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Cost Analysis of Rogi Kalyan Samiti in Chattisgarh

2003

Introduction –

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The private sector in health primarily caters to the needs of the affordable class making the services inaccessible to the poor. While public health service is the only facility available to them, the decades old decaying public hospital and health care centres are unable to serve their needs.

As an alternative to provide quality health care services to the needy, the concept of 'Rogi kalyan Samiti' evolved during the catastrophic plague event of Surat in 1994. People's contribution was utilized for providing services that were initially unavailable to them. Following the success of the Maharaja Yeshwantrao hospital, it was replicated to other hospitals gradually. The scheme spread to more than 1000 hospitals in 61 districts with an objective of providing different health care system (public) resources and autonomy to function at their best.

The scheme is operational in MP, Chattisgarh since mid-nineties. It assumed the form of Medical Relief Societies in Rajasthan in 1995 which was followed by 68 more societies. In March 2003, Chikitsa Prabhodan Samiti (formerly known as 'Chikitsa Sudhar Samiti) covering district and combined and base hospitals was formed in Uttaranchal.

The basic objective of all these initiatives is to improve and strengthen the Public System through people's participation. It thus requires a nominal contribution from the people in the form of user fees at the time of seeking health care services from the government hospitals. The fund collected is used for improving the hospital infrastructure and provision of other related services. In such a scenario it is found imperative to know how the fund is utilized, if it actually meets the needs of the people. For effective implementation it is important to know the cost of the services, the cost to the government and by the people. This would also aid in assessing the efficacy of such a scheme and in examining different alternatives.

What is Rogi Kalyan Samiti?

Rogi Kalyan Samiti are the registered societies constituted in the hospitals as an innovative mechanism to involve the peoples representatives in the management of the hospital with a view to improve its functioning through levying user charges (3).

Instead of assuming a zero-sum relationship between Government involvement and private co-operative efforts, some social capital theorists argue about the possibility of state –society synergy. They hold the view that an active government and mobilised communities can enhance each other's developmental efforts. In the construction of synergy, micro level social capital has an important place. The Rogi Kalyan Samiti scheme in the health department is an example of how this synergy can be harnessed at the micro level.

Inception –

Maharaja Yeshwantrao hospital a 750 bedded hospital, established in 1955, known to be a premier institute was gradually deteriorating ----- it had become a home for the rodents! The plague scare of Surat in 1994 raised an alarm and soon attention was driven towards the appalling condition of hygiene in the hospital. The then collector S. R. Mohanty with the district administrator took up the task of revamping the system to change the condition of the hospital. An appeal was made to the people for their cooperation and in turn would also ensure transparency and accountability. Donations started pouring in, patients were shifted to the neighbouring government and private hospitals, the complex was cleaned, tons of rubbish, truckloads (around 150) of junk, furniture were removed and deweeding, external and internal baiting, sealing of the sewerage system were undertaken to trap the rodents. Finally the rodents were killed by using poisonous gas and disposed off in electronic crematorium. The general public was involved at every stage of planning. Though the physical facilities were restored there was still a general apprehension that the system might again collapse unless an administrative structure is

inbuilt within the system to ensure its permanency. It was thus decided to adopt the following strategy

- Undertake a scientific reallocation of available space to improve efficiency.
- Redefine administrative responsibilities.
- Introduce user charges to strengthen resource base.
- Establish a management structure to ensure smooth running of the hospital.

This was named as 'Rogi Kalyan Samiti.'

In the first year, a handful of districts, especially those close to medical colleges adopted the scheme. In 97-98 almost all the district in the state adopted it, while in most districts the initial work was done in the district level hospitals, there were several smaller hospitals where local officials started the scheme. After a review in 1999, the government issued instructions that gave sweeping powers to the Samitis and the objectives and the duties were expanded[1].

Highly impressed with this novel programme, Chief Minister Digvijay Singh issued directive for the implementation of this program in all the district level public hospitals in the state. The RKS was reportedly formed in "more than half of the nearly 1,200 public hospitals in the state" and "an estimated Rs. 37 – 40 crore" was raised across undivided Madhya Pradesh in the five years and spent on the improvement of the hospital (India Today, January 8, 2001)

> "We see decentralisation as the strategic architecture for democracy to become articulate in our country. It is essential architecture to make democracy full-blooded and full-throated. Decentralisation has intrinsic merit as an enabler of democracy by maximising participation.'
>
> - Digvijay Singh.

The poor patients who could not afford to pay for the services were exempted from paying the user fees and treated free of cost. They were not required to bring any testimony to prove their poor state of being.

'Rogi Kalyan Samiti.'- Structure[1]–

The basic structure of the Rogi Kalyan Samitis is as follows –

- RKS would be a registered society and be set up in all medical colleges, district hospitals and community health centres.
- It would have people's representative, health officials, local district officials, leading members of the community, representatives of the IMA, members of the urban local bodies and Panchayat Raj representatives as well as leading donors as their members.
- For its functioning it shall be deemed not as a government agency, but almost as an NGO.
- It could utilize all the government assets and services to impose user charges. It would be free to determine the quantum of charges on the basis of the local circumstances.
- It could raise funds additionally through donations, loans from financial institutions, grants from government as well as other donor agencies.
- It could utilise surplus land available in the hospital for commercial purposes or to construct shops and lease them out.
- It could take over and manage canteens, rest houses, stands, ambulance services and other facilities within the hospital complex owned or managed by the government.
- Private organizations offering high tech services like Pathology, MRI, CAT Scan, Sonography etc. could be permitted to set up their units within the hospital premises in return for providing their services at a rate fixed by the RKS.
- The funds received by the RKS will not be deposited in the state exchequer but will be available by the executive committee constituted by the RKS.

- As a result of the RKS system coming into effect, the government would not reduce its budgetary allocation traditionally received by the hospital.

Objectives of RKS[2] –

1. Improve the management of the hospitals with community participation.
2. Up gradation of health institution, modernisation of health facilities and purchase of equipment for institutions. Effect a continual up gradation of facilities.
3. To ensure discipline and monitor accountability.
4. Provide assured ambulance services for emergencies and during accidents.
5. To establish public private partnership for betterment of the institution.
6. Maintenance & expansion of hospital building.
7. To develop the unused extra land of the hospital for commercial purposes as per the guidelines of the state government for strengthening the financial condition of RKS.
8. Increase community participation.
9. Organise training & workshops for staff members.
10. Ensure adequate and safe disposal of hospital wastes.
11. Arrange for good quality diet and drugs and stay arrangements for the relatives of the patients. Ensure equity through provision of free treatment to patients below poverty line.
12. Ensure proper maintenance of hospital, wards, beds, equipment, cleanliness of premises.
13. Monitoring & supervision of National Health Programs.
14. To obtain loans from banks & financial institutions for development & up gradation of medical facilities in hospitals.

Constitution of RKS[2]–

Rogi Kalyan Samiti have been set up at various level of hospital

1. District hospital.

2. Civil hospital.
3. Community Health Centre.
4. Primary Health Centre.

Rogi Kalyan Samiti at each level has two bodies for its effective functioning, General body and Executive body.

District hospital

General body –

I/C Minister of the district	Chairman
President Jila Panchayat	Member
Mayor of Municipal Corporation	Member
Collector	Member
Superintendent Police	Member
Chief Medical Officer	Member
MLAs of district	Member
President of Health Committee Municipal Corporation/Municipality	Member
Senior MO of hospital	Member
Municipal Commissioner	Member
CEO Zila Panchayat	Member
Ex. Eng. PWD & PHED	Member
Secretary Red Cross	Member
President IMA	Member
Two Donors (donated Rs. 50,000) Nominated by Chairman	Member
Two social workers nominated by the chairman	Member
Civil Surgeon cum Hospital Superintendent.	Member

Executive body –

For managing day to day functioning of the Rogi Kalyan Samiti Executive Committee have been given certain powers. The composition of executive body is as follows –

Collector	Chairman
Municipal Commissioner	Member
CEO Zila Panchayat	Member
Chief Medical Officer	Member
Senior MO of hospital	Member
Ex. Eng. PWD	Member
One Donor (donated Rs. 50,000)	Member
Nominated by Chairman	
Civil Surgeon cum Hospital Superintendent	Member

Tehsil & Block Level Hospital Rogi Kalyan Samiti

The Community health centres, Civil hospitals and other hospitals at the tehsi & Block level come under this category. The composition is as follows –

MLA of the area	Chairman
S.D.M.	Member
President Janpad Panchayat	Member
President of Municipality	Member
President of Health Committee of Municipality	Member
CEO Janpad Panchayat	Member
One parshad of area	Member
S.D.O., PWD, PHED	Member
Two Donors (donated Rs. 80,000)	
Nominated by Chairman	Member
Senior MO nominated by CMHO	Member
Block MO I/C MO Hospital	Member Secretary

<u>Executive body</u> –

SDM	Chairman
President Janpad	Member
CEO Janpad Panchayat	Member
S.D.O., PWD	Member
Senior MO nominated by CMHO	Member
Block MO I/C MO Hospital	Member Secretary

Other Health Institutions/Dispensary/PHC

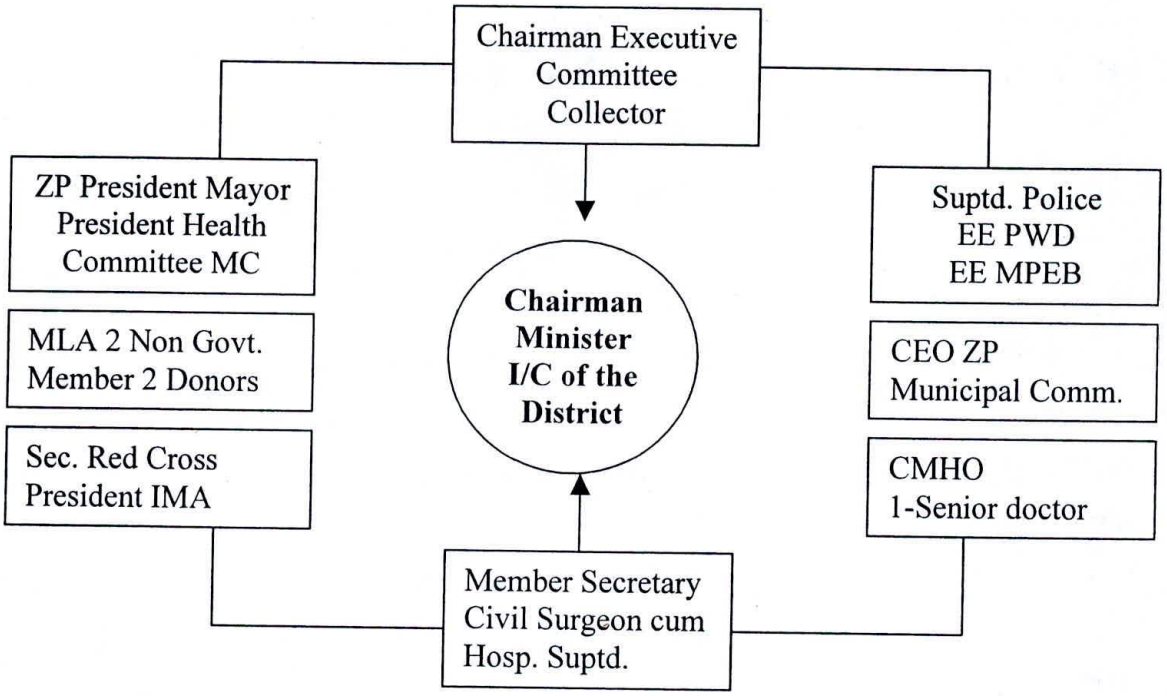
General Body –

Janpad Panchayat member of area	Chairman
President Nagar/ Gram Panchayat	Member
President of Municipality	Member
President of Health Committee of Nagar/ Gram Panchayat	Member
Nagar/ Gram Panchayat female member	Member
Sub Eng. PWD & MPEB	Member
Two Donors (donated Rs. 10,000)	Member
Nominated by Chairman	
Tehsildar/Nayab Tehsildar	Member
I/C MO Hospital	Member Secretary

Executive body –

Tehsildar/Nayab Tehsildar	Chairman
President of Health Committee of Nagar/ Gram Panchayat	Member
Sub Eng. PWD & MPEB	Member
I/C MO Hospital	Member Secretary

District Level Rogi Kalyan Samiti[2]



Powers and responsibilities of General body of RKS–

1. The general body shall meet at least twice in a year. However the Executive Committee or 1/3rd members on request can call meetings of RKS.
2. The newly constituted RKS shall hold its meeting within 3 months and shall elect its office bearers.
3. The Executive committee can call the special meeting of the old RKS General body and this body can amend objectives, membership, change in rules and regulations or it can approve the removal of the left out members from the list.
4. The chorum of the General body shall be 1/3rd of the members.
5. The General body shall take the policy decisions and it will be implemented by Executive Committee under rule 10 of the constitution of RKS.
6. General body can authorise the Executive Committee for implementation of functions, it can delegate financial powers to members of Executive Committee and also approve financial proposals that are that are beyond the powers of the Executive Committee.
7. The General body shall review the financial account at least once in a financial year, review the income & expenditure statements and shall approve the budget for the next year.
8. General body shall have powers to appoint chartered accountant and can constitute sub committees for specific purposes such as new construction and commercial use of land.

