

ANNUAL REPORT

2021-22



JAN SWASTHYA SAHYOG

Our VISION and MISSION

We wish to contribute to the health, happiness, and well-being of the people by:

- Developing a low-cost and effective, comprehensive health programme that provides both preventive and curative services delivered with empathy and love, in the tribal and rural central India. We strongly believe that access to healthcare should not be denied to anyone due to lack of money or due to discrimination on account of caste, sex, religion and social class etc And this is built on a continuing and mutually enriching dialogue with the people and derives its strength and long term sustenance from this
- Identifying problems during our work which demand scientific scrutiny, and working on them on a long term basis
- Being part of the process of development and rejuvenation of village communities by facilitating efforts to improve education, the environment and the level of sustenance of the people
- Contribute towards improving public health policy that is more robust, accountable and inclusive and help strengthen public health systems through lessons that are learnt in the course of our work



OUR GEOGRAPHICAL BASE

Owing to the appalling levels of deprivation and lack of fundamental needs, JSS is based in rural Chhattisgarh which is an epitome of poverty and health inequity.

The work is spread across Bilaspur and Mungeli districts, home to tribal and other marginalised communities. The intensive work is based in 72 forest and forest fringe villages, a large share of which falls into the core zone of Achanakmar Tiger Reserve, bountiful in terms of natural beauty.

These are some of India's chronic poverty regions, and the people here have been historically marginalised with no voice in policy considerations. The sheer absence of credible public facilities paired with the difficulty in access of these rural settlements is a reality often unthinkable of in urban India.

The communities we work with are predominantly these:



ORAON

GOND

MAJHI

KANWAR

DHANUAR

KOL

BIRHORS

BAIGA

From 2016, we expanded our work to 7 districts of eastern Madhya Pradesh, namely, Anuppur, Shahdol, Mandla, Umaria, Dindori, Sidhi, and Singrauli.

FROM THE SECRETARY'S DESK



The year saw some of the most horrific and tragic deaths due to the COVID pandemic on a scale not seen in recent times. It brought to the fore the pitfalls of a fragmented public health system and over-reliance on the private health care providers engaged through the public insurance system in our country.

At Jan Swasthya Sahyog, we remained in continuous dialogue with the rural communities we work with, engaging community health workers and fresh community volunteers to spread awareness about the illness, its spread and ways to prevent spread of the virus. These frontline workers and our team of Senior Health Workers, community nurses, and supervisory staff coordinated efforts with the district vaccination team to ensure that over 85% eligible population received their first and second dose of the COVID vaccine. Armed with thermometers, pulse oximeters, and BP instruments, our village health workers travelled to each house in their villages screening for suspects with symptoms, identifying people at high risk for severe morbidity or mortality, and explaining the need and method of isolation within homes or in village community centre. Those at high risk were seen by the senior health workers or visiting doctor and advised admission if any red flag signs were found.

The Referral Hospital at Ganiyari started getting its first sick patients with COVID infection in April 2021, during the second wave, when a 10 bed HDU was carved out for them. The segregation of the Emergency room with COVID suspects and a separate OPD for respiratory symptomatics, while keeping the non-COVID care uninterrupted, was a challenge that our team took on spontaneously and courageously. COVID beds were added as per need when the COVID hospital in Bilaspur city was full and referring patients to Raipur. With public transport snapped, ambulance services were provided by our team, not just for COVID suspects but other critically ill patients as well. Despite a toll on their personal and social health, our dedicated health team worked tirelessly day after day.

During this difficult period, we performed better in terms of number of deliveries and operative deliveries (where required) compared to previous years. We were amongst the only hospitals in Bilaspur that continued to provide urgent and semi-urgent surgical care, care for cancer patients coming to us, and all other medical illnesses requiring attention besides the COVID care.

Our team also helped the district health authorities in planning for COVID care, and in training of staff including doctors and nurses to start COVID care centres at the block level in three blocks. The Health System Strengthening teams, in eastern MP, took on similar roles of training and working shoulder to shoulder with the public health system. Through their efforts, they arranged for rations for families who had a sick person, trained and provided pulse oximeters to ANMs, and trained ASHAs in identifying the respiratory symptomatics.

By November-December, things seemed to be limping back to 'normal', though the reality of this 'new normal' was harsh and hard hitting. Despite our efforts to provide dry rations to the families of young children attending the JSS run Phulwaris (day long crèches), their nutrition had taken a big hit. So was the case with older children where Anganwadis and schools providing companionship, education and mid-day meals remained closed for much longer. Under-5 mortality in these communities had jumped.

When we look at the wealth, equity, and nutrition statistics across our country, we find a perplexing rise in the incomes and wealth of the 100 richest Indians, their wealth equalling that of 55.2 crores Indians at the bottom. In 2021, while 84% of India's families suffered a decline in their incomes due to loss of lives and livelihoods, Indian billionaires grew from 102 to 142! And yet, as we flex our muscles on the incredibly high GDP despite a year with so many setbacks, India's Global Hunger Index score dropped to 29.1 in 2022, faring worse than the 2014 score of 28.2, and ranking a shameful 107th among 121 nations. The popular song in the 70s by Pink Floyd, 'Comfortably numb' comes to mind.

Our teams went into a huddle and decided with a fresh resolve to focus more on self-sufficiency within the villages, at least on the nutrition and livelihood front. While we endeavour to improve the health status of our rural and tribal communities through community involvement and action, and high quality service provision to reduce health related expenses, we sincerely believe that economic and nutritional 'atmanirbharta', will be the key to healthy societies. Our efforts at strengthening the public health system also need to be recalibrated and intensified for greater impact.

Clinical service work with its mix of successes and failures and rejoicing and heartbreak was all consuming. We took several opportunities to reflect and learn and write. And took the learnings to appropriate fora whenever the opportunity arose. A glimpse of our efforts and sweat is here in these pages.

The year also saw a big drop in the financial support for the development sector in general, and JSS was no exception. The work that we were able to do would not have been possible without the solidarity of the communities we work with, so many well-wishers, both individuals and organisations, and our support groups in India and abroad. I take this opportunity to humbly thank them and plead for their continued support and wishes.

THE YEAR IN REVIEW

CREATING A CONTINUUM OF CARE

our work through a community programme



TIER I & II

Care is appropriated through a three tier model of healthcare delivery. A robust community health programme in 72 forest and forest fringe villages of Mungeli and Bilaspur districts of Chhattisgarh are offered at the first two tiers. This is to bring healthcare closer to the homes of people so that they do not have to travel much.

At the base are 144 Village Health Workers (VHWs), all of whom are trained women from the community, offering door to door care and keeping a thorough tab on every household. . Though the robust community outreach programme is concentrated in 72 villages, the services at the subcentres, in the form of daily OPDs, investigations, and a doctor led mobile clinic, are offered to other villages as well with each subcentre catering upto 30 hamlets..

JSS continued to run a community programme in 72 forest and forest fringe villages of Achanakmar tiger reserve in Bilaspur and Mungeli districts of Chhattisgarh. The community programme consists of a three-tiered health programme and Nutrition intervention (rural creches) along with the work on economic and social determinants of health through Agriculture programme, Animal health programme, SHG and livelihood programme.

The 72 programme villages continued to receive health services through a three-tiered health service programme which includes health workers in the village at tier one; a sub centre manned by senior health workers and nurses at tier two and a 100 bedded referral centre at tier three.

All the routine activities of the comprehensive health programme as well as the verticals of Maternal and Child Health (MCH), Non-communicable diseases (NCD), continued while COVID-related activities (which began in March 2020) became part of the core programme with the involvement of health workers, senior health workers, nurses and all staff of specific programmes involved as well.

The 146 Village health workers, spread in each hamlet, are the backbone and serve as the first contact for all the health needs, including identifying and treating common illnesses in the villages. In this population, 24739 families had atleast one person who fell ill, while the total number of illness episodes were 29713.

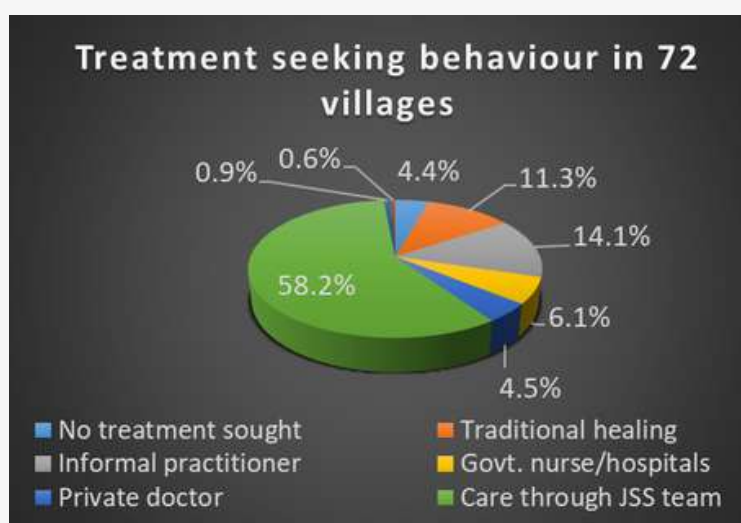


Fig. 1

Fig. 1 (data sourced from VHW registers) shows the treatment seeking behaviour in this population at the village level. While the majority sought help of the VHWs or JSS health facilities, others turned to traditional healers and informal practitioners. About 23 commonly seen health conditions were treated by VHWs at village level. A total of 1939 (6.5%) people were referred by VHWs from villages to JSS subcentre/Ganiyari referral centre for higher care. During this year, most of the time of VHWs was spent on COVID care. VHWs are still continuing the identification, monitoring and treatment of fever in these 72 villages, while the Senior health workers and the team are monitoring high risk cases with comorbidities. Awareness and mobilisation for COVID vaccination was another major activity in the list of VHWs this year.

CARE AT THE SUBCENTRES



Subcentres are staffed by Senior health workers (SHWs) and nurses who form the link between the health workers at the village level and the doctors at the health facility at Ganiyari. They run the daily OPD at JSS's subcentre, participate in the weekly doctor's clinic at the subcentre besides managing referrals by VHWs, managing emergencies, conducting deliveries, monthly follow up of all patients with chronic diseases, as well as running a daily fever OPD at the subcentre. They also helped in running the activities of the various programmes at the cluster level. All the SHWs and nurses are supported by a doctor round the clock through telephonic consultation.

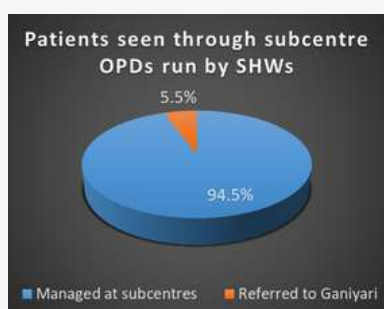


Fig. 2

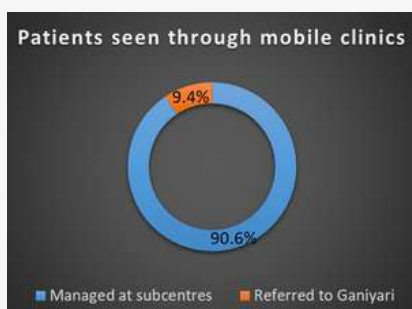


Fig. 3

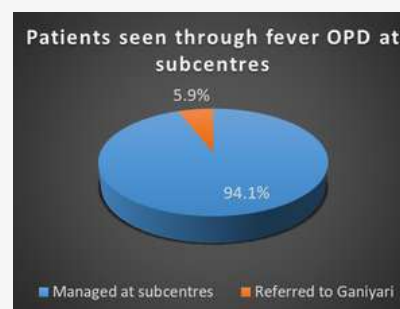


Fig. 4

A total of 5751 patients were seen at the subcentre by SHWs in daily OPD (see Fig. 2). 52% of the total patients were females. Out of total patients seen by SHWs at subcentres, only 5.5% had to be referred to the referral centre in Ganiyari. The total number of patients seen in the weekly doctor led mobile clinic at subcentres were 5833 (see Fig. 3).

Out of total patients, 57% were female patients. A total of 9.4% of patients were referred to Ganiyari referral centre for consultation or higher investigations. In the weekly clinic, At the fever OPD run at the subcentres, a total of 1219 patients were seen (see Fig. 4) of which 5.9% required referral to Ganiyari.

All three subcentres provide treatment for various animal bites including snake bites. A total of 195 animal bites were managed in this period. Out of these, over half (51.2%) were dog bites, and 29.7% were snake bites (see Fig. 5). Only 3% of patients with animal bites were referred to Ganiyari.

A total of 39 deliveries were conducted at the sub-centres. The three sub centres continued to run like a health and wellness centre for many other activities like training, disease based peer support group meetings etc.

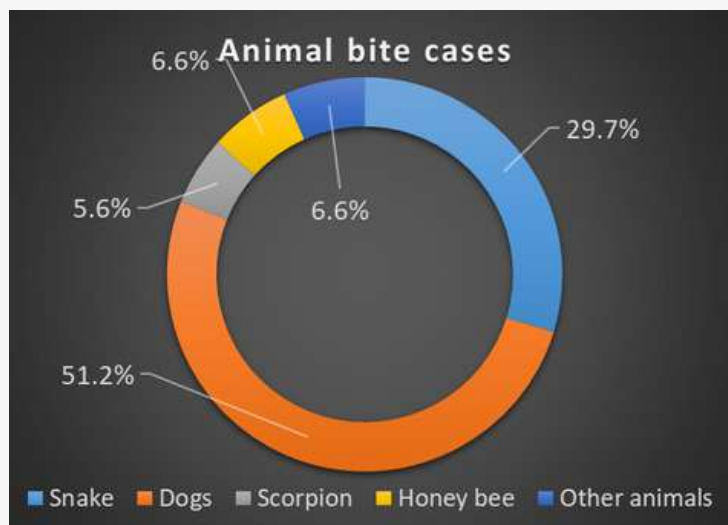


Fig. 5

MATERNAL AND CHILD HEALTH



PLA meeting with ANC's

Health workers identify pregnant women in their hamlets and mobilising them for routine antenatal checks. These happen at monthly frequency in a location not more than a 30 minute walk for the mother. Besides history taking and physical exam to identify high risk, laboratory investigations including for sickle cell disease and malaria are performed. Pregnant women are counselled for institutional delivery. High risk women are followed up more frequently than others. All women are advised at least one ultrasound examination during pregnancy, if possible.

However, in forest villages poor roads and lack of transport to healthcare facilities sometimes prevent pregnant women from delivering at a hospital. Thus, home deliveries remain their first choice, and these are often conducted by traditional birth attendants (TBAs), many of whom have now been trained and equipped in safe delivery practices by JSS. Monthly refresher training of TBAs in all three subcentres is undertaken to improve their skills in identifying risk factors during delivery for early referral; conducting a clean home delivery; as well as recognising and managing immediate post-partum emergencies. They are also taught to provide essential newborn care and taught signs of post-partum infection in the mother.

