REVIEW OF LITERATURE

It has been necessary to scan through the various work carried out in connection with the proposed study. This effort necessitated perusal of studies carried out by a range of luminaries whose work is connected directly or indirectly with the proposed work. This review is only a panoramic view of the entire spectrum of the studies done so far. The attempt here is to cull the findings of these outstanding luminaries. Different researchers’ views have been taken into account to bring about a clarity and precision and to make the present work plausible and credible. In a way it is a journey backward to establish that the study is worth the research.

Tribals- a brief profile

The tribals are an ancient segment of population in India. India has the largest concentration of tribals next only to Africa in the world (Prerana Vaish 1988). By and large their living depends on agriculture and forest hunting so they earn just enough for their subsistence. Although there is special provision guaranteed by the constitution, health care facilities for the tribals need much improvement.

The Indian government identifies communities as scheduled tribes based on a community’s “primitive traits, distinctive culture, shyness with the public at large, geographical isolation and social and economic backwardness” (India Ministry of Tribal Affairs 2004).

“While ‘‘scheduled tribes’’ is an administrative term adopted by the Government of India, the term ‘‘Adivasis’’ (meaning ‘‘original inhabitants’’ in Sanskrit) is often used to describe the different communities that belong to scheduled tribes. The Adivasis are thought to be the earliest settlers in, and the original inhabitants of, the Indian peninsula, with their presence dating back to before the Aryan colonization” (Thapar 1990).

Article 366 (25) of the Constitution of India refers to Scheduled Tribes as those communities who are scheduled in accordance with article 342 of the Constitution. This article states that only those communities who have been declared
as such by the President through an initial public notification or through a subsequent amending act of Parliament will be considered to be Scheduled Tribes.

According to Article 342 of Indian Constitution the President of India notifies tribal communities. They are traditionally referred to as Tribes as they form minority ethnic groups with reference to their different languages customs, religious practices, economic backwardness, etc.

“Indigenous status in the context of India was operationalised through the Indian government’s category of scheduled tribes, or Adivasis, which refers to people living in tribal communities characterized by distinctive social, cultural, historical, and geographical circumstances”(S. V. Subramanian1 et al).

“The concentration of scheduled tribes varies substantially between the Indian states” (Census, 2001).

Tribals have their share of contribution to enrich our cultural heritage by virtue of their distinctive identity (Naie, 1990).

The essential characteristics, first laid down by the Lokur Committee, for a community to be identified as Scheduled Tribes, are –

- Primitive traits;
- Distinctive culture;
- Shyness of contact with the community at large
- Geographical isolation
- Backwardness – social and economic.

A tribe is a collection of families bearing a common name, speaking a common dialect, occupying or professing to occupy a common territory (Chandrasekhar et al 1990).

They are often considered to be tribal people in the sense that they belong to small-scale pre-industrial societies that live in comparative isolation and manage their own affairs without the centralized authority of a state (Maybury-Lewis D 2002).
Tribal communities live in about 15% of the country’s area, in various ecological and geo-climatic conditions ranging from plains and forests to hills and inaccessible areas. Tribal groups are at different stages of social, economic and educational development. Some tribal communities have adopted a mainstream way of life. At the other end of the spectrum, there are certain scheduled tribes (75 in number) known as Primitive Tribal Groups (PTGs), who are characterized by:

- A pre-agriculture level of technology;
- A stagnant or declining population;
- Extremely low literacy; and
- A subsistence level of economy.

(Ministry of Tribal Affairs 2006-07)

There are more than 400 tribal communities in our country. Among these, 74 tribal groups have been identified by the Government of India as Primitive (PTG) in 15 states and union territories (Neeti Mahanti 1991).

The following two maps show the spread of tribal population in Union Territories and the different states of India respectively.
Map 2.1-TRIBAL POPULATION IN UNION TERRITORIES
TRIBAL POPULATION IN DIFFERENT STATES OF INDIA

- 10-15% (MP, Maharastra)
- 8-9% (Oreisa, Gujrat, Rajasthan, Jharkhand)
- 5-7.9% (Chhattisgarh, A.P., W.B.)
- 2.4% (Karnataka, Assam, Meghalaya, Nagaland)
- 1-1.9% (J&K, Tripura, Mizoram)
- Below 1% (Gher, Manipur, Arunachal Pradesh, Tamil Nadu, Kerala, Ultranchal, Himachal, Dadra & N. Haveli, Sikkim, UP)
Table 2.1 -Distribution Of Tribal Population Across The Country

