

Annual Report  
Department of Telemedicine, PGIMER

**1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022**

## **Department of Telemedicine, PGIMER**

|                             |               |                                    |
|-----------------------------|---------------|------------------------------------|
| <b>Professor &amp; Head</b> | Meenu Singh   | MD, FIAP, FCCP, FCAAI (Pediatrics) |
| <b>Professors</b>           | Biman Saikia  | MD, DM (Immunopathology)           |
|                             | Nusrat Shafiq | MD, DM (Pharmacology)              |

## **Background**

The Telemedicine Centre at the institute is a pioneer in providing both basic telemedicine facilities as well as a highly specialized quality service to the people of this region i.e. Chandigarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Uttar Pradesh, Uttarakhand and Rajasthan. This Centre is connected to 24 district hospitals and 3 medical colleges of Punjab for Tele consultations through and to the Post Graduate Institute Rohtak, SGPGI Lucknow, AIIMS Delhi, AIIMS Bhubneshwar, Jaslok Hospital Mumbai, DMC Ludhiana, Fortis hospital Mohali, PIMS Jalandhar, GMC Trivandrum, IGMC Shimla, Dr. RPGMC Tanda and many others for interactive sessions through Video Conferencing.

## **Regional Resource Centre (under National Knowledge Network)**

Our Centre has been designated as Regional Resource Centre (under NKN) of North India in 2013. PGIMER is the Nodal centre of the North zone for the national knowledge network and is connected to the medical colleges of J&K, Himachal Pradesh, Chandigarh, Punjab and Haryana. Following hospitals are coming under RRC, PGIMER, Chandigarh.

1. Dr. Rajendra Prasad Govt. Medical College, Tanda, Himachal Pradesh
2. Indira Gandhi Government Medical College, IGMC, Shimla, Himachal Pradesh
3. Postgraduate Institute of Medical Sciences, PGIMS, Rohtak, Haryana
4. Government Medical College, Jammu, Jammu & Kashmir
5. Government Medical College, Jammu & Kashmir
6. Guru Govind Singh Medical College, Faridkot, Punjab
7. Govt. Medical College and Hospital, Amritsar, Punjab

## **National Medical College Network (NMCN)**

Department of Telemedicine, PGIMER is a part of National Medical College Network and it is now facilitating tele-services in medical education and consultancy. We are working on the same and already in touch with the concerned medical colleges for their requirement.

Main Activities of RRC:

➤ Through NKN connectivity

I. Tele education

II. Tele consultation

III. Tele evidence

➤ Through ISRO connectivity

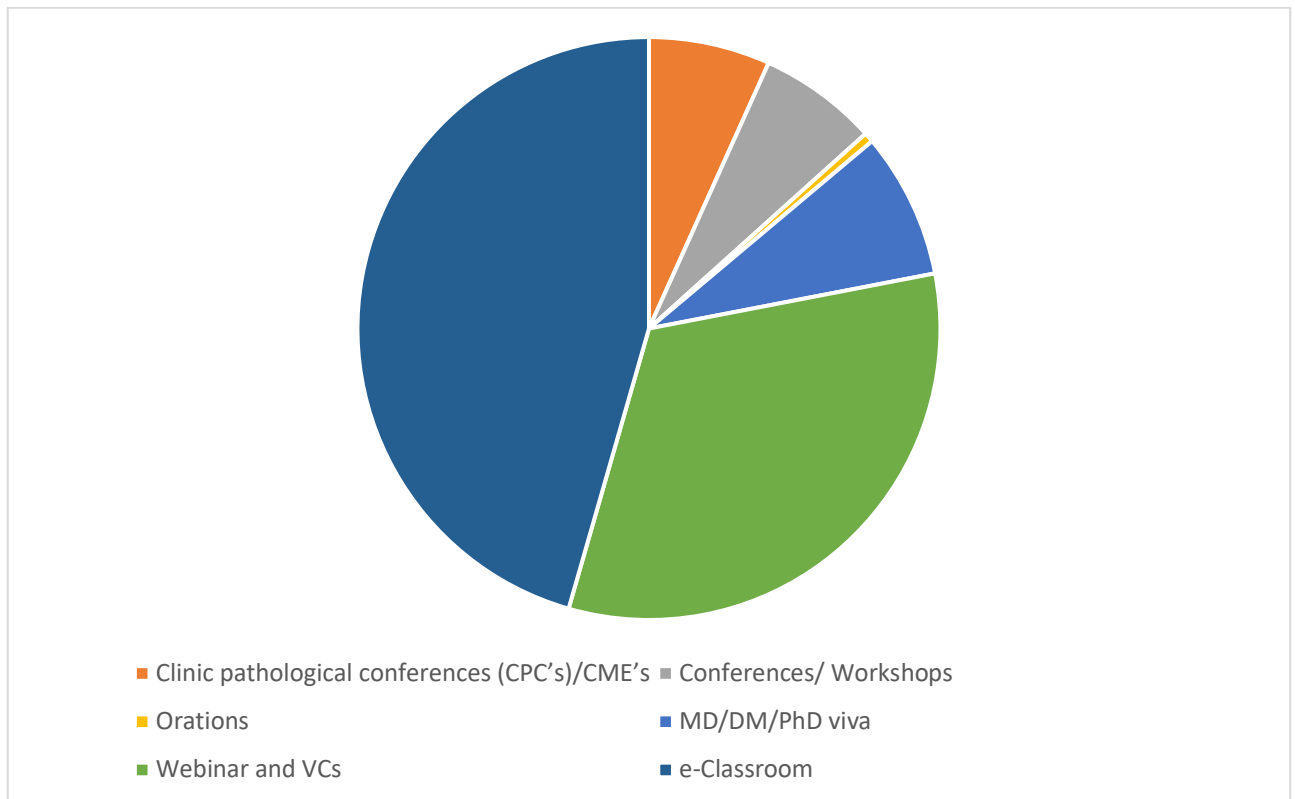
I. Tele education

II. Tele consultation

➤ Evidence Based Health Informatics & Health Technology Assessment Unit

## **Tele-education Sessions**

| <b>S.No.</b> | <b>Sessions Name</b>                             | <b>No of sessions (2021-22)</b> |
|--------------|--|---------------------------------|
| 1            | Clinic pathological conferences<br>(CPC's)/CME's | 50                              |
| 2            | Conferences/ Workshops                           | 49                              |
| 3            | Orations   | 4                               |
| 4            | MD/DM/PhD viva                                   | 60                              |
| 5            | Webinar and VCs                                  | 241                             |
| 8            | e-Classroom                                      | 338                             |
|              | <b>Total</b>                                     | <b>742</b>                      |



**All the sessions are being webcast and recorded through NMCN portal: [www.nmcn.in](http://www.nmcn.in) and on the Department YouTube Channel with 7500 subscribers. [https://www.youtube.com/channel/UC6Xx2mkGwAfBE0UqE\\_lqqcg](https://www.youtube.com/channel/UC6Xx2mkGwAfBE0UqE_lqqcg)**

We have conducted many webinars and most of them are available on the YouTube channel. Till date more than 1,00,000 people have seen these videos.

## **Tele-Consultations**

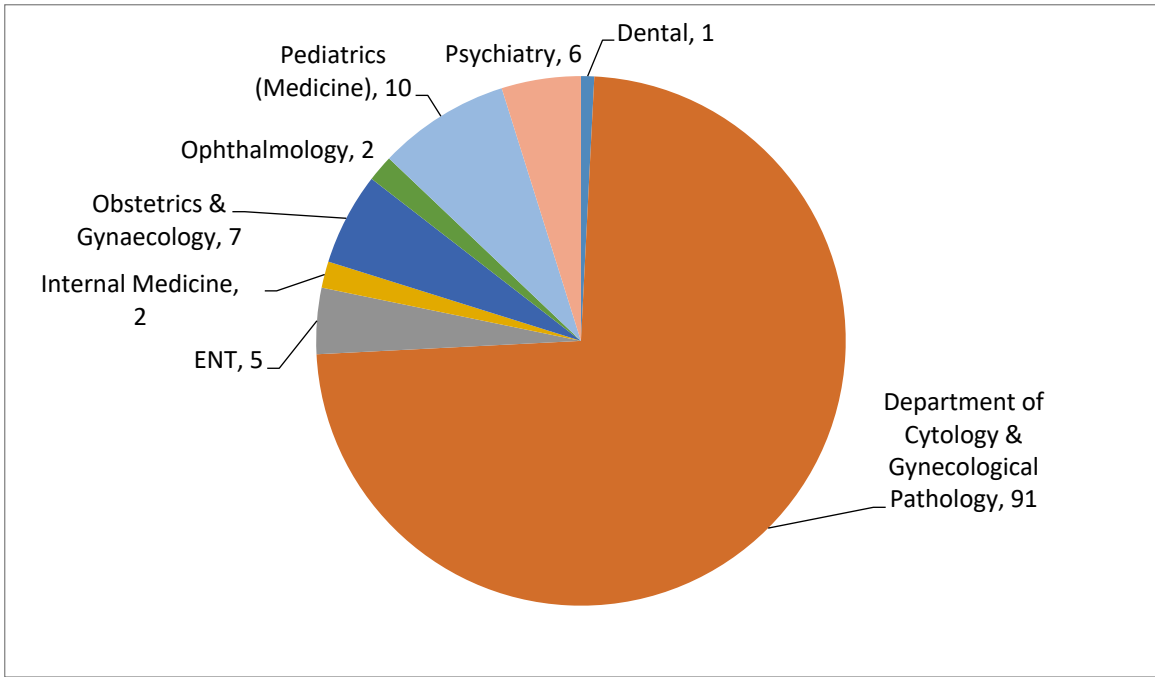
### **Tele consultations through NKN connectivity via e-Sanjeevani Software**