This year a total of 180 ANC clinics were conducted across all the three clusters (15 ANC clinics per month). 868 new pregnant women were registered and 2688 antenatal check-ups were carried out. 26 women were identified with high-risk conditions such as raised BP, bad obstetric history and abnormal lab reports. Videos, talks, discussions and posters are used during IEC sessions held while the ANC clinics progress to increase awareness about the ANC clinics, pregnancy and newborn care.



MCH worker weighing a newborn during homevisit

Participatory learning and action (PLA) meetings with women groups in villages have also been resumed from January 2022 post Covid. A separate cadre of maternal and child health workers (MCHW) is dedicated to the MCH programme, who along with VHWS do routine home visits of high risk cases. They help in enrolment of new pregnancies in the community to providing postnatal care to mother and newborn babies. This cadre undergoes a two days residential training every month at Ganiyari on topics related to ANC, INC, PNC, HBNC care, identification of high risk pregnancies etc. During the period, of the 787 mothers who had live births, 458 (58%) attended at least 4 or more Antenatal Clinics, while there were 156 (19%) low birth weight newborns among the 813 live births.

Health workers follow up with the woman during the pregnancy, often accompany them to the hospital for delivery, and also visit the woman and baby daily for the first ten post-partum days to look for signs of infection and to check whether the baby is able to feed properly. Contraceptive advice is given to pregnant and postpartum mothers by health workers and MCHWs

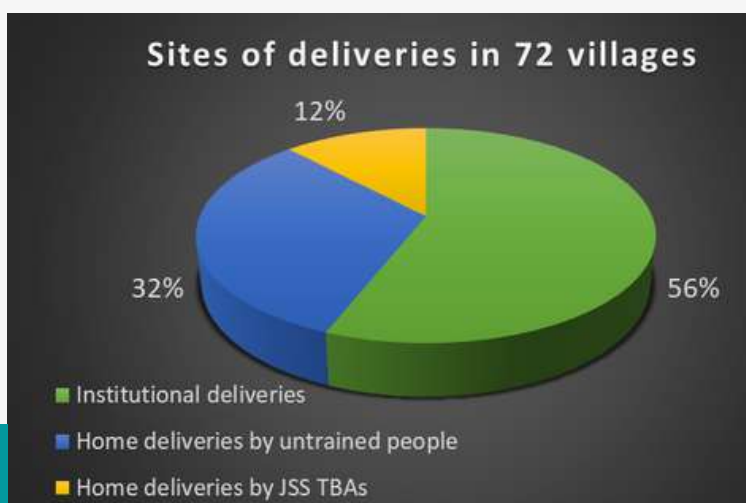


Fig. 6

There has been a steady increase in the number of institutional deliveries in the programme villages, aided both by the work of JSS staff as well as the Government programme providing incentives for institutional deliveries. However, deliveries in institutions have reduced in the last two years from 62% in 2019-20 to 56 % in 2021-22 as there were no labour room services available in most public and private hospitals during the Covid-19 pandemic. This year there were 356 (44%) home deliveries, of which 261 (73%) were conducted by untrained people including relatives, untrained Dais, and village health workers. Reaching out to these households remains a challenge, with several contributing factors. Only 95 (27%) home deliveries were conducted by JSS TBAs.

This year 68 women from programme villages, who were referred to the Ganiyari hospital, were delivered by C-sections due to complications such as prolonged labour, malpresentation, foetal distress, obstructed labour, pre-eclampsia. There were a total 22 still births during this period.

Post delivery, mother and newborn were followed up with 7 home visits by Maternal and Child Health (MCH) workers supported by the VHWs. 3509 PNC visits were done for 843 mothers.

212 children were identified with mild to severe respiratory symptoms by VHWs in programme villages. Analysis of causes of U-5 deaths shows that pre-term/low birth weight remains the predominant cause of deaths among newborns, while pneumonia seems to be the largest cause of infant deaths and overall mortality in U-5 children (see Fig. 7, 8, and 9). Other causes of death are shown in the fig below. During the reporting unfortunately there was one maternal death in Bamhni cluster following complications of sickle cell anemia.

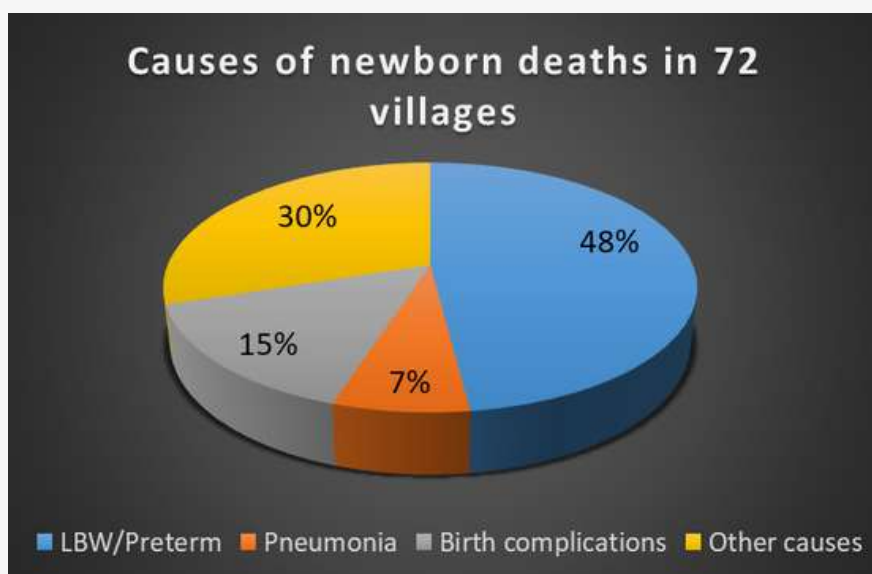


Fig. 7

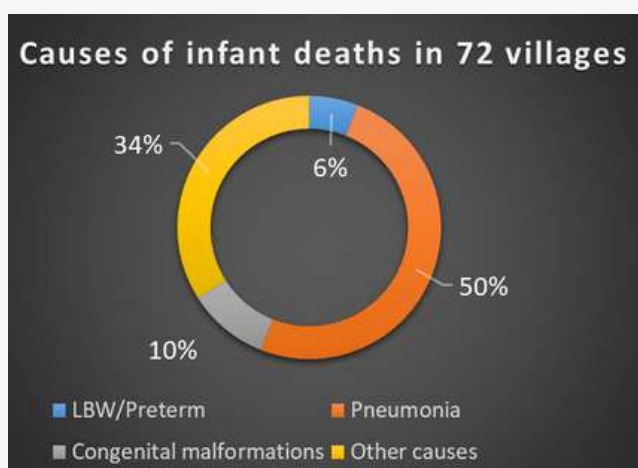


Fig. 8

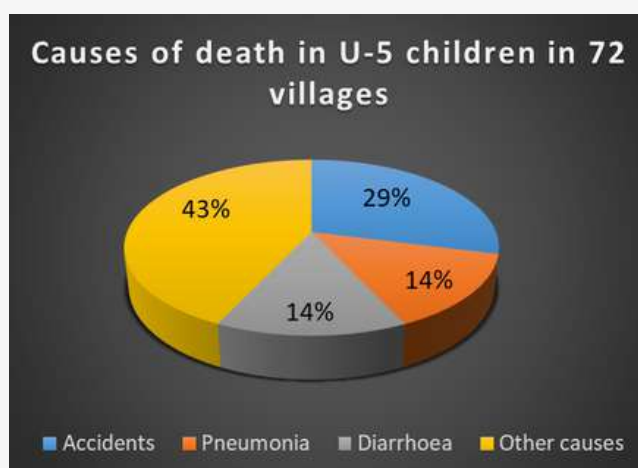


Fig. 9

CHRONIC DISEASE CARE

The community we work with has witnessed a steady rise in chronic diseases, especially non communicable diseases especially hypertension, diabetes, cancers, mental illnesses, heart diseases, COPDs, and arthritis for the past few years. In addition sickle cell disease, epilepsy, and tuberculosis are also prevalent. Currently, we have 136 live cancer patients who were diagnosed and are on treatment with us, out of which 12 were newly diagnosed this year. Out of 82 total thyroid patients seeking care from us, 9 were newly diagnosed, and 3 new asthma patients got registered with us making it a total of 154 asthma patients in our records who are on treatment.

JSS works towards the screening, prevention, and management of these chronic illnesses. We actively screen for hypertension in the population above 30 years. In women above 30 years, we screen for three major cancers (cervical, oral and breast cancers) along with diabetes and hypertension. All the remaining chronic diseases are screened opportunistically

either by VHVs or by Senior Health Workers in the field and in various clinics.

Once the chronic disease is diagnosed, every patient is followed up by Senior Health Workers either at their daily OPD, at the once-a-week doctor led mobile clinic at the subcentre, or in the disease based peer support groups who meet in the village. For those who are not able to come, home visits are paid for treatment or follow-up medication. Formats have been designed in an offline user friendly mobile app called Avni for monthly follow up of some diseases like hypertension, diabetes, epilepsy, TB and sickle cell.

All chronic disease patients are seen by a physician at the subcentre or special community clinic at a certain frequency such as monthly, once or twice a year or as needed depending on the illness. In case further investigations and work up are required, the patient is referred to the Ganiyari hospital.

DISEASE BASED PEER SUPPORT GROUPS



Patients engaged in yoga at the hypertension support group meeting

Support group meetings of NCD patients were resumed post Covid in the month of October 2021, on a monthly basis. However, patient attendance increased only gradually over the next five months. Peer support groups of patients with a similar illness living in geographic proximity meet

actively for these 5 diseases- Hypertension, Diabetes, Epilepsy, Mental Illness, and Sickle cell anaemia. They gather once a month at a fixed venue and the meeting is facilitated by one of the Senior health workers of that cluster along with a nurse who is posted at the subcentre. VHVs of the village where the meeting happens are also present in this meeting. The meeting usually lasts 2-3 hours and activities include health check up by senior health workers, drug dispensing, Yoga session, health talk, providing healthy snacks, besides experience sharing by patients.

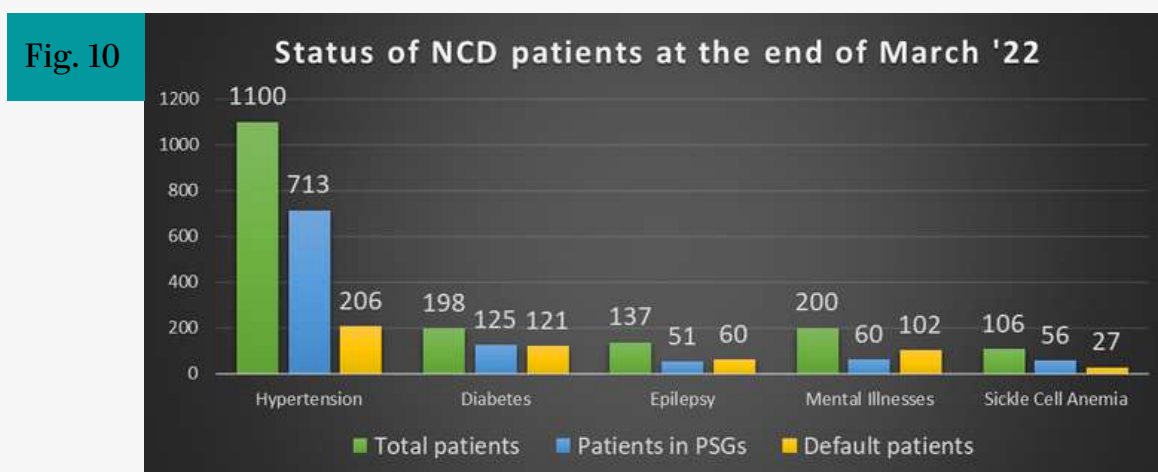


Patients engaged in games at the sickle cell anemia support group meeting

AWARENESS OF CHRONIC DISEASE

Prevention of NCDs still remains elusive as the main focus of our programme remains on early diagnosis, treatment and prevention of complications. Currently for prevention of NCDs, the village community is made aware of a healthy lifestyle and avoidance of addictions through patient education in support groups, OPDs and during the village visits of SHWs. This strategy needs to be revisited.

Fig. 10 shows the number of patients with chronic diseases in the community recorded in FY 2021-22:



THE REFERRAL CENTRE STANDS TALL

our work through a 100 bedded hospital



TIER III

At the third tier of our healthcare delivery strategy is a base hospital in Ganiyari village of Bilaspur.

The specialisations offered at the hospital include Family Medicine, Obstetrics and Gynaecology, Surgery, Paediatrics, Ophthalmology, Dental, and Ayurveda. With a well-equipped laboratory running 24*7 (including a microbio laboratory), pharmacy with a range of medicines available at a marginal cost, an in-house blood storage unit, an HDU, three operation theatres, a newborn care unit and a labour room, we have been offering advanced clinical care even in such low resource settings. The bottom-line is to help the patient access healthcare irrespective of their paying ability. Where needed, we have been able to organise proper referral for tertiary care necessary in illnesses among the poorest.

CARE THROUGH OUTPATIENT SERVICES

The referral centre in Ganiyari offered **54,422** consultations last year through its outpatient services out of which 14,044 were new patients. This is an improvement from last year's sharp decline reflecting the impact of COVID. In a place like Ganiyari, an empty hospital does not mean patients have stopped falling ill; it usually means that there is barrier to accessing care. This year, post 2nd wave, the OPD numbers have slowly limped back to normal, closing in on our pre COVID numbers.



Medical officer with a patient in OPD

Our subcentres, located in the forest and forest fringe villages, offered outpatient care through **4801** OPD consultations of which 781 sought care with us for the first time.

The care offered at the referral centre encompass specialties of Family Medicine, General Surgery, Pediatrics, Obstetrics and Gynecology, Dental health, Ophthalmology, and a special clinic for Diabetes and Leprosy care. Other specialised care, falling in the ambit of specialties which we do not have an in-house expert for, is meted out to our patients through our weekly telemedicine sessions. This includes consultations in psychiatry, infectious diseases, cardiology, and rheumatology with active contributions from specialist friends in India and abroad and institutions such as CMC, Vellore, and AIIMS, Delhi. Telemedicine not only helps fulfill the service need but also enables our doctors and care providers to widen their knowledge and skills and to keep up with newer methods and updates from the best in the field.



Counselling at the Diabetes OPD

Major illnesses seen during this year included tuberculosis, cancer, diabetes, hypertension, and illnesses requiring surgical care including congenital malformations. By following the stringent narcotics license requirements and meticulous records, we continue being one of the few centres in the state who administer morphine to our patients for **pain relief** and **palliative care**. Over the last 12 months, we administered 145 vials of injectable morphine and over 18000 tablets of different doses, including those being referred to us from the medical college



Brandishing with Hot iron rod - scars

17-year-old Mahesh (name has been changed), a resident of Madhya Pradesh, presented at our ER the day following the lifting of the state lockdown here. He had a BMI of 17kg/m², which represented an extremely poor nutritional status, and had a lean and frail body. Despite his complaints of throat pain and cough in times of COVID, our clinical team could not ignore the visible scars all over his neck. The scars were from hot iron rod branding, an ancient form of treatment which was practiced in Portugal in 1440. Iron rod branding is a process in which third degree burns are inflicted on the skin with a hot iron rod or a metallic object to employ a counter irritation phenomenon. This is widely used by faith healers in developing countries for therapeutic purposes.

