes	1	-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
				tor				
			Shudarshan Singh	FWP	No		-	-
Gumla	Bharno	PHC	Sunita Ekka	ANM	No		-	-
			Chavidas	LHV	No		-	-
			Dr. S. Bhaski	MOIC	No		-	-
			Dr. Attul naque Ansari	MO	No		-	-
Gumla	Bishnupur	PHC	Maria Gracica	LHV	No		-	-
			Indu Kumari	ANM	No		-	-
Gumla	Chainpur	PHC	Samsuddin Khan	Computer Operator	No		-	-
			Imlani Herenze	ANM	No		-	-
			Kiran Kujur	ANM	No		-	-
Gumla	Dumri	PHC	Ashok Prasad	Dresser	No		-	-
			Rosalia Lakola	LHV	No		-	-
			Dr. Rameshwar Ramesh	MOIC	No		-	-
Gumla	Ghagra	PHC	Jasmani Danata	LHV	No		-	-
Gumla	Kamdara	PHC	Jaikant Ram	Computer Operator	Yes	2	-	-
			Saroj Minz	LHV	Yes	2	-	-
			Sukra Pradhan	Driver	No		-	-
			Saroj Minl	LHV	No		-	-
			Dr. M.K.M Sahi	MOIC	No		-	-
Gumla	Palkot	PHC	Suganthi Kajoor	LHV	Yes	15	-	-
			Agathala	Computer Operator	No		-	-
			Dr. Mahendra Bhagat	MO	No		-	-
Gumla	Raidih	PHC	Budhdev Ram	Grade IV	No		-	No info

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dayamani Bora	LHV	No		-	-
			Basudev Prasad Verma	MOIC	No		-	-
			Shrefena Ekka	LHV	No		-	No info
			Shankar Chaudry	Driver	No		-	No info
Gumla	Sisai RH	PHC	Rukmani Devi	ANM	No		-	-
			Geeta Srivatsav	LHV	No		-	-
Gumla	Basia	RH	Sarita Devi	Computer Operator	No		-	-
			Budhwa Badair	Driver	No		-	-
			Dr. Vinod Kr. Gupta	MOIC	No		-	-
			Narsila Kujur	LHV	No		-	-
Hazaribagh	Hazaribagh	DS	Kajru	Cold chain in-charge	No	5	Ranchi	-
			Kajruindwar	Clerk	No		-	-
			Muneshwar Prasad	Computer Operator	No		-	-
			Ghulam Rabbani	Driver	No		-	-
Hazaribagh	Churchu	FPC	Anju Kumari	ANM	Yes	3	-	-
			LisiFas Dum Dum	LHV	No	3	-	-
			Avinash Kumar Sinha	-	No		-	-
Hazaribagh	Barakatha	PHC	Chitralekha Semal	ANM	Yes	6	-	-
			Rameshwar Sharma	Computer Operator	Yes	6	Hazari bagh	-
			Dr. Ashok Kumar Verma	MOIC	No		-	-
Hazaribagh	Barhi	PHC	Vinay Kumar Sinhe	Computer Operator	No		-	-
			Dr. B.B. Singh	Medical Officer	No		-	-
Hazaribagh	Berkagaon	PHC	Dr. Md. Sabir	MOIC	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Rameshwar Prasad	Block Extension Educator	No		-	-
			Ramyodhya Prasad	Family planning worker	No		-	-
Hazaribagh	Chaparan	PHC	Anuradha Kumari	LHV	No		-	-
			Rudal Singh	Clerk	No		-	-
			Manju	ANM	No		-	-
Hazaribagh	Churchu	PHC	Ram Naresh	Supervisor	No		-	-
			Vijay Karmali	ANM	No		-	-
			Bigal Mahali	Volunteer	No		-	-
			Karmila	ANM	No		-	-
Hazaribagh	Gola	PHC	Dr. R.V.Raman	MOIC	No		-	-
			Upendra Prasad	-	No		-	-
Hazaribagh	Ichak	PHC	Vinay Kumar Sahni	Computer Operator	No		-	-
Hazaribagh	Katkamsari	PHC	Dr. G.K. Singh	Medical Officer	No		-	-
			S.N. Verma	Computer Operator	No	3	-	-
Hazaribagh	Keredari	PHC	Terersa MInge/Preeti Vandana	ANM	No		-	-
			Shambusaran Varma	Clerk handling cold chain	No		-	-
			Bahalen samad	ANM	No		-	-
			Mariam Thopno	LHV	No		-	-
			Ravikumar	Clerk	No		-	-
			Dr. Sanjay Jaiswal	MOIC	No		-	-
Hazaribagh	Mandu	PHC	Asha Kumari	AMV	Yes	2	-	-
			Kamala Kumari	-	Yes	2	-	-
			Kamala Kumari	ANM	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Hazaribagh	Patratu	PHC	Dr. P.P. Sanga	Incharge-medical officer	No		-	-
Hazaribagh	Ramgarh	PHC	Bharat Narayan Sahu	Male Health worker	Yes	3	Hazari bagh	-
			Manoj Kumar	Surveillance Inspector	No		-	No Training
			Dr. Mahadev Prasad	Doctor	No		-	-
			Rajeshwar Pandit	Male Health worker	No		-	-
Hazaribagh	Vishnugarh	PHC	Anjani Kumar	Clerk	Yes	3	Hazari bagh	-
			Parmeshwar Dayal	Computer Operator	No		-	-
			Dr. A.K. Singh	MOIC	No		-	-
Jamtara	Sadar DS	DS	Anil Kumar Singh	Store keeper	Yes	1	Ranchi	-
			Pankaj Kumar Tiwari	Cold Chain VHW	No		-	-
Jamtara	Jamtara	PHC	Vinod kumar Sinha	Computer Operator	Yes	10	Dumka	-
			Dr. Ashok Kumar	MOIC	No		-	-
			Ajay kumar Chand	BHW	No		-	-
			Dr. Ashok Kumar	MOIC	No		-	-
			Mukesh kumar	BHW	No		-	-
Jamtara	Kundahit	PHC	Krishna Pd. Singh	Clerk	No		-	-
			Bhagwan Saha	Computer Operator	Yes		Numkum	-
			Dr. Rampreet Ramo	MOIC	No		-	-
Jamtara	Nala	PHC	Shyama Chaudhry	ANM	No		-	-
			Isnidha Hemram	ANM	No		-	-
			B.V Ram	MO	No		-	-
			Mohd Sayed Alam	Grade IV	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Jamtara	Narayanpur	PHC	Shanti Devi	LHV	No		-	-
			Indu Kumari	ANM	No		-	-
Koderma	Koderma	DS	Shedeshwar Prasad	Male faculty planning worker	Yes	3	Deogarh	-
Koderma	Jainagar	PHC	Shyama Saransingh	Head clerk	No		-	-
			Kapil Dev Thakur	Computer Operator	No		-	-
Koderma	Koderma (Jhumntalaya) PHC	PHC	Mrutungan Singh	Eye Assistant	No		-	-
Koderma	Markacho	PHC	Ashok Kumar Pandey	Dresser	No		-	-
			Randhir Prasad	Computer Operator	No		-	-
Latehar	Latehar	DS	Nandu Rao	Driver	No		-	-
			Saroj Minz	LHV	No		-	-
			Arjun Ram	Assistant	No		-	-
Latehar	Balumath	PHC	Vimla Kumari	ANM	No		-	-
			Santa Brigit Khakha	ANM	No		-	-
			Dr. M.E. Haqu	MOIC	No		-	-
			Sunil Kumar	-	No		-	-
Latehar	Barawadhi	PHC	Dr. Chandarsekar Praleash	MOIC	No		-	-
			Karunesh Kumar	Head clerk	No		-	-
			Sunil Kumar	Surveillance worker	No		-	-
			Indrani Belanjar	LHV	No		-	-
			Poonam Kumari	ANM	No		-	-
Latehar	Chandwa	PHC	D.R.R. Prasad	MOIC	No		-	-
			Teresa Bingra	LHV	No	2	-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Teresa Bhingra	LHV	No		-	-
			Monika Kujar	ANM	No		-	-
			Sumitra Kumari	ANM	No	2	-	-
			Sanjay sinha	Assistant	No		-	-
Latehar	Latehar	PHC	Taramani Kumari	ANM	Yes	8	-	-
			Dr. S.P. Sharma	MOIC	No		-	-
			Istdor Singh	Educator	No		-	-
Latehar	Mahuatan	PHC	Mania Minj	ANM	No		-	-
			Mane Steller	ANM	No		-	-
			Elizebeth Narangi	LHV	No		-	-
			Raju Kashyap	MOIC	No		-	-
Latehar	Manika	PHC	Riazudin Ansan	Ward boy	No		-	-
			Raghunandan Ram	Educator	No		-	-
			Gandhavan Devi	ANM	No		-	-
			Dr. Harishchandra Mahato	MOIC	No		-	-
Lohardaga	Lohardaga	DS	Deen Dayal Topo	Clerk	No		-	-
			Jaigovind Prasad	Peon	No		-	-
			Torus Lakra	Driver	No		-	-
			Deendayal Topa	-	No		-	-
			Dr. B.P. Ranjan	RCH Officer	No		-	-
Lohardaga	Bandra	PHC	Nindu Mati	LHV	No		-	-
			Prabu Bhagat	-	No		-	-
			Indumati Nirmala Hora	LHV	No	1	-	-
			Dr. Rajendra prasad	MOIC	No		-	-
Lohardaga	Kisko	PHC	Rajendra Prasad Gupta	Lab Technician	No		-	-
			Solani Topno	LHV	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Seema Kumar	ANM	No		-	-
			Rajendra Prasad Gupta	Lab Technician	No		-	-
			Sadhya Prahima Latra	ANM	No		-	-
Lohardaga	Kuru	PHC	Ram Shankar Prasu	Clerk	No		-	-
			Ram Shankar prasad	Clerk	No		-	-
			Jabuoraom	Grade IV	No		-	-
			Dr. Rajmohan Khalkho	MOIC	No		-	-
			Chonhati Dadel	ANM	No		-	-
Lohardaga	Lohardaga	PHC	Abdul Yusuf	Grade IV	No	5	-	-
			Sanjay Kumar	Clerk	No		-	-
			Saraya Prasad Singh	Health worker	No		-	-
			Magdalli Tinki	LHV	No	5	-	-
Lohardaga	Senha	PHC	Maharangi Khajar	Ward Attendent	Yes		-	-
			B. Kajoor	LHV	No		-	-
Pakur	Pakur	DS	Ashok Srivastav	Clerk	No		-	Trained
			Rampravesh Singh	Clerk	No		-	-
Pakur	Amrapada	PHC	Dr. Prem Kumar	MO	Yes	1	Pakur	-
			Aparna Ghosh	Computer Operator	Yes	1	Pakur	-
			Dr. Hemant Kr. Murmu	MOIC	No		-	-
			Dayamanti Kumari	LHV	No		-	-
Pakur	Hiranpur	PHC	smt. Jhumma Dey	ANM	No		-	-
			Rakesh kumar	Pharmacist	No		-	-
			Shambhu Rd. Singh	Grade IV	No		-	-
Pakur	Littipara	PHC	Patel K. Jha	BHW	Yes	1	Pakur	-
			DR. Sohail Anwar	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. Kalidas Murmu	MOIC	No		-	-
			Mukesh kr. Mohli	Head clerk	No		-	-
			Dr. Sohail Anwar	MO	No		-	-
Pakur	Maheshpur	PHC	Ramdharii Murmu	LHV	Yes	1	Pakur	-
			Dulal Rajeswari	Clerk	No		-	-
			Dr. B.P Singh	MOIC	No		-	-
			Suresh Kumar	Senatory Inspector	No		-	-
			Manohor Kumar	Health Inspector	No	1	Pakur	-
Pakur	Pakudia	PHC	Rema Dutta	ANM	Yes	1	Pakur	-
			Abul Hasnath	-	Yes	1	Pakur	-
			Dr. Akhilesh Kumar	MOIC	No		-	-
Palamu	Daltanganj	DS	Dr. Bhagat	RCH Officer	No		-	-
			Ashok	Driver	No		-	-
			Dinesh Kr. Singh	Clerk	No		-	-
Palamu	Bishrampur	PHC	Dr. Harishankar Singh	MOIC	No		-	-
			Roshan Tara	LHV	No		-	-
Palamu	Block PHC	PHC	Sugneer singh	Block Extension Educator	No		-	-
Palamu	Chainpur	PHC	Manorma Devi	LHV	Yes	1	-	-
			Pushpa Kumari Kar	ANM	No		-	-
			Dr. S.R. Gupta	MOIC	No		-	-
Palamu	Chattarpur	PHC	Kumari Gayatri	LHV	Yes	5	-	-
			Kumari Gayatri	LHV	No		-	-
			Sidhanand Sing	Computer Operator	No		-	-
Palamu	Hariharganj	PHC	Dr. Kalanand Mij	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Shaileshwari sinha	ANM	No		-	-
Palamu	Husainabad	PHC	Gayatri Devi	LHV/ANM	Yes	2	-	-
			Bibhuti Dube	Clerk	No		-	-
Palamu	Lisliganj	PHC	Zeber Ahmed	Medical Officer	No		-	-
			Subhadro Kumari	ANM	No		-	-
			Dr. S. Shah	MOIC	No		-	-
			Teresa Tirki	Supervisor (LHV)	No		-	-
Palamu	Manatu	PHC	Mayakumari (Padma sub Centre)	ANM	No		-	-
			Subhagy Devi	LHV	No		-	No information in field
			Dr. Kedar Prasad	MOIC	No		-	-
Palamu	Panki	PHC	Anaja Kerketla	LHV	Yes	3	-	-
			Krishna Tirky	Health Educator	No		-	-
			Dr. Chandra Bhanu Pralapan	MOIC	No		-	-
Palamu	Patan	PHC	Dr. Dilip Kumar Singh	MOIC	No		-	-
			Visundev prasad	Pharmacist	No		-	-
			Ganga Devi	LHV	No		-	-
			Gupateswar prasad	BHW	No		-	-
Ranchi	Ranchi DS	DS	Pradeep Kumar Mehta	Clerk/Store Keeper	No		-	-
Ranchi	Aarki	PHC	Brajesh Sahu	Clerk	No		-	-
			Dilip Tirky	Clerk	No		-	-
			Alisaba Gulia	LHV	No		-	-
			Dr. Janardhan Pd	MOIC	No		-	-
Ranchi	Anigara	PHC	Helen Lakda	NMN	Yes		-	Pulse polio

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Train- ing re- ceived	Years since last training	Place	Remarks
								training Sept 05
			Hemrensia Ekka	LHV	Yes		-	Pulse polio training Sept 05
			Leela	NMN	Yes		-	Pulse polio training Sept 05
			Dafruza minz	LHV	No		-	-
			Parden Tirli	LHV	No		-	-
Ranchi	Bero	PHC	Tarsila Topo	LHV	Yes	1	-	-
			Ram Prasad Barahi	Family planning worker	Yes	1	-	-
			Shailes kumar Roy	Grade IV staff (cold chain)	No		-	-
Ranchi	Bundu	PHC	Dr. P.Lal	MOIC	No		-	-
			Tagaran Ekka	LHV	No		-	-
			Dr. R.C. Jhaha	MOIC	No		-	-
Ranchi	Burmu	PHC	Surender	-	Yes	5	-	Immuniza- tion
			Malini	-	No		-	-
			Ethel Rota	ANM	No		-	-
			Nalini	LHV	No		-	-
Ranchi	Chancho	PHC	Dhanashri Kumari	ANM	No	1	-	-
			Malim	Grade IV	No		-	-
			Sushama	ANM	No		-	-
			Dr. Mohammd Enson	MOIC	No		-	-
			Nakul Kashyap	JTL	No	1	-	-
Ranchi	Kanke	PHC	Dr. G.P. Singh	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Train- ing re- ceived	Years since last training	Place	Remarks
			Deepali	LHV	No		-	None- Recommend
			Premlata	LHV	No		-	None - Recommend
Ranchi	Karra	PHC	Shail Bala Pandey	LHV	No		-	-
			Dr P.P Singh	MOIC	No		-	-
Ranchi	Khunti	PHC	Indrani Kumari	ANM	Yes	5	-	-
			Dorothy Tuti	ANM	No		-	-
			Kanta Toppo	LHV	No		-	-
			Gobai Bhengra	Store keeper	No		-	-
			Dr. S.K. Varma	MOIC	No		-	-
			Kanta Toppo	LHV	No		-	-
Ranchi	Lapung	PHC	Maryamagdali Lagda	LHV	Yes	1	-	-
			Shri Rambhari Nand	Peon	No		-	-
			Dr. T.P. Singh	MOIC	No		-	-
Ranchi	Mander	PHC	Parmila Sinha	Vaccinator	Yes	3	-	-
			Margaret Thalesey	ANM	Yes	3	-	-
			Maheshan Bala	LHV	No		-	-
			Anju Bhattacharya	Ladies health visi- tor	No		-	-
			Dr. A.N. Prasad	MOIC	No		-	-
Ranchi	MCH	PHC	Umrawah Devi	LHV	Yes	2	-	-
			Puspha Kumar	ANM	Yes	2	-	-
			Vimla Kumari	ANM	Yes	2	-	-
			Shyamali Sarkar	ANM	Yes	2	-	-
			Mariamamma C.V	Staff Nurse	No		-	-
			Dr. A.K. Chowdhry	MCH	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Ranchi	Murhu	PHC	F.F. Kongari	LHV	No		-	-
Ranchi	Namkum	PHC	Sanjeev Kumar	Store-Incharge	No		-	-
			Sonmani Devi	LHV	No		-	-
			Lalitha Devi	LHV	No		-	-
Ranchi	Oremanjhi	PHC	Heera Kumari	ANM	No		-	-
			Radhika Devi	LHV	No		-	-
			Kalu Mathur	-	No		-	-
Ranchi	Rania	PHC	Alakh Niranjana	Computer Operator	No		-	-
			Dr. G.S. Chaudhri	MO	No		-	-
			Naveen	Senetory Inspector	No		-	-
			Solomi Danga	-	No		-	-
Ranchi	Ratu	PHC	Arun Kumar	Ward Attendent	No		-	-
Ranchi	Silli	PHC	Kusum	LHV	Yes	2	Sadar	-
			Kusum Warla	LHV	No		-	-
			Dr. Dinesh Prasad	MOIC	No		-	-
Ranchi	Sonahatu	PHC	Tagaran Ekka	LHV	No		-	-
			Dr. R.C. Jhaha	MOIC	No		-	-
Ranchi	Tamar	PHC	Dr. Aravindkumar sinha	MOIC	No		-	-
			Mr. Chamelidevi	LHV	No	3	-	-
Ranchi	Torpa	PHC	Elina Horo	LHV	No		-	-
			Dr. Nageshwar Moghi	MOIC	No		-	-
Sahebganj	Sadar Hospital	DS	Asha Devi	ANM	No		-	-
			Sharda	ANM	No		-	-
			Dr. Naresh Kumar	District RCH Officer	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Sahebganj	Baharawa	PHC	Krishnendu Acharya	Computer Operator	No		-	-
			Dr. Praveen kumar Santhal	MO	No		-	-
			Raghu Murmu	Grade IV	No		-	-
Sahebganj	Barhait	PHC	Dr. K.E. Kejriwal	MOIC	No		-	-
			Happan Soren	LHV	No		-	-
			Ram Swaroop Singh	Head clerk	No		-	-
			Dr. A.K Marandi	MO	No		-	-
			Ashok Gorai	Extension Educator	No		-	-
Sahebganj	Borio	PHC	Yogendra Shah	Sewak	Yes	1	-	-
			Dr. V.N . Chowdry	MOIC	No		-	-
			Dr. Ram Bachan Chowdry	MOIC	No		-	-
			Krishnan Chandra kant	Vaccinator	No		-	-
			Krishna Chand Kewat	Vaccinator	No		-	-
Sahebganj	Pathna	PHC	A.R. Srivastastav	MOIC	No		-	-
			Ajay Kuroza	Grade IV	No		-	-
			Rani shashikala kiran	ANM	No		-	-
			Ramesh Tudu	Computer Operator	No		-	-
Sahebganj	Rajmahal	PHC	Phekan Ghosh	Purushar sevak	No	1	Sa- hibganj	-
			Chanchala Kumari	LHV	No		-	-
Sahebganj	Sadar PHC	PHC	Kalavah Gupta	ANM	No		-	-
Sahebganj	Taljhari	PHC	Pandau Mandal	-	No		-	-
			Rajeshwari Prasad	Incharge	No		-	-
Saraikela	Chandel (DS)	DS	Surender Prasad	Health worker	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Kharsawan			Dr. Maheshwar Prasad	District RCH Officer	No		-	-
Saraikela Kharsawan	Chandel	PHC	Dr. Sunil Urawan	MOIC	No		-	-
Saraikela Kharsawan	Ghamaria	PHC	Rama Shankar	Computer Operator	No	1	-	-
			Satyandar Lenmar and Ramashankar Ram	Clerk	No		-	-
Saraikela Kharsawan	Ichagarh	PHC	Lal Babu	Health worker	No		-	-
			Dr. Jagdis Prasad	MO	No		-	-
			Dr. Bhola Prasad	MOIC	No		-	-
Saraikela Kharsawan	Kuchai	PHC	Rajendra Singh Munda	Educator/computer Operator	Yes	1	-	-
			Pamkishun Bhol	Pharmacist	No		-	-
			Dr. R.N. Soren	MO	No		-	-
Saraikela Kharsawan	Nimdih	PHC	Preety Datta	LHV	Yes	2	-	-
			Arun Chandra Gop	Computer Operator	No		-	-
Saraikela Kharsawan	Raj Kharsawan	PHC	Alishany Nayar	Health worker/Computer Operator	No		-	-
			Marshal	MO	No		-	-
			Ranjit Kumar	Clerk	No		-	-
			Ranjit Kumar	Clerk	No	3	Chaibasa	-
Saraikela Kharsawan	Rajnagar	PHC	Maranda Tape	Health worker/staff	Yes		Saraikela and Chaibasa	-
			Dr. Birendra Kumar	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Maranda Tape	Health staff/store keeper	No		-	-
			Devprasad	Store keeper	No		-	-
Saraikela Kharsawan	Saraikela Sub Depot	PHC	Surendar Singh	Clerk	No		-	-
			S.K Mahapatro	Accountant	No	3	Ranchi	-
			Surender Singh	Clerk	No		-	No attended yet but wish to
			Udit Manshid Mundu	Computer Operator	No	3	Ranchi	-
Simdega	Simdega	DS	Rajesh Kumar Yadav	Computer Operator	No		-	-
			Akhilesh Kumar Prasad	FWP	No		-	-
Simdega	Bano	PHC	Sanjay Kumar Ghosh	Clerk/Computer Operator	No		-	-
			Dr.Yuvram	MOIC	No		-	-
			Ram Lakhan Singh	Grade IV	No		-	-
			Satendra Kumar	SW	No		-	-
Simdega	Bolba	PHC	Dr. Sanjay Kajor	MOIC	No		-	-
			Premika Ba	ANM	No		-	-
			M.D. Syed	Clerk	No		-	-
Simdega	Jaldega	PHC	Meri Blanch Tirki	LHV	Yes	2	-	-
			Dr.Vishram Singh	MOIC	No		-	-
			Kapil Dev Prasad	Store incharge	No		-	-
			Sanjay	Grade IV	No		-	-
			Arun Kumar Singh	Pharmasist	No		-	-
			Ramesh Ram	Driver	No		-	-
Simdega	Kolebera	PHC	Satendra Sinha	Health worker	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr.H Kiran Tigga	MOIC	No		-	-
Simdega	Kurdeg	PHC	Dr. Arun Kumar	MOIC	No		-	-
			Smt. Rabban Hildaminz	LHV	No		-	-
			Baidnath Tiwari	Computer Operator	No		-	-
			Dr. Dmesh Prasad	Contract medical officer	No		-	-
Simdega	Simdega	PHC	Modulike Ekka	Store keeper	No		-	-
			Akelash Prasad	Health worker	No		-	Yes
			Shaadi Grace Khaik	ANM	No		-	Yes/ 6 years back
			Dr. V.C Sinha	MOIC	No		-	-
			Shanti Grace Khalle	ANM	No		-	-
			Rajesh Kumar Yahav	Computer Operator	No			
Simdega	Thethaitnagar	PHC	Putul Minj (Bethesade)	LHV	No		-	-
			Ahmed Hussain	Store keeper	No		-	-
West Singhbhum	Chaibasa Sadar	DS	Shanti Devi	LHV	No		-	-
			Indu Kumari	ANM	No		-	-
West Singhbhum	Barajamda	PHC	Smt. Poorri Khan	LHV	Yes	1	-	-
			Deepak Kumar Singh	Grade IV	No		-	-
			Pravesh Kumar	Clerk	No		-	-
			Brajnandan Singh	Extension Educator	No		-	-
West Singhbhum	Chakradharpur	PHC	Dineshwar Singh	BHW	No		-	-
West Singhbhum	Goilkara	PHC	Mary Agnes Soren	ANM	Yes	1	-	-
			Rakhohare Mehta	SI	No		-	-
West	Jagganathpur	PHC	Asha Toppo	LHV	Yes		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Singhbhum			D.Das	Computer Operator	Yes	2	-	-
			D.Das	Computer Operator	No		-	-
			Dr. S.N Ghan	MOIC	No		-	-
West Singhbhum	Jinkpani	PHC	Shanti swaroop Sinha	LHV	No		-	-
			Premlata Parti	ANM	No		-	-
West Singhbhum	Khutpani	PHC	Lalsi Pustt	Clerk	No		-	-
			Hemant Kumar	Store keeper	No		-	-
			Dr. Chandwati Boifan	MOIC	No		-	-
West Singhbhum	Kumardungi	PHC	Narayan Biruli	Non-medical Assistant	No	2	-	-
			S.S Malik	Computer Operator	No		-	-
West Singhbhum	Manjgaun	PHC	Gangaram Manghi	Dresser	No		-	-
			Durga Charan Dukari	Grade IV	No		-	-
			Dr. Ajit Kumar	MO	No		-	-
West Singhbhum	Manoharpur	PHC	Avinashik Huzur	LHV	Yes	3	Chaibasa-Nandpur	-
			Parabhat Kumar Sahu	MFW	No		-	-
West Singhbhum	Sadar-Chaibasa	PHC	Dr. Meena Kumari Arun	Medical Officer	Yes		-	-
			Dr. V.K. Pandit	Medical Officer	No		-	-
			Dr. Meena Kalundia	Medical Officer	No		-	-
West Singhbhum	Sonua	PHC	Dr. Sanjay kumar	MOIC	No		-	-
West Singhbhum	Tonto	PHC	Balaram Sen	BHW	Yes	3	-	-
			Dr. Rajbind Kumar Lolati Khalkho	MOIC	No		-	-

APPENDIX A: REQUIREMENT OF COLD CHAIN EQUIPMENT FOR ALL THE STORE FACILITIES OF STATE

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Bokaro	Bokaro	DS	1775961	888	400	284
Bokaro	Bermo	PHC	212090	93	93	34
Bokaro	Bokaro	PHC	197329	87	87	32
Bokaro	Chandankyari	PHC	193160	85	85	31
Bokaro	Chas	PHC	697690	307	307	112
Bokaro	Gumia	PHC	201989	89	89	32
Bokaro	Jiridih	PHC	68553	30	30	11
Bokaro	Kasmar	PHC	197329	87	87	32
Bokaro	Nawadhi	PHC	129827	57	57	21
Bokaro	Peterwar	PHC	113608	50	50	18
Bokaro Total			3787536	1773	1285	606
Chatra	Chatra	DS	790680	395	178	127
Chatra	Chatra	PHC	131780	58	58	21
Chatra	Hunterganj	PHC	131780	58	58	21
Chatra	Itkhori	PHC	131780	58	58	21
Chatra	Pratappur	PHC	131780	58	58	21
Chatra	Simaria	PHC	131780	58	58	21
Chatra	Tandwa	PHC	131780	58	58	21
Chatra Total			1581360	743	526	253
Deoghar	Deoghar	DS	933113	467	210	149
Deoghar	Jasidih	PHC	133302	59	59	21
Deoghar	Karon	PHC	133302	59	59	21
Deoghar	Madhupur RH	PHC	133302	59	59	21
Deoghar	Mohanpur	PHC	133302	59	59	21

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Deoghar	Palajori	PHC	133302	59	59	21
Deoghar	Sarat	PHC	133302	59	59	21
Deoghar	Sarwan	PHC	133302	59	59	21
Deoghar Total			1866226	877	621	299
Dhanbad	Dhanbad	DS	2394434	1197	539	383
Dhanbad	Bagmara	PHC	302598	133	133	48
Dhanbad	Baliapur	PHC	84802	37	37	14
Dhanbad	Govindpur	PHC	157881	69	69	25
Dhanbad	Johrapokhar	PHC	344624	152	152	55
Dhanbad	Nirsa	PHC	331133	146	146	53
Dhanbad	Sadar PHC	PHC	432839	190	190	69
Dhanbad	Topchanchi	PHC	111024	49	49	18
Dhanbad	Tundi	PHC	102834	45	45	16
Dhanbad Total			4262169	2019	1361	682
Dumka	Dumka DS	DS	950853	475	214	152
Dumka	Gopi Kandar	PHC	31744	14	14	5
Dumka	Jama	PHC	104245	46	46	17
Dumka	Jarmundi	PHC	117204	52	52	19
Dumka	Kathikund	PHC	52801	23	23	8
Dumka	Masalia	PHC	95121	42	42	15
Dumka	Ramgarh	PHC	113705	50	50	18
Dumka	Raneswar	PHC	79797	35	35	13
Dumka	Sadar PHC	PHC	108825	48	48	17
Dumka	Saraya	PHC	101862	45	45	16
Dumka	Shikaripada	PHC	95536	42	42	15
Dumka Total			1851693	872	610	296

