

**Request for Expression of Interest for
Hiring an Agency to provide Consultancy & Associated services for
State-wide Integrated Health Management Information System in the
Department of Health & Family Welfare, Government of Nagaland,
Under Nagaland Health Project**

INDIA

NAGALAND HEALTH PROJECT (NHP)

IDA Credit Number: 5927 – IN dated Jan 16, 2017

Assignment Title: **Consultancy and associated services for State-wide Integrated Health Management Information System under NHP**

Reference No: NHP/PP/2018/006

Date of Request for EoI: **June 10, 2018**

The Government of India has received the financing of USD 48 million from the World Bank toward the cost of the Nagaland Health Project (NHP) and intends to apply a part of the proceeds for consulting services.

Department of Health and Family Welfare (DoHFW), Government of Nagaland is planning to improve health services and increase their utilization by communities through Nagaland Health Project. The headquarter of the Directorate of Health & Family Welfare is in Kohima, In the same building, State headquarters of National Health Mission Nagaland, Nagaland State Aids Control Society and Nagaland Health Project are also functioning. There are 11 CMOs, 11 District Hospitals, 2 TB & Chest Hospitals, 1 State Mental Health Institute, 1 Para-medical Training Institute, 4 Nursing Schools, 21 CHCs, 126 PHCs and 500 Sub Centres. There are about 8000 regular employees and 4000 contractual employees under the DoHFW.

NHP is a 6 years project in which the Government is planning to apply Information & Communication Technology in the development of key health system components which include Supply Chain Management System, Financial Management System, Human Resource Information System, Health Management Information System and Mobile applications. This also includes data collection, updation and verification of all health care facilities and employees of the Department. ICT activities of NHP are also to be executed.

The scope of work shall be:

- Design of Cloud based integrated information system and web portal for the Department according to the findings of ‘As Is’ and ‘To Be’ assessment report of systems

& processes, IT infrastructure, manpower, etc. in the Department, Requirement, gap analysis and specifications of computing resources

- Design, development, pilot, implementation, training, maintenance and handover of the integrated system covering Supply Chain Management (SCM), Financial Management (FMS), Human Resource (HRIS), Health Management Information System (HMIS) and Hospital Management System (HMS)
- Data capturing, geo-tagging, updation and physical verification of health care facilities and employees
- Cloud services and internet connectivity during the period of agreement.
- The system shall be designed as per MDDS standards of the MoHFW, Govt. of India.

Department of Health and Family Welfare (DoHFW), Government of Nagaland now invites eligible consulting firms(consultants) to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications, skills, expertise and relevant experience to perform the desired services. The Expression of Interest should include the following information which shall form part of short-listing criteria:

- a) Organization profile with details on structure, type of organization (legal entity), IT infrastructure, Offices, certification if any, website, etc.
- b) Technical team and expertise available with the organization, i.e. IT infrastructure design & development, domain specialization (SCM, FMS, HRIS, HMIS, HMS, etc.), and use of open source software
- c) Experience of the firm in similar type of assignments relevant to the consultancy, especially in health and Government sector i.e. List of relevant assignments executed with customer name, address, contact details (Name, designation, phone no., mobile no., email id), order value, application areas, development platform and performance certificates
- d) Organization financial turn over showing its financial performance and resources, i.e. audited Balance Sheet and Profit & Loss statement for last three financial years.

(Please enclose legible documents to substantiate above credentials from (a) to (d))

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's Guidelines: Selection and Employment of Consultants [under IBRD Loans and IDA Credits & Grants] by World Bank Borrowers, January, 2011 ("Consultant Guidelines"), setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms in the form of a joint venture or a subconsultancy to enhance their qualifications.

A Consultant will be selected in accordance with the QCBS method set out in the consultant Guidelines.

Expressions of interest must be delivered in a written form hard copy as well as soft copy (in PDF as well as word processing format) to the address below by **11.30 AM till June 29, 2018**. **The opening of the EOI will be on 29th June at 12:00 Hours** at Conference Hall of Nagaland Health Project and participating firms/ its representative may attend the same with authorized letter. Further information can be obtained during office hours.

The Project Director, Nagaland Health Project (NHP), Directorate of Health & Family Welfare, Ruliezou, Nagaland, Kohima – 797 001

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(This notice will be posted on the website of Department of Health & Family Welfare, Nagaland, (www.nagahealth.nic.in), World Bank and UNDB for wide circulation and information)

**NAGALAND HEALTH PROJECT
TERMS OF REFERENCE
FOR
HIRING AGENCY FOR INTEGRATED INFORMATION SYSTEM OF
DIRECTORATE OF HEALTH & FAMILY WELFARE, NAGALAND**

Nagaland Health Project (World Bank funded) has received a credit of US \$ 48 Million from the International Development Association (IDA)/World Bank. NHP is implementing a 6 years project to improve health services and increase their utilization by communities in the Department of Health and Family Welfare (DoHFW), Government of Nagaland. Under the Project, the Government is planning to apply Information & Communication Technology in the development of key health system components which include Supply Chain Management System, Financial Management System, Human Resource Information System, Health Management Information System and Mobile applications. This will result into a central repository of data for entire health sector of the State.

The population of the State is 20,00,000 as per the census of 2011 and has 11 districts. There are 11 District Hospitals, 11 Chief Medical Officers' Office, 2 TB & Chest Hospitals, 1 State Mental Health Institute, 1 Para-medical Training Institutes, 4 Nursing Schools, 21 CHCs, 135 PHCs and 399 functional Sub-Centres. There are about 8,000 regular employees in the Directorate of Health & Family Welfare. These are posted in the Directorate, Chief Medical Officers' Office, District Hospitals, Community Health Centres, Primary Health Centres, Sub-Centres, TB & Chest Hospitals, State Mental Health Institute, Subsidiary Health Centres, Big Dispensaries, Para-medical Training Institutes, Nursing Schools, in different National Programs of Health and on deputation to other Govt. organizations. There are 52 Drawing & Disbursing Officers in the Department

National Health Program, Nagaland State Aids Control Society and Nagaland Health Project have regular employees on deputation from the Directorate and other departments. These programs/projects have about 2200 contractual employees as well.

National Health Mission, Nagaland, Nagaland State Aids Control Society and other National Programs report performance on respective web portals provided by the Govt. of India.

Directorate of Health & Family Welfare and State level offices of National Programs (NHM, NSACS and NHP) are located in one building in Kohima.

Health Facilities and performance indicators:

S.No.	Indicator	Total
1	Chief Medical Officers' Office	11
2	District Hospitals	11
3	Community Health Centres (CHC)	21
4	Primary Health Centres (PHC)	137
5	Sub Centres	559*
6	Villages	1500
1	TB & Chest Hospitals	2
2	State Mental Health Institute	1
3	Subsidiary Health Centre	1
4	Big dispensaries	2
5	Para-medical Training Institute	1
6	Nursing Schools	4
1	Sanctioned (functional) Beds in District Hospitals ^{&}	1053 (650) [%]
2	Out Patient ^{&}	984262
3	In-patient ^{&}	70696
4	Major surgeries ^{&}	11153
5	Minor surgeries ^{&}	39517
6	Dental procedures ^{&}	40467

* Functional SCs are 396 % Approximately

& Performance 2016-17 from Annual Administrative Report 2017-2018, DoHFW, Nagaland

Objectives

The objective of the assignment is to design, develop, train, implement, maintain and handover an Integrated Information System for the Department of Health & Family Welfare, Nagaland at different health care facilities/offices and setup a database which will facilitate the following: a) to establish a single source of information through central repository of health sector data; b) to provide access to information to different stakeholders including people, health care workers, suppliers and decision makers; c) to provide workflow system in designated areas to reduce delay and effort in processes; d) to strengthen health system components – Supply Chain Management, Financial Management, Human Resource Management and Health Management Information System; e) to manage and monitor progress of Nagaland Health Project.