Even in the 21st century with availability of advanced medical practices, many villages in MP and CG still use such horrifying therapies to cure diseases such as cold, pneumonia, hernia, and so on. The reasons are usually lack of medical facilities, lack of access to quality healthcare, and of course, illiteracy. Mahesh was receiving hot iron rod branding for hoarseness of his voice and throat pain in his village. Upon investigation, he was diagnosed with disseminated Tuberculosis at our Ganiyari centre. Additionally, he also tested positive for COVID-19 and had an Hb of 6.4, signifying severe anaemia.

He was started on ATT and admitted to our ward for his nutritional build up. While patient-centric outpatient/ambulatory care is the primary strategy for care of TB, hospitalisation is essential for severely ill patients with complications.

With COVID symptoms being deceptively similar to that of Tuberculosis (TB) in some patients, the pandemic has been a nightmare for TB patients worldwide. Not only has it derailed all the progress made towards eliminating TB by 2025, it has generated panic and fear of hospitalisation amongst people suffering from TB in the area we work in. The fear of contracting COVID, and being incarcerated upon testing positive, has made patients with cough and respiratory distress avoid hospitals. This has caused a delay in diagnosis, and eventually, a poorer outcome of the disease.

TB is still the leading cause of death from a single infectious agent and continues to be a major public health crisis in rural India, especially in settings of socio-economic deprivation. Last year, when India clamped down on a giant scale to curtail the spread of the virus, a TB patient seeking care died on his way to our facility as he was stopped by the police during the nationwide lockdown. Tuberculosis diagnosis had

declined by half last year since people were scared of visiting facilities in fear of contracting COVID. Even the government Nikshay portal showed the steep decline in the no. of TB diagnosis. Sensing the urgent need of continuing non COVID care, especially TB care in particular, we stepped out to monitor any patient with persistent fever or cough.

As per our medical records, the numbers improved slightly this year as we arranged for a special provision for TB and Cancer patients to seek immediate care despite government lockdowns and travel restrictions.

In 2021-22, 334 patients were diagnosed with Tuberculosis which is an improvement from previous year's sharp dip of 274. Out of this cohort, almost 50% had extrapulmonary Tuberculosis. Additionally, a number of these patients had associated Diabetes, and a handful even had HIV which increases the risk of the disease to an extreme. The BMI numbers, though improved from an average of 13, is still quite low at 17.

CANCER



Patient with oral cancer (pre op)

We continue to see a high number of Cancer patients, one of the most prevalent serious diseases with a common characteristic of uncontrolled cell multiplication and spread to local area and distant organs. The common cancers seen in this part of central India are Oral, Cervical, Breast and gastric Cancers. This is reflective of the common practice of consumption of betel nut, tobacco, and marijuana. Cancer not only affects the patient, but has a debilitating effect on the meagre finances of the family and consequently on the physical and mental health of the present and the next generation.

In the reporting period, 481 patients were newly diagnosed with Cancer. The treatment offered at JSS is comprehensive, right from making the diagnosis, to staging the disease and appropriate

multi-modal therapy as indicated. Surgery, Chemotherapy and some forms of hormonal therapy are offered at JSS, while Radiation therapy is outsourced to a charitable set up in Raipur.

In the coming year, we plan on starting a separate palliative OPD with support from our friends and colleagues at other institutes working on Cancer with marginalised population. This would also help us assess the impact of palliative care on treatment outcome and wellbeing of our Cancer patients. We are also in the process of tying up with a local hospital in Bilaspur for radiotherapy services which would reduce the indirect cost of travel and stay for our patients and offer them treatment closer to their home.

DIABETES

A chronic disease often associated with sedentary lifestyle and obesity, Diabetes is a disease of the poor in a number of low- and middle-income countries. Global numbers show that about 422 million people have diabetes which claims almost 1.6 million lives every year. Characterized by elevated blood glucose levels, diabetes can lead to severe complications over time such as damage to blood vessels, eyes, kidney, nerves, and heart. In Central India, many of our patients are non-obese and undernourished which requires us to situate diabetes in their socio-economic context to understand the proximate causes of the disease. Undernutrition combined with poor quality food intake and stress, are likely responsible.

During the reporting period 577 new patients were diagnosed with Diabetes. Proper counselling and monitoring play a crucial role in management of diabetes since there is no known cure. Owing to the high prices of the medications prescribed for diabetes, our patients, who are already stuck in a debilitating loop of poverty, are given the medicines at an extremely subsidized rate to prevent default. We have been lucky with supporters who ensure that this Diabetes care (including insulin dependent Diabetes) is made available at an extremely discounted (and where required, waived off) cost.

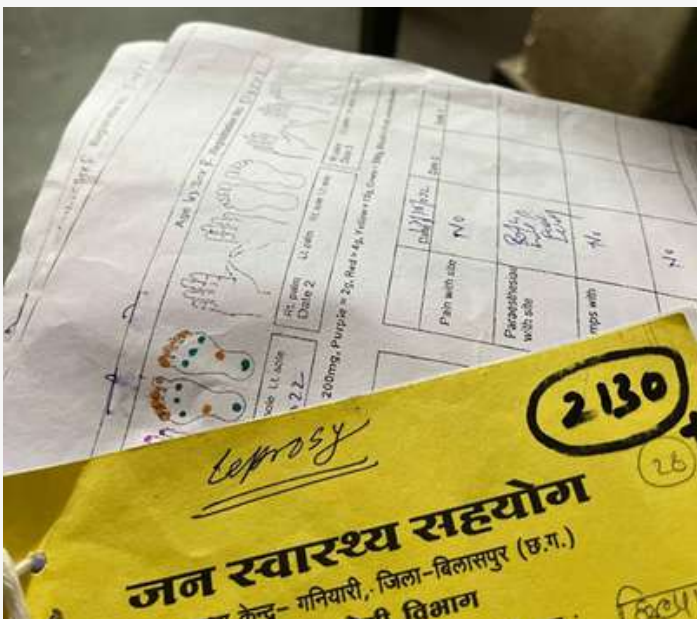


Diabetes support group

Post COVID, we have restarted our Diabetes peer support group meetings with the help of a senior physician and a very experienced social worker. Patients are offered information about the various types of Diabetes, the diet they should follow for better disease outcome, and the complications that are associated with the chronic illness. The group is a great support system for the patients who often share their experiences and give moral strength to new members in the group.

This way, monthly follow ups ensure that patients are adhering to the medicines, their sugar levels are monitored and kept in check, patients exercise adequately and a nutritious diet is being followed at home.

LEPROSY



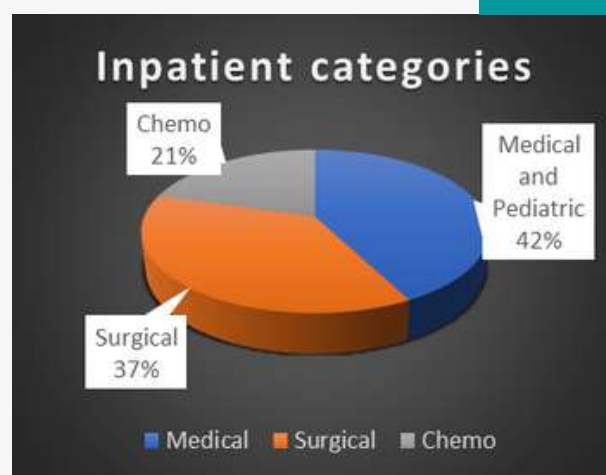
Despite the narrative that leprosy has been eliminated, we still see a fair number of leprosy patients seeking care at JSS. In the reporting period, 78 new patients were diagnosed with the disease and regular follow up sessions took place. The deformities associated with stigma; leprosy continues to ravage the lives of these poor people who are often ostracised by their own family. We take pride in the fact that with the modified drug regimen that we follow at JSS (daily Rifampicin and Clofazimine along with Prednisolone), the use of magic medicines like Thalidomide when required, and meticulous follow up of patients, none of our leprosy patients have suffered neurologic worsening and consequent deformities.



Fig. 11

CARE THROUGH INPATIENT SERVICES

This year, a total of **3851** patients received inpatient services at JSS referral centre out of which 42% were admitted for medical reasons (including paediatrics and obstetrics), 37% for surgical reasons, and the rest 21% to receive Chemotherapy. In late April, owing to the dire need to admit patients presenting with acute symptoms of COVID, we started a designated COVID ward. In May 2021, the hospital was going through a difficult period due to the wrath brought upon this hinterland by the 2nd wave of the pandemic. The month shows a slight



dip in the inpatient numbers; perhaps because of the intensity and severity of COVID cases we had to manage through the COVID ward with the same number of staff. However, we stood by our decision of keeping non COVID care uninterrupted.

Fig. 12

Our teams shouldered the extra responsibilities in such times of crisis with a heart full of hope and faith in our collective strength. All the units continued non COVID care just the same and the hard hits of COVID could not stop us from offering quality care to the vulnerable people.

Out of the 3851 patients seeking care through hospital admission, 3338 patients could avail the benefits of PMJAY Ayushman Bharat scheme, the flagship health scheme of the Indian Government. This has been of immense support to nonprofit institutes and small hospitals like ours who offer care to the marginalised population at a very nominal cost. Our team facilitated patients in getting their Ayushman Bharat cards made, often directly communicating with the SDM or District collector that helped achieve **87% coverage** of the inpatient and surgical costs. This has been an improvement over the 2019-20, 70% coverage of the scheme for our inpatient services. Out of all the patients who got admitted for various reasons, the male : female ratio is 4:5. This shows an **improvement in women's care seeking pattern**. However we feel the indirect costs and outpatient care costs are still quite high for many of the poor patients accessing care at JSS and we plan to study this in the coming months.

Through our 9 wards, we could offer care for illnesses such as congenital malformations, sickle cell crisis, severe anemia, TB meningitis, Diabetic foot, Renal Calculus, urethral stricture, post burn contractures, heart failure, complex connective tissue disorders, leprosy reactions and various Cancers, to name a few. Out of the 3851 inpatients, about 20% were just for Cancer. This shows the high number of Cancers detected and treated at our hospital.

SURGICAL AND OBSTETRIC CARE

Pregnancy represents a moment of celebration; however, in a rural setting such as ours, where many women require high acuity care in high-risk situations including the ability to manage complications or do a cesarian section, a pregnancy can often mean a potential death sentence. Without access to surgical services, you can find old men dying from urinary obstructive disease with sepsis and/or renal failure, complications that could have been easily prevented with a prostatectomy. It astounds us to see children and young adults sometimes face lifelong disability from easily treatable surgical conditions like burns and open fractures, or working-age persons unable to perform physical labor due to untreated hernias or large hydroceles. Thus, we believe that a health system cannot be truly considered a 'health system' without the provision of comprehensive care including surgical

services for common and yet life-threatening/disabling conditions.

Our surgical services stand out if one looks at the kind of surgeries performed especially keeping the landscape in mind where the opportunities for quality care are scarce. In a year, about 2500-3000 surgical procedures are conducted spanning various specialities (Fig. 13) out of which about 80% are major surgeries. Of these, a handful are performed out of emergent needs which shows the ease of access to such advanced level of surgical and critical care which are meted out for neglected and orphaned illnesses.

In April, when the number of COVID cases skyrocketed, we opened a dedicated COVID ward at our hospital. The state of Chhattisgarh also imposed a lockdown for a little over a month. The month of May had

the largest influx of patients seeking COVID care to our centre and we had 100% occupancy. Being one of the rare services offered in this rural landscape, our surgical care could not be stopped even during the lockdown months. Even though we did not discontinue our surgical services, we couldn't help but notice the impact of COVID on our numbers. There was a sharp dip in the number of surgeries in May not only because of travel restrictions hindering patients from coming to our centre from far flung places but also because many of the elective procedures were deferred to ensure that these patients are not exposed unnecessarily to the virus, when COVID-19 was at its peak.

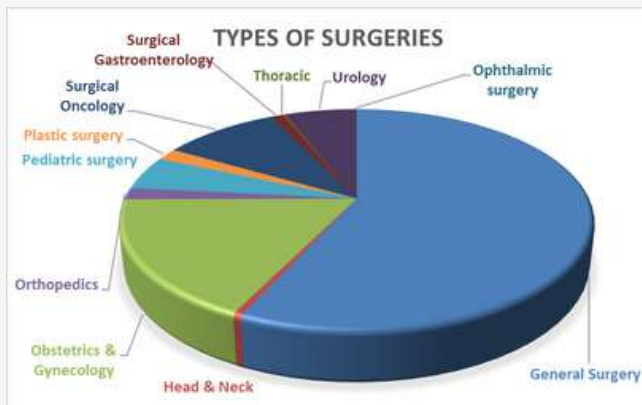


Fig. 13

surgeries were performed in an emergency setting. This shows the availability and ease of access to critical care as and when required by the community. The

surgical team of very experienced senior surgeons and an anesthetist also includes 5 surgical residents who are getting hands-on training to perform such complex cases under their guidance and mentorship. The operation theatre technicians, some of whom have over 15 years' experience at JSS, and our own trained nursing staff, ensure safe and smooth functioning in this high output atmosphere. Our team is well aware of the constant need to prioritize emergencies, semi-emergencies and care for neglected and orphaned illnesses, while adhering to standard protocols to ensure quality and safety.

13-year old Meena (name has been changed) presented to us with complaints of bleeding per rectum, and pain in her legs since she was 5 years old. She looked pale upon arrival. She had been having extreme pain in her legs and occasional abdominal pain and headaches since the beginning which prevented her from walking at all. The pain had to be managed with Tramadol, upon advice from village practitioner in Dindori, Madhya Pradesh. Ever since, she frequented the District Hospital 3 hours way from her hamlet which was the closest accessible medical facility where she was diagnosed with severe anaemia and was administered blood transfusion

During the reporting period, over 2000 patients underwent surgical procedures spanning specialisations of general surgery, obstetrics, paediatric surgery, urosurgery, gastro intestinal surgery and more. Out of this, about **77%** were **major surgeries**, and others of an intermediate level. Minor surgeries were performed on an additional 480 patients. The graph shows the surgeries we performed this year with General Surgery forming (57%) the biggest share followed by Obstetrics and Gynecology (18%). Almost 300

every other month, and sometimes twice in a month. The treatment, which was a shot in the dark, burnt a hole in the family's pocket every time, while merely providing temporary relief to the girl. She dropped out of school multiple times for her condition and was unable to walk. Besides painful defecation, she also had a history of mass removal per rectum by her mother at home after the medical colleges and district hospitals could not reach the correct diagnosis.

After spending 15 lac rupees in the last 6 years and 18 units of blood transfusions received across places ranging from local facilities to large medical colleges,

in 2021 when they heard about JSS from their neighbours in Dindori (a remote district in eastern MP from where we see a huge influx of patients), the family brought her to this rural secondary care hospital as the last resort. With a Hb of 3gm/dl, which represents extreme anemia, she was admitted to our facility, transfused blood, and built up nutritionally.