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
East Singhbhum	Jamshedpur DHQ	DS	1982988	991	446	317
East Singhbhum	Baharagharah	PHC	149530	66	66	24
East Singhbhum	Chakulia	PHC	108806	48	48	17
East Singhbhum	Dalbhumgarh	PHC	72528	32	32	12
East Singhbhum	Dhumria	PHC	53615	24	24	9
East Singhbhum	Ghatsella	PHC	115130	51	51	18
East Singhbhum	Jugsalai	PHC	1076544	474	474	172
East Singhbhum	Musabani	PHC	104299	46	46	17
East Singhbhum	Patomda	PHC	131879	58	58	21
East Singhbhum	Potka	PHC	170657	75	75	27
East Singhbhum Total			3965976	1864	1319	635
Garhwa	Garhwa DS	DS	801350	401	180	128
Garhwa	Bhandaria	PHC	100169	44	44	16
Garhwa	Bhavaanathpur	PHC	100169	44	44	16
Garhwa	Dhurki	PHC	100169	44	44	16
Garhwa	Garhwa Block	PHC	100169	44	44	16
Garhwa	Majhion	PHC	100169	44	44	16
Garhwa	Meral	PHC	100169	44	44	16
Garhwa	Nagaruntari	PHC	100169	44	44	16

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Garhwa	Ranka	PHC	100169	44	44	16
Garhwa Total			1602700	753	533	256
Giridih	Giridih	DS	1901564	951	428	304
Giridih	Bagodar	PHC	236482	104	104	38
Giridih	Bengabad	PHC	118951	52	52	19
Giridih	Birni	PHC	134425	59	59	22
Giridih	Deori	PHC	140436	62	62	22
Giridih	Dumri	PHC	179114	79	79	29
Giridih	Gandey	PHC	136112	60	60	22
Giridih	Jamua	PHC	210107	92	92	34
Giridih	MCH	PHC	149195	66	66	24
Giridih	Pirtand	PHC	87204	38	38	14
Giridih	Raj Dhanwar	PHC	198145	87	87	32
Giridih	Sadar Block	PHC	149195	66	66	24
Giridih	Tisri	PHC	73604	32	32	12
Giridih Total			3714534	1748	1226	594
Godda	Godda	DS	861182	431	194	138
Godda	Boarijore	PHC	123026	54	54	20
Godda	Mahagama	PHC	123026	54	54	20
Godda	Meharma	PHC	123026	54	54	20
Godda	Patthargama	PHC	123026	54	54	20
Godda	Podayahat	PHC	123026	54	54	20
Godda	Sadar Block	PHC	123026	54	54	20
Godda	Sundarpahari	PHC	123026	54	54	20
Godda Total			1722364	810	573	276
Gumla	Gumla	DS	707555	354	159	113
Gumla	Bharno	PHC	50561	22	22	8

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District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Gumla	Bishnupur	PHC	41700	18	18	7
Gumla	Chainpur	PHC	44573	20	20	7
Gumla	Dumri	PHC	60059	26	26	10
Gumla	Ghagra	PHC	75056	33	33	12
Gumla	Kamdara	PHC	59626	26	26	10
Gumla	Palkot	PHC	61388	27	27	10
Gumla	Raidih	PHC	55641	24	24	9
Gumla	Sisai RH	PHC	75738	33	33	12
Gumla	Basia	RH	59626	26	26	10
Gumla Total			1291523	611	416	207
Hazaribagh	Hazaribagh	DS	1836068	918	413	294
Hazaribagh	Churchu	FPC	141236	62	62	23
Hazaribagh	Barakatha	PHC	141236	62	62	23
Hazaribagh	Barhi	PHC	141236	62	62	23
Hazaribagh	Berkagaon	PHC	141236	62	62	23
Hazaribagh	Chaparan	PHC	141236	62	62	23
Hazaribagh	Gola	PHC	141236	62	62	23
Hazaribagh	Ichak	PHC	141236	62	62	23
Hazaribagh	Katkamsari	PHC	141236	62	62	23
Hazaribagh	Keredari	PHC	141236	62	62	23
Hazaribagh	Mandu	PHC	141236	62	62	23
Hazaribagh	Patratu	PHC	141236	62	62	23
Hazaribagh	Ramgarh	PHC	141236	62	62	23
Hazaribagh	Vishnugarh	PHC	141236	62	62	23
Hazaribagh Total			3672136	1726	1221	588
Jamtara	Sadar DS	DS	544856	272	123	87

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Jamtara	Jamtara	PHC	136214	60	60	22
Jamtara	Kundahit	PHC	136214	60	60	22
Jamtara	Nala	PHC	136214	60	60	22
Jamtara	Narayanpur	PHC	136214	60	60	22
Jamtara Total			1089712	512	362	174
Koderma	Koderma	DS	540901	270	122	87
Koderma	Jainagar	PHC	119961	53	53	19
Koderma	Koderma (Jhumntalaya) PHC	PHC	221147	97	97	35
Koderma	Markacho	PHC	102479	45	45	16
Koderma Total			984488	466	317	158
Latehar	Latehar	DS	467071	234	105	75
Latehar	Balumath	PHC	77845	34	34	12
Latehar	Barawadhi	PHC	77845	34	34	12
Latehar	Chandwa	PHC	77845	34	34	12
Latehar	Latehar	PHC	77845	34	34	12
Latehar	Mahuatan	PHC	77845	34	34	12
Latehar	Manika	PHC	77845	34	34	12
Latehar Total			934142	439	311	149
Lohardaga	Lohardaga	DS	288886	144	65	46
Lohardaga	Bandra	PHC	57777	25	25	9
Lohardaga	Kisko	PHC	57777	25	25	9
Lohardaga	Kuru	PHC	57777	25	25	9
Lohardaga	Lohardaga	PHC	57777	25	25	9
Lohardaga	Senha	PHC	57777	25	25	9
Lohardaga Total			577772	272	192	92

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Pakur	Pakur	DS	564253	282	127	90
Pakur	Amrapada	PHC	47291	21	21	8
Pakur	Hiranpur	PHC	56331	25	25	9
Pakur	Littipara	PHC	73762	32	32	12
Pakur	Maheshpur	PHC	140665	62	62	23
Pakur	Pakudia	PHC	79612	35	35	13
Pakur Total			961914	457	302	154
Palamu	Daltanganj	DS	1533173	767	345	245
Palamu	Bishrampur	PHC	133862	59	59	21
Palamu	Block PHC	PHC	92078	41	41	15
Palamu	Chainpur	PHC	177013	78	78	28
Palamu	Chattarpur	PHC	166843	73	73	27
Palamu	Hariharganj	PHC	87499	38	38	14
Palamu	Husainabad	PHC	177013	78	78	28
Palamu	Lisliganj	PHC	79345	35	35	13
Palamu	Manatu	PHC	97622	43	43	16
Palamu	Panki	PHC	123820	54	54	20
Palamu	Patan	PHC	146139	64	64	23
Palamu Total			2814407	1330	909	450
Ranchi	Namkum	CS		12030	5414	0
Ranchi	Ranchi DS	DS	2214088	1107	498	354
Ranchi	Aarki	PHC	61931	27	27	10
Ranchi	Anigara	PHC	88554	39	39	14
Ranchi	Bero	PHC	103733	46	46	17
Ranchi	Bundu	PHC	61917	27	27	10
Ranchi	Burmu	PHC	117760	52	52	19

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Ranchi	Chanco	PHC	63734	28	28	10
Ranchi	Kanke	PHC	738686	325	325	118
Ranchi	Karra	PHC	78792	35	35	13
Ranchi	Khunti	PHC	84033	37	37	13
Ranchi	Khunti	PHC		0	0	0
Ranchi	Lapung	PHC	46615	21	21	7
Ranchi	Mander	PHC	78865	35	35	13
Ranchi	MCH	PHC		0	0	0
Ranchi	Murhu	PHC	62696	28	28	10
Ranchi	Namkum	PHC	91451	40	40	15
Ranchi	Oremanjhi	PHC	62514	28	28	10
Ranchi	Rania	PHC	32105	14	14	5
Ranchi	Ratu	PHC	97179	43	43	16
Ranchi	Silli	PHC	94347	42	42	15
Ranchi	Sonahatu	PHC	83231	37	37	13
Ranchi	Tamar	PHC	99132	44	44	16
Ranchi	Torpa	PHC	66773	29	29	11
Ranchi Total			4428136	14111	6886	709
Sahebganj	Sadar Hospital	DS	736835	368	166	118
Sahebganj	Baharawa	PHC	105262	46	46	17
Sahebganj	Barhait	PHC	105262	46	46	17
Sahebganj	Borio	PHC	105262	46	46	17
Sahebganj	Pathna	PHC	105262	46	46	17
Sahebganj	Rajmahal	PHC	105262	46	46	17
Sahebganj	Sadar PHC	PHC	105262	46	46	17
Sahebganj	Taljhari	PHC	105262	46	46	17

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(Gross Litres)	(Gross Litres)
Sahebganj Total			1473670	693	490	236
Saraikela Kharsawan	Chandel (DS)	DS	707175	354	159	113
Saraikela Kharsawan	Chandel	PHC	115295	51	51	18
Saraikela Kharsawan	Ghamaria	PHC	109877	48	48	18
Saraikela Kharsawan	Ichagarh	PHC	93832	41	41	15
Saraikela Kharsawan	Kuchai	PHC	53801	24	24	9
Saraikela Kharsawan	Nemdeah	PHC	82854	36	36	13
Saraikela Kharsawan	Raj Kharsawan	PHC	69889	31	31	11
Saraikela Kharsawan	Rajnagar	PHC	116817	51	51	19
Saraikela Kharsawan	Saraikela Sub Depot	PHC	60294	27	27	10
Saraikela Kharsawan Total			1409834	663	468	226
Simdega	Simdega	DS	446421	223	100	71
Simdega	Bano	PHC	55803	25	25	9
Simdega	Bolba	PHC	55803	25	25	
Simdega	Jaldega	PHC	55803	25	25	9
Simdega	Kolebera	PHC	55803	25	25	9
Simdega	Kurdeg	PHC	55803	25	25	9
Simdega	Simdega	PHC	55803	25	25	9
Simdega	Simdega PHC	PHC	55803	25	25	9

Cold Chain Assessment in Jharkhand

District	Site	Type	Total Population	Net Requirement based on target population		Transportation
				ILR	DF	Cold Box
				(Gross Litres)	(GrossLitres)	(Gross Litres)
Simdega	Thethaitnagar	PHC	55803	25	25	9
Simdega Total			892842	420	297	134
West Singhbhum	Chaibasa Sadar	DS	1080780	540	243	51
West Singhbhum	Barajamda	PHC	86763	38	38	14
West Singhbhum	Chakradharpur	PHC	113764	50	50	18
West Singhbhum	Goilkara	PHC	66362	29	29	11
West Singhbhum	Jagganathpur	PHC	159656	70	70	26
West Singhbhum	Jinkpani	PHC	72901	32	32	12
West Singhbhum	Khutpani	PHC	57325	25	25	9
West Singhbhum	Kumardungi	PHC	58924	26	26	9
West Singhbhum	Manjgaun	PHC	48931	22	22	8
West Singhbhum	Manoharpur	PHC	89898	40	40	14
West Singhbhum	Sadar-Chaibasa	PHC	72391	32	32	12
West Singhbhum	Sonua	PHC	73280	32	32	12
West Singhbhum	Tonto	PHC	53911	24	24	9
West Singhbhum Total			2034886	960	663	203
Grand Total			46920020	34119	20885	14415

APPENDIX B: ANALYSIS OF COLD CHAIN EQUIPMENT (SHORTAGE): SITE-WISE

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Gross)	Large (204 Ltr Gross)	Small (94 Ltr gross)	Large (204 Ltr Gross)			Small	Large	Small	Large	Small	Large	Small	Large
Bokaro	Bokaro	DS	888	400	1	1	1	1	-590	-102						3		1
Bokaro	Jiridih	PHC	30	30	1		1		64	64								
Bokaro	Kasmar	PHC	87	87	1				7	-87							1	
Bokaro	Nawadhi	PHC	57	57	1		1		37	37								
Bokaro	Peterwar	PHC	50	50	1			1	44	154								
Bokaro	Bermo	PHC	93	93		1			111	-93	1			1			2	
Bokaro	Bokaro	PHC	87	87		1			117	-87							1	
Bokaro	Chandankyari	PHC	85	85	1			1	9	119								
Bokaro	Chas	PHC	307	307	1				-213	-307					3		4	
Bokaro	Gumia	PHC	89	89	1				5	-89							1	
Bokaro Total			1773	1285	8	3	3	3	-409	-391	1			1	3	3	9	1
Chatra	Chatra	DS	395	178		3	1	1	217	120			1					
Chatra	Chatra	PHC	58	58					-58	-58					1		1	
Chatra	Hunterganj	PHC	58	58	1		1		36	36								
Chatra	Itkhor	PHC	58	58	1		1		36	36	1			1				
Chatra	Pratappur	PHC	58	58	1				36	-58			1				1	
Chatra	Simaria	PHC	58	58				1	-58	146					1			
Chatra	Tandwa	PHC	58	58	2				130	-58							1	
Chatra Total			743	526	5	3	3	2	339	164	1		2	1	2		3	
Deoghar	Deoghar	DS	467	210	1	5		1	647	-6				4				4
Deoghar	Jasidih	PHC	59	59	1		1		35	35	1							
Deoghar	Karon	PHC	59	59	1		1		35	35								
Deoghar	Madhupur RH	PHC	59	59	2				129	-59							1	
Deoghar	Mohanpur	PHC	59	59	1		1		35	35								
Deoghar	Palajori	PHC	59	59	1		1		35	35								
Deoghar	Sarat	PHC	59	59	1			1	35	145								
Deoghar	Sarwan	PHC	59	59	1		1		35	35								
Deoghar Total			877	621	9	5	5	2	989	257	1			4			1	4

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Dhanbad	Dhanbad	DS	1197	539		2		3	-789	73				4		4		
Dhanbad	Bagmara	PHC	133	133	2		1		55	-39				1			2	
Dhanbad	Baliapur	PHC	37	37	2			2	151	371								
Dhanbad	Govindpur	PHC	69	69	1			2	25	339								
Dhanbad	Johrapokhar	PHC	152	152	2			3	36	460			1					
Dhanbad	Nirsa	PHC	146	146	1		2	1	-52	246	1				1			
Dhanbad	Sadar PHC	PHC	190	190	1		1		-96	-96				1	2		2	
Dhanbad	Topchanchi	PHC	49	49	1		1		45	45	1			1				
Dhanbad	Tundi	PHC	45	45	1		2		49	143	1			1				
Dhanbad Total			2019	1361	11	2	7	11	-577	1541	3		1	8	3	4	4	
Dumka	Dumka DS	DS	475	214	4	2	1	1	309	84		1		3				
Dumka	Gopi Kandar	PHC	14	14	1				80	-14			1				1	
Dumka	Jama	PHC	46	46					-46	-46	2		1		2		1	
Dumka	Jarmundi	PHC	52	52	1		1		42	42								
Dumka	Kathikund	PHC	23	23	1				71	-23							1	
Dumka	Masalia	PHC	42	42					-42	-42	1				1		1	
Dumka	Ramgarh	PHC	50	50	1		1		44	44								
Dumka	Raneswar	PHC	35	35					-35	-35					1		1	
Dumka	Sadar PHC	PHC	48	48	1				46	-48							1	
Dumka	Saraya	PHC	45	45	1				49	-45				1			2	
Dumka	Shikaripada	PHC	42	42			1		-42	52	1				1			
Dumka Total			872	610	10	2	4	1	476	-30	4	1	2	4	5		8	
East Singhbhum	Jamshedpur DHQ	DS	991	446	7		2	4	-333	558				1		2		
East Singhbhum	Baharagharah	PHC	66	66	1		1		28	28				1				
East Singhbhum	Chakulia	PHC	48	48	1		1		46	46								
East Singhbhum	Dalbhumgarh	PHC	32	32	1		1		62	62								
East Singhbhum	Dhumria	PHC	24	24	1		1		70	70								
East Singhbhum	Ghatsella	PHC	51	51	2			1	137	153	1							
East Singhbhum	Jugsalai	PHC	474	474	1		2		-380	-286					5		4	

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Gross)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large
East Singhbhum	Musabani	PHC	46	46	1			1	48	158				1				
East Singhbhum	Patomda	PHC	58	58	1			1	36	36				1				
East Singhbhum	Potka	PHC	75	75	2			1	113	223								
East Singhbhum Total			1864	1319	18			10	-172	1049	1			4	5	2	4	
Garhwa	Garhwa DS	DS	401	180	2	2		3	195	432								
Garhwa	Bhandaria	PHC	44	44	1				50	-44								1
Garhwa	Bhavaanathpur	PHC	44	44	1				50	-44	1							1
Garhwa	Dhurki	PHC	44	44	1				50	-44								1
Garhwa	Garhwa Block	PHC	44	44					-44	-44					1			1
Garhwa	Majhion	PHC	44	44	1			1	50	50								
Garhwa	Meral	PHC	44	44	1			1	50	50								
Garhwa	Nagaruntari	PHC	44	44	1				50	160								
Garhwa	Ranka	PHC	44	44	2				144	160								
Garhwa Total			753	533	10	2	2	5	595	675	1				1		4	
Giridih	Giridih	DS	951	428		1		4	-747	388						4		
Giridih	Bagodar	PHC	104	104	1			1	-10	194					1			
Giridih	Bengabad	PHC	52	52	1				42	-52								1
Giridih	Birni	PHC	59	59	1				35	-59								1
Giridih	Deori	PHC	62	62	1			2	32	346								
Giridih	Dumri	PHC	79	79	1			2	15	109	1				1			
Giridih	Gandey	PHC	60	60	1				34	144								
Giridih	Jamua	PHC	92	92	2				96	112								
Giridih	MCH	PHC	66	66	1			1	28	28								
Giridih	Pirtand	PHC	38	38	1			1	56	260								
Giridih	Raj Dhanwar	PHC	87	87	1				7	7								
Giridih	Tisri	PHC	32	32	1				62	62	1							
Giridih	Sadar Block	PHC	66	66	1			1	28	28				1				
Giridih Total			1748	1226	13	1	8	10	-322	1566	2			2	1	4	2	
Godda	Godda	DS	431	194	2	1		1	-39	104						1		
Godda	Boarijore	PHC	54	54	1				40	-54	1							1

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Godda	Mahagama	PHC	54	54	2		1		134	40								
Godda	Meharma	PHC	54	54	1				40	-54							1	
Godda	Patthargama	PHC	54	54	1		1		40	40								
Godda	Podayahat	PHC	54	54	1		1		40	40	2		1	1				
Godda	Sadar Block	PHC	54	54	1				40	-54	1			1			2	
Godda	Sundarpahari	PHC	54	54	1			1	40	150	1							
Godda Total			810	573	10	1	4	2	334	211	5		1	2		1	4	
Gumla	Gumla	DS	354	159		1		2	-150	249		1		3		1		
Gumla	Bharno	PHC	22	22	1		1		72	72								
Gumla	Bishnupur	PHC	18	18	1		1		76	76	1		1					
Gumla	Chainpur	PHC	20	20				1	-20	184	1				1			
Gumla	Dumri	PHC	26	26					-26	-26					1		1	
Gumla	Ghagra	PHC	33	33	1		1	1	61	265								
Gumla	Kamdara	PHC	26	26	1				68	-26							1	
Gumla	Palkot	PHC	27	27	1				67	-27	1						1	
Gumla	Raidih	PHC	24	24	1			1	70	180								
Gumla	Sisai RH	PHC	33	33	1		1	1	61	265			1					
Gumla	Basia	RH	26	26	1				68	-26				1			2	
Gumla Total			611	416	8	1	4	6	345	1184	3	1	2	4	2	1	5	
Hazaribagh	Hazaribagh	DS	918	413		4		2	-102	-5				2		1		2
Hazaribagh	Churchu	FPC	62	62	1		1		32	32	1							
Hazaribagh	Barakatha	PHC	62	62	1		1		32	32								
Hazaribagh	Barhi	PHC	62	62	1		1		32	32				1				
Hazaribagh	Berkagaon	PHC	62	62					-62	-62					1		1	
Hazaribagh	Chaparan	PHC	62	62	1		1		32	32				1				
Hazaribagh	Gola	PHC	62	62	1		2		32	126								
Hazaribagh	Ichak	PHC	62	62					-62	-62			1		1		1	
Hazaribagh	Katkamsari	PHC	62	62	1		1		32	32								
Hazaribagh	Keredari	PHC	62	62	2		1		126	32								
Hazaribagh	Mandu	PHC	62	62	1		1		32	32	1							

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District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large
Hazaribagh	Patratu	PHC	62	62	1		1		32	32								
Hazaribagh	Ramgarh	PHC	62	62	1			1	32	142	1		1					
Hazaribagh	Vishnugarh	PHC	62	62	2		1		126	32								
Hazaribagh Total			1726	1221	13	4	11	3	312	425	3		2	4	2	1	2	2
Jamtara	Sadar DS	DS	272	123	3			2	10	285	1							
Jamtara	Jamtara	PHC	60	60	1				34	-60							1	
Jamtara	Kundahit	PHC	60	60	1				34	-60							1	
Jamtara	Nala	PHC	60	60	1			1	34	144								
Jamtara	Narayanpur	PHC	60	60					-60	-60	1		1		1		1	
Jamtara Total			512	362	6			3	52	250	2		1		1		3	
Koderma	Koderma	DS	270	122	3	4	1	2	828	380								
Koderma	Jainagar	PHC	53	53	1				41	-53				1			2	
Koderma	Koderma (Jhum-ri Talaya) PHC	PHC	97	97	1			1	-3	107				1	1			
Koderma	Markacho	PHC	45	45	1		1		49	49								
Koderma Total			466	317	6	4	2	3	914	483				2	1		2	
Latehar	Latehar	DS	234	105	1		2		-140	83	1					1		
Latehar	Balumath	PHC	34	34	1		1		60	60								
Latehar	Barawadhi	PHC	34	34	1		1		60	60								
Latehar	Chandwa	PHC	34	34	1				60	-34			1	1			3	
Latehar	Latehar	PHC	34	34	1				60	-34							1	
Latehar	Mahuatan	PHC	34	34					-34	-34					1		1	
Latehar	Manika	PHC	34	34	2				154	-34							1	
Latehar Total			439	311	7		4		219	65	1		1	1	1	1	6	
Lohardaga	Lohardaga	DS	144	65	1			2	-50	343						1		
Lohardaga	Bandra	PHC	25	25	1		1	1	69	273	1							
Lohardaga	Kisko	PHC	25	25	3		3		257	257	1							
Lohardaga	Kuru	PHC	25	25	1		1	2	69	477	1							
Lohardaga	Lohardaga	PHC	25	25	2		2	1	163	367								
Lohardaga	Senha	PHC	25	25	1		2	1	69	367	2							

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Lohardaga Total			272	192	9		9	7	574	2082	5					1		
Pakur	Pakur	DS	282	127	4	3		3	706	485			1					
Pakur	Amrapada	PHC	21	21	1			1	73	73								
Pakur	Hiranpur	PHC	25	25	1			1	69	69								
Pakur	Littipara	PHC	32	32	1			1	62	62								
Pakur	Maheshpur	PHC	62	62	1				32	-62							1	
Pakur	Pakudia	PHC	35	35	1			1	59	59								
Pakur Total			457	302	9	3	4	3	1001	686			1				1	
Palamu	Daltanganj	DS	767	345	2	2		2	-171	63						1		
Palamu	Bishrampur	PHC	59	59	1				35	-59							1	
Palamu	Block PHC	PHC	41	41	1				53	-41							1	
Palamu	Chainpur	PHC	78	78					-78	-78					1		1	
Palamu	Chattarpur	PHC	73	73	1			1	21	21	1							
Palamu	Hariharganj	PHC	38	38	1			1	56	56								
Palamu	Husainabad	PHC	78	78	1			2	16	110								
Palamu	Lisliganj	PHC	35	35	1			1	59	59								
Palamu	Manatu	PHC	43	43					-43	-43					1		1	
Palamu	Panki	PHC	54	54	1				40	-54	1						1	
Palamu	Patan	PHC	64	64	1			1	30	234								
Palamu Total			1330	909	10	2	6	3	18	267	2				2	1	5	
Ranchi	Namkum	CS																
Ranchi	Ranchi DS	DS	1107	498	2	1	1	3	-715	208						4		
Ranchi	Anigara	PHC	39	39	1			1	55	55								
Ranchi	Bero	PHC	46	46	2				142	158								
Ranchi	Bundu	PHC	27	27	1				67	177	1							
Ranchi	Chancho	PHC	28	28	1				66	176								
Ranchi	Karra	PHC	35	35	1				59	-35							1	
Ranchi	Khunti	PHC	37	37	1			1	57	57								
Ranchi	Khunti	PHC						1		298								
Ranchi	Lapung	PHC	21	21					-21	-21	1			1	1		2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large		
Ranchi	MCH	PHC			1				94									
Ranchi	Murhu	PHC	28	28	1		1		66	66								
Ranchi	Namkum	PHC	40	40	2		1		148	54								
Ranchi	Oremanjhi	PHC	28	28	1			1	66	176								
Ranchi	Rania	PHC	14	14	1				80	-14			1				1	
Ranchi	Silli	PHC	42	42	1		1	1	52	256								
Ranchi	Sonahatu	PHC	37	37	1			1	57	167								
Ranchi	Tamar	PHC	44	44	1				50	-44				1			2	
Ranchi	Aarki	PHC	27	27					-27	-27					1		1	
Ranchi	Burmu	PHC	52	52	1			1	42	152								
Ranchi	Kanke	PHC	325	325	1		1		-231	-231					3		3	
Ranchi	Mander	PHC	35	35	1			1	59	169								
Ranchi	Ratu	PHC	43	43	1				51	-43							1	
Ranchi	Torpa	PHC	29	29	1		1		65	65								
Ranchi Total			2081	1472	23	1	9	12	285	1822	2		1	2	5	4	11	
Sahebganj	Sadar Hospital	DS	368	166	7	1	1	2	494	336		1	1	1				
Sahebganj	Baharawa	PHC	46	46	1		1	1	48	252								
Sahebganj	Barhait	PHC	46	46	2		1	1	142	252								
Sahebganj	Borio	PHC	46	46			1		-46	48					1			
Sahebganj	Pathna	PHC	46	46	2		2		142	142								
Sahebganj	Rajmahal	PHC	46	46	1			1	48	158	1		1					
Sahebganj	Sadar PHC	PHC	46	46			1		-46	48					1			
Sahebganj	Taljhari	PHC	46	46			1		-46	48					1			
Sahebganj Total			693	490	13	1	8	5	733	1282	1	1	2	1	3			
Saraikela sawan	Khar- Chandel (DS)	DS	354	159	5		2	2	116	437								
Saraikela sawan	Khar- Chandel	PHC	51	51	1			1	43	153								
Saraikela sawan	Khar- Ghamaria	PHC	48	48	1				46	-48							1	

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units				
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF		
					Small (94 Ltr Gross)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large	
Saraikela	Khar-sawan	Ichagarh	PHC	41	41					-41	-41					1		1	
Saraikela	Khar-sawan	Kuchai	PHC	24	24					-24	-24					1		1	
Saraikela	Khar-sawan	Nemdeah	PHC	36	36			1		-36	58	1				1			
Saraikela	Khar-sawan	Raj Kharsawan	PHC	31	31			1		-31	63					1			
Saraikela	Khar-sawan	Rajnagar	PHC	51	51	1		1		43	43								
Saraikela	Khar-sawan	Saraikela Sub Depot	PHC	27	27	2	1	1		365	67				1				
Saraikela Kharsawan Total				663	468	10	1	6	3	481	708	1			1	4		3	
Simdega	Simdega	DS		223	100	3	3		3	671	512								
Simdega	Bano	PHC		25	25	2		1	1	163	273								
Simdega	Bolba	PHC		25	25					-25	-25					1		1	
Simdega	Jaldega	PHC		25	25	1			2	69	383								
Simdega	Kolebera	PHC		25	25	2		1	2	163	477								
Simdega	Kurdeg	PHC		25	25					-25	-25					1		1	
Simdega	Simdega	PHC		25	25	1				69	-25							1	
Simdega	Simdega	PHC		25	25	1				69	-25							1	
Simdega	Thethaitnagar	PHC		25	25	2		1	1	163	273				1				
Simdega Total				420	297	12	3	3	9	1320	1821				1	2		4	
West Singhbhum	Chaibasa Sadar	DS		540	243	6	1	3	4	228	855	1	1						
West Singhbhum	Barajamda	PHC		38	38	1				56	-38			1				1	
West Singhbhum	Chakradharpur	PHC		50	50	2		1		138	44								
West Singhbhum	Goilkara	PHC		29	29			1		-29	65	1				1			
West Singhbhum	Jagganathpur	PHC		70	70	1				24	-70				1			2	
West Singhbhum	Jinkpani	PHC		32	32					-32	-32	1		1		1		1	
West Singhbhum	Khutpani	PHC		25	25					-25	-25					1		1	
West Singhbhum	Kumardungi	PHC		26	26	1				68	-26							1	

Cold Chain Assessment in Jharkhand

District	Site	Type	Net requirement (in gross ltr)		Operational units				Net shortage (in gross ltr)		Reparable units				Net requirement of new units			
			ILR	DF	ILR		DF		ILR	DF	ILR		DF		ILR		DF	
					Small (94 Ltr Goss)	Large (204 Ltr Goss)	Small (94 Ltr gross)	Large (204 Ltr Goss)			Small	Large	Small	Large	Small	Large	Small	Large
West singhbhum	Manjgaun	PHC	22	22	1				72	-22							1	
West Singhbhum	Manoharpur	PHC	40	40			1		-40	54	1				1			
West Singhbhum	Sadar-Chaibasa	PHC	32	32			1		-32	62					1			
West Singhbhum	Sonua	PHC	32	32	1		1		62	62								
West Singhbhum	Tonto	PHC	24	24			1		-24	70	1	1	2	1	1		7	
West Singhbhum Total			960	663	13	1	9	4	466	999	5	1	2	1	6		7	
Grand Total			22088	15472	233	40	121	104	7974	17118	44	4	18	43	49	23	88	7

