LEPROSY ERADICATION PROGRAMME AT RAJNANDGAON:
A HISTORICAL PERSPECTIVE:

I. Background Information:

Rajnandgaon district comprises an area of 11,127 sqkms covering a total population of about 14,39,524 (as per 1991 census: rural 12,12,733, Urban-2,26,791).

Physical Landscape:

The terrain of Rajnandgaon is an open plain region. Abundant paddy fields occupy the region. The main river which irrigates the land is Sheonath. The soil found in this region are tropical red and yellow, which are suitable for the cultivation of rice and millets.

The uplands of the district is largely covered with the forests while the lowlands have been cleared for agriculture. Some of the prominent trees of the area are "Sal" (Shorea robusta) "Saj" (Terminalia tomentosa) (1), "Tendu" (Diaspyros tomentosa) (2), "Shisham" (Dalbergia latifolia) (3), "Mahua" (Bassia latifolia) (4), "Palas" (Butea frondosa) (5), "Ber" (Zizyphus jujuba) (6), "Bel" (Aeglomarmelos) (7), "Semar" (Bombax malabaricum) (8) etc.

The natural vegetation is used for domestic as well as industrial purpose. For example, the leaves of "Tendu" are used for "bidi" (a local cigar) making and timber of certain trees like "sal", "saj","shisham" etc. are used for the construction of houses and furniture-making.
Climate:

Chhattisgarh region on the whole, faces a hot and humid climate with dry winter. The rainfall is rather irregular and causes frequent failure of crops, which otherwise can be very successful during the years of normal rain.

Crops:

Rice is the dominant crop of the area. Chhattisgarh is an important exporter of rice and is called the "Rice bowl of Madhya Pradesh".

The other main crops grown in the area are wheat, jowar, maize, kodo (a type of millet), pulses and oilseeds.

Pulses include - Arhar, lentil, black gram, urad, lakri (kesari) etc. Oilseeds are mustard, alsi, peanut, erandi or castor oil, cottonseed etc.

Transportation:

Rajangaon is located on the most important rail line of the region, that is, the Bombay-Howrah line via Nagpur. It is connected to other districts by the state bus transport and private bus transport functions within the district connecting different villages and townships.

II. Leprosy Control Programme Prior to the Implementation of MDT:

The following are the accounts given by Shri J.K. Kalchuri (Health Educator, Rajnandgaon LCU), Shri R.K.Sharma (Non-
Medical supervisor, Ghumka block, Rajnandgaon LCU), Shri Virender Singh Verma (Non-Medical Supervisor, Durg LCU).

A. The Infra - Structure :

The earliest efforts of the leprosy control programme in the state of Madhya Pradesh began in 1956, with the opening of 4 Leprosy Control Units at Raipur, Shahpur, and Chindwara. These units were managed by a team of two medical officers and four non-medical supervisors.

Prior to this period, a special leprosy clinic was operating at Durg which was later abolished in 1971 after the special order was given for the medical officer in charge of the clinic to be absorbed in the General Health Department.

In 1964, SET (Survey Education And Treatments) centres were started in both the districts of Durg and Rajnandgaon. These centres were opened as a special projects to undertake leprosy work. It was based on the "three pronged attack", that is:

S - Survey for the earliest possible detection of leprosy cases.
E - Health Education of society/community
T - Treatment of all known cases in the out-patient clinics

At the Zila (district) level there were : 5-6 SETS
In 1 Block : 1 SET
One SET covered : 35-40 villages
Each Block comprised of : 1 NMS and 8-9 NMAs

The entire leprosy work in the district under the SET was carried out by:
A medical officer (M.O.)
Two non-medical supervisors (NMSs)
20 non-medical assistants (NMAs)

The SET was attached with the Primary Health Centre (PHC). It covered all the villages under the PHC apart from its allotted villages.

The main clinic was conducted at the PHC and catered to the needs of about 10 surrounding villages. It operated on weekly market days. Apart from the main clinic two sub-clinics were located in the field each covering 5 villages. These too, were held on the village market days.

At Rajnandgaon, till 1975, there were 4-5 SETs
Between 1975-80, 10 SETs were added. In 1978, the leprosy Control Unit (LCU) was opened and 20 sectors were included in each block, stepping up the number of NMAs in each block to 20. By then there were 17 SETs.

The infrastructure of the LCU included:
1 Medical officer
4 Non-Medical supervisors
20 Non-Medical assistants
1 Physio therapist
1 Health-Educator
1 Laboratory Technician

Previously, under the SET pattern, 1 NMA covered 100 thousand population, but after the introduction of LCU, 1 NMA now covers 20 - 25,000 population and 1 Block extends over 100 thousand population.
B. The Leprosy Control Programme:

In the pre-sulphone (DDS) era, (i.e. before 1940s) majority of the identified leprosy cases were of deformity and reaction types. The only treatment available for such condition was total isolation or admission at leprosy sanatorium. With the advent of monodrug DDS, a domicile treatment was followed through the SET centres.

Dapsone was administered in monthly doses.