A colonoscopy was done which revealed multiple sessile polyps in the entire colon. She was diagnosed with juvenile multiple polyposis coli. Next, she was taken up for surgery (a total colectomy with ileorectal anastomosis and defunctioning loop ileostomy).

At the last follow-up three months later, there was a broad smile on her face, which made our day. Her appetite had increased, the pain crisis disappeared, and she has been going to school. This shows the huge, unmet need for accurate diagnosis and surgical care and that the expertise offered at JSS not only affects their physical well-being but also their socio-economic and emotional well-being.



CARE THROUGH EMERGENCY ROOM (ER)



Emergency care

Through our 6 bedded emergency room (ER), we could provide round the clock emergency care to the patients presenting with a range of illnesses. Currently, the ER is equipped with a team of nurses, junior and senior resident doctors with availability of bedside X-ray and ECG facilities. It is well equipped with monitors for 5 beds and one separate bed for any procedures. In the last year, we saw a total of 1915 patients coming from over 10 districts of Chhattisgarh as well as distant parts of Madhya Pradesh.

About 60% of them sought care after dark (outside regular working hours) which shows the importance of having a 24*7 casualty room for emergency cases.

About 17% of the patients had to be referred to a higher centre in Bilaspur due to unavailability of beds and required resources. Despite the constraint of limited resources in a rural tribal setting at the edge of the forest, we were able to save several lives. The conditions seen at the ER ranged from acute pain crises, respiratory failure, anxiety/panic attacks, cardiac failure, stroke, acute myocardial infarction and acute abdominal pain to trauma due to RTA, electrocution, burns, neonatal respiratory distress, sepsis, epileptic seizures, poisoning, animal bites and snake bites.

Whether there are patients requiring paracetamol tablets or those requiring 7 cycles of relentless CPR, our designated doctors and nurses are at

the ER round the clock to ensure immediate and appropriate care to patients presenting at our hospital. Monsoons see the highest influx of patients after dark due to cases of snake bites. This year, 137 patients presented with snake, scorpion, and animal bites; thanks to our HDU and an equipped care team always on their toes at the ER that we could provide immediate care including ventilation to those in need



WHAT A RURAL HDU CAN DO....

How often do you hear about a young boy dying of a snake bite in your neighbourhood?

For us, this is not uncommon. The villages we work in are forest and forest fringe, many of them located in the core zone of the Achanakmar Tiger Reserve. This difficult terrain with its associated regulations denies them even basic amenities like electricity and proper road or transport facilities.

16 year old Manoj (name changed) was just back from the field late in the evening and resting on the front porch of their thatched single room house. It's a common sight in the villages because of the heat or absence of electricity most of the time. Around 8 pm, exhausted and half asleep from the intensive agricultural work, he felt a sting on his right foot followed by a tingling numbness. Upon informing his grandmother, who happens to be one of our VHWs, he was brought to our Shivterai subcentre without delay. With years of training, our karyakarta didi could tell a case of snake bite with fair confidence. It was a common Krait, one of the most poisonous snakes and

cause of death in this area. He was administered the anti-snake venom by our SHW at the subcentre and further referred to our Ganiyari hospital. Within just 40 minutes, our ambulance got him here, he was put on a ventilator support, and he required ICU care for 2 days. On the fourth day, he was well and ready for discharge!



Ventilator services at the HDU

This is the benefit of being able to seek advanced care in the golden hour by virtue of having a rural ICU within reach. Statistically, the population most susceptible to such life threatening dangers every day of their lives is the one living in rural pockets, below the poverty line. Hospital stays vary between 2-30 days, reasons for mortality are often acute renal failure, respiratory failure, sepsis, uncontrolled bleeding, severe head injuries and others. The monsoons bring major challenges- be it an accidental step on a common Krait while returning from paddy fields or the swollen seasonal rivers that are difficult to cross on foot by sick patients who then need to be carried on a cot by four people.

Because of the sheer deficiency of facilities nearby which could offer immediate care, we try to close the critical care gap with the help of our ICU. Every month, about 20 patients merit admission to ICU with problems peculiar to rural poor- snake bites, scorpion bites, poisonings, sepsis and organ failure etc. All this care is provided for, in a non-threatening environment without the bells and whistles typical of an urban ICU.

This year, equipped with 7 functional ventilators, we could offer care to patients requiring critical care, both covid and non-covid. We saw a wide variety of cases from adults, paediatric, obstetric, medical and surgical specialities. In the reporting period, 233 patients were admitted to the ICU. Ventilator support was given to 65 patients. Our nursing team has been crucial in running the intensive care ward. They have been doubling up in multiple roles as respiratory therapists, physical therapists, ventilator assistants and ICU technicians. Patients presenting with snake bites/animal bites who required critical care could be saved when brought on time. Of the 233 patients, 140 patients improved significantly and were transferred to the general ward from the ICU and 19 were discharged from the ICU. 10 of our patients, who did not require ventilation, and 38 on ventilator support, lost their lives at the ICU due to the criticality of their illnesses. This pains us and in the coming years, we would like to focus on improving our critical care unit with better skills and more advanced resources while generating awareness on the importance of seeking timely care to reduce this high rate of misfortune.

A SENIOR RESIDENT SPEAKS...

The availability of intensive care units (ICU) and high dependency units (HDU) is an integral part in providing quality healthcare services to a community. While more than 65% of Indian population reside in rural areas, Indian health infrastructure is heavily skewed in favor of urban areas. This deprivation becomes even more evident as India has only about 3.2 beds in government hospitals for every 10,000 population and 2.5 ICU beds per 100,000, which is well below global standards. The available resources for rural Indians are hence very limited and invaluable. It is not uncommon for rural communities to have suffered and lost loved ones because of this Inequitable distribution. I remember the death of a young girl after snake bite due to lack of intensive care and mechanical ventilation in the district hospital, where I was born and brought up. The changing dynamics of Indian healthcare delivery however had contributed little to mitigating this disparity in available resources in rural and urban settings.



Working in JSS, we have been fortunate to use ICU care for our patients when needed and help them benefit from it. The type of patients who require this intensive care in our rural hospital include post-operative patients requiring close monitoring and supportive ventilation measures, patients with complicated medical illnesses, sick newborns, and patients with poisoning. It is practically impossible to provide high quality surgical care, if we don't have access to high dependency unit or intensive care units. This is even more true for rural population, whose condition is often complicated by advanced disease and malnutrition. Patients with uncontrolled or advanced medical illnesses like heart diseases, stroke, respiratory illnesses etc. require all possible supportive measures when their organs are threatened or start shutting down, veering towards death. For patients with poisoning, as with snake bite, which we commonly encounter here or pesticide exposure, accidental or otherwise, we are greatly dependent on advanced life care measures. Snake bite patients, once they receive the necessary anti-venom and are otherwise healthy, shouldn't end up as a fatality, for that we have learnt to save such lives a long time back. Patients who show weakness of their muscles just need the mechanical ventilator support to tide over this crisis. Mechanical ventilation, a day or two, sometimes even for a few hours, usually suffices. We are proud to be able to provide this care for our patients. Similarly, newborns, who have had a difficult birth and asphyxia, sepsis, and some following surgery for congenital malformations such as exomphalos major, diaphragmatic hernia or esophageal atresia, are other beneficiaries of good ICU care. Our ability to save preterm babies have greatly improved compared to the past, though we still lag behind many western countries. ICU stays may not be a guarantee towards survival, but lack of it is sure death for these babies. We have often been pleasantly surprised by the resilience in many such children who fight their way back to life once we can provide the necessary support.

One of the joys of ICU care teams in rural India is knowing that such a small team have saved a life that would have been lost if not for them, because compared to metropolitan cities and large hospitals, who have much larger and diverse teams of specialists and supporting staffs where individual efforts may be less evident, service undertaken by each at a rural ICU is significant and transformative. That may also a source for despair at times of death of a patient, since we are likely to have committed ourselves to saving a life.

AYURVEDA SERVICES



Haridra Khand in the making

Additionally, we often see patients prefer Ayurveda for common ailments like common cold, sinusitis, and persistent fever among others.

Dr. Surabhi (Ayurvedic Physician) also teaches Ayurveda to different cadres of our health work force. The department prepares, inhouse, various formulations for the treatment of many of the aforementioned health issues. The work is not just limited to treating patients at the clinic but putting an active effort into offering holistic care for the mind and body. Thus, the department is involved in:

1. Manufacturing of Ayurvedic Medicines
2. Evaluation of patients and dispensing of appropriate ayurvedic medicines
3. Conducting Yoga Aasana and Pranayama sessions for patients, students of our nursing school, and other members of our team for improving fitness

Conducting learning sessions on Ayurveda for our health workers both at the hospital and at the community. The aim is to train village health workers in using herbal medicines. They are also encouraged to plant these herbs in their backyards for ease of access.

Nature and environment are the precursors of human life. Every aspect of our life has a deep connection with natural phenomenon around us. Be it water, soil, air, plants, animals, sun, moon, stars- almost every component of nature has a bearing on our life.

On this basis, Ayurveda intends to holistically understand the science of human life and its connections with its natural surroundings. It then uses this knowledge to protect health and treat the diseased. We, at JSS, have a four person strong Ayurveda team which provides preventive and curative health services to patients at the hospital as well as in the community.

The outpatient clinic runs thrice a week on our usual OPD days. Health issues such as digestive problems, jaundice, arthritis, skin itching, urinary tract stones, anemia, abnormal vaginal discharge in women, are treated at the clinic.



Treatment using leeches



Ayurvedic medicines formulated at JSS

This year, we added two more formulations in our basket:

Prasuta laddu- Formulated with 12 traditional medicines and 6 types of dry fruits to meet nutritional requirements of postpartum women

Sougandh churn- Made from carom seed, cumin seed, cloves, and salt to discourage habits of tobacco chewing

Fig. 14 shows some of the key medicines manufactured at JSS.

This year, we increased our production of Vyaghri (used for cough and cold) to 590 kilogram despite availability of other allopathic medicines in our pharmacy. This shows the demand of the formulation which was preferred even during mild symptoms of COVID by our patients as well as our staff.

Fig. 14

Sr. No.	Name	Indications for use
1	Vyaghri Haritki Awleh	Cough
2	Saral Churn	Indigestion, Piles and aphthous ulcers
3	Triphala Churn	Indigestion
4	Guduchi Churn Satva	Fever, Jaundice, cough, cold
5	Gokshuradi Gugul	Joint Pain, Renal/ureteric/bladder calculi, Urinary Infection
6	Amrita Gugul	Joint Pain, fever
7	Triphla Gugul	Joint Pain
8	Lawangadi wati	Cold and cough
9	Amla Sukhdi	Indigestion, Vit C supplement
10	Haridrakhand	Cold, cough, Itching,
11	Ahswagandha mool churn	Immunity building & uterine tonic
12	Shatawari mool churn	Immunity building uterine tonic and milk production



Nursing students indulge in yoga

Come, join us for a session on the use of yoga and panchkarma procedure and let our specialists perform an ayurvedic process of detoxifying and purifying your body!

STORIES OF STRENGTH

our work through patient journeys



In this sea of neglect, with sheer lack of credible and accessible sources of care, we often come across challenging moments. However, it is the joy of seeing our patients get better and leave the hospital happy and healthy that keeps us motivated everyday. This section recalls few such stories of happiness from last year that we wish to recapitulate.

Tarun (name has been changed) was 2 months old when he was taken to the JSS health worker in village Chhote Barar of Semariya cluster, for respiratory distress, fever, and inconsolable crying of one day duration. The health worker started her on oxygen and referred her immediately to the JSS hospital at Ganiyari.

Treatment for pneumonia was started immediately along with supportive care. Chest xray of the baby revealed a large shadow almost obliterating the right lung field. A physician extender from JSS accompanied the baby for an urgent (outsourced)

CT scan of the chest that showed a large infected bronchogenic cyst. The baby decompensated in the next few hours and required intubation and mechanical ventilation.

Next morning, the baby underwent a thoracic surgery removing a large infected bronchogenic cyst and his right upper and middle lobes of the lung that were closely adherent to this infected cyst. The baby required two days of ICU care postoperatively and subsequent care in the ward, where he was a delight due to his playfulness. He was discharged home at two weeks.



Kanan (name has been changed) was born a month ago at Allahabad, where his parents had migrated a few months ago to labour at the brick kilns. He had constipation since birth, having passed his first meconium on third day of life.

His progressive abdominal distension worried the parents who admitted the baby to a private nursing home in Allahabad. They spent all their earnings and loans (nearly Rs 50000) and then decided to return to their native village near Bilaspur (Masturi). Here they borrowed again to seek treatment at two different hospitals. At this second hospital they were asked to arrange for Rs 80000 for a proposed surgical intervention.

By then, they had already spent over a lakh rupees, were in debt and the baby seemed hopelessly ill and moribund. It was then that someone suggested visiting Ganiyari once.

At JSS, the baby weighed 400 gm less than his birth weight at one month age. Treatment was begun immediately while our social worker assisted him in getting his AB PMJAY card made. A diagnosis of Hirschsprungs disease (congenital aganglioneurosis) with severe wasting was made. His surgery and treatment at JSS did not cost them a single paisa and the baby is doing well having undergone his definitive surgery (Duhamel's pull through) at 8 months age when he weighed 7 kg.



Chhavi (name has been changed) at one and a half months' age, presented to the Emergency room at JSS, with respiratory distress since birth, which had worsened in last 24 hours. The parents travelled over 180 km to reach Ganiyari. Chest xray showed herniation of her bowel loops into the left side of her chest cavity. After initial stabilization, surgery was performed for a left sided congenital diaphragmatic hernia.

At the time of the operation done via the abdominal route, the left lobe of her liver, her spleen, sigmoid colon, entire gut including the stomach were occupying the left chest cavity, having herniated through a large defect in her left side diaphragm (a muscular septum separating the lungs from the abdominal contents). The misplaced contents were relocated in the abdomen, associated malrotation of gut was corrected and the defect in diaphragm repaired.

The baby required ventilatory support for 48 hours. On the 5th post-operative day, she developed features of peritonitis, secondary to a small intestinal perforation. This required another operation, in addition to one week of total parenteral nutrition and intensive care.

Though the baby was discharged fully well and feeding normally after 3 weeks in hospital, without the family having to pay a rupee for the care of the little one, the process took a toll on the already estranged relations between her parents. These are often the unfortunate barriers we face while providing care, but we strive to understand their social contexts, and personal challenges while offering treatment. This is a photo of the baby on her follow-up visit with her mother and smiley sisters.



HEALTH SYSTEM STRENGTHENING

our work with the government



INITIATIVES IN MADHYA PRADESH

The referral centre in Ganiyari has a fairly large share of patients coming from far flung places of MP for minor to major health issues. People travel for about 300kms to seek care with us. When we assessed the reason behind the huge influx of patients especially from the eastern tribal belt of MP, we recognized the lack of credible public health facilities there. These poverty stricken areas, where people are dependent on agriculture and forest produce, mostly have access to government

facilities which lack medical supplies or trained personnel essential to deliver quality care. This led us to work towards strengthening the public health system in order to close the care gap. This would in addition reduce the collateral financial and social cost the people have to bear in seeking care so far away from their home.