APPENDIX C: DETAILED INVENTORY OF CFC ILRs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Bokaro	Bokaro	DS	1		2	3	1			1
Bokaro	Jiridih	PHC	1			1				
Bokaro	Kasmar	PHC	1			1				
Bokaro	Nawadhi	PHC	1		1	2				
Bokaro	Peterwar	PHC	1		2	3				
Bokaro	Bermo	PHC			1	1				
Bokaro	Chandankyari	PHC			1	1				
Bokaro	Chas	PHC	1			1				
Bokaro	Gumia	PHC			2	2				
Bokaro Total			6		9	15	1			1
Chatra	Chatra	DS			1	1	1			1
Chatra	Pratappur	PHC	1			1				
Chatra	Simaria	PHC			2	2				
Chatra Total			1		3	4	1			1
Deoghar	Deoghar	DS	1		7	8	3		1	4
Deoghar	Jasidih	PHC	1			1				
Deoghar	Karon	PHC	1			1				
Deoghar	Madhupur RH	PHC	1			1				
Deoghar	Mohanpur	PHC	1			1				
Deoghar	Sarat	PHC	1			1				
Deoghar Total			6		7	13	3		1	4
Dhanbad	Dhanbad	DS			8	8	1		1	2
Dhanbad	Bagmara	PHC	1			1				
Dhanbad	Johrapokhar	PHC	1			1				
Dhanbad	Nirsa	PHC		1	1	2				
Dhanbad	Sadar PHC	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Dhanbad	Topchanchi	PHC		1		1				
Dhanbad	Tundi	PHC	1	1		2				
Dhanbad Total			4	3	9	16	1		1	2
Dumka	Dumka DS	DS	2			2				
Dumka	Jama	PHC		2	1	3				
Dumka	Jarmundi	PHC	1		1	2				
Dumka	Kathikund	PHC	1			1				
Dumka	Masalia	PHC		1		1				
Dumka	Raneswar	PHC			1	1				
Dumka	Sadar PHC	PHC	1			1				
Dumka	Saraya	PHC	1			1				
Dumka	Shikaripada	PHC		1		1				
Dumka Total			6	4	3	13				
East Singhbhum	Jamshedpur DHQ	DS	5			5				
East Singhbhum	Baharagharah	PHC	1			1				
East Singhbhum	Chakulia	PHC	1			1				
East Singhbhum	Dalbhumergarh	PHC	1			1				
East Singhbhum	Dhumria	PHC	1			1				
East Singhbhum	Ghatsella	PHC	2	1		3				
East Singhbhum	Jugsalai	PHC	1			1				
East Singhbhum	Musabani	PHC	1			1				
East Singhbhum	Patomda	PHC	1			1				
East Singhbhum	Potka	PHC	2		1	3				
East Singhbhum Total			16	1	1	18				
Garhwa	Garhwa DS	DS					1			1
Garhwa	Bhandaria	PHC	1			1				
Garhwa	Bhavaanathpur	PHC		1		1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Garhwa	Dhurki	PHC	1			1				
Garhwa	Garhwa Block	PHC			2	2				
Garhwa	Meral	PHC			2	2				
Garhwa	Nagaruntari	PHC	1		1	2				
Garhwa	Ranka	PHC	2			2				
Garhwa Total			5	1	5	11	1			1
Giridih	Giridih	DS							1	1
Giridih	Bagodar	PHC	1		2	3				
Giridih	Bengabad	PHC	1			1				
Giridih	Birni	PHC	1		1	2				
Giridih	Deori	PHC	1		1	2				
Giridih	Dumri	PHC		1		1				
Giridih	Gandey	PHC	1		1	2				
Giridih	Jamua	PHC	1		1	2				
Giridih	MCH	PHC	1			1				
Giridih	Pirtand	PHC	1		1	2				
Giridih	Raj Dhanwar	PHC	1		1	2				
Giridih	Tisri	PHC	1	1	1	3				
Giridih	Sadar Block	PHC	1		1	2				
Giridih Total			11	2	10	23			1	1
Godda	Godda	DS	2		2	4				
Godda	Boarijore	PHC	1	1		2				
Godda	Mahagama	PHC	1			1				
Godda	Meharma	PHC	1			1				
Godda	Patthargama	PHC	1			1				
Godda	Podayahat	PHC		1		1				
Godda	Sadar Block	PHC		1		1				
Godda Total			6	3	2	11				
Gumla	Gumla	DS			3	3			1	1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Gumla	Bharno	PHC	1			1				
Gumla	Bishnupur	PHC	1	1		2				
Gumla	Chainpur	PHC		1		1				
Gumla	Ghagra	PHC			1	1				
Gumla	Kamdara	PHC	1			1				
Gumla	Palkot	PHC	1	1		2				
Gumla	Raidih	PHC	1			1				
Gumla	Sisai RH	PHC							1	1
Gumla	Basia	RH	1			1				
Gumla Total			6	3	4	13			2	2
Hazaribagh	Hazaribagh	DS			1	1	3			3
Hazaribagh	Churchu	FPC		1		1				
Hazaribagh	Barakatha	PHC			2	2				
Hazaribagh	Barhi	PHC	1			1				
Hazaribagh	Berkagaon	PHC			2	2				
Hazaribagh	Chaparan	PHC			1	1				
Hazaribagh	Gola	PHC	1		1	2				
Hazaribagh	Ichak	PHC			1	1				
Hazaribagh	Katkamsari	PHC	1			1				
Hazaribagh	Keredari	PHC	1			1				
Hazaribagh	Mandu	PHC			1	1				
Hazaribagh	Patratu	PHC			1	1				
Hazaribagh	Ramgarh	PHC	1	1		2				
Hazaribagh	Vishnugarh	PHC	1		1	2				
Hazaribagh Total			6	2	11	19	3			3
Jamtara	Sadar DS	DS	1	1		2				
Jamtara	Jamtara	PHC	1			1				
Jamtara	Kundahit	PHC	1			1				
Jamtara	Narayanpur	PHC		1	1	2				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Jamtara Total			3	2	1	6				
Koderma	Koderma	DS	2			2	4			4
Koderma	Jainagar	PHC	1		1	2				
Koderma	Koderma (Jhumri Talaya) PHC	PHC	1			1				
Koderma	Markacho	PHC	1		1	2				
Koderma Total			5		2	7	4			4
Latehar	Latehar	DS			2	2				
Latehar	Barawadhi	PHC	1			1				
Latehar	Chandwa	PHC	1		1	2				
Latehar	Latehar	PHC			1	1				
Latehar	Mahuatan	PHC			1	1				
Latehar	Manika	PHC	1		1	2				
Latehar Total			3		6	9				
Lohardaga	Lohardaga	DS	1		1	2				
Lohardaga	Bandra	PHC	1		1	2				
Lohardaga	Kisko	PHC	1	1		2				
Lohardaga	Kuru	PHC	1			1				
Lohardaga	Lohardaga	PHC	1			1				
Lohardaga	Senha	PHC		1	1	2				
Lohardaga Total			5	2	3	10				
Pakur	Pakur	DS	2		5	7	1			1
Pakur	Amrapada	PHC	1			1				
Pakur	Littipara	PHC	1			1				
Pakur	Pakudia	PHC	1			1				
Pakur Total			5		5	10	1			1
Palamu	Daltanganj	DS					1			1
Palamu	Bishrampur	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Palamu	Block PHC	PHC	1			1				
Palamu	Chattarpur	PHC	1			1				
Palamu	Hariharganj	PHC	1			1				
Palamu	Husainabad	PHC	1			1				
Palamu	Lisliganj	PHC	1		1	2				
Palamu	Panki	PHC		1		1				
Palamu Total			6	1	1	8	1			1
Ranchi	Ranchi DS	DS	1		10	11			1	1
Ranchi	Anigara	PHC	1			1				
Ranchi	Bero	PHC	2			2				
Ranchi	Bundu	PHC	1	1		2				
Ranchi	Chanco	PHC	1			1				
Ranchi	Karra	PHC	1			1				
Ranchi	Khunti	PHC	1		1	2				
Ranchi	MCH	PHC	1			1				
Ranchi	Namkum	PHC	1			1				
Ranchi	Oremanjhi	PHC	1			1				
Ranchi	Rania	PHC	1			1				
Ranchi	Sonahatu	PHC	1			1				
Ranchi	Aarki	PHC			1	1				
Ranchi	Mander	PHC	1			1				
Ranchi	Ratu	PHC	1		1	2				
Ranchi Total			15	1	13	29			1	1
Sahebganj	Sadar Hospital	DS	5			5				
Sahebganj	Baharawa	PHC	1			1				
Sahebganj	Barhait	PHC	1			1				
Sahebganj	Borio	PHC			1	1				
Sahebganj	Pathna	PHC	2			2				
Sahebganj	Rajmahal	PHC	1	1		2				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Sahebganj Total			10	1	1	12				
Saraikela Kharsawan	Ghamaria	PHC	1			1				
Saraikela Kharsawan	Nemdeah	PHC		1		1				
Saraikela Kharsawan	Raj Kharsawan	PHC			1	1				
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1		1	2				
Saraikela Kharsawan Total			2	1	2	5				
Simdega	Simdega	DS	1			1				
Simdega	Bano	PHC	2		1	3				
Simdega	Jaldega	PHC	1		1	2				
Simdega	Kolebera	PHC	1			1				
Simdega	Simdega	PHC			1	1				
Simdega	Simdega PHC	PHC			1	1				
Simdega	Thethaitnagar	PHC	1			1				
Simdega Total			6		4	10				
West Singhbhum	Chaibasa Sadar	DS	4	1		5		1		1
West Singhbhum	Barajamda	PHC	1			1				
West Singhbhum	Chakradharpur	PHC	2			2				
West Singhbhum	Goilkara	PHC		1	1	2				
West Singhbhum	Jagganathpur	PHC			1	1				
West Singhbhum	Jinkpani	PHC		1		1				
West Singhbhum	Kumardungi	PHC	1			1				
West Singhbhum	Manjgaun	PHC			1	1				
West Singhbhum	Manoharpur	PHC		1	1	2				
West Singhbhum	Tonto	PHC		1		1				
West Singhbhum Total			8	5	4	17		1		1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Grand Total			141	32	106	279	16	1	6	23

APPENDIX: D DETAILED INVENTORY OF CFC-FREE ILRs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Bokaro	Bermo	PHC		1		1	1			1
Bokaro	Bokaro	PHC					1			1
Bokaro	Chandankyari	PHC	1			1				
Bokaro	Gumia	PHC	1			1				
Bokaro Total			2	1		3	2			2
Chatra	Chatra	DS					2			2
Chatra	Hunterganj	PHC	1			1				
Chatra	Itkhori	PHC	1	1		2				
Chatra	Tandwa	PHC	2			2				
Chatra Total			4	1		5	2			2
Deoghar	Deoghar	DS					2			2
Deoghar	Jasidih	PHC		1		1				
Deoghar	Madhupur RH	PHC	1			1				
Deoghar	Palajori	PHC	1			1				
Deoghar	Sarwan	PHC	1			1				
Deoghar Total			3	1		4	2			2
Dhanbad	Dhanbad	DS					1			1
Dhanbad	Bagmara	PHC	1			1				
Dhanbad	Baliapur	PHC	2			2				
Dhanbad	Govindpur	PHC	1			1				
Dhanbad	Johrapokhar	PHC	1			1				
Dhanbad	Nirsa	PHC	1			1				
Dhanbad	Topchanchi	PHC	1			1				
Dhanbad Total			7			7	1			1
Dumka	Dumka DS	DS	2			2	2	1		3
Dumka	Gopi Kandar	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Dumka	Ramgarh	PHC	1			1				
Dumka	Raneswar	PHC			1	1				
Dumka Total			4		1	5	2	1		3
East Singhbhum	Jamshedpur DHQ	DS	2			2				
East Singhbhum Total			2			2				
Garhwa	Garhwa DS	DS	2			2	1			1
Garhwa	Bhavaanathpur	PHC	1			1				
Garhwa	Majhion	PHC	1			1				
Garhwa	Meral	PHC	1			1				
Garhwa Total			5			5	1			1
Giridih	Giridih	DS					1			1
Giridih	Dumri	PHC	1			1				
Giridih	Jamua	PHC	1			1				
Giridih	Tisri	PHC			1	1				
Giridih	Sadar Block	PHC							1	1
Giridih Total			2		1	3	1		1	2
Godda	Godda	DS					1			1
Godda	Mahagama	PHC	1			1				
Godda	Podayahat	PHC	1	1		2				
Godda	Sadar Block	PHC	1			1				
Godda	Sundarpahari	PHC	1	1		2				
Godda Total			4	2		6	1			1
Gumla	Gumla	DS					1	1		2
Gumla	Ghagra	PHC	1			1				
Gumla	Sisai RH	PHC	1			1				
Gumla Total			2			2	1	1		2
Hazaribagh	Hazaribagh	DS					1			1
Hazaribagh	Churchu	FPC	1			1				
Hazaribagh	Barakatha	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Hazaribagh	Chaparan	PHC	1			1				
Hazaribagh	Keredari	PHC	1			1				
Hazaribagh	Mandu	PHC	1	1		2				
Hazaribagh	Patratu	PHC	1			1				
Hazaribagh	Vishnugarh	PHC	1			1				
Hazaribagh Total			7	1		8	1			1
Jamtara	Sadar DS	DS	2			2			1	1
Jamtara	Nala	PHC	1			1				
Jamtara Total			3			3			1	1
Koderma	Koderma	DS	1			1				
Koderma Total			1			1				
Latehar	Latehar	DS	1	1		2				
Latehar	Balumath	PHC	1			1				
Latehar	Latehar	PHC	1			1				
Latehar	Manika	PHC	1			1				
Latehar Total			4	1		5				
Lohardaga	Bandra	PHC		1		1				
Lohardaga	Kisko	PHC	2		1	3				
Lohardaga	Kuru	PHC		1		1				
Lohardaga	Lohardaga	PHC	1			1				
Lohardaga	Senha	PHC	1	1		2				
Lohardaga Total			4	3	1	8				
Pakur	Pakur	DS	2			2	2			2
Pakur	Hiranpur	PHC	1			1				
Pakur	Maheshpur	PHC	1			1				
Pakur Total			4			4	2			2
Palamu	Daltanganj	DS	2			2	1			1
Palamu	Chattarpur	PHC		1		1				
Palamu	Panki	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Palamu	Patan	PHC	1			1				
Palamu Total			4	1		5	1			1
Ranchi	Ranchi DS	DS	1			1	1			1
Ranchi	Khunti	PHC						1		1
Ranchi	Lapung	PHC		1		1				
Ranchi	Murhu	PHC	1			1				
Ranchi	Namkum	PHC	1			1				
Ranchi	Silli	PHC	1			1				
Ranchi	Tamar	PHC	1			1				
Ranchi	Burmu	PHC	1			1				
Ranchi	Kanke	PHC	1			1				
Ranchi	Torpa	PHC	1			1				
Ranchi Total			8	1		9	1		1	2
Sahebganj	Sadar Hospital	DS	2			2	1	1		2
Sahebganj	Barhait	PHC	1			1				
Sahebganj Total			3			3	1	1		2
Saraikela Kharsawan	Chandel (DS)	DS	5			5				
Saraikela Kharsawan	Chandel	PHC	1			1				
Saraikela Kharsawan	Kuchai	PHC			1	1				
Saraikela Kharsawan	Rajnagar	PHC	1			1				
Saraikela Kharsawan	Saraikela Sub De-pot	PHC	1			1	1			1
Saraikela Kharsawan Total			8		1	9	1			1
Simdega	Simdega	DS	2			2	3			3
Simdega	Kolebera	PHC	1			1				
Simdega	Simdega	PHC	1			1				
Simdega	Simdega PHC	PHC	1			1				
Simdega	Thethaitnagar	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Repair	Total	Working	NW	Beyond Repair	Total
Simdega Total			6			6	3			3
West Singhbhum	Chaibasa Sadar	DS	2			2	1			1
West Singhbhum	Jagganathpur	PHC	1			1				
West Singhbhum	Manjgaun	PHC	1			1				
West Singhbhum	Sonua	PHC	1			1				
West Singhbhum Total			5			5	1			1
Grand Total			92	12	4	108	24	3	3	30

APPENDIX: E DETAILED INVENTORY OF CFC DFs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Bokaro	Bokaro	DS			3	3	1		3	4
Bokaro	Chandankyari	PHC					1			1
Bokaro	Chas	PHC						1		1
Bokaro	Gumia	PHC			1	1				
Bokaro	Peterwar	PHC			1	1	1			1
Bokaro	Bermo	PHC					1			1
Bokaro Total					5	5	3	1	4	8
Chatra	Hunterganj	PHC						1		1
Chatra	Itkhor	PHC			4	4		1		1
Chatra Total					4	4		1	1	2
Deoghar	Deoghar	DS			7	7	1	4		5
Deoghar	Jasidih	PHC	1			1			1	1
Deoghar	Karon	PHC	1			1				
Deoghar Total			2		7	9	1	4	1	6
Dhanbad	Dhanbad	DS					1	4	3	8
Dhanbad	Bagmara	PHC						1	1	2
Dhanbad	Baliapur	PHC			1	1	1			1
Dhanbad	Govindpur	PHC					1		1	2
Dhanbad	Johrapokhar	PHC		1		1	1			1
Dhanbad	Nirsa	PHC			1	1	1			1
Dhanbad	Sadar PHC	PHC						1		1
Dhanbad	Topchanchi	PHC						1	1	2
Dhanbad	Tundi	PHC						1		1
Dhanbad Total				1	2	3	5	8	6	19
Dumka	Dumka DS	DS							3	3
Dumka	Gopi Kandar	PHC		1		1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Dumka	Jarmundi	PHC			1	1				
Dumka	Sadar PHC	PHC						1	1	
Dumka	Saraya	PHC					1		1	
Dumka Total				1	1	2		1	4	5
East Singhbhum	Jamshedpur DHQ	DS					3	1	2	6
East Singhbhum	Baharagharah	PHC	1			1		1		1
East Singhbhum	Chakulia	PHC	1			1				
East Singhbhum	Dalbhumgarh	PHC	1		1	2				
East Singhbhum	Dhumria	PHC	1			1				
East Singhbhum	Ghatsella	PHC					1			1
East Singhbhum	Jugsalai	PHC	2			2				
East Singhbhum	Musabani	PHC					1	1		2
East Singhbhum	Patomda	PHC	1			1		1		1
East Singhbhum	Potka	PHC			1	1	1			1
East Singhbhum Total			7		2	9	6	4	2	12
Garhwa	Garhwa DS	DS			1	1	1		1	2
Garhwa	Bhandaria	PHC			1	1				
Garhwa	Garhwa Block	PHC			1	1				
Garhwa	Meral	PHC			1	1				
Garhwa	Nagaruntari	PHC			1	1				
Garhwa	Ranka	PHC					1			1
Garhwa Total					5	5	2		1	3
Giridih	Giridih	DS			3	3	2		2	4
Giridih	Bagodar	PHC			1	1	1			1
Giridih	Bengabad	PHC			2	2				
Giridih	Birni	PHC			1	1			1	1
Giridih	Deori	PHC			1	1	1			1
Giridih	Dumri	PHC			2	2		1	1	2

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Giridih	Gandey	PHC			2	2	1			1
Giridih	Jamua	PHC			1	1	1		1	2
Giridih	Pirtand	PHC					1			1
Giridih	Raj Dhanwar	PHC			1	1			2	2
Giridih	Tisri	PHC							1	1
Giridih	Sadar Block	PHC			1	1		1		1
Giridih Total					15	15	7	2	8	17
Godda	Godda	DS							2	2
Godda	Boarjore	PHC							1	1
Godda	Podayahat	PHC		1		1		1		1
Godda	Sadar Block	PHC						1		1
Godda Total				1		1		2	3	5
Gumla	Gumla	DS			4	4	1	3	3	7
Gumla	Bishnupur	PHC		1		1				
Gumla	Chainpur	PHC					1			1
Gumla	Ghagra	PHC			1	1	1			1
Gumla	Raidih	PHC					1			1
Gumla	Sisai RH	PHC					1			1
Gumla	Basia	RH						1		1
Gumla Total				1	5	6	5	4	3	12
Hazaribagh	Hazaribagh	DS			8	8		1	3	4
Hazaribagh	Churchu	FPC			1	1				
Hazaribagh	Barhi	PHC			1	1		1		1
Hazaribagh	Berkagaon	PHC			2	2			1	1
Hazaribagh	Chaparan	PHC						1		1
Hazaribagh	Patratu	PHC			1	1				
Hazaribagh	Ramgarh	PHC		1		1	1			1
Hazaribagh Total				1	13	14	1	3	4	8

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Jamtara	Nala	PHC					1			1
Jamtara	Narayanpur	PHC		1		1				
Jamtara Total				1		1	1			1
Koderma	Jainagar	PHC			1	1		1		1
Koderma	Koderma (Jhumri Talaya) PHC	PHC						1		1
Koderma Total					1	1		2		2
Latehar	Balumath	PHC			1	1				
Latehar	Latehar	PHC			1	1				
Latehar	Mahuatan	PHC			1	1				
Latehar	Manika	PHC			1	1				
Latehar Total					4	4				
Lohardaga	Lohardaga	DS					1		1	2
Lohardaga	Bandra	PHC					1			1
Lohardaga	Kisko	PHC			1	1			1	1
Lohardaga	Kuru	PHC					2			2
Lohardaga Total					1	1	4		2	6
Palamu	Daltanganj	DS							2	2
Palamu	Bishrampur	PHC			1	1				
Palamu	Panki	PHC			1	1				
Palamu	Patan	PHC					1			1
Palamu Total					2	2	1		2	3
Ranchi	Ranchi DS	DS	1		7	8	1		5	6
Ranchi	Bero	PHC					1			1
Ranchi	Bundu	PHC					1			1
Ranchi	Burmu	PHC					1			1
Ranchi	Chancho	PHC			1	1	1			1
Ranchi	Khunti	PHC			1	1	1			1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Ranchi	Lapung	PHC						1		1
Ranchi	Mander	PHC					1			1
Ranchi	Oremanjhi	PHC					1			1
Ranchi	Rania	PHC		1		1				
Ranchi	Ratu	PHC			1	1				
Ranchi	Silli	PHC					1			1
Ranchi	Sonahatu	PHC					1			1
Ranchi	Tamar	PHC						1		1
Ranchi	Aarki	PHC			1	1				
Ranchi Total			1	1	11	13	10	2	5	17
Sahebganj	Sadar Hospital	DS					1	1		2
Sahebganj	Baharawa	PHC					1			1
Sahebganj	Barhait	PHC					1			1
Sahebganj	Borio	PHC							1	1
Sahebganj	Pathna	PHC	2			2				
Sahebganj	Rajmahal	PHC					1			1
Sahebganj Total			2			2	4	1	1	6
Saraikela Kharsawan	Chandel	PHC					1			1
Saraikela Kharsawan	Ghamaria	PHC			1	1			1	1
Saraikela Kharsawan	Ichagarh	PHC			1	1				
Saraikela Kharsawan	Kuchai	PHC			1	1			1	1
Saraikela Kharsawan	Nemdeah	PHC			2	2				
Saraikela Kharsawan	Raj Kharsawan	PHC			1	1				
Saraikela Kharsawan	Rajnagar	PHC	1			1			2	2
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1		1	2		1		1
Saraikela Kharsawan Total			2		7	9	1	1	4	6
Simdega	Jaldega	PHC			1	1	1			1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	NW	Beyond Re-pair	Total	Working	NW	Beyond Re-pair	Total
Simdega	Kurdeg	PHC						1	1	
Simdega	Thethaitnagar	PHC					1		1	
Simdega Total					1	1	1	1	3	
West Singhbhum	Chaibasa Sadar	DS	1			1	1		1	
West Singhbhum	Barajamda	PHC		1		1				
West Singhbhum	Goilkara	PHC			1	1				
West Singhbhum	Jagganathpur	PHC			1	1	1		1	
West Singhbhum	Jinkpani	PHC		1		1				
West Singhbhum	Manjgaun	PHC			2	2				
West Singhbhum	Manoharpur	PHC	1			1				
West Singhbhum	Sadar-Chaibasa	PHC	1			1				
West Singhbhum	Sonua	PHC	1			1				
West Singhbhum Total			4	2	4	10	1	1	2	
Grand Total			18	9	90	117	53	38	143	

APPENDIX F: DETAILED INVENTORY OF CFC-FREE DFs SITE-WISE

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Bokaro	Bokaro	DS	1			1				
Bokaro	Jiridih	PHC	1			1				
Bokaro	Nawadhi	PHC	1			1				
Bokaro Total			3			3				
Chatra	Chatra	DS	1	1		2	1			1
Chatra	Hunterganj	PHC	1			1				
Chatra	Itkhor	PHC	1			1				
Chatra	Pratappur	PHC		1		1				
Chatra	Simaria	PHC					1			1
Chatra Total			3	2		5	2			2
Deoghar	Mohanpur	PHC	1			1				
Deoghar	Palajori	PHC	1			1				
Deoghar	Sarat	PHC					1			1
Deoghar	Sarwan	PHC	1			1				
Deoghar Total			3			3	1			1
Dhanbad	Dhanbad	DS					2			2
Dhanbad	Bagmara	PHC	1			1				
Dhanbad	Baliapur	PHC					1			1
Dhanbad	Govindpur	PHC					1			1
Dhanbad	Johrapokhar	PHC					2			2
Dhanbad	Nirsa	PHC	2			2				
Dhanbad	Sadar PHC	PHC	1			1				
Dhanbad	Topchanchi	PHC	1			1				
Dhanbad	Tundi	PHC	2			2				
Dhanbad Total			7			7	6			6
Dumka	Dumka DS	DS	1		1	2	1	3		4

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Dumka	Jama	PHC		1		1				
Dumka	Jarmundi	PHC	1			1				
Dumka	Ramgarh	PHC	1			1				
Dumka	Shikaripada	PHC	1			1				
Dumka Total			4	1	1	6	1	3		4
East Singhbhum	Jamshedpur DHQ	DS	2			2	1			1
East Singhbhum	Potka	PHC	1			1				
East Singhbhum Total			3			3	1			1
Garhwa	Garhwa DS	DS					2			2
Garhwa	Majhion	PHC	1			1				
Garhwa	Meral	PHC	1			1				
Garhwa	Nagaruntari	PHC					1			1
Garhwa Total			2			2	3			3
Giridih	Giridih	DS					2			2
Giridih	Bagodar	PHC	1			1				
Giridih	Deori	PHC					1			1
Giridih	Dumri	PHC	2			2				
Giridih	MCH	PHC	1			1				
Giridih	Pirtand	PHC	1			1				
Giridih	Raj Dhanwar	PHC	1			1				
Giridih	Tisri	PHC	1			1				
Giridih	Sadar Block	PHC	1			1				
Giridih Total			8			8	3			3
Godda	Godda	DS	1			1	1			1
Godda	Mahagama	PHC	1			1				
Godda	Meharma	PHC			1	1				
Godda	Patthargama	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Godda	Podayahat	PHC	1			1				
Godda	Sundarpahari	PHC					1			1
Godda Total			4		1	5	2			2
Gumla	Gumla	DS					1			1
Gumla	Bharno	PHC	1			1				
Gumla	Bishnupur	PHC	1			1				
Gumla	Ghagra	PHC	1			1				
Gumla	Sisai RH	PHC	1	1		2				
Gumla Total			4	1		5	1			1
Hazaribagh	Hazaribagh	DS					2	1		3
Hazaribagh	Churchu	FPC	1			1				
Hazaribagh	Barakatha	PHC	1			1				
Hazaribagh	Barhi	PHC	1			1				
Hazaribagh	Chaparan	PHC	1			1				
Hazaribagh	Gola	PHC	2			2				
Hazaribagh	Ichak	PHC		1		1				
Hazaribagh	Katkamsari	PHC	1			1				
Hazaribagh	Keredari	PHC	1			1				
Hazaribagh	Mandu	PHC	1			1				
Hazaribagh	Patratu	PHC	1			1				
Hazaribagh	Vishnugarh	PHC	1			1				
Hazaribagh Total			11	1		12	2	1		3
Jamtara	Sadar DS	DS					2			2
Jamtara Total							2			2
Koderma	Koderma	DS	1			1	2			2
Koderma	Koderma (Jhumri Talaya) PHC	PHC					1			1
Koderma	Markacho	PHC	1			1				

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Koderma Total			2			2	3			3
Latehar	Latehar	DS	2			2				
Latehar	Balumath	PHC	1			1				
Latehar	Barawadhi	PHC	1			1				
Latehar	Chandwa	PHC		1		1		1		1
Latehar	Latehar	PHC			1	1				
Latehar Total			4	1	1	6		1		1
Lohardaga	Lohardaga	DS					1			1
Lohardaga	Bandra	PHC	1			1				
Lohardaga	Kisko	PHC	3			3				
Lohardaga	Kuru	PHC	1			1				
Lohardaga	Lohardaga	PHC	2			2	1			1
Lohardaga	Senha	PHC	2			2	1			1
Lohardaga Total			9			9	3			3
Pakur	Pakur	DS		1		1	3			3
Pakur	Amrapada	PHC	1			1				
Pakur	Hiranpur	PHC	1			1				
Pakur	Littipara	PHC	1			1				
Pakur	Pakudia	PHC	1			1				
Pakur Total			4	1		5	3			3
Palamu	Daltanganj	DS					2			2
Palamu	Bishrampur	PHC			1	1				
Palamu	Chattarpur	PHC	1			1				
Palamu	Hariharganj	PHC	1			1				
Palamu	Husainabad	PHC	2			2				
Palamu	Lisliganj	PHC	1			1				
Palamu	Patan	PHC	1			1				
Palamu Total			6		1	7	2			2