Department of Telemedicine is providing the on line consultation through **e-Sanjeevani** programme developed by the C-DAC, Mohali to the 24 District hospitals and 3 Govt. medical colleges of Punjab

#### **Total Tele-consultations on e-Sanjeevani, Punjab**

**April 2021-March 2022**

| <b>Sr No.</b> | <b>Department</b>                                | <b>Number of Cases</b> |
|---------------|--|------------------------|
| 1             | Dental   | 1                      |
| 2             | Department of Cytology & Gynecological Pathology | 91                     |
| 3             | ENT  | 5                      |
| 4             | Internal Medicine                                | 2                      |
| 5             | Obstetrics & Gynecology                          | 7                      |
| 6             | Ophthalmology                                    | 2                      |
| 7             | Pediatrics(Medicine)                             | 10                     |
| 8             | Psychiatry                                       | 6                      |
|               | <b>Total</b>                                     | <b>124</b>             |



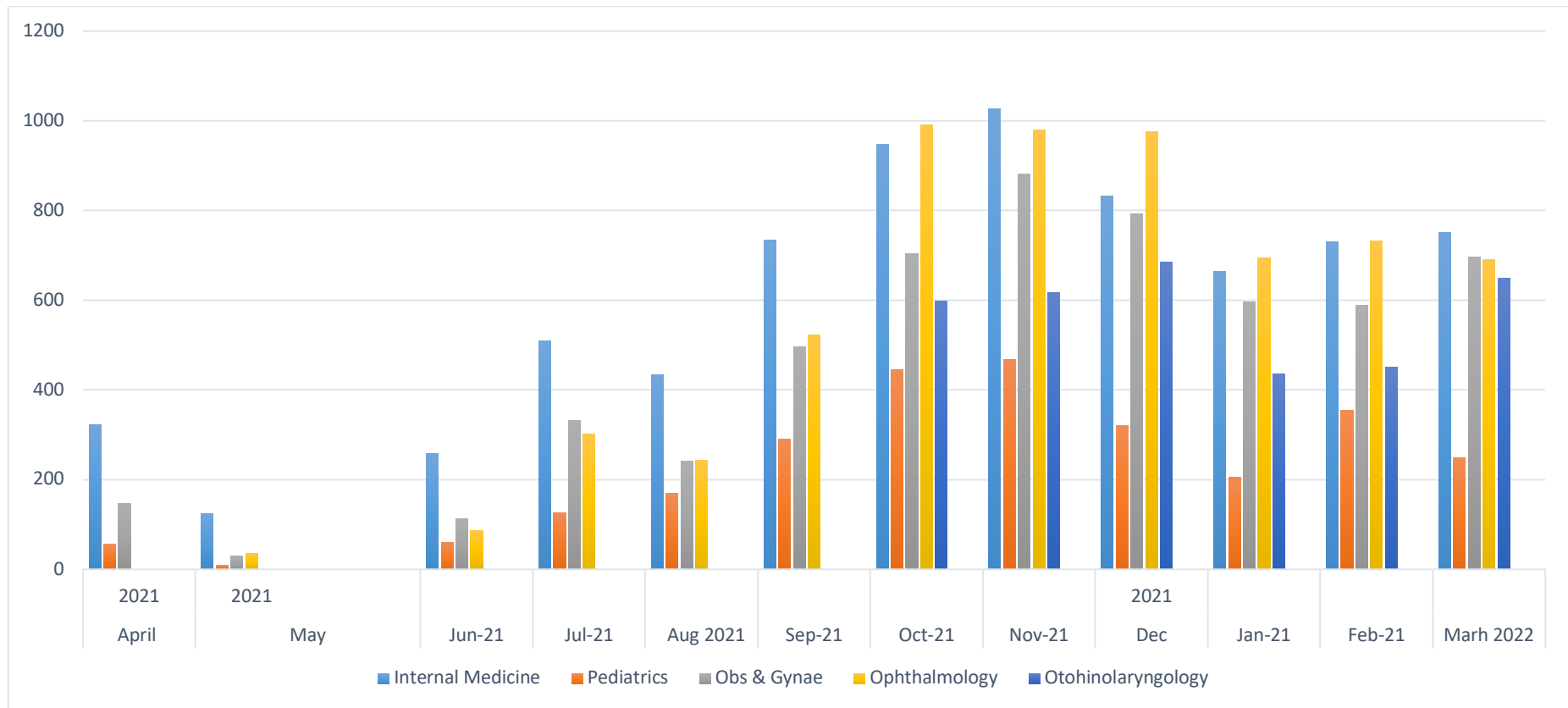
**AB-HWC Hub for providing Teleconsultation services to the state of Haryana**