From 2016, we started a health system strengthening programme in 6 districts of Madhya Pradesh in collaboration with National Health Mission and the National Health Systems Resource Centre. Our work is spread across Anuppur, Shahdol, Dindori, Mandla, Umaria, and Sidhi. The work encompasses training and mentoring different cadres of health workers in the public health system.

IGUNATMAC

Maternal health, one of the most important aspect of a health system, is the starting point of our health system strengthening work. The iGunatmac intervention, in 6 districts of eastern MP, is focused on District Hospitals and CHCs (a total of 18 facilities) whereby we conduct various activities to improve the quality of services for the patients. Thus, though the direct beneficiaries of the intervention are the government health cadres of DH and CHCs, it benefits the larger masses who seek care at these facilities. This way, we can reach more people while strengthening the public health system.

The following strategies are used to reach our goal of drastically reducing maternal and child mortality:

1. **Training on Intrapartum and the postpartum period (Dakshata):** This is 3-day capsular training developed for labour room staff by the Govt. of India. The following strategies are used for its rollout -
 - a. Master Trainer ToT: in collaboration with Regional Health and Family welfare training centres. 5 ToTs were carried out last year, where 92 master trainers from across the state got trained.
 - b. District Level Training: conducted by Master Trainers and facilitated by the igunatmac project team of JSS. 4 Dakshta trainings with 63 participants were facilitated last year
 - c. Monthly online revision sessions on the evidence-based labour room practices as per Dakshta guidelines, carried out by JSS clinical consultants



OSCE assessment at DH Shahdol
supported by JSS team

2. Training on Quality topics

(online): This involves basics of quality management, how to use quality tools and regularly reviewing one's work. This is carried out on a monthly basis.

3. **Mentoring:** JSS teams visit respective facilities at least once in 2 months to carry supportive supervision around the learning in the above-mentioned trainings. This involves informal discussions, hands-on training, OSCEs and regular assessments. This also involves regular reporting to facility incharges and CMHO and collector. A total of 284 days of visits were made to the facilities during the year 2021-22.

4. Supporting selected facilities in **quality certification of labour rooms under Laqshya process**: Apart from regular assessments and training and mentoring on clinical and quality topics, JSS teams also facilitated the LaQshya process and supported 4 state-level assessment for CHCs (2 CHCs in Sidhi and 2 In Shahdol) and one national level assessment of District hospital. The labour room of DH Umaria got certified at the national level. With this achievement, all the six labour rooms in District Hospitals in intervention areas have been certified for LaQshya at the National level.



PHC Karwahi visit



Dakshata training at Sidhi (2nd-5th March 2022)

PUSHPRAJGARH HEALTH AND NUTRITION INITIATIVE

This intervention is based in 74 tribal dominant villages in Pushprajgarh block of Anuppur District. The public facilities we cover through this programme are 1 CHC, 1 PHC, and 12 SHCs/HWCs and 84 Aganwadi Kendras. ASHA, ANM, CHO and AWWs are the direct beneficiaries of this work leading to improved primary health care for the community. The successes of our grassroots work inspired public health officials to work on strengthening CPHC with the support of JSS. This domain requires intensive involvement with the community and care providers.

The PHNI intervention has the following strategies to improve the landscape of primary health in this deprived block:

1. **Training and Mentoring of ASHA and ASHA facilitators:** These are conducted in a 1.5-day residential training involving topics from the ASHA induction curriculum. These are delivered in a participatory manner. There are 90 ASHA workers and 8 ASHA facilitators who are benefitting from these trainings. Last year due to the COVID outbreak training was primarily focused on COVID. ASHA trainers from the block visit the villages to mentor ASHA workers. They are encouraged to utilize the funds provided to VHSNCs to develop their Arogya Kendras in the Aganwadi. Administrative hurdles are mitigated with respective officials. The entire process is facilitated by the JSS team.

2. **Infrastructure improvement at SHCs/HWCs:** This was carried out with the help of district administration. This involved ensuring the availability of water sources, electricity and access roads at SHC along with the repair and construction of residences for ANM. Out of the 12 SHCs, only 3 were functional in 2018. Now, 10 are fully functional.

3. **Training and Mentoring of ANMs:** ANMs were trained for 2 weeks in a residential training at Ganiyari hospital in 2018. Mentoring of ANMs is conducted by ANM mentors, who regularly visit VHNDs and SHCs/HWCs. 417 Supportive supervision visits were carried out last year. 24867 patients benefited from the OPD services and 416 pregnant women received delivery services at these HWCs last year. 1029 pregnant women benefited from the VHNDs last year.

4. **Yearly Orientation of AWWs** on VHNDs for improving their understanding and participation

5. **Village Meetings** for discussion around health and nutrition. This also helps to understand the challenges faced by the community. 102 community meetings were held last year

6. **Providing need-based services** by mobile fever clinics: This was especially relevant during COVID

SICKLE CELL ANEMIA CONTROL MISSION

Our Initial work under labour room quality improvement involved facilitating maternal death reviews. This helped us to understand undiagnosed deaths which were most likely due to unrecognized Sickle Cell Disease. After a small pilot, NHM was convinced of the need to work on SCD in this region. Thus, we started interventions in these 6 districts with an aim to unearth the burden of sickle cell disease, ensure counselling and treatment services for patients and strengthen public health systems for services around SCD.

The following activities are strategised to successfully combat and control sickle cell in these districts:

1. **Screening** of Pregnant women, children and family members of traits and disease. Our work is intensified in Anuppur and Dindori where our teams offer door to door screening services to pregnant women, school going and anganwadi going children, and families of screen positive pregnant women. Till March 2022, a total of 204125 persons have been screened using solubility test out of which 27003 (13.23%) have been found to be solubility positive. As per definitive test (serum electrophoresis) results, 19782 (9.69%) are sickle carriers and 2320 (1.14%) are sickle cell patients.

2. Ensuring Diagnosis of SCD in PHC/CHC/DH

- Ensuring availability of sickle cell solubility kits at PHCs, CHCs and DH via public health supplies
- Providing Low-Cost Electrophoresis apparatus from JSS to DHs and FRUs
- Development of resource manual for Lab Technicians
- Training and mentoring of Lab Technicians for carrying out solubility and Electrophoresis. 60 Lab technicians were trained during the year 2021-22. Fig 15 shows the numbers of 2021-22 for the first two strategies.

District	Screening Conducted by	Total Screening and positivity of sickle during the year 2021-22 by Govt Health Facilities and JSS teams			
		Total	Sol +ve	Disease	Carrier
Anuppur	Public Health Facilities	10955	1088	72	486
	JSS project teams	13695	3121	205	2701
Dindori	Public Health Facilities	14512	1983	141	1201
	JSS project teams	5713	1436	227	1216
Umaria	Public Health Facilities	6687	506	44	447
Mandla	Public Health Facilities	10882	1340	106	668
Sidhi	Public Health Facilities	6741	48	1	24
Shahdol	Public Health Facilities	7257	222	38	104
	Total	76442	9744 (12.75%)	834 (1.09%)	6847 (8.96%)

Fig. 15



ANC screening

3. Ensuring counselling and treatment for SCD patients via public health facilities

- Development of Doctors Manual for Management of SCD
- Training of doctors for management of SCD. 28 doctors were trained last year.
- Ensuring availability of Hydroxyurea up to PHCs level via public health supply chain
- Development of counselling booklet for a layperson.
- organisation of regular patient Support group (PSG) meetings at DH and CHCs, which serves as one-day counselling, follow-up and treatment camp for SCD patients. 30 PSG meetings were conducted last year and attended by 621 patients.
- Training and sensitization of other cadres of health workers on SCD. 52 CHOs and 31 ANMs were trained last year.

THE PHULWARI INITIATIVE

Rural crèches for children under 3



It has been consistently shown that undernutrition is the underlying cause for over 50% of the mortality in children under 5 years. When undernutrition occurs in early childhood, it also leads to poor intellectual development, which is likely to have its effect throughout one's life. Weak mothers give birth to weak children who grow up to have poor work capacity that affects their earning ability, keeping them stuck with low paid manual labour jobs and thus trapping them in a vicious cycle of poverty and ill health.

In our catchment area, both parents, in most households, go out to work during the day, leaving young children in the care of older siblings (who are kids themselves). Sometimes elderly parents who are too old to work are left to take care of the child. Even though there are many reasons for malnutrition in young children below 3, we felt that the most important cause in poor families was that there was no one available to feed the child several times during the day. Eating twice a day like adults do, is not enough for young children, who need to be fed at least five times during a day. Thus, in response to high levels of childhood malnutrition seen in this area, JSS started a crèche programme 12 years ago. After assessing its benefits, we replicated the model in Pushprajgarh block of Anuppur and Singrauli districts of MP as well.

CRÈCHE ACTIVITIES DURING SECOND AND THIRD WAVES

The activities undertaken in the programme reflect our responses to the second and third waves of the covid pandemic in the area. The creches remained physically closed till August 2021 as the second wave waned. Except in the month of May 2021 when the wave was at its peak, food was supplied to all the creche children at their homes.

Children also continued to be weighed by the creche supervisors to ascertain their growth during this period. Considering the negative impact of crèche closure, a cautious approach to re-open crèches, was taken in the month of August 2021 and continue with this during the subsequent Omicron wave. However parents were also instructed not to send their children if they had fever, cough or cold. Precautions like masking, distancing and carrying out the crèche activities in the open, were taken to prevent the spread of infection.

Regular monthly meetings with caregivers were held to appraise them about the functioning of the creche, their children's nutritional status, and discuss a topic on child health and nutrition.



Phulwari children having khitchi



Early Child Education

CHILD ENROLMENT / ATTENDANCE IN THE CRECHES

The crèche enrolment each month fluctuates based on the number of children completing three years of age who get exited from the programme and the number of new children who have reached six months of age who get enrolled.

Also, because of seasonal availability of work in the village, the families may migrate and not be present in the village (figure 16). Thus, during the agricultural season, more children are present in creches as the families return to the village and need childcare services while the parents work in the fields.

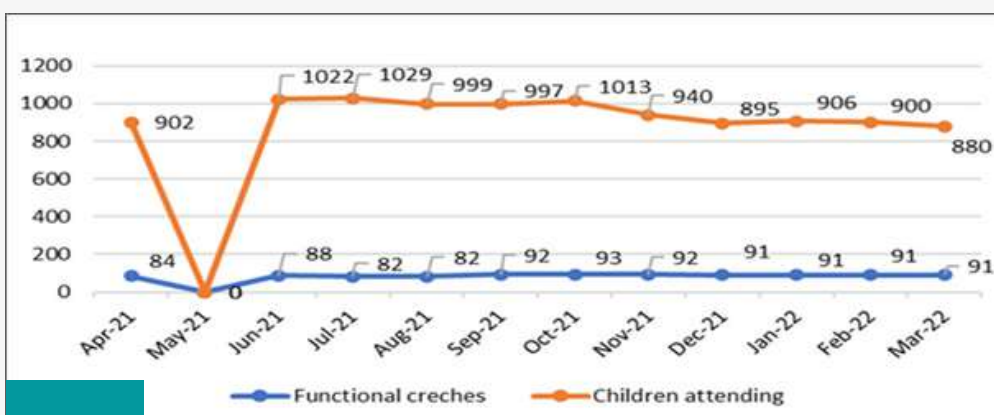


Fig. 16

NUTRITIONAL STATUS OF CHILDREN IN CRECHES

85-90% of enrolled children are weighed each month and their nutritional status is shown below in Fig. 17. The proportion of children who are underweight (low weight for age) is 38.6%. The fifth round of National Family Health Survey (NFHS-5) found 32.7% of rural under-five children to be underweight. The higher rate of malnutrition seen in the creches is because they are catering to children under 3 years of age, who have a higher chance of becoming malnourished, especially after 6 months of birth. These children need to be fed more frequently with food of softer consistency as compared to older children.

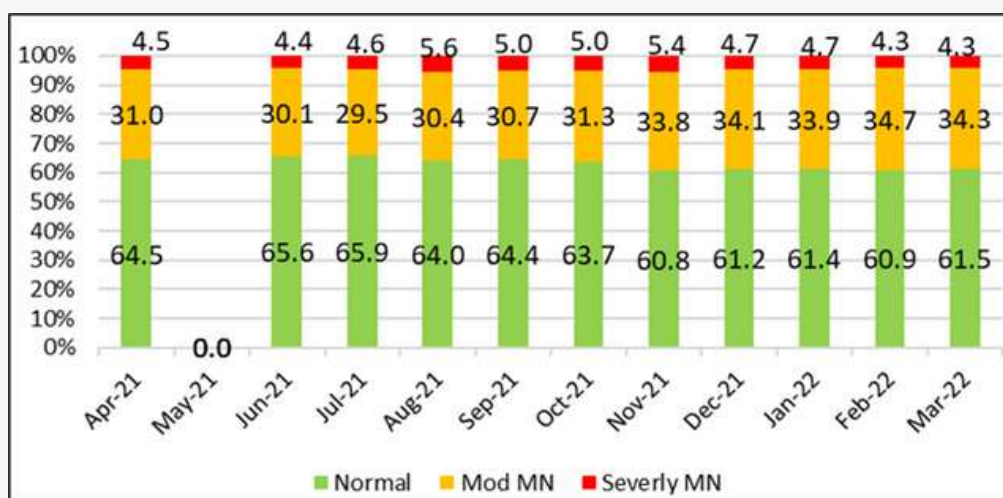


Fig. 17

It is a matter of serious concern that the proportion of malnourished children (moderate and severe) has increased by 3 percentage points over the last year. The economic hardship faced by the families, could have led to worse consequences on their nutrition, had this cushion of crèches been unavailable. We plan to study the actual impact of crèches in the coming months by studying the nutritional status of non-creche-going children with similar socio-economic background in neighbouring villages.

NUTRITIONAL STATUS OF CHILDREN WHO LEFT PHULWARIS THIS YEAR

Similar findings were seen for the 684 children who graduated from Phulwaris. 56.4% were normal, 30% were moderately malnourished and 13.4% were severely malnourished at the time of admission into Phulwaris, while at the time of exit, 53.9% were in normal grade, 34.6% were moderately malnourished and 11.6% were severely malnourished. We see an increase in malnutrition in this cohort of children. During the first and 2nd COVID waves we had to close down the Phulwaris. Family incomes had dropped with return of migrants and little work in the villages. Even though we continued to distribute food at their homes during this period, in most families it got shared among siblings. Extraordinary times need extraordinary measures, which we were unable to recognize and act upon.