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Ranchi	Ranchi DS	DS					2			2
Ranchi	Anigara	PHC	1			1				
Ranchi	Khunti	PHC	2			2				
Ranchi	Murhu	PHC	1			1				
Ranchi	Namkum	PHC	1			1				
Ranchi	Silli	PHC	1			1				
Ranchi	Kanke	PHC	1			1				
Ranchi	Torpa	PHC	1			1				
Ranchi Total			8			8	2			2
Sahebganj	Sadar Hospital	DS	1	1		2	1			1
Sahebganj	Baharawa	PHC	1			1				
Sahebganj	Barhait	PHC	1			1				
Sahebganj	Borio	PHC	1			1				
Sahebganj	Rajmahal	PHC		1		1				
Sahebganj	Sadar PHC	PHC	1			1				
Sahebganj	Taljhari	PHC	1			1				
Sahebganj Total			6	2		8	1			1
Saraike sawan	Khar- sawan	Chandel (DS)	2			2	2			2
Saraike sawan	Khar- sawan	Nemdeah	1			1				
Saraike sawan	Khar- sawan	Raj Kharsawan	1			1				
Saraike sawan	Khar- sawan	Saraike Sub De- pot			1	1				
Saraike Kharsawan Total			4		1	5	2			2
Simdega	Simdega	DS					3			3
Simdega	Bano	PHC	1			1	1			1
Simdega	Jaldega	PHC					1			1

Cold Chain Assessment in Jharkhand

District	Site	Type	SMALL				LARGE			
			Working	Not Working	Beyond Repair	Total	Working	Not Working	Beyond Repair	Total
Simdega	Kolebera	PHC	1			1	2			2
Simdega	Thethaitnagar	PHC	1			1	1			1
Simdega Total			3			3	8			8
West Singhbhum	Chaibasa Sadar	DS	2			2	3			3
West Singhbhum	Chakradharpur	PHC	1			1				
West Singhbhum	Goilkara	PHC	1			1				
West Singhbhum	Tonto	PHC	1			1				
West Singhbhum Total			5			5	3			3
Grand Total			103	9	5	117	51	5		56

APPENDIX G: AGE PROFILE OF REFRIGERATION UNITS SITE-WISE

(A) AGE PROFILE OF ILR(S)

District	Site	Type	CFC				CFC-FREE				
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15	
Bokaro	Bokaro	DS	1	1							
Bokaro	Bermo	PHC					1	1			
Bokaro	Bokaro	PHC					1				
Bokaro	Chandankyari	PHC					1				
Bokaro	Chas	PHC		1							
Bokaro	Gumia	PHC						1			
Bokaro	Jiridih	PHC		1							
Bokaro	Kasmar	PHC			1						
Bokaro	Nawadhi	PHC			1						
Bokaro	Peterwar	PHC			1						
Bokaro Total			1	3	3		3	2			
Chatra	Chatra	DS		1			2				
Chatra	Hunterganj	PHC					1				
Chatra	Itkhor	PHC					2				
Chatra	Pratappur	PHC		1							
Chatra	Simaria	PHC									
Chatra	Tandwa	PHC					1	1			
Chatra Total				2			6	1			
Deoghar	Deoghar	DS			4			2			
Deoghar	Jasidih	PHC	1					1			
Deoghar	Karon	PHC			1						
Deoghar	Madhupur RH	PHC			1			1			
Deoghar	Mohanpur	PHC			1						

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Deoghar	Palajori	PHC					1			
Deoghar	Sarat	PHC		1						
Deoghar	Sarwan	PHC					1			
Deoghar Total			1	1	7		2	4		
Dhanbad	Dhanbad	DS		1				1		
Dhanbad	Bagmara	PHC		1			1			
Dhanbad	Baliapur	PHC					1	1		
Dhanbad	Govindpur	PHC						1		
Dhanbad	Johrapokhar	PHC		1				1		
Dhanbad	Nirsa	PHC			1			1		
Dhanbad	Sadar PHC	PHC			1					
Dhanbad	Topchanchi	PHC				1	1			
Dhanbad	Tundi	PHC	1		1					
Dhanbad Total			1	3	3	1	3	5		
Dumka	Dumka DS	DS		1	1		1	4		
Dumka	Gopi Kandar	PHC						1		
Dumka	Jama	PHC			2					
Dumka	Jarmundi	PHC		1						
Dumka	Kathikund	PHC			1					
Dumka	Masalia	PHC			1					
Dumka	Ramgarh	PHC						1		
Dumka	Sadar PHC	PHC			1					
Dumka	Saraya	PHC			1					
Dumka	Shikaripada	PHC		1						
Dumka Total				3	7		1	6		
East Singhbhum	Jamshedpur DHQ	DS		5			1	1		
East Singhbhum	Baharagharah	PHC	1							
East Singhbhum	Chakulia	PHC	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
East Singhbhum	Dalbhumgarh	PHC			1					
East Singhbhum	Dhumria	PHC			1					
East Singhbhum	Ghatsella	PHC		2	1					
East Singhbhum	Jugsalai	PHC			1					
East Singhbhum	Musabani	PHC			1					
East Singhbhum	Patomda	PHC			1					
East Singhbhum	Potka	PHC	1		1					
East Singhbhum Total			3	7	7		1	1		
Garhwa	Garhwa DS	DS		1				3		
Garhwa	Bhandaria	PHC				1				
Garhwa	Bhavaanathpur	PHC			1		1			
Garhwa	Dhurki	PHC			1					
Garhwa	Majhion	PHC						1		
Garhwa	Meral	PHC						1		
Garhwa	Nagaruntari	PHC			1					
Garhwa	Ranka	PHC				2				
Garhwa Total				1	3	3	1	5		
Giridih	Giridih	DS					1			
Giridih	Bagodar	PHC		1						
Giridih	Bengabad	PHC			1					
Giridih	Birni	PHC		1						
Giridih	Deori	PHC		1						
Giridih	Dumri	PHC			1			1		
Giridih	Gandey	PHC			1					
Giridih	Jamua	PHC			1		1			
Giridih	MCH	PHC		1						
Giridih	Pirtand	PHC			1					
Giridih	Raj Dhanwar	PHC	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Giridih	Sadar Block	PHC		1						
Giridih	Tisri	PHC	1	1						
Giridih Total			2	6	5		2	1		
Godda	Godda	DS			2			1		
Godda	Boarijore	PHC			1	1				
Godda	Mahagama	PHC	1				1			
Godda	Meharma	PHC			1					
Godda	Patthargama	PHC		1						
Godda	Podayahat	PHC			1		1	1		
Godda	Sadar Block	PHC			1		1			
Godda	Sundarpahari	PHC					1	1		
Godda Total			1	1	6	1	4	3		
Gumla	Gumla	DS							2	
Gumla	Bharno	PHC			1					
Gumla	Bishnupur	PHC			2					
Gumla	Chainpur	PHC	1							
Gumla	Ghagra	PHC					1			
Gumla	Kamdara	PHC	1							
Gumla	Palkot	PHC				2				
Gumla	Raidih	PHC	1							
Gumla	Sisai RH	PHC					1			
Gumla	Basia	RH		1						
Gumla Total			3	1	3	2	2		2	
Hazaribagh	Hazaribagh	DS		3				1		
Hazaribagh	Churchu	FPC			1		1			
Hazaribagh	Barakatha	PHC					1			
Hazaribagh	Barhi	PHC			1					
Hazaribagh	Chaparan	PHC					1			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Hazaribagh	Gola	PHC		1						
Hazaribagh	Ichak	PHC								
Hazaribagh	Katkamsari	PHC		1						
Hazaribagh	Keredari	PHC		1				1		
Hazaribagh	Mandu	PHC					2			
Hazaribagh	Patratu	PHC					1			
Hazaribagh	Ramgarh	PHC			1	1				
Hazaribagh	Vishnugarh	PHC		1			1			
Hazaribagh Total				7	3	1	7	2		
Jamtara	Sadar DS	DS			2		2			
Jamtara	Jamtara	PHC			1					
Jamtara	Kundahit	PHC			1					
Jamtara	Nala	PHC					1			
Jamtara	Narayanpur	PHC		1						
Jamtara Total				1	4		3			
Koderma	Koderma	DS		3	3		1			
Koderma	Jainagar	PHC			1					
Koderma	Koderma (Jhumri Talaya) PHC	PHC			1					
Koderma	Markacho	PHC			1					
Koderma Total				3	6		1			
Latehar	Latehar	DS						2		
Latehar	Balumath	PHC						1		
Latehar	Barawadhi	PHC			1					
Latehar	Chandwa	PHC		1						
Latehar	Latehar	PHC					1			
Latehar	Manika	PHC		1				1		
Latehar Total				2	1		1	4		

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Lohardaga	Lohardaga	DS				1				
Lohardaga	Bandra	PHC			1			1		
Lohardaga	Kisko	PHC		2			2			
Lohardaga	Kuru	PHC		1				1		
Lohardaga	Lohardaga	PHC	1					1		
Lohardaga	Senha	PHC				1	1		1	
Lohardaga Total			1	3	1	2	3	3	1	
Pakur	Pakur	DS			3			4		
Pakur	Amrapada	PHC			1					
Pakur	Hiranpur	PHC					1			
Pakur	Littipara	PHC		1						
Pakur	Maheshpur	PHC					1			
Pakur	Pakudia	PHC	1							
Pakur Total			1	1	4		2	4		
Palamu	Daltanganj	DS		1				3		
Palamu	Bishrampur	PHC			1					
Palamu	Block PHC	PHC			1					
Palamu	Chattarpur	PHC		1				1		
Palamu	Hariharganj	PHC		1						
Palamu	Husainabad	PHC		1						
Palamu	Lisliganj	PHC			1					
Palamu	Panki	PHC		1				1		
Palamu	Patan	PHC						1		
Palamu Total				5	3			6		
Ranchi	Ranchi DS	DS				1		2		
Ranchi	Anigara	PHC			1					
Ranchi	Bero	PHC			1	1				
Ranchi	Bundu	PHC			2					

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Ranchi	Burmu	PHC						1		
Ranchi	Chancho	PHC				1				
Ranchi	Kanke	PHC					1			
Ranchi	Karra	PHC	1							
Ranchi	Khunti	PHC			1					
Ranchi	Lapung	PHC					1			
Ranchi	Mander	PHC			1					
Ranchi	MCH	PHC			1					
Ranchi	Murhu	PHC					1			
Ranchi	Namkum	PHC	1					1		
Ranchi	Oremanjhi	PHC			1					
Ranchi	Rania	PHC			1					
Ranchi	Ratu	PHC			1					
Ranchi	Silli	PHC							1	
Ranchi	Sonahatu	PHC		1						
Ranchi	Tamar	PHC					1			
Ranchi	Torpa	PHC						1		
Ranchi Total			2	1	10	3	4	5	1	
Sahebganj	Sadar Hospital	DS			5			4		
Sahebganj	Baharawa	PHC	1							
Sahebganj	Barhait	PHC			1			1		
Sahebganj	Borio	PHC								
Sahebganj	Pathna	PHC			2					
Sahebganj	Rajmahal	PHC			2					
Sahebganj	Sadar PHC	PHC								
Sahebganj	Taljhari	PHC								
Sahebganj Total			1		10			5		
Saraikela Kharsawan	Chandel (DS)	DS					5			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Saraikela Kharsawan	Chandel	PHC					1			
Saraikela Kharsawan	Ghamaria	PHC			1					
Saraikela Kharsawan	Nimdih	PHC			1					
Saraikela Kharsawan	Raj Kharsawan	PHC								
Saraikela Kharsawan	Rajnagar	PHC					1			
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1				2			
Saraikela Kharsawan Total			1		2		7	2		
Simdega	Simdega	DS			1		5			
Simdega	Bano	PHC			2					
Simdega	Jaldega	PHC			1					
Simdega	Kolebera	PHC		1			1			
Simdega	Simdega	PHC					1			
Simdega	Simdega PHC	PHC					1			
Simdega	Thethaitnagar	PHC			1			1		
Simdega Total				1	5		5	3	1	
West Singhbhum	Chaibasa Sadar	DS			6		3			
West Singhbhum	Barajamda	PHC			1					
West Singhbhum	Chakradharpur	PHC			2					
West Singhbhum	Goilkara	PHC			1					
West Singhbhum	Jagganathpur	PHC						1		
West Singhbhum	Jinkpani	PHC	1							
West Singhbhum	Kumardungi	PHC	1							
West Singhbhum	Manjgaun	PHC					1			
West Singhbhum	Manoharpur	PHC			1					
West Singhbhum	Sadar-Chaibasa	PHC								
West Singhbhum	Sonua	PHC					1			
West Singhbhum	Tonto	PHC	1							

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Up to 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
West Singhbhum Total			3		11			5	1	
Grand Total			21	52	104	13	58	67	6	

(B) AGE PROFILE OF DF(S)

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Bokaro	Bokaro	DS		1				1		
Bokaro	Bermo	PHC			1					
Bokaro	Bokaro	PHC								
Bokaro	Chandankyari	PHC		1						
Bokaro	Chas	PHC								
Bokaro	Gumia	PHC								
Bokaro	Jiridih	PHC					1			
Bokaro	Kasmar	PHC								
Bokaro	Nawadhi	PHC						1		
Bokaro	Peterwar	PHC			1					
Bokaro Total				2	2		1	2		
Chatra	Chatra	DS					3			
Chatra	Hunterganj	PHC					1			
Chatra	Itkhor	PHC		1			1			
Chatra	Pratappur	PHC					1			
Chatra	Simaria	PHC						1		
Chatra	Tandwa	PHC								
Chatra Total				1			6	1		
Deochar	Deochar	DS			5					
Deochar	Jasidih	PHC	1							
Deochar	Karon	PHC			1					
Deochar	Madhupur RH	PHC								
Deochar	Mohanpur	PHC						1		
Deochar	Palajori	PHC					1			
Deochar	Sarat	PHC						1		

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Deoghar	Sarwan	PHC					1			
Deoghar Total			1		6		2	2		
Dhanbad	Dhanbad	DS			5			2		
Dhanbad	Bagmara	PHC		1			1			
Dhanbad	Baliapur	PHC			1			1		
Dhanbad	Govindpur	PHC				1		1		
Dhanbad	Johrapokhar	PHC		2				2		
Dhanbad	Nirsa	PHC			1		1	1		
Dhanbad	Sadar PHC	PHC			1			1		
Dhanbad	Topchanchi	PHC		1			1			
Dhanbad	Tundi	PHC			1			2		
Dhanbad Total				4	9	1	3	10		
Dumka	Dumka DS	DS					3	2		
Dumka	Gopi Kandar	PHC			1					
Dumka	Jama	PHC						1		
Dumka	Jarmundi	PHC						1		
Dumka	Kathikund	PHC								
Dumka	Masalia	PHC								
Dumka	Ramgarh	PHC						1		
Dumka	Sadar PHC	PHC								
Dumka	Saraya	PHC			1					
Dumka	Shikaripada	PHC						1		
Dumka Total					2		3	6		
East Singhbhum	Jamshedpur DHQ	DS	2		2		3			
East Singhbhum	Baharagharah	PHC		1	1					
East Singhbhum	Chakulia	PHC			1					
East Singhbhum	Dalbhumgarh	PHC			1					

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
East Singhbhum	Dhumria	PHC			1					
East Singhbhum	Ghatsella	PHC		1						
East Singhbhum	Jugsalai	PHC			2					
East Singhbhum	Musabani	PHC			2					
East Singhbhum	Patomda	PHC			2					
East Singhbhum	Potka	PHC			1		1			
East Singhbhum Total			2	2	13		4			
Garhwa	Garhwa DS	DS			1			2		
Garhwa	Bhandaria	PHC								
Garhwa	Bhavaanathpur	PHC								
Garhwa	Dhurki	PHC								
Garhwa	Majhion	PHC						1		
Garhwa	Meral	PHC						1		
Garhwa	Nagaruntari	PHC						1		
Garhwa	Ranka	PHC				1				
Garhwa Total					1	1		5		
Giridih	Giridih	DS	1		1		2			
Giridih	Bagodar	PHC			1		1			
Giridih	Bengabad	PHC								
Giridih	Birmi	PHC								
Giridih	Deori	PHC		1				1		
Giridih	Dumri	PHC			1		2			
Giridih	Gandey	PHC			1					
Giridih	Jamua	PHC			1					
Giridih	MCH	PHC					1			
Giridih	Pirtand	PHC			1				1	

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Giridih	Raj Dhanwar	PHC					1			
Giridih	Sadar Block	PHC			1			1		
Giridih	Tisri	PHC					1			
Giridih Total			1	1	7		8	2	1	
Godda	Godda	DS						2		
Godda	Boarijore	PHC								
Godda	Mahagama	PHC					1			
Godda	Meharma	PHC								
Godda	Patthargama	PHC						1		
Godda	Podayahat	PHC			2		1			
Godda	Sadar Block	PHC			1					
Godda	Sundarpahari	PHC					1			
Godda Total					3		3	3		
Gumla	Gumla	DS			3	1			1	
Gumla	Bharno	PHC						1		
Gumla	Bishnupur	PHC			1				1	
Gumla	Chainpur	PHC	1							
Gumla	Ghagra	PHC			1		1			
Gumla	Kamdara	PHC								
Gumla	Palkot	PHC								
Gumla	Raidih	PHC	1							
Gumla	Sisai RH	PHC			1			2		
Gumla	Basia	RH	1							
Gumla Total			3		6	1	1	3	2	
Hazaribagh	Hazaribagh	DS			1			3		
Hazaribagh	Churchu	FPC						1		
Hazaribagh	Barakatha	PHC					1			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Hazaribagh	Barhi	PHC			1		1			
Hazaribagh	Chaparan	PHC			1		1			
Hazaribagh	Gola	PHC					2			
Hazaribagh	Ichak	PHC					1			
Hazaribagh	Katkamsari	PHC						1		
Hazaribagh	Keredari	PHC					1			
Hazaribagh	Mandu	PHC					1			
Hazaribagh	Patratu	PHC					1			
Hazaribagh	Ramgarh	PHC			1	1				
Hazaribagh	Vishnugarh	PHC						1		
Hazaribagh Total					4	1	9	6		
Jamtara	Sadar DS	DS					2			
Jamtara	Jamtara	PHC								
Jamtara	Kundahit	PHC								
Jamtara	Nala	PHC				1				
Jamtara	Narayanpur	PHC			1					
Jamtara Total					1	1	2			
Koderma	Koderma	DS					3			
Koderma	Jainagar	PHC			1					
Koderma	Koderma (Jhumri Talaya)	PHC			1			1		
Koderma	Markacho	PHC					1			
Koderma Total					2		4	1		
Latehar	Latehar	DS					1	1		
Latehar	Balumath	PHC						1		
Latehar	Barawadhi	PHC						1		
Latehar	Chandwa	PHC					1		1	

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Latehar	Latehar	PHC								
Latehar	Manika	PHC								
Latehar Total							2	3	1	
Lohardaga	Lohardaga	DS				1	1			
Lohardaga	Bandra	PHC			1			1		
Lohardaga	Kisko	PHC					3			
Lohardaga	Kuru	PHC				2		1		
Lohardaga	Lohardaga	PHC					1	2		
Lohardaga	Senha	PHC					1	2		
Lohardaga Total					1	3	6	6		
Pakur	Pakur	DS						4		
Pakur	Amrapada	PHC						1		
Pakur	Hiranpur	PHC						1		
Pakur	Littipara	PHC						1		
Pakur	Maheshpur	PHC								
Pakur	Pakudia	PHC					1			
Pakur Total							1	7		
Palamu	Daltanganj	DS						2		
Palamu	Bishrampur	PHC								
Palamu	Block PHC	PHC								
Palamu	Chattarpur	PHC						1		
Palamu	Hariharganj	PHC					1			
Palamu	Husainabad	PHC						2		
Palamu	Lisliganj	PHC							1	
Palamu	Panki	PHC								
Palamu	Patan	PHC				1			1	
Palamu Total						1	1	5	2	

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Ranchi	Ranchi DS	DS				2		2		
Ranchi	Anigara	PHC						1		
Ranchi	Bero	PHC		1						
Ranchi	Bundu	PHC		1						
Ranchi	Burmu	PHC			1					
Ranchi	Chancho	PHC			1					
Ranchi	Kanke	PHC					1			
Ranchi	Karra	PHC								
Ranchi	Khunti	PHC	1				1			1
Ranchi	Lapung	PHC			1					
Ranchi	Mander	PHC		1						
Ranchi	MCH	PHC								
Ranchi	Murhu	PHC					1			
Ranchi	Namkum	PHC					1			
Ranchi	Oremanjhi	PHC			1					
Ranchi	Rania	PHC			1					
Ranchi	Ratu	PHC								
Ranchi	Silli	PHC		1					1	
Ranchi	Sonahatu	PHC			1					
Ranchi	Tamar	PHC			1					
Ranchi	Torpa	PHC						1		
Ranchi Total			1	4	7	2	4	4	1	1
Sahebganj	Sadar Hospital	DS			2			3		
Sahebganj	Baharawa	PHC	1				1			
Sahebganj	Barhait	PHC			1			1		
Sahebganj	Borio	PHC							1	
Sahebganj	Pathna	PHC			2					

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
Sahebganj	Rajmahal	PHC			1		1			
Sahebganj	Sadar PHC	PHC					1			
Sahebganj	Taljhari	PHC					1			
Sahebganj Total			1		6		1	7	1	
Saraikela Khar-sawan	Chandel (DS)	DS					4			
Saraikela Khar-sawan	Chandel	PHC		1						
Saraikela Khar-sawan	Ghamaria	PHC								
Saraikela Khar-sawan	Nimdih	PHC					1			
Saraikela Khar-sawan	Raj Kharsawan	PHC					1			
Saraikela Khar-sawan	Rajnagar	PHC		1						
Saraikela Khar-sawan	Saraikela Sub Depot	PHC	1		1					
Saraikela Khar-sawan Total			1	2	1		4	2		
Simdega	Simdega	DS					3			
Simdega	Bano	PHC					1		1	
Simdega	Jaldega	PHC	1				1			
Simdega	Kolebera	PHC					1	2		
Simdega	Simdega	PHC								
Simdega	Simdega PHC	PHC								
Simdega	Thethaitnagar	PHC			1		1	1		
Simdega Total			1		1		7	3	1	
West Singhbhum	Chaibasa Sadar	DS			2		5			

Cold Chain Assessment in Jharkhand

District	Site	Type	CFC				CFC-FREE			
			Up to 5	Upto 10	Up to 15	Above 15	Up to 5	Up to 10	Up to 15	Above 15
West Singhbhum	Barajamda	PHC			1					
West Singhbhum	Chakradharpur	PHC				1				
West Singhbhum	Goilkara	PHC				1				
West Singhbhum	Jagganathpur	PHC				1				
West Singhbhum	Jinkpani	PHC	1							
West Singhbhum	Kumardungi	PHC								
West Singhbhum	Manjgaun	PHC								
West Singhbhum	Manoharpur	PHC	1							
West Singhbhum	Sadar-Chaibasa	PHC			1					
West Singhbhum	Sonua	PHC			1					
West Singhbhum	Tonto	PHC				1				
West Singhbhum Total			2		5	1	3	5		
Grand Total			13	16	77	12	75	83	9	

APPENDIX H: STATUS OF POWER SUPPLY SITUATION

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Bokaro	Bokaro	DS	Good Power Supply	No	No	Yes
Bokaro	Bermo	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Bokaro	PHC	Good Power Supply	No	No	Yes
Bokaro	Chandankyari	PHC	Low voltage	Yes	Yes	No
Bokaro	Chas	PHC	Good Power Supply	Yes	Yes	No
Bokaro	Gumia	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Jiridih	PHC	Low voltage	Yes	Yes	No
Bokaro	Kasmar	PHC	Good Power Supply	Yes	No	Yes
Bokaro	Nawadhi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Peterwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro Total		10		8	7	3
Chatra	Chatra	DS	Power Supply less than 8 Hrs	Yes	No	Yes
Chatra	Chatra	PHC	Power Supply less than 8 Hrs	No	No	Yes
Chatra	Hunterganj	PHC	Low voltage	Yes	Yes	No
Chatra	Itkhorih	PHC	Good Power Supply	No	No	Yes
Chatra	Pratappur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Chatra	Simaria	PHC	No Power Supply	Yes	Yes	No
Chatra	Tandwa	PHC	No Power Supply	Yes	Yes	No
Chatra Total		7		5	4	3
Deoghar	Deoghar	DS	Good Power Supply	Yes	Yes	No
Deoghar	Jasidih	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Karon	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Madhupur RH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Deoghar	Mohanpur	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Palajori	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Deoghar	Sarat	PHC	Power Supply less than 8 Hrs	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Deoghar	Sarwan	PHC	Low voltage	Yes	Yes	No
Deoghar Total		8		7	5	3
Dhanbad	Dhanbad	DS	Low voltage	Yes	Yes	No
Dhanbad	Bagmara	PHC	Low voltage	Yes	No	Yes
Dhanbad	Baliapur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Govindpur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Johrapokhar	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Nirsa	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Sadar PHC	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dhanbad	Topchanchi	PHC	Low voltage	Yes	Yes	No
Dhanbad	Tundi	PHC	Low voltage	Yes	Yes	No
Dhanbad Total		9		9	7	2
Dumka	Dumka DS	DS	Low voltage	No	No	Yes
Dumka	Gopi Kandar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Jama	PHC	Low voltage	Yes	No	Yes
Dumka	Jarmundi	PHC	Good Power Supply	Yes	Yes	No
Dumka	Kathikund	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Masalia	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Ramgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Raneswar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Sadar PHC	PHC	Low voltage	No	No	Yes
Dumka	Saraya	PHC	Good Power Supply	Yes	Yes	No
Dumka	Shikaripada	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka Total		11		9	5	6
East Singhbhum	Jamshedpur DHQ	DS	Good Power Supply	Yes	No	Yes
East Singhbhum	Baharagharah	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Chakulia	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Dalbhumgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
East Singhbhum	Dhumria	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Ghatsella	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Jugsalai	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Musabani	PHC	Good Power Supply	Yes	No	Yes
East Singhbhum	Patomda	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
East Singhbhum	Potka	PHC	Good Power Supply	Yes	No	Yes
East Singhbhum Total		10		10	7	3
Garhwa	Garhwa DS	DS	Good Power Supply	Yes	Yes	No
Garhwa	Bhandaria	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Bhavaanathpur	PHC	Low voltage	Yes	No	Yes
Garhwa	Dhurki	PHC	No Power Supply	Yes	Yes	No
Garhwa	Garhwa Block	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Garhwa	Majhion	PHC	Low voltage	Yes	Yes	No
Garhwa	Meral	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Nagaruntari	PHC	No Power Supply	Yes	No	Yes
Garhwa	Ranka	PHC	Low voltage	Yes	Yes	No
Garhwa Total		9		9	6	3
Giridih	Giridih	DS	Good Power Supply	Yes	Yes	No
Giridih	Bagodar	PHC	No Power Supply	Yes	Yes	No
Giridih	Bengabad	PHC	No Power Supply	Yes	No	Yes
Giridih	Birmi	PHC	No Power Supply	Yes	Yes	No
Giridih	Deori	PHC	No Power Supply	Yes	Yes	No
Giridih	Dumri	PHC	Good Power Supply	Yes	No	Yes
Giridih	Gandey	PHC	Good Power Supply	Yes	Yes	No
Giridih	Jamua	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih	MCH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Giridih	Pirtand	PHC	No Power Supply	Yes	Yes	No
Giridih	Raj Dhanwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Giridih	Sadar Block	PHC	Low voltage	Yes	No	Yes
Giridih	Tisri	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih Total		13		12	9	4
Godda	Godda	DS	Good Power Supply	Yes	No	Yes
Godda	Boarijore	PHC	No Power Supply	Yes	Yes	No
Godda	Mahagama	PHC	Good Power Supply	Yes	Yes	No
Godda	Meharma	PHC	Low voltage	Yes	No	Yes
Godda	Patthargama	PHC	Good Power Supply	Yes	Yes	No
Godda	Podayahat	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda	Sadar Block	PHC	Good Power Supply	Yes	No	Yes
Godda	Sundarpahari	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda Total		8		8	5	3
Gumla	Gumla	DS	Good Power Supply	Yes	Yes	No
Gumla	Bharno	PHC	No Power Supply	Yes	Yes	No
Gumla	Bishnupur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Chainpur	PHC	Power Supply less than 8 Hrs	No	No	Yes
Gumla	Dumri	PHC	No Power Supply	Yes	No	Yes
Gumla	Ghagra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Kamdara	PHC	Good Power Supply	Yes	No	Yes
Gumla	Palkot	PHC	Good Power Supply	Yes	Yes	No
Gumla	Raidih	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Sisai RH	PHC	Low voltage	Yes	Yes	No
Gumla	Basia	RH	Low voltage	Yes	Yes	No
Gumla Total		11		10	8	3
Hazaribagh	Hazaribagh	DS	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	FPC	Good Power Supply	Yes	Yes	No
Hazaribagh	Barakatha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Barhi	PHC	Low voltage	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Hazaribagh	Berkagaon	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Chaparan	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	PHC	No Power Supply	No	No	Yes
Hazaribagh	Gola	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Ichak	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Katkamsari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Keredari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Mandu	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Patratu	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Ramgarh	PHC	Good Power Supply	Yes	Yes	No
Hazaribagh	Vishnugarh	PHC	Low voltage	Yes	Yes	No
Hazaribagh Total		15		14	9	6
Jamtara	Sadar DS	DS	Good Power Supply	No	No	Yes
Jamtara	Jamtara	PHC	Good Power Supply	Yes	Yes	No
Jamtara	Kundahit	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Jamtara	Nala	PHC	Good Power Supply	Yes	No	Yes
Jamtara	Narayanpur	PHC	Good Power Supply	Yes	No	Yes
Jamtara Total		5		4	2	3
Koderma	Koderma	DS	Good Power Supply	Yes	Yes	No
Koderma	Jainagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Koderma	Koderma (Jhumri Talaya) PHC	PHC	Good Power Supply	Yes	Yes	No
Koderma	Markacho	PHC	No Power Supply	Yes	Yes	No
Koderma Total		4		4	4	0
Latehar	Latehar	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Balumath	PHC	No Power Supply	Yes	Yes	No
Latehar	Barawadhi	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Latehar	Chandwa	PHC	Low voltage	Yes	No	Yes
Latehar	Latehar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Latehar	Mahuatan	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Manika	PHC	Good Power Supply	Yes	Yes	No
Latehar Total		7		7	5	2
Lohardaga	Lohardaga	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Bandra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kisko	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kuru	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Lohardaga	PHC	Good Power Supply	Yes	Yes	No
Lohardaga	Senha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga Total		6		6	6	0
Pakur	Pakur	DS	Good Power Supply	Yes	Yes	No
Pakur	Amrapada	PHC	Low voltage	No	No	Yes
Pakur	Hiranpur	PHC	Low voltage	Yes	No	Yes
Pakur	Littipara	PHC	Good Power Supply	No	No	Yes
Pakur	Maheshpur	PHC	No Power Supply	No	No	Yes
Pakur	Pakudia	PHC	No Power Supply	No	No	Yes
Pakur Total		6		2	1	5
Palamu	Daltanganj	DS	Good Power Supply	Yes	Yes	No
Palamu	Bishrampur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Block PHC	PHC	No Power Supply	No	No	Yes
Palamu	Chainpur	PHC	Good Power Supply	Yes	No	Yes
Palamu	Chattarpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Hariharganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Husainabad	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Palamu	Lisliganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Manatu	PHC	No Power Supply	No	No	Yes
Palamu	Panki	PHC	No Power Supply	Yes	Yes	No
Palamu	Patan	PHC	Low voltage	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Palamu Total		11		9	6	5
Ranchi	Namkum	CS	Good Power Supply	Yes	Yes	No
Ranchi	Ranchi DS	DS	Good Power Supply	Yes	Yes	No
Ranchi	Aarki	PHC	Good Power Supply	Yes	No	Yes
Ranchi	Anigara	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bero	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bundu	PHC		Yes	Yes	No
Ranchi	Burmu	PHC	Low voltage	Yes	Yes	No
Ranchi	Chancho	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Kanke	PHC	No Power Supply	Yes	Yes	No
Ranchi	Karra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes
Ranchi	Lapung	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Mander	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	MCH	PHC	Good Power Supply	No	No	Yes
Ranchi	Murhu	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Namkum	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Oremanjhi	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Rania	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Ratu	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Silli	PHC	Good Power Supply	No	No	Yes
Ranchi	Sonahatu	PHC	Low voltage	Yes	Yes	No
Ranchi	Tamar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi	Torpa	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi Total		24		20	17	7
Sahebganj	Sadar Hospital	DS	Low voltage	Yes	Yes	No
Sahebganj	Baharawa	PHC	Low voltage	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Sahebganj	Barhait	PHC	No Power Supply	Yes	Yes	No
Sahebganj	Borio	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Sahebganj	Pathna	PHC	No Power Supply	Yes	No	Yes
Sahebganj	Rajmahal	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Sahebganj	Sadar PHC	PHC	Power Supply less than 8 Hrs	No	No	Yes
Sahebganj	Taljhari	PHC	No Power Supply	Yes	Yes	No
Sahebganj Total		8		7	4	4
Saraikela Kharsawan	Chandel (DS)	DS	Good Power Supply	No	No	Yes
Saraikela Kharsawan	Chandel	PHC	Good Power Supply	No	No	Yes
Saraikela Kharsawan	Ghamaria	PHC	Good Power Supply	Yes	Yes	No
Saraikela Kharsawan	Ichagarh	PHC	No Power Supply	Yes	No	Yes
Saraikela Kharsawan	Kuchai	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan	Nimdih	PHC	Good Power Supply	Yes	No	Yes
Saraikela Kharsawan	Raj Kharsawan	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Saraikela Kharsawan	Rajnaragar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan	Saraikela Sub Depot	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan Total		9		7	4	5
Simdega	Simdega	DS	Good Power Supply	No	No	Yes
Simdega	Bano	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Bolba	PHC	No Power Supply	Yes	Yes	No
Simdega	Jaldega	PHC	Good Power Supply	Yes	Yes	No
Simdega	Kolebera	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Kurdeg	PHC	No Power Supply	Yes	No	Yes
Simdega	Simdega	PHC	Good Power Supply	Yes	No	Yes
Simdega	Simdega PHC	PHC	Good Power Supply	No	No	Yes
Simdega	Thethaitnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega Total		9		7	5	4
West Singhbhum	Chaibasa Sadar	DS	Good Power Supply	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
West singhbhum	Barajamda	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Chakradharpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West Singhbhum	Goilkara	PHC	Good Power Supply	Yes	Yes	No
West singhbhum	Jagganathpur	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Jinkpani	PHC	Good Power Supply	No	No	Yes
West singhbhum	Khutpani	PHC	No Power Supply	No	No	Yes
West Singhbhum	Kumardungi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West singhbhum	Manjgaun	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
West Singhbhum	Manoharpur	PHC	Good Power Supply	Yes	Yes	No
West Singhbhum	Sadar-Chaibasa	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Sonua	PHC	Low voltage	Yes	No	Yes
West Singhbhum	Tonto	PHC	No Power Supply	No	No	Yes
West Singhbhum Total		13		10	5	8
Grand Total		213		184	131	82

