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E-Mamta

Name Based Mother & Child Tracking Application

E-Mamta
Name Based Mother & Child Tracking Application

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Reduction of Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR) are the important public health challenges for India. Tracking of Pregnant mothers and children has been recognized as a priority area for providing effective Healthcare services to this group. This in turn can have a large impact on reducing IMR and MMR.

As a major initiative in this regard, the Health and Family Welfare Department of the Government of Gujarat, has introduced a Mother & Child name based tracking Information management system called "E-Mamta" in collaboration with NIC, Gujarat. This kind of system has been conceptualized and developed by Gujarat first time and the Government of India has adopted the system for replication in all the other States of India.

The system covers the entire population of Gujarat with special emphasis on rural, urban slum and slum like population. Health details of about 85 lakh families in the entire State comprising about 4.30 crore individuals covering more than 80 percent of the population have thus been entered so far in the software's database and system generated unique Health IDs have been provided to all.

The system aims at registering individual pregnant mothers, individual children in the age group 0-6 and adolescents along with their full details to ensure complete service delivery of Ante Natal Care(ANC), Child birth, Post Natal Care(PNC), Immunization, nutrition and adolescent services and to track the left outs of these services. It also provides a management tool to the service providers at the grass root level to determine the potential recipients of the services along with their details, through comprehensive work Plans. Finally, the services are aggregated to generate Reports that are reliable and valid.

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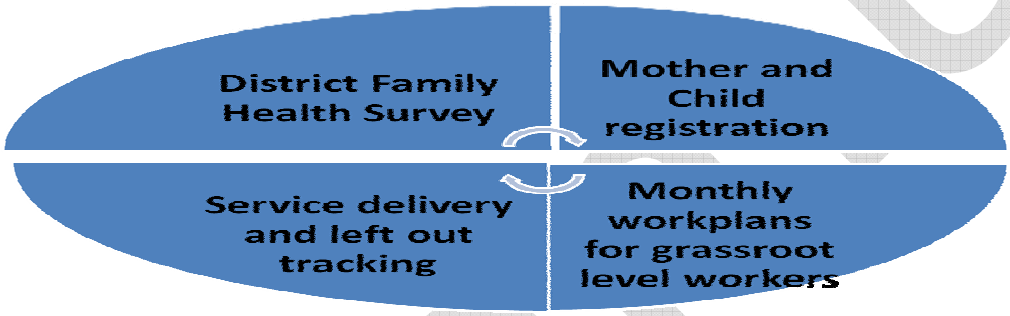
Background:

An online name based tracking system which aims at ensuring service delivery to every individual with special focus on mother and children and provides denominator based Work Plans.

This management tool thus generated works towards realizing priority issues in Health laid in the Millennium development goals, Swarnim Gujarat goals and the goals of NRHM i.e. reducing the Maternal Mortality Ratio(MMR), the Infant Mortality Rate(IMR) and the Total Fertility Rate(TFR).

The E Mamta project was conceptualized by the State Rural Health Mission of the Health and Family Welfare Department of Gujarat, in January 2010 funding support was sought under NRHM and the program was developed through NIC Gujarat. The application is web based accessed by a unique ID through broadband, wifi, data card anywhere in place and time on (1) http://e-mamta.guj.nic.in/. (2)http://mcr.guj.nic.in demo version is also prepared for the purpose of training on the web address: http://e-mamtademo.guj.nic.in/



The roll out of E-Mamta involved four phases:

1. **Family Health Survey**: The mammoth first step in this regard, being Family Health Survey in rural & urban areas (slum and slum like) has been successfully accomplished by the health workers. The individual records of around 85 lakh families comprising 43 million beneficiaries, covering almost 80% of population of Gujarat have already been entered in the Information system 'E-Mamta' till date. The family Health survey data is being validated through physical verification by ASHA/FHW/ MOs, cross verification by District & Block officials and in order to ensure accuracy and reliability of the data compared with BPL list, RSBY list, voters list, Ration Card. The list of children is also verified with registered children in Aanganwadi & Primarily School.
2. The benefits of the unique family healthcare ID provided are to capture the migration details and prevent loss of cases due to migration.
3. **Registration of pregnant mothers and children**: All women who are pregnant and children of age up to 6 years are being registered and provided a unique mother/child ID.
4. **Tracking of healthcare services through monthly Work Plans**: The services provided to the pregnant mothers including ANC, delivery, PNC and immunization, nutrition etc. are captured in this program. Thus E-Mamta facilitates service delivery through:
    - Detailed work plans prepared at Sub Centers and given to ASHA/FHW to provide due services to beneficiaries.
    - The details of services provided to the mothers and children for ANC, immunization, PNC, nutrition are recorded in E-Mamta at the PHC/village level to identify the gaps in the continuum of care.
    - SMS alerts will be sent to the beneficiaries/health workers/ District and Block level authorities to monitor the services that fall due.
    - The incentives paid to various community based health workers can be monitored.

- In accordance with the Family based approach, the information could be integrated with data from School Health, ICDS, Education and give us a holistic picture on individuals regarding Health, Education and Nutrition
- The facility based HMIS reports will be generated through E – Mamta by aggregation of services.

Features:

- A management tool to provide comprehensive MCH services to the target population and ensuring complete & timely service delivery via the unique feature of name based tracking.
- Complete Family Health data base of the entire population in the back end.
- Territorial Mapping of data up to the village and Aanganwari level to facilitate search and segregate relevant data for the user.
- Complete life cycle approach: Data of an individual is recorded form Birth to Death.
- Incorporation of work plans for grass root level functionaries for clear understanding of targeted beneficiaries.
- Resolves the migration/ transfer issues in service delivery through provision of Unique Id to individuals.
- No duplication of registration of mothers. Individual is the unit. All pregnancies of a single mother are recorded together.
- SMS alerts to beneficiaries and service providers for services that are falling due.
- Integration with the HMIS and automatic generation of various reports & registers through aggregation.
- Search on several parameters like Name, Village name, Ration card number, mobile number, Health Id, Family Id, RSBY card number, BPL card number, UID.
- Unique Id (Aadhar) Compatible.
- Records, e details of various incentives paid to all cadres of health workers individual records for the benefits of JSY, BSY and CY schemes.
- Data base of all service providers and communication platform.
- Dash Board to give a brief overview of Data entry, Deliveries, Immunization services, Maternal and Infant deaths. Detail analysis of data.
- Notice Board for communication.
- Citizen centric features like Immunization Records, Child Growth Charts etc.
- Works on GSWAN as well as on any internet connection reachable through data card /wi-fi/ broadband.

Technology:

The Software:

E Mamta is a management tool for the Health care system to provide quality MCH services, track drop outs and ensure complete service delivery and thereby reduce IMR/MMR was conceptualized by the State Rural Health Mission of the Health and Family Welfare Department of Gujarat, in January 2010 funding support was sought under NRHM and the program was developed through NIC Gujarat. The application is web based accessed by a unique ID through broadband, wifi, data card anywhere in place and time on

(1) http://e-mamta.guj.nic.in/.
(2) http://mcr.guj.nic.in demo version is also prepared for the purpose of training on the web address: http://e-mamtademo.guj.nic.in/

Hardware:

The application had minimal requirements for roll out in the Public Rural Health set up. The physical pre requisites, a computer and an internet connection at the Primary Health Centre (PHC), already existed in the set up. Manpower requirements were a data entry operator who is a regular employee at the PHC. Other operational activities like trainings, fields' surveys were carried out by regular staff.

Benefits:

- Unique ID based online family health data base covering the entire rural, urban slum and slum like population.
- 100% tracking for complete health services, especially maternal & child health services.
- Reduction in the work of field level health workers as they have not to prepare reports and keep various records

E-Mamta

- Improved inventory management and financial management of the health programmes.
- Capturing data in case of migration.
- Better data analysis for preparation of Block/District health action plans and State PIPs with realistic/accurate denominators.
- Basis for ICDS, Primary education, ration card, Adolescent health, school health etc.