Scope of Services

- A. An integrated information system is to be designed, developed and implemented in different healthcare facilities, offices and institutions of Directorate of Health & Family Welfare, Nagaland covering the following:
 1. Supply Chain Management System including procurement and inventory of drugs & medicines and equipment (including Annual Maintenance)
 2. Human Resource Information System including bio-metric attendance, payroll, posting, training, leave records, statutory benefits, etc. for Regular and Contractual employees; System shall be devised to prevent inadvertent/deliberate change of employee status from contractual to regular employee
 3. Financial Management System including budgeting, budget allocation & release, accounting, expenditure reporting, budget control, GPF of Class III and Class IV employees and integrated financial dashboard covering Directorate, NHM, NSACS and NHP
 4. Health Management Information System including disease surveillance, performance of health care facilities, equipment & human resources (monthly performance report of doctors), infrastructure, data import from web portals of NHM, NSACS and portals of other National Programs.
 5. Hospital Management System for District Hospitals covering OPD registration, prescription on SMS, pathology reports, drug distribution to patients and Electronic Medical Records of all indoor patients
 6. Facility Coding public health facilities involving GIS mapping of offices, institutions and health care facilities along with their one time data collection on location; infrastructure covering OPD chambers, emergency ward, other wards, Labour Room, Operation Theatre, Pathology, beds; services available; equipment available & their status; human resources sanctioned & posted; computers, peripherals and internet connection and connectivity status; mobile connectivity status; status of electricity supply and water supply; and performance indicators for last one year; assigning Facility/Office ID to each facility/office
 7. Facility Coding of private health care facilities involving GIS mapping of private health care facilities in State along with their one time data collection on location;

- infrastructure covering OPD chambers, emergency ward, other wards, Labour Room, Operation Theatre, Pathology, beds; services available; equipment available; human resources; status of electricity supply and water supply; and performance indicators for last one year; assigning Facility ID to each facility.
8. Physical verification of employees posted in different offices, institutions and health care facilities with collection of identification data like bio-metric marks, signatures, geo-tagged photo and updation of their personnel records (including skills on computers) on the data provided by the Directorate from Personnel Information Management System (PIMS) and assigning Employee ID to each employee
 9. Systems for operational efficiency and transparency in the Directorate including File Tracking, Receipt & Dispatch, Vehicle Maintenance System, Medical re-imburement of employees of the Directorate of Health & Family Welfare as well as employees of other State Govt. Departments, Grievance Redress System for employees
 10. Dashboard for top management
 11. Grievance Redress System for public and public interfaces on above enumerated systems
 12. Web portal of the Department of Health & Family Welfare, Nagaland.

For each item above, existing system, Scope of work and features are given in Annexure-1.

B. Project Management System for Nagaland Health System

The system shall cover the following:

1. Mobile app for Village Health Committee performance reporting, verification and incentive payment information
2. Mobile app/SMS based for reporting of Community level procurement
3. Mobile app/SMS based system for collection of data on Project Development Objective Indicators listed in the Project Appraisal Document
4. Procurement Plan, Contract Register and Progress Monitoring (Physical as well as Financial), Complaint monitoring
5. Financial Accounting covering payroll, quarterly financial reports and audited financial reports
6. Project Report per semester
7. Dashboard for top management.

For each item above, Background, Scope of work and Deliverables are given in Annexure-2.

C. Data capturing

The internet connectivity is not reliable and is improving gradually. It is expected that all offices/institutions/health care facilities will gradually move from off-line reporting to SMS reporting to mobile app reporting and finally web based reporting. The mode of reporting shall also be dependent on frequency of reporting, reporting indicators and healthcare facility type.

The data capturing shall be through following modes:

- Web application – off-line mode
 - o to be used by offices/facilities with computer but no internet connectivity
 - o offices/facilities with no computer and internet connectivity shall prepare on paper and enter it on-line through nearest office/internet cafe
- Web application – on-line mode
- Mobile application
- SMS – Mobile number registration of reporting employees is required. Primarily for Sub-Centres and PHCs in remote locations.

D. System Features

The system should have following features:

- a) Integrated system: The system should cover all activities in an integrated manner.
- b) Centralised system: The application software and the database for all accounting and program activities should be centralized.
- c) On-line system: The system should be an on-line system with access to relevant employees to carry out their transactions. The system should be robust, reliable, trustworthy, ease to use and secured.
- d) Integration with existing reporting portals: The system should facilitate integration with reporting portals of NHM, NSACS and other National Programs preferably using web services/suitable mechanism to ensure that data is captured at once and at source.
- e) MDDS standards: The system should comply with Meta Data and Data Standards of Ministry of Health & Family Welfare, Govt. of India.
- f) Open Source Software: The software shall be developed in Open Source Platform.
- g) Masters Management Control: All masters are managed from the central location. Any requirement of master data may be requested by the office/institution/health care facility to the central location on-line and responded on-line after carrying out the activity.
- h) Users Management Control: All users are provided due access to the system by authorised super-users at central and district level.
- i) Number of users: There will be around 250 users carrying out transactions through this system. In addition, there will be around 25 users with view rights only. In addition, there will be public interface.
- j) Use of digital signatures: Digital signatures may be used at a later stage for few applications. Provision of the same should be made.
- k) Dashboard: The system should have appropriate dashboards for different stakeholders of the system.
- l) Output reports: Output reports from the system should be generated in different formats – printable version, PDF, XML, Excel, etc. as appropriate. Reports shall indicate the date & time of printing and login from which printed on each page.

- m) SMS/email reports – Provision for Daily, Monthly and Quarterly Balance Score Card through email to top management/senior officers. Exception reporting through SMS to senior officers.
- n) Alerts: Alerts shall be generated for escalation of pending transactions/activities through the system (at the time of login) as well as SMS/email.
- o) Helpdesk: To provide support to users while performing transactions and using the system. Primarily, it will be an on-line system through which the users shall be able to lodge their issue and get it resolved.
- p) Alerts on features/changes in the system: Alerts should be shown to users on changes in the system at the time of login as well as through email, if any feature is added/changed in the system.
- q) Security audit: The security audit of the system shall be carried out to enable it to be used for on-line transactions and reporting system.
- r) The software should have provision for entry of transaction by LDC/UDC/junior officer and its posting by an officer with different login credentials. No parameter shall be directly updated. All updation shall take place through transaction records to keep track of changes made.
- s) All draft orders/transactions listing should be printed from the system, signed by the concerned LDC/UDC and presented in a file to the reporting officer. The reporting officer shall accept all these transactions and final orders/list shall be printed from the system. This will be signed by the authorized officer and put in file/circulated.
- t) For every transaction entered in the system, following shall be stored in the row:
 - Row Creation Date, time, userid, IP of the system
 - Row Updation Date, time, userid, IP of the system
 - Row Deletion Date, time, userid, IP of the system
 - Office and Location to which the transaction pertains to.

A posted transaction shall neither be deleted nor updated.
- u) In case, a Master Row ceases to be used, it will not be physically deleted. Rather it will be marked for deletion and shall not appear for selection for entry of a new transaction. However, it will be accessible for printing a report for the relevant period.

Team Composition and Qualification of the Firm

1. The firm should be a registered agency/organization operating under regulations of Government of India.
2. The firm should have a minimum of three years of experience in design, development & implementation of Information Technology based solutions from Block level to State level.
3. The firm should be financially sound having good reputation with sound track record of successful implementation of assignments with the government, public sector undertakings or private partners.

4. The firm should have technology, equipment and manpower to carry out this assignment
5. The criteria of selection of the of the firm shall include:
 - i) Experience of the firm with details of the relevant projects
 - ii) Strength of Financial Statement
 - iii) CVs with Qualification of the relevant staff
 - iv) Staff with good command in English, both written and oral
 - v) Relevant testimonials provided by the firm
 - vi) Soundness and applicability of the proposal
 - vii) knowledge of Nagaland would be an advantage

Team Composition & Qualification Requirements for the Key Experts (and any other requirements which will be used for evaluating the Key Experts under Data Sheet 21.1 of the ITC).

<i>Name of position / Key experts</i>	<i>Qualification</i>	<i>Year Experience</i>	<i>Relevant Experience</i>
Team Leader	B.E/ B.Tech in IT or computer science/MCA	Atleast 12 years	Experience in a leadership position, of integrating multiple systems, setting up data centre and control room, and handling multiple stakeholders, managing and monitoring projects implementation, software development etc. and leading teams on-site
Manager- ICT Infrastructure	B.E/ B.Tech in IT or computer science/MCA	Atleast 7 years	Assessment and procurement of hardware infrastructure, installation of hardware, setting up data centre, cloud hosting, development of application, managing servers and storage.
Technology/ cloud Expert	B.E/ B.Tech in IT or computer science/MCA or equivalent	Atleast 5 years	Experience of designing on solution architecture, designing DC/DR, enterprise architecture, Experience of cloud hosting, management of DC/DR, setting up of on-premise server
Solution architect	B.E/ B.Tech in IT or computer science/MCA or equivalent	Atleast 5 years	Experience of working in multiple systems integration, designing and implementation of 'Internet of Things (IoT)'
GIS Expert	M.Tech/ M.Sc in Geo-informatics	Atleast 8 years	Mapping of utilities, and related data analysis for rural or urban areas.