Powers and Responsibilities of Executive Committee –

1. The Executive Committee will meet at least once in two months. The chorum will be of 50% members. The presence of the Chairman will be essential.
2. Executive Committee will perform its day to day functions with existing manpower.
3. Executive Committee will implement the decisions taken by GB and will function within its powers invested by GB.
4. Executive Committee can delegate its financial powers to the member secretary.

5. Executive Committee shall have authority of raising the funds for the activities approved by GB e.g. new construction, equipment purchase, and modern investigative facilities. It shall have the authority to take loan from banks.
6. The Executive Committee can appoint cleanliness staff, para medical staff, and security guard and part time employees on contract.
7. Executive Committee will levy user charges from the patients and facilities given for their relatives.
8. Executive Committee can purchase equipment, drugs, furniture, pathological reagents, X-Ray films in consultation with the Sr. MO for quality purchase.

Devolution of powers –

The government authorised the RKS to manage the existing facilities and assets of the concerned hospital. RKS has been given the freedom for operations, management and investment to meet service requirements. The RKS is empowered to mobilise resources through levy of user charges.

It allows commercial use of assets like land of the institution, donations in cash or kind from the public at large and allotments/Grants from the government or non-government bodies & loans from financial institutions.

Levy of user charges –

User fees are considered not only a tool for ensuring efficient use and equitable financing of public services, but also as an investment, guide, because consumers' willingness to pay for services in many instances is considered to be the only way in which the benefits of a service can be ascertained and compared with the cost of providing the service.

The guidelines for user charges are as follows –
Charges must be levied for all facilities provided in the hospital including the outdoor patient ticket, pathological tests, indoor beds, specialised treatment, operation, etc.

The economically weaker sections of the society and other groups as determined by the government (for e.g. persons below the poverty line, freedom fighters, etc.) would be exempt from the levy. Identification would be based on self-certification. The charges for general ward would be nominal while those for private wards would be higher. Funds so received would be deposited with the RKS and not in the government exchequer.

Implementation –

The Executive Committee acts as a watchdog to oversee the day to day functioning. People's representatives on the RKS facilitate social audit. The activities of RKS are monitored by the members of the district government and the Minister In-charge of a district is also the President of district level RKS which ensures effective supervision.

Other studies on Rogi Kalyan Samiti –

A study conducted by Girish Kumar[3], for the 18th European Conference on Modern South Asian Studies, is based on data collected from 9 hospitals in selected five districts of Madhya Pradesh which is primarily a documentation of the innovative reform scheme critically examining the decision making process and sharing of responsibilities by the different stakeholders. It also aims at assessing the strength of institutional arrangements, transparency and accountability of the new management structure. The study shows that the scheme has heralded a major initiative to reform the near defunct government hospitals in Madhya Pradesh by enforcing accountability of the staff, transparency in the use of available resources, and above all providing more facilities to the patients without putting financial burden on the state exchequer. However the patients interviewed in few hospitals were not content, monitoring is limited as it is more attuned to observing procedures than an exercise in ushering dynamism in the functioning of the RKS. The main actors of the scheme seem to be complacent, even saturated with their performance as if they have reached the end of the journey. There is hardly any organised effort to bring about a change in the behavioural pattern, work ethics, inject the sense of duty and mould the traditional mindset of the health functionaries in order to make them de facto

agents of change. However it has been able to demonstrate that the huge infrastructure created in 1970s and 1980s could be saved from going waste in the face of ever – shrinking budgetary allocation if reforms in these lines are introduced with little innovation.

An article on Rogi Kalyan Samiti[1] states that a total of Rs. 350-400 million have been collected by the various districts through donations and user charges, MPs and MLAs have earmarked funds out of their discretionary local area development funds for improvement of the health institutions. The district Red Cross Societies have been functioning in tandem with RKS and in fact been more active of late with the expenditure jumping to Rs. 70-80million in 94-99 from 4 million in 1990-1994. Daily collection in each of the hospital depending on the location is around Rs. 500 to 25000 and a conservative estimate of monthly collection of Rs. 25 to 30 million which is still on increase. It states that the social benefits due to the implementation of RKS is both direct and indirect, improving both the quality of service the acceptance and the willingness to pay. However there is no evidence of any study showing the willingness to pay or for the acceptance of service and satisfaction. It has been assumed that it is acceptable, as there have been no protests in the entire state over the introduction of user fees. The study states that there has been improvement in the efficiency of the doctors, arresting the deterioration in the hospitals and increase in the number of patients coming to the government hospitals after the introduction of user charges reflecting their willingness to pay.

Similarly some hospitals have been adopted by Rajasthan State to provide better services in medical field which has been documented by Dr. A.S. Bapna in a Handbook for General guidelines for Rajasthan Medicare Relief Societies[4]. It states that to improve resources to primary health care it is necessary to evolve a process by which state resources can be conserved at secondary and tertiary level of health care and hence RMRS was constituted. However the irony is that to improve primary health care, resources are being generated and utilised at secondary and tertiary level. It aims to provide autonomy and convenience in utilisation of resources. However all the

requirements to utilise the resources is reserved with the community composed of technocrats thereby breeding hierarchy and systemic approach.

An exhaustive study[2] on the RKS in Madhya Pradesh since the time of inception to 2001, suggests that once the management of the hospitals improved, the MPs and the MLAs too came forward in earmarking funds out of their discretionary local area development funds for improvements of health institutions. District Red Cross Societies too started functioning in tandem; and around Rs. 40 lacs were spent on the hospitals. Various ancillary services like Pathology, Sanitation, MIS, Security and Canteen services have been introduced in phased manner. The net gainer being the consumer as the rates are almost 30% lower than elsewhere. On an average Rs. 10 lakhs have been generated per district per year. The pattern of resource mobilisation does not indicate sustainability as the major amount of funds were generated from non medical sources like donation. The resource mobilisation is only up to 50% from medical resources. It is stated that there is a need to augment the resource mobilisation from medical sources like special investigations, surgical procedures, ambulance services & pathological investigations. There is a mis match in income generation and expenditure pattern. The study shows an improvement in the utilisation as the number of patients from middle class have increased, though there is no direct evidence of increase in below poverty line patients. As the below poverty line patients are exempted from user charges, the number of BPL patients is believed to not have reduced.

Analysis of the report shows the positive evidence of increase in the specialised investigations like ECG, X-Ray, number of blood transfusions but there is a decline in the routine blood test in many districts.

Aim of the study –

To estimate the cost effectiveness of the Scheme.

Objective of the study –

- To analyse the costing pattern of the government health care providers (district hospitals/CHCs) vis-à-vis the collections made under the Rogi Kalyan Samiti.
- To study the utilization of the funds from Rogi Kalyan Samiti.

Sampling –

For the purpose of the study three CHCs from three different districts- Raigarh (Pusaur), Jhanjgir (Baloda) and Kanker (Charama) were selected and district hospital of Raigarh and Jhanjgir were selected. This is a purposive sampling based on the criterion of availability of information and accessibility.

The CHC is conceived as a 30-bed secondary referral centre, the most important component of secondary referral along with the district hospital. though the norm expects a CHC to cover one lakh population, on an average 1.5 lakh population are covered per CHC in Chattisgarh. There are 121 CHCs in 16 districts of the state.

Methodology –

The following information was obtained from the health centres –

1. The salary of the overall hospital staff and those specially appointed by RKS.
2. The staff pattern and the different units in the hospital and the number of hours spent by the staff especially the doctors in different activities.
3. The tariff rate for the different services provided under RKS.
4. A statement of the income earned and the expenditure made under RKS.
5. The number of OPD patients, IPD patients, Operations conducted (both major and minor)
6. The number of deliveries conducted and number of L.S.CS.
7. The total number of injections administered to the Out patients and the number of X-Rays, USGs and CT Scans conducted.

8. The details from the stock register as to the number of equipments purchased, the medicines purchased and dispensed, etc.

With the aid of the aforementioned data, and making the following assumptions the cost for the different services were computed–

1. The annual capital expenditure by the hospital in the form of depreciation for its assets is assumed to be 10% of the total, while that for the staff salary is assumed to be 60% and the expenses on water/electricity/maintenance/repair and consumables is estimated as 5 and 25% respectively. Though this is not expected to be same for all the institutions especially the district hospitals and the CHCs, the assumption has been kept uniform.

Based on the aforementioned assumptions, the total expenditure made by the hospital has been estimated.

2. The total number of patients having sought services from different units is multiplied with the rate of service to obtain the total income in the respective units. This figure has been further discounted by around 60% (43% for BPL and remaining for other waive off) to estimate the net income under Rogi Kalyan Samiti. This figure is very close to the income mentioned in the statement of income and expenditure of RKS, though not the same.

The computation of the income unit wise was essential to estimate the cost recovery per unit and to compare with the actual allocation of the fund to the respective units.

3. The data was available for different periods and hence has been adjusted to obtain the annual figure to allow comparison.

4. The expenditure has been apportioned for different units as follows –

OPD	IPD	OT	LAB	PHR	INJ	X-RAY	ADMIN	Total
25%	22%	16%	6%	6%	10%	7%	8%	100%

1. Jhanjgir -

Premises -

As mentioned before based the Jhanjgir district hospital was selected on the geographical accessibility and availability of information. The district Jhanjgir-Champa is situated in the center of Chattisgarh and so it is considered as heart of Chattisgarh and the district hospital is situated at the heart of the district around 2 kms. from Naila station which is around 175 kms from the state capital Raipur. The district covers 13,16,140 population in 9 blocks, of which 43% are below poverty line (Article by Myra MacDonald – New Indian State Pioneers free market reforms – Internet). The health care facilities available to the people are around 10 PHCs, 6 CHCs, 211 SCs and one district hospital besides other private services.

District Hospital-

The district hospital building is located on ----- acres of land of which ----- acres is unutilized. The building was constructed in 1956 to serve the primary health care needs of the people. It was converted to district hospital in 1998 and is manned by 45 employees. The remuneration for 3 staff viz – 1 radiographer and 2 sweepers is met through Rogi Kalyan Samiti and hence they are called contractual employees under Rogi Kalyan Samiti. The staff pattern has been given in the Annexure I. As per the existing staff both the manpower and the infrastructure are far below the requirements of the hospital.

It is a 28 bedded hospital with the following units under the control of the Civil Surgeon. The different departments in the hospital –
Outdoor services, Indoor facilities, Laboratory services, Operation Theatre, Labour room, Pharmacy, X-Ray Centre, Dressing room, Injection room, Ophthalmic centre, Administration.

As mentioned before in the general description of RKS, the charges for different services are fixed by the Committees.