<table>
<thead>
<tr>
<th>No.</th>
<th>State / U.T.</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>84,326,240</td>
<td>42,640,829</td>
<td>41,685,411</td>
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<tr>
<td>2</td>
<td>Andaman &amp; Nicobar Islands</td>
<td>29,469</td>
<td>15,127</td>
<td>14,342</td>
</tr>
<tr>
<td>2</td>
<td>Andaman &amp; Nicobar Islands</td>
<td>29,469</td>
<td>15,127</td>
<td>14,342</td>
</tr>
<tr>
<td>3</td>
<td>Andhra Pradesh</td>
<td>5,024,104</td>
<td>2,548,295</td>
<td>2,475,809</td>
</tr>
<tr>
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<td>Arunachal Pradesh</td>
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<td>352,017</td>
<td>353,141</td>
</tr>
<tr>
<td>5</td>
<td>Assam</td>
<td>3,308,570</td>
<td>1,678,117</td>
<td>1,630,453</td>
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<tr>
<td>6</td>
<td>Bihar</td>
<td>758,351</td>
<td>393,114</td>
<td>365,237</td>
</tr>
<tr>
<td>7</td>
<td>Chandigarh</td>
<td>NN</td>
<td>NN</td>
<td>NN</td>
</tr>
<tr>
<td>8</td>
<td>Chhattisgarh</td>
<td>6,616,596</td>
<td>3,287,334</td>
<td>3,329,262</td>
</tr>
<tr>
<td>9</td>
<td>Dadra &amp; Nagar Haveli</td>
<td>137,225</td>
<td>67,663</td>
<td>69,562</td>
</tr>
<tr>
<td>10</td>
<td>Daman &amp; Diu</td>
<td>13,997</td>
<td>7,190</td>
<td>6,807</td>
</tr>
<tr>
<td>11</td>
<td>Delhi</td>
<td>NN</td>
<td>NN</td>
<td>NN</td>
</tr>
<tr>
<td>12</td>
<td>Goa</td>
<td>566</td>
<td>299</td>
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<tr>
<td>13</td>
<td>Gujarat</td>
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<td>3,790,117</td>
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<tr>
<td>14</td>
<td>Haryana</td>
<td>NN</td>
<td>NN</td>
<td>NN</td>
</tr>
<tr>
<td>15</td>
<td>Himachal Pradesh</td>
<td>244,587</td>
<td>122,549</td>
<td>122,038</td>
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<tr>
<td>16</td>
<td>Jammu &amp; Kashmir</td>
<td>1,105,979</td>
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</tr>
<tr>
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<td>Jharkhand</td>
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<td>180,169</td>
<td>184,020</td>
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<td>Lakshadweep</td>
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<td>28,611</td>
<td>28,710</td>
</tr>
<tr>
<td>21</td>
<td>Madhya Pradesh</td>
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<td>22</td>
<td>Maharashtra</td>
<td>8,577,276</td>
<td>4,347,754</td>
<td>4,229,522</td>
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<tr>
<td>23</td>
<td>Manipur</td>
<td>741,141</td>
<td>374,319</td>
<td>366,822</td>
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<tr>
<td>24</td>
<td>Meghalaya</td>
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<td>996,295</td>
</tr>
<tr>
<td>25</td>
<td>Mizoram</td>
<td>839,310</td>
<td>422,963</td>
<td>416,347</td>
</tr>
<tr>
<td>26</td>
<td>Nagaland</td>
<td>1,774,026</td>
<td>913,203</td>
<td>860,823</td>
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<td>27</td>
<td>Orissa</td>
<td>8,145,081</td>
<td>4,066,783</td>
<td>4,078,298</td>
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<tr>
<td>28</td>
<td>Pondicherry</td>
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<td>NN</td>
<td>NN</td>
</tr>
<tr>
<td>29</td>
<td>Punjab</td>
<td>NN</td>
<td>NN</td>
<td>NN</td>
</tr>
<tr>
<td>30</td>
<td>Rajasthan</td>
<td>7,097,706</td>
<td>3,650,982</td>
<td>3,446,724</td>
</tr>
<tr>
<td>31</td>
<td>Sikkim</td>
<td>111,405</td>
<td>56,940</td>
<td>54,465</td>
</tr>
<tr>
<td>32</td>
<td>Tamil Nadu</td>
<td>651,321</td>
<td>328,917</td>
<td>322,404</td>
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<tr>
<td>33</td>
<td>Tripura</td>
<td>993,426</td>
<td>504,320</td>
<td>489,106</td>
</tr>
<tr>
<td>34</td>
<td>Uttar Pradesh</td>
<td>107,963</td>
<td>55,834</td>
<td>52,129</td>
</tr>
<tr>
<td>35</td>
<td>Uttaranchal</td>
<td>256,129</td>
<td>131,334</td>
<td>NN</td>
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<tr>
<td>36</td>
<td>West Bengal</td>
<td>4,406,794</td>
<td>2,223,924</td>
<td>2,182,870</td>
</tr>
</tbody>
</table>

Source: Census of India 2001
Notes: - NN not notified
However, the Government of India has resisted the use of the term “indigenous” when referring to the scheduled tribes on the grounds that is a practical impossibility to decide indigenousness after centuries of migration, absorption, and differentiation as reflected in ‘the National Policy on Tribals’ draft. A formal recognition of the indigenousness of the scheduled tribes is also interpreted as contradictory to the overall spirit underlying the recognition of the tribal populations, which is to facilitate “assimilation” of the tribal population into the country’s mainstream. Indigenous populations are similar to those seen within the non-indigenous population” (The National Tribal Policy 2004).

Studies on Tribal Health and Health Care Delivery

Enormous wealth of literature on tribal health is available but it is impossible to trawl through everything. Although there are numerous studies done both at national and regional level, a close look suggests that there are hardly any studies done on health care management and its delivery in tribal areas.

In order to make the study more systematic, a number of articles and studies were considered to review the Health Care Services Delivery in tribal areas. It is a fact and a matter of concern that, even after six decades following the independence of our country, the tribals are deprived of basic health care benefits. Since the study deals with inadequate health care system and poor management of its delivery in tribal areas, works, observation and research works from important studies both at national and international level have been considered. In the present study an attempt has been made to review the available literature on health among tribal population to indicate their existing health status and to identify the gaps to suggest a practical plan of action besides pointing out the debatable issues.

The Ministry of Tribal Affairs is the nodal ministry for the overall policy, planning and coordination of programmes for the development of Scheduled Tribes. The programmes and schemes of the ministry are intended to support and supplement, through financial assistance, the efforts of other central ministries, the state governments and voluntary organizations, and to fill critical gaps taking into account the present situation of the tribals. Though the primary responsibility for the promotion of interests of Scheduled Tribes rests with all the Central Ministries, the
Ministry of Tribal Affairs complements their efforts by way of various developmental interventions in critical sectors through specially tailored schemes (Ministry of Tribal Affairs Annual Report 2007).

Dr. Ganesh. N. Devy, the founder trustee of Bhasha Research and Publication Center in Baroda, wrote in the periodical dated 23 May 2005, “The earliest expression of their (tribal) agony could be traced in the report of a reform committee headed by Antrolikar on the eve of India's independence. But the issue had to wait till early eighties. Number matters in democracies even for a small measure to be effective and mainly because with a weak fabric of social justice holding it together.”

The Tribal Sub Plan strategy was developed by an Expert Committee set up by the Ministry of Education and Social Welfare in 1972 under the Chairmanship of Prof. S. C. Dube for the rapid socio-economic development of tribal people and was adopted for the first time in the Fifth Five Year Plan (Fifth Five Year Plan, GOI).

“There are other organizations like NGOs, charitable trusts, etc. which provide health care services. Tribal populations generally have poor health outcomes, often because of a healthcare delivery system that does not cater to their needs” (National Medicine Journal of India, 2005).

Illiteracy and poverty have led to ignorance of benefits of modern medical findings among the tribals. This is borne out by the fact that “more than 90 percent of the deliveries were conducted at home attended by elderly ladies of the household. No specific precautions were observed at the time of conducting deliveries, which resulted in an increased susceptibility to various infections. Services of paramedical staff were secured only in difficult labour cases” (National Commission for Women, New Delhi 93).

A study by Kuriyan et al. (1982) showed that understaffing of primary healthcare centres is the main cause for the tribals to be deprived of the health care benefits.
A retrospective observational study from the year 2000, aimed at current healthcare delivery model offered to a Malayali and Lambadi tribal population in Dharmapuri district, concluded that the base tribal hospital is important in administering primary and secondary health care and health education for continuous confidence in allopathic medicine. This study was necessitated in the light of the inadequate health infrastructure for the tribal population in Dharmapuri district (Hari Prabhakar et al. 2005 b).

“Most of the tribal population is desperately poor, backward, generally uneducated and lead a very hard and miserable life” (Thakur et al. 1991).

