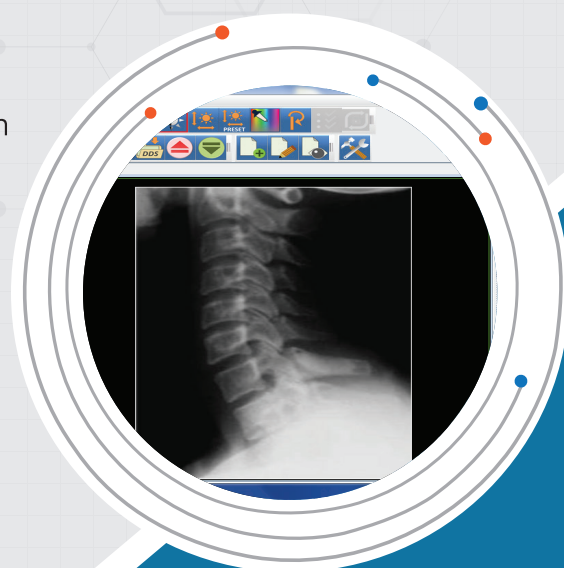**Collab DDS**

CollabDDS
Collaborative Digital Diagnosis System

Provides an integrated online environment to visualise medical and dental images for diagnosis and treatment planning

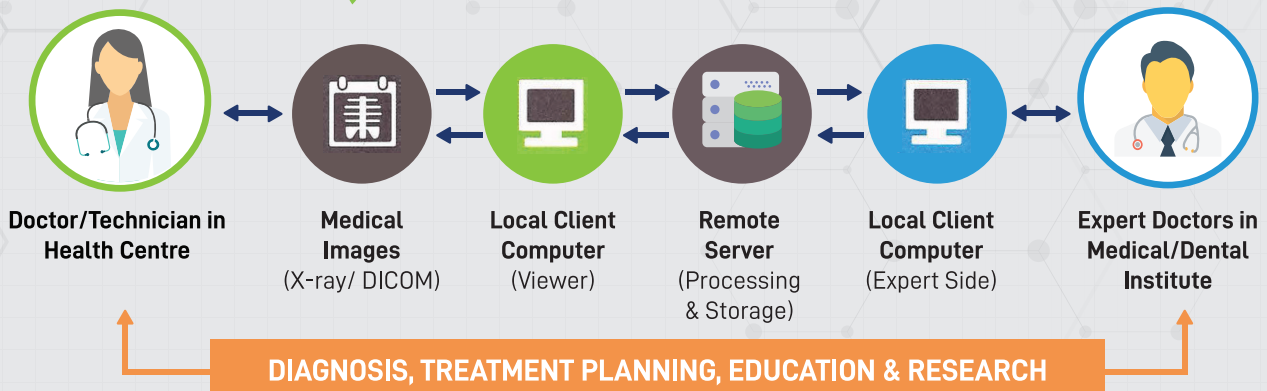Bridging the divide between Rural and Urban Health – Towards inclusive Society

Advantages

- Efficient Digital Workflow of X-Ray Imaging
- Improved Diagnosis and Treatment by Collaborative Consultation
- Enhancement of Quality of Medical Services
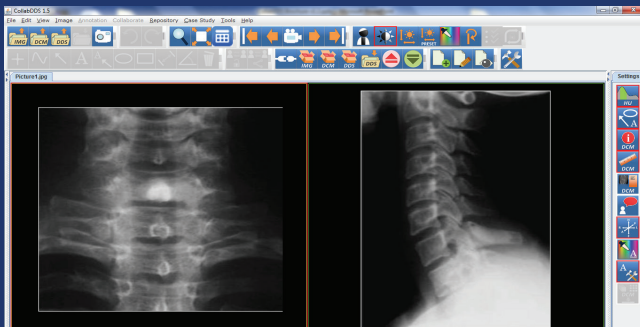- Real Time Diagnosis environment as a teaching platform

www.collabdds.gov.in

Digital India
Power To Empower

Collaborative Digital Diagnosis System

Doctor/Technician in Health Centre ⟷ Medical Images (X-ray/ DICOM) ⟷ Local Client Computer (Viewer) ⟷ Remote Server (Processing & Storage) ⟷ Local Client Computer (Expert Side) ⟷ Expert Doctors in Medical/Dental Institute