IT Security and audit expert	B.E/ B.Tech in IT or computer science /MCA		Experience in managing datacentre security (organization wide operations), disaster recovery
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Time Period and level of effort

1. The successful firm/organization shall have to maintain an office in Kohima, Nagaland during the period of assignment and skilled manpower shall be available in Kohima during the execution of the assignment.
2. The pilot implementation should start within eight months of signing of the contract. The pilot shall include Headquarter and one District of phase 1 of NHP – CMO Office, District Hospital, CHC, PHC and Sub-Centres. Pilot should be completed in three months. Pilot shall be started with training to end-users of Headquarter and District offices/institutions and health care facilities.
3. The data capturing of Human Resources and Facilities should be started from fifth month of signing of contract and completed in four months. Data capturing of pilot locations – Headquarter and District should be taken up first.
4. User Manuals shall be prepared within two months of completion of the pilot implementation. Soft Copy of the source code, executable code, master data shall be provided to the Project before starting the rollout.
5. The training plan shall be prepared by the firm and approved by the Project Director. The training for all districts should be started from 11th month of the start of assignment and completed in two months.
6. The rollout in the entire State shall be started after successful pilot run and changes in the software. For rollout, 2 districts shall be completed in each month.
7. The software shall be maintained by the firm for three years from the date of completion of rollout in all districts.
8. The system shall be maintained on Cloud provided by the firm for first two years of rollout. After successful completion of two years of rollout, the application and database shall be moved to the Cloud provided by the Project.
9. On completion of the maintenance period, the software shall be handed over to NIC, Nagaland or IT Cell of the Directorate of Health & Family Welfare, Nagaland as decided by the Project Director, NHP. The handover includes source code of the software, system documentation, user manuals and database.
10. The Firm should develop methodology, activities, formats and line of action for executing the assignment. The firm has to provide details of the resources to be utilized. NHP reserves the right to reject the instruments or re-negotiate with the firm about the modification on the methodology.
11. Data Control, safe custody of records, upkeep of data and backup of data are extremely important in this assignment.
12. The assignment will be consulted and coordinated under NHP, Department of Health & Family Welfare, Government of Nagaland and the Project Director, NHP will be the key focal person for management coordination.

Deliverables

1. The selected firm shall provide the following deliverables during the course of the implementation of the assignment in a timely manner. All deliverables have to be authorized and approved by the Project Director, NHP.
2. The list of deliverables includes but not limited to the following:
 - a) 'As Is' and 'To Be' Report
 - b) System Requirement Specification
 - c) Computing infrastructure requirement
 - d) System Design Documentation
 - e) Data on Facilities/offices/health care facilities
 - f) Data on Human Resources – regular and contractual
 - g) Application software – source code and executable code
 - h) Training to users on application software
 - i) Helpdesk to assist users in resolving their problems
 - j) Cloud service during development, pilot and first two years of rollout
 - k) Migration to Cloud provided by the Project in third year of rollout
 - l) Software and system maintenance during pilot and rollout
 - m) Training to IT Cell/NIC on system design, documentation and Development platform
 - n) Handover of application software, database, system documentation, user manual at the time of start of pilot, rollout, migration to Project Cloud and handover.
3. Set of Reports on data capturing of Human Resource Management
 - a) Summary of reports on the following:
 - District wise Office/Institution/Health Care Facility wise total number of employees in different cadres – regular and contractual separately
 - District wise Office/Institution/Health Care Facility wise designation wise number of employees in different cadres – regular and contractual separately
 - Designation-wise number of employees in different District wise Office/Institution/Health Care Facility – regular and contractual separately
 - State-wide summary of employees district-wise designation-wise
 - State-wide summary of employees designation-wise
 - 5 other reports
 - b) Employee Register
 - DDO wise list of employees based on current posting
 - Employee Registers sorted on Employee ID for different sections
 - c) Employee Bio-data with all sections
 - d) Scanned copies of documents provided by employees and verified by DDO
 - e) List of employees which were added in the data provided by PMIS
 - f) List of employees which could not be traced during verification process.
4. Set of reports on data capturing of Facility/Office:
 - a) Summary of reports on facilities/offices/institutions – separately for govt. and private
 - District wise Facility/Office type wise number of facilities
 - District wise Facility/Office type wise number of doctors, specialization wise number of doctors, nursing staff, pharmacists and other staff

- District wise Facility/Office type wise total number of doctors, para-medical and other staff
- State-wide summary of all above reports
- b) Facility/Office Profile with performance indicators of the facility, equipment and human resources with photograph and Geo co-ordinates
- c) Facility/Office wise Performance Register – Facility
- d) Facility/Office wise Performance Register – Equipment
- e) Facility/Office wise Infrastructure Register

Services and Facilities Provided by the Client

The client will:

- a) Provide the firm/organization relevant information related to the assignment, including existing data in electronic form, authorisation to collect data, existing formats
- b) Ensure that their staffs are available for periodic meetings and data collection as needed;
- c) Office space in field locations for data collections, pilot, implementation and training.

Firm's Responsibilities

It is the responsibility of the firm to have its own computers/devices and software. The firm will provide electronic and hard copies of all materials developed during the assignment. Electronic files should be presented in common use software. As the data is sensitive, it has to be maintained in proper security system.

Review & Monitoring

1. The performance of the Firm will be assessed on the basis of agreed deliverables. The Firm will prepare detailed action plan for the assignment and share it with NHP.
2. The firm shall submit a weekly progress report indicating activities planned for the past week with progress, activities planned for the coming week, issues and concerns.
3. A joint monthly review mechanism will be put in place and represented by senior team members of the Directorate/PMU and the Firm.
4. In case, NHP has any objections related to the assignment deliverables, it will inform the firm in writing. The Firm will comply with the recommendations made by NHP and complete the assignment accordingly at no additional cost.

Review Committee will be comprised of the following members:

Project Director, NHP
Dy. Director, Planning, Director of Health & Family Welfare, Nagaland
Dy. Director, Central Medicines Stores, Director of Health & Family Welfare, Nagaland
Senior Accounts Officer, Directorate of Health & Family Welfare, Nagaland
Representative of Department of Information Technology, Nagaland
State Informatics Officer, NIC, Nagaland
Representative of NHM, Nagaland
Representative of NSACS, Nagaland

Fee Payable

The fee shall be paid to the firm on achievement of milestones:

- Submission of System Design Document
- Satisfactory Completion of pilot in one district
- Satisfactory rollout in all districts
- Quarterly payment (in 12 quarters) of rollout
- Satisfactory migration to NHP Cloud
- Complete handover of data and software after completion of rollout.

Payment for each of the above mentioned deliverables will be subject to the approval of the reports by the competent authority / Committee.

Selection of Agency

The selection will follow Quality and Cost based Selection (QCBS), which is according to as per the World Bank Procurement Guidelines for selection of Agency as per, January 2011 version.

More Information

For more information please contact:

Project Director
Nagaland Health Project,
Directorate of Health & Family Welfare
Ruliezou,
Nagaland, Kohima – 797 001
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Annexure – 1

Background and Scope of Work for the following:

1. Human Resource Information System
2. Updation of Data of Human Resource Information System
3. Data Collection and Facility Coding of Public Health System
4. Supply Chain Management System
5. Financial Management System
6. Health Management Information System
7. Hospital Management Information System
8. Bringing Transparency & Improving Operational Efficiency
9. Public Interface & Grievance Redressal System
10. Data collection & Facility Coding of Private Health Facilities
11. Dashboard of the Department
12. Web portal of the Department

HUMAN RESOURCE INFORMATION SYSTEM

Background

Personnel Information Management System (PIMS) is being implemented in the Directorate. Primary stakeholder of PIMS is Personnel & Administrative Reforms Department, Govt. of Nagaland. A PIMS Cell has been established in the Directorate to capture data of all employees of the Directorate in PIMS software. Three computers with computer operators have been deployed. This Cell is working for last three years to complete data entry of all employees. At present, it has entered basic data of 11087 employees, which includes regular as well as contractual employees (NHM as well as NSACS). Out of this, a number of employees have retired also. There are about 8,000 regular employees in the Directorate, out of which 350 are working at the State headquarter. Changes in the data are carried out in this Cell. Besides basic data, other sections of HR record are also being updated. Roughly 40% data is complete.

For payroll, there are 31 Drawing & Disbursing Officers in the Department. They prepare salary bill of the office/facility and send it to the Finance Cell of the Directorate for verification. The Finance Cell verifies the bill and returns it to DDO. The DDO presents this bill in Treasuries for payment.

