

**INDIA**  
**INTEGRATED DISEASE SURVEILLANCE PROJECT (Credit 3952-IN)**  
**JOINT IMPLEMENTATION REVIEW**  
**AIDE MEMOIRE**  
**September 7-16, 2010**

1. A joint implementation review (JIR) of the Integrated Disease Surveillance Project (IDSP) was carried out by the World Bank with technical support from the World Health Organization (WHO) during September 7-16, 2010<sup>1</sup>. To review implementation progress of the Animal Health Component, the review team held consultations with the Bird Flu Cell (BFC) of the the Department of Animal Husbandry, Dairy and Fisheries (DADF) and visited West Bengal . For the Human Health component, a three day consultation was organized with the Central Surveillance Unit (CSU) as well as the State Surveillance Officers and Finance Managers from the nine priority states in Delhi, followed by a field visit in Tamil Nadu. The consultation included a detailed assessment of progress in each of the states, as well as thematic discussions covering monitoring and evaluation, use of information technology for data reporting and management, laboratory based surveillance, human resource and capacity building, surveillance of seasonal and avian influenza, and the strategic context for disease surveillance in India.
2. The review team expresses its sincere gratitude to Dr. R.S. Shukla, Joint Secretary, Ministry of Health and Family Welfare (MOHFW), Dr. R.L.Ichhpujani, Director of National Center for Disease Control (NCDC) and Project Director IDSP for their strong commitment to the project and encouraging frank and open discussions on project progress. The team also likes to especially thank Dr. Jagvir Singh the National Project Officer (NPO) for the IDSP for his efforts during the past three months to improve the implementation of the restructured project. The Bank task team wishes to express its gratitude to Mr. A Kaushal, Joint Secretary, DADF, Ministry of Agriculture, Mr. A. B. Negi Joint Commissioner and officials at Regional Animal Disease Diagnostic Laboratory, Kolkata and Bangalore, for their cooperation, valuable inputs and support extended to task team during the mission. The review team also complements the state and district surveillance units of Tamil Nadu and Rajasthan for excellent organization of the field visits.
3. The overall objective of this JIR was to assess operational progress made in the implementation of IDSP since the restructuring, with a special focus on:
  - progress on the agreed key actions for project upgrading of the implementation flags (procurement, FM, disbursement and implementation)
  - work on a sound common understanding of the use of the revised monitoring framework to assess project progress, both at central and state level; with updating the indicator values, if possible.
  - review the general procurement and financial management aspects of the project.
  - follow up on the status of laboratory construction by DADF and the laboratory activities of MOHFW.
  - follow up on progress related to the environmental and social safeguards

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Key Project Data		Ratings	
Approval Date:	July 2004	DO	MU
Closing Date:	March 2012 (revised)	IP	MU
% Disbursed:	37.5%	Financial Management	MU
Undisb Amt (US\$)	39 million	Project Management	MS
		Counterpart Funds	S
		Procurement	U
		M&E	MS
		Legal Covenant	CP
		Safeguard	MS
		Slow Disbursement	No
		Effectiveness Delays	No

4. As a result of several major implementation issues between 2004 and 2009, IDSP was restructured on March 29, 2010, which included a two years extension (up to March 2012). The year-long restructuring process was labor intensive due to the need to address numerous technical and fiduciary constraints that had negatively affected implementation of the project by MOHFW and DADF. The restructured project takes into account the lessons learned from the first years (including consolidation of the gains), has a simpler technical design, includes a stronger focus on achievable results, and provides several measures to strengthen procurement and financial management in both ministries. Key changes from the original project include: (i) a revised PDO; (ii) a reduction in the number of components; (iii) a narrower focus on nine states for the human component of the project<sup>2</sup>; (iv) the removal of decentralized expenditure and elimination of BSL 4 construction from the avian flu animal component; (v) strengthened project implementation units through additional human resources and the establishment of financial management cells in MOHFW and DADF; (vi) the use of procurement agents for MOHFW and DADF; (vii) a revised results framework; and (viii) the cancellation of US\$8 million.

#### **Achievement of Development Objectives (PDO)**

5. The revised objective of IDSP after restructuring is to strengthen the integrated disease surveillance system for epidemic-prone diseases by (i) enhancing central level monitoring and coordination functions, and (ii) improving state/district surveillance and response capacity with emphasis on selected (nine) states. Additionally, the project will support the Government of India (GOI) efforts to timely prepare for, detect and respond to influenza outbreaks in humans and animals. IDSP is implemented by two implementing agencies: DADF and MOHFW. The revised components of the project are: (i) central surveillance monitoring and oversight; (ii) improving state/district surveillance and response capacity; and (iii) influenza surveillance and response. Details of the revised components are described in annex 3.

6. The PDO indicators have also been revised to better align with the activities financed by the restructured project. The original project included a number of outcome indicators for improved surveillance across the country, though no baselines and only few targets were included in the Project Appraisal Document. The restructured project reduces the number of outcome indicators, primarily

<sup>2</sup> Gujarat, Tamil Nadu, Karnataka, Maharashtra, Uttarakhand, Punjab, West Bengal, Andhra Pradesh and Rajasthan.

focusing on nine selected states. The PDO outcomes and indicators are: (i) to increase the percentage of districts providing timely and consistent surveillance reports in nine selected states from 25% to 70%; (ii) to increase the percentage of adequate responses to disease specific outbreaks in nine selected states from 45% to 75%; and (iii) to establish a functional network of 12 regional laboratories for routine surveillance of H5N1 and H1N1 in humans and 6 BSL3 laboratories for surveillance in animals (see Annex 2 for Results Monitoring Matrix).

7. At the time of restructuring, progress towards the PDOs was Moderately Unsatisfactory. It is expected that as a result of the recent changes, the PDO indicators will show an improvement over the next year. The project will focus now on proving the effectiveness of a surveillance and outbreak response system in nine states only<sup>3</sup>, while MOHFW will continue to support the remaining states. At the same time, the project has started to put more emphasis on strengthening the Central Surveillance Unit (CSU) as it tries to increase its capacity for technical leadership and the coordination of states. With regard to avian flu preparedness and response, the scope has also been narrowed and priority is now given to strengthen laboratories for detection of outbreaks in humans and animals. It is yet too early after the restructuring to assess the achievement of the PDO indicators as the data are not yet complete, but available data as well as outcome indicators are showing a positive trend.

### **Current Implementation Status**

8. Since restructuring, while this is the first review mission, in the interim, a few technical discussions were organized with the two implementing agencies to follow up on agreed actions. Field visits were also organized to strengthen the financial management (FM) capacities within the Department of Health and Family Welfare (DOHFW) of two states (Maharashtra and Andhra Pradesh) and one field visit was organized in late August 2010 to assess project implementation by DOHFW (Department of Health and Family Welfare) in Rajasthan.

9. Since April 01, 2010, the project management units of both MOHFW and DADF have shown renewed commitment to implement the restructured project. However, due to the relatively long period of project restructuring and the uncertainty on part of both MOHFW and DADF of the final scope of the revised project, some implementation momentum had been lost both at the center and state levels. Therefore, a focus of this mission was to ensure that both the center and states fully understood the revised scope of the project, roles and responsibilities, and outcome indicators. The field visit for the human health component to Rajasthan and Tamil Nadu clearly indicated that the CSU would have to provide close and ongoing support to the nine State Surveillance Units (SSU) in order to be able to implement the agreed activities during the remaining project period of about 18 months, and thereby ensure achievement of the PDO. Certain key agreed activities are critical to support this supportive supervision by the CSU: recruitment of the additional human resources which would enable regular state and district visits by the CSU; optimal use of the available IT network including the video-conferencing facilities; enabling operationalization of the laboratory network and program management (necessary training of different functionaries, data collection and reporting, outbreak reporting and investigation) by sharing clear guidelines/check-lists/protocols, etc. Details and agreed actions with timelines are described in Annexes 1 and 4.

10. The restructuring of the IDSP has also simplified and streamlined activities for the Avian Influenza – Animal sub component that are achievable within the two years extension period. Over

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<sup>3</sup> The original scope of the project was to eventually cover the entire country (35 states).

the last three months, the project has consistently achieved its targets, which confirms a moderately satisfactory implementation process. BSL –III laboratories at Kolkata and Jalandhar are fully operational as planned. As part of the restructuring agreement, the project has hired UNOPS as the procurement agent, and UNOPS has already started procuring for the project. As agreed during the earlier mission, the project has already hired a Financial Specialist exclusively responsible for ensuring financial compliance. DADF has submitted to the Bank an FMR for the quarter ending March 31, 2010 by May 15, 2010. (details on the implementation progress of DADF provided in Annex 5).

### **Key Implementation Issues and Next Steps**

11. While initial steps have been taken to implement the restructured project, the JIR indicates that all the following key actions would need to be completed for the project ratings to improve. The Bank team would closely follow-up on the agreed actions, and also review the implementation progress ratings prior to the next review mission.

(i) *Animal health subcomponent of Avian Influenza:* despite good progress in agreed actions, the *undertaking of the Audit of Decentralized Expenditure* has been delayed. The Bank cleared the TOR for hiring auditors by using Bank procurement guidelines in February 2010. However, this activity is yet to be initiated as the contractual package for this audit has been submitted to Integrated Finance Division (IFD) of the Ministry of Agriculture which will provide clearance to DADF for this activity. Any further delay may result in loss or misplacement of records that may be necessary for carrying out this audit. DADF has assured the JIR that this audit process will be initiated by October 30, 2010. While the project has recently submitted a status report, it is clear that an integrated monitoring system that combines surveillance process and different types of sample analysis at the regional laboratory is needed.

(ii) *Recruitment of the additional human resources at Central and State level:* One of the key agreements at the restructuring was the recruitment of additional human resources for which the terms of reference of individual positions has been discussed. At the center, initiation of the process is pending approval of the Expenditure Finance Committee (EFC) of GOI, and hence recruitment is not likely to be completed before December 2010. The state level recruitment is now decentralized, has been initiated in majority of the priority states and likely to be completed by November 2010. The CSU would need to maintain a close follow-up of all the recruitment, followed by completion of training of all new staff within three months of their hiring.

(iii) *Regular use of the Portal for reporting by the states:* The review indicated that while all nine states and majority of the districts (few exceptions which are being followed-up) are connected to the portal, the reporting through it is not consistent, and at present reporting through e-mail (duplicate reporting) is also being done. It was agreed that, for monitoring the outcome indicators, only portal reports would be used by the CSU, and that by December 2010 (transition time of two months) only portal reporting would be accepted. During this transition period, the CSU would pro-actively work with the states and districts to resolve any nagging portal problems.

(iv) *Use of the Revised Results Framework and Outcome Indicators:* The restructured project and achievement of its PDOs would be measured based on the revised set of indicators, and hence it is essential that the states and CSU thoroughly understand the indicators and report regularly on the same. These indicators can be measured through the reporting that is possible through the portal, and therefore the importance of reporting only through that. The mission would also like to reiterate the need to bring in the discipline of reviewing data at each level and using it for decision making rather

than just collecting the data and forwarding it to the next higher level because it is a requirement. The field visits to the SSUs and medical colleges indicated that this important activity is so far not being done on a regular basis.

(v) *Fully functioning laboratory referral network and strengthening of the 17 district priority laboratories in the states:* The laboratory network that has been discussed at length prior to, and agreed to, at restructuring now needs to be made operational at the earliest. This includes signing of the Memorandum of Understanding (MOU) between the respective SSUs and the participating medical colleges, ensuring that the medical colleges and DSUs fully understand their roles and responsibilities, following-up and necessary hand-holding by the CSU for the laboratory referral network, and functioning district priority laboratories as per agreed protocol.

(vi) *Procurement arrangements:* While it was agreed at restructuring that a procurement agent would be used for all procurement to be done under the human health part of the project, and this process was initiated by the CSU, the Bank has received a communication from DEA (August 11, 2010) that MOHFW is requesting a change in this arrangement since RITES is unable to be the procurement agent. This issue was carefully reviewed during the mission, and based on the facts that the CSU now has a procurement consultant on board, the existing procurement skills of NCDC could also be utilized, and that total remaining procurement under the project is approximately about USD 4 million (NCB and NS); in-house procurement by the CSU would be agreed, provided the Project Director is able to provide clearances to all procurements less than Rs. 10 million (which is the delegated authority). Satisfactory implementation of this new arrangement will be closely followed-up by the Bank team.

(vii) *Financial Management arrangements and performance:* One of the key agreements at restructuring was that two financial consultants be in place at the CSU to enable satisfactory financial management of the project. The second position of financial consultant in the FM cell at the CSU was filled however is now vacant. While several pending responses have been received for the 2008-09 audit, the response to Annexure 3 of the Bank's letters to the project on '2008-09 audits' regarding procurement issues is received by the Bank during the mission and is being analyzed.

### **Procurement, Financial Management and Disbursements**

12. *Procurement:* Based on unsatisfactory procurement performance during the first five years of the project, agreements have been reached at restructuring, which have been described above. Detailed timelines and a revised procurement plan have been agreed during this mission and are described in Annex 8.

13. *Financial Management:* The project has reported a disbursement of Rs USD 23.6 million including Special Advance of USD 6.6 million representing a disbursement of 37.5% of the signed amount.