The Department of Telemedicine at the institute is a pioneer in providing both basic telemedicine facilities as well as a highly specialized quality service to the people of this Haryana state. This Centre is connected to 20 district hospitals and 91 community health centre (CHC) and 336 Primary health centre (PHC), 26 sub divisional hospital (SDH) & 21 district HQ hospital.

**Total No of Consultations provided to the state of Haryana from April 2021 to March 2022: 23904**

|   | Departments         | April 2021 | May 2021   | June 2021  | July 2021   | Aug 2021    | Sep 2021    | Oct 2021    | Nov 2021    | Dec 2021    | Jan 2022    | Feb 2022    | Marh 2022   | Total        |
|---|---------------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 1 | Internal Medicine   | 324        | 126        | 258        | 509         | 434         | 735         | 948         | 1026        | 832         | 664         | 730         | 752         | 7338         |
| 2 | Pediatrics          | 58         | 10         | 62         | 127         | 171         | 291         | 446         | 467         | 321         | 206         | 355         | 249         | 2763         |
| 3 | Obs & Gynae         | 149        | 32         | 115        | 333         | 243         | 497         | 704         | 882         | 793         | 597         | 588         | 696         | 5629         |
| 5 | Ophthalmology       | -          | 38         | 88         | 303         | 245         | 522         | 991         | 979         | 976         | 694         | 733         | 690         | 6259         |
| 6 | Otorhinolaryngology | -          | -          | -          | -           | -           | -           | 598         | 617         | 685         | 436         | 451         | 649         | 3436         |
|   | <b>Total</b>        | <b>593</b> | <b>214</b> | <b>523</b> | <b>1272</b> | <b>1093</b> | <b>2025</b> | <b>3687</b> | <b>3971</b> | <b>3607</b> | <b>2597</b> | <b>1286</b> | <b>3036</b> | <b>23904</b> |

**Total No of Consultations provided to the state of Haryana from April 2021 to March 2022**





Teleconsultations provided through e-Sanjeevani to the state of Punjab- **124**

Teleconsultations provided through e-Sanjeevani to the state of Haryana- **23904**

Teleconsultations provided through e-Sanjeevani to the UT Leh & Ladakh- **26**

### **Tele evidence through Video conferencing**

Telemedicine centre is continuing providing video Conferencing facilities for the doctors of PGIMER, for giving evidence in District Courts of Punjab and Haryana and this is proving very useful in saving valuable time of the doctors. Already **442** have been conducted successfully during the year.

### **Departmental Highlights**

The use of telemedicine is strengthening the rural health services and providing medical education by specialists through Video conferencing. Telemedicine provides high quality clinically relevant medical updates and access to modern technology in diagnosis and treatment through educational programmes.

Tele-consultation Services under Hub & Spoke Model for AB-HWCs in Haryana has been set up for National Health Mission, Haryana and Ministry of Health & Family welfare, Government of India. Total 23904 consultations have been provided to the Haryana state and 5 consultants have been recruited in this project so far.

#### **1. Transmission of Clinical Lectures**

We are continuing with the transmission of clinical lectures on Monday, Tuesday and Thursday from 8 A.M to 9 A.M to all the three medical colleges of Punjab which started on 20 January 2014, and it is benefitting the faculty there. A total of **241** clinical lectures were transmitted during the year 2020-21.

#### **2. Live transmission of Session**

This Centre is also facilitating the live transmission of various sessions being held in our institute. We have successfully transmitted 338 sessions to all over the India.