Objectives

The objective of the assignment is to build and maintain human resource information system covering all employees working in the Department of Health & Family Welfare, Nagaland at different health care facilities/offices and setup a database which will facilitate the following: a) to identify the human resource gap in different facilities/offices and in the Department as a whole; b) to identify training needs of employees in comparison to requirements; c) to keep proper personnel, leave and other accounting records of benefits and dues; d) to facilitate timely disbursement of benefits of employees at the time of retirement; e) to enable the Department in timely and policy based promotions/transfers of employees ensuring that skills match the facilities/equipment/ complement other human resources in the facility/office ; f) payroll generation and approval by State g) Employee Attendance through bio-metric data capture.

Scope of Services

To provide web based software for carrying out transactions related to human resource management including attendance capturing of employees

The scope of work includes:

1. To build database of human resource information system collected through personnel records data capturing and sanctioned positions for each facility/office.
2. To provide software to update any transactions related to employees appointment, transfer, promotions, leave availed, GPF records, retirement, going for study leave, on

- deputation, addition/deletion of dependents, training, educational qualification, disciplinary action, etc.
3. To assist in transfer and posting based on sanctioned post in a facility and skill set of the personnel. The transfer and posting module should also be based on the policy of the Govt. like rotation of place of posting.
 4. To show on map gaps related to specific positions, specially related to complementary manpower (gynecologist – anesthetist or surgeon – anesthetist or Ultrasound machine – Radiologist, etc.), equipment functioning, below threshold
 5. Payroll processing, salary bill preparation and leave accounting
 6. To setup bio-metric based attendance capturing system

Features in the software

1. The software should have provision to record information related to human resource information of the employee alongwith storing the scanned document related with the transaction. This includes appointment, training, transfer, increment, promotion, disciplinary action, dependents, deputation, joining, relieving, resignation, termination, disciplinary action, legal cases, education after joining the DHFW, etc.
2. The software should maintain leave records of employees – leave due as well as leave availed.
3. The software should maintain GPF records of Class IV categories of employees.
4. The software should have payroll processing module with arrears calculation and salary bill generation for Treasuries.
5. The software should have provision to capture attendance of the employee through bio-metric identification system. The attendance should be integrated with the payroll processing.
6. The software should also maintain sanctioned strength of different positions for each office/facility/institution of the DHFW.
7. The software should keep a record of all transactions taking place for an employee to track changes in the employee record during the entire service period.
8. There should be a query module which will facilitate list of employees satisfying the query on different parameters of employee records.
9. The system should distinguish between regular and contractual employees.
10. The transfer/posting module should permit implementation of transfer/posting policy of the Govt.
11. The software should have provision to record ACR entries of all employees.
12. Reports should be generated on sanctioned strength and positions filled for different posts in different facilities.
13. For doctors, provision for entry of monthly performance report should be there.
14. There should be provision in each facility to indicate complementary position as well as position related to availability of the equipment. Gap in terms of sanctioned strength vs positioned, complementary positions not filled should be shown in Map also.
15. A summary of Daily/weekly/monthly transactions should be generated by the system for Human Resource Information System administrator.

UPDATION OF DATA OF HUMAN RESOURCE INFORMATION MANAGEMENT

Background

Personnel Information Management System (PIMS) is being implemented in the Directorate. Primary stakeholder of PIMS is Personnel & Administrative Reforms Department, Govt. of Nagaland. A PIMS Cell has been established in the Directorate to capture data of all employees of the Directorate in PIMS software. Three computers with computer operators have been deployed. This Cell is working for last three years to complete data entry of all employees. At present, it has entered basic data of 11087 employees, which includes regular as well as contractual employees (NHM as well as NSACS). Out of this, a number of employees have retired also. There are about 8,000 regular employees in the Directorate, out of which 350 are working at the State headquarter. Changes in the data are carried out in this Cell. Besides basic data, other sections of HR record are also being updated. Roughly 40% data is complete.

Objectives

The objective of the assignment is to verify each employee employed by the Directorate of Health & Family Welfare, National Health Mission, Nagaland State Aids Control Society or Nagaland Health Project and complete its personnel record, collect identification marks, collect geo-tagged photograph, signatures for use in the Human Resource Information System, payroll processing, bio-metric attendance system and facilitating benefits to employees.

Scope of Services

The scope collecting DDO wise payroll details (including NHM, NSACS and NHP) and DDO-wise details from PIMS and verify the employee at the designated location, update/complete personnel details taken from the PIMS and provide data for use in the Human Resource Information System.

The scope of work includes:

7. To collect list of facilities/offices/institutions under DHFW, NHM, NSACS and NHP or on deputation to other Department or Service.
1. To collect data from PIMS on a cutoff date and devise a system to record changes in PIMS after the collection and prepare a DDO-wise list of employees.
2. Sending the employee personnel profile print-out to DDOs for updation/addition of the information
3. To collect DDO-wise list of employees.
4. To plan schedule for data collection and inform all facilities/institutions/offices about the team visit.
5. To assign identity cards to team members deployed for the assignment.
6. Visiting the facility and collecting data on the prescribed format alongwith geo-tagged photos, bio-metric identification marks and signatures of the employee, signatures of the

employee on the data collected and countersigned by the DDO/facility incharge. Scanning documents related to employee and data collected. Uploading the data from the location on the web/mobile application (if available).

7. Verification of uploaded data from the documentation.
8. Verification of the data by the DDO of the concerned office/facility.
9. Repeating step no. 7 - 9 for leftover employees at designated DDOs or state headquarter.
10. Assigning employee code to each employee.
11. Printing of Employee Registers and summary reports for the Department.
12. Providing soft copy of the data.

Features in the software

The software shall have following features:

1. The software for collection of data shall have provision to have existing list of facilities district wise and to enter address and contact details of the incharge.
2. Formats for data collection of HRIS as approved by the DHFW.
3. Login credentials for DDOs for verification of data.
4. Login credentials of enumerators going for data collection.
5. Mobile application/Web application to enter data collected along with the geo-tagged photographs and HR details.
6. Entry of data collected.
7. Verification of data by the Agency.
8. Verification of data by concerned DDO or office.
9. Locking of data
10. Updation of data by the DHFW, as and when required.
11. Reports including Employee Register, Employee profile and summary reports for validation.
12. Integration of this data in Human Resource Information System.

DATA COLLECTION & FACILITY CODING OF PUBLIC HEALTH SYSTEM

Background

Number of offices and health care facilities in public health system are as given below:

S.No.	Indicator	Total
1	Chief Medical Officers' Office	11
2	District Hospitals	11
3	Community Health Centres (CHC)	21
4	Primary Health Centres (PHC)	137
5	Sub Centres	559*
6	Villages	1500
1	TB & Chest Hospitals	2
2	State Mental Health Institute	1
3	Subsidiary Health Centre	1
4	Big dispensaries	2
5	Para-medical Training Institute	1
6	Nursing Schools	4

* Functional SCs are 396

Department of Medical, Health & Family Welfare, Govt. of India had initiated to assign National Identification Number (NIN) to all Health Facilities in the country vide its letter no. z-18015/1/2016-eGov dated Feb 3, 2016. NIN to HFI application was available on <http://nin.nhm.gov.in>.

Objectives

The objective of the assignment is to identify each Health Care Facility/office/institution in the State upto Sub Centre level, collect details of sanctioned/available infrastructure/resources, email-id/phone no., GIS co-ordinates of the facility, photographs with geo-tagging and performance indicators for last 12 months, assigning NIN (if not assigned till date), host the information on the web portal of the Directorate and use this information for further resource allocation and regular updation.

Scope of Services

The scope includes GIS mapping of offices, institutions and health care facilities alongwith their one time data collection on location; infrastructure covering OPD chambers, emergency ward, other wards, Labour Room, Operation Theatre, Pathology, beds; services available; equipment available & their status; ambulances; human resources sanctioned & posted; computers, peripherals and internet connection and connectivity status; mobile connectivity status; status of electricity supply and water supply; and performance indicators for last one year; assigning Facility/Office ID to each facility/office using NIN software of Govt. of India.

The scope of work includes:

1. To prepare formats for collection of data on different parameters for different types of facilities/offices/institutions.
2. To collect list of facilities/offices/institutions alongwith the address, contact details and authorization from the Directorate of Health & Family Welfare to collect data.
3. To plan schedule for data collection and inform all facilities/institutions/offices about the team visit as well as send the data collection format in advance to them to enable them to prepare data.
4. To assign identity cards to team members deployed for the assignment.
5. Visiting the facility and collecting data on the prescribed format alongwith geo-tagged photos of the building/site, collecting GIS co-ordinates and taking signature of the incharge of the facility on data collected. Scanning documents related to establishment of the facility, sanctioning of manpower (if available). Uploading the data from the location on the web/mobile application (if available).
6. Verification of uploaded data from the documentation.
7. Verification of the data by the CMO/MS of the concerned district.
8. Assigning NIN from the DoMH&FW web portal (if not yet assigned).
9. Printing of Facility Registers and summary reports for the Department.
10. Providing soft copy of the data.