14. It is appreciated that the FMR for the project is now submitted on time and the project has followed up on most of the audit observations for 2008-09. The CSU and Bank undertook a hand holding mission to Andhra Pradesh in August 2010 and it is commendable that based on the findings of this hand holding mission, the CSU has proactively organized training for the financial staff of the nine participating states during the mission, which was also joined by Bank staff. During this training, the Bank noted states' uneasiness regarding (i) very small allocation for operating expenditures, and (ii) low salaries of FM staff in the state. CSU was requested to follow up on these issues and provide the feedback on actions taken in the next mission.

15. It is a major concern that the second position of financial consultant in the FM cell at the CSU is vacant. While at least this needs to be addressed to upgrade the FM status of the project to MS level, the project also needs to submit the audit reports for expenditures incurred at the central and state levels for 2009-10 by 30 September 2010, along with a reconciliation of audited expenditure with the expenditure reimbursed by the Bank for the year.

#### **Status of Legal Covenants**

16. All legal covenants are in compliance with the exception of the recruitment of the two financial management expert at the MOHFW as well as the amendment of the MOU with the 9 priority states after the restructuring. During the review it was agreed that both actions would be completed by December 2010.

#### **Timing of Next Mission**

17. To ensure successful implementation of the project, both CSU as well as the Bank's task team will provide close ongoing monitoring and supervision. The CSU will ensure regular visits to the states, with a special focus to lagging and poor performing districts. Video conferencing will be used to provide a fast turnaround time in problem solving. Furthermore, besides the already implemented video-conferencing related to outbreak investigations and shared lectures, weekly video-conferencing will be organized by the different units of the CSU with the 9 priority states to monitor the state program implementation (such as the use of the revised monitoring framework, the progress on portal reporting and the progress on the laboratory activities). Furthermore, monthly review meetings on agreed benchmarks between the Bank team and respectively MOHFW and DADF will allow to assess progress and identify possible bottlenecks timely. It was agreed that the next JIR will be organized in March 2011.

## **LIST OF ANNEXES**

1. Actions and Timelines for Follow Up
2. Results Framework: Updated Indicators
3. Revised Project Components
4. Detailed Implementation Review of MOHFW Component
5. Detailed Implementation Review of DADF Component
6. Environmental Issues and Biomedical Waste Management
7. Tribal and Social Action Plan
8. Procurement
9. Disbursement and Financial Management
10. State Visit Reports: Rajasthan and Tamil Nadu
11. State Performance Ranking

## ACTIONS AND TIMELINES FOR FOLLOW UP

No.	Action	By whom	By when
1	Hire all human resources as agreed at restructuring	CSU and SSS	December 31, 2010
2	Weekly VC organized by CSU with the 9 priority states to discuss i) technical issues, ii) follow up on outbreaks and iii) follow up on agreed actions in each state for laboratory and improved reporting .	CSU	Starting Oct. 15, 2010
3	CSU to organize every 3 months a 2 day meeting with SSU of all 9 priority state to assess progress of implementation and identify bottlenecks	CSU (and SSUs)	First meeting early December 2010
4	Meetings twice a month to assess progress of agreed actions with the Bank team	CSU and WB	Starting Oct. 15, 2010
5	CSU to provide a 3monthly report to the Bank to track record of issues with portal and solutions provided	CSU	First report in December 2010
6	Organize a 2 day training with State Data Managers	CSU	Prior to November 15, 2010
7	100% reporting in portal by all 9 priority states	SSU of 9 priority states	December 30, 2010
8	All guidelines shared with DSO and district priority labs related to the laboratory actions (sample collection and transport, communication between districts and their respective labs, use of provided district budget ,etc.)	CSU and SSU of 9 priority states	October 15, 2010
9	Funds released to all participating 63 labs of the referral laboratory network and guidelines shared with participating labs and respective districts	CSU and SSU of 9 priority states	December 15, 2010
10	Share the summary of the laboratory post procurement assessment with the Bank	CSU	January 15, 2011
<b>Procurement</b>			
11	For procurements that are within the delegated powers of the project director, administrative orders conveying the immediate commencement of procurement	NCDC/MO HFW	September 20, 2010
12	Update the procurement plan	CSU	October 15, 2010
13	Bank to provide short induction training to CSU and NCDC staff who are involved in procurement	WB	Prior to October 30, 2010

14	The Procurement specialist at IDSP as well as the Stores Officer./NCDC responsible for the in-house procurement to be sent for training on World Bank Procurement Procedures at the earliest.	CSU and NCDC	November 7, 2010
15	IDSP to provide the Bank a justification for SSS for AMC for the IT equipment provided by NIC and ISRO	CSU	October 21, 2010
16	Initiation of the procurement through shopping for the 16 items by solicitation of quotations	CSU/NCDC	To be described in the updated procurement plan
17	Placing Purchase orders / contract award for all eligible procurements among the 16 items through shopping	CSU/NCDC	
18	Ready for delivery and acceptance of supplies coming through the shopping process	CSU/NCDC	
19	Notification / advertisement of IFB for NCB 6 Items	CSU/NCDC	
20	Bid opening for NCB 6 Items	CSU/NCDC	
21	Contract award for 6 NCB items	CSU/NCDC	
22	The causes for the delay in responding to the fund requests from UNOPS to be addressed expeditiously. Bottlenecks to be identified and resolved.	DADF	Oct. 15, 2010
<b>Financial Management Action Points for DADF</b>			
23	Submit the audit reports for expenditures incurred at the central level for 2009-10	DADF	Sep.30, 2010 (not received yet)
24	Submit a reimbursement claim for 2008-09 amounting to Rs 4,474,884 as per Bank's email dated 19 May 2010	DADF	Sep.30, 2010
25	Submit a draft reimbursement claim for 2009-10 to the Bank for review including only the agreed and eligible expenditures under the project.	DADF	Oct.31, 2010
26	Finalize the appointment of auditors as per Bank procurement procedures, for auditing the decentralized expenditures for 2008-09 and 2009-10 pertaining to DADF trainings as agreed with the Bank on 23 March 2010.	DADF	Oct.31, 2010
27	As per the Financing Agreement, submit the FMR on eligible expenditures incurred by DADF on the project at the central level during April – September 2010.	DADF	Nov.30, 2010
<b>Financial Management Action Points for CSU</b>			
28	Submit the audit reports for expenditures incurred at the central and state levels for 2009-10, along with a reconciliation of audited expenditure with the expenditure reimbursed by the Bank for the year.	CSU	Sep.30, 2010 (not received yet)
29	Submit the FMR on expenditure incurred by the project during April – September 2010.	CSU	Nov.30, 2010
30	Finalize the recruitment of second FM staff in the FM cell	CSU	Nov.30, 2010



## RESULTS FRAMEWORK: UPDATED INDICATORS

PDO Indicators	Baseline (Sept 30, 2009)	August 2010	Target (March 2012)
% of districts providing surveillance reports timely and consistently in 9 priority states*	<u>25% of Priority state districts</u>	[27%]  (Note: indicator value needs to refined . With current information available, the major hospital and private data is not yet available )	70 % of the districts in priority 9 states,
3. % of responses to disease specific outbreaks assessed to be adequate as measured by 3 essential criteria in 9 priority states ^	<u>over all 45% of outbreaks</u>  Range : T& K-66, UK, WB, M=50%, AP-20% Rajasthan 10%P=0	[68%]  (Note: indicator value needs to refined . With current information available, the 3th criteria of final report is not yet taken into consideration)	At least 75% outbreaks in each of the 9 states
3. Improved diagnostic capacity for H5N1 and H1N1 as measured by: - Number of functional diagnostic laboratories for human influenza established - Number of functional BSL3 laboratories for animal influenza established	7/12  2/6	10  2/6	(i) 12  (ii) 6

Notes:

\* ***Timely & consistently***= Within one week after the last date of every reporting week for at least 40 weeks (**80% of week at any given time**) each year. Reports should have desegregated collated forms of P {i. PHCs, ii Other Govt. Hospitals and iii) Private hospitals separately}, L (PHC labs, district Public Health lab and referral laboratories) and S reporting units.

^= The three essential criteria of outbreak investigations are i) Timeliness of investigation i.e. within 48 hours of first case information (FIR) ii) adequate human samples were sent for laboratory confirmation early in the outbreak (within 4 days) and iii) Availability of a final outbreak investigation report.

@= i. A district with a minimum of 80% of reporting from primary health care institutions and ii a minimum of 50% reporting from hospitals with OPD and inpatients surveillance; iii) laboratory confirmation of at least 70 % of outbreaks and at least 50% district priority labs and referral laboratories network reporting regularly

No	<u>Outcome Indicators by Components</u>	Baseline as of 30/9/09	August 2010	Target for 31/3/2012	Comments																				
1	<b>Component 1: Central Surveillance Monitoring and Oversight</b>																								
i)	Induction training completed Epidemiologists /Microbiologists and Entomologists in position	40%	22% of sanctioned positions are filled with trained staff	90%	<table border="1"> <thead> <tr> <th></th> <th># positions sanctioned in 9 states</th> <th># in position</th> <th># trained</th> </tr> </thead> <tbody> <tr> <td><b>Epid.</b></td> <td>231</td> <td>70</td> <td>53</td> </tr> <tr> <td><b>Microb.</b></td> <td>26</td> <td>9</td> <td>3</td> </tr> <tr> <td><b>Entom.</b></td> <td>9</td> <td>3</td> <td>2</td> </tr> <tr> <td><b>Total</b></td> <td><b>266</b></td> <td><b>82</b></td> <td><b>58</b></td> </tr> </tbody> </table>		# positions sanctioned in 9 states	# in position	# trained	<b>Epid.</b>	231	70	53	<b>Microb.</b>	26	9	3	<b>Entom.</b>	9	3	2	<b>Total</b>	<b>266</b>	<b>82</b>	<b>58</b>
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ii)	Number of quarterly review meetings of Priority states	quarterly	1	8 meetings in 2 Years	Meeting was organized during the current JIR																				
iii)	Number of on site visit for supportive supervision, for states by CSU	2/state/year	8 visits in total	4/state/year	6 states were visited once by CSU, AP and WB were visited twice. Gujarath was never visited																				
iv)	Number of videoconferences held to give feedback on outbreak response assessed using the	NA	10	Once every month																					

	tool				
v)	SHOC functional and being used	Nil	Not started	At least one outbreak investigation review per month in 2012	Procurement process still to be launched
vi)	Number of referral lab network & district labs established	4 Network negotiated	District labs: 6  Referral lab network: rolled out in Rajasthan and Gujarat	One networks & 1 dist lab in each of 9 states.	<ul style="list-style-type: none"> <li>- 6 out of the planned 17 district priority labs have received microbiologists, equipment and funds (Gujarat, Rajasthan and Punjab).</li> <li>- All 9 states have finalized the referral laboratory network plans and received technical and financial guidelines. The implementation of the plans have rolled out in 2 states (Rajasthan and Gujarat), where the MOUs with medical colleges were signed</li> </ul>
vii)	Number of referral and district who underwent EQAS		- Not started	1 EQAS/ lab/in 2011012.	EQAS only planned to start in 2011
viii)	% of districts with IT network for on portal data entry, videoconferencing and inter-voice connection between states & have access to toll free 1075	Portal =40% VCF =50% TFA= 25%	<ul style="list-style-type: none"> <li>- % of districts with Portal data entry = 77 %</li> <li>- % of districts utilizing VC facility (April to August 2010) = 21 % *</li> <li>- % of districts having Toll free no.1075 connectivity = 95%</li> </ul>	80% for all 3 facilities throughout the year	
2	<b>Component 2: Improving state/district surveillance and response capacity</b>				
ix)	% of districts IT linked to the SSU/ CSU	<50%	92%	90%	
x)	No of states providing feedback	5/9 states	All states provide	9/9	

	monthly to the districts		feedback to the districts on a regular basis, as well as whenever an issue arises.		
xi)	% of responses to disease specific triggers assessed to be adequate by SSU	5 0-66%	Tool for Adequate assessment not yet used	>80%	Between April-August 2010, in the 9 priority states: 82% out of 250 outbreaks were assessed in time; 68% out of 209 outbreaks were able to access lab facilities (what does this mean?)
xii)	% of major hospitals enrolled, doing IP , OP & Lab Surveillance , and sharing P & L forms	<20%	44% for P form (hospital) and 22% for L form (lab)	50%	
xiii)	% of blocks in which at least 1 private provider shares weekly to surveillance reports	<20%	N.A.	60%	Information is not yet available on the block level. Indicator will be measured during the next mission. Private reporting is done in 27% of the districts
xiv)	CBS established and % villages reporting to Call Center No 1075 or nearest PHC	Nil	N.A.	50% villages in Pilot blocks	Activity just started. Output not yet available. This progress of this indicator will be measured during the next mission
3	<b>Component 3: Influenza surveillance and response</b>				
xv)	Number of sentinel hospitals with routine surveillance for human influenza	Nil	4	10	Routine surveillance for human influenza presently being done in 4 sentinel hospitals of Delhi
xvi)	Epidemiological	Nil	Process		Random samples are regularly taken from

	survey to detect causes and spread of HPAI outbreak		started		both potential risk areas as well as from areas that are not at risks. For Example, 35,00 random samples analyzed in Karnataka and Andhra alone during this year. Survey reports are available with DADF. About 10,000 doubtful samples were also sent to Bhopal BSL-IV referral laboratory at Bhopal for further analysis
xvii)	National surveillance system with adequate coverage	Not in place	Completed in two Regional laboratory areas	20,000 samples/year	<b>Process Already Started</b> - About 40,000 samples are already analyses over the last three months in Jalandhar and Kolakata BSL3 labs. Reports are compiled by the DADF.--
xviii)	Lead time for availability of diagnostic results significantly reduced	Nil	Completed in two Regional laboratory areas	3 days	-- Reports are available immediately depending on types of sample analysed in BSL3 labs reports. An average lead time of 3-4 days needed with the reconfirming tests.
xix)	Emergency supplies available at strategic field locations	Limited	Adequate supply available at all 612 districts	Adequate supplies of PPE kits and disinfectants	- At present, Adequate supplies of PPE kits and disinfectants available at the Regional laboratory level for DADF and in all districts for MOHFW
xx)	Regular meetings between health officials and animal husbandry officials	Regular	Process Already started	Regular (at least one/6 months)	Chief Secretary in Both in Karnataka and West Bengal takes the stock of situation through a joint quarterly meeting with both animal husbandry and health department. Mission is yet to visit other states to review such coordination mechanism.