APPENDIX I: DETAILED LIST OF GENERATOR STATUS SITE-WISE

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Bokaro	Bokaro	DS	Good Power Supply	No	No	Yes
Bokaro	Bermo	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Bokaro	PHC	Good Power Supply	No	No	Yes
Bokaro	Chandankyari	PHC	Low voltage	Yes	Yes	No
Bokaro	Chas	PHC	Good Power Supply	Yes	Yes	No
Bokaro	Gumia	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Jiridih	PHC	Low voltage	Yes	Yes	No
Bokaro	Kasmar	PHC	Good Power Supply	Yes	No	Yes
Bokaro	Nawadhi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro	Peterwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Bokaro Total		10		8	7	3
Chatra	Chatra	DS	Power Supply less than 8 Hrs	Yes	No	Yes
Chatra	Chatra	PHC	Power Supply less than 8 Hrs	No	No	Yes
Chatra	Hunterganj	PHC	Low voltage	Yes	Yes	No
Chatra	Itkhori	PHC	Good Power Supply	No	No	Yes
Chatra	Pratappur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Chatra	Simaria	PHC	No Power Supply	Yes	Yes	No
Chatra	Tandwa	PHC	No Power Supply	Yes	Yes	No

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Chatra Total		7		5	4	3
Deoghar	Deoghar	DS	Good Power Supply	Yes	Yes	No
Deoghar	Jasidih	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Karon	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Madhupur RH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Deoghar	Mohanpur	PHC	Good Power Supply	Yes	Yes	No
Deoghar	Palajori	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Deoghar	Sarat	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Deoghar	Sarwan	PHC	Low voltage	Yes	Yes	No
Deoghar Total		8		7	5	3
Dhanbad	Dhanbad	DS	Low voltage	Yes	Yes	No
Dhanbad	Bagmara	PHC	Low voltage	Yes	No	Yes
Dhanbad	Baliapur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Govindpur	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Johrapokhar	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Nirsa	PHC	Good Power Supply	Yes	Yes	No
Dhanbad	Sadar PHC	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dhanbad	Topchanchi	PHC	Low voltage	Yes	Yes	No
Dhanbad	Tundi	PHC	Low voltage	Yes	Yes	No
Dhanbad Total		9		9	7	2

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Dumka	Dumka DS	DS	Low voltage	No	No	Yes
Dumka	Gopi Kandar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Jama	PHC	Low voltage	Yes	No	Yes
Dumka	Jarmundi	PHC	Good Power Supply	Yes	Yes	No
Dumka	Kathikund	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Masalia	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Ramgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Dumka	Raneswar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka	Sadar PHC	PHC	Low voltage	No	No	Yes
Dumka	Saraya	PHC	Good Power Supply	Yes	Yes	No
Dumka	Shikaripada	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Dumka Total		11		9	5	6
East Singhbhum	Jamshedpur DHQ	DS	Good Power Supply	Yes	No	Yes
East Singhbhum	Baharagharah	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Chakulia	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Dalbhumgarh	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
East Singhbhum	Dhumria	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Ghatsella	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Jugsalai	PHC	Good Power Supply	Yes	Yes	No
East Singhbhum	Musabani	PHC	Good Power Supply	Yes	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
East Singhbhum	Patomda	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
East Singhbhum	Potka	PHC	Good Power Supply	Yes	No	Yes
East Singhbhum Total		10		10	7	3
Garhwa	Garhwa DS	DS	Good Power Supply	Yes	Yes	No
Garhwa	Bhandaria	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Bhavaanathpur	PHC	Low voltage	Yes	No	Yes
Garhwa	Dhurki	PHC	No Power Supply	Yes	Yes	No
Garhwa	Garhwa Block	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Garhwa	Majhion	PHC	Low voltage	Yes	Yes	No
Garhwa	Meral	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Garhwa	Nagaruntari	PHC	No Power Supply	Yes	No	Yes
Garhwa	Ranka	PHC	Low voltage	Yes	Yes	No
Garhwa Total		9		9	6	3
Giridih	Giridih	DS	Good Power Supply	Yes	Yes	No
Giridih	Bagodar	PHC	No Power Supply	Yes	Yes	No
Giridih	Bengabad	PHC	No Power Supply	Yes	No	Yes
Giridih	Birni	PHC	No Power Supply	Yes	Yes	No
Giridih	Deori	PHC	No Power Supply	Yes	Yes	No
Giridih	Dumri	PHC	Good Power Supply	Yes	No	Yes
Giridih	Gandey	PHC	Good Power Supply	Yes	Yes	No

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Giridih	Jamua	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih	MCH	PHC	Power Supply less than 8 Hrs	No	No	Yes
Giridih	Pirtand	PHC	No Power Supply	Yes	Yes	No
Giridih	Raj Dhanwar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih	Sadar Block	PHC	Low voltage	Yes	No	Yes
Giridih	Tisri	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Giridih Total		13		12	9	4
Godda	Godda	DS	Good Power Supply	Yes	No	Yes
Godda	Boarijore	PHC	No Power Supply	Yes	Yes	No
Godda	Mahagama	PHC	Good Power Supply	Yes	Yes	No
Godda	Meharma	PHC	Low voltage	Yes	No	Yes
Godda	Patthargama	PHC	Good Power Supply	Yes	Yes	No
Godda	Podayahat	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda	Sadar Block	PHC	Good Power Supply	Yes	No	Yes
Godda	Sundarpahari	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Godda Total		8		8	5	3
Gumla	Gumla	DS	Good Power Supply	Yes	Yes	No
Gumla	Bharno	PHC	No Power Supply	Yes	Yes	No
Gumla	Bishnupur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Chainpur	PHC	Power Supply less than 8 Hrs	No	No	Yes

Cold Chain Assessment in Jharkhand

District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Gumla	Dumri	PHC	No Power Supply	Yes	No	Yes
Gumla	Ghagra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Kamdara	PHC	Good Power Supply	Yes	No	Yes
Gumla	Palkot	PHC	Good Power Supply	Yes	Yes	No
Gumla	Raidih	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Gumla	Sisai RH	PHC	Low voltage	Yes	Yes	No
Gumla	Basia	RH	Low voltage	Yes	Yes	No
Gumla Total		11		10	8	3
Hazaribagh	Hazaribagh	DS	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	FPC	Good Power Supply	Yes	Yes	No
Hazaribagh	Barakatha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Barhi	PHC	Low voltage	Yes	No	Yes
Hazaribagh	Berkagaon	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Chaparan	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Churchu	PHC	No Power Supply	No	No	Yes
Hazaribagh	Gola	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Hazaribagh	Ichak	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Katkamsari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Keredari	PHC	No Power Supply	Yes	Yes	No
Hazaribagh	Mandu	PHC	Good Power Supply	Yes	No	Yes

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Hazaribagh	Patratu	PHC	Good Power Supply	Yes	No	Yes
Hazaribagh	Ramgarh	PHC	Good Power Supply	Yes	Yes	No
Hazaribagh	Vishnugarh	PHC	Low voltage	Yes	Yes	No
Hazaribagh Total		15		14	9	6
Jamtara	Sadar DS	DS	Good Power Supply	No	No	Yes
Jamtara	Jamtara	PHC	Good Power Supply	Yes	Yes	No
Jamtara	Kundahit	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Jamtara	Nala	PHC	Good Power Supply	Yes	No	Yes
Jamtara	Narayanpur	PHC	Good Power Supply	Yes	No	Yes
Jamtara Total		5		4	2	3
Koderma	Koderma	DS	Good Power Supply	Yes	Yes	No
Koderma	Jainagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Koderma	Koderma (Jhumri Talaya) PHC	PHC	Good Power Supply	Yes	Yes	No
Koderma	Markacho	PHC	No Power Supply	Yes	Yes	No
Koderma Total		4		4	4	0
Latehar	Latehar	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Balumath	PHC	No Power Supply	Yes	Yes	No
Latehar	Barawadhi	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Latehar	Chandwa	PHC	Low voltage	Yes	No	Yes
Latehar	Latehar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Latehar	Mahuatan	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Latehar	Manika	PHC	Good Power Supply	Yes	Yes	No
Latehar Total		7		7	5	2
Lohardaga	Lohardaga	DS	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Bandra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kisko	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Kuru	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga	Lohardaga	PHC	Good Power Supply	Yes	Yes	No
Lohardaga	Senha	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Lohardaga Total		6		6	6	0
Pakur	Pakur	DS	Good Power Supply	Yes	Yes	No
Pakur	Amrapada	PHC	Low voltage	No	No	Yes
Pakur	Hiranpur	PHC	Low voltage	Yes	No	Yes
Pakur	Littipara	PHC	Good Power Supply	No	No	Yes
Pakur	Maheshpur	PHC	No Power Supply	No	No	Yes
Pakur	Pakudia	PHC	No Power Supply	No	No	Yes
Pakur Total		6		2	1	5
Palamu	Daltanganj	DS	Good Power Supply	Yes	Yes	No
Palamu	Bishrampur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Block PHC	PHC	No Power Supply	No	No	Yes

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Palamu	Chainpur	PHC	Good Power Supply	Yes	No	Yes
Palamu	Chattarpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Hariharganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Husainabad	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Palamu	Lisliganj	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Palamu	Manatu	PHC	No Power Supply	No	No	Yes
Palamu	Panki	PHC	No Power Supply	Yes	Yes	No
Palamu	Patan	PHC	Low voltage	Yes	No	Yes
Palamu Total		11		9	6	5
Ranchi	Namkum	CS	Good Power Supply	Yes	Yes	No
Ranchi	Ranchi DS	DS	Good Power Supply	Yes	Yes	No
Ranchi	Aarki	PHC	Good Power Supply	Yes	No	Yes
Ranchi	Anigara	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bero	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Bundu	PHC		Yes	Yes	No
Ranchi	Burmu	PHC	Low voltage	Yes	Yes	No
Ranchi	Chancho	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Kanke	PHC	No Power Supply	Yes	Yes	No
Ranchi	Karra	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Ranchi	Khunti	PHC	Good Power Supply	No	No	Yes
Ranchi	Lapung	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Mander	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	MCH	PHC	Good Power Supply	No	No	Yes
Ranchi	Murhu	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Namkum	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Oremanjhi	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Rania	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Ranchi	Ratu	PHC	Good Power Supply	Yes	Yes	No
Ranchi	Silli	PHC	Good Power Supply	No	No	Yes
Ranchi	Sonahatu	PHC	Low voltage	Yes	Yes	No
Ranchi	Tamar	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi	Torpa	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Ranchi Total		24		20	17	7
Sahebganj	Sadar Hospital	DS	Low voltage	Yes	Yes	No
Sahebganj	Baharawa	PHC	Low voltage	Yes	No	Yes
Sahebganj	Barhait	PHC	No Power Supply	Yes	Yes	No
Sahebganj	Borio	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Sahebganj	Pathna	PHC	No Power Supply	Yes	No	Yes
Sahebganj	Rajmahal	PHC	Power Supply less than 8 Hrs	Yes	No	Yes

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Sahebganj	Sadar PHC	PHC	Power Supply less than 8 Hrs	No	No	Yes
Sahebganj	Taljhari	PHC	No Power Supply	Yes	Yes	No
Sahebganj Total		8		7	4	4
Saraikela Khar-sawan	Chandel (DS)	DS	Good Power Supply	No	No	Yes
Saraikela Khar-sawan	Chandel	PHC	Good Power Supply	No	No	Yes
Saraikela Khar-sawan	Ghamaria	PHC	Good Power Supply	Yes	Yes	No
Saraikela Khar-sawan	Ichagarh	PHC	No Power Supply	Yes	No	Yes
Saraikela Khar-sawan	Kuchai	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Khar-sawan	Nimdih	PHC	Good Power Supply	Yes	No	Yes
Saraikela Khar-sawan	Raj Kharsawan	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
Saraikela Khar-sawan	Rajnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Khar-sawan	Saraikela Sub Depot	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Saraikela Kharsawan Total		9		7	4	5
Simdega	Simdega	DS	Good Power Supply	No	No	Yes
Simdega	Bano	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Bolba	PHC	No Power Supply	Yes	Yes	No
Simdega	Jaldega	PHC	Good Power Supply	Yes	Yes	No
Simdega	Kolebera	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega	Kurdeg	PHC	No Power Supply	Yes	No	Yes

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District	Site	Type	Power supply situation	Genset available	Genset operational	Genset required
Simdega	Simdega	PHC	Good Power Supply	Yes	No	Yes
Simdega	Simdega PHC	PHC	Good Power Supply	No	No	Yes
Simdega	Thethaitnagar	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
Simdega Total		9		7	5	4
West Singhbhum	Chaibasa Sadar	DS	Good Power Supply	Yes	Yes	No
West singhbhum	Barajamda	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Chakradharpur	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West Singhbhum	Goilkara	PHC	Good Power Supply	Yes	Yes	No
West singhbhum	Jagganathpur	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Jinkpani	PHC	Good Power Supply	No	No	Yes
West singhbhum	Khutpani	PHC	No Power Supply	No	No	Yes
West Singhbhum	Kumardungi	PHC	Power Supply less than 8 Hrs	Yes	Yes	No
West singhbhum	Manjgaun	PHC	Power Supply less than 8 Hrs	Yes	No	Yes
West Singhbhum	Manoharpur	PHC	Good Power Supply	Yes	Yes	No
West Singhbhum	Sadar-Chaibasa	PHC	Good Power Supply	Yes	No	Yes
West Singhbhum	Sonua	PHC	Low voltage	Yes	No	Yes
West Singhbhum	Tonto	PHC	No Power Supply	No	No	Yes
West Singhbhum Total		13		10	5	8
Grand Total		213		184	131	82

APPENDIX J: DETAILED ANALYSIS ON ADEQUACY OF STABILIZERS

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Bokaro	Bokaro	DS	4	6	4		2
Bokaro	Bermo	PHC	3	3	2		
Bokaro	Bokaro	PHC	1			1	
Bokaro	Chandankyari	PHC	2	3	3		2
Bokaro	Chas	PHC	1	3	2		1
Bokaro	Gumia	PHC	1	1	1		
Bokaro	Jiridih	PHC	2	2	2		1
Bokaro	Kasmar	PHC	1	1	1		
Bokaro	Nawadhi	PHC	2	1	1		
Bokaro	Peterwar	PHC	2	2	2		1
Bokaro Total		10	19	22	18	1	7
Chatra	Chatra	DS	6	6	4		1
Chatra	Chatra	PHC					
Chatra	Hunterganj	PHC	2	1	1		
Chatra	Itkhori	PHC	4	2		2	
Chatra	Pratappur	PHC	2	2	1		
Chatra	Simaria	PHC	1	1		1	
Chatra	Tandwa	PHC	2	1	1		
Chatra Total		7	17	13	7	3	1
Deoghar	Deoghar	DS	11	12	12		6
Deoghar	Jasidih	PHC	3	1	1	1	

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Deoghar	Karon	PHC	2	2	2		1
Deoghar	Madhupur RH	PHC	2			1	
Deoghar	Mohanpur	PHC	2	1	1		
Deoghar	Palajori	PHC	2	1	1		
Deoghar	Sarat	PHC	2	2	2		1
Deoghar	Sarwan	PHC	2	1	1		
Deoghar Total		8	26	20	20	2	8
Dhanbad	Dhanbad	DS	9	2	2	3	
Dhanbad	Bagmara	PHC	4	3		2	
Dhanbad	Baliapur	PHC	4	2	2		
Dhanbad	Govindpur	PHC	3	2	2		
Dhanbad	Johrapokhar	PHC	6	3	2	1	
Dhanbad	Nirsa	PHC	5	4	2	1	
Dhanbad	Sadar PHC	PHC	3	2	1	1	
Dhanbad	Topchanchi	PHC	4	1	1	1	
Dhanbad	Tundi	PHC	5	3		3	
Dhanbad Total		9	43	22	12	12	
Dumka	Dumka DS	DS	12	7	7		1
Dumka	Gopi Kandar	PHC	2	1	1		
Dumka	Jama	PHC	3			2	
Dumka	Jarmundi	PHC	2	1	1		
Dumka	Kathikund	PHC	1	1	1		

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Dumka	Masalia	PHC	1			1	
Dumka	Ramgarh	PHC	2	1	1		
Dumka	Raneswar	PHC		1	1		1
Dumka	Sadar PHC	PHC	1			1	
Dumka	Saraya	PHC	2	2	1		
Dumka	Shikaripada	PHC	2	1	1		
Dumka Total		11	28	15	14	4	2
East Singhbhum	Jamshedpur DHQ	DS	14	8	8		1
East Singhbhum	Baharagharah	PHC	3	1	1	1	
East Singhbhum	Chakulia	PHC	2	1	1		
East Singhbhum	Dalbhumgarh	PHC	2	1		1	
East Singhbhum	Dhumria	PHC	2			1	
East Singhbhum	Ghatsella	PHC	4	2	1	1	
East Singhbhum	Jugsalai	PHC	3			2	
East Singhbhum	Musabani	PHC	3	1	1	1	
East Singhbhum	Patomda	PHC	3	4	2		
East Singhbhum	Potka	PHC	4	1		2	
East Singhbhum Total		10	40	19	14	9	1
Garhwa	Garhwa DS	DS	7	9	9		5

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Garhwa	Bhandaria	PHC	1	1	1		
Garhwa	Bhavaanathpur	PHC	2	2	2		1
Garhwa	Dhurki	PHC	1			1	
Garhwa	Garhwa Block	PHC					
Garhwa	Majhion	PHC	2	1	1		
Garhwa	Meral	PHC	2	4	1		
Garhwa	Nagaruntari	PHC	2	1	1		
Garhwa	Ranka	PHC	3	3	2		
Garhwa Total		9	20	21	17	1	6
Giridih	Giridih	DS	5	9	6		3
Giridih	Bagodar	PHC	3	1	1	1	
Giridih	Bengabad	PHC	1	1	1		
Giridih	Birni	PHC	1	1	1		
Giridih	Deori	PHC	3	2	2		
Giridih	Dumri	PHC	5	1	1	2	
Giridih	Gandey	PHC	2	1	1		
Giridih	Jamua	PHC	3	2	1	1	
Giridih	MCH	PHC	2	2	1		
Giridih	Pirtand	PHC	3	3	2		
Giridih	Raj Dhanwar	PHC	2	3	2		1
Giridih	Sadar Block	PHC	3	2	1	1	
Giridih	Tisri	PHC	3	1		2	

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Giridih Total		13	36	29	20	7	4
Godda	Godda	DS	5	6	5		2
Godda	Boarijore	PHC	2	2		1	
Godda	Mahagama	PHC	3	2	2		
Godda	Meharma	PHC	1	2	2		1
Godda	Patthargama	PHC	2	1	1		
Godda	Podayahat	PHC	6	1	1	2	
Godda	Sadar Block	PHC	3	2	2		
Godda	Sundarpahari	PHC	3	2	2		
Godda Total		8	25	18	15	3	3
Gumla	Gumla	DS	7	5	3	1	
Gumla	Bharno	PHC	2	1	1		
Gumla	Bishnupur	PHC	4	2	1	1	
Gumla	Chainpur	PHC	2	1	1		
Gumla	Dumri	PHC					
Gumla	Ghagra	PHC	3	2	2		
Gumla	Kamdara	PHC	1	1	1		
Gumla	Palkot	PHC	2	1	1		
Gumla	Raidih	PHC	2	2	2		1
Gumla	Sisai RH	PHC	4	3	3		1
Gumla	Basia	RH	2	1	1		
Gumla Total		11	29	19	16	2	2

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Hazaribagh	Hazaribagh	DS	8	6	5		1
Hazaribagh	Churchu	FPC	3	2	1	1	
Hazaribagh	Barakatha	PHC	2	2	2		1
Hazaribagh	Barhi	PHC	3	2	2		
Hazaribagh	Berkagaon	PHC		1			
Hazaribagh	Chaparan	PHC	3	3		2	
Hazaribagh	Churchu	PHC					
Hazaribagh	Gola	PHC	3	1		2	
Hazaribagh	Ichak	PHC	1	1		1	
Hazaribagh	Katkamsari	PHC	2	1	1		
Hazaribagh	Keredari	PHC	3	1		2	
Hazaribagh	Mandu	PHC	3	4	1	1	
Hazaribagh	Patratu	PHC	2	1	1		
Hazaribagh	Ramgarh	PHC	4	3	2		
Hazaribagh	Vishnugarh	PHC	3	2	2		
Hazaribagh Total		15	40	30	17	9	2
Jamtara	Sadar DS	DS	6	3	3		
Jamtara	Jamtara	PHC	1	1	1		
Jamtara	Kundahit	PHC	1	1	1		
Jamtara	Nala	PHC	2	1	1		
Jamtara	Narayanpur	PHC	2			1	
Jamtara Total		5	12	6	6	1	

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Koderma	Koderma	DS	10	5	5		
Koderma	Jainagar	PHC	2	2	2		1
Koderma	Koderma (Jhumri Talaya) PHC	PHC	3	1	1	1	
Koderma	Markacho	PHC	2	2	1		
Koderma Total		4	17	10	9	1	1
Latehar	Latehar	DS	4	1	1	1	
Latehar	Balumath	PHC	2	1	1		
Latehar	Barawadhi	PHC	2	1	1		
Latehar	Chandwa	PHC	3	2	2		
Latehar	Latehar	PHC	1	4	1		
Latehar	Mahuatan	PHC					
Latehar	Manika	PHC	2	1	1		
Latehar Total		7	14	10	7	1	
Lohardaga	Lohardaga	DS	3	3	3		1
Lohardaga	Bandra	PHC	4	2	1	1	
Lohardaga	Kisko	PHC	7	6	5		1
Lohardaga	Kuru	PHC	5	2	2	1	
Lohardaga	Lohardaga	PHC	5	7	4		1
Lohardaga	Senha	PHC	6	3	3		
Lohardaga Total		6	30	23	18	2	3
Pakur	Pakur	DS	11	7	7		1

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District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Pakur	Amrapada	PHC	2	1		1	
Pakur	Hiranpur	PHC	2	1	1		
Pakur	Littipara	PHC	2	1	1		
Pakur	Maheshpur	PHC	1			1	
Pakur	Pakudia	PHC	2	1	1		
Pakur Total		6	20	11	10	2	1
Palamu	Daltanganj	DS	6	7	7		4
Palamu	Bishrampur	PHC	1	1		1	
Palamu	Block PHC	PHC	1	1	1		
Palamu	Chainpur	PHC					
Palamu	Chattarpur	PHC	3	3	1	1	
Palamu	Hariharganj	PHC	2	2	2		1
Palamu	Husainabad	PHC	3	2	1	1	
Palamu	Lisliganj	PHC	2	1	1		
Palamu	Manatu	PHC					
Palamu	Panki	PHC	2			1	
Palamu	Patan	PHC	3	2	2		
Palamu Total		11	23	19	15	4	5
Ranchi	Namkum	CS					
Ranchi	Ranchi DS	DS	7	6	6		2
Ranchi	Aarki	PHC		1			
Ranchi	Anigara	PHC	2	2	1		

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Ranchi	Bero	PHC	3	3	3		1
Ranchi	Bundu	PHC	3	1	1	1	
Ranchi	Burmu	PHC	2	2	2		1
Ranchi	Chancho	PHC	2	2	2		1
Ranchi	Kanke	PHC	2	2	2		1
Ranchi	Karra	PHC	1			1	
Ranchi	Khunti	PHC	2	1	1		
Ranchi	Khunti	PHC	2	1	1		
Ranchi	Lapung	PHC	2	2		1	
Ranchi	Mander	PHC	2	2	2		1
Ranchi	MCH	PHC	1	1	1		
Ranchi	Murhu	PHC	2	4	2		1
Ranchi	Namkum	PHC	3	1	1	1	
Ranchi	Oremanjhi	PHC	2	2	2		1
Ranchi	Rania	PHC	2			1	
Ranchi	Ratu	PHC	1	2	1		
Ranchi	Silli	PHC	3	2		2	
Ranchi	Sonahatu	PHC	2	2	2		1
Ranchi	Tamar	PHC	2	2	2		1
Ranchi	Torpa	PHC	2	2	1		
Ranchi Total		24	50	43	33	7	11
Sahebganj	Sadar Hospital	DS	14	6	5	2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Sahebganj	Baharawa	PHC	3			2	
Sahebganj	Barhait	PHC	4	1	1	1	
Sahebganj	Borio	PHC	1	1	1		
Sahebganj	Pathna	PHC	4			2	
Sahebganj	Rajmahal	PHC	4	1	1	1	
Sahebganj	Sadar PHC	PHC	1	1	1		
Sahebganj	Taljhari	PHC	1			1	
Sahebganj Total		8	32	10	9	9	
Saraikela Kharsawan	Chandel (DS)	DS	9	9	6		1
Saraikela Kharsawan	Chandel	PHC	2	1	1		
Saraikela Kharsawan	Ghamaria	PHC	1	1	1		
Saraikela Kharsawan	Ichagarh	PHC					
Saraikela Kharsawan	Kuchai	PHC		1	1		1
Saraikela Kharsawan	Nimdih	PHC	2	1	1		
Saraikela Kharsawan	Raj Kharsawan	PHC	1	1	1		
Saraikela Kharsawan	Rajnagar	PHC	2	1		1	
Saraikela Kharsawan	Saraikela Sub Depot	PHC	5	3	3		
Saraikela Kharsawan Total		9	22	18	14	1	2
Simdega	Simdega	DS	9	3	3	2	