Features in the software

The software shall have following features:

1. The software for collection of data shall have provision to have existing list of facilities district wise and to enter address and contact details of the incharge.
2. Formats for data collection from different types of facilities/offices/institutions as approved by the DHFW.
3. Login credentials for CMO/MS for verification of data.
4. Login credentials of enumerators going for data collection.
5. Mobile application/Web application to enter data collected along with the photographs and GIS co-ordinates.
6. Entry of data collected.
7. Verification of data by the Agency.
8. Verification of data by concerned CMO/MS.
9. Locking of data
10. Updation of data by the DHFW, as and when required.
11. Reports including Facility Register, Facility profile, Facility performance for last 12 months and summary reports.

SUPPLY CHAIN MANAGEMENT SYSTEM

Background

There is a Central Medical Store Cell in the Directorate of Health & Family Welfare. This Cell is located in the Directorate building. It has one Deputy Director, 5 pharmacists, 1 typist, 2 LDA, 3 UDA, 3 packers and 8 class IV employees. The Cell has two computers. Annual budget for drugs & medicines is about Rs. 10 crores.

The Directorate has an Essential Drug List (EDL). Previous year, there were 221 drugs & medicines. In the year 2018-19, a revised list of EDP with 400 medicines is under approval from the Govt.

The procurement of items is carried out by this Cell centrally for all facilities/offices. For budgeting, Drug Price Control Order issued by the National Pharmaceutical Pricing Authority (NPPA) is used. For items not available on NPPA, average price from different suppliers is taken as a base. Notice Inviting Tender (NIT) is issued. Quotations are received. Lowest price bidders are selected for supply of medicines. For quality control, there is a Drug Control Cell which collects sample and sends them to Laboratory in Guwahati. Till date, no negative report has come from the Laboratory.

There is a State Warehouse in the basement of the Directorate. The Directorate has three trucks for distribution of items to districts. Each district has a District Warehouse. There is no system of indenting by facilities/offices. The budget is released by the Govt. Based on the budget released, the Cell places purchase orders on suppliers who had participated in the tender and rates were lowest and approved by the State Procurement Board.

Based on the purchase order, the supplier delivers items in Kohima. There are 5-6 suppliers in the State. There is no indenting mechanism in place. The Cell decides items and their quantity for distribution to districts. The Cell informs CMO and Medical Superintendants of districts to come and collect their medicines. Staff from districts of CMO and District Hospital come to Kohima and check items. After checking, trucks go to districts. At District, District Verification Board checks items received from headquarter. CMO decides items to be sent to CHCs and PHCs.

National Health Mission and Nagaland State Aids Control Program have also budget for drugs & medicines. These programs place orders to suppliers. However, items received from these suppliers are stored by the Central Medical Store Cell in its State Warehouse.

Objectives

The objective of the assignment is to develop an information system for supply chain management covering drugs, medicines, equipment and general items from demand forecast to procurement, inventory control, consumption analysis, supplier performance analysis and payment.

Scope of Services

To provide web based software for supply chain management of drugs, medicines, equipment and general items of the Directorate of Health & Family Welfare and consolidation of items procured through various sources/programs.

The scope of work includes:

1. Maintenance of EDL
2. Annual Demand from field to CMO and CMO/District Hospital to CMS Cell and consolidation for the entire State
3. Workflow based interaction with suppliers. Suppliers will have login credentials. Purchase Orders shall be sent to electronically as well to suppliers. Suppliers can intimate the dispatch details on-line. Receipt, rejection, cancellation and extension of purchase order shall be made on-line. Payment intimation shall also be made electronically.
4. Transactions related on receipt, issue, transfer and return of items shall also be recorded on-line. List of items due to expire in next three months shall also be available.
5. Inventory of all items and consumption shall be monitored at the CMS Cell for medical stores of all facilities/offices.
6. Dashboard shall be prepared on different parameters with alerts on exceptions like shortage of items/excess of items and budget utilization; consolidation and comparison of budget available under different programs and their utilization.
7. Directorate and all programs (NHM, NHP and NSACS, etc.) shall use this software to place purchase orders to suppliers.
8. Public interface to show availability of items in different facilities. Accordingly, provision to monitor budget for each program separately.

Features in the software

The software shall have following features:

1. CMS Cell, Finance Cell, different programs (NHM, NHP, NSACS, etc.), CMO Offices Medial Stores, District Hospitals and suppliers shall have login credentials to access the software.
2. CMS Cell shall maintain EDL, items for which rates finalized alongwith details, purchase orders/cancellations/extensions to suppliers, receipt/issue/return/stock of State

Warehouse, budget maintenance and payment to suppliers. Link for National Pharmaceutical Pricing Authority shall also be available.

3. Supplier can receive purchase orders/cancellations/extensions on-line. Suppliers can update the dispatch details on-line. They can see the status of their invoice and payment details also. Supplier performance analysis in terms of total orders placed under different programs, number of days to supply (partial or complete delivery), number of extensions, number of cancellations as well as in financial terms.
4. CMO Medical Stores/District Hospitals can update the items received in their warehouse. CMO Medical Store can update the issue/return/transfer to CHCs and PHCs on the system. District Hospitals can update issue/return/transfer of items to sub-stores.
5. Provision to transfer item from one CMO/District Hospital to other CMO/District Hospital.
6. ABC report on consumption shall also be available.
7. Alert on medicines with no stocks or going to expire shall also be available.
8. CHCs and PHCs shall submit monthly consumption of their stocks on-line.
9. Purchase of items by other programs (NHM, NHP, NSACS, etc.) shall also be made through this system with budget control, procurement, payment and inventory control.
10. Provision to see items received from different sources at Central Medical Store as well as to see facility-wise items received from different sources.
11. For equipment, installation, commissioning, training (on use of equipment – participants details and date), warranty and maintenance contract details information shall also be entered. Provision to store User Manual in soft copy.

FINANCIAL MANAGEMENT SYSTEM

Background

The Finance Cell is headed by the Senior Accounts Officer in the Directorate. The Directorate has an annual budget of about Rs. 733 crores. The budget of the Directorate primarily caters to salaries of employees. The Finance Cell is engaged in budget preparation, budget control, GPF of Class IV employees, National Pension Scheme with Treasuries for employees joined after 2010, verification of salary, diet and laundry bills prepared by DDOs. There are 31 Drawing & Disbursing Officers in the Department. They prepare salary bill of the office/facility and send it to the Finance Cell of the Directorate for verification. For this purpose, a messenger comes from the district to the State Capital. The Finance Cell verifies the bill and returns it to DDO. The DDO presents this bill in Treasuries for payment. DDOs send Monthly Finance Report to the Finance Cell at headquarter. Directorate consolidates and sends the expenditure report to the State Govt. All records are maintained manually in files and on paper. Computerisation has just started in four Treasuries. Kohima Treasury is on-line. The problem of internet connectivity is hampering this work. Following formats are currently used:

- a) Demand no. 35 budget allotment for the Department of Medical, Public Health & Family Welfare for a financial year
- b) Annexure – I: DDO wise sub-allotment of funds
- c) Annexure – II: Monthly Expenditure statement by DDO to HOD
- d) Annexure – III: Consolidated monthly expenditure statement by HOD to Finance Department
- e) Annexure – IV: Details of works to be taken up for maintenance

National Health Mission has its own Finance Cell. They have appointed District Account Manager and Block Account Manager for carrying out accounting of the receipt and payment under National Health Mission program. TALLY software is being used at headquarter and District offices for accounting. At Block level, use of TALLY has just started. PFMS software is used for making payments. Manual Cash Book is also maintained as stipulated. Blocks send their Financial Management Report quarterly to District on paper. Districts send their quarterly report to headquarter. Headquarter consolidates quarterly report of all districts and submits it to NHM. Previous year Record of Proceedings (RoP) was of Rs.113 crores. Physical progress is not entered in the accounting system.

Nagaland Health Project is making entire payment at headquarter. Payments are made to employees, suppliers, vendors and Village Health Committees, etc. There is a Finance Cell in headquarter. Accounting is carried out on TALLY software. The Project Plan is of about Rs.400 crores (USD 60 million). The Project has to submit Project Report per semester, Procurement progress report, Financial statements and annual unaudited/audited reports.