Under the SET scheme, six-days activity was carried out during the week:

(i) Three days for survey and imparting of health-education.

(ii) One day for drug-distribution, attending to general health complaints, providing ointments, medicines and bandages for wounds and ulcers of the patients.

(iii) Two days for follow-up of non-compliant cases.

All the field work activities was carried out by the non-medical assistant (NMA), like:

1. House to House Survey and mapping of houses in the village
2. Treatment of detected cases
3. Follow-up of cases
4. Maintenance of patient records etc.

No time was allotted for any social activity. Social contacts were confined only to patients who came to the clinic to collect their drugs.
1. Mode of case-detection:

Detection of leprosy cases was through house to house surveys.

The survey was conducted by first mapping out all the houses of the village. The NMA used to begin with the first house on his right hand-side and map down all the houses on that row. At the end of each row he kept turning to his right and completed the circuit by ending with the house of his right-hand side. The mapping of the village included the listing down of family members in each household and the affected person, if any.

The sincerity of his work was often cross-checked by his supervisor (NMS). The NMS would enquire the village men about the NMAs visit to the village whereby, they would give credibility to the NMA's field work. As total population survey was stressed as an effective means of case detection, emphasis had been on covering every house and person in the given area. Some of the problem faced by NMA during the house to house survey was:

1. Awkwardness in asking names.
2. The very mention of the disease created a sensation in people's minds.
3. It called for removal of clothes for examinations
4. Problem of examining women population

According to Shri R.K.Sharma (NMS of Ghumka Block) the NMA initially used to establish contact with the community leaders like the sarpanch (village head-man), Patel, Patwari, etc. and inform them about the survey for leprosy cases to be conducted in their village. After the community leaders granted him the permission, he would hold a small meeting with them, including the other elders and prominent members of the village. He would talk about the signs and symptoms of leprosy and enquire about
any suspicious cases in the village. Being community leaders they had knowledge about persons with any history of leprosy. These persons were brought to the NMA's attention and were examined. If the case was confirmed the person was registered for treatment.

The community leaders would accompany the NMA for the survey. The Kotwar would go ahead and inform the people of the visit of the "leprosy doctor" (A designation given by the village people). In the presence of their leaders, not all would refuse for a check-up and present their cases to the NMA.

In instances, where the patients refused to get examined, the local policeman was involved for complying the patients for examination.

Usually, a team of paramedical workers like, malaria worker, vaccinator, ANM, community health-volunteer and Kotwar (village-guard) and the leprosy worker conducted combined surveys of their respective cases.

Vaccination for cholera, small-pox and malaria were administered to the general population.

Kotwar has a significant role in the village community. He keeps a record of all the births and deaths in the village. In the leprosy control programme during the monodrug era, his job was to conduct surveys with the leprosy worker Health-worker signed in the register maintained by the Kotwar as a proof of their visit to the village, in the case where the workers' field-work was questioned by their supervisors. The Kotwar kept record of all health-surveys conducted, and visitors (Government or non-government) sought his permission before entering the village premises.
2. Treatment of cases:

Under the SET scheme, leprosy patients were reached through the main clinic attached with the PHC and sub-clinics located in the field. Sub-clinics were held at the residence of any village member who was willing to spare one room for the NMA to conduct the clinic. But people would not agree to clinics being held amidst the village at anyone's residence for fear of the spread of disease through the assembled patients at the clinic. Thus, the NMA, personally contacted the patients and surveyed their disease condition. He contacted the community leaders like the Sarpanch, Kotwar, Community Health Volunteer (CHV), Patel Patwari etc. and held a meeting with them discussing about the causation and non-communicable aspects of leprosy. They would then agree upon a spot where the NMA could examine the patients, distribute medicines and bandages to them. Most often such activities were carried out under a tree at one end of the village.

Most of the cases which came to the clinics were of deformity, often with ulcers and wounds. They were given medicines and bandages to be applied or tied up at home or by the dresser at the dispensary of the PHC. NMA never did the job.

However, according to Shri S.D. Banjare (NMS, Drug LCU), they (NMA) used to clean the wounds of the ulcer cases and disinfect the worms present.

Some of the cases during the year 1956-66 developed deformities while consuming DDS. For such cases, the treatment was discontinued. Leprosy workers did not have any explanations for such occurrences. Oil massage with chaulmoogra oil (Hydno-carpus) was also disliked because of its bad odour. Most often the presence of leprosy person at public places or in buses were identified by the odour of the chaulmoogra oil. B - complex
injection was commonly given as patients complained of body weakness and giddiness.

3. Compliance to Treatment :

As regards to drug compliance, Leprosy-workers faced number of refusal from the deformity cases as it was a long term treatment with dapsone. Moreover, no sign of cure were experienced by them in the presence of recurring ulcers and contracted fingers. The Leprosy workers too could not say with confidence that the disease was curable. The cases detected at early stage, on the other hand, refused to accept the diagnosis of their disease as leprosy as it was incomprehensible to them that a single skin patch could lead to deformity. However absentees during the clinic days were followed up at their homes and given the monthly supply of drugs.