The tariff for different services in Jhanjgir district hospital is as follows –

Sr. No.	Unit/Service	Current rates in Rs.	Revised rates in Rs
1	Haemoglobin	5	5
2	Total & Differential counts	5	10
3	ESR	10	10
4	Urine-Sugar/Albumin	5	5
5	Urine-Routine/Microscopic	10	10
6	Blood Grouping	10	20
7	UPT	30	40
8	Urine Bile salt pigments	10	10
9	Blood- B.T.C.T.	10	10
10	Blood sugar – Calorimeter	10	20
11	Blood sugar – Glucometer	30	30
12	Serum bilirubin	15	20
13	Blood urea	10	20
14	Widal	10	20
15	V.D.R.L.	10	20
16	Australian Antigen 'B'	45	60
17	Hepatitis 'C'		140
	X-Ray charges		
1	12X15	45	35
2	10X12	45	35
3	8X10	25	20
4	6X8	25	20

Unit wise Cost analysis –

OPD Clinic –

The OPD services are provided in two rooms, one in which the Civil surgeon sees his patient and the other larger one in which 4 Medical Officers examine their patients. None of the rooms have an examination table and there is a lack of privacy for the patients. However, while the larger room is well illuminated and ventilated the smaller room lacks appropriate light supply. There is only 1 small 4 feet long bench for the patients to be seated, while waiting to be seen by the doctors.

The OPD timings are 8.00 am. to 14.00 pm. and from 16.00 pm. to 18.00 pm. thereby amounting to 8 hours. However the clinic starts not before 10.00 am and closes around 17.30 pm.

The total number of patients seen in nine months (April to Dec, 03) is 37523. The average number of patients seen in a month is around 4169. Thus the average number of patients examined/treated in a day is around 175.

Assuming that of the total expenditure 25% is spent on OPD services the annual expenditure on OPD is Rs. 1743049. Thus expenditure per patient comes to Rs. 35. This however excludes the cost for pathology and X-Ray. The cost of these services would be taken separately. As the data for Indoor and Outdoor patients getting services in the aforementioned units is not separately available, it is not possible to estimate the separate cost for these services (X-Ray, pathology, etc.) for Out door patients. Rs. 35 per patient is inclusive of the staff salary, maintenance & repair, cost of consumables and the capital cost.

The registration charge per patient is Rs. 2 for out patient service. This amounts to around Rs. 1,00,061 in a year. If 60% of the total patients were given free treatment (BPL, pensioners, etc.) the income through OPD would be Rs. 40024. Thus of the total expenditure on Out patient services around 2.3% is recovered from the patients.

Indoor Services –

It has two wards one for the male patients and the other of the female patients. In all there are 28 beds, the average bed occupancy being ----- The average length of stay is around 3 to 4 days. The total number of patients admitted in 9 months (April to Dec, 03) is 154. The average number of admission per day is either one or nil while the monthly admission is around 17.

Assuming that of the total expenditure, 22% is spent on IPD services the annual expenditure on Indoor patients is Rs. 1533883. Thus expenditure per patient comes to Rs.

1643. This is inclusive of only the staff salary, building cost, maintenance & repair cost and cost of consumables. The recovery from the patient's contribution is 0.21%. This excludes the cost of X-Ray, lab investigations, surgical procedures & delivery (including L.S.C.S).

Laboratory –

The laboratory is located in a small room close to the entrance and is congested. The laboratory can conduct normal tests like blood, sputum, urine, malaria, etc. but microbiological cultures and histopathology are not available. The total number of investigations done in seven months (Jan, 04 to July, 04) is 12651, the details being available in the Annexure. The total income generated through the laboratory could be around Rs. 96119. If 60% of the patients being either pensioners or BPL were waived off the fees, the income from pathological tests would amount to Rs. 98865.

Assuming 6% of the total expenditure would be on laboratory the net expenditure comes to Rs. 418332. Thus the cost recovery from the patients contribution amounts to 15.76%.

[As the detailed profile of the Pathological tests is not available, to estimate the collections from the lab facility the following assumptions have been made.

1. If around 350 ANC cases are seen, and assuming that at least 80% of them would have done UPT, the actual number of UPT done in a year would be around 280.

Assuming that the remaining 60% would be for Routine/Microscopic Urine. 20% for bile salt and remaining 13% for blood sugar the total collection from Urine examination sums to Rs. 38744

2. For blood investigations assuming that the cost of each test could have been Rs. 10, the total income from blood investigations could be taken as Rs. 44600.

3. From other blood investigations considering that only around 5% would have undergone Australia Antigen test for Hepatitis 'B', and around 20% for Serum bilirubin, the income under this head amounts to Rs. 11615.]

X-Ray –

The X-Ray department is manned by a radiographer appointed under Rogi Kalyan Samiti on contractual basis. He therefore does not enjoy other benefits like pension, provident fund, etc. Moreover his salary is lower than the other technicians.

The total number of X-Rays done in a year is 2320. The detailed classification of X-Rays done in the month of Oct, 2004 is available in the Annexure. The estimated income from X-Rays for a year after discounting for the free patients is Rs. 41520. The total expenditure on the patients for X-Ray being Rs. 488054, the cost recovery is 8.51%.

Operation Theatre –

There is only one OT in which both minor and major surgeries are conducted. The total number of Major surgeries conducted in 2003- 2004 is 30, while only 28 minor surgeries have been conducted. The total number of Caesarean Sections done is 3.

The minor surgeries are not charged and for major surgeries Rs. 25 is charged. For 30 major surgeries this sums to Rs. 750 which on discounting for waive off comes to Rs. 300.

Allocation of funds for different units from RKS –

Unit	Fund Allocation in Rs.	Estimated fund generation in Rs.
Medicines	51716 (30%)	-
X-Ray	33001 (19%)	41520 (27.49%)
Lab	2467 (1%)	65910 (43.64%)
Labour	32884 (19%)	-
	2837 (22%)	-
Advertisement/Publication	38057 (1%)	NA
Hospital Exp and Meetings	1720 (2%)	NA
BPL	3784 (2%)	NA
Other Exp	3477 (4%)	NA

The fund allocation is independent of the fund generated by each of the units. The hospital was converted from a community health centre to a district hospital around 5 yrs. ago and the requisite number of manpower and infrastructure are yet to be increased. Provision of medicines, which is primarily government's responsibility, is met by the fund collected from RKS.

With the expansion of services more facilities are required to handle the additional caseload, especially in the provision of Lab services. However over the past five years no attempt has been made either to provide more technicians or to improve the infrastructure.

Total income generated under the scheme is Rs. 172867 while the amount spent from this fund is Rs. 169943, which is 98% of the total. The estimated overall hospital expenditure is Rs. 6972196 and hence the cost recovery is estimated to be 2.5%, i.e. of the total expenditure only 2.5% is met through the RKS fund.

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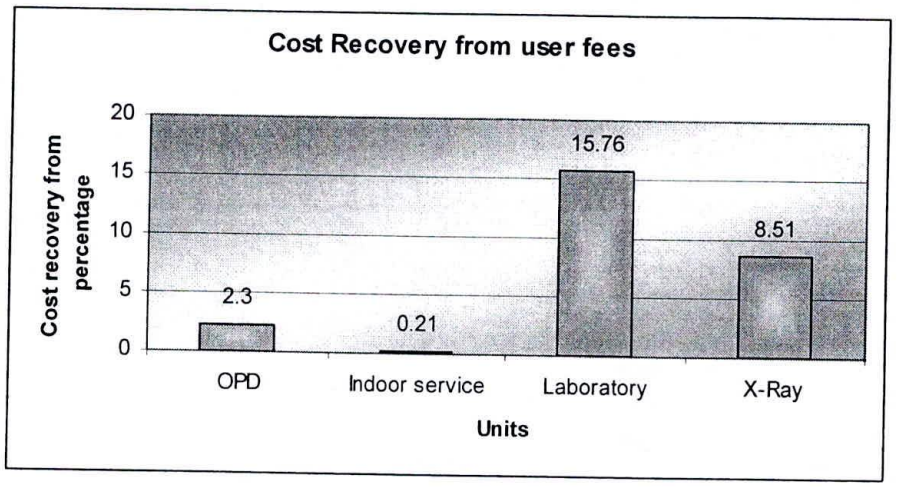
BPL	3784 (2%)	NA
Other Exp	3477 (4%)	NA

The fund allocation is independent of the fund generated by each of the units. The hospital was converted from a community health centre to a district hospital around 5 yrs. ago and the requisite number of manpower and infrastructure are yet to be increased. Provision of medicines, which is primarily government's responsibility, is met by the fund collected from RKS.

With the expansion of services more facilities are required to handle the additional caseload, especially in the provision of Lab services. However over the past five years no attempt has been made either to provide more technicians or to improve the infrastructure.

Total income generated under the scheme is Rs. 172867 while the amount spent from this fund is Rs. 169943, which is 98% of the total. The estimated overall hospital expenditure is Rs. 6972196 and hence the cost recovery is estimated to be 2.5%, i.e. of the total expenditure only 2.5% is met through the RKS fund.

The cost recovery from different units is as follows –



The estimated cost recovery is more from Laboratory services and X-ray. This implies that the number of investigations suggested to the patients is more. These are supportive services and though aid in diagnosis and hence in treatment, they do not directly benefit the patients in terms of relief from diseases. These departments can also be seen as revenue generating units!

Community Health Centre-

On an average 1.18 lakh population are covered per CHC in Jhanjgir. ***Baloda CHC*** is located around 50 kms. from Naila station. The RKS was constituted here in 1996.

It is a -- bedded hospital with the following units - Outdoor services, Indoor facilities, Laboratory services, Operation Theatre, Labour room, Pharmacy, X-Ray Centre, Dressing room, Injection room, Administration.

Note- As the number of indoor patients is par less than the out door patients and the number of minor surgeries conducted are also less, the expenditure apportioned for different units in a CHC are as follows –

OPD	IPD	OT	LAB	PHR	INJ	X-RAY	ADMIN	Total
40%	5%	5%	10%	10%	10%	10%	10%	100%

OPD Clinic –

The total number of patients seen in a year (April 03 to March 04) is 33172. The average number of patients seen in a month is around 2764. Thus the average number of patients examined/treated in a day is around 92.

Assuming that of the total expenditure 40% is spent on OPD services the annual expenditure on OPD is Rs. 3947625. Thus expenditure per patient comes to Rs. 119. This however excludes the cost for pathology and X-Ray. The cost of these services would be taken separately. Rs. 119 per patient is inclusive of the staff salary, maintenance & repair, cost of consumables and the capital cost.

The registration charges per patient is Rs. 2 for out patient service. This amounts to around Rs. 66344 in a year. 14% of the total patients were given free treatment (8% BPL, pensioners and others 6%) the income through OPD would be Rs. 57056. Thus of the total expenditure on Out patient services around 1.4 % is recovered from the patients.

Indoor Services –

The total number of patients admitted in a year (April 03 to March 04) is 76. Assuming that of the total expenditure 5% is spent on IPD services the annual expenditure on Indoor patients is Rs. 493453. Thus expenditure per patient comes to Rs. 6493. This is inclusive of only the staff salary, building cost, maintenance & repair cost and cost of consumables. The recovery from the patient's contribution is 0.21%. This excludes the cost of X-Ray, lab investigations, and surgical procedures.

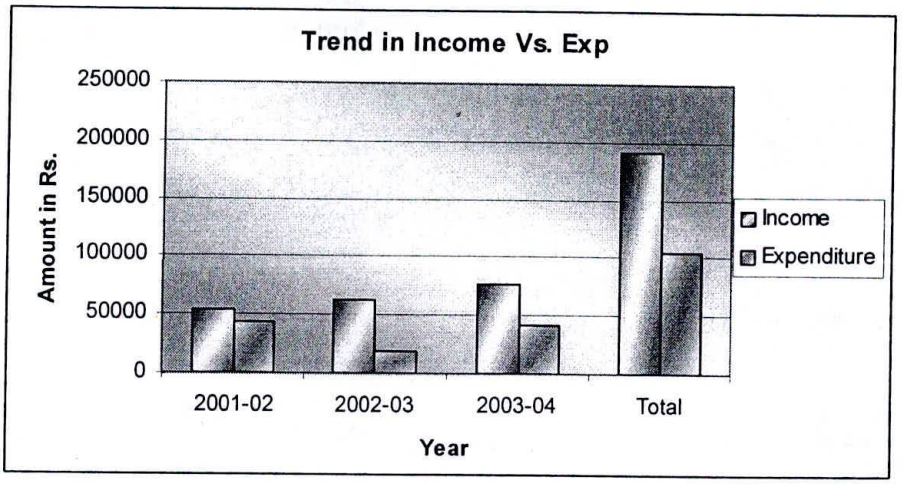
The details on income expenditure are as follows –

RKS - Expenditure	2001-02	2002-03	2003-04	Total	Percentage
Ambulance-Maintenance			14813	14813	14.29
Equipment-Repair & Maintenance	1315	2340		3655	3.53
Medicines		380	1415	1795	1.73
Hospital Maintenance					
Eye Camp	37358	9589	2100	49047	47.30
Staff salary	200	2400	17800	20400	19.68
Other expenses	4778	4063	5133	13974	13.48
Total	43651	18772	41261	103684	100

RKS-Income	2001-02	2002-03	2003-04	Total	Percentage
Donation	16556		2220	18776	9.83
OPD Registration	23836	42148	45768	111752	58.51
IPD Registration		450	500	950	0.50
Delivery charge	150	750	1300	2200	1.15
Other income		20	850	870	0.46
X-Ray	1170	2780	340	4290	2.25
Blood Investigation	175	640	440	1255	0.66
Urine	65	510	350	925	0.48
Other Investigation	300	2285	3650	6235	3.26
Eye Exam	860	1420	1540	3820	2.00
Eye camp	10000	10650	4725	25375	13.29
Ambulance charge			11050	11050	5.79
Others		408	3096	3504	1.83
Total	53112	62061	75829	**191002**	100

The maximum income is from OPD patients while the maximum expenditure is on eye camp.

