Utilization of indigenous systems of medicine & homoeopathy in India

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Background & objectives: Very little information is available on the utilization of Indian systems of medicine and homoeopathy (ISM&H) in India. A study was undertaken on the usage and acceptability of indigenous systems of medicine to provide estimate of utilization of different indigenous systems of medicine in the country along with the reasons for preferences as well as the cost of treatment.

Methods: The study covered 35 districts spreading over 19 States of the country. From 16 major States, two districts each were selected randomly one from the list of districts with high utilization level and another with low level of utilization. From other 3 States, one district each was selected randomly. From each selected district, 1000 households with at least one sick person were covered. This was achieved by selecting 50 Urban Frame Surveys (UFS)/villages and 20 sick persons each per village/UFS. Allocation of 50 First Stage Units (FSUs) among rural and urban sectors was made in proportion to rural-urban population of the district. From selected FSUs, 20 households with at least one sick person was selected randomly. The data were collected on the health seeking behaviour of persons who were sick (with common or serious ailments) in the last three months before survey including at the time of survey.

Results: About 45,000 sick persons from 33,666 households from 35 districts of the country were covered. The preference of ISM&H for common ailment was about 33 per cent while only 18 per cent preferred to use these systems in case of serious ailments in the country. The sick persons actually availing ISM&H treatment were about 14 per cent. Of those who preferred ISM&H, the reasons were mainly ‘no side effect’ and low cost of treatment. Slow progress was the main reason for not preferring the indigenous systems.

Interpretation & conclusion: The findings of this study showed that about 14 per cent sick persons utilizing indigenous system of medicine. Slow progress and non availability of practitioners were the main reasons for not preferring the ISM & H treatment.

Key words Common ailments - indigenous systems of medicine - serious ailments

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There have been efforts in the developing world in promoting Indigenous Systems of Medicine. To plan an effective strategy towards this, there is a dire need for information on the utilization of indigenous system of medicine by the community. There are only a few studies available on this aspect which due to limitations, lack generalization. The survey done by National Sample Survey Organization (NSSO) on 'Morbidity and Utilization of Medical Services' in 1986-87 indicated that of the sick persons who availed treatment, 96 per cent were treated by allopathic system. The survey also revealed that about 14 per cent of sick persons (18.5% in rural and 11% in urban areas) did not avail any treatment. The reasons given for not availing any treatment were ailment not considered serious (81%) and another 10 per cent financial reasons. It is felt that those who did not avail any treatment because of ailment not considered serious might have used home remedies or visited traditional healers.

The survey done by National Council of Applied Economic Research (NCAER) during early 1990s revealed that about 8 per cent of illness episodes were treated by Indigenous Systems of Medicine & Homeopathy (ISM&H). This survey, however, covered higher proportion of sample from big cities, towns and villages. The sampling fraction ranged from 0.1 from small villages to 1.0 for big cities. However, the result had bias in underestimating the proportion availing ISM&H, because the sick persons from relatively small and inaccessible villages depended more on the indigenous system rather than the allopathic system.

National Family Health Survey-2 (NFHS-2) in 1998-99, collected information on utilization of ISM&H for reproductive health problems. Of those women who had reproductive health problems and availed treatment, over 7.5 per cent took the advice of private vaid/hakim/homeopath/traditional healer. Those availing ISM&H from government system have not been specifically reported. In the same study, NFHS collected information on treatment of diarrhoea and reported that about 5 per cent of those who availed treatment used home remedies/herbal medicine.

Realizing the limitation of available data, the Department of Indian Systems of Medicine & Homeopathy, Ministry of Health & Family Welfare, New Delhi, entrusted Institute for Research in Medical Statistics (IRMS), Indian Council of Medical Research (ICMR), New Delhi to undertake a study on utilization of Indian systems of medicine and homoeopathy. The objective of the study was to provide all India estimate of utilization of different indigenous systems of medicine viz., Ayurveda, Homoeopathy, Unani and Sidha and to find out the reasons of preferences as well as cost of treatment.

Material & Methods

The study covered 35 districts spreading over 19 States of the country. From 16 major states, two districts each have been selected. Other States covered were Manipur and Tripura from the north east region and one district each was selected. Delhi was treated as a single district. The selection of one of the two districts from each major State was based on the highest level of availability of ISM & H facilities and their utilization. Another district selected from the major States was the one which was remotest with lowest level of ISM&H facilities. The identification of the districts in two categories was done by the concerned State government based on availability of facility, manpower and number of outpatients and in patients in the district. From the States of Manipur and Tripura, one district each was randomly selected.