A study on tribals in different parts of the country by the Ministry of Tribal Affairs (2007a) suggests that there is no adequate reach of health care services in tribal areas. “The infant mortality, under-5 child mortality and percentage of children under-weight in respect of Tribes are higher than that of the overall population as well as of other disadvantaged socio economic groups.”

Das et al. (2000) on the viability of a tribal health programme in Gujarat, cited understaffing of primary healthcare centres, exploitation of migrant laborers, and inadequate supplies of medicines as primary causes of underdevelopment and poor health outcomes. The widespread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary living conditions, poor maternal and child health services and ineffective coverage of national health and nutritional services have been identified in several studies as possible contributing factors to dismal health conditions prevailing among the tribal population in India. In this article, the author focuses on certain factors like infant mortality rate, life expectancy, genetic disorders, sexually transmitted diseases, nutritional status, forest ecology, child health and health care practices which are generally responsible for determining the health status and health behaviour of tribal communities (Dimensions of Tribal Health 2000).

The tribals originally depended on their native herbal medicines for cure of their illnesses. Availing the modern health care system itself is a new life style for them. It is an accepted fact in India that for some diseases like jaundice even an urbanite resorts to herbal cure. Therefore it is not surprising that tribals have evolved
some successful cures out of their own ecosystem / biosphere. Use of herbal medicine in their day-to-day life is an inherent part of the tribal life.

A survey on delivery of health care services in poor areas suggested that public health care services for the poor often involve a lot of non-financial costs such as waiting time, lack of access and inadequate facilities such as hospital beds, equipment and medicines (Economic Survey 2006-2007).

Dr M.B.Bhiradi and S.C.Biradar (2002) pointed out that 103 taluks in Karnataka needed 11 types of basic infrastructure development.

“The ratio of hospital beds to population in rural areas is fifteen times lower than that for urban areas. The ratio of doctors to population in rural areas is almost six times lower than that in the urban population” (Central Bureau of Health Intelligence 2001).

According to the Ministry of Tribal Affairs (2007b), lack of data is a constraint when it comes to tracking the health indicators of the tribal population. Data on health does not contain information disaggregated by social groups on a regular basis.

A report on human development in Karnataka which was published in Status of Scheduled Tribes in Karnataka 2005, indicate that the degree of effectiveness in terms of programme implementation is poor and is evident in the three critical areas of health, education and poverty reduction. The magnitude of the problem is so great that a large percentage of Scheduled Tribes families is still poor and lacks access to resources that would improve their education and health status. Human development status of the Scheduled Tribes is more than a decade behind than that of the rest of the population of the state and they are the poorest and the most deprived of all sub-populations in the state (Tribes in Karnataka 2005).

Inability to reach health care center for medical services due to distance and inadequate infrastructure have led to poor delivery of health care benefits for tribals. A study among a tribal population of Gujarat cited the major breakdown in active
surveillance, coupled with the inaccessibility of health agencies near affected villages as the cause of the outbreak of malaria (Srivastava et al. 2003).

There are many studies related to the high prevalence of diseases among tribals. While conducting a morbidity study among the Kondha tribe of Phulbani district, Orissa, Swain (1990) found syphilis (10 percent) in Desia Kondhs, whereas it was not diagnosed among the primitive Kutia Kondh tribal group. The presence of sexually transmitted diseases was also reported from Andamanese, tribal groups of Madhya Pradesh, Rajasthan, Mysore, etc. (Swain et al 1990)

A study has shown that over 55 percent of Kondhs consumed food providing less than 2000 calories per day and most of them as little as 1700 calories, compared to the ICMR (Indian Council Medical Council) stipulated requirement of 2400 calories (Patel, 1985).

A survey conducted by the Ministry of Tribal Affairs (2007c) reveals that the health status of the tribal population is not on par with the rest of the state’s population. Most of the health indicators show deterioration in the health of women and children.

There exists a definite relation between forests and nutrition of Tribals. It has been noted by many that tribals living in remote areas have a better overall status and eat a more balanced diet than tribals living in less remote, forest free areas. The mode of utilization of available natural resources often determines the long-term impact on health (Basu, 1993).

Inadequate data on tribal health care has led to improper planning. The health status is the outcome of a combination of both infrastructure and delivery of health care services.

David et al (2001) observed that India needs to set its sights on developing a more efficient and equitable health financing system. This means a financing system that has compulsory membership, a socially acceptable and affordable package of
benefits, pre-payment, and risk pooling for people with different incomes and health status. The main questions are when and how to get there.

A study on healthcare delivery in Sittilingi tribal area showed that, taking into consideration the ability of an allopathic healthcare delivery system to provide health services to a relatively small tribal population, a bias does arise when using hospital-based data to reflect the health status of the tribal population in general, given that persons who avail of hospital services are (i) those individuals who are sick, and (ii) those who have confidence in allopathic interventions (Hari Prabhakar et al. 2005).

In the absence of statistical information on the qualitative aspect of health care provision, quantitative indicators of available health facilities are likely to provide imprecise measures of the services actually supplied. Also the relationship between health care provision and child mortality may be hard to identify.

A good example would be of the Onges. If tribals are not given good health coverage it would be disastrous. For example, the Onges, who once occupied the whole island of Little Andaman, were reduced to a mere handful. Their population is declining fast and they are on the verge of extinction. The problems faced by the Onges are similar to that of the Andamanese. Their habitat, which once occupied the whole island, has been reduced to two small settlements. There is a primary health centre at Dugong Creek exclusively for the Onges, whose population is a little over one hundred (ICMR).

The Centre has carried out some studies on the health and nutritional problems and the demography of the Onge population. The population of the Onges over the last 100 years is shown below. It is observed that there has been a precipitous fall in their population strength from 1901 to 1950 followed by a gradual decrease in their number until 1990. This decline was attributed to wars, epidemic diseases, high mortality exceeding that of fertility and incompatible pairing of marriage partners leading to unproductive marriages. There is now a marginal increase in their number to 105.
Haemoglobin estimation was done in 67 Onges and 58 (86.6%) of them were found to be anemic. Twenty-one of the 109 babies born alive to the 27 married women in the community died before completing their first year of life, giving an overall Infant Mortality Rate of 192.7 per 1000 live births during the past 30 years. This is much higher than the IMR in rural India, which declined from 136 in 1970 to 105 in 1985 and again to 79 in 1994. 30 children among the 109 live-born babies died before attaining 5 years of age and 12 more died after the age of 5 years giving a total of 63 childhood deaths. The total child mortality rate is 578 per 1000 live births. Only 58 of the 109 live born babies survived up to the age of five years giving an under-five mortality rate of 468/1000 live births and a child survival rate of only 53.2%.