DIAGNOSIS, TREATMENT PLANNING, EDUCATION & RESEARCH
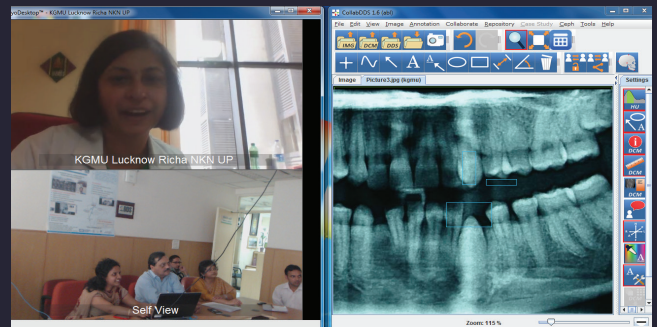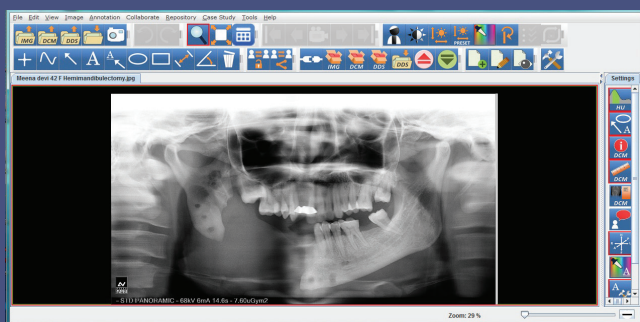
Features

Visualization

- ⚛ X-Ray images: Multiple formats supported (JPEG/GIF/TIFF/WBMP/BMP/PNG)
- ⚛ DICOM images (CBCT, CT Scans and MRI data)
- ⚛ DICOM Single, Multiple, Series and Multiframe
- ⚛ Multi-Planar Reformat (MPR)
- ⚛ Multi Screen Layouts

Collaboration and Repository

- ⚛ Real-time Sharing and Annotation
- ⚛ Recordable Review Comments
- ⚛ Audio and Video Communication
- ⚛ Integrated Centralized Repository of Cases and Teaching Files
- ⚛ Access and Security Control for Repository

Image Manipulation

- ⚛ Brightness, Contrast, Sharpness, Inverse, Coloring
- ⚛ Zoom, Pan, Rotate, Flip, Undo, Redo
- ⚛ Window level Manipulation & Presets
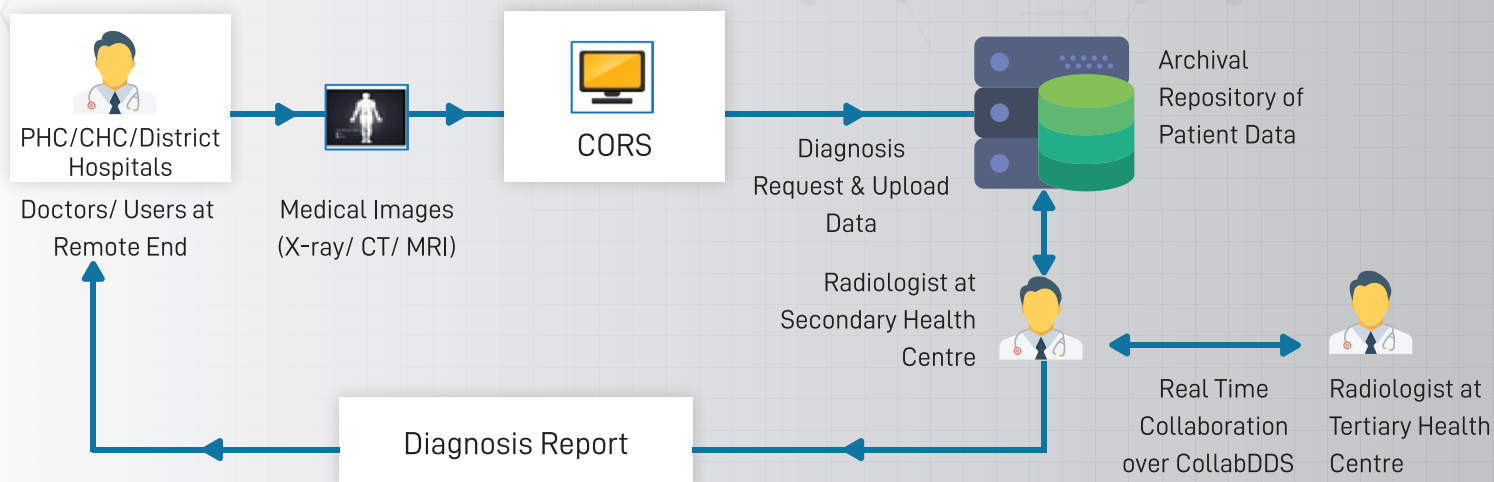- ⚛ Image Capture
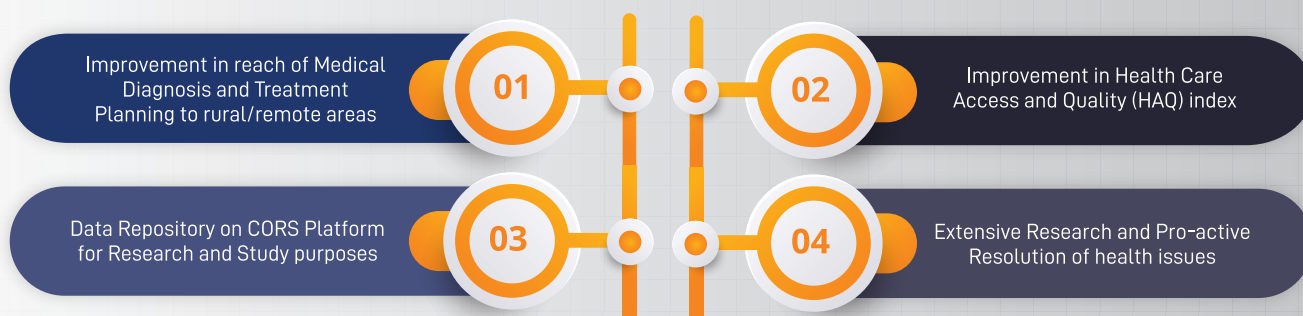- ⚛ Cine Mode