#### **3. Interactive Sessions**

Interactive session between Department of Pediatric medicine of PGIMER and AIIMS, New Delhi has been transmitted every Monday and Interaction between the Pediatric

Genetics of PGIMER and SGPGI, Lucknow on every Tuesday. Teaching sessions regarding Hepatitis C awareness have been transmitted through zoom software with district hospitals of Punjab by Department of Hepatology twice in a month.

#### **4. Clinical-Pathological Conferences**

Telemedicine Centre is transmitting the educational CPCs to the various medical colleges connected. A total number of **35 CPCs** were transmitted from April 2021 to March 2022. Different educational sessions of various departments have also been transmitted to the connected centers.

#### **5. ECHO- Zoom Class for North East Region**

Project ECHO (Extension for Community Healthcare Outcomes) is an innovative model of healthcare education. ECHO uses widely available video conferencing technology to leverage specialty knowledge that may only exist in an academic medical center to empower community primary care clinicians. By way of ongoing telementoring, participating clinicians develop expertise in various fields and the model could be well adapted for online mentoring towards capacity building in the field of Evidence Based Medicine. This proposal aims at capacity building in the North Eastern region in the field of Evidence Based Child Health (Principles and Application) using the online mentoring platforms like ECHO model.

#### **6. Workshop & Conferences**

CME on Telemedicine was organized on the foundation day of the department i.e. on 13<sup>th</sup> April 2021 and the theme was “COVID 19 and telemedicine”. The CME was presided eminent speakers Dr Sanjay Sood, Project Director eSanjeevani who briefed the audience that during the past one year of esanjeevani OPD almost 2.6 million consultations have been provided.

## **Research in progress**

1. **Ministry of Health and Family Welfare (MoHFW), Government of India**  
National Medical College Network Project (Regional Resource Centre, North)
2. **PGIMER**  
Development of Artificial Intelligence for the diagnosis and prognosis of children with asthma
3. **DST-SEED**  
Science Technology and Innovation Hub in Leh, Leh Block, Leh (Ladakh) District, Ladakh UT.
4. **National Health Mission, Haryana and Ministry of Health & Family welfare, Government of India**  
Tele-consultation Services under Hub & Spoke Model for AB-HWCs in Haryana
5. **Ministry of Health and Family Welfare & National Information Centre, MeITY, Government of India**  
Implementation of Collab –DDS online Tele Radiology Services:
6. **Ministry of External Affairs, Government of India**  
e Aarogya Bharti Vidya Bharti project
7. **National Health Mission, Leh and Ministry of Health & Family welfare, Government of India**  
Tele-consultation Services for providing super specialty consultations under Hub & Spoke Model for AB-HWCs in Leh & Ladakh

## **Departmental**

8. To evaluate the effectiveness of telemedicine services in providing quality care during COVID-19 pandemic
9. Universal BCG vaccination and risk of development of COVID 19 in health workers
10. Evaluation of Tele-rheumatology during COVID-19 Pandemic in Asian Population: A Pilot Study
11. Monitoring of Health care workers of SARS-CoV-2 infection through digital technology.

### **Evidence Based Health informatics unit**

1. Developed an android application for the management of asthma in children
2. Participated in the conference Telemedicon 2021 through virtual mode.

**Visiting Professor:** Prof P K Vedanthan, Global chest initiative (GCI), Denver, Colorado, United States as visiting professor to the Department of Telemedicine, PGIMER, Chandigarh on 31.12.21 to 07.02.2022.

### **Indexed Publications**

1. Sandhu A\*, Agarwal A\*, Kaur P, Singh M, Sra H et al. "Evaluation of Tele-rheumatology during COVID-19 Pandemic in Asian Population: A Pilot Study. Int J Telemed Application. 2021 2021/09/30;2021:5558826.
2. Chauhan A, Singh M, Agarwal A, Jaiswal N, M Lakshmi PV, Singh M. Exploring the role of bacillus calmette-guerin vaccination in protection against COVID-19. Int J Mycobacteriol. 2021 Oct-Dec;10(4):433-436. doi: 10.4103/ijmy.ijmy\_179\_21. PMID: 34916464.
3. Meena J, Singh M, Agarwal A, Chauhan A, Jaiswal N. Prevalence of Hypertension among Children and Adolescents in India: A Systematic Review and Meta-Analysis. Indian J Pediatr. 2021 Apr 2. doi: 10.1007/s12098-021-03686-9. Epub ahead of print. PMID: 33796994.

The foundation day CME for department of telemedicine was inaugurated by Prof Jagat Ram Director, PGIMER and Prof G D Puri Dean Academics, PGIMER.



The first panel discussion was chaired Dr Savita Malhotra Former Dean PGIMER and talks were given by Shri R K Saboo Past Rotary International President,