Services:

<table>
<tr><th>WORKPLANS : facility wise</th><th colspan="3">REPORTS : facility wise</th><th colspan="2">HMIS monitoring</th></tr>
<tr><td rowspan="2">• Work plan for new registration
• Work plan for ANC
• Work plan for Delivery
• Work plan for PNC Mother
• Work plan for Neo Natal (PNC Child)
• Work plan for Child services
• Work plan for Adolescents
• Work plan for Anemia
• Work plan for Malnutrition
• Work plan for Institutional
• Delivery</td><td>Registration details:

Complete details with age, address, services data due and received date etc</td><td>Summary reports for the region:

Reflects number of individuals receiving various services in the whole region</td><td>Case based reports: Depicts individual child and mother's details by case ID search</td><td>Healthcare manpower details in state</td><td rowspan="2">Generation of Form no. 6,7,8,9</td></tr>
<tr><td>• Family survey data entry status
• Family survey form print
• Registration of Adolescents
• Registration of pregnant women report
• Registration of child service
• user log report</td><td>• Pregnant woman summary
• Child immunization record
• Child summary(0-1yrs)
• Child summary(1-6 yrs)
• Mother care (Form no 4 report)
• Mother data search</td><td>• Child growth chart(male)
• Child growth chart(female)
• Mother Hb/wt chart</td><td>ANM/Helper ANM, ASHA, MO, CDHO, RCHO, etc list</td></tr>
</table>

Impact of the project:

a) ***Improving reach (for example, providing market reach in a new area):***

- Largely intra governmental, E-Mamta improves on the accuracy of Information thus enabling information based Public health planning.
- Improved service uptake: Short message service alerts to the beneficiaries' namely pregnant woman, children, and adolescents for their due services seals the gap of service uptake by the Public.
- Improved service providence: Workplans generated on the accurate name based data assists the grass root level worker in comprehensive service delivery.
- Left out tracking: This was not possible earlier but has now been made possible through denominator based workplans.

E-Mamta

Improved reach through real time information processed after E -Mamta:

Before E –Mamta	**Now**
Service based numerical information	Individual based service information
Not so reliable Reports	Reliable Reports
Bulky registers	Paperless information.
Month end information	Real time information
Village Health and Nutrition day session planning- Memory dependent unsystematic and incomplete	Systematic Monthly Work Plans
Information : restricted to numbers – less analytical, low use to management	The nature of information being name based and helpful for comprehensive service delivery, analysis and management.
No Name wise report of services at the State/District level-only numbers	Name- wise Reports can be viewed at the State and District level also.
Inability to retrieve historical data	Historical data and service records can be retrieved instantaneously.
Impossible to get immunization Record of a child after few years	Immunization Record can be obtained at any age subsequently
No Record of Child Growth	Child Growth Record is stored and can be obtained at any age to analyze early growth.

Time saved:

Parameter	**Description**	**Before E -Mamta**	**Now**
HMIS form generation	Month end Routine Health information management system forms generated for state and national reporting	4-5 days	Instantaneous
Analysis of data	Analysis of HMIS forms by the state planning team	4-5 days	Instantaneous
Monthly Work Plans for village level	List of beneficiaries for due services in a village.	Never	Instantaneous
Denominator based list of Left outs	Complete List of people to whom services were due but did not turn up.	Never	Instantaneous after entry of data of services provided.
Parameter	Description	Before E -Mamta	Now

E-Mamta

b) Cost saving:

The results of any Health programmes is measured by CBA (Cost Benefit Analysis) means the health benefits rendered to the population through the investment of money. The programme is expected to give long term benefits as the preventive service delivery will improve and thus the investment done on curative services will be minimized. **There are huge benefits in the long run as the Mother and Child can be saved and human capital can improved bringing large positive economic Returns to the society and economy**. The already existing staff has been utilized for this programme. The computer hardware and internet connection was already available at Primary Health Centers, which has been utilized for E-Mamta.