While deciding about the sample size and method of selection care was taken to ensure that the sample was adequate and representative, allowing for generalization of results. From each selected district, 1000 households with at least one sick member were selected in the form of 50 first stage units (FSU) i.e., villages and 20 secondary stage units (SSUs). It was estimated that the sample of 45,000 would provide estimate of utilization for each system separately with less than 5 per cent margin of error and 95 per cent confidence. Allocation of 50 FSU (village/urban ward) among rural and urban sectors was made in proportion to rural-urban population of the district.

For the selection of households in each selected FSU, a house listing was prepared by house-to-house visit. Using this list, twenty households were selected randomly out of the households with at least one member ill during the last three months including the date of survey and who availed medical care services for the treatment.
The information collected related to the system of treatment availed, reasons for preference of the same, and the cost of treatment. In the survey, information was collected from the head of households on the preference of different systems of medicine in case of serious and normal ailments. The survey was done during 2001-2002. The information from the households was also collected about using traditional healers and the sickness for which they were visited and the cost of treatment.

*Estimation procedure:* The estimation for different parameters for household level data was done using appropriate estimation procedures. The sampling design at the district level was self-weighting and hence sample means or proportions were unbiased estimates of corresponding population means or proportions at district level. State level estimates were worked out by giving suitable weights to the district level estimates for high performing and low performing districts on the basis of population of the districts in two categories. The all India estimate was worked out by giving State level population as weights. The information on districts under the high and low utilization categories was available only for the State of Haryana, Himachal Pradesh, Tamil Nadu, Kerala and Karnataka (Table I). The weight for remaining States were taken as the average for above 5 States. For all India/combined estimates the weights for different States are shown in Table II.

\[
\bar{Y} = \sum_{i=1}^{k} P_h \left( \sum_{i=1}^{2} w_{hi} \bar{Y}_{hi} \right) \\
\bar{Y}_{hi} = \left( \frac{1}{m} \right) \sum_{j=1}^{m} y_{hij},
\]

Where \( Y_{hi} \) = Mean for character ‘y’ for utilization category ‘i’ in State ‘h’

\( w_{hi} \) = within State (h) weight of population in utilization category ‘i’.

\( P_h \) = State (h) weight based on 2001 population.

95 per cent confidence interval of the estimate were also computed.

Table I. Weights of districts falling in the high and low utilization categories for selected States

<table>
<thead>
<tr>
<th>State</th>
<th>High utilization district</th>
<th>Low utilization district</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haryana</td>
<td>0.61</td>
<td>0.39</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>0.72</td>
<td>0.28</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>0.73</td>
<td>0.27</td>
</tr>
<tr>
<td>Kerala</td>
<td>0.90</td>
<td>0.10</td>
</tr>
<tr>
<td>Karnataka</td>
<td>0.75</td>
<td>0.25</td>
</tr>
<tr>
<td>Combined</td>
<td>0.74</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Table II. State level weights using 2001 census population

<table>
<thead>
<tr>
<th>State</th>
<th>Weight (%)</th>
<th>State</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gujarat</td>
<td>4.974</td>
<td>Orissa</td>
<td>3.812</td>
</tr>
<tr>
<td>Haryana</td>
<td>1.983</td>
<td>West Bangal</td>
<td>8.198</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>0.623</td>
<td>Punjab</td>
<td>2.442</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>5.299</td>
<td>Bihar</td>
<td>10.401</td>
</tr>
<tr>
<td>Assam</td>
<td>2.699</td>
<td>Uttar Pradesh</td>
<td>16.751</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>6.726</td>
<td>Delhi</td>
<td>1.134</td>
</tr>
<tr>
<td>Kerala</td>
<td>3.504</td>
<td>Manipur- Imphal</td>
<td>0.221</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>9.505</td>
<td>Tripura - West Tripura</td>
<td>0.332</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>8.009</td>
<td>Madhya Pradesh</td>
<td>7.969</td>
</tr>
<tr>
<td>Karnataka</td>
<td>5.416</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results & Discussion

The study covered 33,666 households with at least one sick person during the last three months. The number of such sick persons who had taken any treatment was 44,639, i.e., about 1.33 sick persons per household (Table III).