A generator has been purchased from the contribution of patients. However during power cut it could not be used as it was out of order. The accountant was very displeased with the system and stated that though a scheme like this is operational for patient's welfare, even despite of frequent power cut the officials do not grant permission to buy even inexpensive candles.



The income through RKS has shown consistent increase over the years, which is not congruous with the expenditure pattern. A huge amount is left unspent.

Raigarh -

Premises -

Situated on the eastern border of Chattisgarh, Raigarh district covers an area of around 6,836 sq km. It covers a population of 12,65,084 and is around ---- kms. from the state capital Raipur. There are 7 CHCs covering on an average 1.8 lakh population per CHC.

District Hospital –

It was started as a 117 bedded hospital, which was further, expanded to 190 beds in 1995. Facilities of delivery, eye, child, surgical, medical, T.B. and burn unit are available here. Dental treatment facilities are also available in this Hospital along with those of X-Ray, Blood Bank, Pathology and I.C.U. Ward. District Rogi Kalyan Samiti at district hospital, Raigarh for the welfare of the patients was established during the month of October, 1995 with public contribution. The Samiti with the help of public collected Rs. 42,92,969.00 for different facilities. In 1998-99, the District Rogi Kalyan Samiti made available an amount of Rs. 2,45,392.00 for construction of two I.C.U. Rooms.

Indian Red Cross Society, Raigarh branch was established during the year 1991-92 and with the help of public Rs. 1,27,53,952.00 was collected till 2002 of which Rs. 91,14,869.00 was expended. During the year 1997-98 an amount of Rs. 12,09,023.00 and during the year 1998-99 an amount of Rs. 11,43,337.00 has been expended for different types of works.

Unit wise costing

OPD Clinic –

The OPD timings are 8.00 am. to 14.00 pm. and from 16.00 pm. to 18.00 pm. thereby amounting to 8 hours. However the clinic starts not before 9.30 am and closes around 17.30 pm.

The total number of patients seen in a year (Jan to Dec, 03) is 136555. The average number of patients seen in a month is around 11380. Thus the average number of patients examined/treated in a day is around 438 in different departments.

Assuming that of the total expenditure 25% is spent on OPD services the annual expenditure on OPD is Rs. 6730984. Thus expenditure per patient comes to Rs. 49. This however excludes the cost for pathology and X-Ray. The cost of these services would be taken separately. As the data for Indoor and Outdoor patients getting services in the aforementioned units is not separately available, it is not possible to estimate the separate cost for these services for Out door patients. Rs. 49 per patient is inclusive of the staff salary, maintenance & repair, cost of consumables and the capital cost.

The registration charges per patient is Rs. 2 for out patient service. This amounts to around Rs. 2,73,110 in a year. Around 53% of the total patients were given free treatment (BPL, pensioners, etc.) thus the net income from out patients is Rs. 129440. Thus of the total expenditure on Out patient services around 1.9% is recovered from the patients.

Indoor Services –

Assuming that of the total expenditure 22% is spent on IPD services the annual expenditure on Indoor patients is Rs. 5923266. Thus expenditure per patient comes to Rs. 365. This is inclusive of only the staff salary, building cost, maintenance & repair cost and cost of consumables. The recovery from the patient's contribution is 5.41%. This excludes the cost of X-Ray, lab investigations, surgical procedures & delivery (including L.S.C.S).

Laboratory –

The total number of investigations done in a year (Jan, 03 to Dec, 03) is 15581, the details being available in the Annexure. The total income generated through the laboratory is Rs. 67790.

Assuming 6% of the total expenditure would be on laboratory the net expenditure comes to Rs. 1615436. Thus the cost recovery from the patients contribution amounts to 4.19%.

X-Ray –

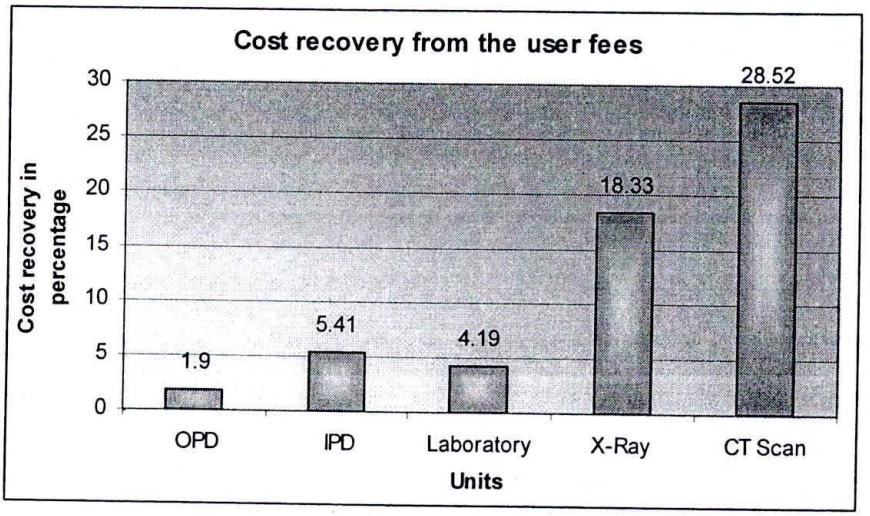
The total number of X-Rays done in a year is 9492. The detailed classification of X-Rays done in the month of Oct 2004 is available in the Annexure. The estimated income from X-Rays is Rs. 345475. The total expenditure on the patients for X-Ray being Rs. 1884676, the cost recovery is 18.33%.

CT Scan –

This service is charged even for the BPL population and the pensioners. The charges are Rs. 800 for general category with an additional Rs. 200 for the plate and computerised report, while for BPL population Rs. 400 plus Rs. 200 is charged. For contrast media another Rs. 400 is charged. Around 852 patients underwent CAT scan and the total revenue generated through this is Rs. 767800. Assuming that of the total hospital expenditure if 10% were utilised for providing this service, the estimated expenditure is

Rs. 2692394. Thus the cost recovery for the hospital from the patients contribution is 28.51%.

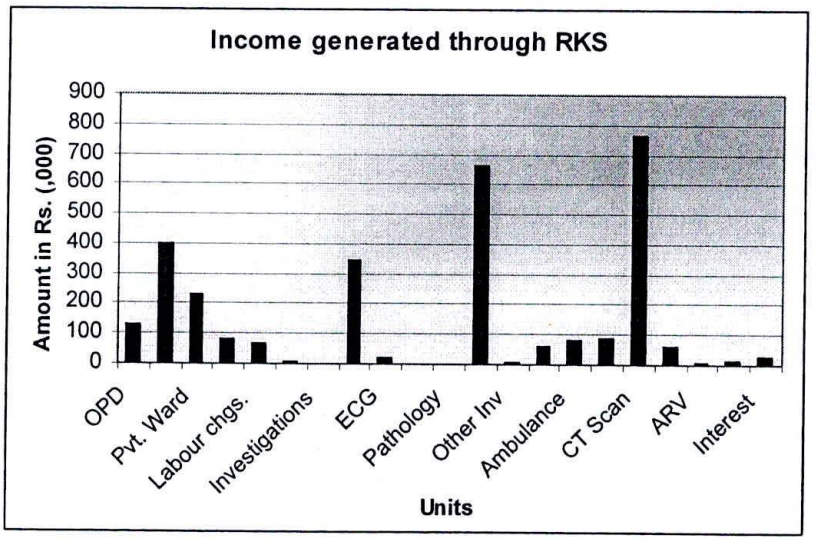
The cost recovery from different departments are as follows –



The cost recovery is more from CT Scan & X-Ray department while that from Indoor patients is also considerable. This implies that a lot of patients are suggested investigations like X-ray & scan.

The statement of income from Rogi Kalyan Samiti for the year 2003 (Jan, 2003 – Dec, 2003) is as follows –

Unit Head	Amount collected in Rs.	Proportion in percentage
OPD	129440	4.24
IPD	400510	13.13
Pvt. Ward	229220	7.51
ICU	79365	2.60
Labour chg.	67790	2.22
Plaster chg.	3825	0.13
Investigations		
X-Ray	345475	11.32
ECG	18320	0.60
Pathology		
Blood Inv.	665349	21.80
Other Inv	10050	0.33
Cycle stand	59666	1.96
Ambulance	83108	2.72
Attendant Entry	88868	2.91
CT Scan	767800	25.16
Rent-Shop	58747	1.93
ARV	7195	0.24
Others	11652	0.38
Interest	24999	0.82
	3051379	100.00

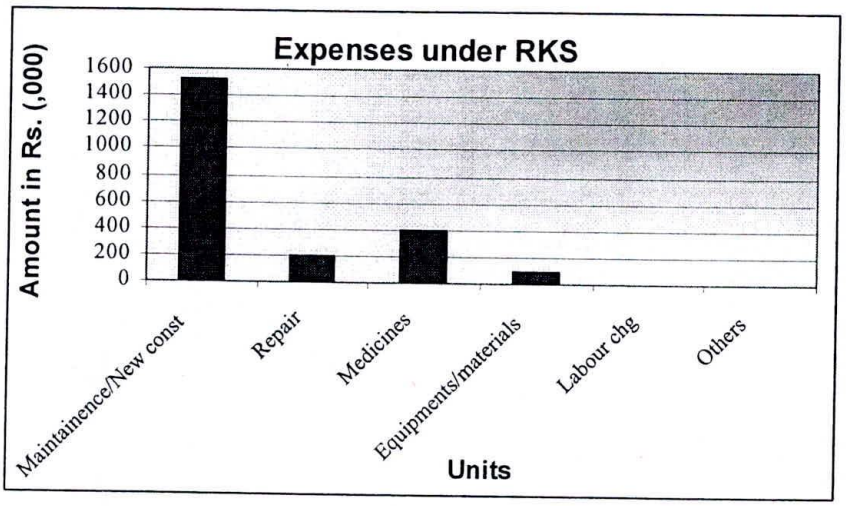


The maximum income is made through CT Scan, following which is blood investigation and X-Ray. Thus it is seen that maximum income is through investigative procedures, which aid in diagnosing and not in treating the patients. (Though it indirectly aids in

treatment.) However the irony is that in many cases even after the ailment is diagnosed the hospital is not equipped enough to handle the case and provide appropriate treatment. For instance though the Raigarh district hospital has high tech diagnostics like CT Scan it is not equipped to handle L.S.C.S.