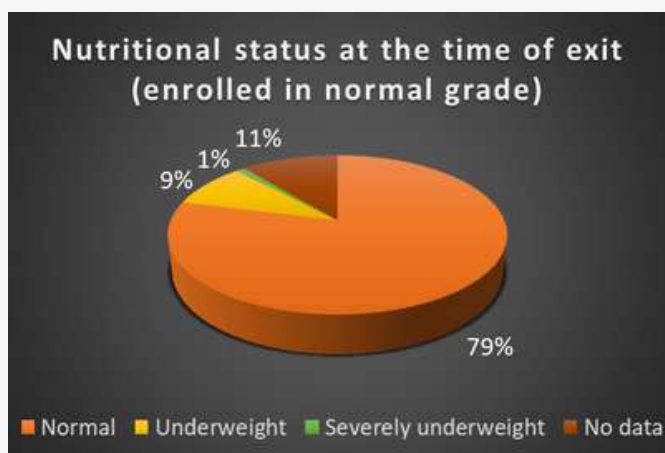


Fig. 18

See figure 18 for nutritional status at the time of exit. For children enrolled with normal grade, 79% of them remained in the same grade and 9% and 1% of them became moderately and severely underweight respectively.

For children enrolled with underweight (figure 19), 13% of them became normal at the time of exit and 69% of them remained in the same grade. 8% of them became severely underweight. Exit status is considered after spending at least 6 months in Phulwaris regularly. Growth faltering is monitored for every child and action steps are taken accordingly be it a health check-up, referrals to subcentre/ referral hospital, counselling of parents to provide extra meals before and after Phulwari hours.

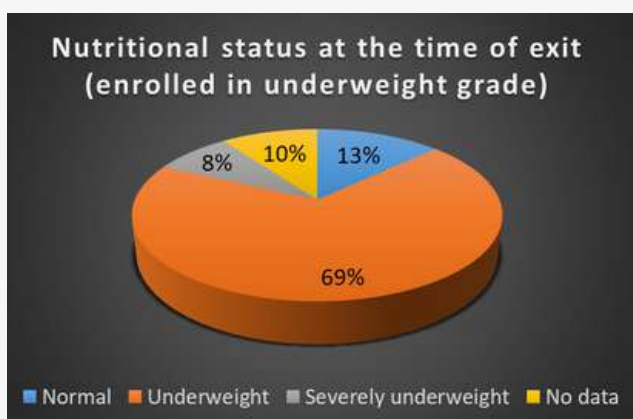


Fig. 19

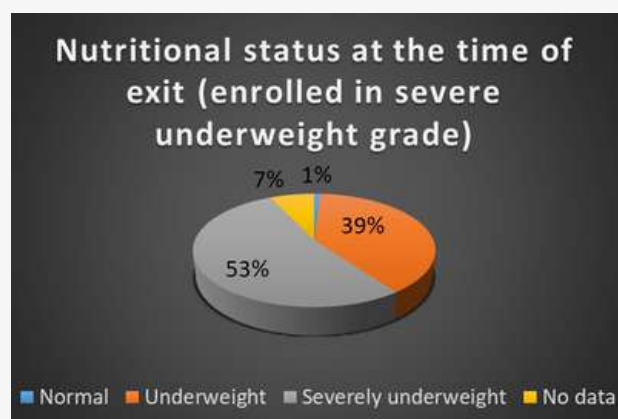


Fig. 20

For children enrolled with severe underweight (figure 18), 1% of them became normal and 7% became underweight. 39% of them remained in the same grade at the time of exit. For all the children enrolled with severe underweight, an extra meal and egg is given. More frequent health checks are done by health workers for these children and referred immediately to senior health workers or doctors at subcentre for further checks.

PHULWARIS IN PUSHPRAJGARH

Currently, there are 75 functional phulwaris in the tribal dominant block. In 2021-22, we enrolled 592 new children to our phulwaris. The average no. of children per phulwari is 16 which is slightly more than our phulwaris in Chhattisgarh. As of March 2022, 1024 children have already graduated from our phulwari centres. A total 156 meetings were held in the village with the parents of children enrolled in Phulwari centres. In each of the phulwari centres, 75 kitchen gardens were developed to offer sustainability in nutritional food intake.

SINGRAULI NUTRITION INTERVENTION

Singrauli is one of the aspirational district of Niti Ayog having poor health nutritional indicators. As per data pulled from their website, the district is on the 43rd rank in India. NFHS-5 data reveals that the number of children under 5 years of age who are stunted (height for age) are 37.3% while the same age group of children who are underweight (weight for age) are 36%. To make a comparison, in NFHS-4, the numbers were 33% and 37.5% respectively. 56.6% of under-5 children and 60% of all women age between 15-19 years are anaemic.



Phulwari Kendra in Singrauli

In order to reduce the malnutrition rates among the under-3 children this project was started in 2020 to improve the nutritional status of children. This will help reduce the incidence of Severe Acute Malnutrition (SAM) in the community and prevent morbidity and mortality related to under-nutrition in children. The project is being implemented with the support of NCL and district administration, in Chitrangi block of Singrauli district. The initial plan was to run 75 phulwaris in the 75 villages of Chitrangi block. Till date, 50 phulwaris have been made functional in 50 village.

The data collection app called AVNI became functional for the said project in Aug '21, hence, the recorded data (Fig. 21) which shows the details of children benefitting from the phulwaris, is for the period of Aug. 21 to Aug' 22.

Trainings were ongoing at the phulwaris where the women from the community are trained to run the phulwaris. Topics encompass concept of malnutrition, importance of early child education, operational aspects of a phulwari, etc. Till now, 48 phulwari workers have been trained through 6 training programmes.

Fig. 21

First Weight for age (During Enrolment)	Number	Last Weight for Age Status (August 2022)	Number	%
Normal	377	Normal	331	87.7
		Moderately Underweight	38	10.0
		Severely Underweight	8	2.1
Moderately underweight	170	Normal	59	34.7
		Moderately Underweight	88	51.7
		Severely Underweight	23	13.5
Severely Underweight	98	Normal	12	12.2
		Moderately Underweight	32	32.6
		Severely Underweight	54	8.3
Total	645		645	

SOCIAL DETERMINANTS OF ILLNESS

Our work on the social determinants of ill-health



Through our rich experience over the last 22 years, we know that at a place like ours, offering excellent clinical care is not enough to reduce the burden of the illnesses.

This part of India suffers from diseases whose true roots lie in poverty and hence are often embodiments of deprivation. Thus, it was imperative to understand the obstacles of the people in seeking care and fill those gaps with social support. Thus, besides understanding a patient's disease in their social context, we also work on the social determinants of ill-health.

AGRICULTURE AND LIVELIHOOD

As we see it in these rural communities, ill-health is linked to the problem of food availability, which is dependant on agricultural outputs among small/marginalised farmers. Hence, our intervention in agriculture was started in the year 2003, with a focus on promotion of System of Rice Intensification (SRI) technique and organic cultivation to increase yield that would ensure food security, non-toxic food and a steady income. The programme later on focused on conservation of seed varieties of rice and millets collected from the community. In this year JSS has conserved 376 varieties of rice, 18 varieties of wheat, 3 varieties of Chana, besides seeds of Kaang, Kosra, Jowar and certain vegetables.

In the programme villages, JSS has started to work intensively in agriculture practices. 20 villages have been selected and groups of farmers have been formed. A platform to share knowledge and ideas will be created in these villages. The focus will be on changing the agricultural practices which are mostly chemical farming and that too for mono-cropping. Training and workshops for interested farmers will be conducted to show and demonstrate these practices which includes organic or natural farming, organic manure, seed treatment, etc.



Since, 2019 JSS also started demonstrating Ragi cultivation during the summer season. The idea was to break the tradition of growing the second crop of rice in summer which requires more water that is scarce. Millet cultivation is not only for selling but also for domestic consumption and improving diversity in foods. This year, JSS has cultivated ragi in Ganiyari (demonstration plot) and 4 farmers from the programme villages have cultivated ragi on their lands. Some farmers have been called to see the ragi cultivation in Ganiyari.



Through these activities, we aim to make farming communities self-sufficient to be able to grow nutritious food locally with minimum market inputs. A platform called GARIMA (Gramin Atmanirbhar Rozgari Manch) towards sustainable 'swaraj' has been initiated. The plan is to process and add value to agricultural produce locally along with marketing. This will promote and increase local consumption.

SELF HELP GROUPS

JSS supported the formation of women's self-help groups (SHG) with the objective of empowering rural and tribal women. As of March 2022 we have 75 functional SHGs with 861 women from 38 villages. The objective of these SHGs is to organise them, improve their economic and social status as well as to make them aware of their health and entitlements and rights. These groups have given these women an identity in the community.

JSS facilitates these groups to avail various state and central government schemes to support their livelihood activities. SHGs are involved in sanitary napkin making, detergent and soap making, animal husbandry, forest produce collection, sattu making, vegetable cultivation, etc. A total of 27 SHGs are associated with livelihood activities. 72 SHGs are registered as per the NRLM criteria. During the COVID pandemic in the past year, many SHG members supported village health workers as COVID volunteers. They were trained by JSS on COVID appropriate behaviour.



ANIMAL HEALTH



Veterinary doctor performs surgery

Cattle are an integral part of farming and the economy of these communities. Availability of animal health services in forest villages is inadequate. JSS has trained persons from the community as Animal Health Workers (AHW) workers who are supported by a supervisor and a veterinary surgeon. Each AHW treats an average of 3-6 cases daily, and 4326 animals were treated in 2021-22. The majority include bulls, goats and cows.

Other animals included buffaloes, hens, dogs, and pigs. A total of 4162 animals were cured or improved, while 128 animals died in this period. Common cases that we encountered on the field were flu in animals, diarrhea, pneumonia, hemoprotezoal infections, metabolic disorders, reproductive problems in female animals, among others. Hemoprotezoal diseases, heavy tick infestation, renal and hepatic failures, acute poisoning, and advanced cases of acute diarrhea and pneumonia in newborns are usual causes for mortality. 166 animals were also treated in ambulatory clinics or in the nearby villages by our veterinary doctor, which includes serious cases and surgeries.

BATTLING THE SECOND WAVE

Our response to the brutal second wave of COVID-19



The premature celebration of tactical management of COVID through an unprecedented nationwide lockdown in 2020 after a decline in the number of COVID cases was soon followed by the dread that swept over the nation in the form of the second wave of the pandemic. This time, the pandemic pervaded the nation way beyond urban agglomerations and crept into rural India which houses over half a billion population. For the hinterland of Chhattisgarh where we work, which was spared of the first wave almost unscathed, the second wave was ruthless and overwhelming. The narratives from the peripheries were quite contradictory to the claims made at the national capital about the availability of tests, safe quarantine centres, fundamental resources, and vaccines.

THE HOSPITAL COMES TO AID

April, 2021 saw the highest single day spike with 15256 new COVID-19 cases in Chhattisgarh.

With the rising number of fatalities, and the consistent surge in the number of positive patients, we decided to take up intensive COVID care duty at our referral centre in Ganiyari to cater to the hypoxemic underserved population who merited hospital admission. They had nowhere else to go as most facilities were urban and brimming with extremely critical patients from urban areas. We opened a dedicated COVID ward at our centre with availability of Oxygen support as we had been stabilising a lot of critical patients since the onset of COVID in our triaging area. With regular training, planning, and deciding on protocols, we set up a dedicated team of nurses, doctors, and other important members in support functions ready to face the challenges of round the clock duties to save lives. At the peak of the COVID surge in 2021, we were running 25 COVID beds including 6 HDU beds and 5 ER beds.



Additionally, we took extra precautions while performing surgeries for patients who were COVID positive but required immediate and critical surgical interventions such as Lobectomy, Cystoprostatectomy, Sigmoid Loop Colostomy, Nephrolithotomy, Hip Fracture Repair, Knee Arthrotomy, Triple Bypass for biliary obstruction etc. Special care was also taken for deliveries of pregnant COVID positive patients by setting up a separate labour room.

Besides the COVID ward, our separate COVID OPD called Charjhaniya (for COVID screening/symptomatic patients, and a 5 bedded respiratory Emergency Room (ER) helped reduce pressure on the district facilities and made sure that hypoxic patients are started on immediate care and are equipped with the required medication and Oxygen while being taken to the designated COVID care facilities.

After October 2021, when the brutality of the 2nd wave was a little less overwhelming, we launched a COVID report documenting how we united to face the battle against COVID with a COVID ward.

Drop us a mail if you wish to read more about it and we shall make sure that a copy of the report reaches you at the earliest!

COVID IN THE COMMUNITY

We continued COVID & COVID vaccination-related activities in the programme villages namely awareness on vaccination and appropriate COVID behaviour, fever surveillance by VHWs in the village, monitoring of fever patients up to 10 days, referral of moderate and severe cases to referral centre, running fever OPD at subcentre, mobilization for COVID vaccination, supporting government vaccination team to conduct vaccination camps in the villages. In this period we also supported COVID vaccination in some of the non-programme villages on the request of additional district collector of Bilaspur district and also conducted the training of the government team for the same.



Vaccination awareness

During the 2nd COVID wave which began in the month of April 2021, a total of 4367 patients with fever were identified and followed up on by the village health workers. Of these, 187 patients (4.3%) were referred to hospitals with danger signs. A total of 43 persons (<1% of fever patients) died due to COVID during this period- 26 at home after refusing to come to hospital, 1 on the way to hospital, and 7 in the hospital.

Daily monitoring of fever cases in the village helped in picking up early drops in oxygen saturation, or those with breathing difficulty, and hence early referral was possible.

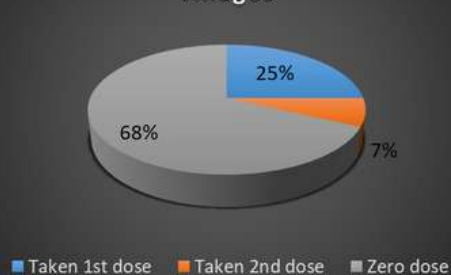
We resumed almost all our field activities after the 2nd COVID wave such as our creches, peer support group meetings, SHG meetings, etc. During the 3rd wave, we did not stop any field activity.

After the 2nd COVID wave, we started activities related to COVID vaccination rigorously. Awareness material has been developed, printed and all the VHWs and field supervisors were trained for the same. Most of the mobilization required for vaccination was done by VHWs and field supervisors.

JSS also supported the government vaccination team in conducting vaccination camps in the villages. We did the baseline in the month of May-June to know the status of vaccination in the programme villages. At the end of March, 2022, a total of 86.8% of above 18 years population took the first dose and 37.5% took the second dose of COVID vaccine. Only 1.2% eligible population took booster dose. Vaccination for below 18 years is happening at a very slow pace. A total of 1091 children took the first dose and 982 children took the 2nd dose. There was a problem of availability of vaccines throughout the State which affected the vaccination drive.

Initially there was strong reluctance due to misconceptions in the community about vaccination, but after the awareness activities most people were ready for vaccination.

Baseline vaccination status in 72 villages



Vaccination status by end of March '22 in 72 villages



INITIATIVES IN MADHYA PRADESH DURING COVID

FOOD DISTRIBUTION

Our teams in eastern Madhya Pradesh have also been actively involved in community initiatives to contain the spread of the virus. In light of the lockdown, loss of livelihood, scarcity of resources, and the consequent food insecurities, JSS engaged in identifying high risk families, in Pushprajgarh block of Anuppur district, who were strapped for food and distributed dry ration to them. With the help of our volunteers and ASHAs, we could help 1016 families in Pushprajgarh, who were identified to be suffering from dire food insecurity, with ration kits. The people were also facilitated to get their necessary documents made to get supplies from PDS or work through MNREGA. We also distributed masks while generating awareness about COVID.