Nagaland State Aids Control Society maintains its accounting at the headquarter. Annual audited accounting report is submitted to the Gol.

Objectives

The objective of the assignment is to develop an information system for convergence of financial resources, minimizing overlapping of budgets for same purpose, improve their utilization and reduce efforts & delay in reporting by timely information and control. Financial dashboard shall also be prepared for the entire Department.

Scope of Services

To provide web based software for financial activities of the Directorate of Health & Family Welfare and consolidation of finances received from various sources/programs.

The scope of work includes:

1. To build financial management system for the Directorate of Health & Family Welfare, Nagaland comprising of budget preparation, budget sanction, budget release, bill preparation, on-line bill verification & approval by the Directorate, bill payment details of Treasuries, Budget control and periodic reporting.
2. GPF module for Class IV employees of the Directorate of Health & Family Welfare
3. To develop a common on-line accounting system which can be used by independently by Nagaland Health Project, National Health Mission and Nagaland State Aids Control Society; the software will have provision for budget allotment, release and budget control.
4. Convergence of budget for different facilities/offices under various accounting budget codes/heads from different sources and their utilization. For convergence, object head of Treasuries shall be used.
5. Financial dashboard of the Department of Health & Family Welfare, Nagaland covering State budget, NHM, NSACS, NHP, etc.

Features in the software

The software shall have following features:

- A. For the Directorate of Health & Family Welfare
 - a. On-line budget preparation module
 - b. Uploading of budget approved
 - c. Budget distribution to different DDOs
 - d. Budget release to DDOs with letter to Treasuries on budget release
 - e. On-line Bill preparation by different DDOs
 - f. Approval of bill by Finance Cell, DHFW using digital signatures for use in Treasuries
 - g. Updation of payment made by Treasuries against bills
 - h. Budget utilization report by different DDOs
 - i. Re-appropriation of budget
 - j. Monthly Finance Report preparation for Govt.

B. GPF module for Class IV employees

- a. GPF employee master
- b. GPF Ledger of the employee
- c. GPF subscription
- d. GPF loan
- e. GPF loan repayment
- f. GPF account closure.

C. On-line accounting system for NHM, NHP, NSACS

- a. Entry of chart of accounts
- b. Mapping of account heads with Object Codes of Treasuries
- c. Budget entry and updation
- d. Voucher preparation, budget utilization flag, physical progress entry and contract accounting
- e. Contract Ledger maintenance
- f. Trial Balance – Account head wise/Activity wise/
- g. Journal
- h. Cash Book/Bank Book
- i. Ledgers
- j. Final Statement of Accounts
- k. Uploading of audit report with provision for digital signatures

D. Convergence of budget and expenditure

- a. It should be possible to display budget provision under different sources of funds for same object head/account head – overall as well as district/facility-wise
- b. It should be possible to display budget and its utilization under different sources of funds for same object head/account head – overall as well as district/facility-wise

E. Financial dashboard

A dashboard should be developed to indicate budget provision and its utilization under one source of fund as well as overall under the Department of Health & Family Welfare. It should compare with previous years' data as well as previous months of current year. Exceptions should be highlighted.

HEALTH MANAGEMENT INFORMATION SYSTEM

Background

A monthly review meeting is held in which the performance of various CMOs, District Hospitals, under different National Programs like NHM, NSACS, NHP, etc. is reviewed. National Health Mission and NSACS have web portals to report performance which include HMIS, MCTS, SIMS, NVDCP, IDSP, etc. The reporting is from Block level to State level through District level entities. Most of the reporting is in spreadsheet or paper.

NSACS has provided one desktop in each District Hospital, one in CHC (if an ICTC) and one in PHC (if an ICTC). Total 79 desktops have been provided. Printers have not been provided. ICTC Counselor operates the computer. A few ICTC Counselors cannot use computer. Blocks normally take their report in paper and enter it at District Office in the software. There is a provision of off-line entry by ICTC. There are 8 Blood Banks.

National Health Mission has two IT Consultants. There are 60 computers in headquarter. Computers have been provided at DPMU and BPMU. Most of the DPM, BPM, DAM and BAM have good computer skills.

Nagaland Health Project has major reporting of Village Health Committee performance reporting which includes verification and payment of incentives. It also has procurement activities to take up. Project management and monitoring is very important. It has 8 MBPS internet connectivity at headquarter.

Objectives

The objective of the assignment is to improvise the reporting on existing portals of National Programs of Govt. of India as well as to supplement it with an information system for catering to requirements of the State Govt. This will ensure completeness, quality and timeliness of reporting as well as integrated information system covering national programs, human resource, finance, supply chain, health care facility performance, etc.

Scope of Services

To design and develop State wide Health Management Information System by integrating human resource, finance, supply chain, facility performance, other resources and integration with reporting on National Programs using web services. To study the reporting in National Programs by Health Care Facilities/Offices under the Directorate of Health & Family Welfare and devising systems for ensuring completeness, quality and timeliness of reporting.

The scope of work includes:

1. To design a State wide Health Management Information System which will integrate data from national programs, human resource, finance, supply chain, hospital management

system, performance of health care facilities which are not reported under any existing system.

2. To study and improvise reporting on National Program portals for completeness, quality and timeliness of reporting using better connectivity medium, training and devising systems.
3. To design and develop Facility Health Report Card for all Health Care Facilities to report performance and resource utilization on a single format. The reporting periodicity and mechanism (web application, mobile app, SMS or paper) is also to be considered.
4. To provide GIS based disease surveillance system.
5. To provide reporting based on business analytics and exceptions.
6. To provide public interface on State wide Health Management Information System.
7. To provide report on reporting performance by facilities on different national programs and other systems used in the DHFW and send alerts through email/SMS.

Features in the software

The software shall have following features:

1. HCFs shall be identified for reporting by different medium depending on internet connectivity and mobile connectivity. The mode of reporting medium can be changed later as resources improve.
2. For reporting by SMS, mobile number shall be registered for the HCF.
3. Most of the facilities shall be reporting on monthly periodicity. For District Hospitals, CHCs and PHCs, daily reporting on few key performance indicators using SMS shall be considered.
4. There will be a feature to distinguish no reporting with zero performance.
5. HCFs/Offices not reporting in time shall be sent SMS/email alerts. Report on Reporting Performance shall be sent to senior officers periodically.
6. Report on completeness and quality of data shall also be monitored and reported to senior officers.
7. Analytics shall be done on inter-related parameters – resource vs performance.
8. Based on the reporting by HCFs, disease surveillance report shall be prepared.
9. The reporting form shall facilitate partial entry and saving draft data. This can be modified. On complete entry of data, the reporting officer can take a print-out, record it in file, sign and submit data. Once data is submitted, it neither can be deleted nor modified. Print-out of submitted data can also be taken and put in file.
10. It will be possible to take reports for a National Program or the State wide Management Information System.
11. There will be provision for off-line entry of data for reporting. The data can be uploaded from a location which has internet connectivity or as & when the internet connectivity is available.
12. For District Hospitals, the data shall be uploaded from Hospital Management System as this module becomes operational in District Hospitals.
13. Web services shall be used to integrate with web portals of National Programs.

HOSPITAL MANAGEMENT INFORMATION SYSTEM

Background

At present, there is Hospital Management Information System in any type of Health Care Facility. Plan for implementation of e-hospital software is underway in two district hospitals which include Dimapur and Kohima. Gap assessment and training have been completed in phase 1. Phase 2 is yet to start.

Objectives

The objective of the assignment is to key performance indicators, disease burden of hospital, utilization of hospital resources, OPD prescription to patient on SMS, drugs & medicines given to OPD patients, admission to emergency & wards, Discharge certificate as EMR. Hospital shall have a Local Area Network for maintaining records. There will be provision to upload daily summary data and EMR records in the afternoon to central repository.

In case Govt. decides to use e-hospital software, this module shall not be required. However, performance and resource reporting shall be made through HMIS.

Scope of Services

To design and develop Hospital Management Information System for operations on Local Area Network in District Hospitals.

The scope of work includes:

1. To maintain hospital profile covering all facilities and services available.
2. To maintain web site of the hospital on web portal of the Department with feature to update special programs or drives during the year. The web portal shall have provision to upload pathology reports of patients for downloading.
3. To design the system to be operational in the district hospital covering OPD registration, pathology examinations, utilization of Labour Room and Operation Theatre, drug dispensing to patients with provision for sending prescription on SMS to patient, admission/discharge to/from emergency, admission and discharge of in-patients.
4. Provision to upload daily summary performance figures and daily Discharge certificates of indoor patients on cloud.
5. To generate alerts on non-utilisation of resources due to defect in the equipment, non-availability of manpower or non-availability of complementary manpower.
6. To generate alerts on non-availability of drugs & medicines, consumables, manpower, etc.