The fund collected through RKS is utilised for various purposes like new construction, maintenance and repair and purchase of medicines, which is as follows –

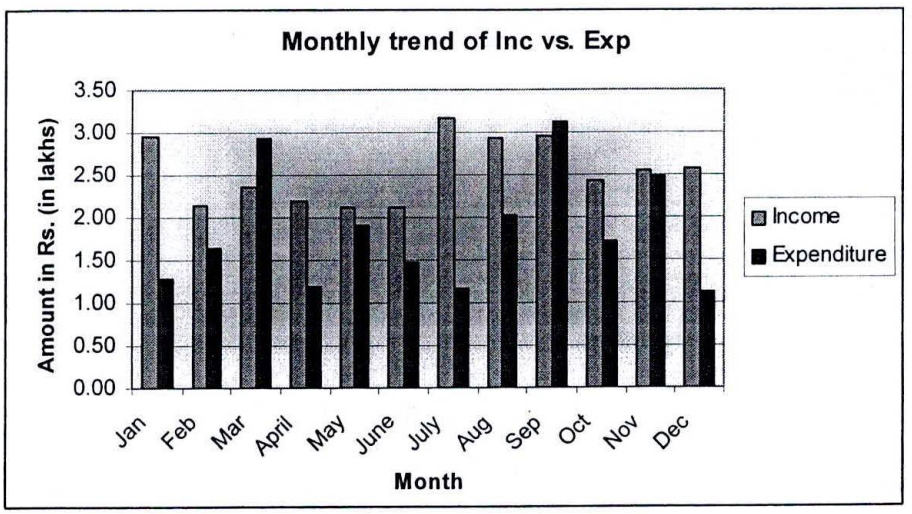
Unit Head	**Amount in Rs.**	**Proportion in percentage**
Maintenance/New construction	1516374	68.73
Repair	195867	8.88
Medicines	393762	17.85
Equipments/materials	97220	4.41
Labour chg		
Others	3053	0.14
Total	**2206276**	100.00



A huge proportion of the amount collected through RKS is spent on New construction and maintenance of the building and major equipment.

The sanitation and hygiene conditions of the hospital is appalling with the infective and the non infective wastes being dumped in the open space at the centre of the hospital building which is flanked by wards on all its sides. On enquiring the justification given for the poor sanitary condition was that the Class IV staff were on strike for a hike in the

salary. Though the hospital is able to collect a considerable amount through user fees a huge chunk of around Rs. 10 lakh is earmarked for the maintenance of CT scan machine. It is well known that not many patients need to undergo this investigation and while the general state of the hospital in terms of manpower and basic sanitation is so poor, it seems ridiculous to hold back such a big amount of people's contribution which is meant to serve people's needs. Moreover the charges for CT Scan though is less than market price is not subsidised to a great extent.



72% of the total contribution is utilised though the utility of the services for which the amount is spent could not be assessed. The income generated from the patients has never been less than Rs. 2 lakhs while in almost 4 months the expenditure has been maintained less than Rs. 1.5 lakhs. The expenditure surpassed the income in the month of Sep & March. However the gap between income and expenditure has been consistently maintained, despite of the fact that the staff is discontent with the pay package, the hospital is unkempt.

In some hospitals every unit enjoys the autonomy with respect to utilisation of resources generated by it. However in Raigarh hospital the resource generated through different units are pooled and utilised for different purposes based on the decision of the committee. It was therefore not possible to compare the unit wise resource utilisation.

Community Health Centre –

Pusaur CHC is located around 35 kms. from Raigarh station. The RKS was constituted here in 1997.

The tariff chart for the user fees as decided by the committee –

Sr. No.	Unit/Service	Current rates in Rs.
1	Haemoglobin	5
2	Total & Differential counts	5
3	ESR	5
4	Urine-Sugar/Albumin	5
5	Urine Bile salt pigments	5
6	Serum bilirubin	20
7	Widal	30
8	V.D.R.L.	15
9	Major surgery	50
10	Minor surgery	25
11	OPD	2
12	IPD	10/day
13	X-Ray	40/50/60
14	Sickle cell	15
15	RA	15
16	Serum Cholesterol	20

OPD Clinic –

The increase in the number of out patients has been consistent from the time of inception of RKS in 97, which is around 20% increase every year. However in 2001-2002 the number of patients fell by 11% in comparison to the preceding year and in 2002-2003 the number of out patients increased by 47% which showed a mere increase of 8% in the subsequent year.

Currently on an average around 60 patients are treated each day. Assuming that of the total expenditure 25% is spent on OPD services the annual expenditure on OPD is Rs. 813810. Thus expenditure per patient comes to Rs. 49. This however excludes the cost for pathology and X-Ray. The cost of these services would be taken separately. Rs. 49

per patient is inclusive of the staff salary, maintenance & repair, cost of consumables and the capital cost.

The registration charge per patient is Rs. 2 for out patient service. The total number of patients seen in a year (April 03 to March 04) is 16776. 59% of the total patients i.e. 9904 patients were given free treatment. The revenue generated through OPD in 2003-2004 is Rs. 12182. Thus of the total expenditure on Out patient services around 1.5% is recovered from the patients.

Indoor Services –

The total number of patients admitted in a year (Jan 03 to Dec 03) is 801. Assuming that of the total expenditure 22% is spent on IPD services the annual expenditure on Indoor patients is Rs. 716152. Thus expenditure per patient comes to Rs. 894. This is inclusive of only the staff salary, building cost, maintenance & repair cost and cost of consumables. The recovery from the patient's contribution is 2.17%. This excludes the cost of X-Ray, lab investigations, and surgical procedures.

The income from 801 indoor patients being Rs. 15520 the average fees per patient can be estimated to be Rs. 19, which means that the average length of stay could be 2 days (Indoor fees per patient per day is Rs. 10).

Laboratory –

The total income generated through the pathological investigations in 2003-2004 is Rs. 2455. Assuming 6% of the total expenditure would be on laboratory the net expenditure comes to Rs. 195314. Thus the cost recovery from the patients contribution amounts to 1.26%.

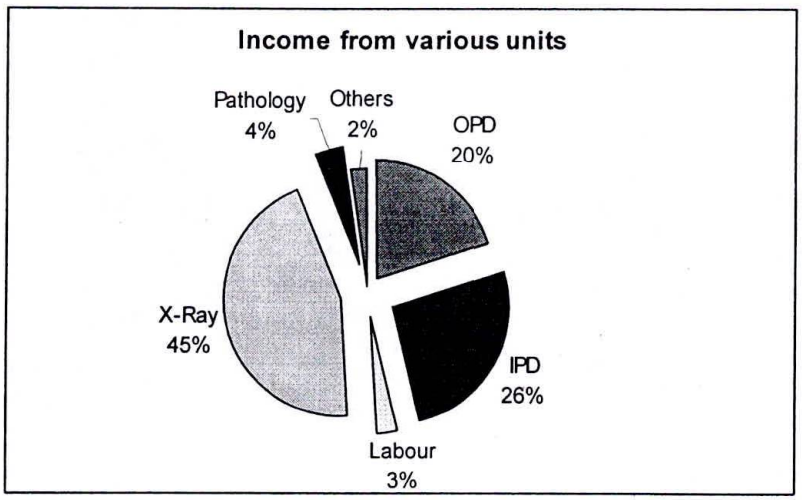
X-Ray –

The revenue generated from X-Rays in 2003-2004 is Rs. 26890. As per the assumption the total expenditure on the patients for X-Ray is estimated to be Rs. 227867, and hence the cost recovery is 11.8 %.

The details on income expenditure are as follows –

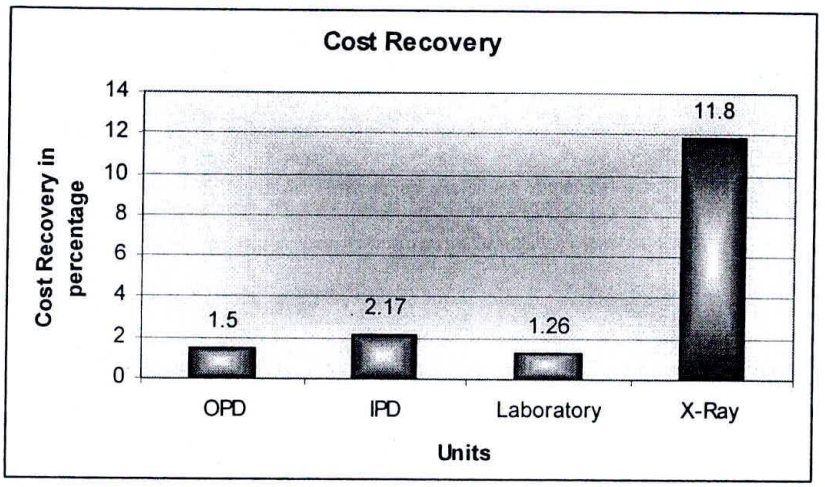
Income	97-98	98-99	99-00	00-01	2001-2002	2002-2003	2003-2004	Total
OPD	1460			2888	2438	6380	12182	25348
IPD	1180		1970	3070	2680	5140	15520	29560
Labour	500		565	870	1190	1180	1660	5965
Investigation								
X-Ray						20280	26890	47170
Pathological								
Blood	15		335	980	535	1395	1180	4440
Others			500	345	810	875	1275	3805
From other sources				212	238	1061	999	2510
Total	3155		3370	8365	7891	36311	59706	118798

Expenditure	97-98	98-99	99-00	00-01	2001-2002	2002-2003	2003-2004	Total
Medicine	475				560			1035
Consumables	1145			3046	3682	11026	44614	63513
Total	1620			3046	4242	11026	44614	64548
Balance	1535		3370	5319	3649	25285	15092	54250

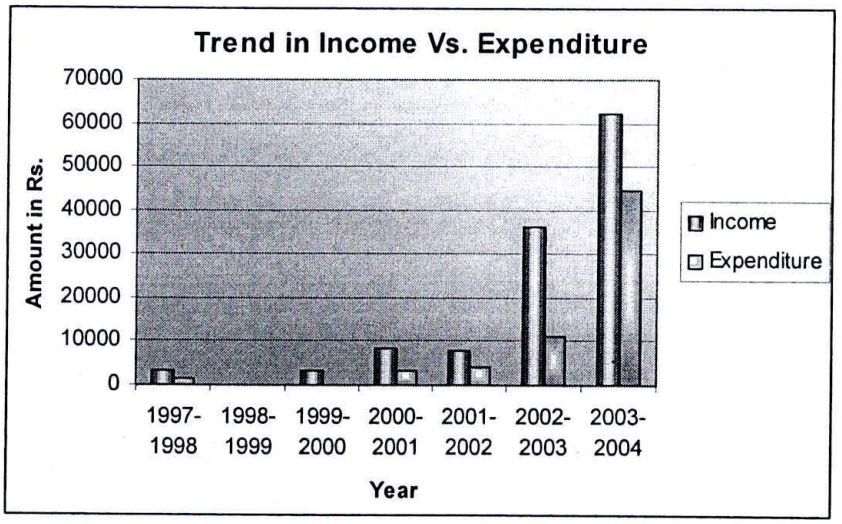


The maximum income is from X-Ray while the contributions from Indoor patients is the next higher revenue generating unit.

Cost recovery from different units –



The cost recovery through X-Ray department is maximum as implied even from the previous graph showing maximum income from the same department. However though the income generated from Indoor wards is more the expenses are also more on the indoor patients and hence the cost recovery is substantially reduced to 2%.



No income & expenditure is shown in 1998-1999, the reason is not known. In 97 though some amount has been spent it is negligible, while in 1999-2000 no money has been spent despite of contribution from the patients. The gap between income & expenditure is considerable in all the years, i.e. a huge amount is left unspent though the patients are in dire need of services.

No one is exempted from fees as it is felt that everyone should pay for health care services*. This decision is reached at unanimously by the committee as it is felt that if the BPL population is exempt from the levy everyone will try evading payment on the same pretext and there will be no source of income. It is also felt that by paying the people will be able to demand for services. Though patients are compelled to pay for the service around Rs. 62495 from their contribution is left unutilised.

The doctors are indulged in private practices and pick up medicines from sample packets as is known to many. Though the CHC is spacious there is no separate room allotted for injection administration and a corridor outside the female ward is utilised for the same. A table which is loaded with register, syringes, needles and swabs and a bench adjacent to it to make the patient lie down while administering the injection are allotted for the purpose. This is not only unhygienic but also does not allow privacy to the patients both indoor and outdoor.

Charama – Community Health Centre –

Kanker has a population of 651333 in 7 blocks. It has 6 CHCs with each CHC covering on an average a population of 1 lakh.