VACCINATION AWARENESS

Our teams also conducted vaccination awareness sessions in villages to encourage people who were not vaccinated, to clear misconceptions, and discuss the benefits of vaccination. Village meetings were held with ASHAs, ANMs, Anganwadi workers, and Gram Panchayat Sarpanch-Secretary. During the meeting, fear around post-vaccination-problems like pain, fever, and fatigue were discussed. Along with this, the issues around not getting the vaccination certificate was also brought up by the community.

In view of this, the work of printing and distributing the certificates in the villages were also taken up. In coordination with the local administration, COVID protection kits were distributed to ASHAs/AWWs in all the blocks of Anuppur and Dindori districts.

FEVER CLINICS

During COVID, health issues like colds and fever emerged rapidly from village to village. People in the community who live in the district's most distant areas have several challenges in receiving appropriate health care. Our teams including ANM mentors decided to deliver healthcare services at the doorstep in the village. As per the plan, a team started conducting fever clinics in the village.



Mobile fever clinic

Approximately 8500 individuals were educated about COVID prevention and vaccination at a Mobile Fever Clinic. In addition, 4710 people received primary treatment out of which 210 people were screened after showing symptoms of severe cough and fever. Those who were provided medications were followed up on a regular basis. There were 19 critical cases referred to the District Hospital and 3 to the referral centre in Ganiyari.

TRAINING, RESEARCH, AND KNOWLEDGE DISSEMINATION

Efforts towards developing JSS as a resource centre



A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame

~ Rabindranath Tagore

We felt the need to consolidate our work and learning in such a way that issues of rural people's health are addressed effectively. Through a 3 pronged strategy of training, research, and documentation, with constant inputs from our community health programme which acts as a fountainhead of ideas, we wish to ensure that our institution is fostered and strengthened so that it can allow people interested in health care of the disadvantaged find a 'home' to learn, share, discuss doubts and fears, develop career plans and form a network of skilled community of advocates of rural health care.

Over the past few years, we have been asked to act as a Technical Resource Group for the Government of Chhattisgarh and Madhya Pradesh, the Planning Commission, the Mission Steering Group of the National Health Mission, the National Asha Mentoring Group, the High-level Expert Group for Universal Health Coverage and several other agencies and glad to make valuable contribution to state and national level health care systems.

TRAINING OUR PEOPLE

ON WE GO WITH ACADEMICS...

While it's important to know the ground problems intimately and be close to the people, it is also imperative to have a bigger picture in mind and an intellectual framework to ground one's practice. We at JSS are proud to be at an intersection of these two where we combine our academic rigor with hands-on work by drawing on professional expertise and a culture of evidence and broader perspectives while being thoroughly grounded.

Thus, we have been running an in-house nursing school for tribal and Dalit girls, offering both ANM and GNM courses to build our own army of health professionals. This year too, JSS school of nursing continued training tribal and dalit girls at zero cost to them, utilising a scheme of the Tribal Welfare Department. We were pushed to upgrade our existing GNM course to BSc nursing as the former is likely to be stopped altogether by the government. The permission by the CG nursing council came through in October 2021, by which time the mandatory registration with the

Ayush University could not be done as the deadline had passed four months ago. By virtue of this upgradation, we were barred from GNM admission process as well. Hence this year saw no new admissions to the school, which was a huge disappointment.



Nursing class ongoing



NICU training

On another note, as part of our plans to upgrade Newborn care at JSS, six of our nurses went for a two week residential training for NICU to MGIMS, Sewagram, Wardha. They shared their learnings with the other clinical staff at JSS, improving our preparedness for care of sick newborns.

Apart from nursing, we run a post-graduate degree in Family Medicine, the future bedrock of health care provision, as also in General Surgery to make a troop of truly

"general surgeons" with the skills to manage and intervene in the myriad health challenges that our people face. Such in-depth learning, both through academic classes and presentations every alternate day, workshops, and through hands-on practice by serving the people with compassion, is truly a necessity.

This year, another batch of DNB family medicine post-graduates graduated with flying colours. They have both chosen to use the skills earned here to serve through the public health system.



Graduation celebration

The second and third years of postgraduate training in general surgery, affiliated with the National Board of Examinations, continued in 2021-22. The first two candidates successfully defended their research (dissertation) and completed their theory exams held at the national level. It was heartening to see how all resident doctors accepted their dual role as physicians caring for COVID patients while shouldering the tasks of a surgical resident during the pandemic unflinchingly and with full responsibility.



Surgical residents in action

EXTRAMURIAL AND IN-HOUSE TRAINING

In our attempt to develop ourselves as a research centre, we continued conducting extramural trainings for external world intermittently and regular training sessions for our health cadres.

Our nurses, community health workers, trained birth attendants, and other allied professionals received monthly training sessions by in-house experts. This helps in revising as well as updating the existing knowledge base. The forum also serves as an experience sharing platform to discuss challenges from the field and how to mitigate them.



Dai training

Apart from our regular in-house training of our staff, our teams were actively engaged in the training of frontline workers in the public health system- ANMs, ASHAs and CHOs, both during COVID (on fever and COVID management) and in maternal health. The Health systems strengthening teams continued to support Dakshata trainings at the district level in eastern MP as part of Iguratmac and for screening, identification, and management of sickle cell disease.

We were also involved in training and helping in the establishment of COVID care centres at the block level in Bilaspur district in CG and Dindori and Anuppur districts in MP.

We are also running a Talk Epilepsy project in collaboration with ROW Foundation in certain parts of Rajasthan and Chhattisgarh where we offer clinical services to patients with epilepsy, work with select facilities in making essential equipment available, conduct awareness sessions in schools, and train Medical Officers and Community Health Officers on identification and diagnosis, myth breaking, and treatment of epilepsy.

RESEARCH STUDIES

This year, we documented, analysed and wrote up our experiences of catering to the healthcare needs of poor, rural communities in CG during the peak of the second wave of COVID, which has been submitted to a peer reviewed journal.

Similarly we have collated, analysed, and reflected on our work on phulwaris in Pushprajgarh block of Anuppur district as well as the work on screening, diagnosis, and management of Sickle cell disease through and while strengthening the public health system in six districts of eastern MP. Both these write ups have also been submitted to peer reviewed journals.

A descriptive prospective study on empyema thoracis at the JSS hospital was undertaken by one of our resident doctors. A total of 102 patients were included among whom there was a male predominance, and more adults than children with empyema. 6 patients improved on conservative treatment with antibiotics and aspiration. Of the 94 who required additional intercostal drainage, 41 required decortication surgery, while an Eloesser's flap was done in five. Two patients were lost to follow up. There was an association of empyema with malnutrition, as also association of moderate and severe anemia with non-tubercular empyema. The common presenting features of tubercular and non-tubercular empyemas and their modalities of management were observed and discussed in this group.

Another prospective study documented the spectrum of medically complicated pregnancies and their outcomes at our hospital. Medical complications were seen in 22.5% of the total pregnancies observed (400). The common medical complications (with their frequency) were anemia (19.8%), PIH (44%), UTI (12.3%), GDM (5.5%), Sickle cell disease (4.8 %), thyroid disorders (1.5%), jaundice (1%), HELLP syndrome (0.5%) and TB (0.5%). There was one maternal death in a patient with progressive HELLP. Perinatal mortality was 12.5%, and most of them were in women with PIH and those with anemia, who also gave birth to most of the LBW babies.

Another study undertaken by one of our resident doctors in collaboration with the department of Pathology, AIIMS, Raipur prospectively looked at the prevalence of HER2NEU over-expression in patients with primary gastric adenocarcinoma at the JSS hospital, and its relationship with Lauren classification and site of cancer. The work is in process for publication.

An audit of Surgical Site Infections in our hospital was done prospectively, beginning 2020 and upto Dec 2021, among 889 patients undergoing major or intermediate surgical procedures at the hospital. The incidence of SSI was 7.5%, with superficial SSIs predominating. Contaminated and dirty wound classes had higher rates of infection. The other risk factors for development of SSIs were CLD, DM, asthma, undernutrition, severe anemia, smoking, chemotherapy, blood transfusions, hypertension and higher grades of ASA. SSI was also more common in emergency surgeries and surgeries lasting over 2 hours.

A multicentric study was done as part of ARSI of which JSS is a member. The study was titled 'Exploring the peri-operative infection control practices and incidence of surgical site infections in rural India' and has been published (posted in Researchsquare as preprint in Feb 2022).

JSS has also been part of another multi-centre RCT to compare results of spinal anesthesia being given by board certified Anesthesiologists versus trained medical officers. The final results of this exciting study, which will have an impact on practice of spinal anesthesia in settings where a certified anesthesiologist is not readily available, are in process of publication.

Additionally, we are part of a multicentric prospective, open label, randomised, controlled trial titled 'Impact Of Improved Diagnostic Tools, Practices, Training And Communication On Acute Fever Case Management And Antibiotic Prescriptions For Children And Adolescents Presenting At Outpatient Facilities' conducted by ICMR and FIND on paediatric fever case management. The study aims to compare the impact of a package of interventions (Commercially available POC diagnostic tests plus algorithms plus clinic process flow plus training and communication for care-givers and users) on clinical outcomes and antibiotic prescriptions, with standard-of-care practices, in children and adolescents presenting with acute febrile illnesses (defined as fever with no focus or respiratory tract infection lasting for no more than 7 days) at outpatient clinics in India. The study was stalled briefly due to the 2nd wave of COVID. We started enrolling patients at JSS Ganiyari in September and at three subcentres from October onwards. Till date, a total of 550 patients have been enrolled in the study.

Another multi-centric study underway at JSS, in collaboration with ICMR, is titled 'Laboratory surveillance system for antimicrobial resistance in community settings and understanding the perception and determinants leading to antimicrobial (mis)use in rural settings of Odisha & Chhattisgarh'. It aims to understand the barriers to judicious antimicrobial use at all levels. While doing this study we want to build the capacity and knowledge base of all the stakeholders so as to run a successful programme to ultimately combat the problem of widespread antimicrobial resistance.

WORKSHOPS AND WEBINARS

In July, 2021, a three day live 'Gasless Laparoscopic Surgery and Minimally Invasive Surgery' workshop was organised by us in collaboration with the International Federation of Rural Surgeons, University of Leeds, and Maulana Azad Medical College, Delhi.



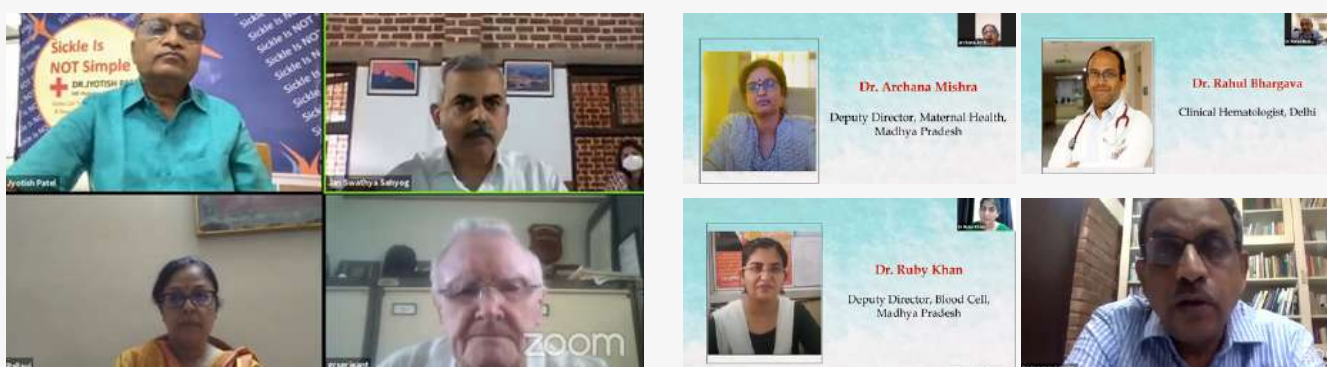
Laparoscopic workshop



The external faculty included Prof Anurag Mishra, Dr Gnanraj Jesudian, and Dr Lovenish Bains. It was a treat to watch the experts practice this technique that is very appropriate for low resource settings. JSS received the Gasless equipment from the visiting faculty for future use.

On 19th June, 2021, we held a webinar with eminent personalities from across the world to deliberate on and mark the World Sickle Cell Day.

The deliberations, screened live on our social media platforms, was graced by Dr. Graham Serjeant who is also known as the Father of Sickle Cell. Along with him, NHSRC founder and former director, Prof T. Sundarraman, Principal Secretary, Tribal Welfare Department, Govt of Madhya Pradesh, Dr Pallavi Jain Govil, Deputy Director of maternal health, NHM, MP Dr Archana Mishra, Deputy Director state blood cell, NHM, MP, Dr Ruby Khan, Dr Jyotish Patel a renowned expert and leader of sickle cell work in Gujarat, Dr Nambison from Bhopal, Dr Rahul Bhargava, a reputed Hematologist with special interest in hemoglobinopathies from Delhi, Dr R. K. Mehra, CMHO, District Umaria, & Dr Shivendra Dwivedi, DPM Health, Anuppur joined and presented their work and efforts on SCD. Public health perspective of managing Sickle cell disease, through a strengthened public health system was emphasized. All speakers appreciated the work done by JSS on SCD screening and management in Madhya Pradesh.



Sickle webinar guests

NETWORKING

We were a part of the deliberations during a national meet organised by the National commission for Scheduled Tribes, where voices from the ground on the problems facing the tribals were discussed. We focused on the health issues, specifically undernutrition, tuberculosis and sickle cell disease. JSS was also part of a six member expert group constituted by the NHSRC to deliberate and provide suggestions to the Draft Public Health Act 2018.

This year, we became an active member of the RCRC (Rapid Rural Community Response) with over 60 member organisations, to tackle the pandemic in rural communities with a multi-pronged and cohesive strategy and agile response. The coalition responded with direct action in the particular geographies of its member organisations, minimising impact on vulnerable rural communities, migrants, ensuring reach of special govt packages to the last mile, supporting govt action on vaccination, and psycho-social counselling. Post-COVID crises, the RCRC is evolving to take on a bigger role in action research, policy advocacy and being a collective voice for civil society organisations (www.rcrc.in)

Rural hospitals like ours are constantly constrained by shortage of skilled and passionate people providing healthcare, be they doctors, nurses, hospital managers, etc. The recent launch of a platform where work opportunities at rural hospitals are disseminated, was a boon for us and we have joined this Rural Hospital Network (ruralhospitalnetwork.org)





JSS has been trying to actively engage with young doctors and youth in general. We are part of the Rural Healthcare collective that offers a one year travel fellowship for young doctors (after graduation or PG) to explore alternate approaches to rural and primary healthcare and the role they can play as responsible citizens. The programme aims to expose these young doctors to primary healthcare programmes and social development initiatives, including interaction with mentors and practitioners in the field. It also involves networking and cross learning with fellow travellers. (ruralsensitisationprogramme.org)

Go to The People (GTP) is a similar initiative (by Yumetta foundation) for youth who are socially sensitive and looking for a direction in their lives. It provides them with an opportunity to understand themselves vis a vis the society they are part of and work towards finding ways to contribute to the society. In the process they develop lasting friendships, striving to grow together. JSS is one of the sites where such youth get exposure and mentorship.