## REVISED PROJECT COMPONENTS OF IDSP

**1. The original project had four components:** (i) Establish and operate a central-level disease surveillance unit; (ii) Integrate and strengthen disease surveillance at the state and district levels; (iii) Improve laboratory support; and (iv) Training for disease surveillance and action. The 2007 restructuring added a fifth component: (v) Support to India's country program for preparedness, control and containment of Avian Influenza. The restructured project rationalizes and simplifies the component structure, with a stronger focus on outcomes and a clearer division of responsibilities between center and state for project implementation.

**2. Under the restructuring, the components are:**

*(i) Central surveillance monitoring and oversight*

CSU Support sub-component: the CSU will expand its capacity in three ways: (i) enhance its technical capacity for surveillance; (ii) enhance management capacity; and (iii) improve coordination and monitoring. To augment the existing CSU team, 13 new staff will be appointed.

IT Support sub-component: As part of the surveillance infrastructure established in all 35 states, a nation-wide IT network has been set up. The restructured project will continue to support the maintenance of the IT hardware/software, the portal (including any necessary software/portal up gradation), connectivity and VSNL satellite network; and the toll-free number call center with universal access, and support an innovative SMS-based reporting system. A Strategic Health Operations Center (SHOC) will be set up as a resource for ongoing training/knowledge sharing, and as a key communication center for emergency epidemic response.

Training sub-component: Having completed the basic disease surveillance training for core primary health care staff across the country, CSU's training strategy would now focus on staff of medical colleges, district and sub-district hospital doctors and administrative/support staff. Training under this sub-component would also include induction training of epidemiologists, microbiologists and entomologists nationwide. Additional activities include orientation training for additional master trainers, field epidemiology training of district surveillance officers, and developing e-learning modules, training manuals and guidelines.

*(ii) Improving state/district surveillance and response capacity*

The component will focus on improving surveillance preparedness in nine states only. These states were selected using agreed criteria (provision of trained staff dedicated to IDSP, establishment of surveillance mechanisms, reporting coverage and effective outbreak response).

Human Resources sub-component: This sub-component will finance salaries of key surveillance staff, including epidemiologists, microbiologists, entomologists, data managers, data entry operators and insect collectors. It will also support the operating costs for state surveillance and outbreak investigations. Additional surveillance support would include incentive payments for Accredited Social Health Activists (ASHAs) and medical college staff for outbreak investigations. Involvement of ASHAs and medical colleges is expected to further strengthen the surveillance capacity of the state/district health system.

Training Sub-component: This sub-component supports training of hospital based doctors, nurses, pharmacists and administrative staff, field epidemiology (FETP) training of district surveillance officers, induction training of professional staff recently recruited, including data managers and data entry operators. The orientation of community volunteers (village leaders, youths, women's group etc) identified under community based surveillance, and their periodical refresher meetings have also been budgeted for one block in each state.

Laboratory sub-component: This sub-component would: (i) support 17 district level priority public health laboratories for investigation of outbreak prone diseases<sup>4</sup>; and (ii) establish a referral network (on a pilot basis) through partnering with 63 existing and functioning private laboratories. Memoranda of Understanding (MOUs) will be signed between each of the nine state surveillance units and the respective laboratories. Laboratories will be contracted using a performance-based mechanism to compensate for laboratory services rendered. This sub-component will finance an initial assessment of this scheme, as well as a final evaluation of the referral network pilot.

*(iii) Influenza surveillance and response*

Human Health: During the first two years of implementation of this component, a network of influenza reference laboratories was established by providing specialized equipment and training to 10 existing high level laboratories. The network was successfully used for H1N1 surveillance in 2009. Under the restructuring, the project will continue to strengthen the existing influenza laboratory network, expanding it further with two additional high level laboratories. The sub-component would: (i) provide specialized additional equipment and finance operating costs for the existing 10 laboratories as well as for the two additional laboratories; (ii) strengthen the quality assurance system through the hiring of specialized laboratory technicians for each of the 12 laboratories; and (iii) ensure rapid access to drugs, vaccines, kits or training necessary to control and respond to serious influenza epidemics in humans.

Animal Health: This sub-component would finance pre-fabricated BSL-3 laboratories, the design and construction of BSL-3 laboratories, salaries and operating cost of a bird flu cell in DADF, training activities for disease surveillance/response; and equipment for response to outbreaks. Compared to the 2007 restructuring, decentralized activities for the animal health part have been dropped and construction of the BSL-4 laboratory has also been dropped.

### **3. Progress, issues and agreed actions**

Progress of activities under each component will be reported according to IDSP's institutional set up. Annex 4 describes the progress for the activities implemented by the Central Surveillance Unit of the MOHFW and according to the CSU's internal organization: i) Human Resource & Capacity building, ii) Information & Communication Technology, iii) Data Management, iv) Outbreak Surveillance, v) Laboratory Network, vi) Avian Influenza Human Health;

The progress of the Avian Influenza Animal Health program implementation is described in Annex 5. Progress on activities related to the safeguards (social and environmental), procurement, financial management and disbursement will be described for both implementation units in the following annexes.

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<sup>4</sup> District priority laboratories will be able to perform the following tests: Serological tests for Typhoid (TyphiDot/Widal) , Stool culture for cholera , Ig M ELISA for Dengue and Rapid dot test for Leptospirosis

## DETAILED IMPLEMENTATION REVIEW OF THE IDSP MOHFW COMPONENT

### 1. Human Resource & Capacity Building

#### Human Resources

*Progress:* Countrywide, 45% of the required professional core project staff (epidemiologists, microbiologists and entomologists) have been hired, and nearly 91% of them trained as of end August 2010. However around 25% of trained staff have moved out of the project, due to better opportunities and uncertainties of the project prior to the restructuring. As a consequence, 22% of the sanctioned positions at state and district level are currently filled with *trained* staff in the 9 priority states. Since restructuring, the recruitment process is decentralized to the states, communications have been shared with the states in May 2010, which was followed by the initiation of recruiting staff in some states .

At the CSU a new and dynamic NPO Dr. Jagvir Singh has succeeded after a very short stay of interim NPO. Additionally, four new officers (Consultants- training, procurement, and finance and accounts officer) have joined since April 2010. The positioning of regular officers from NCDC at CSU to support NPO for IDSP has also improved: after six months of vacancy, three new officers have joined. Of earlier positions, there are still 4 vacancies (1 epidemiologist, 2 microbiologists and 1 financial management specialist) . The clearance for recruitment of the 13 additional officers, agreed under the restructuring is awaiting clearances of the EFC.

At the state and district level the project staff positioning is poor as little more than 20% (50/231) of sanctioned epidemiologist, 27% of microbiologists (7/26), and one third of entomologists (3/9) are in position in project states/districts. The guidelines for the recruitment of epidemiologists has been modified compared to previous years (eligibility of non-medical graduates has been deleted) in the current year. The guidelines also authorize states to continue the officers, data managers and operators recruited in previous years based on satisfactory performance. Prior to restructuring, data managers and data entry operators were recruited by National Informatics Center (NIC) and is now done by States directly (see table for more details on hiring process in 9 priority states).

*Issues:* The change in requisite qualifications may lead to non- filling of some of the positions due to non-availability of qualified staff.

#### *Agreed Actions:*

- State governments will facilitate selection (approval, selection committee formation) / placement mechanism by Oct. 30, 2010
- States will select and position (sanctioned/vacant) by end November 2010
- CSU may collate problems (if any) in getting qualified people and recommend for relaxation case by case.

**Hiring and training status of the Epidemiologists, Microbiologists and Entomologists in the 9 priority states (August 31, 2010)**

Sl. No	Name of State	Epidemiologists		Microbiologists		Entomologists	
		# in position	# Trained	# in position	# Trained	# in position	# Trained
1	Andhra Pradesh	5	1	2	0	0	0
2	Gujarat	3	2	0	0	0	0
3	Karnataka	6	6	1	1	1	1
4	Maharashtra	10	9	0	0	0	0
5	Punjab	9	8	0	0	0	0
6	Rajasthan	23	21	3	0	1	0
7	Tamil Nadu	0	0	0	0	0	0
8	Uttarakhand	7	6	3	2	1	1
9	West Bengal	7	0	0	0	0	0
<b>Total</b>		<b>70</b>	<b>53</b>	<b>9</b>	<b>3</b>	<b>3</b>	<b>2</b>

**Status of hiring of Data manager (DM) and Data Entry Operators in the 9 priority states (August 31, 2010)**

Priority State	# DM to be recruited	In Position	Vacancy	# DMO to be recruited	In Position	Vacancy
Andhra Pradesh	34	31	3	38	25	13
Gujarat	26	23	3	36	31	5
Karnataka	28	26	2	35	33	2
Maharashtra	36	33	3	55	46	9
Punjab	21	19	2	24	23	1
Rajasthan	33	33	0	39	39	0
Tamil Nadu	30	30	0	46	40	6
Uttarakhand	14	13	1	15	15	0
West Bengal	19	19	0	31	29	2
<b>Total</b>	<b>241</b>	<b>227</b>	<b>14</b>	<b>319</b>	<b>281</b>	<b>38</b>

Capacity Building (Training):

*Progress:* The key trainings envisaged in the restructured IDSP project are field epidemiology training for DSOs, induction training for newly sanctioned epidemiologists, microbiologists and entomologists and State data managers from CSU, as well as skill upgrade training for microbiologists.

Under the restructuring, further development was planned of the E-learning materials for the district surveillance officers, newly inducted professionals and medical officers. There is however a lack of understanding what is needed related to E-learning. It has been agreed that CSU, with support from WHO, will identify what kind of E-learning modules are needed, which skills need to be upgraded and how the E-learning can provide added value. It is however not yet clear how the E-learning material will further evolve and might need some further reflections.

Other key training activities at SSU/DSU was the orientation of hospital staff (doctors, nurses and pharmacists in government hospitals and medical college hospitals) to establish surveillance, and district data managers to manage data. However, due to uncertainty and delays in the recruitment process, little progress was made. The position of training manager at CSU which was vacant for several months, has been filled up again in August 2010. As a result, some activities picked up such as the provision of a budget of the Training of the Trainers in the 9 states. The review team was also pleased to hear that the training unit of CSU has now drawn a systematic training schedule in consultation with identified training institutes and that trainings have slowly picked up starting in August 2010.

*Issues:*

- Update all the training materials available based on the restructured project needs
- Develop specific short training materials for Hospital staff ( half a day for doctors and 2days for other staff)
- Agree upon the contents and scope of E-learning materials

*Agreed Actions:*

- CSU to submit to the Bank the final agreed TORs for the additional human resources to be recruited.
- WHO India would facilitate development of training material for hospital staff by end-September 2010
- WHO India would support CSU to upgrade the existing training modules and its technical contents by end October 2010
- CSU in consultation with WHO will identify the contents and scope of E-learning materials and submit to the World Bank by end of November 2010
- CSU to monitor hiring process in the 9 priority states and assure that the training is provided to all newly hired staff within the first 3 months of appointment;

## **2. Information and Communication Technology (ICT)**

IDSP and the National Informatics Center (NIC) have established a nation-wide Information Communication Technology (ICT) network which enables rapid transmission and analysis of data as well as communications and training related to disease surveillance. As most of the infrastructure is now set up, it was agreed at restructuring that the project would finance the nationwide maintenance of the IT hardware, software and the portal, broadband connectivity and maintenance of satellite network, as well as the toll-free number call center. Project financing is also planned for the possible scale up of an innovative SMS-based reporting system towards the 9 priority states and the setting up of a Strategic Health Operations Center (SHOC) in Delhi to strengthen detection, response to and report public health emergencies of national and international concern in compliance to IHR 2005. Data managers and data entry operators are being hired for the 9 priority states, while those from the other states will be trained with project funds. The capacity of the IT cell of CSU will be reinforced with a senior IT consultant and additional junior staff.