Costs involved	Cost	Cost incurred
Computer, internet at Primary health centre	Fixed cost	Was already in place
Data entry operator at Primary Health centers	Salary	Was already in place
E -Mamta team	Salary	Was already in place
Assistance from NIC		
Training for E-Mamta	Venue and logistic charges	With NRHM support
SMS facility	On use basis	With NRHM support
Cost of printing Bulky Registers	Annual expenditure	Cost saved
Record Storage	Record Rooms and Almirahs in Sub centers and PHCs	Cost saved.

c) Improving customer service:

Parameter	Description	Before E -Mamta	Now
Intimation to the beneficiary	For the left out cases in beneficiaries, grass root level workers take time out of scheduled work for individual visit	Insufficient coverage	Instantaneous through sms alerts

Future Plans:

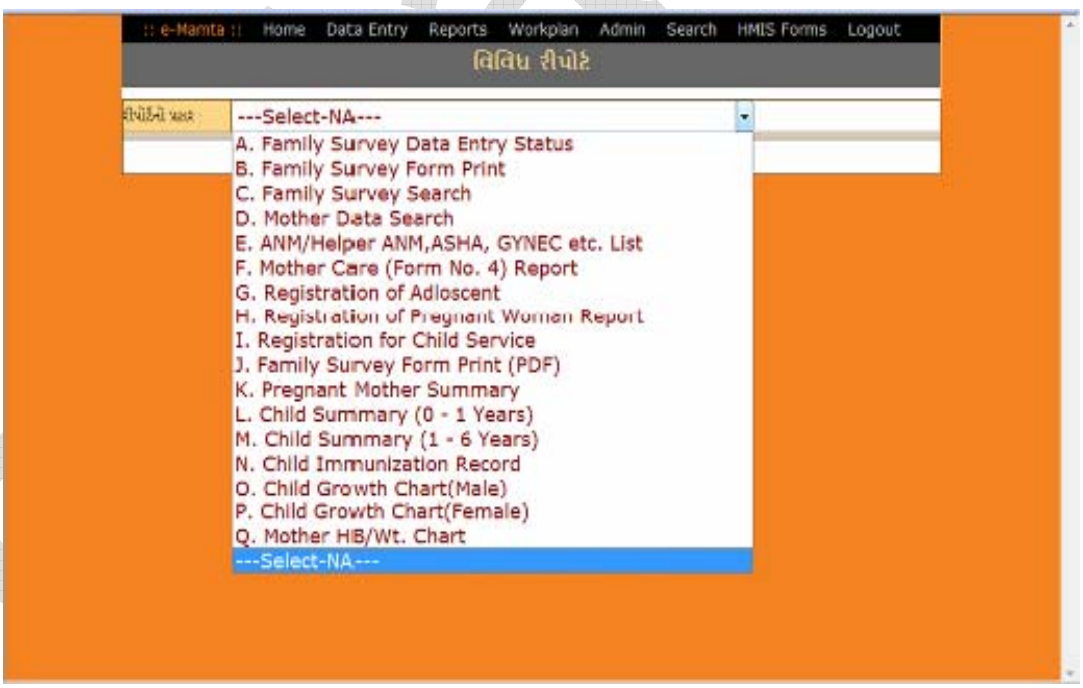
- Use of Mobile based technology for more efficient implementation
- Integration with all National Programmes
- Complete Health Record
- Access to private Healthcare providers
- Integration with E-Sewa and E-Gram
- Basis for ICDS, Primary Education, School Health Programme.