There are a number of studies done to understand the perception of the poor about quality health care services. Physical access to health care center, affordability of treatment and effective treatment are the parameters set by the poor. But their ability to seek care depends on their awareness about health problem. Familiarity with service providers often put them at ease and they are eager to go to those centers they are familiar with.
A study conducted by Dr. Nirmala Murthy (2006) based on data from four districts of Karnataka and Rajasthan had interesting observations. In this study the researcher interviewed about 900 poor and non-poor women who had experienced various reproductive health problems. The main objective of the study was to find out differences in their experiences in the quality of care they received and the treatment effectiveness of the treatment. It was observed that poor women preferred government services for pre-natal care and family planning not because those services were free but because these women felt the services were good. The researcher supposed that the reason was that the government workers had targets to fulfill and therefore they treated women with respect because they were helping to fulfill the targets set by the government.

On the other hand, for childbirth, women preferred homes. That is not only because homes were a convenient location but also because many women feared that they would be forced to undergo un-necessary caesarean operation at hospitals to extract money from them. Poor women often expressed doubts about the quality of medicines they received or the doctor’s diagnosis.

This study clearly brings out the fact that good incentives in rural areas can bring about quality service delivery in the health care sector. Yet another factor is the impression that the rural poor have about the business-like attitude of the health care professionals. Their past experience has led to their belief that there is overcommercialisation of health care services.

In a similar study by Basu(1993), it was found that the main causes of maternal mortality were found to be unhygienic and primitive practices for parturition. For example, it was observed that among the Kutia Kondhs tribals, the delivery was conducted by the mother herself in a half squatting position holding a rope hanging down from the roof of the hut. This helped her in applying pressure to deliver the child. In complicated labour, this often led to maternal as well as child mortality.
Taneja et al. (1997) conducted a survey among the Bhil tribe of Jhabua district and observed that lack of health care facility was a major cause of death among neonates. Some of these deaths which were preventable were due to tetanus, diarrhoea, measles, acute respiratory infections and fever.

In a nutritional and demographic study (Prema et al. 1992) of Kannikar tribal women of Trivandrum district, Kerala, normal and physiological conditions like pregnancy and lactation were studied. Important sources of protein like pulses, milk and milk products and other animal foods were lacking in their diets. Average calorie consumption was found to be below the recommended level for normal, pregnant as well as lactating women. Detailed clinical examination of the Kannikar tribal women showed that anaemia (90 percent), vitamin A deficiency (30 percent) and niacin deficiency (10 percent) were prevalent among them. The morbidity status of the tribal women revealed the prevalence of pyrexia, respiratory complaints, gastro-intestinal diseases and rheumatic diseases. Among the adult women gynecological complaints and deficiency diseases were common (Basu, 1993).

Shah (1989) conducted a study on quality of health services in rural India and observed, “The availability of health care services can reasonably be expected to have a negative impact on child mortality; however, it should be remembered that the functioning of health services can be as important as their availability. Many studies have demonstrated the poor functioning of health services in large parts of the rural India.”

Sukhatme (1993), Padma Bhushan, stressed on the restructure on health care delivery system. In his supplementary note on a report of The Expert Group on Estimation of Proportion and Number of Poor he wrote, “Actual examination of stools confirm that one out of every two episodes is bacterial in origin, thereby pointing to the annual prevalence of diarrhoea of the order of 40 to 50%. The high mortality that we find in children is in fact the result of this high prevalence of morbidity. A child with infection will not grow. It is not therefore so much the intake that determines work capacity; it is the control of disease that matters. I fear that continuing food intervention under these conditions will be to waste our resources. Clearly our programme needs to be restructured and that too very soon.”
According to Singh et al (2001), tribal areas are inaccessible. High immunization rates among tribal children may be achieved through targeting illiterate mothers in inaccessible areas. These first-contact primary interventions, in turn, may also lessen the increasing rates of youth mortality seen among tribals.

Basu et al. (1993) while conducting research investigation on 481 households among the Jaunsaris of Jaunsar Bawar, Dehradum, found a crude birth rate of 42.67 per thousand and infant mortality rate of 79.64 per thousand live births.

Studies of tribal communities in Orissa conducted by Ali (1992) found that an ecological imbalance caused by rapid deforestation had resulted not only in depleting food resources, but also in prolonged droughts, adding to hunger and starvation.

Chang et al (2003) opined that for the poor, apart from the financial burden, there were the effects of ill health too. If left untreated or partially treated, the disease in question would get aggravated resulting in death or disability. On the other hand, self-medication, which was often practiced, resulted in incorrect self-diagnosis and inappropriate dosage, thereby inducing side effects.

Most of the tribal population is deprived of the benefits of modern health care system. A study done on health care among Kunabi Tribe of Karnataka revealed that traditional healers are present in certain villages and over 45 species of plants are still used in the area to treat a wide range of ailments such as fever, cough, skin diseases, rheumatism, snake-bite, jaundice and dysentery (Hebbar et al. 2002).

Maternal and child health care practices were found to be largely neglected in various tribal groups, namely, Baster tribal groups, Kutia Kondhs of Orissa, Santals, Jaunsaris, Kharias, etc. Expectant mothers to a large extent were not inoculated against tetanus. From the inception of pregnancy to its termination, women consumed no specific nutritious diet. On the other hand, some pregnant tribal women (i.e. Dudh Kharias, Santals) reduced their food intake because of the fear of recurrent vomiting and also to ensure that the baby remains small, so that the delivery may be easier. The consumption of iron, calcium and vitamins during pregnancy was poor. The habit of taking alcohol during pregnancy was found to be common among the tribal women.
and almost all of them continued their regular activities, including hard labour, even during advanced pregnancy. More than 90 percent of the deliveries were conducted at home attended by elderly ladies of the household. No specific precautions were observed at the time of conducting deliveries, which resulted in increased mortality.

The nutritional problems of different tribal communities located at various stages of development were full of obscurities and very little scientific information on dietary habits and nutrition status was available due to lack of systematic and comprehensive research investigations. Malnutrition was common and greatly affected the ability to resist infection, which led to chronic illnesses and, in the post-weaning period, to permanent brain impairment (National Commission for Women 1993).

Indigenous-nonindigenous health divide is a reflection of the differences in socio-economic well being between indigenous and non-indigenous groups. If unequal distribution of socio-economic resources accounts for indigenous-nonindigenous health inequalities, there is an urgent need to redress the pervasive and chronic socio-economic inequalities.

Tribal people have always lived in forests. They lived on forest produce and used agriculture for their subsistence. Today the modern world has encroached into the tribal life, causing insecurity, confusion and ill health.

“Indigenous groups experience excess mortality compared to non-indigenous groups.” (Subramanian 2006).

Many of the tribal societies (Vidyarthi et al. 1977) were lax towards pre-marital sex relations, which were considered as training in the art of love and sex life and often ended in marriage.