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
Simdega	Bano	PHC	4	2	2		
Simdega	Bolba	PHC					
Simdega	Jaldega	PHC	3	3	1	1	
Simdega	Kolebera	PHC	5	4	4		1
Simdega	Kurdeg	PHC		1			
Simdega	Simdega	PHC	1			1	
Simdega	Simdega PHC	PHC	1			1	
Simdega	Thethaitnagar	PHC	5	2	1	2	
Simdega Total		9	28	15	11	7	1
West Singhbhum	Chaibasa Sadar	DS	16	9	8		
West Singhbhum	Barajamda	PHC	2	3	1		
West Singhbhum	Chakradharpur	PHC	3	3	3		1
West Singhbhum	Goilkara	PHC	2	1		1	
West Singhbhum	Jagganathpur	PHC	2	3	1		
West Singhbhum	Jinkpani	PHC	2	1		1	
West Singhbhum	Khutpani	PHC					
West Singhbhum	Kumardungi	PHC	1	1	1		
West Singhbhum	Manjgaun	PHC	1	1	1		
West Singhbhum	Manoharpur	PHC	2	2	1		

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional & reparable equipment	Total stabilizers	Functional stabilizers	Shortage	Excess
West Singhbhum	Sadar-Chaibasa	PHC	1	1	1		
West Singhbhum	Sonua	PHC	2	2	2		1
West Singhbhum	Tonto	PHC	2	1	1		
West Singhbhum Total		13	36	28	20	2	2
Grand Total		213	607	421	322	90	62

APPENDIX K: DETAILED INVENTORY OF ICE-PACKS SITE-WISE

District	Site	Type	Functional	Non-functional
Bokaro	Bokaro	DS	1360	0
Bokaro	Bermo	PHC	1200	400
Bokaro	Bokaro	PHC	1200	200
Bokaro	Chandankyari	PHC	750	32
Bokaro	Chas	PHC	2999	266
Bokaro	Gumia	PHC	1800	100
Bokaro	Jiridih	PHC	800	0
Bokaro	Kasmar	PHC	890	0
Bokaro	Nawadhi	PHC	600	300
Bokaro	Peterwar	PHC	950	50
Bokaro Total		10	12549	1348
Chatra	Chatra	DS	1400	100
Chatra	Chatra	PHC	600	200
Chatra	Hunterganj	PHC	650	0
Chatra	Itkhor	PHC	600	400
Chatra	Pratappur	PHC	700	100
Chatra	Simaria	PHC	560	40
Chatra	Tandwa	PHC	550	50
Chatra Total		7	5060	890
Deoghar	Deoghar	DS	1000	250
Deoghar	Jasidih	PHC	720	30
Deoghar	Karon	PHC	950	50
Deoghar	Madhupur RH	PHC	0	0
Deoghar	Mohanpur	PHC	900	0
Deoghar	Palajori	PHC	1100	100
Deoghar	Sarat	PHC	550	0
Deoghar	Sarwan	PHC	900	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Deoghar Total		8	6120	430
Dhanbad	Dhanbad	DS	500	0
Dhanbad	Bagmara	PHC	2190	10
Dhanbad	Baliapur	PHC	500	100
Dhanbad	Govindpur	PHC	800	50
Dhanbad	Johrapokhar	PHC	2450	0
Dhanbad	Nirsa	PHC	1700	500
Dhanbad	Sadar PHC	PHC	3300	100
Dhanbad	Topchanchi	PHC	850	50
Dhanbad	Tundi	PHC	1000	0
Dhanbad Total		9	13290	810
Dumka	Dumka DS	DS	0	0
Dumka	Gopi Kandar	PHC	280	0
Dumka	Jama	PHC	500	0
Dumka	Jarmundi	PHC	800	100
Dumka	Kathikund	PHC	350	10
Dumka	Masalia	PHC	520	0
Dumka	Ramgarh	PHC	800	0
Dumka	Raneswar	PHC	620	0
Dumka	Sadar PHC	PHC	480	20
Dumka	Saraya	PHC	64	0
Dumka	Shikaripada	PHC	720	0
Dumka Total		11	5134	130
East Singhbhum	Jamshedpur DHQ	DS	600	3000
East Singhbhum	Baharagharah	PHC	3480	20
East Singhbhum	Chakulia	PHC	200	0
East Singhbhum	Dalbhumgarh	PHC	300	0
East Singhbhum	Dhumria	PHC	220	0
East Singhbhum	Ghatsella	PHC	800	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
East Singhbhum	Jugsalai	PHC	1500	0
East Singhbhum	Musabani	PHC	600	0
East Singhbhum	Patomda	PHC	800	0
East Singhbhum	Potka	PHC	500	0
East Singhbhum Total		10	9000	3020
Garhwa	Garhwa DS	DS	800	200
Garhwa	Bhandaria	PHC	300	150
Garhwa	Bhavaanathpur	PHC	800	0
Garhwa	Dhurki	PHC	800	0
Garhwa	Garhwa Block	PHC	650	50
Garhwa	Majhion	PHC	1100	0
Garhwa	Meral	PHC	525	0
Garhwa	Nagaruntari	PHC	1200	0
Garhwa	Ranka	PHC	1000	0
Garhwa Total		9	7175	400
Giridih	Giridih	DS	800	150
Giridih	Bagodar	PHC	950	0
Giridih	Bengabad	PHC	545	55
Giridih	Birni	PHC	815	100
Giridih	Deori	PHC	780	100
Giridih	Dumri	PHC	900	100
Giridih	Gandey	PHC	950	100
Giridih	Jamua	PHC	1050	0
Giridih	MCH	PHC	100	0
Giridih	Pirtand	PHC	450	200
Giridih	Raj Dhanwar	PHC	1180	50
Giridih	Sadar Block	PHC	1000	1000
Giridih	Tisri	PHC	500	20
Giridih Total		13	10020	1875

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Godda	Godda	DS	650	0
Godda	Boarijore	PHC	1000	0
Godda	Mahagama	PHC	950	200
Godda	Meharma	PHC	750	0
Godda	Patthargama	PHC	600	155
Godda	Podayahat	PHC	0	0
Godda	Sadar Block	PHC	1020	0
Godda	Sundarpahari	PHC	450	0
Godda Total		8	5420	355
Gumla	Gumla	DS	4800	0
Gumla	Bharno	PHC	400	0
Gumla	Bishnupur	PHC	500	0
Gumla	Chainpur	PHC	400	0
Gumla	Dumri	PHC	720	200
Gumla	Ghagra	PHC	590	10
Gumla	Kamdara	PHC	500	0
Gumla	Palkot	PHC	400	0
Gumla	Raidih	PHC	300	0
Gumla	Sisai RH	PHC	818	0
Gumla	Basia	RH	500	0
Gumla Total		11	9928	210
Hazaribagh	Hazaribagh	DS	2700	300
Hazaribagh	Churchu	FPC	700	0
Hazaribagh	Barakatha	PHC	750	50
Hazaribagh	Barhi	PHC	500	500
Hazaribagh	Berkagaon	PHC	900	100
Hazaribagh	Chaparan	PHC	1700	200
Hazaribagh	Churchu	PHC	0	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Hazaribagh	Gola	PHC	950	50
Hazaribagh	Ichak	PHC	800	200
Hazaribagh	Katkamsari	PHC	500	300
Hazaribagh	Keredari	PHC	700	300
Hazaribagh	Mandu	PHC	600	100
Hazaribagh	Patratu	PHC	500	100
Hazaribagh	Ramgarh	PHC	1000	25
Hazaribagh	Vishnugarh	PHC	750	50
Hazaribagh Total		15	13050	2275
Jamtara	Sadar DS	DS	2900	100
Jamtara	Jamtara	PHC	1210	10
Jamtara	Kundahit	PHC	600	0
Jamtara	Nala	PHC	300	0
Jamtara	Narayanpur	PHC	800	0
Jamtara Total		5	5810	110
Koderma	Koderma	DS	300	0
Koderma	Jainagar	PHC	400	200
Koderma	Koderma (Jhumri Talaya) PHC	PHC	800	500
Koderma	Markacho	PHC	925	375
Koderma Total		4	2425	1075
Latehar	Latehar	DS	100	0
Latehar	Balumath	PHC	1000	0
Latehar	Barawadhi	PHC	0	0
Latehar	Chandwa	PHC	426	101
Latehar	Latehar	PHC	620	10
Latehar	Mahuatan	PHC	532	0
Latehar	Manika	PHC	400	0
Latehar Total		7	3078	111

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Lohardaga	Lohardaga	DS	1000	200
Lohardaga	Bandra	PHC	510	150
Lohardaga	Kisko	PHC	750	50
Lohardaga	Kuru	PHC	600	0
Lohardaga	Lohardaga	PHC	700	0
Lohardaga	Senha	PHC	0	0
Lohardaga Total		6	3560	400
Pakur	Pakur	DS	4200	300
Pakur	Amrapada	PHC	400	0
Pakur	Hiranpur	PHC	435	0
Pakur	Littipara	PHC	500	0
Pakur	Maheshpur	PHC	1600	400
Pakur	Pakudia	PHC	600	100
Pakur Total		6	7735	800
Palamu	Daltanganj	DS	450	0
Palamu	Bishrampur	PHC	750	250
Palamu	Block PHC	PHC	800	15
Palamu	Chainpur	PHC	700	0
Palamu	Chattarpur	PHC	0	0
Palamu	Hariharganj	PHC	700	50
Palamu	Husainabad	PHC	900	35
Palamu	Lisliganj	PHC	700	0
Palamu	Manatu	PHC	0	0
Palamu	Panki	PHC	1000	100
Palamu	Patan	PHC	1000	200
Palamu Total		11	7000	650
Ranchi	Namkum	CS	0	0
Ranchi	Ranchi DS	DS	5554	100
Ranchi	Aarki	PHC	300	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Ranchi	Anigara	PHC	250	100
Ranchi	Bero	PHC	1050	150
Ranchi	Bundu	PHC	0	0
Ranchi	Burmu	PHC	300	0
Ranchi	Chanco	PHC	470	0
Ranchi	Kanke	PHC	600	50
Ranchi	Karra	PHC	300	0
Ranchi	Khunti	PHC	350	50
Ranchi	Khunti	PHC	150	0
Ranchi	Lapung	PHC	350	50
Ranchi	Mander	PHC	673	0
Ranchi	MCH	PHC	20	0
Ranchi	Murhu	PHC	180	20
Ranchi	Namkum	PHC	60	0
Ranchi	Oremanjhi	PHC	600	0
Ranchi	Rania	PHC	0	0
Ranchi	Ratu	PHC	500	0
Ranchi	Silli	PHC	440	60
Ranchi	Sonahatu	PHC	500	0
Ranchi	Tamar	PHC	200	30
Ranchi	Torpa	PHC	800	0
Ranchi Total		24	13647	610
Sahebganj	Sadar Hospital	DS	4000	0
Sahebganj	Baharawa	PHC	600	50
Sahebganj	Barhait	PHC	0	0
Sahebganj	Borio	PHC	480	0
Sahebganj	Pathna	PHC	400	0
Sahebganj	Rajmahal	PHC	0	0
Sahebganj	Sadar PHC	PHC	100	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
Sahebganj	Taljhari	PHC	570	0
Sahebganj Total		8	6150	50
Saraikela Kharsawan	Chandel (DS)	DS	4900	0
Saraikela Kharsawan	Chandel	PHC	0	0
Saraikela Kharsawan	Ghamaria	PHC	950	0
Saraikela Kharsawan	Ichagarh	PHC	0	0
Saraikela Kharsawan	Kuchai	PHC	700	0
Saraikela Kharsawan	Nimdih	PHC	950	0
Saraikela Kharsawan	Raj Kharsawan	PHC	800	0
Saraikela Kharsawan	Rajnagar	PHC	1200	0
Saraikela Kharsawan	Saraikela Sub Depot	PHC	620	30
Saraikela Kharsawan Total		9	10120	30
Simdega	Simdega	DS	0	0
Simdega	Bano	PHC	500	0
Simdega	Bolba	PHC	0	0
Simdega	Jaldega	PHC	400	30
Simdega	Kolebera	PHC	575	25
Simdega	Kurdeg	PHC	400	0
Simdega	Simdega	PHC	650	150
Simdega	Simdega PHC	PHC	0	0
Simdega	Thethaitnagar	PHC	0	0
Simdega Total		9	2525	205
West Singhbhum	Chaibasa Sadar	DS	8500	0
West singhbhum	Barajamda	PHC	1000	0
West Singhbhum	Chakradharpur	PHC	1300	0
West Singhbhum	Goilkara	PHC	1600	0
West singhbhum	Jagganathpur	PHC	750	50
West Singhbhum	Jinkpani	PHC	770	30
West singhbhum	Khutpani	PHC	600	0

Cold Chain Assessment in Jharkhand

District	Site	Type	Functional	Non-functional
West Singhbhum	Kumardungi	PHC	590	0
West singhbhum	Manjgaun	PHC	530	20
West Singhbhum	Manoharpur	PHC	540	5
West Singhbhum	Sadar-Chaibasa	PHC	900	200
West Singhbhum	Sonua	PHC	560	0
West Singhbhum	Tonto	PHC	480	0
West Singhbhum Total		13	18120	305
Grand Total		213	176916	16089

APPENDIX L: DETAILED INVENTORY OF VACCINE CARRIERS SITE-WISE

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Bokaro	DS	21	
Bokaro	PHC	157	55
Bokaro	PHC	126	30
Bokaro	PHC	214	6
Bokaro	PHC	400	68
Bokaro	PHC	300	19
Bokaro	PHC	100	10
Bokaro	PHC	156	
Bokaro	PHC	220	5
Bokaro	PHC	166	10
Bokaro Total	10	1860	203
Chatra	DS	8	
Chatra	PHC	150	50
Chatra	PHC	151	10
Chatra	PHC	140	
Chatra	PHC	120	20
Chatra	PHC	135	
Chatra	PHC	100	15
Chatra Total	7	804	95
Deochar	DS	150	1
Deochar	PHC	135	1
Deochar	PHC	120	
Deochar	PHC		
Deochar	PHC	166	
Deochar	PHC	110	10
Deochar	PHC	136	

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Deoghar	PHC	120	5
Deoghar Total	8	937	17
Dhanbad	DS	8	
Dhanbad	PHC	220	10
Dhanbad	PHC	118	2
Dhanbad	PHC	177	10
Dhanbad	PHC	300	54
Dhanbad	PHC	310	
Dhanbad	PHC	420	7
Dhanbad	PHC	130	
Dhanbad	PHC	110	10
Dhanbad Total	9	1793	93
Dumka	DS		
Dumka	PHC	64	6
Dumka	PHC	100	15
Dumka	PHC	175	15
Dumka	PHC	86	3
Dumka	PHC	130	
Dumka	PHC	172	
Dumka	PHC	130	30
Dumka	PHC	128	2
Dumka	PHC	151	10
Dumka	PHC	175	5
Dumka Total	11	1311	86
East Singhbhum	DS	245	10
East Singhbhum	PHC	224	1
East Singhbhum	PHC	170	
East Singhbhum	PHC	150	10
East Singhbhum	PHC	220	
East Singhbhum	PHC	200	10

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
East Singhbhum	PHC	374	
East Singhbhum	PHC	130	
East Singhbhum	PHC	210	16
East Singhbhum	PHC	156	
East Singhbhum Total	10	2079	47
Garhwa	DS	10	
Garhwa	PHC	65	15
Garhwa	PHC	175	5
Garhwa	PHC	123	20
Garhwa	PHC	180	25
Garhwa	PHC	225	
Garhwa	PHC	125	
Garhwa	PHC	225	5
Garhwa	PHC	80	5
Garhwa Total	9	1208	75
Giridih	DS		
Giridih	PHC	202	10
Giridih	PHC	35	25
Giridih	PHC	125	5
Giridih	PHC	101	27
Giridih	PHC	104	10
Giridih	PHC	140	
Giridih	PHC	169	10
Giridih	PHC	2	
Giridih	PHC	95	10
Giridih	PHC	150	5
Giridih	PHC	160	28
Giridih	PHC	93	7
Giridih Total	13	1376	137

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Godda	DS	150	
Godda	PHC	190	10
Godda	PHC	145	
Godda	PHC	200	
Godda	PHC	200	20
Godda	PHC	175	
Godda	PHC	195	25
Godda	PHC	100	25
Godda Total	8	1355	80
Gumla	DS		
Gumla	PHC	100	
Gumla	PHC	100	
Gumla	PHC	83	2
Gumla	PHC	90	30
Gumla	PHC	123	10
Gumla	PHC	79	7
Gumla	PHC	92	10
Gumla	PHC	60	
Gumla	PHC	136	10
Gumla	RH	92	
Gumla Total	11	955	69
Hazaribagh	DS	14	
Hazaribagh	FPC	127	5
Hazaribagh	PHC	170	12
Hazaribagh	PHC	100	35
Hazaribagh	PHC	98	
Hazaribagh	PHC	175	35
Hazaribagh	PHC		
Hazaribagh	PHC	200	25
Hazaribagh	PHC	130	10

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Hazaribagh	PHC	210	
Hazaribagh	PHC	80	34
Hazaribagh	PHC	130	5
Hazaribagh	PHC	130	30
Hazaribagh	PHC	201	89
Hazaribagh	PHC	100	30
Hazaribagh Total	15	1865	310
Jamtara	DS		
Jamtara	PHC	255	4
Jamtara	PHC	130	15
Jamtara	PHC	230	
Jamtara	PHC	172	8
Jamtara Total	5	787	27
Koderma	DS	30	
Koderma	PHC	48	96
Koderma	PHC	199	1
Koderma	PHC	175	3
Koderma Total	4	452	100
Latehar	DS	12	
Latehar	PHC	100	20
Latehar	PHC	120	
Latehar	PHC	117	
Latehar	PHC	67	30
Latehar	PHC	61	40
Latehar	PHC	85	
Latehar Total	7	562	90
Lohardaga	DS	80	
Lohardaga	PHC	144	6
Lohardaga	PHC	125	15
Lohardaga	PHC	150	

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Lohardaga	PHC	100	1
Lohardaga	PHC		
Lohardaga Total	6	599	22
Pakur	DS	8	
Pakur	PHC	84	5
Pakur	PHC	133	
Pakur	PHC	135	
Pakur	PHC	390	10
Pakur	PHC	118	12
Pakur Total	6	868	27
Palamu	DS	4	
Palamu	PHC	138	10
Palamu	PHC	129	
Palamu	PHC	350	
Palamu	PHC		
Palamu	PHC	70	2
Palamu	PHC	196	4
Palamu	PHC	160	
Palamu	PHC	20	
Palamu	PHC	164	10
Palamu	PHC	82	30
Palamu Total	11	1313	56
Ranchi	CS		
Ranchi	DS		
Ranchi	PHC	61	12
Ranchi	PHC	142	10
Ranchi	PHC	102	8
Ranchi	PHC		
Ranchi	PHC	130	
Ranchi	PHC	74	10

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Ranchi	PHC	600	
Ranchi	PHC	82	5
Ranchi	PHC	98	2
Ranchi	PHC	49	
Ranchi	PHC	74	
Ranchi	PHC	147	10
Ranchi	PHC	3	
Ranchi	PHC	71	
Ranchi	PHC	185	
Ranchi	PHC	150	
Ranchi	PHC		
Ranchi	PHC	168	
Ranchi	PHC	118	
Ranchi	PHC	90	24
Ranchi	PHC	162	5
Ranchi	PHC	125	
Ranchi Total	24	2631	86
Sahebganj	DS		
Sahebganj	PHC	200	26
Sahebganj	PHC		
Sahebganj	PHC	80	
Sahebganj	PHC	99	
Sahebganj	PHC		
Sahebganj	PHC	50	
Sahebganj	PHC	146	
Sahebganj Total	8	575	26
Saraikela Kharsawan	DS	598	
Saraikela Kharsawan	PHC		
Saraikela Kharsawan	PHC	215	1
Saraikela Kharsawan	PHC		

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
Saraikela Kharsawan	PHC	100	
Saraikela Kharsawan	PHC	215	15
Saraikela Kharsawan	PHC	110	
Saraikela Kharsawan	PHC	156	4
Saraikela Kharsawan	PHC	127	15
Saraikela Kharsawan Total	9	1521	35
Simdega	DS		
Simdega	PHC	90	
Simdega	PHC		
Simdega	PHC	109	2
Simdega	PHC	80	2
Simdega	PHC	98	6
Simdega	PHC	125	10
Simdega	PHC		
Simdega	PHC		
Simdega Total	9	502	20
West Singhbhum	DS	9	
West Singhbhum	PHC	180	20
West Singhbhum	PHC	180	20
West Singhbhum	PHC	148	
West Singhbhum	PHC	140	
West Singhbhum	PHC	145	
West Singhbhum	PHC	115	10
West Singhbhum	PHC	100	
West Singhbhum	PHC	127	8
West Singhbhum	PHC	140	
West Singhbhum	PHC	110	
West Singhbhum	PHC	138	8
West Singhbhum	PHC	120	3

Cold Chain Assessment in Jharkhand

District	Type	Operational vaccine carriers	Non-operational vaccine carriers
West Singhbhum Total	13	1652	69
Grand Total	213	27005	1770

APPENDIX M: DETAILED INVENTORY OF COLD BOXES AND CALCULATION OF NET REQUIREMENT FOR THE STATE

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Bokaro	Bokaro	DS			19	1	8		2		454	284		
Bokaro	Bermo	PHC			2	2			3	4	55	34		
Bokaro	Bokaro	PHC			2	2			2	2	50	32		
Bokaro	Chandankyari	PHC			4					5	80	31		
Bokaro	Chas	PHC			6					14	120	112		
Bokaro	Gumia	PHC				3			3	5	15	32	17	1
Bokaro	Jiridih	PHC			3				5		85	11		
Bokaro	Kasmar	PHC			1				6		50	32		
Bokaro	Nawadhi	PHC			3				8		100	21		
Bokaro	Peterwar	PHC			2				8		80	18		
Bokaro Total					42	8	8		37	30	1089	606	17	1
Chatra	Chatra	DS					2		2		26	127	101	6
Chatra	Chatra	PHC				2				4		21	21	2
Chatra	Hunterganj	PHC			4	3				4	80	21		
Chatra	Itkhorih	PHC				2			4	3	20	21	1	1
Chatra	Pratappur	PHC			3	2			3	4	75	21		
Chatra	Simaria	PHC			1	2			3	4	35	21		
Chatra	Tandwa	PHC	1		1	2	1		4	2	73	21		
Chatra Total			1		9	13	3		16	21	309	253	123	9
Deoghar	Deoghar	DS			18				5		385	149		
Deoghar	Jasidih	PHC			2				6		70	21		
Deoghar	Karon	PHC			2				4		60	21		
Deoghar	Madhupur RH	PHC										21	21	2

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Deoghar	Mohanpur	PHC			2				9		85	21		
Deoghar	Palajori	PHC			3				5	2	85	21		
Deoghar	Sarat	PHC			5				3		115	21		
Deoghar	Sarwan	PHC			2				4	4	60	21		
Deoghar Total					34				36	6	860	299	21	2
Dhanbad	Dhanbad	DS			20				4		420	383		
Dhanbad	Bagmara	PHC			3	4			5	5	85	48		
Dhanbad	Baliapur	PHC			1			1	8		60	14		
Dhanbad	Govindpur	PHC				3			10	3	50	25		
Dhanbad	Johrapokhar	PHC	1		8				10	12	235	55		
Dhanbad	Nirsa	PHC			6				18	5	210	53		
Dhanbad	Sadar PHC	PHC			2				11		95	69		
Dhanbad	Topchanchi	PHC			2	2			7	5	75	18		
Dhanbad	Tundi	PHC			1	3			8	2	60	16		
Dhanbad Total			1		43	12		1	81	32	1290	682		
Dumka	Dumka DS	DS										152	152	8
Dumka	Gopi Kandar	PHC										5	5	1
Dumka	Jama	PHC			1						20	17		
Dumka	Jarmundi	PHC			2				4		60	19		
Dumka	Kathikund	PHC			1						20	8		
Dumka	Masalia	PHC			5				2		110	15		
Dumka	Ramgarh	PHC			5				6		130	18		
Dumka	Raneswar	PHC			4	1					80	13		
Dumka	Sadar PHC	PHC			2	1			2	1	50	17		
Dumka	Saraya	PHC			4	2			5		105	16		
Dumka	Shikaripada	PHC			2				2	2	50	15		
Dumka Total					26	4			21	3	625	296	157	9

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
East Singhbhum	Jamshedpur DHQ	DS	18	18	36				185		2095	317		
East Singhbhum	Baharagharah	PHC			9				6		210	24		
East Singhbhum	Chakulia	PHC										17	17	1
East Singhbhum	Dalbhumgarh	PHC			1				1		25	12		
East Singhbhum	Dhumria	PHC			1				3		35	9		
East Singhbhum	Ghatsella	PHC			4						80	18		
East Singhbhum	Jugsalai	PHC										172	172	9
East Singhbhum	Musabani	PHC							1			17	17	1
East Singhbhum	Patomda	PHC			3				5		85	21		
East Singhbhum	Potka	PHC			1				5		45	27		
East Singhbhum Total			18	18	55				205	1	2575	635	206	11
Garhwa	Garhwa DS	DS			14				3		295	128		
Garhwa	Bhandaria	PHC			4	1			3	1	95	16		
Garhwa	Bhavaanathpur	PHC			1				8		60	16		
Garhwa	Dhurki	PHC			3				8		100	16		
Garhwa	Garhwa Block	PHC							5		25	16		
Garhwa	Majhion	PHC			3				5		85	16		
Garhwa	Meral	PHC			4				5		105	16		
Garhwa	Nagaruntari	PHC			2				9		85	16		
Garhwa	Ranka	PHC			6				4	1	140	16		
Garhwa Total					37	1			50	2	990	256		
Giridih	Giridih	DS			20						400	304		
Giridih	Bagodar	PHC			3				4	3	80	38		
Giridih	Bengabad	PHC			1	4			3	3	35	19		
Giridih	Birni	PHC			3				5		85	22		
Giridih	Deori	PHC			3				7		95	22		
Giridih	Dumri	PHC			2				6		70	29		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Giridih	Gandey	PHC			2				3	4	55	22		
Giridih	Jamua	PHC			1		2		10		86	34		
Giridih	MCH	PHC										24	24	2
Giridih	Pirtand	PHC			1	1			8	2	60	14		
Giridih	Raj Dhanwar	PHC			4	2			5		105	32		
Giridih	Sadar Block	PHC			2	4				7	40	24		
Giridih	Tisri	PHC			2				1	4	45	12		
Giridih Total					44	11	2		52	23	1156	594	24	2
Godda	Godda	DS			4	4	2	2	2	2	106	138	32	2
Godda	Boarijore	PHC			2	2			5		65	20		
Godda	Mahagama	PHC			3				8		100	20		
Godda	Meharma	PHC			2				11		95	20		
Godda	Patthargama	PHC				4			6		30	20		
Godda	Podayahat	PHC										20	20	1
Godda	Sadar Block	PHC			2				4		60	20		
Godda	Sundarpahari	PHC			2	3			1		45	20		
Godda Total					15	13	2	2	37	2	501	276	51	3
Gumla	Gumla	DS			5		1		3		123	113		
Gumla	Bharno	PHC			2				5		65	8		
Gumla	Bishnupur	PHC			3				5		85	7		
Gumla	Chainpur	PHC			2				3		55	7		
Gumla	Dumri	PHC			5				3	3	115	10		
Gumla	Ghagra	PHC			1				5		45	12		
Gumla	Kamdara	PHC			3	2			3	1	75	10		
Gumla	Palkot	PHC			4				2		90	10		
Gumla	Raidih	PHC			3	1			3		75	9		
Gumla	Sisai RH	PHC				2			3	3	15	12		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Gumla	Basia	RH			2	1			1		45	10		
Gumla Total					30	6	1		36	7	788	207		
Hazaribagh	Hazaribagh	DS			9	1	2		2		206	294	88	5
Hazaribagh	Churchu	FPC			2				3	1	55	23		
Hazaribagh	Barakatha	PHC			2				2	1	50	23		
Hazaribagh	Barhi	PHC			2				3	2	55	23		
Hazaribagh	Berkagaon	PHC			2				6		70	23		
Hazaribagh	Chaparan	PHC			4				4	2	100	23		
Hazaribagh	Gola	PHC				2			4		20	23	3	1
Hazaribagh	Ichak	PHC			2				4	1	60	23		
Hazaribagh	Katkamsari	PHC			2				5	1	65	23		
Hazaribagh	Keredari	PHC			1	2			2	1	30	23		
Hazaribagh	Mandu	PHC			3	2			3	2	75	23		
Hazaribagh	Patratu	PHC			2		1		1	2	53	23		
Hazaribagh	Ramgarh	PHC	1		3				2	3	95	23		
Hazaribagh	Vishnugarh	PHC			3	1	1		1	3	73	23		
Hazaribagh Total			1		37	8	4		42	19	1007	588	90	6
Jamtara	Sadar DS	DS			16			6	2		330	87		
Jamtara	Jamtara	PHC			1				1		25	22		
Jamtara	Kundahit	PHC			1	2			2	3	30	22		
Jamtara	Nala	PHC			2						40	22		
Jamtara	Narayanpur	PHC										22	22	2
Jamtara Total					20	2		6	5	3	425	174	22	2
Koderma	Koderma	DS			4		2		4		116	87		
Koderma	Jainagar	PHC			9	2			3	4	195	19		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Koderma	Koderma (Jhumri Talaya) PHC	PHC			3		2		5	3	101	35		
Koderma	Markacho	PHC			8	5			1		165	16		
Koderma Total					24	7	4		13	7	577	158		
Latehar	Latehar	DS			2				2		50	75	25	2
Latehar	Balumath	PHC			2				5	3	65	12		
Latehar	Barawadhi	PHC			5				4		120	12		
Latehar	Chandwa	PHC							7		35	12		
Latehar	Latehar	PHC	3						8		115	12		
Latehar	Mahuatan	PHC			5				2		110	12		
Latehar	Manika	PHC			3				1		65	12		
Latehar Total			3		17				29	3	560	149	25	2
Lohardaga	Lohardaga	DS			2	1	2		3		71	46		
Lohardaga	Bandra	PHC			1		1		2		38	9		
Lohardaga	Kisko	PHC			3				6		90	9		
Lohardaga	Kuru	PHC			2				3		55	9		
Lohardaga	Lohardaga	PHC			2		1		4		68	9		
Lohardaga	Senha	PHC					1		2		18	9		
Lohardaga Total					10	1	5		20		340	92		
Pakur	Pakur	DS										90	90	5
Pakur	Amrapada	PHC				2			1	1	5	8	3	1
Pakur	Hiranpur	PHC							2	1	10	9		
Pakur	Littipara	PHC			2		1		1		53	12		
Pakur	Maheshpur	PHC			3	10				5	60	23		
Pakur	Pakudia	PHC			2	3			1		45	13		
Pakur Total					7	15	1		5	7	173	154	93	6