Additional Features

- ⚛ Integrated Cephalometric Analysis
- ⚛ Clinical Case Studies framework
- ⚛ Measurements: Distance, Angle
- ⚛ Accessible Repository of Case Studies
- ⚛ Anonymized Data

CollabDDS Online Radiological Services (CORS)

- Advanced Teleradiology Solution
- Web interface for different health communities
- Supports resolution of Radiological & Dental health problems
- Users at Primary and Secondary Health Centres / District Hospitals can obtain expert Radiological advice

PHC/CHC/District Hospitals
Doctors/ Users at Remote End

Medical Images (X-ray/ CT/ MRI)

CORS

Diagnosis Request & Upload Data

Archival Repository of Patient Data

Radiologist at Secondary Health Centre

Real Time Collaboration over CollabDDS

Radiologist at Tertiary Health Centre

Diagnosis Report

Benefits

01	Improvement in reach of Medical Diagnosis and Treatment Planning to rural/remote areas
02	Improvement in Health Care Access and Quality (HAQ) index
03	Data Repository on CORS Platform for Research and Study purposes
04	Extensive Research and Pro-active Resolution of health issues

Implementations of CollabDDS

- Department of Radio-Diagnosis, All India Institute Of Medical Sciences (AIIMS) New Delhi
- Andhra Medical College and King George Hospital, Visakhapatnam
- King George's Medical University, Lucknow
- Sawai Man Singh Medical College, Jaipur
- Sarojini Naidu Medical College, Agra
- Centre for Dental Education and Research, AIIMS, New Delhi
- Government Dental College and Hospital, Ahmedabad
- Government Dental College, Goa

CollabDDS on National Medical College Network (NMCN)

- CORS Centre of Exellence(CoE) at Tertiary Centre
- Twenty Primary/Secondary Centres connected to each CoE

Testimonials

> We have discussed around 40-50 cases & these are of all types. CollabDDS provides us real time image sharing with image annotations which is very helpful for the user & I found it user friendly. By collaborative sessions, we can have a wide range of discussions reach a common agreement. It also helps on other aspects of our diagnosis, enables us to have a precise conclusion which is helpful for the patients as they have opinion of superior centre at their local place.

- Dr. S.K. Agrawal
Professor & Head Department Of Radiodiagnosis,
SMS Medical College, Jaipur

> We had successfully discussed and exchanged information regarding one clinical case scenario related to 'Eruption failure', it's clinical and radiographical presentation, provisional diagnosis, and possible lines of treatment with eminent experts from AIIMS, New Delhi. The discussion helped in identifying alternative management techniques for the case presented. The positive aspect was that there was exchange of information with direct communication through videoconferencing. The transfer of information to both sides was smooth.

- Dr. Richa Khanna
Asst. Prof, Dept of Pedodontics & Dr. SaumyendraSingh, Asst.Prof, Dept of Prosthodontics on having a Collaborative session with KGMU, Lucknow

> CollabDDS allows us to interact with best teachers of India. It gives us the chance to discuss about the rare cases and rare presentation of unusual cases. CollabDDS discussion is highly beneficial for us." -
> **No of sessions: 8, No of cases discussed: 19**

- Dr. Anit Parihar
Co-ordinator CollabDDS (Radiology node)
The King George Medical University , Lucknow

> Discussion between radiologists of two centres was rewarding as both sides were able to exchange their views especially in relation to patient profile of their centres. Diagnostic benefits were also appreciated in this regards where at least in 3 cases prioritization of differential diagnosis was altered.
> **No of sessions: 8, No of cases discussed: 19**

- Dr. Shamrendra Narayan
Asst. Professor & Head Department of Radiodiagnosis,
SNMC, Agra

About NIC

National Informatics Centre (NIC) was established in 1976, and has since emerged as a "prime builder" of e-Government/e-Governance applications up to the grass roots level as well as a promoter of digital opportunities for sustainable development. NIC, through its ICT Network, "NICNET", has institutional linkages with all the Ministries/Departments of the Central Government, 36 State Governments/ Union Territories, and about 708 District administrations of India.

NIC has been instrumental in steering e-Government/ e-Governance applications in Government Ministries/Departments at the Centre, States, Districts and Blocks, facilitating improvement in Government services, wider transparency, promoting decentralized planning and management, resulting in better efficiency and accountability to the people of India.