The widespread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary living conditions, poor maternal and child health services and ineffective coverage of national health and nutritional services have been found in several studies as possible contributing factors to dismal health conditions prevailing among the tribal population in India (Dimension Of tribal health 2000).
The environment plays a critical role in the framework and evaluation of a health system. A study in Sittilingi tribal area showed that the geographical area and the socioeconomic status of the tribals deprived them of modern health care benefits. The rough and hilly terrain of Sittilingi could only be traversed via jeep, bus or motorcycle (Hari Prabhakar et al. 2005a).

Even though there is a high fertility rate among the tribals, lack of medical facility have led to high mortality of newborn babies. Murty and Ramesh (1978) found a high fertility and mortality among the Pardhans of Adilabad district (BMJ 1992).

The study of Sirajuddin et al. (1984) among the Chenchu tribal group of Achampet taluk of Andhra Pradesh found that the average number of children for each woman, the average number of surviving offspring per married woman and mortality in relation to live births were 3.67 %, 2.96 % and 27.5 % respectively.

An epidemiological survey of tribal villages in southern Bihar revealed that there is no health care facility in tribal areas and noted that a lack of health awareness in the area remained the primary obstacle towards improved community health (Friedman et al. 2002).

A study on tribal women suggests that health of tribal women cannot be ignored. It becomes important because the problems of tribal women differ from one particular area to another, owing to their geographical location, historical background and the processes of social change (Chauhan et al. 1990).

Basu (1967) conducted a demographic research work among the Irular tribals of Tamil Nadu and reported the net reproductive index, which was also an indication of their fertility, as 1.31. It was also reported that mortality according to the age of the child was highest in the first year (BMJ 1992).

While evaluating the impact of the family welfare programme on tribal women through a study of 300 tribal women of Tamian development block of Chindwara district of Madhya Pradesh, it was observed that tribal women gave more
attention to child welfare and child development programmes rather than to mother
care or family planning programmes (Tekhre 1989).

Pandey [1990] observed high fertility and mortality in Mishmi tribal groups
and attributed it to the low level of education and income, lack of knowledge of
family planning methods and the importance of small family size, poor medical
facilities and lack of proper sanitation and drinking water.

Due to illiteracy, tribals form their own opinion about diseases and remain
away from modern line of treatment. Despite the availability of modern facilities of
treatment, Tharus (Tribals in Naintal) had their own beliefs and concepts of disease
(Kumar et al. 1975).

According to Godwin et al (2005), since there is a negative relationship
between self-medication and household economic status, the poor resort more to self-
medication. Drug forms a very important component of it. Hence rising prices may
affect the poor the most.

Mishra et al. (2003) conducted a study to assess the benefits from
development of newer drugs for poor. It was revealed that the profit maximizing
companies mostly concentrated on the development of drugs that treated the diseases
of the rich. For example, of the 1700 odd drugs developed between 1975 and 1998 in
the world, only 13 drugs were developed for the poor man’s tropical diseases.

Murty (1987) investigated the Soliga tribe in Karnataka in order to find out
their fertility behaviour. The Crude Birth Rate (CBR), General Fertility Rate (GFR)
and Total Fertility Rate (TFR) among the Soligas were found to be always higher in
comparison to the general population of Karnataka. The unusual high fertility rate
among the Soligas was influenced by their age at marriage, which was ultimately
influenced by the age at menarche. The mean age of menarche among the Soligas was
13.2 years and the age of marriage was 14.2 years, which was very early. Early age of
marriage and low levels of family planning acceptance seemed to be responsible for
the high fertility among the Soligas. The completed family size among the Soligas
was 5.64 (Status of Tribal Women in India 1993).
Aggarwal (1967) found that among 45 married Onge women of the Andaman Islands, the mean number of children was 1.64 and the mean number of children per women was 1.13. Infant mortality was very high as revealed from the reproductive index, which was 0.51 (Status of Tribal Women in India 1993).

Good health and good society go together. This is possible only when supportive services such as nutrition, environment and education reach a higher level. Maternal and childcare is an important aspect of health seeking behavior, which is largely neglected among the tribal groups (Basu et al., 1990).

Chaudhuri, (1990) conducted studies across many tribal groups to get an understanding of their health care management and found that they use different parts of a plant not only for the treatment of diseases, but for population control as well. Medical expenses are very high if treatment is received in private health clinics. Poor cannot afford the expenses.

Devadasan (2004) examined the exorbitant medical expenses incurred by the poor. “It is estimated that at least 24% of all out-of-pocket spending on hospital care might have been raised by 2% of the proportion of the population in poverty.”

The study of demographic and health determinants of infant deaths by Gurumurthy et al. (1990) among the Sugali tribal group in the Kalyanadurga and Beluguppa blocks of Ananthapur district of Andhra Pradesh pointed out that out of 348 infant deaths 45.4 percent were neonatal and 54.6 per cent were post neonatal. About 25 percent infant deaths occurred due to dysentery / diarrhea and 20 percent due to maternal factors such as prematurity, birth injury, multiple birth, low birth weight, birth asphyxia and so on (NFHS-II India 1998-99).

The sickle cell disease was found in 72 districts of Central, Western and Southern India. There were more than 35 tribal population groups showing a frequency of more than 19 percent. It was estimated that approximately a staggering 50 lakh individuals were carriers (heterozygotes) among the tribals (Basu et al. 1990).
Prevalence rate up to 40 percent of heterozygous form (sickle cell trait) was reported in some tribes i.e. Adiyan of Kerala, Irula, Paniyan, Mulukurumbha of Nilgiri hills and Gonds of Rajpur (Basu, 1993).

(Sickle cell disease is a genetic disorder characterizing a shortened life span of the red cell leading to severe and often fatal anemia (Reduced Red Blood Cells). The disease is further characterized by enlarged spleen, organ damage, impaired mental functions and increased susceptibility to infection).

Poverty has a great role to play in deprivation of health care benefit. “A child in the ‘Low Standard of Living’ economic group is almost four times more likely to die in childhood than a child in the ‘High Standard of Living’ group. Child born in the tribal belt is one and half times more likely to die before the fifth birthday than children of other groups. Female child is 1.5 times more likely to die before reaching her fifth birthday as compared to a male child” (NFHS-II, India1998-99.)

A large number of poor are deprived of protein and essential vitamins in their food, which is an essential promoter of body defense to fight infection. Poor nutrition could retard the growth of children and cause anemia in tribal women.

According to a United Nations report, good nutrition was a requirement throughout life and was vital to women in terms of their health and work. Nutritional anemia was a major problem for women in India and more so in the rural and tribal belt. In developing countries, it was estimated that at least half of the non-pregnant and two thirds of the pregnant women were anemic (United Nations Report 1984).