### Human Resources for ICT

Although the hardware is now almost nationwide established, the utilization of the IT network is still not optimal. Hiring and training of *Data Managers (DM) and Data Entry Operators (DEO)* in each district, SSU and medical colleges are key for an improvement in use of the IT network. They are expected to operate satellite/broadband based Video Conferencing (VC); co-ordinate collection of data from reporting units; collate and analyze data for generating early warning signals; record and document outbreaks; generate periodic reports and support ICT systems in District and State Surveillance Units. Their recruitment, previously done by NIC is now being decentralized to the States. Till date 227 DM (of a total of 241) and 281 DEO (of a total of 319) were hired in the nine priority states (see table above).

*Agreed action:*

- SSUs to monitor hiring process and provide training to all newly hired DM and DEO within the first 3 months of appointment.

### Networking for data transmission

The *IDSP Portal* allows data entry, query, analysis with graphs and report generation. The portal also serves as a repository for on-line IT training modules and makes other information resources related to disease surveillance available for all IDSP staff. The data centers are installed in all State and District Head Quarters, as well as at 133 Government Medical Colleges. They connect to the portal through broadband. The portal is being used for weekly data entry and quarterly financial monitoring reporting. Since April 2010, various improvements were done and new reports developed in the portal. To resolve the variations in P and L form reporting units, the segregation of both reporting units was introduced. Updating of Master Data has now been done for more than 70% in 7 out of the 9 priority states. Rajasthan and Maharashtra however have not yet started this process.

Interactions with states and observations during field visits suggest that there are frequent problems with accessibility, connectivity and competency of staff and as a result the full benefits of such improvements have not been accrued. Prior to restructuring, the portal's connectivity through broadband was managed by NIC for the whole country. To improve effectiveness it was decided at restructuring that the payment of the broadband connectivity costs to run the portal would be decentralized to the states as of July 1, 2010 (IDA funding for the 9 priority states, GOI funding for the other states). However, this transfer was not always successful. As a result, by the end of August 2010, only 703 out of the 776 data centers were operational (see table). In the nine priority states, 306 out of the installed 321 data centers are operational (12 sites not operational in Maharashtra and 3 sites not operational in Karnataka). Medical colleges were provided the equipment, as well as a data entry operator, but have no direct access to the portal. CSU will start collaborating with a few selected institutions over the next months to assess possibilities. Evaluation of these pilots will provide the necessary information if further expansion is useful and feasible. States feel that the issues related to the portal are recurrent and do not get solved fast enough. Furthermore, due to the revision of the number of districts since 2006, the new districts have not received the equipment for the data center. As it was agreed that all reporting units from the 9 priority states will send reports through the portal, it will be crucial that connectivity and other problems are solved.

At the restructuring, the GOI had requested IDA to finance the portal costs. However, since MOHFW has conveyed that the contract agreement with NIC related to the software support and the customization of the portal will remain with NIC (which the Bank cannot finance) it would be financed by MOHFW. This would result in a potential saving of about US\$ 93,000 which was budgeted for at the restructuring. However, during the review, the Bank team was informed that the contract between NIC and IDSP/MOHFW was not yet signed, while NIC has continued to provide services.

*Agreed actions:*

- CSU to provide a 3day turnaround time on issues raised by the SSUs related to portal. A track record of issues and their solutions will be shared with the Bank on a 3 monthly basis.
- SSU to obtain funds from NRHM to install data center and portal equipment for the newly created districts.
- SSU to be made responsible for minor repair and replacement of consumables, such as, batteries, in order to maintain functionality of data centers in 9 states.

Video conferencing

To strengthen the monitoring of program implementation and the training capacities at all levels, IDSP has established VC linkages with State and District Head Quarters, and all Government Medical Colleges on a satellite and a broadband network. Video Conferencing is used for training of IDSP staff, discussions on outbreak investigations and more general discussions related to the monitoring the decentralized implementation of IDSP. In total, 743 IT training centers have been set up . Of these, 365 have satellite connectivity provided by the Indian Space Research Organization (ISRO) and 378 sites have broadband connectivity provided by NIC. Additionally, 36 centers, including all SSUs, the CSU and MOHFW have specialized Hi-end VC equipment.

In the nine priority states, 300 training centers are operational (120 NIC and 181 ISRO equipment). In 20 sites, the equipment was provided by ISRO but is not operational (10 sites in Maharashtra, 5 in West Bengal, 2 in each Gujarat and Uttaranchal). Since April 2010, the VC facility was used almost 200 times for general discussions (of which 62 with priority states) and 26 times for discussions on outbreak response (of which 10 for 9 priority states).

There is no regular monitoring of the use of the VC facilities, while the use of these facilities should be optimized both at central and state level. The meeting with the nine priority states revealed that VC use between SSU and DSU (broadband) is underutilized and often limited to discussions between DEO and DM, with little technical content. Overall, the states felt that the use of VC between the SSU and the DSU is hampered due to the prior approval needed by CSU for each session (broadband). The review team was also informed that for communicating with the districts, the states use an internet based video conferencing (Inter-Wise) using NIC's e-learning portal (<http://e-learning.nic.in/lms>). This allows unlimited audio connectivity but the video at any point will be limited to 5 sites. Furthermore, field testing during the site visits showed poor audio quality which requires improvement. Use of VC is also hampered due to some minor deficiencies in equipment (dysfunctional modem, UPS, batteries). The Maharashtra SSU was not able to use the VC facility after the SSU was moved from Mumbai to Pune in 2008.

VC facilities were installed by ISRO at 118 medical colleges with the purpose to promote training and discuss outbreak investigations. However, till date the use of VC by medical colleges within the context of the program is not yet established and the equipment remains idle in most of the facilities. Some SSU also report loss of VC equipment after installation at medical colleges.

*Agreed actions:*

- WHO to develop guidelines on how to improve use of video-conferencing facilities at CSU, SSU and DSU
- Increased monitoring of VC use by CSU. A 3 monthly report will be provided to the Bank.
- CSU to provide authorization to states to connect to districts at their convenience (broadband).
- CSU to actively follow up and provide solution for non availability of VC facility at Pune SSU.
- Systematic use of VC from CSU to the SSU of the nine priority states to discuss progress in portal reporting and the laboratory components. Topics of the meetings should be shared with States in advance and minutes of discussions distributed to all SSUs.

- SSUs should also start reporting on the use of the VC facility and provide reports related to technical problems.
- SSUs to be made responsible for minor repairs and replacement of consumables such as batteries of VC equipment, as well as loss of equipment after delivery.
- Weekly use of VC by SSUs for training and monitoring of DSU. This will help to reach out to the districts and ensure a better understanding of the program needs at district level. Topics should also include technical discussions and need VC discussions to be extended towards DMO and DSO. Priority topics: the improvement of quality of data and promotion of the sample collection for district labs as well as for ethological confirmation of outbreaks. The topic of the VC should be shared with each SSU/DSU prior to the discussion. Minutes of the discussions to be shared with CSU.
- Use of VC by medical colleges should be promoted more actively at SSU and CSU level. As such, medical colleges could be asked to provide lectures through VC to the DSU on specific topics (ongoing outbreak, evaluation of response to outbreaks).

#### Maintenance contracts for IT equipment (data and training centers and VC facilities)

According to the agreements reached at restructuring, the maintenance contracts of the IT equipment provided by both NIC and ISRO and previously financed by GOI, would be transferred to private companies and financed by the project. Due to the high level of technological know-how required for the maintenance of this equipment, MOHFW requests that the maintenance contracts should be given through sole source selection (SSS) to the same agencies which have installed the equipment and established the network for respectively NIC and ISRO. The cost of the two maintenance contracts is currently estimated at respectively 8,200,000 INR and 12,010,000 INR per year.

#### *Agreed action:*

- By mid October 2010, IDSP will provide the Bank a justification for SSS for these two contracts, after which eligibility of single source selection can be determined.

#### The Toll Free 24x7 Call Center

The call center is operational since February 2008. It has Hindi/English language calling and answering capabilities functional with a toll free number 1075 to receive disease alerts from health personnel located anywhere in the country. The role of the call centre was extended to responding to queries from all public following an identified need during the initial outbreak of H1N1. In total, the call centre received 211,310 calls (23,600 between April and August 2010), of which 156 were health alerts (10 between April and August 2010) and 19 actually helped in identifying the outbreaks. The call center was used extensively in responding to questions related to H1N1 (33,000 calls in total of which 700 between April and August 2010). The call center is still operated by NIC as the procurement process for the SSS is not yet finalized.

As the call center is now also reaching out to the general public, it will be important to explore the possibility of segregating the information from health providers and general public in order to evaluate the effectiveness. During the discussions with the SSOs of the 9 priority states, connectivity problems from several districts were brought up. The JIR also noted that several states have the provision of their own call centers. As most of these were established prior to the 1075 and cater to the local languages, the use of the existing call centers should be promoted, and information received from the same.

#### *Agreed actions:*

- Provide the Bank with the Draft Contract for the Call Center by October 15
- Monitor the accessibility of 1075 in all districts by the next JIR

- For evaluation purposes: assess the possibility to segregate the information received at the call center from health providers and general public

### Media Scanning and Verification Cell

The CSU has established, in July 2008, a systematic media-scanning and verification mechanism to support outbreak detection. National and major State electronic, broadcast, and print media are monitored; findings evaluated and referred to SSU and DSU if a disease outbreak appears to be mentioned. Through this facility, the project receives 4 to 5 alerts of unusual health events daily, which are all followed up for verification. Since the start, the project has received 1,189 media health alerts (330 only between January and August 2010).

### Innovative SMS-based reporting system

The draft evaluation report of the pilot in Andhra Pradesh is currently under examination at the CSU .

#### *Agreed action:*

- CSU to share the conclusions of the evaluation with the Bank by November 15, 2010 and identify need and feasibility to expand this pilot to other states.

### Strategic Health Operations Center (SHOC)

IDSP plans to set up a SHOC which would function as a resource for ongoing training/knowledge sharing, and as a key communication center for emergency epidemic response. The procurement process of the SHOC is yet to be initiated. The JIR was also informed that the SHOC will entail some minor infrastructure works, which are currently not reflected in the project document.

#### *Agreed action:*

- Update the procurement plan to reflect the all procurement related to the SHOC as well as the new timelines.

### **Data Management**

*Progress.* The CSU has updated the portal to derive requisite data for the indicators of consistent and timely reporting. First ever analysis of the data for first 22 weeks of the fiscal year (weeks 13-34) for the 9 states has been prepared by CSU and shared with the states in the recent review meeting. An overall reporting on portal is around 76% of districts (47-100 range). In four states of Gujarat, Karnataka, West Bengal and Uttarakhand over 85% of districts are reporting on portal already. Rajasthan with 47% and Punjab with 60% are lagging and in other states over 70% of districts are reporting on portal. There is an improvement of 7 % since April 2010 in proportion of districts reporting on portal.

Using the newly defined criteria the state of Gujarat is progressing well as 19 and 13 of 25 districts respectively meet the criteria set for primary health care facilities and private sectors. Tamil Nadu meets the set target for PHC facilities in 15 of 32, and Karnataka in 12 of 27 districts. These states need to work in improving the reporting from hospitals in both government and private sector. In other states hardly 2-3 districts meet the criteria of reporting form even PHC.

#### *Issues:*

- DSO/SSO's commitment to set surveillance mechanism in hospitals

- Capacity of the states/districts surveillance officers and data managers to analyze the data to meet the new indicators.
- Portal functioning and user friendliness
- Dual reporting (Portal and excel sheets through E-mail)

*Agreed actions:*

- CSU will organize a 2 day hands on training for state data managers by end October 2010
- CSU will have weekly meetings with the SSU from the nine priority states to assess progress and issues.
- SSOs / State data managers with help from CSU will train district data managers by end December 2010
- CSU IT unit will solve the problems of individual districts (response in 3 working days)
- CSU has agreed to streamline the Portal and avoid duplicate reporting once the states comply by end December 2010
- DSUs to make all out efforts to improve surveillance and reporting from Government and Private hospitals with immediate effect.

**Outbreak Surveillance**

*Progress.* Central surveillance unit has outbreak information of 306 outbreaks in the project states between January 01 to August 31, 2010 as compared to an annual numbers of 488 and 400 outbreaks in 2009 and 2008 respectively, showing a clear indication that the fear of reporting (due to punitive action) of outbreaks is waning. Most heartening progress is in the efforts to establish diagnosis by collecting appropriate human samples for laboratory confirmation. While sample collection and transmission to labs is reported in 209 outbreaks, with only 29 samples having isolated causative organisms. It is also observed that most of them were stool samples. While the states of Tamil Nadu and Andhra Pradesh submitted weekly outbreaks report in time every week in 2010, the same was done in more than 50% of outbreaks in other project states.

The use of the assessment tool indicates that in 226 outbreak investigations criteria of timeliness of investigation (within 48 hours of FIR) and accessing laboratories for confirmation were met in over 75% cases; and the third criteria of final report submission was met in nearly 30% of outbreaks. However we need to acknowledge the fact that there is still time (at least 3months) for submission of final reports of outbreaks of recent months.

*Issues:*

- Some districts/states do report outbreaks not meeting the criteria of outbreak ( e.g. Uttarakhand reporting 1-2 cases of diarrhea measles, as outbreaks)
- The denominator used for assessing the proportion of outbreaks accessed laboratory includes outbreaks where there is no lab tests e.g. chicken pox, whooping cough etc.