Features in the software

The software shall have following features:

1. Local Area Network shall be established in the District Hospital with two servers in fail-safe mode. Number of clients/nodes shall be dependent on caseload of the hospital. Nodes shall be established for OPD registration counters, pathology lab for patients undergoing pathology examination, x-ray, Ultrasound, etc. Labour Room/Emergency/ Admission/discharge of in-patients, drug dispensary, Main Drug Stores and Office for reporting/accounting.
2. There will be provision for uploading summary figures daily in the afternoon on Cloud. In addition, pathology reports of patients and discharge certificate of patients shall also be uploaded on the cloud with security feature for ensuring privacy. EMR standards shall be followed for keeping EMR records.
3. The information on web site of the hospital shall be maintained and regularly updated by the district hospital. Monthly performance report shall also be available on this website.
4. Stock of drugs & medicines available in the district hospital shall be displayed on this website to be updated daily.
5. There will be provision for grievance reporting by patients. It will be visible to MS of the hospital as well as in the Directorate.
6. There will be accounting of user charges paid by patients for availing different services.
7. There will be provision for maintaining Duty Roster of doctors and other staff.
8. There will be provision for maintaining records of patients referred to other hospitals.
9. There will be provision to update the status of beds/wards/equipment from functional to non-functional and vice versa.

BRINGING TRANSPARENCY & IMPROVING OPERATIONAL EFFICIENCY

Background

Manual systems exist for file tracking, receipt & dispatch of letters, maintenance of vehicles, re-imburement of medical claims of employees and re-imburement of medical claims of employees other Departments. Lot of effort and time is wasted in manual record keeping. There is also lack of transparency.

Objectives

The objective of the assignment is to develop an information system to improve operational efficiency and bring transparency in the Directorate. Employees can see the status of their applications through web instead of physically checking status of their claims. Employees can also submit their grievances on-line which can help in monitoring progress on grievance redressal.

Scope of Services

To provide web based software for the following:

- a) Vehicle Maintenance System
- b) File Tracking
- c) Receipt & Dispatch system
- d) Medical bill re-imburement of employees of the Directorate
- e) Medical bill re-imburement approval of employees of other Departments
- f) Grievance Redress System of employees of the Directorate

The scope of work includes:

8. These systems are to be implemented at headquarter of the Directorate.
1. Employees can see the status of their applications on-line.
2. Vehicle Tracking System shall cover acquisition, its assignment to officer/office/facility, maintenance, mileage, working condition and condemnation. This will be linked to the POL and vehicle repair & maintenance budget for payment.
3. File Tracking system shall track movement of each file among Cells in the Directorate.
4. Receipt & Dispatch module shall work at the Receipt & Dispatch Cell. All documents received/dispatched shall be scanned and stored in a Document Management system. The document shall be stored with a few keywords like sender, recipient, date of letter, letter number, category of sender/recipient, subject of the letter, etc. The document can be searched using these keywords. A copy can be provided from the scanned image.
5. For re-imburement of medical bills of employees of the Directorate, employees need to submit the claim on-line, take a print-out of the claim from the system which will bear a unique number and then submit the print-out generated alongwith enclosures in the

Office. The Office shall acknowledge the receipt of claim on-line as per the unique number. The claim shall be processed and status will be updated.

6. For approval medical re-imburement claims of other Departments, a system similar to step 6 shall be developed.

Features in the software

The software shall have following features:

1. Respective Cells of the application areas shall be owner of these areas.
2. Applications/claims submitted by employees shall be approved by the DDO prior to start of processing.
3. For re-imburement of medical bills, provision of submission of scanned images of bills may also be considered.
4. Monitoring reports on these application areas shall be developed as per requirements.

PUBLIC INTERFACE AND GRIEVANCE REDRESSAL SYSTEM

Background

At present, the public interface is limited to citizen coming to the office/facility and get information related to resources, services and facilities. This information can also be collected through RTI. In addition, information is disseminated through IEC activities, news reports and legislation.

For grievance redressal, citizen can submit it in the office/facility. However, there is no mechanism to track the disposal of grievance and monitoring at the Directorate level.

Objectives

The objective of the assignment is to bring transparency and improve utilization of resources/ services by citizens by development of web based public interface for citizens. This will provide information about services available in different facilities & timing, information from different modules developed (like HRIS, SCM, HMIS, FMS, etc.) and a platform for submission of grievances by citizens and monitoring of their redressal.

Scope of Services

To provide web based interface for citizens to provide the following:

- a) information on different services available in facilities alongwith fee/timing, etc.
- b) Citizen related information from all modules developed
- c) Geographical map of the State with GIS mapping of facilities to locate a facility with services
- d) Interactive Voice Recording System (IVRS) based patient feedback system
- e) Submission of grievances and its disposal.

The scope of work includes:

1. To present the data collected from all facilities/offices on services for display to citizens to avail, timings and fee etc. to improve utilization, to guide and save time of citizens. For example, how to get the certificate for disability, medical certificate for employment, different schemes of the Govt.
2. To provide an integrated view of public interface from all other software developed
3. To show the facilities/offices on GIS map alongwith services to citizen to avail services from the nearest location
4. To provide IVRS based feedback from patients on services of health care facilities and present MIS reports.
5. To provide a platform for reporting their grievances on mobile app/web application and its disposal.

Features in the software

The software shall have following features:

- a) Data collected from facility coding shall be used to display services on GIS map as well as in tabular manner.
- b) Facilities shall be given provision to update their services either through CMO or District Hospital.
- c) General rules and procedures which are applicable to all facilities shall also be displayed like OPD, admission, discharge, medicines, pathology tests, getting certificates, etc.
- d) Different schemes of Govt. of India as well as State Govt. shall also be displayed for beneficiaries like RSBY, JSY, JSSK, etc.
- e) Grievance redressal system shall have provision to collect Aadhar and/or mobile number of citizen. For verification of authenticity, OTP shall be sent on the mobile. The grievance shall be sent to the concerned office on email and/or paper for disposal. Time bound response shall be expected. The citizen can see the progress of the grievance redressal. MIS reports shall be generated for different types of grievances as well as facility/office for which they pertain. Grievance disposal shall also be analysed.
- f) All these features shall be available through mobile app as well.
- g) For IVRS based feedback from patients availing services, mobile number given by the patient at the time of registration shall be used. Their response shall be analysed for improving services/facilities.

DATA COLLECTION & FACILITY CODING OF PRIVATE HEALTH FACILITIES

Background

Private health care facilities are restricted to urban areas only in the State. There are about xxx number of private hospitals, clinics and diagnostics centres in the State. However, no database is available in the Directorate on these facilities.

These facilities augment the services provided by public health system in terms of specialists, facilities and equipment available with them. Their data is also important in case of a disaster as well as can play a complementary role.

Objectives

The objective of the assignment is to identify each private health care facilities (including diagnostics services) in the State and collect details of available infrastructure/resources, email-id/phone no., GIS co-ordinates of the facility, photographs with geo-tagging and performance indicators for last 12 months, assigning Private Facility Identification Number, host the information on the web portal of the Directorate and use this information for further planning and disaster management.

Scope of Services

The scope includes GIS mapping of private health care facilities alongwith their one time data collection on location; infrastructure covering OPD chambers, emergency ward, other wards, Labour Room, Operation Theatre, Pathology, beds; services available; equipment available & their status; ambulances; human resources; computers, peripherals and internet connection and connectivity status; mobile connectivity status; status of electricity supply and water supply; and performance indicators for last one year; assigning Facility ID to each facility using NIN software of Govt. of India (if applicable).

The scope of work includes:

1. To prepare formats for collection of data on different parameters for different types of facilities.
2. To collect list of facilities alongwith the address, contact details and authorization from the Directorate of Health & Family Welfare to collect data.
3. To plan schedule for data collection and inform all facilities about the team visit as well as send the data collection format in advance to them to enable them to prepare data.
4. To assign identity cards to team members deployed for the assignment.
5. Visiting the facility and collecting data on the prescribed format alongwith geo-tagged photos of the building/site, collecting GIS co-ordinates and taking signature of the incharge of the facility on data collected. Scanning documents related to

- establishment of the facility. Uploading the data from the location on the web/mobile application (if available).
6. Verification of uploaded data from the documentation.
 7. Verification of the data by the CMO of the concerned district.
 8. Assigning Facility Identification Code.
 9. Printing of Facility Registers and summary reports for the Department.
 10. Providing soft copy of the data.