Studies carried out at the National Institute of Nutrition (1971) and Planning Commission of India (Sixth Five Year Plan, Government of India) on the diets of South Indian tribes reported high protein calorie malnutrition along the rice-eating belts. Therefore alleviation of poverty is a cornerstone through employment in rural belts, which alone can improve nutritional status of the tribals. Government should allocate resources towards this.
Malnutrition was common and greatly affected the ability to resist infection, leading to chronic illness and, in the post-weaning period, to permanent brain impairment. The outcome indicators of health (mortality, morbidity and life expectancy) are all directly influenced by the standards of living of a given population. Moreover, it is not the absolute deprivation of income that matters, but the relative distribution of income (Wilkinson 1992).

Poor and inadequate health care for tribals is a concern in many parts of the world. According to the International Institute for Population Sciences, a tribal female child is 1.5 times more likely to die before reaching her fifth birthday as compared to a male child. “A tribal mother is over 12 times less likely to be delivered by a medically trained person. A tribal woman is one and a half times more likely to suffer the consequences of chronic malnutrition as compared to women from other social categories” (NFHS-II India1998-99).

Privatization process does undoubtedly bring a divide between “the Haves” and “the Have-nots”. The poor will again suffer a disadvantage. “There is an undisputed association between social equality, social integration and health. The effect of social integration on health is conclusively documented in the theory of ‘social support’” (Cassel.J, 1976).

Colonization in some parts of the world had lured the indigenous population into consumption of alcohol and excess usage of tobacco. At times, indigenous youth considered this usage as a symbol of prestige and so that, in using them, they would be considered as belonging to the “evolved modern generation” in society. There are a good number of studies on this subject.

“The excess use of tobacco and alcohol among indigenous groups observed in this study is important in its own right as well as in terms of its contribution to accounting for the excess mortality, though in this study we were unable to examine the latter directly since information on tobacco and alcohol consumption was not ascertained for the deceased household members. The excess use of tobacco and alcohol in some indigenous populations has been shown to be linked to the process of colonization and increased aping of Western culture” (Seale JP et al 2002).
Good nutrition is a requirement throughout life for human body and is vital especially to a pregnant woman. Poor nutrition due to poverty (and sometimes due to cultural taboos) resulted in ill health. “Tribal population suffers a great degree of deprivation due to cultural beliefs, prejudices, taboos and superstitions” (U.N.Report 1984).

Impact of Unique Health Care Initiatives for Tribals

Julie Louise Gerberding, Director, Centers for Disease Control and Prevention, US, in an interview with “Scientific American” in January 2007 said, “We have to pick our highest priorities and concentrate on things we can do in a cost effective manner to make the biggest impact. I believe it is much more economical to prevent problems than wait to treat the disease they cause.”

There are a few well-designed health care programmes implemented for tribals in our country. This has brought immense relief to a few tribal settlements. These efforts and impacts are creditable by all standards. Each of these programmes is different from the other, and its impact on the health of the population is remarkable. Following are a few important examples.

In the poorest village of central India (Dhar District, Madhya Pradesh), the villagers and the district collector have provided an innovative health service, with the barest of resources. The concept of a ‘community delivery room’ is an attempt by Dhar District Collector (DC) Rajesh Rajoura to tackle the district’s very high maternal and child mortality rates. The Community Delivery Room (CDR) scheme was set up in May 1999 following a demand from the village panchayats (elected councils), set up under India's legal directive, to divert power to villages for self-help. With Primary Health Centres (PHCs) few and far between, unhygienically conducted home deliveries resulted in complications. With the CDR initiative came the first signs of change. The panchayats offered space in panchayat buildings and anganwadi (child-welfare) centres to the DC in exchange for training local midwives. The DC, in turn, took the government's Integrated Tribal Development Programme (ITDP) funds for infrastructural equipment like furniture and utensils, setting aside an annual amount for medicines.
The midwife then managed the CDR with the nurse (ANM), while the sarpanch (elected village headman) assumed responsibility for maintenance and recurring expenses. United Nations International Children's Fund (UNICEF) supports midwife training. Although 54 CDRs were begun experimentally, all turned out to be successful. CDRs assume reproductive and child health (RCH) duties. This programme would be popularised in other districts in time. (Mr. Rajesh Rajoura District Collector, Dhar District, Madhya Pradesh, India Madhya Pradesh Govt Website).

A similar example is from B R Hills tribal project initiated by Dr Sudarshan in Chamrajnagar district of Karnataka, South India. Inspired by Mahatma Gandhi, Dr. Regi and Dr. Lalitha started a pilot scheme in Bailhongal Taluka, Belgaum District, with just a thatched hut for outpatient consulting in 1993 (Mani Kalliath 2001).

A similar effort was put forth by the government of Orissa, realizing that basic education is indispensable for the improvement in overall development and health of the tribal society (tribal.nic.in website).

The construction of the Eklavya Model Residential School, Dhanghera, under Khunta Block, Mayurbhanj, Orissa, turned out to be a success. The project “Construction of the Eklavya Model Residential School, Dhanghera” was taken up with the intention of providing better education infrastructure to the tribal students of the area. The project was sanctioned out of Special Grant and the construction work commenced on 26-11-2001. It took exactly two years to complete and Shri Nabin Pattnaik, Hon’ble Chief Minister, Orissa, inaugurated the building on 2nd March 2006. Since then the school has been functioning with 367 inmates, providing better education and hostel facilities.

The “Tribal India Health Foundation” is a non-profit organization formed out of the existing tribal health initiatives to significantly improve the health status of their target populations, while also encouraging the formation of more tribal health initiatives throughout India. This will enable tribal populations to break their current cycle of poverty and ill health and to enjoy better lives.
The Tribal India Health Foundation, with its partners, also supports the Sickle-Cell Disease Treatment and Research Center in South India to alleviate the burden of sickle-cell disease among the resident tribal and non-tribal populations of the area. Partner organizations offer a 4-week Public Health and Preventive Medicine elective program for medical and public health students in the US.

The Tribal India Health Foundation has the following program objectives:

- Strengthening the capacity of organizations dedicated to tribal health to identify and address the health needs of the communities in which they work
- Spreading the benefits of the foundation to new partners and their respective beneficiaries
- Promoting additional interest, support, research, and funding for tribal health initiatives in the private sector

The other partner organizations and individuals include:

- The East West Foundation of India (www.tewfi.org)
- Give Hand (www.giveahand.org)
- The Health and Human Rights Group at Johns Hopkins School of Public Health (www.jhspf.edu)

A pertinent example is the tribal village in Sittilingi. Before 1993 no local doctors lived in Sittilingi, a remote tribal village in Dharmapuri district of Tamil Nadu. The nearest hospital was 50 kilometers away. Death rate of children and adults was high due to malnutrition, diarrhea, dehydration, etc. All this was to change when Dr. Regi and Dr. Lalitha started Tribal Health Initiative in 1993 with just a thatched hut for outpatient consulting.