*Agreed Action:*

- CSU to follow up final reports of all outbreaks reported and compile and assess using the tool- immediate
- Increased use of VC for outbreak surveillance by CSU
- State surveillance units to use the tool of assessment and review all outbreak reports (FIR & final) and confirm if they fit into outbreak criteria and quality of action taken- immediate

## **Laboratory activities**

The focus of the laboratory sub component is to demonstrate success in the nine selected states by (i) supporting 17 district level priority public health laboratories, and (ii) building up a referral network through partnering with 65 existing and functioning laboratories, using output based agreements. Simultaneously, human resources for laboratory are being reinforced at central, state and selected district level through hiring state and district microbiologists for the 9 priority states, training microbiologists hired in the other states, as well as strengthening the CSU's HR with three microbiologists.

Since the restructuring, IDSP only takes into account the laboratory confirmation based on appropriate clinical samples and started thus excluding the testing of water samples. As a consequence, the percentage of laboratory confirmation of outbreaks has dropped nationwide from 17% (2009) to 11.8% (April 2010; 9% for the 9 states only) . IDSP aims for a 30% laboratory confirmation of outbreaks with clinical samples by March 2012 in the 9 priority states. However, discussions with States have revealed that SSO and DSO still have not appropriated this new indicator. In order to reach this ambitious goal, the active participation of the epidemiologists at all levels will be crucial, as well as a pro-active supervision by the SSOs. In the past, the laboratory activities have been too often the sole responsibility of the state microbiologist, isolating this subcomponent thus from the general surveillance efforts. The laboratory assessment is now finalized for 6 states. It is estimated that the final report will be available by January 2011.

### **Support district public health laboratories**

In the 9 priority states, 17 district priority labs are being strengthened with the objective to provide quality services for laboratory investigation of outbreak prone diseases within the boundaries of their respective district. Specific support to these 17 labs under this subcomponent and the current status is described below. These inputs will allow the district labs to i) undertake Typhidot tests for typhoid , stool culture for cholera , dengue IgM ELISA and ELISA/Rapid test for Leptospirosis (in endemic areas); ii) support outbreak investigations and iii) participate in the External Quality Assessment System by the second year of implementation.

<b>Progress and targets : 17 priority district labs</b>		
<i>Provisions for each of these 17 district priority labs</i>	<i>Current Status</i>	<i>Agreed timeline</i>
Trained microbiologists in place	6 positions filled	17 microbiologists in place by December 2010 and trained by February 2011
Small equipment procured and operational	13 labs	all procurement finalized by end December 2010
Budget available to labs for incremental expenditures (at a maximum of 200,000 INR/lab/year)	Quarterly funds released for 5 labs	All States to have released funds once microbiologist is hired
On the job support by CSU lab cell	14	Remaining 3 labs visited by February 2011

*Progress.* As shown in the table above, only 2 out of the planned 17 district priority labs have received microbiologists, equipment and funds (Rajasthan). Technical and financial guidelines were shared with the states. Implementation progress is monitored closely by CSU through the submission of weekly L forms to CSU by email, but only 5 districts labs are reporting (2 in Rajasthan, 1 in AP, 1 in Karnataka and 1 in TN).

*Issues.* There have been considerable delays in the recruitment of district microbiologists as well as in the procurement process. Two states are yet to procure the equipment while funding for incremental expenditures cannot be released to the labs without a microbiologist. Many districts have not yet received clear guidelines from the SSU on the use of the budget available for sample collection and transportation. District and State ownership need to be boosted in order to achieve progress: States should engage in expediting the process of positioning microbiologists to these districts labs and ensure the availability of resources. Furthermore, the SSO should support the DSO actively in the mobilization of adequate samples and the promotion of a better integration of the IDSP priority laboratory as a part of the main laboratory of the district hospital.

#### Building a referral laboratory network

While the above mentioned district priority labs will provide laboratory services for outbreak prone diseases within the boundaries of their specific districts, the other 225 districts of the 9 priority states will have access to quality laboratory services through the establishment of the Laboratory Referral Network. Under the restructuring, IDSP has started a pilot, using the services of 65 existing and well functional laboratories (mainly at medical colleges) through output based agreements. These labs will provide quality diagnostic facilities for epidemic prone diseases to each 2 to 4 well defined districts. MOUs are to be signed between each of the 9 SSU and the respective labs. The MOU provides detailed information on how the output based arrangement will be effective having a clear determination of the outputs/ deliverables, an agreed unit rate payable for the output to be delivered, procedures/ responsibility for confirmation of the outputs delivered (and of acceptable quality), and payment procedures.

A yearly grant of 200,000 INR will be provided to each of the identified state reference lab that achieves basic performance level while the subsequent payments will be done on quarterly basis linked to the agreed outputs reported from the lab to the SSU and at the reimbursement rate identified by each SSU. The use of these expenditures will be monitored by respective SSO in coordination with state lab coordinator. No procurement of equipment is allowed within the context of the State Referral Laboratory Network

The expected outputs of each lab are i) undertaking a minimum of nine defined specific tests for diagnosis of epidemic prone diseases, ii) support micro-biological testing for outbreak investigations, iii) participate in mentoring and training of district lab technicians, iv) support internal quality control. Participation to the scheme will also entail quality assurance through monitoring of use of SOPs and biomedical waste management, supervision, and finally the participation in EQAS. Under this schedule, mobilizing adequate samples and proper transport remains key. SSO will therefore provide funds to collect and transport samples at the level of the 225 districts labs to their respective referral laboratory.

The progress of the pilot is being measured by the etiological diagnosis of outbreaks in the respective state, while a common workshop will be organized on the implementation progress for all these states is planned for March 2011 to share best practices and identify bottle necks of implementation. During the second year of implementation, IDSP will carry out an independent evaluation of the pilot scheme in each of the 9 states, with a focus on lessons learned and how the proposed model might be expanded further

*Progress.* All 9 states have finalized the referral laboratory network plans and received technical and financial guidelines. The implementation of the plans have rolled out in 2 states (Rajasthan and Gujarat) , where the MOUs with medical colleges were signed. It is yet too early to assess the impact on the number of etiological diagnosis of outbreaks, but the 9 participating states are expected to monitor the pilot from close and report quarterly to CSU. It is expected that the referral laboratory network will be fully operational in all 9 states December 2010.

*Issues.* While the referral laboratory network was developed in a participatory manner with medical colleges, field visits have shown that districts are not yet aware of the network and need further instructions on the use of the budget for sample collection and transport, as well some technical guidelines. Communication between DSOs of the linked districts and the nodal officers from the referral labs needs to be established at earliest. Medical colleges who are part of the Laboratory Referral Network should also be motivated by the SSO to report weekly on the L Form and to start using pro-actively the VC for communication with the districts allotted to them. Preventive and Social Medicine (PSM) departments of the Medical Colleges should be more involved in the laboratory network in order to increase the sample number.

In some states, such as Tamil Nadu and West Bengal, the roll out of the referral laboratory needs to be boosted further, and a high level meeting with the Medical Colleges, as well as the Director Medical Education will be necessary over the next 2 months.

#### *Agreed actions*

- CSU to develop and provide SSUs guidelines for sample collection and transport from districts to Referral lab network as well as within the district (for District priority labs) by October 15, 2010
- CSU to hold monthly VC meetings with SSU of all nine states related to the progress of the lab activities (district labs and referral lab network) starting early October 2010.
- CSU : Join high level state meetings related to the lab networks (Tamil Nadu and West Bengal)
- CSU to assure training of newly hired microbiologists with the first 3 months of their recruitment
- CSU to provide guidelines on establishing communication between DSOs of the linked districts and the nodal officers from the referral labs by October 15, 2010
- CSU to finalize the quarterly reporting format for microbiology department laboratories in the referral network by October 2010
- CSU to prepare an updated budget for the meeting between all implementers of the Referral Laboratory Network by December 2010
- CSU and WHO to visit the remaining priority district health labs by December 2010
- CSU to share with SSUs parameters for declaring district priority labs functional by October 2010
- CSU and WHO to prepare and share guidelines on how the participating Medical Colleges can use the VC facilities to communicate with their respective districts within the context of the laboratory referral network (December 2010)
- SSO and State Microbiologist : to organize monthly VCs with DSO and collaboration labs in order to promote appropriate and clinical sample collection (starting in November 2010). Minutes of the VCs will be sent to CSU. CSU to provide guidelines to SSU on how to use Video conferencing for better monitoring of the laboratory activities by October 2010
- SSO to visit each of its respective District Priority Labs together with State microbiologist by December 2010. Report of the visit to be shared with CSU.
- SSO to ensure that all participating labs are reporting L forms
- CSU to adapt Procurement plan (including procurement of equipment for the remaining 3 states (TN, Maharashtra en WB)
- CSU to initiate EQAS for IDSP labs by March 2011
- CSU and WHO to draft course curriculum of skill up-gradation training for microbiologists and identify coordinating institute by March 2011
- CSU to share summary report of the laboratory assessment by January 2011.

## Avian Influenza Human Health

The human health sub component of Highly Pathogenic AI aims to minimize the threat posed to humans by AI infection and other zoonoses and prepare for prevention, control and response to an influenza pandemic in humans. It supports: i) strengthening and networking of reference laboratories for prompt case confirmation: and ii) re-establishing seasonal influenza surveillance system for India.

*Progress and issues* The project has set up a network of Influenza Reference Laboratories by providing specialized equipment and training to 10 existing high level laboratories, operational in July 2009 . An EQAS system was established and arrangements for adequate sample collection and transportation were made. NCDC was assigned the role of national as well as regional reference laboratory. The network of 10 regional labs was successfully used for H1N1 surveillance (see box 1). Under the restructuring, the project will continue to strengthen the existing Influenza Laboratory Network, expanding it further with two additional high level labs.

New MOUs between the laboratories of the network were drafted and shared with the Bank, but the signing was delayed due to cash flow problems. Once the MOUs are signed, contingency funds for the labs under the network will be released. The strategy for surveillance of seasonal influenza was further fine-tuned. It will assess the proportion of Influenza Like Illnesses (ILI) cases among ARI patients in different geographical areas including age and sex distribution, monitors the trends and changes of human influenza virus strains among ILI patients and develop strategic interventions for prevention and control of influenza. The strategy will be implemented in the next couple of months.

Although the planned procurement under the Avian Influenza lab network has not yet started, most specifications are now ready. The procurement plan does however not reflect some equipment needed for the seasonal influenza surveillance system and needs to be updated to reflect the current needs and timeline.

### *Agreed actions*

- Update procurement plan to reflect current needs and timelines of AI procurement needs
- Sign MOUs with the respective 12 labs by November 2010
- Develop and set up further the seasonal influenza surveillance for India (immediately)

### ***H1N1 and the Indian Influenza Laboratory Network:***

#### ***a Success Story***

*The IDSP Influenza lab network has been instrumental in the country's response to the H1N1 pandemic. The MOHFW responded to the urgent needs of sample testing for influenza A/H1N1 by quickly activating its influenza network of laboratories under the apex laboratories- the National Institute of Virology at Pune and NCDC. The successes of the IDSP influenza networking during the pandemic lies primarily in the fact that there was an established plan under the project to engage carefully selected laboratories with a strong central leadership provided by NCDC. The MoUs under the IDSP had already been signed and the PCR machines supplied before the pandemic H1N1 (2009) was declared and with few additional inputs (training, startup consumables and kits), these laboratories could quickly gear up to verify the samples for influenza. Two hands on trainings on molecular diagnosis of influenza have been held since signing of MoUs for this network, with technical support from WHO.*

*Following the pandemic, NCDC coordinated and augmented their own capacity by increased weekly work hours and adopting triage protocols to deal with sample surge from across the country. The network*

*laboratory staff was trained at the apex institute which facilitated initial logistical arrangements and established working protocols for initiating these laboratories to take on the additional task of testing the respiratory samples by the recommended molecular testing methods.. An elaborate quality control system was set up by NCDC.*

*At present, all laboratories are functional and assisting the respective states in influenza diagnosis. Some of the laboratories have tested several thousand samples during the H1N1 pandemic for the respective states and are also carrying out operational research (including monitoring for antiviral resistance and evaluating other testing methodologies (rapid kits etc) for use in influenza diagnosis. At NCDC only over 30,000 samples were tested between May 2009 and August 2010 . NCDC in collaboration with WHO also developed a video on essentials of sample collection for influenza and Personal Protective Equipment which has been extensively used by the states for capacity building. A training toolkit for rapid response teams dealing with influenza also included important components of sample collection and PPE were developed by MOHFW jointly with WHO.*

*Way forward for this network*

- 1. India is continuing to report cases and deaths of pandemic H1N1 (2009) virus with focal activity at least in few states. The IDSP network laboratories need to be constantly replenished with the kits and consumables to carry forward the testing, continue to generate quality assured results from all in the network; continually test for antiviral resistance emergence and monitor changes in the circulating influenza strain (if any) to be one step ahead in the fight against this ever changing virus. The laboratories also need to be able to confirm respiratory samples negative for influenza for other pathogens, especially in the severe acute respiratory infection (SARI) cases.*
- 2. There is need to expand the ongoing influenza surveillance in the country to make the data geographically representative and link disease surveillance at the field level with laboratory surveillance. In this regard, the NCDC has developed a draft for expansion of influenza surveillance and is planning a further discussion with a wider audience before operationalization. A network meeting of the influenza laboratories in the country would provide opportunities for experience sharing towards a common goal of furthering disease surveillance (including influenza) initiatives in the country and is being planned sometime later this year in collaboration with the WHO India. The final goal should be routine influenza surveillance in the country with a reasonable geographic representation.*
- 3. In the larger context, the apex laboratory at NCDC needs to work towards becoming a National Influenza laboratory recognized by the WHO Global influenza surveillance network (GISN) and participate in Flunet so that representative virus isolates from the country feed into the global influenza repository, based on which influenza vaccine composition is derived every year.*