OPD Clinic –

Assuming that of the total expenditure 25% is spent on OPD services the annual expenditure on OPD is Rs. 743800. The number of patients seen in 6 days (a week) is

* Some patients are treated free on a special consideration from the Medical Officer.

446. If this is extrapolated the total number of out patients examined in a year can be estimated to be around 21408. Thus the expenditure per patient will be Rs. 35.

The registration charge per patient is Rs. 2 for out patient service. The revenue generated through OPD after discounting for the free patients can be estimated to be Rs. 36672. Thus of the total expenditure on Out patient services around 4.9% is recovered from the patients.

Indoor Services –

Assuming that of the total expenditure 22% is spent on IPD services the annual expenditure on Indoor patients is Rs. 654544. Thus expenditure per patient comes to Rs. 2081. This excludes the cost of X-Ray, lab investigations, and surgical procedures.

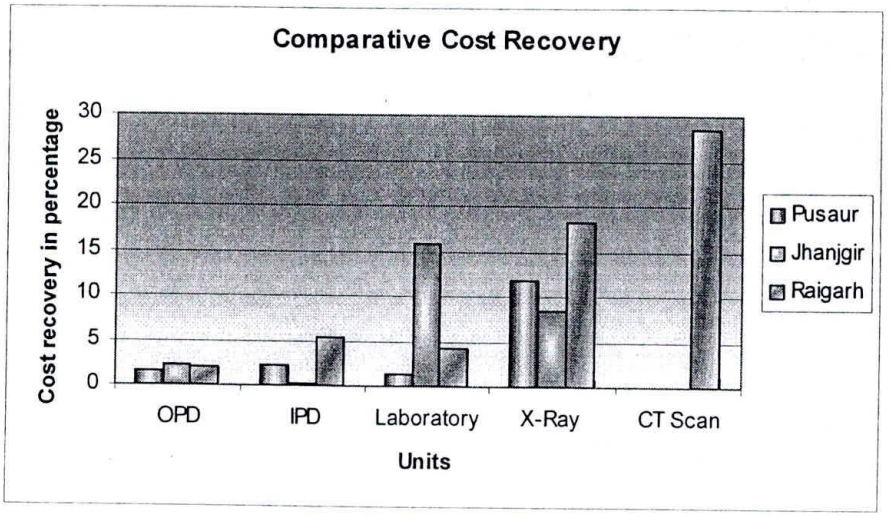
Laboratory –

Assuming 6% of the total expenditure would be on laboratory the net expenditure comes to Rs. 178512.

As some important information was not available like the charges for various services, this section is left incomplete.

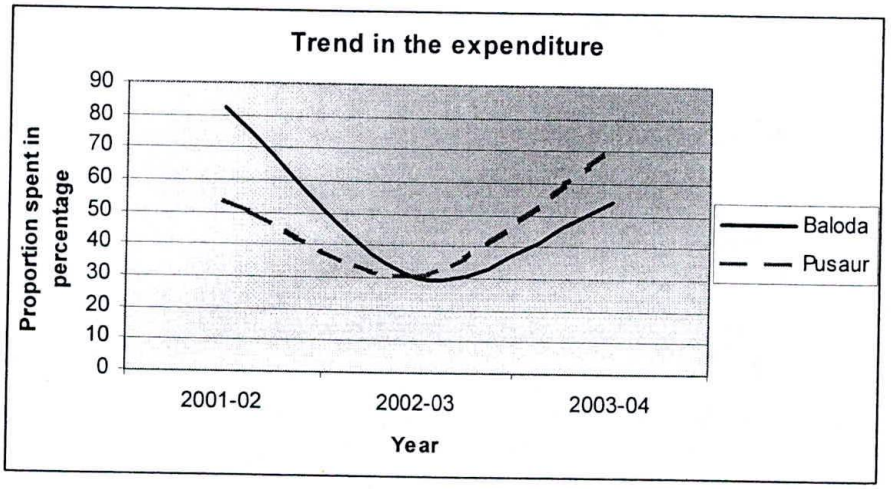
A Comparative Analysis –

The CHCs and the district hospitals selected for the study being highly varied in terms of infrastructure, evolution, facilities, etc. serving populations of varied background in terms of socio-economic conditions and demography they are not comparable. However a general impression gathered about the functionality of the scheme shows that the scheme has its pros and cons.



1. The cost recovery for the hospital is more from the investigative procedures like pathological tests X-Ray and Scan. This is suggestive of more patients being sent for diagnosis. Thus it can be considered as a good revenue-generating unit.

2. Not more than 72% of the contribution has been utilised in any of the hospitals, though the hospital does not seem to be self-sufficient. In the year 2003-2004, in Raigarh, Baloda and Pusaur 72%, 54% and 72% of the total contribution from the patients have been utilised. Moreover the income in all these centres are generated from patient contribution, as there is no record of any donation being received.



In the two CHCs the amount spent from the total collection dropped to mere 30% in 2002-03, which again increased in the following year.

Conclusion

The user fees are fixed on ad hoc basis by the committee/trust without considering affordability, accessibility to the service and the indirect cost incurred by the people. Some studies[3] also show that decentralization is in turn centralized at the hands of few like the dean of the hospital or the CMO and thereby leading to improvement in selective services confined to few departments which in true terms might not benefit the patient, like provision of CT Scan in a place where there is no facility for provision of basic services. A large amount of the fund collected is earmarked for maintenance of some major equipment or service, which in turn is blocking the money for some definite purpose not actually taking into consideration the immediate and the urgent needs of the poor patients.

The cost recovery from each the unit is minimal and the chief stated objective of introducing user fees is to encourage people's participation in the management of the hospital and to create a demand for fair services from the hospital. However since the power of allocation rests with few it still manifests the problems of implementation.

As there is a shortage of staff some are appointed as RKS staff but are employed on contractual basis and are paid less than others and also are devoid of other additional benefits. This has led to dissatisfaction among the staff appointed under RKS.

A list of activities[2] undertaken in a handful hospitals are commendable, but these are in few hospitals as compared to the total number of hospitals and more amount is seen to have been spent on infrastructure development, and investigative procedures which do not address the immediate needs of the patients.

As stated in one of the studies[1] the increase in the number of middle income class patients and lack of protest is seen as an evidence for acceptability & willingness to pay. This could also be attributed to the fact that people have no other option and in the time of crises they are compelled to pay. It is also to be noted that the study shows increased utilisation by middle income patients and not by poor patients which implies that either even the poor are charged or the quality of treatment given to the poor is unaffordable. One must also be cognisant of the indirect cost to the patient, which could be another cause of not seeking service, which the scheme fails to reckon.

Some studies[2] suggest augmentation of revenue from ambulance, pathological and Investigative services. Most of the hospitals are seen doing the same, without strategizing on how these resources could be effectively spent for the benefit of the patient. It seems to be more of a revenue generation mechanism.

One of the main objectives of establishing RKS was to provide autonomy to the hospital so as to increase the efficiency. However the constitution of the committee is a clear evidence of hierarchical structure. The Executive Committee meets quarterly and the decisions have to be stalled until then. The CMO has limited power, which he/she utilises for vested interest, like lakhs of rupees are earmarked for the maintenance of CT scan in a hospital where basic sanitation is absent, and there is virtually no waste management.

Due to lack of strong civil society presence, there is no pressure for the funds to be spent for the benefit of the poorer patients or even the hospital development. A sizeable collection of user fees is used even for petty things like paying of electricity, water and telephone bills. In most of the hospitals the collected amount has been spent in buying cooler and generator which might not benefit the patients directly.

Though it was not possible to elicit minute details about the implementation of the scheme, the findings of similar schemes[5] in other states suggest–

- It increases the accountability of the hospital staff but in the absence of 'real powers'; it unnecessarily increases the burden of the staff.
- Though the resources generated are supposed to be utilised for hospital development, in bigger hospitals they are used for paying electricity bills and in smaller hospitals to buy medicines.
- There is very little public awareness of the functioning of the scheme and politicisation of the scheme.

Suggestions for further study –

- To analyse the utility of the services from the time of inception of the scheme.
- Detailed analysis of trends of expenditure.
- Detailed analysis of trends of user fee collection.
- Client satisfaction studies.

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6. Ramesh Bhat, Harshit Sinha, Dileep Mavalankar: Cost Analysis of government hospital services at block level. Case study of Community Health Centre at Sanand Taluka in Ahmedabad district, Gujarat.
7. Edited by Andrew Creese & David Parker: Cost Analysis in Primary Health Care- A training manual for program managers.

Units	Income	Duration	Year	After discounting for Free services @ 60%	Total Exp	Recovery	Proportion of the total

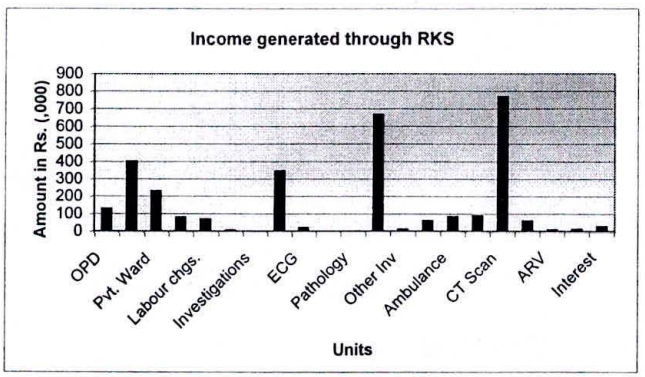
This has been taken as 60% as one of the artilce mentions the state has 43% BPL. Besides this we also have to account for those getting free treatment. Morevoer the total income from RKS was not corresponding the income computed by multiplying the number of patients into the cost of care. For it to match the income figures approxiamtely it had to be dicounted.

OPD
Lab
X-Ray
IPD
OT
Total Income
Income from the Inc-Exp Statement
Income from other sources

X-Ray	**1 month**	
Type	Numbers	
Chest	113	12X15
Hip	66	10X12
LS Spine	77	12X15
Thoracic S	86	12X15
Skull	75	8X10
Wrist	55	8X10
Shoulder	53	8X10
Leg	45	8X10
CS Spine	54	12X15
Foot	77	8X10
Thigh	46	10X12
Pelvis	44	12X15
	791	
Annual	9492	

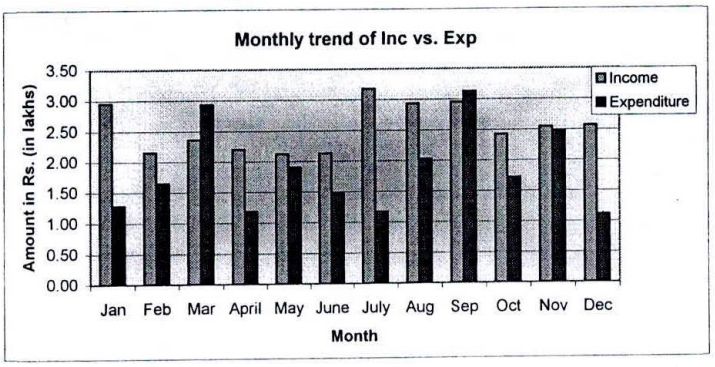
OPD	129440	129.44
IPD	400510	400.51
Pvt. Ward	229220	229.22
ICU	79365	79.37
Labour chg	67790	67.79
Plaster chg	3825	3.83
Investigations		0.00
X-Ray	345475	345.48
ECG	18320	18.32
USG		0.00
Pathology		0.00
Blood Inv	665349	665.35
Other Inv	10050	10.05
Cycle stanc	59666	59.67
Ambulance	83108	83.11
Attendant E	88868	88.87
CT Scan	767800	767.80
Rent-Shop	58747	58.75
ARV	7195	7.20
Others	11652	11.65
Interest	24999	25.00
	3051379	

OPD	129.44
IPD	400.51
Pvt. Ward	229.22
ICU	79.365
Labour chg	67.79
Plaster chg	3.825
Investigatic	0
X-Ray	345.475
ECG	18.32
USG	0
Pathology	0
Blood Inv	665.349
Other Inv	10.05
Cycle stanc	59.666
Ambulance	83.108
Attendant E	88.868
CT Scan	767.8
Rent-Shop	58.747
ARV	7.195
Others	11.652
Interest	24.999