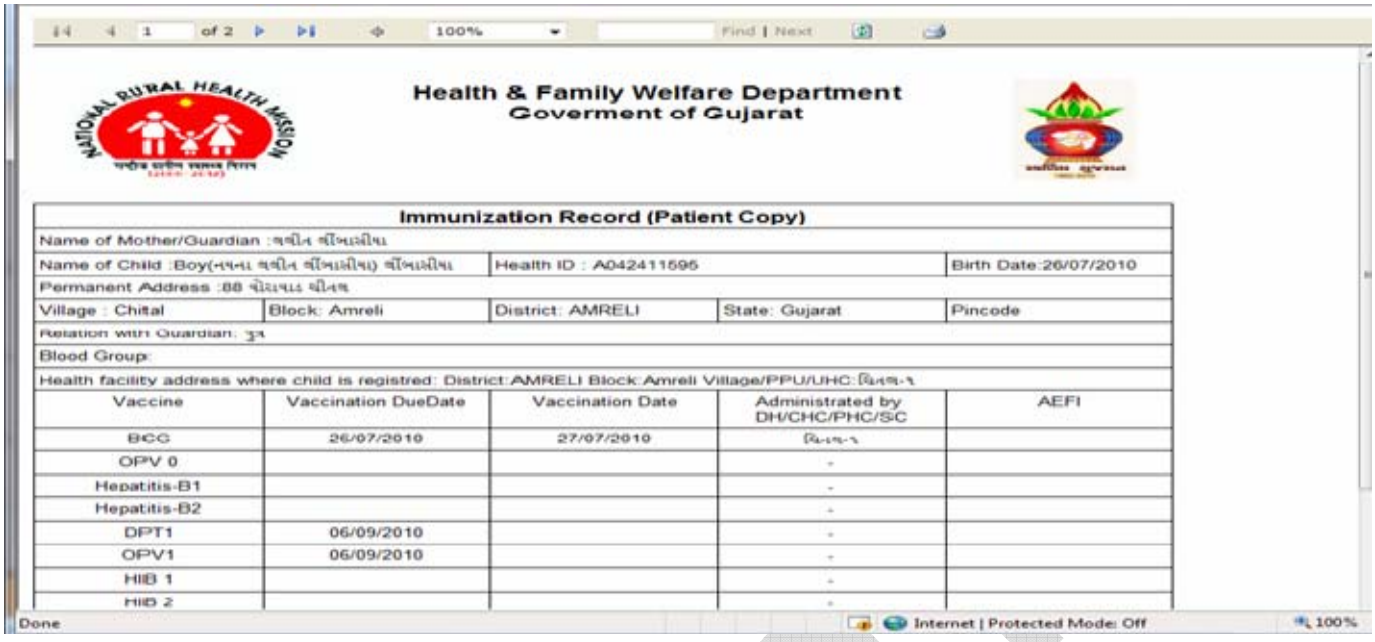
E-Mamta

Screenshot:

Home page:

Reports:





Health & Family Welfare Department
Goverment of Gujarat

Immunization Record (Patient Copy)

Name of Mother/Guardian :

Name of Child :Boy( )		Health ID : A042411595		Birth Date:26/07/2010
Permanent Address :				
Village : Chital	Block: Amreli	District: AMRELI	State: Gujarat	Pincode
Relation with Guardian:				
Blood Group:				
Health facility address where child is registred: District:AMRELI Block:Amreli Village/PPU/UHC:				

Vaccine	Vaccination DueDate	Vaccination Date	Administrated by DH/CHC/PHC/SC	AEFI
BCG	26/07/2010	27/07/2010		
OPV 0			-	
Hepatitis-B1			-	
Hepatitis-B2			-	
DPT1	06/09/2010		-	
OPV1	06/09/2010		-	
HIB 1			-	
HIB 2			-	