In some instances, the leprosy worker guarded the identity of the patients (especially those belonging to the upper strata of the community) by secretly delivering the drugs at their homes.

4. Concept of Cure :

The Leprosy-workers' concept of cure was that patch should be reduced or disappeared and bacteriological index lowered. However, the patients would not accept this concept of cure. They were not fully convinced by the health worker's bacteriological explanation of cure. According to them, patch should disappear completely and deformity should not be there anymore.

However, Leprosy-workers used various methods and illustrations to convince them like the demonstration of skin smear and citing examples of non-occurrence of the disease among the members of the affected person's family.
5. Health-Education:

With the introduction of SET some emphasis was given to health education. Health education in those days referred to teaching the community members about the facts in leprosy like the early signs and symptoms, causation, spread and control through the means of slides, pamphlets, posters prepared by the Gandhi Memorial Leprosy Foundation Wardha, for the Leprosy-workers engaged in leprosy control activities.

However, certain individual experiences reveal that leprosy-workers did involve innovative practices in health-education, prior to the intervention programmes.

Shri J. Kalchuri's (health-educator) experience is cited as an example.

From the beginning of his career, he had a special "bent" towards health education. He being a talented singer and composer of songs since his high-school days, he put these qualities into practice. He organised a number of cultural programmes and social gatherings to project HE through his compositions. Another quality which he possessed was his desire for individuality, i.e. to be apart from others in his performance. He always nurtured the quality of creativity in himself, unlike other Leprosy-workers, "who project themselves as medical doctors, covering up their real identity of a leprosy-worker".

The conventional method for imparting health-education included, a village-meeting of the community members and leaders at the village square (usually at the Panchayat house). The community members were informed that the disease was communicable, one should not hide but voluntarily come forward for examination.
6. Community participation:

Community members participated in the leprosy control programme by allowing the NMA to conduct the survey, giving information about the suspected cases in the village. Community and NMA’s relationship depended much upon the NMA’s relationship with the community leaders. His cordial attitude with the community leaders, his determination to carry out the work of leprosy control in the face of strong “Ruhiwadi” (Fundamentalism) that existed in the community towards the leprosy persons; were some of the factors in acquiring cooperation of the community members.

7. The Terminology used in case-detection.

The mode of inquiry about the leprosy person was a direct one. The leprosy-workers directly asked the community members if anyone had "Kodh" (relating to gross deformities). This used to generate intense negative feelings and leprosy-workers were subjected to curses and abuses by the community members.

Around 1970s, the word "Kodh" was changed to "Kusht rog" as an effort on the part of the programmers to eliminate the stigma attached with the former term. Leprosy-workers commonly used the term "Pani ki bemari" referring to swollen condition of the body, as "Kusht rog" was not understood by all. Other terminologies included "daagi wala bemari" (disease of skin patches).

8. Drawbacks of the SET Programme:

The SET programme had numerous short-commings in the control of leprosy.

According to Shri J.K. Kalchuri (HE, Rajnandgaon LCU): some of the drawbacks of the SET programme were:
1) No proper care given to patients with nerve damage
2) No follow-up done of non-compliant cases
3) Treatment was the only activity carried out
4) Survey of project areas only
5) No systematic approach to control activities
6) The importance of "E" of the SET was for:
   i) Early case detection.
   ii) Knowing the mode of transmission.
   iii) Training of nurses at PHC.
   iv) Holding meeting at the village level.
7) Emphasis of survey was for detection of all cases.
8) No medium of demonstration of cure used by the leprosy-workers
9) No confidence in medicine expressed by leprosy-workers and patients alike
10) No self-dignity of leprosy-workers unlike those of general health, or PMWs.
11) No helper to NMA as NMS visits were very infrequent, only once a month.
12) Only drug dapsone was available.
13) Large number of deformity cases were detected through survey.
14) High number of referral cases.
15) Leprosy-worker had to discreetly tell the patient about the disease.
16) Lack of motivation for both patients and Health-workers.
17) Emphasis on the importance of complying to treatment was lacking.
18) Though target for case detection used to be fulfilled, but the target for cured cases often used to be much below its mark.
19) Emphasis was on complete body examination.
20) "Heen bhawana" (low attitude) of community members towards the health-workers was prevalent.

21) At clinics the compounder used to give B-Complex injections and medicines to leprosy patients.

22) Patients were subject to animal treatment by the leprosy-workers at the clinic.

23) A number of reaction cases were reported due to dapsone therapy.

The target for the year was:

i) to detect 35 new cases, and

ii) to cure 20 cases

III. THE PRESENT INFRASTRUCTURE:

The district consists of:

Three Leprosy Control Units:

1. Rajnandgaon LCU:
2. Chouki LCU:
3. Kawardha: MCU (Modified Control Unit)

Each control unit comprises of 4 blocks and each block is divided into 20 sectors. Furthermore, each sector covers about 20-30 villages (covering a population of about 5000).

The district has urban leprosy centres, catering to the urban population.

1. ULC Rajnandgaon: The population of the ULC is very huge, it is divided into three sectors.
2. ULC Khairagarh