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Palamu	Daltanganj	DS			12		5				280	245		
Palamu	Bishrampur	PHC			2				6	2	70	21		
Palamu	Block PHC	PHC			2	2			4		60	15		
Palamu	Chainpur	PHC			1				4		40	28		
Palamu	Chattarpur	PHC			4				4		100	27		
Palamu	Hariharganj	PHC			2				5		65	14		
Palamu	Husainabad	PHC			7				4		160	28		
Palamu	Lisliganj	PHC			1	1			2	4	30	13		
Palamu	Manatu	PHC										16	16	1
Palamu	Panki	PHC			5	3					100	20		
Palamu	Patan	PHC							6	3	30	23		
Palamu Total					36	6	5		35	9	935	450	16	1
Ranchi	Namkum	CS												
Ranchi	Ranchi DS	DS			20				2		410	354		
Ranchi	Aarki	PHC				1			5	3	25	10		
Ranchi	Anigara	PHC			1	2			2		30	14		
Ranchi	Bero	PHC			1	1			4	1	40	17		
Ranchi	Bundu	PHC										10	10	1
Ranchi	Burmu	PHC			3				4		80	19		
Ranchi	Chancho	PHC	3		2				3		130	10		
Ranchi	Kanke	PHC			2	3			2	4	50	118	68	4
Ranchi	Karra	PHC			2	1			4		60	13		
Ranchi	Khunti	PHC							3		15	13		
Ranchi	Khunti	PHC			1	1	1		1		33			
Ranchi	Lapung	PHC			1	2			2	1	30	7		
Ranchi	Mander	PHC			4				6		110	13		
Ranchi	MCH	PHC												

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Ranchi	Murhu	PHC			2				1	2	45	10		
Ranchi	Namkum	PHC			2		1		2		58	15		
Ranchi	Oremanjhi	PHC			2	1			4	3	60	10		
Ranchi	Rania	PHC										5	5	1
Ranchi	Ratu	PHC			1	2			5		45	16		
Ranchi	Silli	PHC			1		2		3		51	15		
Ranchi	Sonahatu	PHC			2				5		65	13		
Ranchi	Tamar	PHC			3				3		75	16		
Ranchi	Torpa	PHC			3				5	2	85	11		
Ranchi Total			3		53	14	4		66	16	1497	709	83	6
Sahebganj	Sadar Hospital	DS			25				45		725	118		
Sahebganj	Baharawa	PHC			2	4			2		50	17		
Sahebganj	Barhait	PHC			2				1		45	17		
Sahebganj	Borio	PHC			2		1		4	2	68	17		
Sahebganj	Pathna	PHC										17	17	1
Sahebganj	Rajmahal	PHC			3		6		2		118	17		
Sahebganj	Sadar PHC	PHC										17	17	1
Sahebganj	Taljhari	PHC							2		10	17	7	1
Sahebganj Total					34	4	7		56	2	1016	236	41	3
Saraikela Khar-sawan	Chandel (DS)	DS			19				21		485	113		
Saraikela Khar-sawan	Chandel	PHC										18	18	1
Saraikela Khar-sawan	Ghamaria	PHC			2				5		65	18		
Saraikela Khar-sawan	Ichagarh	PHC										15	15	1

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
Saraikela Kharsawan	Kuchai	PHC			3				2		70	9		
Saraikela Kharsawan	Nimdih	PHC			1						20	13		
Saraikela Kharsawan	Raj Kharsawan	PHC			2				2		50	11		
Saraikela Kharsawan	Rajnagar	PHC			2				2		50	19		
Saraikela Kharsawan	Saraikela Sub Depot	PHC			2				3		55	10		
Saraikela Kharsawan Total					31				35		795	226	33	2
Simdega	Simdega	DS			4		5				120	71		
Simdega	Bano	PHC			2				2		50	9		
Simdega	Bolba	PHC			2						40			
Simdega	Jaldega	PHC			2	1			4		60	9		
Simdega	Kolebera	PHC			1				3		35	9		
Simdega	Kurdeg	PHC			4				1		85	9		
Simdega	Simdega	PHC			3				1		65	9		
Simdega	Simdega PHC	PHC										9	9	1
Simdega	Thethaitnagar	PHC			3				2		70	9		
Simdega Total					21	1	5		13		525	134	9	1
West Singhbhum	Chaibasa Sadar	DS	1		14		7		3		376	51		
West Singhbhum	Barajamda	PHC			3		1		3	1	83	14		
West Singhbhum	Chakradharpur	PHC			2	3			5		65	18		

Cold Chain Assessment in Jharkhand

District	Site	Type	25 Litres		20 Litres		8 Litres		5 Litres		Net transportation capacity (gross ltrs)	Required capacity (gross ltr)	Net shortage (Gross Ltr)	Net requirement (20 L boxes)
			Working	Not Working	Working	Not Working	Working	Not Working	Working	Not Working				
West Singhbhum	Goilkara	PHC			1				5		45	11		
West Singhbhum	Jagganathpur	PHC			2				3	2	55	26		
West Singhbhum	Jinkpani	PHC			4				4		100	12		
West Singhbhum	Khutpani	PHC			2				5	2	65	9		
West Singhbhum	Kumardungi	PHC			1	1				2	20	9		
West Singhbhum	Manjgaun	PHC			1	1			1	2	25	8		
West Singhbhum	Manoharpur	PHC			2				3		55	14		
West Singhbhum	Sadar-Chaibasa	PHC				1			1		5	12	7	1
West Singhbhum	Sonua	PHC			3				5		85	12		
West Singhbhum	Tonto	PHC							2	2	10	9		
West Singhbhum Total			1		35	6	8		40	11	989	203	7	1
Grand Total			28	18	660	132	59	9	930	204	19022	7376	1018	67

APPENDIX N: DETAILED INVENTORY OF CONDEMNED REFRIGERATION UNITS IN THE STATE

District	Site	Type	Deep Freezer					Ice Lined Refrigerator				
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Bokaro	Bokaro	PHC	3		3		6	2				2
Bokaro	Chandankyari	PHC						1				1
Bokaro	Chas	PHC			1		1					
Bokaro	Gumia	PHC	1				1	2				2
Bokaro	Nawadhi	PHC						1				1
Bokaro	Peterwar	PHC	1				1	2				2
Bokaro	Bermo	PHC						1				1
Bokaro Total			5		4		9	9				9
Chatra	Chatra	PHC						1				1
Chatra	Hunterganj	PHC			1		1					
Chatra	Itkhori	PHC	4				4					
Chatra	Simaria	PHC						2				2
Chatra Total			4		1		5	3				3
Deoghar	Deoghar	PHC	7				7	7		1		8
Deoghar	Jasidih	PHC			1		1					
Deoghar Total			7		1		8	7		1		8
Dhanbad	Bagmara	PHC			1		1					
Dhanbad	Baliapur	PHC	1				1					
Dhanbad	Dhanbad	PHC			3		3	8		1		9
Dhanbad	Govindpur	PHC			1		1					
Dhanbad	Nirsa	PHC	1				1	1				1
Dhanbad	Topchanchi	PHC			1		1					
Dhanbad Total			2		6		8	9		1		10

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer				Ice Lined Refrigerator					
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Dumka	Dumka DS	DS		1	3							
Dumka	Jama	PHC					1					1
Dumka	Jarmundi	PHC	1				1					1
Dumka	Raneswar	PHC					1	1				2
Dumka	Sadar PHC	PHC			1							1
Dumka Total			1	1	4		3	1				4
East Singhbhum	Jamshedpur DHQ	DS			2							2
East Singhbhum	Dalbhumergarh	PHC	1									1
East Singhbhum	Potka	PHC	1				1					1
East Singhbhum Total			2		2		1					1
Garhwa	Garhwa DS	DS	1		1							2
Garhwa	Bhandaria	PHC	1									1
Garhwa	Garhwa Block	PHC	1				1	2				2
Garhwa	Meral	PHC	1				1	2				2
Garhwa	Nagaruntari	PHC	1				1	1				1
Garhwa Total			5		1		6	5				5
Giridih	Bagodar	PHC	1				1	2				2
Giridih	Bengabad	PHC	2									2
Giridih	Birni	PHC	1		1		2	1				1
Giridih	Deori	PHC	1				1	1				1
Giridih	Dumri	PHC	2		1		3					3
Giridih	Gandey	PHC	2				2	1				1
Giridih	Giridih	PHC	3		2		5			1		1
Giridih	Jamua	PHC	1		1		2	1				1
Giridih	Pirtand	PHC						1				1
Giridih	Raj Dhanwar	PHC	1		2		3	1				1

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer					Ice Lined Refrigerator				
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Giridih	Tisri	PHC			1		1	1	1			2
Giridih	Sadar Block	PHC	1				1	1			1	2
Giridih Total			15		8		23	10	1	1	1	13
Godda	Boarijore	PHC			1		1					
Godda	Godda	PHC			2		2	2				2
Godda	Meharma	PHC		1			1					
Godda Total				1	3		4	2				2
Gumla	Ghagra	PHC	1				1	1				1
Gumla	Gumla	PHC	4		3		7	3		1		4
Gumla	Sisai RH	RH								1		1
Gumla Total			5		3		8	4		2		6
Hazaribagh	Barakatha	PHC						2				2
Hazaribagh	Barhi	PHC	1				1					
Hazaribagh	Berkagaon	PHC	2		1		3	2				2
Hazaribagh	Chaparan	PHC						1				1
Hazaribagh	Churchu	PHC	1				1					
Hazaribagh	Gola	PHC						1				1
Hazaribagh	Hazaribagh	PHC	8		3		11	1				1
Hazaribagh	Ichak	PHC						1				1
Hazaribagh	Mandu	PHC						1				1
Hazaribagh	Patratu	PHC	1				1	1				1
Hazaribagh	Vishnugarh	PHC						1				1
Hazaribagh Total			13		4		17	11				11
Jamtara	Sadar DS	DS									1	1
Jamtara	Narayanpur	PHC						1				1
Jamtara Total								1			1	2
Koderma	Jainagar	PHC	1				1	1				1

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer				Ice Lined Refrigerator					
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Koderma	Markacho	PHC					1				1	
Koderma Total			1				2				2	
Latehar	Balumath	PHC	1				1					
Latehar	Chandwa	PHC					1				1	
Latehar	Latehar	PHC	1	1			2	3			3	
Latehar	Mahuatan	PHC	1				1	1			1	
Latehar	Manika	PHC	1				1	1			1	
Latehar Total			4	1			5	6			6	
Lohardaga	Bandra	PHC					1				1	
Lohardaga	Kisko	PHC	1		1		2		1		1	
Lohardaga	Lohardaga	PHC			1		1	1			1	
Lohardaga	Senha	PHC					1				1	
Lohardaga Total			1		2		3	3	1		4	
Pakur	Pakur	PHC					5				5	
Pakur Total							5				5	
Palamu	Bishrampur	PHC	1	1			2					
Palamu	Daltanganj	PHC			2		2					
Palamu	Lisliganj	PHC					1				1	
Palamu	Panki	PHC	1				1					
Palamu Total			2	1	2		5	1			1	
Ranchi	Ranchi DS	DS	7		5		12	10		1	11	
Ranchi	Chancho	PHC	1				1					
Ranchi	Khunti	PHC	1				1	1			1	
Ranchi	Ratu	PHC	1				1	1			1	
Ranchi	Aarki	PHC	1				1	1			1	
Ranchi Total			11		5		16	13		1	15	
Sahebganj	Borio	PHC			1		1	1			1	

Cold Chain Assessment in Jharkhand

District	Site	Type	Deep Freezer				Ice Lined Refrigerator					
			Small		Large		Total	Small		Large		Total
			CFC	CFC-Free	CFC	CFC-Free		CFC	CFC-Free	CFC	CFC-Free	
Sahebganj Total					1		1	1				1
Saraikela Kharsawan	Ghamaria	PHC	1		1		2					
Saraikela Kharsawan	Ichagarh	PHC	1				1					
Saraikela Kharsawan	Kuchai	PHC	1		1		2		1			1
Saraikela Kharsawan	Nemdeah	PHC	2				2					
Saraikela Kharsawan	Raj Kharsawan	PHC	1				1	1				1
Saraikela Kharsawan	Rajnagar	PHC			2		2					
Saraikela Kharsawan	Saraikela Sub Depot	PHC	1	1			2	1				1
Saraikela Kharsawan Total			7	1	4		12	2	1			3
Simdega	Bano	PHC						1				1
Simdega	Jaldega	PHC	1				1	1				1
Simdega	Kurdeg	PHC			1		1					
Simdega	Simdega	PHC						1				1
Simdega	Simdega PHC	PHC						1				1
Simdega Total			1		1		2	4				4
West Singhbhum	Goilkara	PHC	1				1	1				1
West Singhbhum	Jagganathpur	PHC	1				1	1				1
West Singhbhum	Manjgaun	PHC	2				2	1				1
West Singhbhum	Manoharpur	PHC						1				1
West Singhbhum Total			4				4	4				4
Grand Total			90	5	52		147	106	4	6	3	119

APPENDIX O: LIST OF PERSONNEL PLACED AT SITE WITH TRAINING STATUS

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Bokaro	Bokaro	DS	Shashi Kumar Malik	Accountant	Yes	4	-	-
			Ram Prakash Singh	Driver	No		-	-
			Jay Jeevan Guddu Horo	Clerk	No		-	-
			Dr. P.N. Pandey	CS	No		-	-
Bokaro	Bermo	PHC	Jai Prakash Jha	Vaccinator	No		-	-
			Babita	ANM	No		-	-
			Cicilya Beek	LHV	No		-	No Cold chain training
			Gangadhar Mishra	Vaccinator	No		-	-
			Satendra Narayan Singh	Computer Operator	No		-	-
Bokaro	Bokaro	PHC	Shiv Poojan Ram	Health Inspector	No		-	-
			Dhaneshwar Mazi	Health Inspector	No		-	-
			Saroj K. Tiwari	Assistant Director (Public Health)	No		-	-
Bokaro	Chandankyari	PHC	Ramesh Kumar	Clerk	Yes	1	Namkum	-
			Ramesh Kumar	Clerk	No		-	-
			Ajit Kumar Singh	Clerk	No		Bokaro	Pulse polio cold chain
Bokaro	Chas	PHC	Shekhar Kumar	Clerk	No		-	-
			Dr. Firoz Ahmed	Grade I MO	No		-	-
			Shekar	Store keeper	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Binda Kumari./Urmila Devi	LHV	No		-	-
			Dr. Shobhak Prasad	MOIC	No		-	-
			Dr. Phiraj Ahmed	MOIC	No		-	-
Bokaro	Gumia	PHC	Parveen Kujur	Clerk	Yes	1		-
			Dilip Kumar	Family planning worker	No			-
			Dr. Chakkaborty	Medical Officer	No		-	-
Bokaro	Jiridih	PHC	Suman Prasad	Assistant Accountant	No		-	-
			Rani Kumari	LHV	No		-	-
			Raj Kumari	LHV	No		-	-
Bokaro	Kasmar	PHC	Indira Hemrom	LHV	Yes	1	-	-
			Pankaj Kumar	FWP	No		-	-
Bokaro	Nawadhi	PHC	Mahadev Dey	Family planning worker	Yes	10	-	Immunization
Bokaro	Peterwar	PHC	Hatima Murmur	ANM	Yes	5	-	-
			Hatima Murmu	ANM	Yes	5	-	-
			Dr. P.N. Prasad	Clerk	No		-	-
			Dr. Panchandad Prasad	MOIC	No		-	-
Chatra	Chatra	DS	Jaled Ansari	Warden	No		-	-
			Dr. E. Tigga	CS	No		-	-
			Satyender Singh	Clerk	No		-	-
Chatra	Chatra	PHC	Suresh Yadav	Store Keeper	Yes	3	-	-
			Dr. Suresh Sahu	MOIC	No		-	-
			Ansar Ahmed	Clerk	No		-	-
Chatra	Hunterganj	PHC	Verender Prasad	Family planning worker & cc in	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
				charge				
			Dr. K.P Lal	MOIC	No		-	-
Chatra	Itkhor	PHC	Sarju Prasad	Assistant	No		-	-
Chatra	Pratappur	PHC	Vijay Shankar Singh	Computer Operator	Yes	7	Patna	-
			Dr. Shiv Narayan Singh	MOIC	No		-	-
			Radha Ram Singh	Family planning worker	No		-	-
Chatra	Simaria	PHC	Dr. S.K. Pathak	MOIC	No		-	-
			Kameshwar/Shambu	Vaccinator	No		-	-
Chatra	Tandwa	PHC	Shoba Kujur	Nurse	No		-	-
			Priyanka Kumari	Nurse	No		-	-
			Dr. Surendra Prasad Singh	MOIC	No		-	-
Deoghar	Deoghar	DS	Bishwanath Das	Grade IV	No		-	On deputation
			Somnath Mukherjee	Assistant Dist. RCH officer	No		-	-
Deoghar	Jasidih	PHC	Babul Mehtan	Grade IV	Yes		-	-
			Dr. S.S. P Singh	MOIC	No		-	-
			Dr. Sudhir Prasad	Immunization officer	No		-	-
			Manju Kumar	Nurse	No	1	Deoghar	-
Deoghar	Karon	PHC	Usha Kumari	ANM	No		-	-
Deoghar	Madhupur RH	PHC	Raja	Polio coordinator	No		-	-
Deoghar	Mohanpur	PHC	Kajal Kiran	Grade A Nurse	Yes	1	-	-
			Asha Kumari	ANM	No		-	-
			Kajal Kiran	Grade A Nurse	No		-	-
			Hemant Mishra	Store keeper	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Ajay Kumar Das	MOIC	No		-	-
Deoghar	Palajori	PHC	Dr. Ramesh Prasad	MOIC	No		-	-
			Magdali Aind	Head ANM	No		-	-
			Mridula Kumari	Grade A Nurse	No		-	-
Deoghar	Sarat	PHC	Salom Kishu	ANM	No		-	-
			Babita Kumari	Grade A Nurse	No		-	-
			Minoti Das	ANM	No		-	-
Deoghar	Sarwan	PHC	Alo Banarji	LHV	No		-	-
			Sulochna Devi	ANM	No		-	-
			Neelam Kumari	ANM	No		-	Trained by MOIC
			Dr. Deepak Kumar singh	MOIC	No		-	-
			Sholam Lal	Grade IV	No		-	-
Dhanbad	Dhanbad	DS	Ram Parvesh Paswan	Asst Investigator	No		-	-
			Arun Kumar	Clerk	No		-	-
Dhanbad	Bagmara	PHC	Hemant Kumar	Clerk-cold chain	No		-	-
			Dr. Kalavaty Pandey	MOIC	No		-	-
Dhanbad	Baliapur	PHC	Thakur Prasad Das	Clerk	No		-	-
			Dr. Akilesh Sharma	MOIC	No		-	-
Dhanbad	Govindpur	PHC	Dr. Digvijay Kumar	MOIC	No		-	-
			Dr. Digvijay Singh	MOIC	No		-	-
			Amulya Rani	LHV	No		-	-
			Chandeshwar Singh	Grade IV	No		-	-
Dhanbad	Johrapokhar	PHC	Govinda Topo	BHI	No		-	-
			Dr. Jaima Lakra	AC	No		-	-
			Roopa Kumari	ANM	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. Shashi Bhushan	MOIC	No		-	-
Dhanbad	Nirsa	PHC	Geeta Sinha	LHV	No		-	-
			Sameer Kumar Pal	Family planning worker	No		-	-
			Vinod Ranjan Sinha	Computer Operator	No		-	-
			Prasad Singh	MOIC	No		-	-
			Dr. Shahi Bhusan	MOIC	No		-	-
			Saroj Sinha	ANM	No		-	-
Dhanbad	Sadar PHC	PHC	Gangadhar	Computer Operator	Yes	1	-	-
			Ratna Bhattacharya	ANM	Yes	1	-	-
			Dr. Ashutosh Kumar Singh	MOIC	No		-	-
Dhanbad	Topchanchi	PHC	Bahalen Gudiya	LHV	Yes	1	Numkum	-
			N.K. Ram	Clerk	No		-	-
			Dr. M.M.P. Singh	MD	No		-	-
			Kumari Madhavi	ANM	No		-	-
Dhanbad	Tundi	PHC	Raja Ram pd. Singh	Clerk	Yes	11	Dhanbad	-
			Saloni Anando	LHV	Yes		-	-
			Arvind Tirki	Health Educator	No		-	-
			Raja Ram pd. Singh	Clerk	No		-	-
Dumka	Gopi Kandar	PHC	Nirmala Hembram	ANM	No		-	-
			Dr. Narendra Kumar	MO	No		-	-
			Dr. Surya Narayan Pradhan	MOIC	No		-	-
			Dr. Narendra Kumar	MO	No		-	-
Dumka	Jama	PHC	Grashila Marandi	LHV	Yes	5	-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Savitri Sinha	LHV	Yes	5	-	-
			Grashila Marande	LHV	No		-	-
			Dr. Sakaldeep Mandal	MOIC	No		-	-
Dumka	Jarmundi	PHC	Vimla Das	LHV	Yes	20	Dumka	-
			Vimal Das	LHV	No		-	-
			Dr. Virendrakumar Singh	MOIC	No		-	-
Dumka	Kathikund	PHC	Dr. D.K. Mishra	MOIC	No		-	-
			Ramhari Prasad	Extension Educator	No		-	-
			Malti Sorin	LHV	No		-	-
Dumka	Masalia	PHC	Kokil Manto	Pharmacist	No		-	-
			Dr. Sanjay Kumar	MOIC	No		-	-
			Dr. Mohd. Javed	MOIC	No		-	-
Dumka	Ramgarh	PHC	Bipin Kumar Singh	Clerk	No		-	-
			Savitri	ANM	No		-	-
			Dr. R.D. Singh	MOIC	No		-	-
Dumka	Raneswar	PHC	Sushila Kumar	LMV	No		-	-
			Dr. Mohd Nazirudin	Medical Officer	No		-	-
Dumka	Sadar PHC	PHC	Philomina Hembran	LHV	No		-	-
			Heera mani	LHV	No	1	-	-
Dumka	Saraya	PHC	Arjun Yadav	Clerk	No		-	-
			Ashok Mitra	LHV	No		-	-
			Jaikant Devi	LHV	No		-	-
			Sarojini Kumari	ANM	No		-	-
			Raj Devi	LHV	No		-	-
Dumka	Shikaripada	PHC	Navin Kuma Singh	Health Worker	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. D. Hembram	MO	No		-	-
			Hariballab Singh	Store incharge	No		-	-
			Dr. S. Prasad	MOIC	No		-	-
East Singhbhum	Jamshedpur DHQ	DS	M.K. Prasad	Clerk	No		-	-
			M.K. Prasad	Clerk	No	1	Jaipur	-
East Singhbhum	Baharagharah	PHC	Jitendranath Das	Male family planning worker	Yes	4	Jamshedpur	-
			Dr. C.N Jha	MOIC	No		-	-
			Hidsi Kesgiri	Clerk	No		-	-
East Singhbhum	Chakulia	PHC	Manju Kumari	ANM	Yes	5	Tatana gar	-
			Tirki	LHV	Yes	5	Tatana gar	-
			P Tiriki	-	No		-	-
			Dr. H.K. Alok	MOIC	No		-	-
East Singhbhum	Dalbhumgarh	PHC	R.N. Manna	Supervisor	Yes	5	Jamshedpur	-
			Dankapuri	Male Ward Attendent	Yes	1	-	-
			Dashpurh	Male Ward Attendent	No		-	-
			R.N Manna	Supervisor	No		-	-
East Singhbhum	Dhumria	PHC	Dr. Shashi Kumar Singh	Medical Officer	No		-	-
			Shadeo Ram	VHW	No		-	-
East Singhbhum	Ghatsella	PHC	Bimal Kr. DAs	BHW	No		-	-
			P.L Mishra	Clerk	No		-	-
East	Jugsalai	PHC	Rajendra Kalindi	Grade IV	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Singhbhum			Ramchandra	Clerk	No		-	Attended two times in 2004 & 2005
			Ramachandra Singh	Clerk	No		-	-
			Dr. M.L. Keshari	MOIC	No		-	-
East Singhbhum	Musabani	PHC	Shaber Alam	Clerk	No		-	-
			Meenu Maya	LHV	No	2	Jamshed-pur	-
East Singhbhum	Patomda	PHC	Dr. A.A. Ekka	MOIC	No		-	-
			Vivekanand Chand	Storekeeper/Clerk	No		-	-
East Singhbhum	Potka	PHC	Dr. Paul Astha	MOIC	No		-	-
			Mani Manzi	LGV	No		-	-
			Mantu Chandras	Health worker	No		-	-
Garhwa	Garhwa DS	DS	Vijay	Computer Operator	Yes	6	-	-
			Dr. Raja K	RCM Officer	No		-	-
Garhwa	Bhandaria	PHC	Roop mandal	LHV	No		-	-
			Dr. Rajendra Prasad singh	MOIC	No		-	-
			Sikendar Kumar	Grade IV	No		-	-
			Dr. Ravi Prakash	MOIC	No		-	-
			Arun Nagendra	Peon	No		-	To fetch Vaccines
			Rajani Kirkela	ANM	No		-	-
Garhwa	Bhavaanathpur	PHC	Anil Kirpola	Grade IV	No		-	-
			Kerolina Eleka	LHV	Yes	5	-	-
Garhwa	Bhavaanathpur	PHC	Kerolina Eleka	LHV	No		-	-
			D. Laleada	LHV	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			D. Laleada	LHV	No		-	-
			Dr. R.K. Choudhari	MO	No		-	-
			Dr. V.K. Gupta	MO	No		-	-
Garhwa	Garhwa Block	PHC	Sushi Phulmati Kumari	LHV	Yes		-	-
			Shashi Bhashan Ram	MOIC	No		-	-
			Dr. Virendra K. Tiwari	MOIC	No		-	-
Garhwa	Majhion	PHC	Dr. Sohail Akhtar Ansari	MOIC	No		-	-
			Shilwanti Surgan	LHV	No	3	-	-
Garhwa	Meral	PHC	Jenet Fransis	ANM	No		-	-
			Dr. Jaiswal	MOIC	No		-	-
			Dr. Premchandran Shuka	Medical Officer	No		-	-
			Kanij Fatma	LHV	No		-	-
Garhwa	Nagaruntari	PHC	Mohini Minz	LHV	No	3	-	-
			Dr. Ravindra prasad	MOIC	No		-	-
Garhwa	Ranka	PHC	Usha Kumari	ANM	Yes	4	Cold Chain RCH-Ranchi	-
			Ramjanam Singh	Clerk/Servilene Inspector	No		-	-
			Dr. M. P. Singh	MOIC	No		-	-
			Arun Lakda	Clerk	No		-	-
			Geela Kumari	ANM	No		-	-
Giridih	Giridih	DS	Prem Kumar	Assistant clerk	Yes	1	Ranchi	-
			Dr. Bijay kumar Sharma	CS	No		-	-
			Prem kumar	Assistant clerk	No		-	-
Giridih	Bagodar	PHC	Lakshmi Devi	LHV	No		Giridih	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. R.N Singh	MOIC	No		-	-
			Gyansham	Accountant	No		-	-
Giridih	Bengabad	PHC	Arvind singh	Vaccinator	Yes	3	-	-
			Dr. Richards Raj Shekhar	MOIC	No		-	-
			Anant prasad Tiwari	Computer Operator	No		-	-
Giridih	Birni	PHC	Kamla Devi	LHV	No		Gindih	-
			Mohd. Sallahudin	Computer Operator	No		-	-
Giridih	Deori	PHC	Shivanand Mishra	Computer Operator	No		-	-
			Dr. Hasan	MOIC	No		-	-
			Sukhdev Rain Bhagat	Computer Operator	No		-	-
Giridih	Dumri	PHC	Sheela Ghosh	LHV	Yes	5	-	-
			Beena Sinha	ANM	No		-	Received LHV training
Giridih	Gandey	PHC	Sarojni Devi	LHV	No		-	-
			Kalavati	ANM	No		-	-
Giridih	Jamua	PHC	K.P. Verma	Staff	No		-	-
			Jageshwar Prasad Singh	Head clerk	No		-	-
			Govind prasad	-	No		-	Trained by MOIC
			Dr. Harihar Prasad Singh	MOIC	No		-	-
Giridih	MCH	PHC			Yes	3	Gi-ridih-sadar hospital	-
			Sandhya Jaiswal	LHV				
			Shakuntla Sinha	ANM	Yes	3	Gi-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
							ridih-sadar Hospital	
Giridih	Pirtand	PHC	Celestina Toppo	LHV	No		-	-
			Dr. Mahavir Oraon	MOIC	No		-	-
			Kumari Rosi Rani	ANM	No		-	-
Giridih	Raj Dhanwar	PHC	Dr. Vijayakumar	MOIC	No		-	-
			Shivani Chakravathy	ANM	No		-	-
Giridih	Sadar Block	PHC	Mahamaya Devi	LHV	No		-	-
			Dr. Nitranand Singh	MOIC	No		-	-
			Sant Kumar sinha	Block Extensive Educator	No		-	-
			Kamla Ramot	LHV	No		-	-
Giridih	Tisri	PHC	Savitri Sinha	LHV	Yes	4	Giridih	-
			Kedar Prasad Sharma	Computer Operator	No		-	-
			Birendra Kumar	Pharmacist	No		-	-
			M.S.K Ahmed	MO	No		-	-
Godda	Godda	DS	Dr. Jitender Kumar	CS	No		-	-
			Subodh Kumar Das	Clerk	No		-	-
			Rajnikant Hazari	Peon	No		-	-
			S.K. Das	Clerk	No		-	-
			Dr. Ram Jee Ram	RCH	No		-	-
			Subodh K	-	No		-	-
Godda	Boarijore	PHC	Manju Murthur	ANM	Yes	3	-	-
			Manju Murmu	ANM	No		-	-
			Dr. Y.N. Singh	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Godda	Mahagama	PHC	Pankaj Kumar	Clerk	Yes	2	-	-
			Pankaj Kumar	Clerk	No		-	-
			Dr. Laxmi Narayan Sharma	MOIC	No		-	-
Godda	Meharma	PHC	Nepal Mandal	Clerk	No		-	-
			Pradeep Singh	Clerk	No		-	-
			Nandakumar Jha	Computer Operator	No		-	-
			Savita Devi	LHV	No		-	-
Godda	Patthargama	PHC	Nagendra Kumar	SFW	No		-	-
			Sr. S.N. Chowdary	MOIC	No		-	-
Godda	Podayahat	PHC	Mahesh Thakur	Block Extension Educator	No	1	Godda	-
			Syan and Sinha	Grade IV	No		-	-
			Lchha/Sarawati Toppo	LHV Immunization	No		-	-
			Kanita Gupta	-	No		-	-
			Dr. V.R. Razzah	MOIC	No		-	-
Godda	Sadar Block	PHC	Pahnath	Health worker	Yes	1	-	-
			Dr. V.K. Bhagat	MOIC	No		-	-
Godda	Sundarpahari	PHC	Om Prakash	Computer Operator	No		-	-
			Susheela Devi	LHV	No		-	Immunization
			B.N. Singh	Family planning worker	No	1	Godda	-
			Sanjeev Kumar Varma	Pharmacist	No		-	-
			Mayarani Das	ANM	No		-	Immunization
Gumla	Gumla	DS	Anjula Dube	Computer Opera-	Yes	1	-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
				tor				
			Shudarshan Singh	FWP	No		-	-
Gumla	Bharno	PHC	Sunita Ekka	ANM	No		-	-
			Chavidas	LHV	No		-	-
			Dr. S. Bhaski	MOIC	No		-	-
			Dr. Attul naque Ansari	MO	No		-	-
Gumla	Bishnupur	PHC	Maria Gracica	LHV	No		-	-
			Indu Kumari	ANM	No		-	-
Gumla	Chainpur	PHC	Samsuddin Khan	Computer Operator	No		-	-
			Imlani Herenze	ANM	No		-	-
			Kiran Kujur	ANM	No		-	-
Gumla	Dumri	PHC	Ashok Prasad	Dresser	No		-	-
			Rosalia Lakola	LHV	No		-	-
			Dr. Rameshwar Ramesh	MOIC	No		-	-
Gumla	Ghagra	PHC	Jasmani Danata	LHV	No		-	-
Gumla	Kamdara	PHC	Jaikant Ram	Computer Operator	Yes	2	-	-
			Saroj Minz	LHV	Yes	2	-	-
			Sukra Pradhan	Driver	No		-	-
			Saroj Minl	LHV	No		-	-
			Dr. M.K.M Sahi	MOIC	No		-	-
Gumla	Palkot	PHC	Suganthi Kajoor	LHV	Yes	15	-	-
			Agathala	Computer Operator	No		-	-
			Dr. Mahendra Bhagat	MO	No		-	-
Gumla	Raidih	PHC	Budhdev Ram	Grade IV	No		-	No info