Done | Internet | Protected Mode: Off | 100%

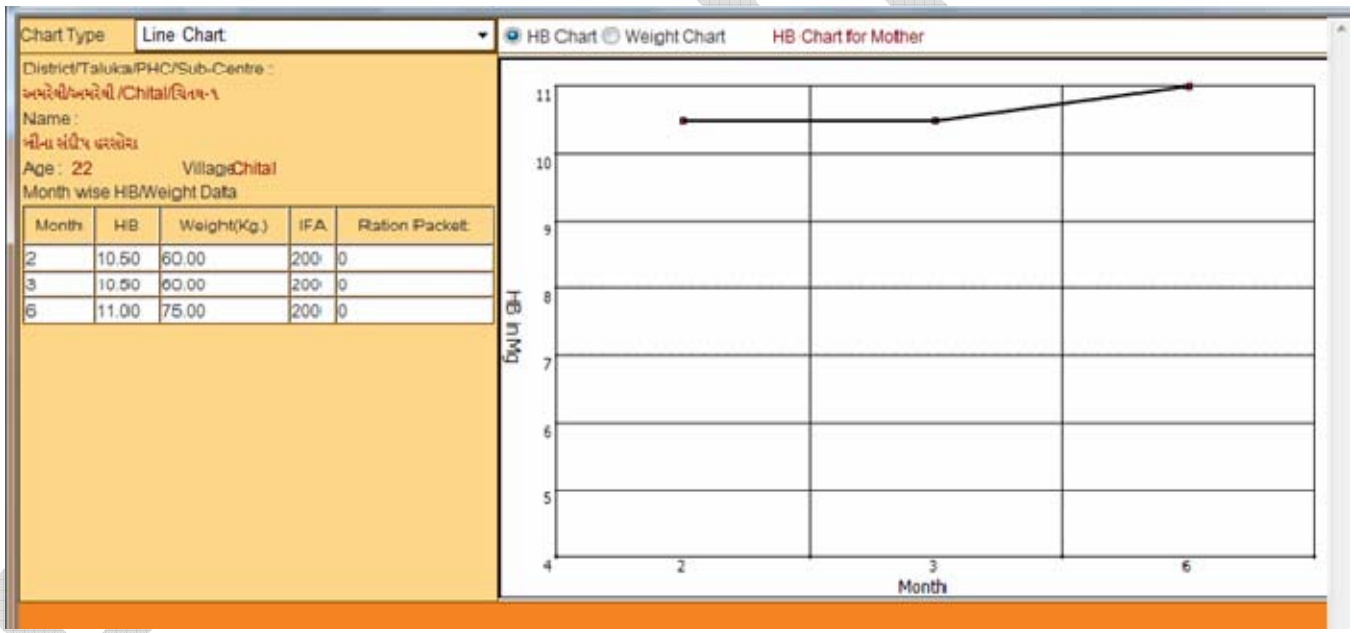
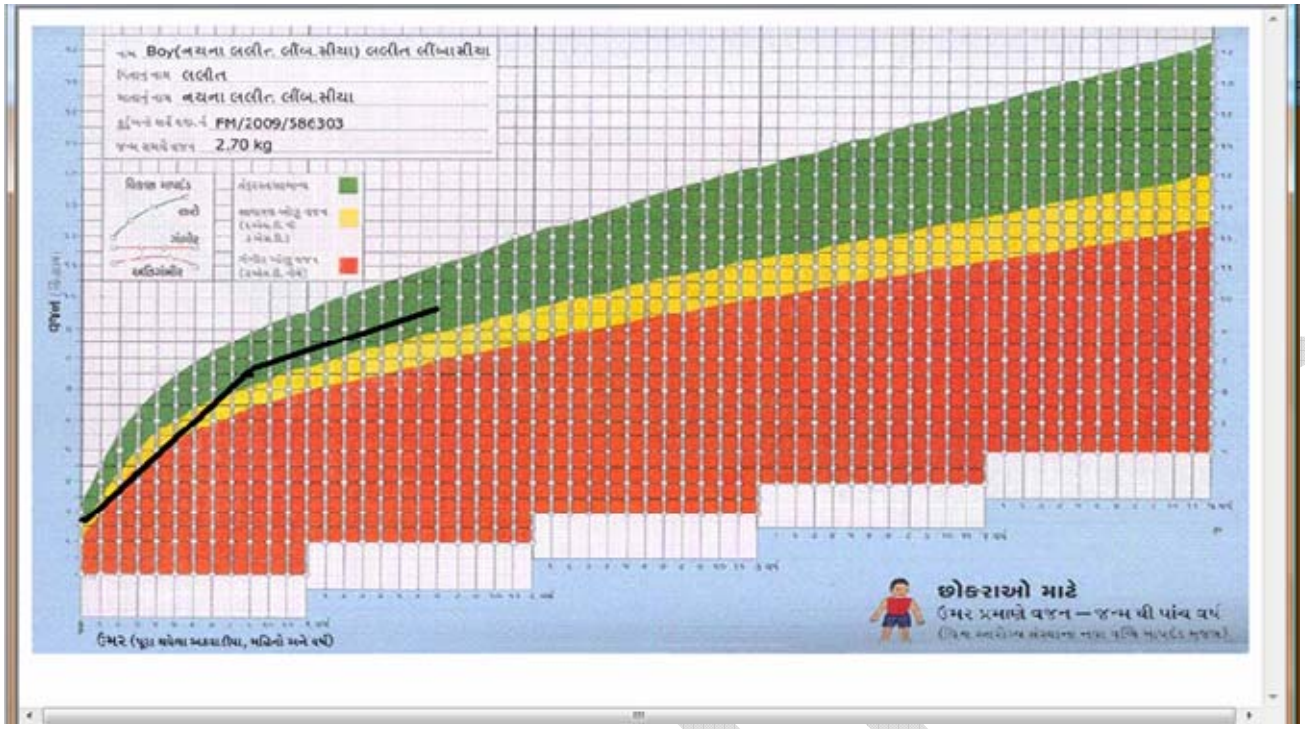