Features in the software

The software shall have following features:

1. The software for collection of data shall have provision to have existing list of facilities district wise and to enter address and contact details of the incharge.
2. Formats for data collection from different types of facilities as approved by the DHFW.
3. Login credentials for CMO for verification of data.
4. Login credentials of enumerators going for data collection.
5. Mobile application/Web application to enter data collected along with the photographs and GIS co-ordinates.
6. Entry of data collected.
7. Verification of data by the Agency.
8. Verification of data by concerned CMO.
9. Locking of data
10. Updation of data by the DHFW, as and when required.
11. Reports including Facility Register, Facility profile, Facility performance for last 12 months and summary reports.

DASHBOARD OF THE DEPARTMENT

Background

At present, a monthly review meeting is held for the Health Minister which is attended by CMOs, MS, Dy Directors and Directors in the Directorate. Presentation on progress and issues are made them as well as National programs.

Objectives

The objective of the assignment is to develop an integrated dashboard for the Department appropriate for different levels of the Department including the Chief Minister, Health Minister, Secretary (Health & Family Welfare), Principal Director, Directors, CMOs and Medical Superintendents. Dashboard for public shall also be made.

Scope of Services

To provide web based dashboard on all activities of the Directorate of Health & Family Welfare. The dashboard shall be graphical, geographical as well as tabular with a feature to drill down to the lowest level of information. Geographical map of the State with GIS mapping of facilities can be used to get the information.

The scope of work includes:

1. To build web based dashboard for the Department using GIS maps, graphs and tabular reports.
2. Integrate the data from different areas including human resource, finance, supply chain management and other areas.
3. To compare the performance during the year as well as previous year/s.
4. To view the performance of an entity be it a facility, district or the State.
5. To view the performance of different entities under Department of Health & Family Welfare, Nagaland covering Directorate, NHM, NSACS, NHP, etc. together as well as independently.

Features in the software

The software shall have following features:

1. Dashboard shall be independently for different entities like Department, NHM, NSACS, NHP, CMO, District Hospitals as well as consolidated for entities under them.
2. B.GIS maps shall be used to pick the facility or district.
3. GIS maps shall be used to distinguish different level of performance and utilization of resources.
4. Graphs shall be used to compare performances
5. Drill down feature will be there to see the figures upto the last entity.

6. Dashboard shall be designed suitably for different levels of the Department.
7. It should be possible to save the dashboard for use in presentations and taking printout.

WEB PORTAL OF THE DEPARTMENT

Background

At present, the Department of Health & Family Welfare has a website www.nagahealth.nic.in. It has information on Vision statement, Policy, Departmental setup, various programmes under the Department, Public Private Partnership, NHM, NHP, Medical College, Redressal of Public Grievance, etc. Most of the content is static.

Objectives

The objective of the assignment is to bring information related to programs running under the Department of Health & Family Welfare in one web portal, be it NHM, NSACS or NHP. All modules getting developed in this assignment shall be available to citizens, employees, officers, State Govt. and Gol from this portal. Links to websites of NHM, NSACS, etc. also shall be available at this portal.

Scope of Services

To design a web portal for the Department and facilitate the following:

- f) Bring all web sites of the Department under one portal
- g) Optimising use of computing resources and manpower in different offices/HCFs
- h) Study and design the specifications for cloud, internet connectivity bandwidth, licensing requirements, computing resources at different offices/HCFs
- i) Monitor the performance of the portal as well as un-authorized access/hacking activities.

The scope of work includes:

1. To study the existing website of the Department
2. To understand use of different reporting portals by the Directorate and other National Programs
3. To design the portal which contain information to different stakeholders in a structured manner
4. To implement and update the content of portal during the period of the agreement.
5. To devise a process for updation in various sections of the portal by authorised users.
6. To monitor the content of the website for hacking or un-authorized activities and report to the Directorate.

Features in the software

The software shall have following features:

1. Data collected from facility coding shall be used to display services on GIS map as well as in tabular manner.

2. Facilities shall be given provision to update their services either through CMO or District Hospital.
3. General rules and procedures which are applicable to all facilities shall also be displayed like OPD, admission, discharge, medicines, pathology tests, getting certificates, etc.
4. Different schemes of Govt. of India as well as State Govt. shall also be displayed for beneficiaries like RSBY, JSY, JSSK, etc.
5. Grievance redressal system shall have provision to collect Aadhar and/or mobile number of citizen. For verification of authenticity, OTP shall be sent on the mobile. The grievance shall be sent to the concerned office on email and/or paper for disposal. Time bound response shall be expected. The citizen can see the progress of the grievance redressal. MIS reports shall be generated for different types of grievances as well as facility/office for which they pertain. Grievance disposal shall also be analysed.
6. All these features shall be available through mobile app as well.
7. For IVRS based feedback from patients availing services, mobile number given by the patient at the time of registration shall be used. Their response shall be analysed for improving services/facilities.

Background and Scope of Work for Nagaland Health Project

Background

The Project Development Objective is to improve health services and increase their utilization by communities in targeted locations in Nagaland. There are two components of the Project –

1. Community Action for Health & Nutrition
2. Health System Development – Improving the management and delivery of Health Services. This includes development of key health system components (ICT)
 - a. Supply Chain Management
 - b. Financial Management
 - c. Human resource Management
 - d. Health Management Information System
 - e. Mobile applications

Results framework and Project Development Objective Indicators are given in the Project Appraisal Document.

S.No.	Entities	Entities to be covered under NHP	
		Total	Phase 1 [§]
1	Chief Medical Officers' Office	11	2
2	District Hospitals	11	2
3	Community Health Centres (CHC)	21	2
4	Primary Health Centres (PHC)	55	1
5	Sub Centres	90	3
6	Villages	500	17

[§]Districts are – Tuensang and Peren

The Project was launched in June, 2017. Accounting is carried out using TALLY software. Village Health Committee progress comes on paper and verified on paper on format. Procurement plan and progress is maintained in spreadsheet.

Objective:

The objective of the assignment is to develop an integrated system for the Project to monitor the progress in terms of PDO indicators as well as to facilitate the following: a) Project Report per semester; b) Quarterly financial reports; c) audited financial reports; d) Procurement; e) Project Grievance Redress Mechanism and f) Village Health Committee performance & incentive payment.

Scope of Services:

To design a web portal for the Project and facilitate the following:

1. Information on design, organogram, resources, coverage and all documents related to the Project
2. Village Health Committee constitution (VHC) and performance monitoring
3. Mobile app for reporting of performance of VHC
4. Procurement covering Procurement related documents, tenders, contract management, Project plan and progress
5. Financial reports and Ad-memoire of the Review Mission
6. Project Grievance Redress system and on-line system for grievances and their disposal
7. Progress of PDO indicators.

The scope of work includes:

1. To understand the Project Design and design a system for Project Management and Project Monitoring in terms of PDO indicators.
2. To create database of Village Health Committees and capturing monthly progress & quarterly verification for incentive payment through mobile app. There should be provision for capturing geo-tagged photograph.
3. To cover the procurement of the Project and link it with the financial accounting system. Contract Register should be made.
4. The accounting system should have provision to capture physical progress while recording payment.
5. To display all tender notices alongwith the award details.
6. To display quarterly financial reports, annual audited reports and Ad memoire of the Review Mission.

Features in the software

The software shall have following features:

1. Village Health Committee database is to be created to maintain the fixed information. This information can be viewed on a mobile app. The updation on fixed information and progress can be made by the Field Demonstrator and approved by the District Facilitator. The mobile app shall also have feature to enter the monthly progress report submitted by ASHA and its verification by Field Demonstrator, District Facilitator and team from the headquarter. There will be provision for supervisory data collection of VHND. Details of incentive payment shall also be displayed in the mobile app.
2. Dashboard shall be prepared on progress of Village Health Committees.
3. Human Resource information of the Project shall be taken from HRIS system developed for the Directorate.
4. Financial Management System of the Project shall also be taken from FMS system developed for NHM, NHP and NSACS.

5. Procurement monitoring shall be done for all procurements and displayed in the public domain.
6. All grievances received on-line or on paper shall be entered in the Grievance Redress system. Grievances not resolved in the designated timeframe shall be escalated to superior officers. Dashboard on complaints received and resolved shall also be made.
7. The progress of activities in entities covered under the Project shall be displayed.
8. System for capturing data on PDO indicators shall be devised and all data shall be entered. PDO indicators shall also be classified for different users in the Project and in the field. At the time of login, indicators shall be displayed along with the achievement and gap.
9. Dashboard for the entire Project will be made covering important activities and progress.