Telangana's Rashtriya Bal Swasthya Karyakram Software:
Making Services Simpler For Better Health

This software captures various health conditions of children in the target age group. In cases where diseases are detected, or if medical intervention is required, support is provided free of cost and the parents of the affected children are informed through SMS automatically.

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The Rashtriya Bal Swasthya Karyakram (RBSK) is an innovative and ambitious initiative, envisaging Child Health Screening and Early Intervention Services, a systemic approach of early identification of health issues and linked to care, support and treatment. This programme subsumes the existing school health programme.

Child Health Screening and Early Intervention Services basically refer to early detection and management of a set of 30 health conditions prevalent in children less than 18 years of age. These conditions are broadly summarized as the 4D's: Defects at birth, Diseases, Deficiency conditions and Developmental delays including Disabilities. Health Screening and Early Intervention Services aim at reducing the extent of disability, improving the quality of life and enabling all persons to achieve their full potential. Twice a year, Health Screenings are organized in Government & Aided Schools for the children under 5 through Anganwadi and ASHA service providers. It is estimated that about 2.1 million children under age 5 and 10 million children are in Schools, Junior and Intermediate College.

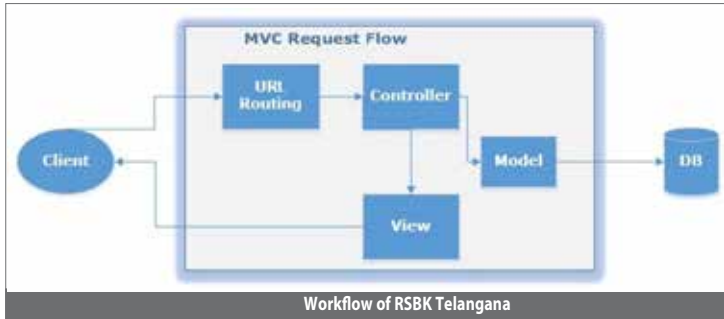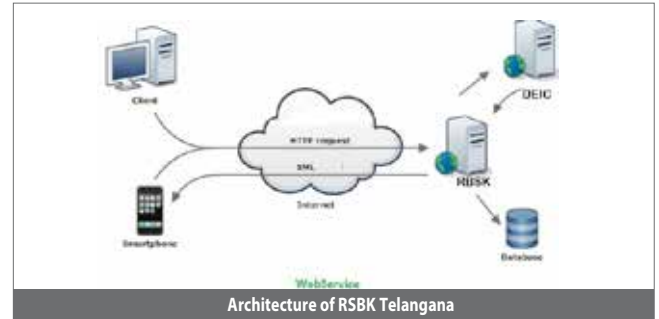## DEVELOPMENT OF THE APPLICATION
(http://rbsk.telangana.gov.in)

A web-based workflow system with role-based privileges to handle the service of Micro-Plan, Sub-Micro Plan, Student Referral and District Early Intervention Centre (DEIC) Management has been

RSBK Website

designed and developed in such way to capture age group wise the health conditions of target age group of children. The system has been developed in open source technology and a mobile application in Android. The system has been integrated with Child Info System of Education Department through web services to avoid the duplicity of child info as well as to avoid the data entry at the field. Using this application, quality of life of children has improved in Telangana through early

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Workflow of RSBK Telangana

Architecture of RSBK Telangana

detection of health anomalies and treatment of children at the age group of 0-18 years.

TECHNOLOGY

Application: Struts Framework, JSON
Database: MS SQL Server 2012
Web Server: Apache Tomcat 7.0
Web Services: SOAP

HIGHLIGHTS

• Workflow based application with online screening of the students

• A generic software that can be customized for any other state

• Increase in the awareness and monitoring capabilities

• Monthly screening reports can be generated with a single click

SALIENT FEATURES & USER INTERFACE

• Menu driven & user friendly interface

• Creation and modification of employee details

• Creation of mobile teams and adding employees to teams

• Creation of Masters like Driver Masters, Vehicle Masters along with edit facility

• Creation of location Master lists such as Village Master, School/ Anganwadi Master & Student Master

• Edit facility provided for Student Master list

• Creation and modification of Micro Plan, screening of students and referral to hospitals

• Dashboard to Commissioner, District Collectors, mobile team members, District RBSK coordinators and State RBSK coordinator

• Different drilldown reports are designed and integrated to dashboard

The user management module under RBSK Application consists of the following major operations:

• User ID Generation

• Generated password for the User ID is sent to concerned officials using NIC SMS Gateway

• User locking mechanism

• Session management

• User roles & privileges

Pre-Deployment Vs Post-Deployment

Prior to the deployment of the software the Department officials used to maintain the data manually after their visit to Schools/ Anganwadis/ Colleges. The entire process has now been digitized. Further, the Department officials need not have complete students' data before they proceed.

After the deployment of this application, mobile teams can plan their schedules online. Teams can enter the screening details of the school/ Anganwadi/ College Students online.

• SMS Alerts to the concerned officials one day before scheduled visit.

• Provision to scan only 150 students for screening per day.

• Capturing the affected area of the scanned students before and after treatment.

• Referral of the scanned students to District Early Intervention Center (DEIC) for further treatment and monitoring.

• SMS alert to guardians of disease affected students.

• History of disease affected students is easily tracked. The same is made available to Mobile teams during their next visits

• MIS Graphs provided to higher authorities.

• Dynamic and drilldown reports are provided to higher authorities

• SMS notifications to non performing mobile team members.

Shri Buddapraksh Jyoti, IAS, Commissioner, Dr.Y.S. Murty, Shri Srinivasa Subba Rao Akella and officials of Medical & Health Department, Govt. of Telangana with the SKOCH Gold Award, 2016 for RBSK