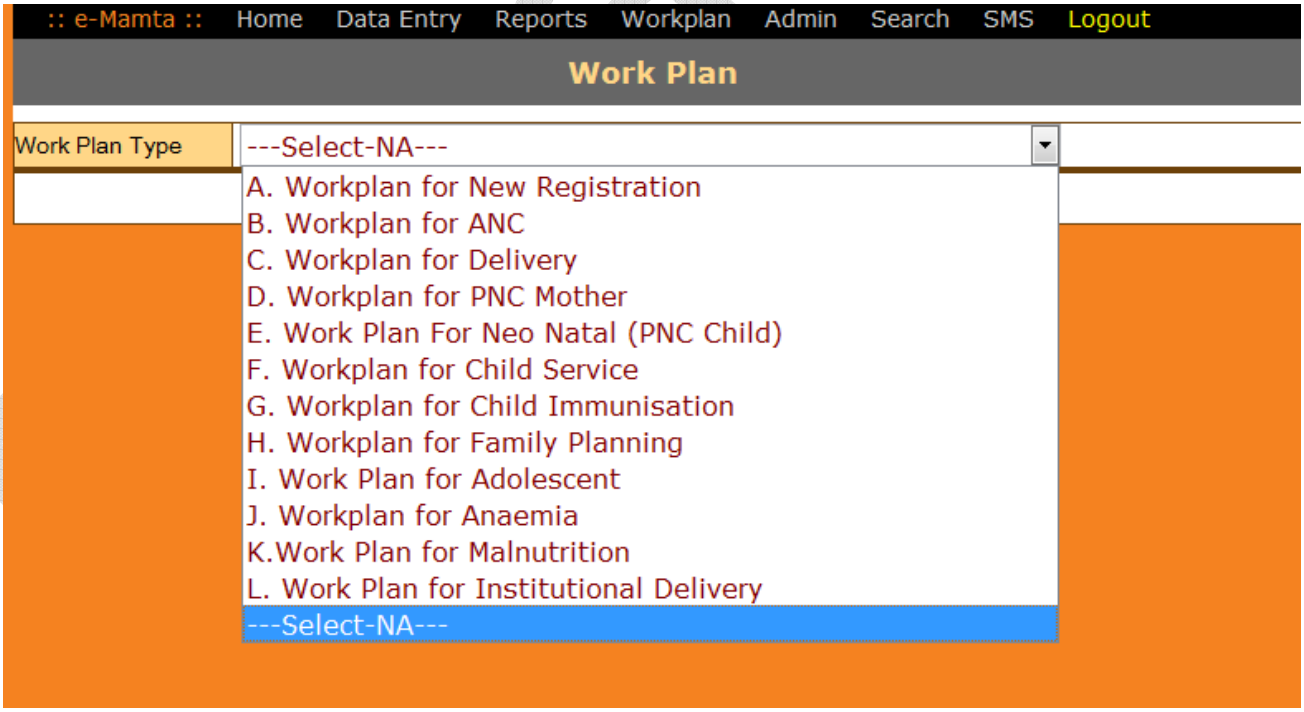
Chart Type: Line Chart | HB Chart | Weight Chart | HB Chart for Mother