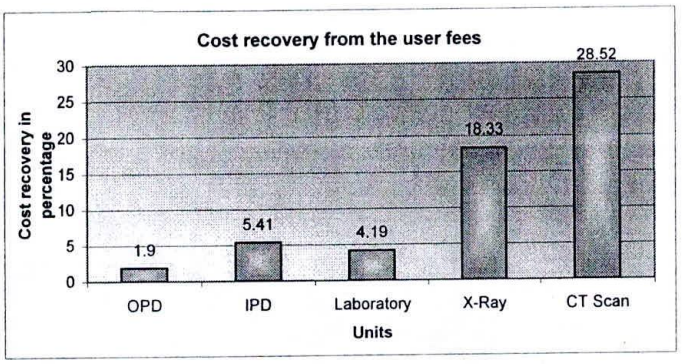


	Income	Expenditure		
Jan	295211	128275	2.95	1.28
Feb	215436	164661	2.15	1.65
Mar	235851	293065	2.36	2.93
April	219866	118554	2.20	1.19
May	212292	190472	2.12	1.90
June	212575	147846	2.13	1.48
July	317507	117224	3.18	1.17
Aug	293515	202439	2.94	2.02
Sep	295617	312723	2.96	3.13
Oct	242490	172059	2.42	1.72
Nov	254459	247638	2.54	2.48
Dec	256560	111320	2.57	1.11

	Income	Expenditure
Jan	2.95	1.28
Feb	2.15	1.65
Mar	2.36	2.93
April	2.20	1.19
May	2.12	1.90
June	2.13	1.48
July	3.18	1.17
Aug	2.94	2.02
Sep	2.96	3.13
Oct	2.42	1.72
Nov	2.54	2.48
Dec	2.57	1.11

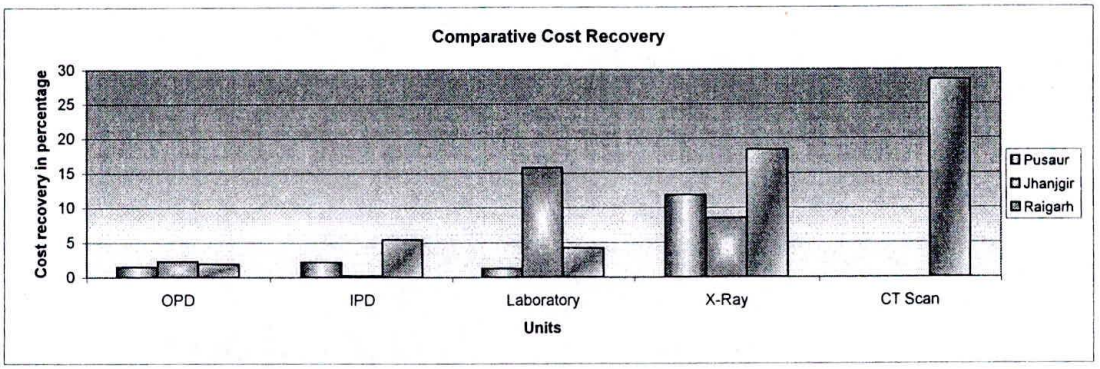


OPD	1.9
IPD	5.41
Laboratory	4.19
X-Ray	18.33
CT Scan	28.52



852
852000

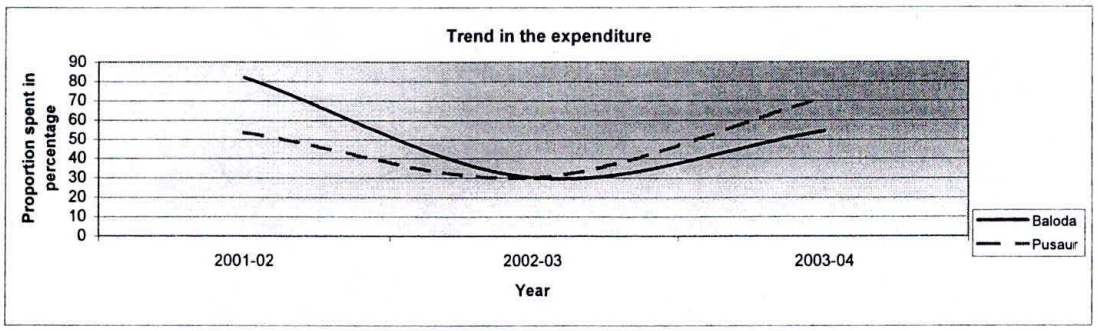
	Pusaur	Jhanjgir	Raigarh	
OPD	1.5	2.3		1.9
IPD	2.17	0.21		5.41
Laboratory	1.26	15.76		4.19
X-Ray	11.8	8.51		18.33
CT Scan				28.52



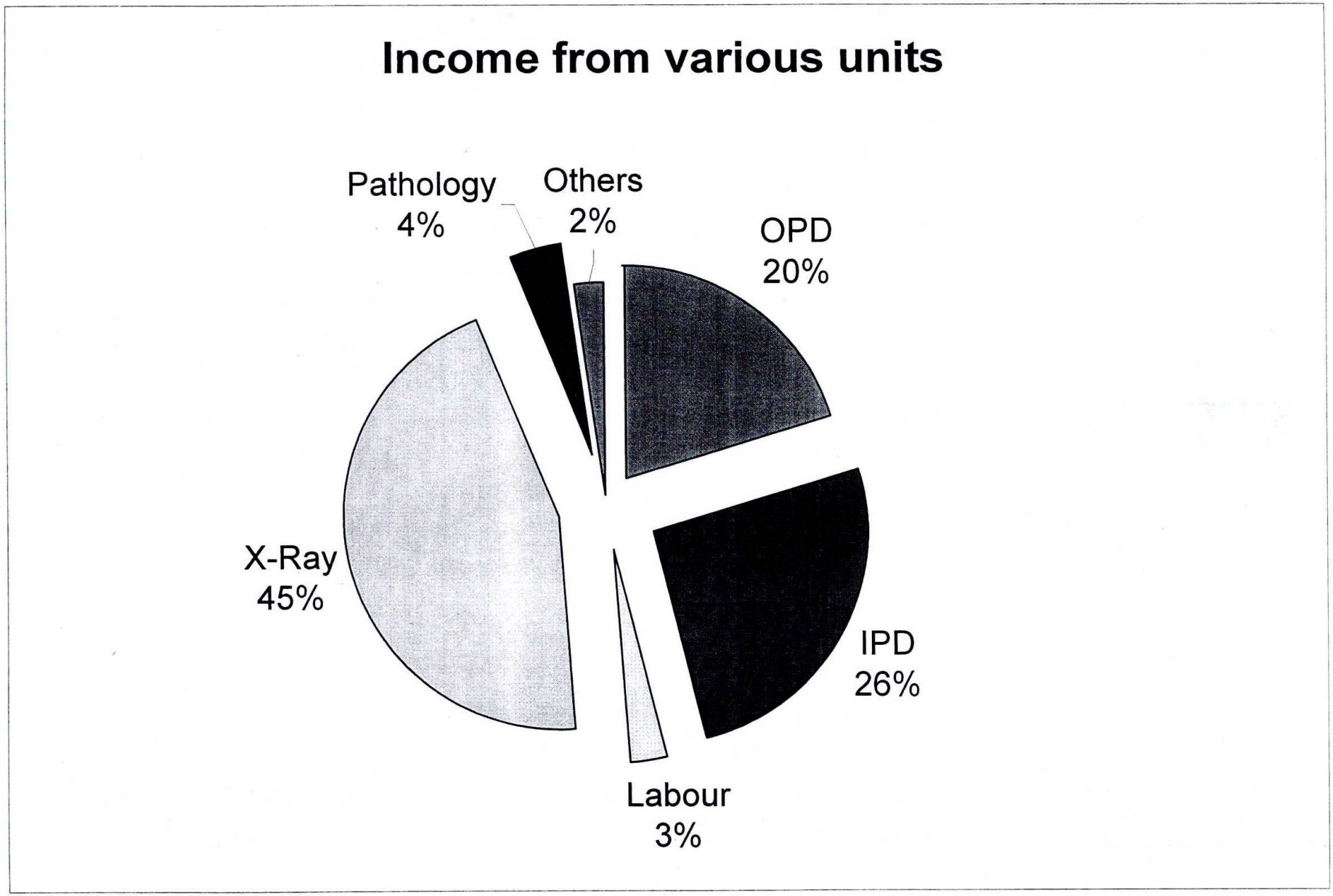
	Income	Expenditure	
Pusaur	62161	44614	71.77168964
Raigarh	3051379	2206276	72.30422704
Baloda	75829	41261	54.41321922

Pusaur	72
Raigarh	72
Baloda	54

	2001-02	2002-03	2003-04	
Baloda	82	30		54
Pusaur	54	30		72



Staff	As per the	Charama	Pusaur	
Medical offi	4	5		4
Nurse mid-	7	7		4
Dresser	1			1
Pharmacis	1	1		2
Lab techni	1	2		3
Radiograpl	1	1		1
Ward boys	2	2		1
Dhobi	1			1
Sweepers	3	2		1
Mali	1			
Choukidar	1	1		
Aya	1	1		1
Peon	1	4		1

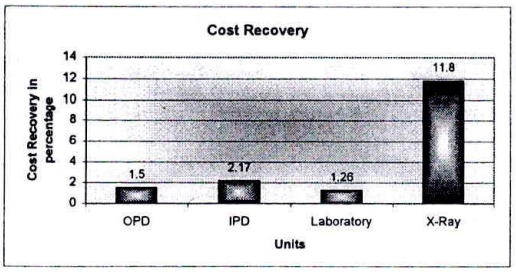

Income from various units
Pathology
4%
Others
2%
OPD
20%
X-Ray
45%
IPD
26%
Labour
3%

Income	1997	97-98	98-99	99-00	00-01	2001-2002	2002-2003	2003-2004	Total
OPD		1460			2888	2438	6380	12182	25348
IPD		1180		1970	3070	2680	5140	15520	29560
Labour		500		565	870	1190	1180	1660	5965
Investigation									
X-Ray							20280	26890	47170
Pathological		15	0	835	1325	1345	2270	2455	8245
Blood		15		335	980	535	1395	1180	4440
Others				500	345	810	875	1275	3805
From other sources					212	238	1061	999	2510
Total		3155		3370	8365	7891	36311	62161	127043
Expenditure	1997	97-98	98-99	99-00	00-01	2001-2002	2002-2003	2003-2004	Total
Medicine		475				560			1035
Consumables		1145			3046	3682	11026	44614	63513
Total		1620			3046	4242	11026	44614	64548
Bal		1535		3370	5319	3649	25285	17547	62495
Statistics									
OPD	6485	7315	8890	10679	11929	10526	15518	16776	**88118**
Free	6485	6585	8890	9694	11848	8835	12893	9904	**75134**
Calculations		830	1575	1789	1250	-1403	4992	1258	
		12.79876638	21.5311	20.12373	11.70522	-11.7613	47.42542	8.106715	

Salary		
Sr. MO	11914	142968
BMO	11692	140304
MO	12402	148824
MO	10475	125700
Acct	7822	93864
Computer	5863	70356
Lab Tech	8173	98076
Lab Tech	4708	56496
Lab Tech	6133	73596
Staff Nurse	8094	97128
Staff Nurse	7053	84636
Staff Nurse	6828	81936
Radiographer	5017	60204
	4697	56364
Ward boy	3190	38280
Sweeper	3614	43368
OAO	6468	77616
ANM	4103	49236
Compounder	5167	62004
Compounder	5827	69924
Dresser	4993	59916
Driver	5095	61140
Aayah	3877	46524
Mess Servant	3154	37848
Cook	2944	35328
Dhobi	3459	41508
		1953144
	Apportioning	
Dep	10	325524
Sal	60	1953144
Rep	5	162762
Consumables	25	813810
Total exp	100	**3255240**

	Apportioning		Per capita	Cost recovery
OPD	25	813810	48.51037	1.49691
IP	22	716152.8	894.0734	2.167135
Patho	6	195314.4		1.256948
X-Ray	7	227866.8		11.80075