*In summary*

- The influenza network of laboratories under IDSP is an asset for the country not only for surveillance of influenza but also for surveillance for other emerging infectious diseases particularly viral infections where molecular diagnosis plays a pivotal role, and continuous financial support remains the key for future sustainability of this network.*
- The IDSP influenza network model has helped identify some of the essentials of sustaining a network, namely- commitment from the apex laboratory and willingness of network partners, clear roles and responsibilities, clear channels of communication flow, training and mentoring by apex laboratory, uniformity of guidelines/protocols, identifying procurement needs ahead of time, continuous financial support and most importantly mainstreaming and institutionalization. IDSP network of influenza laboratories was showcased in a WHO supported national laboratory meeting for strengthening disease surveillance held recently in New Delhi as a role model for laboratory networking in the country.*

## **DETAILED IMPLEMENTATION REVIEW OF AVIAN INFLUENZA, ANIMAL HEALTH SUB-COMPONENT, IMPLEMENTED BY DADF**

The review team had a detailed discussion on progress made on various agreed actions with DADF and also visited Kolkata and Bangalore BSL-III laboratory sites. The progress in project implementation and agreed actions are summarized below:

### **Procurement:**

***Extension of UNOPS Contract:*** UNOPS has been working with DADF as the procurement agent from the beginning of this project. The earlier contract with UNOPS expired on June 30, 2010. During the restructuring, DADF had agreed to extend the contract of UNOPS soon after the approval of the restructured IDSP. As part of this agreement, the project has already hired UNOPS and all contractual formalities are completed. UNOPS has already started procuring for the project.

### **BSL-III Laboratories**

***Prefab BSL3 Labs:*** Contracts for installing two Prefab BSL-III laboratories are signed. All formalities with respect to site selection and other support systems for Bangalore and Barelli laboratories are in place. The southern regional disease diagnostic laboratory at Bangalore is likely to install the BSL-III by 15<sup>th</sup> November. However, the Barelli BSL-III is likely to be installed by 30<sup>th</sup> November, 2010.

***Hiring Technical Consultants for Designing/Supervising the Constructed BSL-III Labs:*** BSL3 lab is highly sophisticated lab with high bio-security. DADF has agreed to hire technical consultants to design and supervise the construction of two BSL3 labs. It agreed during the wrap up meeting on 14<sup>th</sup> September that these two consultants will be in place 15<sup>th</sup> October. UNOPS will help in procuring these two consultants for which all internal clearances are obtained.

### **Monitoring and Evaluation**

***M&E Report for the Project Prior to Extension:*** Annual report and regional laboratory surveillance reports were shared with mission members. Both the reports reflect the sample analysis outcomes. However, there was no project specific monitoring report available with DADF. It was agreed during the earlier mission, June 2010 that DADF will complete and submit to the Bank an M&E report for this project up to March 31, 2010 within few weeks after the approval of IDSP. In response to this DADF has submitted a status report of different activities. However, this report seems to be quite generic and needs to be put into a MIS system. This requires further discussion with the Project colleagues.

### **Environmental Compliance:**

The BSL3 prefabricated laboratory in the Institute of Animal Health, Kolkata, is the first of its kind to be established in India. The laboratory is housed within the campus of the Eastern Regional Disease Diagnostic Laboratory and has the essential personal protection equipment necessary for such a lab. So far the waste has been autoclaved, i.e. the dissected birds and samples are autoclaved and then burnt within the premises. However, as of this month the Institute has contracted the services of SembRamky at the rate of Rs 5,000/200 kg. The CTF operator is also providing the consumables required for treatment and waste collection, including the colour-coded bags and bins, needle cutters and the sodium hydrochloride. Given the extremely infectious nature of the samples being handled, the laboratory will

continue to autoclave its waste before giving to the CTF. A laundry machine is to installed for on-site management of lab-coats, garments and towels used by the technicians while working in the BSL3 labs. The technicians are well trained and aware of bio-safety and laboratory occupational safety measures and the SOPs, PPE and antiviral drugs are available as of now. The mission was informed that culling operations are undertaken under the supervision of the District Magistrate along with a group of officials from Department of ARD, PWD and also the local community groups and panchayats. There are detailed guidelines prepared by the DADF which also include the levels of compensation.

The mission recommends that given that technicians from all 6 BSL3 labs be provided with exposure training to international standards of biosafety and occupational safety practices. The provision of adequate supply of PPE and anti-viral drugs should be consistently managed and monitored. Maintenance cost of prefabricated BSL3 labs is extremely high and essential for the continued effectiveness of these labs. The mission recommends that an Operations and Maintenance contract be issued for 4-5 years, which could be funded under the project.

Given the good performance of Avian Flu epidemic management in West Bengal, the mission suggested that this experience should be documented as a good practice.

The Bank requires that all large constructions funded by the loan are accompanied by a set of standard good practices to detail how potential adverse impacts of civil works will be mitigated. DADF will need to prepare this document, prior to start of construction of the labs.

## **Financial Management**

It is appreciated that the FM cell with one finance staff has been created in DADF in September 2010. It was discussed that DADF should submit a reimbursement claim for 2008-09 amounting to Rs 4,474,884 as per Bank's email dated 19 May 2010. A discussion was also held on the expenditures reported by DADF for 2009-10 and it was indicated that the Bank would be able to reimburse only the agreed and eligible expenditures; and DADF should submit the related reimbursement claim in consultation with the Bank. It was informed that the expenses pertaining to intravet would be considered eligible only after Bank's procurement clearance on the same has been obtained.

In accordance with the agreement arrived at with DADF in early 2010, the Bank reconfirmed that it would consider the reimbursement of decentralized expenditures for 2008-09 and 2009-10 pertaining to DADF trainings based on the audit reports, if the audit is done by an auditor selected as per Bank procurement procedures; and the audit is conducted as per the terms of reference agreed between DADF and Bank. It is however a concern that these auditors are yet to be appointed. DADF assured that they would follow the Bank procurement process for the selection of the auditors and they would be in place by 31 October 2010.

The mission was informed CAG is in the process of auditing DADF's central level records for 2009-10; and it would be in a position to submit the audit report to the Bank by 30 September 2010.

	<b>Action Points for DADF</b>	<b>Timeframe</b>
	Submit the audit reports for expenditures incurred at the central level for 2009-10	30 September 2010
	Submit a reimbursement claim for 2008-09 amounting to Rs 4,474,884 as per Bank's email dated 19 May 2010	30 September 2010

	Submit a draft reimbursement claim for 2009-10 to the Bank for review including only the agreed and eligible expenditures under the project.	31 October 2010
	Finalize the appointment of auditors as per Bank procurement procedures, for auditing the decentralized expenditures for 2008-09 and 2009-10 pertaining to DADF trainings as agreed with the Bank on 23 March 2010.	31 October 2010
	As per the Financing Agreement, submit the FMR on eligible expenditures incurred by DADF on the project at the central level during April – September 2010.	30 November 2010

### **Other Aspects of the Project**

DADF also agreed to start and accelerate the implementation of the other aspects of the project, including procurement of equipment for collection and dispatch of samples; procurement of ELISA kits; procurement of PPE kits and masks; initiation and satisfactory completion of the agreed epidemiology survey/study; and undertake any necessary training programs or workshops at the national or regional levels. Given the urgency and importance, it is important that this work as well as necessary procurement is done as per the agreed schedule.

### **Status of BSL Laboratories**

#### **BSL-III laboratories**

S.No.	Category	Place	Status
1.	Pre-fabricated	Jalandhar	Completed. Is functional now.
2.	Pre-fabricated	Kolkata	Completed. Is functional now.
3.	Pre-fabricated	Bareilly	The lab. is being procured by UNOPS. Will be installed by November, 2010.
4.	Pre-fabricated	Bangalore	The lab. is being procured by UNOPS. Will be installed by November, 2010.
5.	Constructed	Guwahati	The consultant has been finalized by the UNOPS to design, inspect and supervise the site for construction.
6.	Constructed	Pune	The consultant has been finalized by the UNOPS to design, inspect and supervise the site for construction.

#### **BSL-II laboratories:**

In total, 23 laboratories are being set up in 21 states. The status in each of these states is the following:

S.No.	State	Status
1.	Himachal Pradesh	Completed.
2.	Gujarat	Completed.
3.	Meghalaya	Completed.
4.	Uttaranchal	Completed.
5.	Chhattisgarh	Work in progress
6.	Haryana	Work in progress
7.	J & K	Work in progress
8.	Rajasthan	Work in progress
9.	West Bengal	Work in progress
10.	Madhya Pradesh	Work in progress
11.	Maharashtra	Work in progress
12.	Andhra Pradesh	Expected to be completed by October, 2010.
13.	Karnataka	Expected to be completed by October, 2010.
14.	Kerala	Expected to complete by December, 2010.
15.	Tamil Nadu	Expected to complete by December, 2010.
16.	Orissa	Tender process complete
17.	Manipur	Tender process complete
18.	Tripura	Tender process complete
19.	Jharkhand	Tender process complete
20.	Goa	Tender process complete
21.	Bihar	Tenders invited

## ENVIRONMENTAL ISSUES AND HEALTH CARE WASTE MANAGEMENT

### Human Health

The CSU has actively strengthened infection control and biomedical waste management practices in its laboratories. The Standard Operating Procedures are posted on their website and all technicians have undergone one round of training. The Personal Protective Equipment (PPE) and antiviral drugs have been procured by NCDC and provided to all laboratories. The reporting and evaluation mechanism includes biosafety measures and waste management practices.

The mission recommends that the guidelines and training modules be reviewed to ensure full compliance with international standards and also with GOI's BioMedical Waste Management Rules. It is also suggested that along with this training, guidance be provided to the states for systematically undertaking ongoing training and regular on-site supervision. CSU could also strengthen the waste management processes, especially with regard to end treatment and disposal to Common Treatment Facilities, as mandated by the BioMedical Waste Management Rules.

### Animal Health

The BSL3 prefabricated laboratory in the Institute of Animal Health, Kolkata, is the first of its kind to be established in India. The laboratory is housed within the campus and has the essential personal protection equipment necessary for such a lab. So far the waste has been autoclaved, i.e. the dissected birds and samples are autoclaved and then burnt within the premises. However, as of this month the Institute has contracted the services of SembRamky at the rate of Rs 5,000/200 kg. The CTF operator is also providing the consumables required for treatment and waste collection, including the color-coded bags and bins, needle cutters and the sodium hydrochloride. Given the extremely infectious nature of the samples being handled, the laboratory will continue to autoclave its waste before giving to the CTF. A laundry machine is installed for on-site management of lab-coats, garments and towels used by the technicians while working in the BSL3 labs. The technicians are well trained and aware of biosafety and laboratory occupational safety measures and the SOPs, PPE and antiviral drugs are available as of now. The mission was informed that culling operations are undertaken under the supervision of the District Magistrate along with a group of officials from Department of ARD, PWD and also the local community groups and panchayats. There are detailed guidelines prepared by the DADF which also include the levels of compensation.

The mission recommends that given that technicians from all 6 BSL3 labs be provided with exposure training to international standards of biosafety and occupational safety practices. The provision of adequate supply of PPE and anti-viral drugs should be consistently managed and monitored. Maintenance cost of prefabricated BSL3 labs is extremely high and essential for the continued effectiveness of these labs. The mission recommends that an Operations and Maintenance contract be issued for 4-5 years, which could be funded under the project.

Given the good performance of Avian Flu epidemic management in West Bengal, the mission suggested that this experience be documented for experience sharing.

The Bank requires that all large constructions funded by the loan are accompanied by a set of standard good practices to detail how potential adverse impacts of civil works will be mitigated. DADF will need to prepare this document, prior to start of construction of the labs.

## TRIBAL AND SOCIAL PLAN

**Social Safeguards:** As part of restructuring, it has been proposed that the priority states will prepare community surveillance strategies according to their resources, demand, and systemic advantages. Not many states have made much progress in this direction except for Gujarat, Maharashtra and Karnataka who are piloting community surveillance as part of the Tribal Action Plan. Andhra Pradesh is progressing with its innovative community surveillance strategy using short message services (SMS) in the Prakasham district. It has prepared training manuals so as to enable other districts to replicate the experience. The state is refocusing attention on the Toll Free numbers in order to dispel fears of outbreak reporting through SMS being chargeable to the phone users. West Bengal is planning to prepare a community surveillance strategy involving Panchayat representatives and community volunteers.