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dayamani Bora	LHV	No		-	-
			Basudev Prasad Verma	MOIC	No		-	-
			Shrefena Ekka	LHV	No		-	No info
			Shankar Chaudry	Driver	No		-	No info
Gumla	Sisai RH	PHC	Rukmani Devi	ANM	No		-	-
			Geeta Srivatsav	LHV	No		-	-
Gumla	Basia	RH	Sarita Devi	Computer Operator	No		-	-
			Budhwa Badair	Driver	No		-	-
			Dr. Vinod Kr. Gupta	MOIC	No		-	-
			Narsila Kujur	LHV	No		-	-
Hazaribagh	Hazaribagh	DS	Kajru	Cold chain in-charge	No	5	Ranchi	-
			Kajruindwar	Clerk	No		-	-
			Muneshwar Prasad	Computer Operator	No		-	-
			Ghulam Rabbani	Driver	No		-	-
Hazaribagh	Churchu	FPC	Anju Kumari	ANM	Yes	3	-	-
			LisiFas Dum Dum	LHV	No	3	-	-
			Avinash Kumar Sinha	-	No		-	-
Hazaribagh	Barakatha	PHC	Chitralekha Semal	ANM	Yes	6	-	-
			Rameshwar Sharma	Computer Operator	Yes	6	Hazari bagh	-
			Dr. Ashok Kumar Verma	MOIC	No		-	-
Hazaribagh	Barhi	PHC	Vinay Kumar Sinhe	Computer Operator	No		-	-
			Dr. B.B. Singh	Medical Officer	No		-	-
Hazaribagh	Berkagaon	PHC	Dr. Md. Sabir	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Rameshwar Prasad	Block Extension Educator	No		-	-
			Ramyodhya Prasad	Family planning worker	No		-	-
Hazaribagh	Chaparan	PHC	Anuradha Kumari	LHV	No		-	-
			Rudal Singh	Clerk	No		-	-
			Manju	ANM	No		-	-
Hazaribagh	Churchu	PHC	Ram Naresh	Supervisor	No		-	-
			Vijay Karmali	ANM	No		-	-
			Bigal Mahali	Volunteer	No		-	-
			Karmila	ANM	No		-	-
Hazaribagh	Gola	PHC	Dr. R.V.Raman	MOIC	No		-	-
			Upendra Prasad	-	No		-	-
Hazaribagh	Ichak	PHC	Vinay Kumar Sahni	Computer Operator	No		-	-
Hazaribagh	Katkamsari	PHC	Dr. G.K. Singh	Medical Officer	No		-	-
			S.N. Verma	Computer Operator	No	3	-	-
Hazaribagh	Keredari	PHC	Terersa MInge/Preeti Vandana	ANM	No		-	-
			Shambusaran Varma	Clerk handling cold chain	No		-	-
			Bahalen samad	ANM	No		-	-
			Mariam Thopno	LHV	No		-	-
			Ravikumar	Clerk	No		-	-
			Dr. Sanjay Jaiswal	MOIC	No		-	-
Hazaribagh	Mandu	PHC	Asha Kumari	AMV	Yes	2	-	-
			Kamala Kumari	-	Yes	2	-	-
			Kamala Kumari	ANM	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Hazaribagh	Patratu	PHC	Dr. P.P. Sanga	Incharge-medical officer	No		-	-
Hazaribagh	Ramgarh	PHC	Bharat Narayan Sahu	Male Health worker	Yes	3	Hazari bagh	-
			Manoj Kumar	Surveillance Inspector	No		-	No Training
			Dr. Mahadev Prasad	Doctor	No		-	-
			Rajeshwar Pandit	Male Health worker	No		-	-
Hazaribagh	Vishnugarh	PHC	Anjani Kumar	Clerk	Yes	3	Hazari bagh	-
			Parmeshwar Dayal	Computer Operator	No		-	-
			Dr. A.K. Singh	MOIC	No		-	-
Jamtara	Sadar DS	DS	Anil Kumar Singh	Store keeper	Yes	1	Ranchi	-
			Pankaj Kumar Tiwari	Cold Chain VHW	No		-	-
Jamtara	Jamtara	PHC	Vinod kumar Sinha	Computer Operator	Yes	10	Dumka	-
			Dr. Ashok Kumar	MOIC	No		-	-
			Ajay kumar Chand	BHW	No		-	-
			Dr. Ashok Kumar	MOIC	No		-	-
			Mukesh kumar	BHW	No		-	-
Jamtara	Kundahit	PHC	Krishna Pd. Singh	Clerk	No		-	-
			Bhagwan Saha	Computer Operator	Yes		Numkum	-
			Dr. Rampreet Ramo	MOIC	No		-	-
Jamtara	Nala	PHC	Shyama Chaudhry	ANM	No		-	-
			Isnidha Hemram	ANM	No		-	-
			B.V Ram	MO	No		-	-
			Mohd Sayed Alam	Grade IV	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Jamtara	Narayanpur	PHC	Shanti Devi	LHV	No		-	-
			Indu Kumari	ANM	No		-	-
Koderma	Koderma	DS	Shedeshwar Prasad	Male faculty planning worker	Yes	3	Deogarh	-
Koderma	Jainagar	PHC	Shyama Saransingh	Head clerk	No		-	-
			Kapil Dev Thakur	Computer Operator	No		-	-
Koderma	Koderma (Jhumntalaya) PHC	PHC	Mrutungan Singh	Eye Assistant	No		-	-
Koderma	Markacho	PHC	Ashok Kumar Pandey	Dresser	No		-	-
			Randhir Prasad	Computer Operator	No		-	-
Latehar	Latehar	DS	Nandu Rao	Driver	No		-	-
			Saroj Minz	LHV	No		-	-
			Arjun Ram	Assistant	No		-	-
Latehar	Balumath	PHC	Vimla Kumari	ANM	No		-	-
			Santa Brigit Khakha	ANM	No		-	-
			Dr. M.E. Haqu	MOIC	No		-	-
			Sunil Kumar	-	No		-	-
Latehar	Barawadhi	PHC	Dr. Chandarsekar Praleash	MOIC	No		-	-
			Karunesh Kumar	Head clerk	No		-	-
			Sunil Kumar	Surveillance worker	No		-	-
			Indrani Belanjar	LHV	No		-	-
			Poonam Kumari	ANM	No		-	-
Latehar	Chandwa	PHC	D.R.R. Prasad	MOIC	No		-	-
			Teresa Bingra	LHV	No	2	-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Teresa Bhingra	LHV	No		-	-
			Monika Kujar	ANM	No		-	-
			Sumitra Kumari	ANM	No	2	-	-
			Sanjay sinha	Assistant	No		-	-
Latehar	Latehar	PHC	Taramani Kumari	ANM	Yes	8	-	-
			Dr. S.P. Sharma	MOIC	No		-	-
			Istdor Singh	Educator	No		-	-
Latehar	Mahuatan	PHC	Mania Minj	ANM	No		-	-
			Mane Steller	ANM	No		-	-
			Elizebeth Narangi	LHV	No		-	-
			Raju Kashyap	MOIC	No		-	-
Latehar	Manika	PHC	Riazudin Ansan	Ward boy	No		-	-
			Raghunandan Ram	Educator	No		-	-
			Gandhavan Devi	ANM	No		-	-
			Dr. Harishchandra Mahato	MOIC	No		-	-
Lohardaga	Lohardaga	DS	Deen Dayal Topo	Clerk	No		-	-
			Jaigovind Prasad	Peon	No		-	-
			Torus Lakra	Driver	No		-	-
			Deendayal Topa	-	No		-	-
			Dr. B.P. Ranjan	RCH Officer	No		-	-
Lohardaga	Bandra	PHC	Nindu Mati	LHV	No		-	-
			Prabu Bhagat	-	No		-	-
			Indumati Nirmala Hora	LHV	No	1	-	-
			Dr. Rajendra prasad	MOIC	No		-	-
Lohardaga	Kisko	PHC	Rajendra Prasad Gupta	Lab Technician	No		-	-
			Solani Topno	LHV	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Seema Kumar	ANM	No		-	-
			Rajendra Prasad Gupta	Lab Technician	No		-	-
			Sadhya Prahima Latra	ANM	No		-	-
Lohardaga	Kuru	PHC	Ram Shankar Prasu	Clerk	No		-	-
			Ram Shankar prasad	Clerk	No		-	-
			Jabuoraom	Grade IV	No		-	-
			Dr. Rajmohan Khalkho	MOIC	No		-	-
			Chonhati Dadel	ANM	No		-	-
Lohardaga	Lohardaga	PHC	Abdul Yusuf	Grade IV	No	5	-	-
			Sanjay Kumar	Clerk	No		-	-
			Saraya Prasad Singh	Health worker	No		-	-
			Magdalli Tinki	LHV	No	5	-	-
Lohardaga	Senha	PHC	Maharangi Khajar	Ward Attendent	Yes		-	-
			B. Kajoor	LHV	No		-	-
Pakur	Pakur	DS	Ashok Srivastav	Clerk	No		-	Trained
			Rampravesh Singh	Clerk	No		-	-
Pakur	Amrapada	PHC	Dr. Prem Kumar	MO	Yes	1	Pakur	-
			Aparna Ghosh	Computer Operator	Yes	1	Pakur	-
			Dr. Hemant Kr. Murmu	MOIC	No		-	-
			Dayamanti Kumari	LHV	No		-	-
Pakur	Hiranpur	PHC	smt. Jhumma Dey	ANM	No		-	-
			Rakesh kumar	Pharmacist	No		-	-
			Shambhu Rd. Singh	Grade IV	No		-	-
Pakur	Littipara	PHC	Patel K. Jha	BHW	Yes	1	Pakur	-
			DR. Sohail Anwar	MOIC	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr. Kalidas Murmu	MOIC	No		-	-
			Mukesh kr. Mohli	Head clerk	No		-	-
			Dr. Sohail Anwar	MO	No		-	-
Pakur	Maheshpur	PHC	Ramdharii Murmu	LHV	Yes	1	Pakur	-
			Dulal Rajeswari	Clerk	No		-	-
			Dr. B.P Singh	MOIC	No		-	-
			Suresh Kumar	Senatory Inspector	No		-	-
			Manohor Kumar	Health Inspector	No	1	Pakur	-
Pakur	Pakudia	PHC	Rema Dutta	ANM	Yes	1	Pakur	-
			Abul Hasnath	-	Yes	1	Pakur	-
			Dr. Akhilesh Kumar	MOIC	No		-	-
Palamu	Daltanganj	DS	Dr. Bhagat	RCH Officer	No		-	-
			Ashok	Driver	No		-	-
			Dinesh Kr. Singh	Clerk	No		-	-
Palamu	Bishrampur	PHC	Dr. Harishankar Singh	MOIC	No		-	-
			Roshan Tara	LHV	No		-	-
Palamu	Block PHC	PHC	Sugneer singh	Block Extension Educator	No		-	-
Palamu	Chainpur	PHC	Manorma Devi	LHV	Yes	1	-	-
			Pushpa Kumari Kar	ANM	No		-	-
			Dr. S.R. Gupta	MOIC	No		-	-
Palamu	Chattarpur	PHC	Kumari Gayatri	LHV	Yes	5	-	-
			Kumari Gayatri	LHV	No		-	-
			Sidhanand Sing	Computer Operator	No		-	-
Palamu	Hariharganj	PHC	Dr. Kalanand Mij	MOIC	No		-	-

Cold Chain Assessment in Jharkhand

District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Shaileshwari sinha	ANM	No		-	-
Palamu	Husainabad	PHC	Gayatri Devi	LHV/ANM	Yes	2	-	-
			Bibhuti Dube	Clerk	No		-	-
Palamu	Lisliganj	PHC	Zeber Ahmed	Medical Officer	No		-	-
			Subhadro Kumari	ANM	No		-	-
			Dr. S. Shah	MOIC	No		-	-
			Teresa Tirki	Supervisor (LHV)	No		-	-
Palamu	Manatu	PHC	Mayakumari (Padma sub Centre)	ANM	No		-	-
			Subhagy Devi	LHV	No		-	No information in field
			Dr. Kedar Prasad	MOIC	No		-	-
Palamu	Panki	PHC	Anaja Kerketla	LHV	Yes	3	-	-
			Krishna Tirky	Health Educator	No		-	-
			Dr. Chandra Bhanu Pralapan	MOIC	No		-	-
Palamu	Patan	PHC	Dr. Dilip Kumar Singh	MOIC	No		-	-
			Visundev prasad	Pharmacist	No		-	-
			Ganga Devi	LHV	No		-	-
			Gupateswar prasad	BHW	No		-	-
Ranchi	Ranchi DS	DS	Pradeep Kumar Mehta	Clerk/Store Keeper	No		-	-
Ranchi	Aarki	PHC	Brajesh Sahu	Clerk	No		-	-
			Dilip Tirky	Clerk	No		-	-
			Alisaba Gulia	LHV	No		-	-
			Dr. Janardhan Pd	MOIC	No		-	-
Ranchi	Anigara	PHC	Helen Lakda	NMN	Yes		-	Pulse polio

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District	Site	Type	Name	Designation	Train- ing re- ceived	Years since last training	Place	Remarks
								training Sept 05
			Hemrensia Ekka	LHV	Yes		-	Pulse polio training Sept 05
			Leela	NMN	Yes		-	Pulse polio training Sept 05
			Dafruza minz	LHV	No		-	-
			Parden Tirli	LHV	No		-	-
Ranchi	Bero	PHC	Tarsila Topo	LHV	Yes	1	-	-
			Ram Prasad Barahi	Family planning worker	Yes	1	-	-
			Shailes kumar Roy	Grade IV staff (cold chain)	No		-	-
Ranchi	Bundu	PHC	Dr. P.Lal	MOIC	No		-	-
			Tagaran Ekka	LHV	No		-	-
			Dr. R.C. Jhaha	MOIC	No		-	-
Ranchi	Burmu	PHC	Surender	-	Yes	5	-	Immuniza- tion
			Malini	-	No		-	-
			Ethel Rota	ANM	No		-	-
			Nalini	LHV	No		-	-
Ranchi	Chancho	PHC	Dhanashri Kumari	ANM	No	1	-	-
			Malim	Grade IV	No		-	-
			Sushama	ANM	No		-	-
			Dr. Mohammd Enson	MOIC	No		-	-
			Nakul Kashyap	JTL	No	1	-	-
Ranchi	Kanke	PHC	Dr. G.P. Singh	MOIC	No		-	-

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District	Site	Type	Name	Designation	Train- ing re- ceived	Years since last training	Place	Remarks
			Deepali	LHV	No		-	None- Recommend
			Premlata	LHV	No		-	None - Recommend
Ranchi	Karra	PHC	Shail Bala Pandey	LHV	No		-	-
			Dr P.P Singh	MOIC	No		-	-
Ranchi	Khunti	PHC	Indrani Kumari	ANM	Yes	5	-	-
			Dorothy Tuti	ANM	No		-	-
			Kanta Toppo	LHV	No		-	-
			Gobai Bhengra	Store keeper	No		-	-
			Dr. S.K. Varma	MOIC	No		-	-
			Kanta Toppo	LHV	No		-	-
Ranchi	Lapung	PHC	Maryamagdali Lagda	LHV	Yes	1	-	-
			Shri Rambhari Nand	Peon	No		-	-
			Dr. T.P. Singh	MOIC	No		-	-
Ranchi	Mander	PHC	Parmila Sinha	Vaccinator	Yes	3	-	-
			Margaret Thalesey	ANM	Yes	3	-	-
			Maheshan Bala	LHV	No		-	-
			Anju Bhattacharya	Ladies health visi- tor	No		-	-
			Dr. A.N. Prasad	MOIC	No		-	-
Ranchi	MCH	PHC	Umrawah Devi	LHV	Yes	2	-	-
			Puspha Kumar	ANM	Yes	2	-	-
			Vimla Kumari	ANM	Yes	2	-	-
			Shyamali Sarkar	ANM	Yes	2	-	-
			Mariamamma C.V	Staff Nurse	No		-	-
			Dr. A.K. Chowdhry	MCH	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Ranchi	Murhu	PHC	F.F. Kongari	LHV	No		-	-
Ranchi	Namkum	PHC	Sanjeev Kumar	Store-Incharge	No		-	-
			Sonmani Devi	LHV	No		-	-
			Lalitha Devi	LHV	No		-	-
Ranchi	Oremanjhi	PHC	Heera Kumari	ANM	No		-	-
			Radhika Devi	LHV	No		-	-
			Kalu Mathur	-	No		-	-
Ranchi	Rania	PHC	Alakh Niranjan	Computer Operator	No		-	-
			Dr. G.S. Chaudhri	MO	No		-	-
			Naveen	Senetory Inspector	No		-	-
			Solomi Danga	-	No		-	-
Ranchi	Ratu	PHC	Arun Kumar	Ward Attendent	No		-	-
Ranchi	Silli	PHC	Kusum	LHV	Yes	2	Sadar	-
			Kusum Warla	LHV	No		-	-
			Dr. Dinesh Prasad	MOIC	No		-	-
Ranchi	Sonahatu	PHC	Tagaran Ekka	LHV	No		-	-
			Dr. R.C. Jhaha	MOIC	No		-	-
Ranchi	Tamar	PHC	Dr. Aravindkumar sinha	MOIC	No		-	-
			Mr. Chamelidevi	LHV	No	3	-	-
Ranchi	Torpa	PHC	Elina Horo	LHV	No		-	-
			Dr. Nageshwar Moghi	MOIC	No		-	-
Sahebganj	Sadar Hospital	DS	Asha Devi	ANM	No		-	-
			Sharda	ANM	No		-	-
			Dr. Naresh Kumar	District RCH Officer	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Sahebganj	Baharawa	PHC	Krishnendu Acharya	Computer Operator	No		-	-
			Dr. Praveen kumar Santhal	MO	No		-	-
			Raghu Murmu	Grade IV	No		-	-
Sahebganj	Barhait	PHC	Dr. K.E. Kejriwal	MOIC	No		-	-
			Happan Soren	LHV	No		-	-
			Ram Swaroop Singh	Head clerk	No		-	-
			Dr. A.K Marandi	MO	No		-	-
			Ashok Gorai	Extension Educator	No		-	-
Sahebganj	Borio	PHC	Yogendra Shah	Sewak	Yes	1	-	-
			Dr. V.N . Chowdry	MOIC	No		-	-
			Dr. Ram Bachan Chowdry	MOIC	No		-	-
			Krishnan Chandra kant	Vaccinator	No		-	-
			Krishna Chand Kewat	Vaccinator	No		-	-
Sahebganj	Pathna	PHC	A.R. Srivastastav	MOIC	No		-	-
			Ajay Kuroza	Grade IV	No		-	-
			Rani shashikala kiran	ANM	No		-	-
			Ramesh Tudu	Computer Operator	No		-	-
Sahebganj	Rajmahal	PHC	Phekan Ghosh	Purushar sevak	No	1	Sa- hibganj	-
			Chanchala Kumari	LHV	No		-	-
Sahebganj	Sadar PHC	PHC	Kalavah Gupta	ANM	No		-	-
Sahebganj	Taljhari	PHC	Pandau Mandal	-	No		-	-
			Rajeshwari Prasad	Incharge	No		-	-
Saraikela	Chandel (DS)	DS	Surender Prasad	Health worker	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
Kharsawan			Dr. Maheshwar Prasad	District RCH Officer	No		-	-
Saraikela Kharsawan	Chandel	PHC	Dr. Sunil Urawan	MOIC	No		-	-
Saraikela Kharsawan	Ghamaria	PHC	Rama Shankar	Computer Operator	No	1	-	-
			Satyandar Lenmar and Ramashankar Ram	Clerk	No		-	-
Saraikela Kharsawan	Ichagarh	PHC	Lal Babu	Health worker	No		-	-
			Dr. Jagdis Prasad	MO	No		-	-
			Dr. Bhola Prasad	MOIC	No		-	-
Saraikela Kharsawan	Kuchai	PHC	Rajendra Singh Munda	Educator/computer Operator	Yes	1	-	-
			Pamkishun Bhol	Pharmacist	No		-	-
			Dr. R.N. Soren	MO	No		-	-
Saraikela Kharsawan	Nimdih	PHC	Preety Datta	LHV	Yes	2	-	-
			Arun Chandra Gop	Computer Operator	No		-	-
Saraikela Kharsawan	Raj Kharsawan	PHC	Alishany Nayar	Health worker/Computer Operator	No		-	-
			Marshal	MO	No		-	-
			Ranjit Kumar	Clerk	No		-	-
			Ranjit Kumar	Clerk	No	3	Chaibasa	-
Saraikela Kharsawan	Rajnagar	PHC	Maranda Tape	Health worker/staff	Yes		Saraikela and Chaibasa	-
			Dr. Birendra Kumar	MOIC	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Maranda Tape	Health staff/store keeper	No		-	-
			Devprasad	Store keeper	No		-	-
Saraikela Kharsawan	Saraikela Sub Depot	PHC	Surendar Singh	Clerk	No		-	-
			S.K Mahapatro	Accountant	No	3	Ranchi	-
			Surender Singh	Clerk	No		-	No attended yet but wish to
			Udit Manshid Mundu	Computer Operator	No	3	Ranchi	-
Simdega	Simdega	DS	Rajesh Kumar Yadav	Computer Operator	No		-	-
			Akhilesh Kumar Prasad	FWP	No		-	-
Simdega	Bano	PHC	Sanjay Kumar Ghosh	Clerk/Computer Operator	No		-	-
			Dr.Yuvram	MOIC	No		-	-
			Ram Lakhn Singh	Grade IV	No		-	-
			Satendra Kumar	SW	No		-	-
Simdega	Bolba	PHC	Dr. Sanjay Kajor	MOIC	No		-	-
			Premika Ba	ANM	No		-	-
			M.D. Syed	Clerk	No		-	-
Simdega	Jaldega	PHC	Meri Blanch Tirki	LHV	Yes	2	-	-
			Dr.Vishram Singh	MOIC	No		-	-
			Kapil Dev Prasad	Store incharge	No		-	-
			Sanjay	Grade IV	No		-	-
			Arun Kumar Singh	Pharmasist	No		-	-
			Ramesh Ram	Driver	No		-	-
Simdega	Kolebera	PHC	Satendra Sinha	Health worker	No		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
			Dr.H Kiran Tigga	MOIC	No		-	-
Simdega	Kurdeg	PHC	Dr. Arun Kumar	MOIC	No		-	-
			Smt. Rabban Hildaminz	LHV	No		-	-
			Baidnath Tiwari	Computer Operator	No		-	-
			Dr. Dmesh Prasad	Contract medical officer	No		-	-
Simdega	Simdega	PHC	Modulike Ekka	Store keeper	No		-	-
			Akelash Prasad	Health worker	No		-	Yes
			Shaadi Grace Khaik	ANM	No		-	Yes/ 6 years back
			Dr. V.C Sinha	MOIC	No		-	-
			Shanti Grace Khalle	ANM	No		-	-
			Rajesh Kumar Yahav	Computer Operator	No			
Simdega	Thethaitnagar	PHC	Putul Minj (Bethesade)	LHV	No		-	-
			Ahmed Hussain	Store keeper	No		-	-
West Singhbhum	Chaibasa Sadar	DS	Shanti Devi	LHV	No		-	-
			Indu Kumari	ANM	No		-	-
West Singhbhum	Barajamda	PHC	Smt. Poorri Khan	LHV	Yes	1	-	-
			Deepak Kumar Singh	Grade IV	No		-	-
			Pravesh Kumar	Clerk	No		-	-
			Brajnandan Singh	Extension Educator	No		-	-
West Singhbhum	Chakradharpur	PHC	Dineshwar Singh	BHW	No		-	-
West Singhbhum	Goilkara	PHC	Mary Agnes Soren	ANM	Yes	1	-	-
			Rakhohare Mehta	SI	No		-	-
West	Jagganathpur	PHC	Asha Toppo	LHV	Yes		-	-

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District	Site	Type	Name	Designation	Training received	Years since last training	Place	Remarks
singhbhum			D.Das	Computer Operator	Yes	2	-	-
			D.Das	Computer Operator	No		-	-
			Dr. S.N Ghan	MOIC	No		-	-
West Singhbhum	Jinkpani	PHC	Shanti swaroop Sinha	LHV	No		-	-
			Premlata Parti	ANM	No		-	-
West singhbhum	Khutpani	PHC	Lalsi Pustt	Clerk	No		-	-
			Hemant Kumar	Store keeper	No		-	-
			Dr. Chandwati Boifan	MOIC	No		-	-
West Singhbhum	Kumardungi	PHC	Narayan Biruli	Non-medical Assistant	No	2	-	-
			S.S Malik	Computer Operator	No		-	-
West singhbhum	Manjgaun	PHC	Gangaram Manghi	Dresser	No		-	-
			Durga Charan Dukari	Grade IV	No		-	-
			Dr. Ajit Kumar	MO	No		-	-
West Singhbhum	Manoharpur	PHC	Avinashik Huzur	LHV	Yes	3	Chaibasa-Nandpur	-
			Parabhat Kumar Sahu	MFW	No		-	-
West Singhbhum	Sadar-Chaibasa	PHC	Dr. Meena Kumari Arun	Medical Officer	Yes		-	-
			Dr. V.K. Pandit	Medical Officer	No		-	-
			Dr. Meena Kalundia	Medical Officer	No		-	-
West Singhbhum	Sonua	PHC	Dr. Sanjay kumar	MOIC	No		-	-
West Singhbhum	Tonto	PHC	Balaram Sen	BHW	Yes	3	-	-
			Dr. Rajbind Kumar Lolati Khalkho	MOIC	No		-	-