Now the Tribal Hospital can accommodate 24 in-patients. The hospital offers emergency and ambulance facilities. The children of Sittilingi no longer face an uncertain world due to lack of knowledge and inadequate medical facilities. Sittilingi is now also supported by a number of tribal women trained as health auxiliaries by Tribal Health Initiative programmes.
Two new initiatives have recently been taken up as part of the holistic approach to Tribal Development in the area: Tribal Education Initiative and Tribal Farm Initiative

Dr. Mani Kalliath (2006), an external evaluator, had the following observations to make based on the 10 years evaluation of the Tribal Health Initiative in Sittilingi. The “Impact Evaluation” programme of Tribal Health Initiative brought out immense strengths of the organisation in its health care interventions. High quality service is provided through its community-based cadres in raising health awareness, changing superstitious practices and in promoting health-seeking behaviours. By all standards these outcomes and impacts are creditable and the organisation is a credible resource, in the poor tribal setting who are deprived of resources.

The health systems of many high-income countries like Japan and China have undergone reforms in the past few decades. The main motivation for such reforms has often been health related productivity, and the main challenge has been to control costs while maintaining or broadening access to high-quality care for all members of society. Such studies may be of interest in dealing with tribal healthcare in the Indian context.

A meaningful insight can be drawn from China’s rural health care system. It is significant to note that the system looks at the changes in the individual's health care situation between the present and preceding 10 years to determine if there has been any significant change within that time period.

“It is hypothesized that market reform continues and thus does health care reform. But privatization leads to more inequity in health care distribution because of the non-uniform health care policies ”. (Brian A. Wong et al. 1986).

Thomas Smith (1959) in the “Agrarian Origins of Modern Japan” outlines many of the rural developments in the Tokugawa period that ultimately led to the modern state of Japan.
Continuous upgradation of existing data is an important step to pinpoint the healthcare need of tribals. But in a developing country like India there are very few systematic, government funded, up-to-date data to realize the healthcare goals. A number of researchers have pointed out the lack of health care delivery specific studies.

“While scanning through the available literature on the health status of the tribal women in India, it was observed that comprehensive area specific health related studies were limited; most of the available studies were isolated, fragmentary and did not cover the various dimensions of health, affecting the status of tribal women. (Wilkinson 1992).

Other important co-factors, which have a profound influence on the health of an individual, are one’s savings and education.

Savings

Planned financial savings from the income plays an important role in deciding to seek health care in need. In India, post-independent policies by the Government have been framed with a view to encourage savings. A survey conducted by the Indian Post Office in 2002 reveals that India has impressive savings in general. In 1960, India was at 16.7 %, which was much higher than Korea, Singapore and Taiwan at that particular point of time.

According to Abdul Salaam and Umma Kulsum (2002) one of the common reasons for saving is provision for medical need and old age. Personal savings help to a great extent in meeting the expenses of unforeseen health expenses. Utter poverty, in other words, prevent the poor tribals from availing the healthcare benefits.
Table- 2.2
Volume of Savings in India

<table>
<thead>
<tr>
<th></th>
<th>1980-81</th>
<th>%</th>
<th>1990-91</th>
<th>%</th>
<th>1998-99</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household savings</td>
<td>21,848</td>
<td>75.9</td>
<td>1,09,623</td>
<td>84.4</td>
<td>3,25,456</td>
<td>82.7</td>
</tr>
<tr>
<td>Private savings</td>
<td>2,284</td>
<td>8.0</td>
<td>14940</td>
<td>11.5</td>
<td>67,573</td>
<td>17.2</td>
</tr>
<tr>
<td>Public savings</td>
<td>4,654</td>
<td>16.2</td>
<td>5,436</td>
<td>4.2</td>
<td>5,720</td>
<td>0.15</td>
</tr>
<tr>
<td>Total savings</td>
<td>28,786</td>
<td>100</td>
<td>1,29,999</td>
<td>100</td>
<td>3,93,601</td>
<td>100</td>
</tr>
</tbody>
</table>
(Economic Survey 1999-2000)

This table indicates that savings in India is on the rise. This is essentially due to the fact that today’s planned savings will result in financial buffers to combat health related financial vulnerability. Savings can potentially insulate a person from sudden shock of health care expenses. Among the elite urban mass and the educated rural, a few recognize the strong social purpose behind the planned savings but the poor and particularly the tribals have no knowledge about the concepts and its long-term benefits.

A study conducted on the poor group in Holakere taluk of Chitradurga District of Karnataka by a team from Humboldt University of Germany showed that 60% of the sample population had never made financial savings of any significance in any place (Aloysius Fernandez et al 2005).

This low savings has such a serious impact on health care that the state government has taken note of the situation and is releasing more funds to upgrade the quality of health care systems in the rural areas.

In accordance with the existing laws, the states would sign a Memorandum of Understanding with the Government of India, indicating their commitment to increased contribution to Public Health Budget (preferably by 10% each year), increased devolution to Panchayat Raj Institutions as per 73rd Constitution (Amendment) Act, and performance benchmarks for release of funds (N. R. H. M. Website).
The National Sample Survey in collaboration with the State Directorate of Economics and Statistics conducted a survey of village facilities in Karnataka during July - December 2002. The statistics is as follows.

**Table- 2.3**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Within village</th>
<th>Less than 2 km</th>
<th>2 km to less than 5km</th>
<th>5 km to less than 10 km</th>
<th>10 km or more</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metalled road</td>
<td>560</td>
<td>144</td>
<td>274</td>
<td>32</td>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>Post office</td>
<td>319</td>
<td>159</td>
<td>494</td>
<td>11</td>
<td>16</td>
<td>1000</td>
</tr>
<tr>
<td>Telegraph office / PCO</td>
<td>194</td>
<td>39</td>
<td>386</td>
<td>100</td>
<td>281</td>
<td>1000</td>
</tr>
<tr>
<td>Bank</td>
<td>89</td>
<td>62</td>
<td>413</td>
<td>157</td>
<td>279</td>
<td>1000</td>
</tr>
</tbody>
</table>

Banks and post offices are the two main centers, which facilitate financial savings for people in India. Difficulty in accessing these centers may sometimes act as a barrier for savings among rural masses.

**Education**

“………….hence education is twice blessed thing – it benefits those who give it and those who receive it” (Jeffrey 1992).