**Tribal Action Plan (TAP):** Gujarat has started planning the tribal action plan (community surveillance among tribal communities) in two Taluks of the Nizar block of the Tapi district, where over 90 percent are tribal and live in remote locations. The Gujarat TAP pilot will involve participation of community volunteers, health workers, and NGOs. The Tapi DSSU is collecting baseline data on health service, access, disease incidence and outbreak reporting patterns so as to be able to prioritize outreach and monitor outcomes. Karnataka and Maharashtra have started working on their TAP pilots in two select blocks each involving community health workers and volunteers. Maharashtra is piloting community surveillance as part of the TAP in Taloda and Akkalkowa blocks of Nadurbar district; and Karnataka in Gundulpet and Kollegal blocks in Chamrajnagar district. Orissa has advanced its TAP pilot in Koraput district, which it continues to report regularly. States such as Tamil Nadu are encouraged to promote community surveillance through the state wide network of women self help groups.

The CSU has not advanced much in hiring documentation and communication specialists on account of procedural issues, ToRs for hiring whom have been prepared. These specialists will assist CSU in implementing IEC activities including: (a) compiling information on IDSP process for public dissemination; (b) documenting and disseminating IDSP success stories and challenges; and (c) mainstreaming with NRHM, and building collaboration with academia, media, and corporate houses for strengthening disease surveillance. The states will prepare their specific IEC strategies for strengthening disease surveillance. The CSU will coordinate its IEC efforts with NRHM and improve the IDSP portal with IEC materials.

### Agreed Actions

- CSU will hire the Communication and Documentation Specialists and prepare IEC action plan;
- CSU will compile state specific IEC and community surveillance plan and activities.

## PROCUREMENT

### A. Procurement under the Human Health Component: CSU

#### 1. Follow up after Restructuring Plan

The agreed actions in the Restructuring Plan were discussed and the Current Status is given below:

Agreed actions	Current Status
Using a procurement agent for goods, works and services (including consultancies).	RITES have declined to act as procurement agent for the project. Therefore MOHFW will be procuring the High value equipments to be procured through DGHS/procurement cell & remaining procurements will be done by IDSP/NCDC
Hiring of UNOPS by DADF for procurement of goods, works and services	UNOPS is currently engaged by DADF for procurement of goods, works and services
Hiring of Procurement consultant for IDSP	Procurement consultant on board since 27 July 2010.

#### 2. Procurement Plan

The procurement plan prepared after restructuring was reviewed during the mission and a revised version will be submitted for the Bank's review and clearance.

The procurements after revision of the plan will envisage about 4 consultancy contracts, 6 NCB contracts and 16 shopping contracts, in addition to the procurement of 7 other items through Shopping for the priority labs at Maharashtra, Tamil Nadu and West Bengal.

#### 3. Procurement of Equipment and Goods

For the procurement of Electron Microscopes, the bids (submitted in response to the IFB issued in April 2010) remain unopened. Except for these, no significant progress is visible for undertaking any other procurement. The slow decision making process in MOHFW has resulted in the Procurement of Electron Microscopes getting inordinately delayed, with the bid submission deadline being extended on 3 occasions.

#### 4. Consultancy and other Services

The Consultancy Services prepared after restructuring envisaged the procurement of 3 QCBS contracts 9 Individual consultants, 2 SSS contracts and 2 CQS contracts during the remaining project period.

The SSS contract for engaging RITES as PA now stands cancelled. This results in a project saving of INR 4.5million (USD 97,000).

The other SSS contract for the engagement of the 24X7 call centre agency is delayed despite the Bank's approval to "Single Source Selection" due to lack of understanding of procurement guidelines and non-availability of procurement staff.

At the time of restructuring, the GOI had requested IDA to finance the portal costs. However, the MOHFW has now decided that the contract agreement with NIC related to the software support and the customization of the portal will remain with NIC on GOI funds. This results in a project saving of about USD 93,000.

Maintenance contracts for IT equipment (data and training centers and VC facilities): According to the agreements reached during restructuring, the Annual maintenance contracts of the IT equipment provided by both NIC and ISRO and previously financed by GOI, would be transferred to eligible private companies and be financed under the project. However, due to the high level of technological know-how required for the maintenance of this equipment and keeping in view the critical and proprietary nature of the equipment, the MOHFW requests that the annual maintenance contracts should now be given through SSS to the same OEMs which have installed the equipment and established the network for respectively NIC and ISRO. The estimated contract values will be in the order of INR 8,200,000 (V-Sat Network- Hughes) and INR 12,010,000 (IT Equipment - HCL). By mid October 2010, IDSP will provide the Bank a justification for SSS for these two contracts, after which only eligibility of SSS can be determined.

## **5. Procurement Capacity Building**

The project has recently filled up the vacant position of a procurement specialist at IDSP w.e.f 27 July 2010. The SBDs for NCB – equipment / goods and the Bank procurement guideline sent and explained to the procurement consultant.

The Banks' Procurement Specialist will undertake a half day training on Banks procurement guidelines, use of SBDs for NCB / shopping and effective contract management for the benefit of the newly appointed Procurement Consultant, and the Stores and Purchase officer.

The project will send the newly appointed Procurement consultant and the Stores and Purchase officer for training on World Bank Procurement procedures at ASCI, Hyderabad during the 1<sup>st</sup> week of November 2010. If the PS is on a contractual engagement, adequate measures to retain him till the end of the project period are to be ensured.

## **B. Procurement under Animal Health Component: DADF**

**6.1 Extension of UNOPS Contract:** UNOPS has been working with DADF as the procurement agent from the beginning of this project. The earlier contract with UNOPS expired on June 30, 2010. During the restructuring, DADF had agreed to extend the contract of UNOPS soon after the approval of the restructured IDSP. As part of this agreement, the project has already hired UNOPS and all contractual formalities are completed. UNOPS has already started procuring for the project.

**6.2 Procurement of Prefab BSL3 Labs:** Contracts for installing two Prefab BSL-III laboratories are signed. All formalities with respect to site selection and other support systems for Bangalore and Bareilly laboratories are in place. The southern regional disease diagnostic laboratory at Bangalore is likely to install the BSL-3 by November 15. However, the Bareilly BSL-3I is likely to be installed by November 30, 2010.

**6.3 Hiring Technical Consultants for Designing/Supervising the Constructed BSL-3 Labs:** DADF has agreed to hire technical consultants to design and supervise the construction of two BSL3 labs. It agreed during the wrap up meeting on 14th September that these two consultants will be in place October 15, 2010. UNOPS will help in procuring these two consultants for which all internal clearances are obtained.

**7. List of Key Actions to be taken in next 6 months:**

	Agreed actions	Agreed time frames
1	For procurements that are within the delegated powers of the project director, administrative orders conveying the immediate commencement of procurement will be issued, to ensure that no time is lost in seeking repeated approvals.	October 15, 2010
2	The administrative approvals needed for procurements that are above the delegated powers of the Project Director will be obtained in one go, instead of resorting to piecemeal approvals.	October 15, 2010
3	Submission of revised and updated procurement plan.	October 15, 2010
4	Placing Purchase orders / contract award for all eligible procurements among the 16 items through shopping	To be described in the updated procurement plan
5	Ready for delivery and acceptance of supplies coming through the shopping process	
6	Notification / advertisement of IFB for NCB 6 Items	
7	Bid opening for NCB 6 Items	
8	Contract award for 6 NCB Items	
9	The Procurement specialist at IDSP as well as the Stores Officer, NCDC responsible for the institutional procurement is to be sent for training on World Bank Procurement Procedures at the earliest. If the PS is on a contractual engagement, adequate measures to retain him till the end of the project period are to be ensured.	November 7, 2010
10	IDSP will provide the Bank a justification for SSS for the AMC the IT equipment provided by NIC and ISRO	October 21, 2010
11	The causes for the delay in responding to the fund requests from UNOPS need to be looked at and addressed expeditiously. Bottlenecks to be identified and resolved.	Oct. 15, 2010
12	Bank PS - Reviewing the first 2 NCB documents, and providing training of procurement consultant and project procurement staff	As per updated procurement plan
13	Next Procurement review by Bank	December 7, 2010

**8. Rating for Procurement:**

Procurement performance during the period of review continues to be rated as *Unsatisfactory*. The above assessment is based on (i) Project not being able to engage a procurement agent as agreed during restructuring (ii) inadequate procurement capacity - both staffing and training (iii) delays in initiating the procurement as per restructuring procurement plan (iv) Delays in responding to the fund requests from UNOPS.

**9. Steps, to be taken, for improvement the procurement rating**

Action in compliance to the agreed actions 1 to 11 will be closely monitored and their implementation will lead to the improvement of the procurement rating.

## **DISBURSEMENT AND FINANCIAL MANAGEMENT**

### **A. DISBURSEMENT AND FINANCIAL MANAGEMENT OF MOHFW/CSU**

#### **Disbursement and Budget 2010-11**

1. The mission was informed that the central government has made a provision of Rs 23 crores for IDSP in the budget for 2010-11 that is sufficient to take care of project's expenditure at central level, 9 Bank funded states after restructuring; as well as other states.
2. The project has reported a disbursement of Rs USD 23.6 million<sup>5</sup> including Special Advance of USD 6.6 million representing disbursement being 37.5% of the signed amount.

#### **Financial Reports**

3. It is appreciated that due to active follow up by the project with the states, it managed to submit a complete FMR for the period October 2009 to March 2010 and also sought reimbursement for the eligible expenditures. The mission was assured that the project will be able to submit the FMR for the expenditures incurred during April to September 2010 by 30 November 2010.

#### **Financial staff:**

4. As discussed during the project restructuring, it was agreed that the project will create a FM cell with two qualified financial staff so that active follow up could be taken on the FM issues as well to ensure that the FM staff could travel to the participating states on regular basis to improve the internal controls. This requirement on FM cell was also included as a covenant in the Financing Agreement. During the mission, it is learnt that the FM cell has only one FM staff as the second staff had left the project in end June 2010. The mission was explained that the recruitment work is in progress and the necessary file for issuance of advertisement has been sent for approval. Considering that the advertisement is yet to be released, it is unlikely that this post will be filled soon. The project agreed that it is critical to have two FM staff to complete the FM work at NCDC on continuous basis; and to improve the financial performance of 9 participating states. It was discussed and agreed that the advertisement will be placed on IDSP website immediately, inviting applications from qualified candidates; and the recruitment will be finalized by end October 2010 so that the staff is on board by November 2010.
5. It is appreciated that NCDC organized financial management training during the mission for the FM staff of 9 participating states to improve the financial controls in the state, where the Bank also participated. The Bank noted states' concerns on (i) very small allocation for operating expenditures, and (ii) low salaries of FM staff in the state. NCDC was requested to follow up on these issues and provide the feedback on actions taken in the next mission.

#### **External Audit 2009-10**

6. It was agreed that the project needs to submit the audit reports for expenditures incurred at the central and state levels for 2009-10 by 30 September 2010 (as per the agreed procedures), along with a reconciliation of audited expenditure with the expenditure reimbursed by the Bank for the year. The

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<sup>5</sup> Source: Client Connection dated September 14, 2010 (includes USD 2.5m disbursed for AI-Animal Component)

mission was informed that the FM cell would follow up on this and the needful would be done by 30 September, which is also the agreed deadline as per the Financing Agreement.

	<b>Action Points for NCDC</b>	<b>Timeframe</b>
1	Submit the audit reports for expenditures incurred at the central and state levels for 2009-10, along with a reconciliation of audited expenditure with the expenditure reimbursed by the Bank for the year.	30 September 2010
2	Submit the FMR on expenditure incurred by the project during April – September 2010.	30 November 2010
3	Finalize the recruitment of second FM staff in the FM cell	30 November 2010

## **B. DISBURSEMENT AND FINANCIAL MANAGEMENT OF DADF**

It is appreciated that the FM cell with one finance staff has been created in DADF in September 2010. It was discussed that DADF should submit a reimbursement claim for 2008-09 amounting to Rs 4,474,884 as per Bank's email dated 19 May 2010. A discussion was also held on the expenditures reported by DADF for 2009-10 and it was indicated that the Bank would be able to reimburse only the agreed and eligible expenditures; and DADF should submit the related reimbursement claim in consultation with the Bank. It was informed that the expenses pertaining to intravet would be considered eligible only after Bank's procurement clearance on the same has been obtained.

In accordance with the agreement arrived at with DADF in early 2010, the Bank reconfirmed that it would consider the reimbursement of decentralized expenditures for 2008-09 and 2009-10 pertaining to DADF trainings based on the audit reports, if the audit is done by an auditor selected as per Bank procurement procedures; and the audit is conducted as per the terms of reference agreed between DADF and Bank. It is however a concern that these auditors are yet to be appointed. DADF assured that they would follow the Bank procurement process for the selection of the auditors and they would be in place by 31 October 2010.

The mission was informed CAG is in the process of auditing DADF's central level records for 2009-10; and it would be in a position to submit the audit report to the Bank by 30 September 2010.