Go to the people

BUILDING THE INSTITUTION

The organisation grows....



With support from so many like minded and good hearted people who have been by our side in this mission, we could fulfill few infrastructural needs as well as build capacity in our team.

The organisation is nothing without its people and we have been constantly trying to learn newer things to improve ourselves both as individuals and as teams working together. This section documents the new activities we engaged in to make our teams stronger

CAPACITY BUILDING OF OUR TEAM

Besides regular work, we engaged in various team building activities for better understanding of one another. This was fun as well as enriching to learn about interest areas of our team mates and how they strategise to complete a task unitedly.



Team building activity

Additionally, some team members expressed their interest in improving some skills like spoken english and computer. For them, special classes were held before or after work hours.



Computer training

Similar activities were engaged in by our teams in Madhya Pradesh through various clubs and cultural meets.



Creative day by different clubs

INFRASTRUCTURAL DEVELOPMENT

Construction of the new Laboratory building was completed and this has become fully functional. A wide array of lab investigations are now possible in this Public health Laboratory. The Microbiology section also saw upgradation to incorporate Trunat facility for COVID as well as later for Mycobacterium tuberculosis.



Revamped laboratory

A new operating room has become functional to add to the existing three major operating rooms. An endoscopy suite in the same complex has also become functional providing flexible upper gastro-intestinal endoscopy, colonoscopy and flexible bronchoscopy.

A sick newborn care unit with eight infant care warmers and two ventilators, two bubble CPAP has been completed, awaiting some augmentation in our staffing to operationalize this.



New operation theatre

During the peak of Covid, when access to oxygen was becoming a challenge for many health care facilities, we were donated an oxygen plant (Pressure swing adsorption 150 LPM) for which a structure to house it came up in a few days at JSS. We also took this opportunity to centralize our oxygen supply system constructing a central manifold with elaborate pipelines and control valves.

Establishing a network of pipes for fire fighting and conducting mock sessions with all our staff members was another exercise done this year.

A six bed Surgical high dependency unit is also ready to be operationalized soon. Additional construction has been done at our Sub Centres in the community, to add space for increasing activities and healthcare. A thirteen seater vehicle has been added to the field work in order to facilitate transport of patients as well as our health teams.



Oxygen plant

BEHIND THE SCENES

A sneak peek into how we kept ourselves united



All work and no play makes Jack a dull boy!

Besides providing quality and timely care to the underserved and neglected communities to improve their quality of life and fulfill our vision of contributing to the health and happiness of our people, we at JSS also partake in fun activities from time to time to prevent burnout and keep our team spirit rock solid.

The past year has been an emotional roller-coaster with the second wave ravaging our lives and distancing us from our loved ones. However, we tried our best to occasionally come together to organise events.

WE TURNED 22 THIS YEAR!

We held a cricket match for our team members on a Sunday morning. Look how fun it was for us as young and old came together to put up a good fight for their team.



Our own World Cup

A RUN TO OVERCOME COVID

Keeping up our annual tradition of 'run for good health', we conducted 2 marathons this year with a theme in mind. When COVID first crept into the tribal belt of Chhattisgarh, we had to invest months in busting myths around COVID. Spreading awareness around timely COVID vaccination, was the theme for the second marathon.



All geared up to run

Thus, in order to raise awareness about the importance of COVID vaccination, we, in collaboration with CRYPTO relief and IDRF, organised the marathons. In the spirit of participation, our team members, from CG as well as Madhya Pradesh along with people living in and around Ganiyari, the youngest being 5 and the oldest being 75, came together to take part.

Here are a few glimpses from the events:



B+ THE GIFT OF LIFE AND LOVE... BLOOD

For a rural setting such as ours where a large share of the population, especially women and children, is seen to be extremely anemic, several complications crop up owing to the shortage of blood availability. Despite being one of the few facilities with an in-house Blood Storage Unit in the state, the insufficiency can be recognised during advanced surgical care that we offer to a huge number of patients.

We are grateful to Rotary Club Bilaspur, Midtown and our mother blood bank, CIMS, for supporting us in organising a blood donation camp at our base hospital in Ganiyari.

Here are few glimpses from the event held on the 25th of September which will help us continue providing care to the underserved population especially in such trying times. A big shout out to all the people who came forward to donate blood!



OF FESTIVALS AND CELEBRATIONS...



New Year celebration



Holi celebration

HEAR FROM OUR TEAM

It was May 23rd 2019, around 3pm and I read the words "General Surgery- Jan Swasthya Sahyog, Village and PO Ganiyari" and my heart skipped a beat. I jumped with joy reading General Surgery but was confused and sad about the village part. As a person who hasn't ever seen rural India, I simply couldn't visualize extensive surgical care in a village. With extreme apprehension and with a push from my family to at least go and see the hospital before taking a decision, I was in Ganiyari 2 days later with the sun spitting fire at 47 degrees. As a heat intolerant person, I wanted to just take a U-turn!

I somehow reached the hospital, was shown around and as the final stop there I was in the OT waiting for the most magnetic man, surgeon, and someone I would owe a great deal to after three years of learning from him- Dr. Raman Kataria. Given my doubts, I asked some extremely embarrassing questions such as "What kind of surgeries would I be able to do at JSS?". To this he replied very plainly "What do you want to do? You will get to do all kinds of surgeries and there will be a time when you will be tired that there are too many surgeries." Just few moments later I got to see the OT and all my doubts were wiped away by the OT list which had left the board and encroached upon the wall. About 17 cases were posted and these were only 2/3rd of the total surgeries that day.



Fast forward to three years, around 9pm, and I read the words **"PASS, DNB General Surgery"**.

This chance event has been a major turning point in my life. All that I am today and will ever be will always be thanks to this place and the wonderful people who have supported me, right from the faculty to the nurses to the support staff and of course the patients. Despite practically no clinical experience, but having the will to learn, I fit right into the philosophy at JSS that just having a degree does not make you a good health professional, having the right skill as well as the right heart, does, which can be nurtured through love, dedication, training and hard work. The first six months of my training were crucial to understand that clinical problems cannot be treated without fully understanding the social ones, which end up making the clinical ones worse in most cases. These three years have been a roller coaster ride with steady phases of learning the basics like how to round on ward patients, write notes properly to doing secondary rounds with juniors; getting a suture right to assisting surgeries such as triple by-pass, decortication, hemi-mandibulectomies to radical neck dissections, and the more challenging phases of managing all kinds of emergency and critical cases like stroke, snake bites, and myocardial infarcts to fire-fighting and taking difficult decisions pertaining to saving lives while managing patients with limited beds and resources during COVID. All of this is very complex and difficult but there are moments of extreme joy when you are able to help patients get better and back on their feet but at times you just have to make peace with the fact that you did all you could at the end of the day.

The fighter:

A lady with bilateral lung hydatid cysts had been operated on one side and was to be posted soon for the second side. She came to the OPD during COVID period and went into respiratory distress while waiting outside in the queue. We saw her and immediately managed her on emergency footing. On the X-Ray, it was evident that the hydatid cyst had ruptured causing fluid and air to collapse the affected lung. She had gone into respiratory distress.

We had to operate on her urgently and excised the hydatid cyst. During the post-operative stay, she had to be put on ventilator for a few days in our surgical ward separately given the risk of COVID. Mortality of a ruptured lung hydatid is quite high and it may be difficult to wean these patients off the ventilator.



But we could successfully achieve it together as a team coupled with her fighting spirit and she still comes to the OPD for follow-up, happy.

The brave baby:

Recently, I saw a 6-hour-old female baby in the ER at night who was in distress with SPO2 in 50-60s and was referred to our facility with an X-Ray chest showing bowel loops in the left chest.

She was diagnosed with CDH (congenital diaphragmatic hernia). We couldn't bag mask her since that just worsens the distress. Hence, we had to immediately intubate her and put a nasogastric tube and manage her at night. She made it through the night with a saturation above 95%. She was scheduled for surgery the next day. She went hypoxic again pre-operatively on the OT table and had to be bagged for a bit and so developed tension pneumothorax leading to shock so we did an exploration immediately and did the diaphragmatic hernia repair. She was stable through the evening but coded at night and couldn't be revived unfortunately.

She had all factors which were pointing towards poor outcome since the beginning but we tried to go all out and save her. Mortality in CDH even after repair is about 50%.

Sadly, there is just so much you can do in such cases!



Hard as a rock:

An old gentleman from Madhya Pradesh came to the OPD with a long history of lower abdominal pain, dysuria and had a huge urinary bladder stone on the X-Ray. He didn't seek proper medical care since there was no facility nearby that could offer the required care. We did a cystolithotomy and took out 1.7kg stone! He went home with relief.



This experience has not only transformed me into a surgeon but has also opened my eyes to some harsh realities of public health and made me a better doctor and above all a better, more aware human being!

Dr. Pranav
General Surgeon, JSS

Taste of sweet success- long term happiness following a coordinated joint effort

A 3 year old girl presented to the JSS OPD with rapidly growing mass in her upper abdomen. Following an ultrasound and Trucut biopsy at JSS this was diagnosed to be a Hepatoblastoma, an uncommon but treatable cancer seen in children. Her father was explained about the illness and advised to take her to AIIMS, Delhi. With the agriculture season in full swing, and no resources at hand the father expressed his inability to take her and requested whatever treatment was possible at our centre.

We were familiar with the chemotherapy regimen we had used at AIIMS few years ago, where we had done our postgraduate studies. This was started and given every three weeks, explaining the care and precautions about hygiene to the family. After completing six cycles, the tumor had shrunk significantly. The girl had tolerated the chemotherapy well. The father was now willing to take the child to AIIMS, Delhi.

After discussing with a former colleague, a pediatric surgical oncologist, we were able to provide a tentative date for AIIMS hospital admission. The technically demanding surgery went well and the father and daughter returned to visit JSS three weeks later. Further Chemotherapy plan and follow up investigative plan were drawn up.

Today at last follow up 16 years later, we are overjoyed to see this confident, smiling young lady of 20 years, studying for a degree in education at college.



BLAST FROM THE PAST....

A look back at some golden moments we remember and cherish



OUR FINANCIAL DETAILS

JAN SWASTHYA SAHYOG STATEMENT OF ACTIVITIES FOR THE YEAR ENDED MARCH 31, 2022			
Particulars	Schedule	Year Ended March 31, 2022 (Rs.)	Year Ended March 31, 2021 (Rs.)
INCOME			
Receipts from activities	X	6,82,17,941	5,97,50,684
Donations		1,07,70,931	35,24,606
Grants Received		10,38,58,556	11,76,45,490
Interest Income		1,63,84,248	1,19,72,936
Interests on Income tax refund		-	38,515
Total Income		19,92,31,677	19,29,32,231
EXPENDITURE			
Drugs & Consumables	XI	3,60,90,838	3,12,94,462
Administrative Expenses	XII	1,19,27,728	1,00,87,725
Research & Development Expenses		5,00,652	6,53,541
Manpower Cost	XIII	11,52,32,966	10,30,74,701
Program & Community Welfare Expenses	XIV	3,06,50,299	2,30,98,716
Depreciation	IV	47,35,586	47,77,678
Total Expenditure		19,91,38,070	17,29,86,824
Excess of Income Over Expenditure		93,607	1,99,45,408
Add: Depreciation for the year transferred to Capital Fund		47,35,586	47,77,678
Less: Addition to Fixed Assets (including WIP)		(1,71,65,279)	(1,00,02,020)
Transferred to Reserve and Surplus		(1,23,36,086)	1,47,21,065

Notes On Accounts : As per our report of even date

For VED JAIN & ASSOCIATES
CHARTERED ACCOUNTANTS
 F.R.No: 001082 N



(Swarnjit Singh)

Partner

M.No. : 80388

Place : New Delhi

Date : 30/09/2022

UDIN : 22080388AXWJEQ8889

For, Jan Swasthya Sahyog

(Signature)
Secretary

(Dr. Raman Kataria)
 Secretary

For, JAN SWASTHYA SAHYOG

(Signature)

Treasurer

(Dr. Surabhi Sharma)
 Treasurer

OUR PARTNERS

We have a lot to be thankful for!

It goes without saying that our work would not be possible without the backing of our supporters who not only share the same vision towards bringing about a change in our society, but also have faith in what we strive for. In the last year, the following people and organisations have lent their support towards JSS and helped us continue our work with greater motivation and zeal.

Here are some of our partners who stood beside us against all odds to keep our work ongoing. There are more partners who have supported us either financially or in kind. Or have extended lots of good wishes to keep us going stronger. To name a few: Lakhi Trust, Falshaia investment company, Jamnalal Bajaj Foundation, Shr. Ram Kishan Chugh, Smt. Devika Rani, Shr. Aroon Raman, Hema Hattangady, Giving Back Fund, Hospital fur Indien, mL Outsourcing, Mohan Lal Seth charitable Trust, SPAEF, Surabhi Foundation, and many others.



OUR EXECUTIVE COMMITTEE



DR. SAIBAL JANA
PRESIDENT



DR. SURABHI SHARMA
TREASURER



DR. PRAMOD UPADHYAY
MEMBER



DR. ANURAG BHARGAVA
VICE PRESIDENT



DR. SUNIL KAUL
MEMBER



DR. SARA BHATTACHARJI
MEMBER



DR. RAMAN KATARIA
SECRETARY



DR. BISWAROOP CHATTERJEE
MEMBER



DR. REGI GEORGE
MEMBER

JAN SWASTHYA SAHYOG



Life and death, chronic hunger, pain and disease. With no means to access medical care outside of Jan Swasthya Sahyog, the beneficiaries of our work need your committed support, as an individual or as an organisation

SUPPORT OUR ENDEAVOURS

<http://www.jssbilaspur.org/make-a-donation/>

All donations made in India are eligible for Income Tax benefits under the provisions of Section 80 (G)

If you wish to donate from an overseas account, drop us a mail at janswasthya@gmail.com

HEALTH CENTRE:

VILLAGE & P.O. GANIYARI
DIST. BILASPUR- 495112
CHHATTISGARH
INDIA

OUTREACH CENTRES:

VILLAGE SEMARIYA & SHIVTARAI
DIST. BILASPUR
VILLAGE BAMHANI, TEHSIL LORMI
DIST. MUNGELI

REGISTERED OFFICE:

S-295
GREATER KAILASH
PART II,
NEW DELHI - 110048

CORRESPONDENCE:

I-4, PARIJAT COLONY
NEHRU NAGAR
BILASPUR- 495001
CHHATTISGARH
INDIA

PHONE:

+91-7752-270143

EMAIL:

janswasthya@gmail.com

WEBSITE:

<http://www.jssbilaspur.org>