“Literacy is defined in the census of India as the ability to read and write with understanding in any language.” The level of literacy is undoubtedly one of the most important indicators of social, cultural and health development of a society in general and neglected section like tribals in particular (Census of India).

It is estimated that globally more than 960 million adults are illiterate, two thirds of whom are women. Studies across the globe suggest that women with a few years of schooling have more self-confidence and contribute effectively to health decisions (Basu 1993).

Most of the literates among the Scheduled Tribes had studied only up to the primary level. Within the country, the level of literacy among the tribals varied
widely, reported a status paper for the national workshop on "Status of Tribal Women in India" (National Commission for Women 1993).

All the governments across the globe have initiated schooling programmes considering the urgent need for it. But it appears that social background and consequent responses are barely accommodated into the design of such programmes. “By and large, their response to programmes of literacy and of formal education varied significantly between tribes and from region to region. These responses depended on their socio-cultural, economic and demographic characteristics and on the magnitude and direction of the forces of modernization, such as urbanization and industrialization” (Bose, A.B. 1970).

The Indian tribals have been exposed to literacy only recently (Raza Moonis et al 1990). A large number of tribals are illiterates. Even the present generation tribal children are not able to access the schools in many parts of the country. In rural communities services of school going children are utilized in households, which could possibly affect their span of precious schooling life.

The National Sample Survey in collaboration with the State Directorate of Economics and Statistics conducted a survey of village facilities in Karnataka during July - December 2002. The statistics are as follows:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Within village</th>
<th>Less than 2 km</th>
<th>2 km to less than 5 km</th>
<th>5 km to less than 10 km</th>
<th>10 km or more</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primary schools</td>
<td>741</td>
<td>31</td>
<td>226</td>
<td>-</td>
<td>2</td>
<td>1000</td>
</tr>
<tr>
<td>Primary schools</td>
<td>743</td>
<td>31</td>
<td>226</td>
<td>-</td>
<td>-</td>
<td>1000</td>
</tr>
<tr>
<td>Middle schools</td>
<td>475</td>
<td>111</td>
<td>368</td>
<td>36</td>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>Secondary schools</td>
<td>166</td>
<td>80</td>
<td>456</td>
<td>100</td>
<td>198</td>
<td>1000</td>
</tr>
</tbody>
</table>
It is unfortunate that many villages have pre-primary and primary schools which are at a distance of 5 km. Large distances can also be a discouraging factor which prevents young children from going to school.

The tribal children comprising about 15 percent of the total population in India are roughly about 10 million in number who live in such isolated and inaccessible areas (Neti Mahanti 1991).

According to the 1991 census data, excluding Assam, Jammu and Kashmir, the literacy rate among the general population aged 7 years and above was found to be 52.19 (64.20 for males and 39.19 for females). Literacy among the tribals was found to be very low i.e. 25.9 percent and especially so among the tribal females (14.5 percent) (tribalzone.net 1991).

“Among school going children, it is girls who suffer a benefit of regular attendance most. Probably, mothers take help from their daughters most, as mother herself is illiterate.” In a Tribal study in Orissa, revealed that girls enrolment is very low compared to boys (Biswal G. C. 1991).

As women do most of the household works, it is but natural that, they utilize the services of their school going children.

“Even today women carry the responsibility of some 80-90 % of house hold chores.” (United Nation Report 1991)

The lowest level of literacy among the tribals was recorded in Andhra pradesh [14.5 percent] and the highest in Mizoram[80.0 percent]. The lowest level of literacy among the females was found in Rajasthan [4.1 percent]. Along the tribal territories, the highest literacy among tribals was observed in Lakshadweep[79.1percent]Indian tribes have been exposed to literacy only recently (Moonis Raza, et al., 1990).

Since girls in tribal communities have multiple tasks to perform, it becomes apparent that they do not get sufficient time to concentrate on studies.
Literacy is important for the young girl; it had correlations with the survival of her children. Infant mortality is found to decrease significantly when the mother is educated up to the primary level and above” (Basu, 1993).

In all the societies, the mother is the first teacher. This is not only true for education but also for behavioral actions like discipline and cleanliness. Therefore, the mother’s illiteracy will have a direct impact on schooling and general health of tribal children. There are numerous studies to suggest that the influence of paternal literacy on the health status is only about half as strong as that of the mother’s education. The status of women in a society is a clear reflection of the level of social justice in that society.

Kelsey A Harrison, Professor of Obstetrics and Gynecology at the University of Port Harcourt in Nigeria says, “Through an educated mother, the cycle of illiteracy and bad health can be broken because her daughters and sons will probably go to school and so would succeeding generations.”

World Bank also endorses the view that female education is the most influential instrument with high financial returns. “In India the health of children depends a great deal on the initiative of women,” (World Bank Report 2003).

Female education is crucial because “A tribal woman occupies an important place in the socio-economic structure of her society” (Dhebar Commission 1961). “Moreover, the status of tribal women has gone from bad to worse as a result of the impact of social change, which has affected the social structure of tribal society” (Chauhan et al. 1990).

Dyson and Moore (1983) put forth a similar argument. Illiteracy also encourages preference for male children, more so in the poor societies. At times cultural background promotes the concept of preference for male children. Sex selective abortion, although more common in urban areas, is gaining popularity in rural areas too. The thought of begetting male children is predominant and they venture to seek all possible help (Sen et al).
Education has a direct bearing on the quality of life and health is a byproduct of good education. Enrolment of Tribal children to school in elementary school in Karnataka rose from 11.7 to 14.1 millions between 1995 and 2001 according to the Department of Education, Government of Karnataka 2002.

Midtala Rani and Nanjunda D C (2007) observe that the results of formal education programme for tribal children in Karnataka have not been very encouraging. It has failed to remove the sense of alienation, inferiority and pessimism from their hearts. There is a need to adopt non-formal education and to have suitable teachers who can devotedly handle the specially designed educational programme for the tribal people.

The review of literature scrutinized so far suggests that although a large amount of research work on tribal health care is carried out, most of them appear to have dealt with “the poor health of the tribals and the causes” in its entirety. Hardly any work has been undertaken with regard to health care service delivery in specific tribal areas accommodating the views and experiences of all concerned. Other researchers have studied “poor nutritional status” as a precursor of disease and as a center point along with inadequate infrastructure.

Therefore the present study is an effort to understand the shortfalls in the present health care delivery system. This was made possible due to the candidness of all respondents who are concerned like the teachers in the tribal schools and the healthcare professionals in tribal areas. This study varies from others, which have been done so far in many respects. One important feature of the study has been the interviews taken of the tribals themselves. Very valuable information was thus obtained based on which hypotheses could be formed. This is important when one considers that the tribals manage to maintain their own identity even when integrating with new medical systems. Thus this study symbolizes the transition from theoretical saturation to corroborative new insight.