	<b>Action Points for DADF</b>	<b>Timeframe</b>
1	Submit the audit reports for expenditures incurred at the central level for 2009-10	September 30, 2010
2	Submit a reimbursement claim for 2008-09 amounting to Rs 4,474,884 as per Bank's email dated 19 May 2010	September 30, 2010
3	Submit a draft reimbursement claim for 2009-10 to the Bank for review including only the agreed and eligible expenditures under the project.	October 31, 2010
4	Finalize the appointment of auditors as per Bank procurement procedures, for auditing the decentralized	October 31, 2010

	expenditures for 2008-09 and 2009-10 pertaining to DADF trainings as agreed with the Bank on 23 March 2010.	
5	As per the Financing Agreement, submit the FMR on eligible expenditures incurred by DADF on the project at the central level during April – September 2010.	November 30, 2010

## STATE VISITS TO SSU OF RAJASTHAN AND TAMIL NADU

### 1. Field Visit to Rajasthan SSU (August 30, 2010)

The one day review of the project implementation in Rajasthan, has been a very successful visit<sup>6</sup> and provided valuable input for the round-table discussions with the SSO of the 9 priority states during the Review in Delhi.

#### Progress

The progress of IDSP in the state is supervised by a State Surveillance Committee, who meets once a quarter.

*Human Resources:* Most sanctioned positions are filled in the SSU as well as in the DSU, with the exception of 10 epidemiologists (out of the 33 positions). Recently hired epidemiologists were posted as a priority in tribal areas and 4 of them still need training. Out of the 3 recruited microbiologists, only one was trained. Most district level training was done prior to restructuring, but it is clear that more efforts need to be done to train the private practitioners.

*ICT:* Broadband was installed and is in theory functional in 39 sites, of which 32 DSU, 6 Medical Colleges (MC) and the SSU. Approximately 7 sites have EDUSAT equipment (6 MC and SSU). Issues with the portal are briefly described below. The Toll free no. 1075 is access to all districts and is used by the community in reporting of any outbreaks.

*Reporting.* Regular monitoring & review of weekly surveillance reports received from DSUs is done at the State Level. The use of the portal is limited in Rajasthan to approximately 60% of the districts. The main reason behind this limited use is the available of an older and more user-friendly State software, on which almost 100% of districts are reporting. The IDSP portal has various connectivity problems, which need to be solved within the next weeks especially as the SSU has declared that the IDSP portal provides better analysis opportunities and is more useful for disease surveillance than the State Portal. The SSU will promote the IDSP portal with the DSU, but this requires that the connectivity and password issues be solved. Community based surveillance is yet to be established. However ASHA Sahayogini are being imparted training to support in early detection of outbreaks.

*Involvement of medical colleges is still very limited,* often restricted to the labs without linking up to the Community Medicine Departments (CMD). Line listing of positive cases in the L-form remains an issue as there is no central registration where all information of the patients is collected. It was suggested that the DEO provided to the MC could be used to collect addresses of positive inpatients while the lab technician could note down the address of positive patients when they pick up the lab results at the lab counter.

*Laboratory:* all procurement for district priority labs is finalized and microbiologists hired. The implementation of the Laboratory Referral Network rolled out in early August and two outbreaks were already investigated by the Network labs. The Network has a very active Lab coordinator, who has been able to mobilize all participating MC. However, efforts to link up with the CMD of the MC need to be increased for successful implementation. Further efforts also need to be done to mobilize clinical samples from the districts.

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<sup>6</sup> Field visit members were L. Kapoor (CSU), P. Kudesia and A. Bossuyt (World Bank);

### Agreed actions for follow up

- CSU and SSU to solve the issues related to the portal connectivity and password within the next weeks
- SSU to assure 100% DSU reporting through the IDSP portal by December 2010;
- SSU to make better use of the Video conferencing to contact DSU and DMO ;
- Increase involvement of Community Medicine Department of the Medical Colleges
- Provide data for line listing positive lab results by making better use of the DEO to collect addresses of inpatients and the lab technician to request the address of the positive outpatients at the moment of collection of the samples.
- SSO to visit the two district priority laboratories and ensure mobilization of clinical samples
- SSO to distribute guidelines to districts on sample mobilization and proper sample collection and transport.

## **2. Field visit in Tamil Nadu SSU (Sept 13-14)**

A field visit was organized during the review to Tamil Nadu (Chennai). Besides the in-depth discussions with the SSU, the review team<sup>7</sup> also visited two medical colleges, a general hospital, an Infectious Disease Hospital and a PHC. The team also met with Mr. Subburaj Principal Secretary (PS) HFW, Mr. Vijay Kumar Addl. Secy. (HFW) & Director HSDP Secretariat of Health &FW, GOTN at the start of the State visit.

### Progress

*Human Resources:* out of 7 positions sanctioned at State level, the SSU has currently 4 people appointed. On the 29 sanctioned district level epidemiology and 2 district lab microbiologists, none were yet recruited. Most of the Data managers and Data entry operators were hired and are in position. For the remaining functions, the list is called for from the Professional Employment Exchange, and it is expected that the hiring process will be finalized soon. It was also suggested to launch a Government Order for all the sanctioned IDSP positions in order to ensure sustainability.

*ICT :* The portal, videoconferencing facility and inter-voice facility are functional. Poor quality of picture, poor connectivity and delayed voice transmission were key constraints reported by the data manager. Quality of the pictures on connecting with the district was not satisfactory and the voice was not just audible. The EDUSAT system was only used 4 times over the last 6 months to connect to the DSU. The SSU further communicates twice a month over VC with the CSU. There were no documentary evidences for having used any of the facilities to substantiate the constraints.

*Laboratory:* The Laboratory Action plan was developed in late 2009, but no MOUs are yet signed. The Laboratory Network might need revamping as most Medical Colleges might have forgotten the details of the concept. The procurement of the equipment for the two district laboratories was finalized, but the microbiologists are not yet hired and thus budgets for consumables consequently not yet provided to the labs. Water samples are still frequently used. The State Laboratory Coordinator will need support from the SSO to mobilize adequate human samples for these labs.

Between January to August 2010, 146 outbreaks were reported in TN.

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<sup>7</sup> Field Visit members of the TN visit were: L. Kapoor (CSU) , M. Jaykumar (SSO TN) & Mr. Raju (Lab. Coordinator TN); WB: P. Kudesia , A. Bossuyt, K. Suresh; WHO: S. Krishnana , A. Sharma,

### Agreed actions for follow-up.

Following the field visits and the discussions with SSU, agreements were made related to the actions for follow up:

- SSO will organize a joint meeting chaired by the Principle Secretary (HFW) for newly joined directors of Public Health (DPH), Medical Services (DMS) and Medical Education (DME) to get shared understanding and leading their respective sections role in IDSP by end September 2010
  - SSO will strive to get a GO detailing the posts sanctioned (including budget), expectations from the general hospitals (under DMS) and medical College hospitals (under DME), and the role of medical colleges under IDSP by end October 2010
  - Provide Government Order with specific roles and responsibilities of the DSO, providing the name of DSO and his back-up. This Government Order should be extremely comprehensive and include all work of DSO
  - Take action to hasten the process of recruitment of post sanctioned under IDSP, to ensure that people are on board by end December 2010 and trained 3 months after hiring
  - Laboratory network:
    - o Identify the cost reimbursement per test
    - o Organize a high level the laboratory network meeting with all 8 medical colleges as well as the director of the Medical Education
    - o Send MOU and relevant guidelines together with the invitation to the medical colleges for information and discussion prior to the meeting
    - o MOU signing and establishing the network with outputs by December 2010.
    - o Inform DSO about the budget available for collection and transport of samples
    - o SSO to follow up with the participating medical colleges that L-form reporting is assured
  - SSO to visit the two district priority laboratories by Mid November 2011 and ensure mobilization of clinical samples
  - Establish a mechanism of line listing of all L forms (importance to collaborate between DEO of PSM departments of the Medical Colleges)
  - Circulate to all district DSUs and district hospitals the guidelines for collecting samples with clear details of what sample and how to collect, where and how to send human samples of suspected cases of conditions under IDSP. Also ensure availability of samples collection kits (media, tubes etc).
- Immediate effect
- Improve actively the use of VC for monitoring program implementation by the districts:
    - o Communicate with DSO related to the laboratory network . Assure training to SSO about budget and guidelines for sample collection and transport of samples.
    - o Once a week the SSU/DM should contact the DDM to discuss the quality of the data
    - o Use of IT network is ensured for online data entry on portal by all districts and medical colleges, monitoring the flow of data timely, consistently and completely. Use the VC and inter-voice to follow-up of outbreak investigations by SSO at least once a month (second Thursday). Try to organize education sessions inviting experts with DSUs.
  - Analyze the data and provide feedback to the DSUs on timeliness, consistency, completeness and quality of data every month
  - Complete the training of the General Hospitals and Medical College Hospitals orientation by December 2010.
  - Establish surveillance in through personal involvement of DSOs in district hospital and two more sub-district hospitals by end December 2010. The private sector reporting (P forms) at the rate of one per block and private laboratory (@ 1 per district) be attempted.
  - Involve Medical Colleges more in the program: organize lectures through VCs to review response to outbreak, ,...

**Detailed site related observations by the review team are:**

**Kilpauk Medical College Chennai and Madras Medical College.**

- The P&S M department house surgeons apparently sit in the OPD and collate from OPD registers the events of IDSP and some people also visit inpatients ward and collect the information on admitted patients. Mainly three conditions are being captured PUO, ARI and dog bites. The forms used are old as the new P form was shared only a week ago. Over 100 cases of typhoid were reported between (Week 30-36) August to Mid-September 2010, but the test done in laboratory confirmation was not clear. Nor was there any effort to identify if there was any clustering of cases and investigation of the same. It was reported that there has been no formal information or training for Medical College Hospital surveillance activities and responsibilities of the three departments (PSM, Microbiology, Pediatrics and General medicine)

- There is little comprehension of the role of the lab within the context of IDSP and its responsibility for reporting. L-forms were not available in the lab.

The Infectious Diseases Hospital Chennai has a well established surveillance mechanism and good records and reports. It has the potential of suing as training center for hospital doctors and staff under the restructured project.

General Hospital Tambaram. (Health district Saidapet): The computerization of hospital patients (starting from registration in OPD) is in use. There are reasons to believe that it is in good shape though there may be few minor glitches. One of them being the OPD chit print is still not being given to the patient as there are not enough printers. This has lead the doctors to duplicate the OPD information by manuscript (PIN no, diagnosis and treatment). The team feels that the data can be easily used by the IDSP if it can be linked to the DSU and SSU. It was sad to note that the hospital authorities and doctors had not even heard of IDSP. It appeared that the doctors were overwhelmed with computerization work and is likely to do that at the cost of clinical examination and referral etc, which need to be addressed soon.

PHC Narwari Kuppam is an active PHC with over 200 OPD of which nearly 100 were new cases to be screened for IDSP conditions. On an average 50-60 deliveries and 10-15 elective cesarean operations are done monthly. All the four doctors are writing diagnosis in OPD and the Nurse is collating daily. The block is also collecting a P form from one private facility in Madhavaram. This private facility had reported over 100 leptospirosis cases in last 4 weeks but no sample was collected for confirmation. The same unit had collected 50 samples for testing 6weeks ago but the P form did not show any suspected cases. The health inspector and the doctor were requested to check the report before accepting.

## MOHFW IDSP STATE PERFORMANCE RANKING

States	Outcome reporting	Data Management	Lab Strengthening	Use of IT network	H R Rec -- ruitment	Training	Finance/ Procurement	Total	Rank
	Outbreak Investigations  Adequacy: > 80% = 5 50-80%:3 <50%=1 Adequacy= Timeliness of investigation, Lab confirmation & Final report*	Districts Meeting Consistent criteria of reporting ( April -Aug 10) i.e. PHCs: > 70% =5; 41-70%:3; <50%=1 Govt. Hospital*: > 50% =5; 25-50%:3; <25%=1 Private Hospitals*: >50% = 5; 25-50%:3; < 25%=1	Outputs in terms of samples tested & Report shared Outputs & Reports shared by dist labs & RNW=5 Either RNW or Dist lab= 4 Labs ready waiting for samples from DSO=3 Only HR & equipments=2 Only equipments=1 None=0	At least 80 % of districts loading weekly reports on Portal, had one VC with CSU and one with inter-voice with districts =5 Portal entry =VC with CSU=4 Portal entry only=3 50-80% of portal entry=2 Less than 50% portal entry=1	Proportion Vacant posts filled Since April 10 >80% =5 50-80% = 3 < 50%=2 Mechanism in place=1 State Govt. Clearance awaited=0	As of August on board DSO & Pos trained > 80% = 5 50-80% = 3 < 50%=2 & Same *proportion of Hospital staff	Compliance for Audit report for 2008-09 , post procurement review reports shared & FMR for quarter of June 10 shared =5 Only one criteria met=3 None =0	Maximum= 35	
Gujarat	3	5	5	5	0	3	5	26	I
Tamil Nadu	3	3	5	5	0	2	5	23	II
Karnataka	3	3	5	5	0	5	5	26	I
Maharashtra	3	1	4	2	0	2	5	17	V
Uttarakhand	3	1	4	4	0	3	5	20	IV
West Bengal	3	1	4	4	0	3	5	20	IV
Punjab	3	1	4	5	0	3	5	21	III
Rajasthan	1	1	5	3	0	5	5	20	IV
Andhra Pradesh	1	1	2	1	0	2	5	12	VI

Note: \* = Criteria not taken into consideration for this time ( for want of data /training material) in ranking.

- Will get revised after verification of updated state & CSU reports
- To arrive at consensus in consultation with sector supervisors (WB) and CSU