District/Taluka/PHC/Sub-Centre :
Name :
Age : 22 Village:Chital
Month wise HB/Weight Data

Month	HB	Weight(Kg.)	IFA	Ration Packet
2	10.50	60.00	200	0
3	10.50	60.00	200	0
6	11.00	75.00	200	0


Boy(નયના લલીત. લીંબ.સીયા) લલીત લીંબાસીયા
લલીત
નયના લલીત. લીંબ.સીયા
FM/2009/586303
2.70 kg
છોકરાઓ માટે

Work plans:


:: e-Mamta ::
Home
Data Entry
Reports
Workplan
Admin
Search
SMS
Logout
Work Plan
Work Plan Type
---Select-NA---
A. Workplan for New Registration
B. Workplan for ANC
C. Workplan for Delivery
D. Workplan for PNC Mother
E. Work Plan For Neo Natal (PNC Child)
F. Workplan for Child Service
G. Workplan for Child Immunisation
H. Workplan for Family Planning
I. Work Plan for Adolescent
J. Workplan for Anaemia
K.Work Plan for Malnutrition
L. Work Plan for Institutional Delivery
---Select-NA---

Home Logout
DASH BOARD
Data as on :02/09/2010 09:10 AM
Family Details
Total Families Entered :8512567
Total No. of Males : 22325333
Total No. of Females :20753437
ANC Registration
Targeted ANC :745150
ANC Registered :326073
Early ANC Registered :165797
Delivery Details(Since 1st April 2010)
Institution Delivery(Public) : 5340
Inst. Delivery(Private Non CY) : 15127
Inst. Delivery(Private CY) : 1123
Home Delivery : 2416
Birth Details(Since 1st April 2010)
Total Birth : 25569
Live Birth : 25064
Still Birth : 505
Mother Death/Infant Death(Since 1st April 2010)
Mother Death: 23
Infant Death : 205
Immunization Details(Since 1st April 2010)
Total Children Registered : 111392
Fully Immunized : 9808
Partially Immunized :30031
Not Immunized : 71553
Designed and Developed by National Informatics Centre

E-Ma

e Governance News

eGOV 2.0 Award 2010

Instituted by eGov magazine, the India eGov 2.0 Awards aim to felicitate and acknowledge unique and innovative initiatives in the use of social media tools for creating interactive platforms for improving citizen service delivery. It is also awarded for sharing and garnering information to meet the larger social development goals by the government and private sector bodies including citizens, citizen groups, NGOs and political parties. The eGov magazine is the Asia's first and only print-cum-online magazine on e-Governance, focusing on the use of ICTs in governance. The awards were conferred at the gala event held on ***28th October,2010 at New Delhi*** .

Gujarat State had received the following two awards:

- The official portal of Hon'ble CM Narendra Modi (www.narendramodi.in) for the 'Most innovative use of social Media'.
- State Portal (www.gujaratindia.com) for the 'Most user friendly portal'.

Bangalore IT.Biz 2010

The theme of the Bangalore IT.Biz 2010 was "Billion Strong – Empowered by ICT". The event was comprise of a conference offered to choose from nine special tracks focusing on various industry verticals, a trade show with five focused pavilions, introductory sessions on Green IT & E-waste and Good People Practice, a CEO-CIO Conclave, a special Awards Function and various social and business networking platforms.

It was held from ***October 28th – 30th 2010 at Hotel Lalit Ashok, Bangalore***.

Gujarat Informatics Limited won the award of ***Best Exhibitor for Design & Content Category***.

(Presented and Participated in Panel Discussion: Shri K. R. Gururaja Rao, Chairman & Managing Director, Gujarat Informatics Limited, Gujarat.)

Web Corer

E-Mamta

Name Based Mother & Child Tracking Application

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