Major sur	156
Minor	1920
OPD	1.5
IPD	2.17
Laboratory	1.26
X-Ray	11.8



OPD	Number	Amt. Coll	Annual Pats
in 6 days	446	892	21408
Free	44		
BPL	83		
Pension	1		
Total	128	256	6144
Bal	636		
One month	2544		
One year	30528		
Salaries			
Doctors	8000	13500	
DA	4160	7020	
Rent Allowance	100	100	
HRA	75	75	
	12335	20695	
Avg	16515		
Annual Income of 3 doctors residing in quarters	588240		
Annual Income of the remaining two doctors	396360		
Total exp on doctors salary	984600		

Staff	Number	Sal/emp	Annual sal
BEE	1	8840	106080
Lab Tech	2	8315	199560
Compounder	1	6361	76332
Staff Nurse	4	8139	390672
ANM	2	12473	149676
MPW	1		
LHV	1	6600	79200
Computer	1	8840	106080
LDC	1	3050	36600
Driver	2	3640	87360
Radiologist tech	1	6193	74316
Ward boy	2		
Sweeper	2	4013	96312
Waterman	2	3555	85320
Chowkidar	1	2550	30600
Peon	4	2550	122400
Aayah	1	4132	49584
NMA	1	7919	95028
			1785120

IPD	
5months	131
Adm/year	**314**
Deliveries in 5 mths.	12
Del/year	**29**

Lab	Urine	Blood	X-Ray
May	128	88	34
April	133	135	27

March		106	141	46		
Feb		109	120	44		
Jan		77	87	27		
Annual		**1327**	**1370**	**427**		
		Malaria	Injections			
	29-Aug	37				
	28	56	37			
	27	45	27			
	26	44	52			
	25	62	55			
	24	70	77			
Dep		10	297520			
Sal		60	1785120			
Rep		5	148760			
Consumables		25	743800			
			2975200			
		Apportionin	Exp	Per Pat		
OPD		25	743800	34.74402093	42816	36672
IPD		22	654544	2081.882952		
Patho		6	178512			
X-Ray		7	208264			

Building cost	2000000
Dep 30 yrs	60000
Electrical gadgets	100000
Dep 15 yrs	7000
Others (vehicle, furniture	3000000
Dep 10 yrs.	300000
Total exp on captial cost/	367000

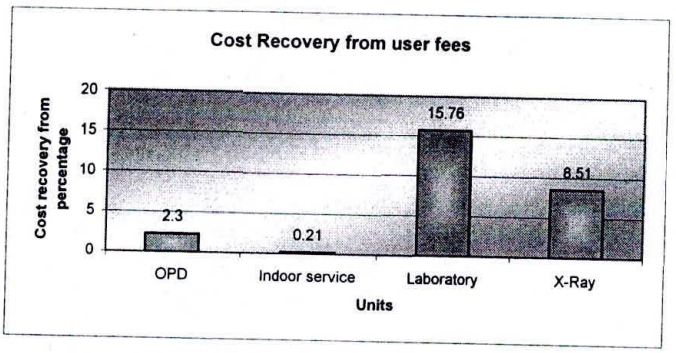
Category of Staff	Annual salary	Proportion of salary
Doctors	1306778	29
Staff Nurse	659588	15
Paramedical	1015498	22
Class IV	844526	19
Non technical	687147	15
	4513537	

		Proportion of the total
Staff	4513537	60
Depriciation	367000	10
Water/Electicity/Maintainence/Repair	348610	5
Consumables	1743049	25
Total	6972196	

For OPD	1743049	25
For IPD	1533883.12	22
Lab	418331.76	6
X-Ray	488053.72	7
OT		16

	51716	-
	33001	41520
	2467	65910
	32884	-
	2837	-
	38057	NA
	1720	NA
	3784	NA
	3477	NA
	169943	172867
	98.30852621	
	6972196	
	2.479376656	

OPD	2.3
Indoor service	0.21
Laboratory	15.76
X-Ray	8.51



OPD

Month	New	Old	IPD	Income		
April	2738	260	10	400		
May	2561	250	11	440		
June	3092	240	7	280		
July	5113	275	10	400		
Aug	5397	237	10	400		
Sep	4668	245	10	400		
Oct	4366	260	45	1800		
Nov	3837	255	24	960		
Dec	3464	265	27	1080		
	35236	2287	154	6160		
Total in 9 mths	37523					
Avg/month	4169		17.11111			
Per day	173.7176		0.712963			
Pats/year	50030.67	100061.3	205.3333		4.592474	156944
Exp/out patient	34.83938	1743049	8502.678			
		20012.27				
		80049.07	1533883			
			337454.3			
			1643.446			

Laboratory

	Nos.	Income			Urine	
Stool						
Urine	3788	38744			3508	
Blood	4460	44600				8400
Malaria	3371				2105	21048
VDRL	116	1160			702	7016
HIV	5				456	2280
Other blood inv	911	11615				38744
Total	12651	96119	19223.84	76895		

Charges	Current	Revised ch	
Haemoglobin	5	5	46
DLC	5	10	2050
ESR	10	10	182.2
Urine-Sugar/Alb	5	5	2733
Urine - R/M	10	10	683
Blood Grouping	10	20	6832.5
UPT	30	40	11615
Urine - Bile salt	10	10	
BTCT	10	10	
Blood sugar (Ca	10	20	
BS (Glucometer	30	30	
Serum Bilirubin	15	20	
Blood urea	10	20	
Widal	10	20	
VDRL	10	20	
Australia Antige	45	60	
Hepatitis 'C'		140	

X-Ray

No. of patient	Type	Plate/Film	
125	Chest	12X15	5625
14	Leg	8X10	350
16	Knee	10X12	720
4	Hip	10X12	180
24	Elbow	8X10	600
5	Shoulder	8X10	125
5	LS Spine	12X15	225
3	CS Spine	12X15	135
3	KUB	12X15	135
2	Pelvis	12X15	90
2	Abdomen	12X15	90
15	Skull	8X10	375
218			8650

OT

Minor	28		
Major	30	25	750

Units	Income	Duration	Year	After discounting for Free services @ 60% This has been taken as 60% as one of the artilce mentions the state has 43% BPL. Besides this we also have to account for those getting free treatment. Morevoer the total income from RKS was not correspending the income computed by multiplying the number of patients into the cost of care. For it to match the income figures approxiamtely it had to be dicounted.	Total Exp	Recovery	Proportion of the total
OPD			100061	40024.40	1743049.00	2.30	26.50
Lab	96119	7 months	164775.4	65910.17	418331.76	15.76	43.64
X-Ray	8650	1 month	103800	41520.00	488053.72	8.51	27.49
IPD	6160	9 months	8213.333	3285.333333	1533883.12	0.21	2.18
OT			750	300			0.20
Total Income				151039.90			
Income from the Inc-Exp Statement				172867			
Income from other sources				21827.10			

RKS	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	
Maintainence/New construction	98724	129142	180724	70355	150410	61664	81250	131369	208676	123130	205543	75387	1516374
Repair	6190	2220	12050	7899	8325	58190	14645	8154	46516	17325	8595	5758	195867
Medicines	15421	24739	90619	35077	21626	23944	14100	55075	46872	21719	24337	20233	393762
Equipments/materials	7940	8560	9672	5223	7058	4048	7229	7841	10659	9885	9163	9942	97220
Labour chg													
Others					3053								3053
Total	128275	164661	293065	118554	190472	147846	117224	202439	312723	172059	247638	111320	**2206276**

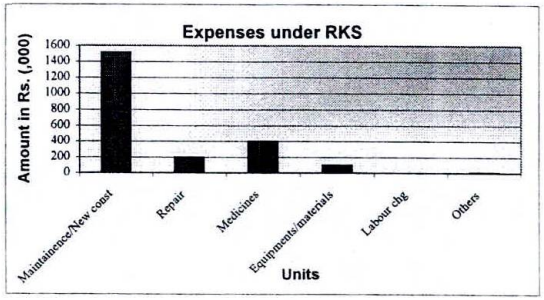
Salaries

Pay		DA	Pay	
Gazetted	Non Gazetted		Class IV	
186000	212196	263089		
237600	732508	460031	447907	
298850	313355	337265	95911	
191600		93908		
41700	186895	114081	376475	
306645	4908563	5313467		
132850	37040	86506		
36100	316680	247054	180086	
1431345	6707237	6915401	1100379	16154362

Staff	60	16154362		
Depriciation	10	2692394		
Water/Electicity/Maintainence/Repair	5	1346197		
Consumables	25	6730984		
Total		26923937		
	1995-96	1998-99		
Building cost	3300000			
Incinerator		450000		
Gnerator		345000		
For OPD	25	6730984	49.29138	
For IPD	22	5923266		
Lab	6	1615436		
X-Ray	7	1884676		
OT	16	4307830		
Others	14	3769351		
CT Scan	10	2692394	767800	28.51738

Maintainence/New construction	1516374	1516.374
Repair	195867	195.867
Medicines	393762	393.762
Equipments/materials	97220	97.22
Labour chg		0
Others	3053	3.053

Maintainence/New const	1516.374
Repair	195.867
Medicines	393.762
Equipments/materials	97.22
Labour chg	0
Others	3.053



	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec			
Donations rcd															
Amt. collected	279199	215436	23585	219988	212292	211775	317507	293515	296697	242690	254459	256560	2823703		
OPD	10644	8552	10586	9222		19426	16470	11918	12650	11282	9992	8698	129440		
IPD	33588	27998	30095	31339	15920	41779	42282	37813	38460	34183	33860	33193	400510	489378	
Pvt. Ward	23955	12720	18295	14640	11665	8200	19775	21710	33810	22965	20205	21280	229220		
ICU	10075	3900	5100	8740	11500	6675	7275	6800	3000	5500	4500	6300	79365		
Labour chgs.	4900	5960	6780	5440	6960	6040	6050	4450	6320	5210	4380	5300	67790	1615436	4.19639
Plaster chgs.	100	150			1625		650	650	400			250	3825		
Investigations															
X-Ray	29385	18985	25725	24005	28085	20750	38030	32245	36010	32935	30000	29320	345475	1884676	18.33
ECG	2100	1110	2100	720	1000	440	1790	1920	2100	1980	1860	1200	18320		
USG															
Pathology															
Blood Inv	64220	48275	52295	27745	36345	41916	74053	74600	77740	52620	63285	52255	665349		
Other Inv	450	825	825	825	1050	600	1125	1200	1125	600	825	600	10050		
Cycle stand	5460	5460	5460	4675	7050			16251	4460	3050	5400	2400	59666		
Ambulance	6944	4012	4350	14000	12812		8836	6190	712	5296	8456	11500	83108		
Attendant Entry	5510	3755	4050	7815		14929	9871	9481	10105	8224	7999	7129	88868		
CT Scan	77400	68200	63400	66800	68800	44400	77600	62000	65000	50600	55800	67800	767800		
Rent-Shop	1500	4520	6790	3900	4440	7420	2220	1500	3530	5695	7897	9335	58747		
ARV					5040		2155						7195		
Others	2968	1014					338	4787	195	2350			11652		
Interest	16012						8987						24999		
	295211	215436	235851	219866	212292	212575	317507	293515	295617	242490	254459	256560	**3051379**		

	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Total	Income	Net Income	Total Exp	Cost Recovery
OPD Patients	10898	9517	12165	9288	10484	10092	16438	12713	13050	11352	10664	9894	136555	273110	129440	6730984.2	1.923047
Free	5576	5241	6872	4677	5806	5057	8203	6754	6725	5711	5668	5545	71835	143670			
BPL	1610	1401	1826	1695	1679	1955	2681	1917	1673	1560	1502	1469					
Pensioners	693	683	860	696	789	552	970	798	870	785	672	721					
Freedom fighters	12	24	39		15		7	14	12	8	27	21					
Others	3261	3133	4147	2286	3323	2550	4545	4025	4170	3358	3467	3334					
IP	1430	1393	1413	1307	1259	1381	1811	1774	1698	1407		1357	16230	292140	320509	5923266.1	5.411018
Gatepass	360			1425	1027	1190	1453	1458	1930	1487		987	11317	22634			
Attendor	87			125	100	141	154	152	114	104		170	1147	5735			

Laboratory	Numbers
Blood	1750
Urine	1074
Stool	70
Sickle	9
malaria	12678
Positive	945
PV	260
PF	685