On the basis of preference, ISM&H was preferred by about one third (95% CI 32.01-33.99) in case of normal ailments, (18.7% for Ayurveda, 12.7% for Homoeopathy and 1% for Siddha/Unani) (Table IVb). The preference was higher in case of high utilization districts (36%) compared to 21 per cent in low utilization districts; difference being significant (P<0.005). However, in case of serious ailments, preference for ISM&H was about 18 per cent (95% CI 17.2-18.8), (11.4% for Homoeopathy, 5% for Ayurveda, 1% Unani & 0.53% for Siddha). The preference was higher in case of high utilization districts (21.7%) compared to low utilization districts (7%); the difference was significant.

About 14 per cent (95% CI 13.4-14.6) sick persons availed ISM&H, (7.1% Ayurveda, 6.3% Homoeopathy and less than 1% Siddha/Unani) (Table IV a), this being higher than those reported by NSSO and NCAER1,2.

The reasons given for availing ISM&H treatment were no side effects (31%), cheap (30%), effective (25%) and doctor easily available (11%). Almost all of those who used allopathic treatment were aware of the Ayurveda and Homoeopathy. About half of the households preferred medical assistance from government health functionaries in case of common ailments whereas they preferred private health functionaries for serious ailments. The reasons for not using ISM&H were slow progress (28%), practitioners not available (27%), no faith (12%), medicines not available (5%) and others (28%).

About 38 per cent of households reported to have visited traditional healers; 40 per cent in rural and

### Table IVa. Preference for various indigenous systems of medicine for common and serious ailments

<table>
<thead>
<tr>
<th>Preference of ISM&amp;H (%)</th>
<th>Common ailments</th>
<th>Serious ailments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ayurveda</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>14.78</td>
<td>3.75</td>
</tr>
<tr>
<td>Rural</td>
<td>19.36</td>
<td>5.12</td>
</tr>
<tr>
<td>Combined</td>
<td>18.71</td>
<td>5.02</td>
</tr>
<tr>
<td><strong>Homoeopathy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>12.38</td>
<td>11.94</td>
</tr>
<tr>
<td>Rural</td>
<td>12.67</td>
<td>11.29</td>
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<tr>
<td>Combined</td>
<td>12.66</td>
<td>11.41</td>
</tr>
<tr>
<td><strong>Unani</strong></td>
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<td></td>
</tr>
<tr>
<td>Urban</td>
<td>0.35</td>
<td>2.82</td>
</tr>
<tr>
<td>Rural</td>
<td>0.37</td>
<td>0.88</td>
</tr>
<tr>
<td>Combined</td>
<td>0.37</td>
<td>1.02</td>
</tr>
<tr>
<td><strong>Siddha</strong></td>
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<td></td>
</tr>
<tr>
<td>Urban</td>
<td>0.72</td>
<td>0.57</td>
</tr>
<tr>
<td>Rural</td>
<td>0.59</td>
<td>0.52</td>
</tr>
<tr>
<td>Combined</td>
<td>0.63</td>
<td>0.53</td>
</tr>
<tr>
<td><strong>ISM&amp;H</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>28.23</td>
<td>19.08</td>
</tr>
<tr>
<td>Rural</td>
<td>32.99</td>
<td>17.81</td>
</tr>
<tr>
<td>Combined</td>
<td>32.37</td>
<td>17.98</td>
</tr>
<tr>
<td><strong>Allopathy</strong></td>
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<td></td>
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<tr>
<td>Urban</td>
<td>71.77</td>
<td>80.92</td>
</tr>
<tr>
<td>Rural</td>
<td>67.01</td>
<td>82.19</td>
</tr>
<tr>
<td>Combined</td>
<td>67.63</td>
<td>82.02</td>
</tr>
<tr>
<td><strong>ISM&amp;H</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High utilization district</td>
<td>36.0</td>
<td>21.7</td>
</tr>
<tr>
<td>Low utilization district</td>
<td>21.2</td>
<td>7.4</td>
</tr>
</tbody>
</table>

ISM & H, Indigenous system of medicine & homeopathy

### Table IVb. Sick persons availing various indigenous systems of medicine & homeopathy

<table>
<thead>
<tr>
<th>Sick persons availing ISM&amp;H (%)</th>
<th></th>
<th></th>
</tr>
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<tr>
<td>Ayurveda Urban</td>
<td>7.01</td>
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</tr>
<tr>
<td>Rural</td>
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<td></td>
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<tr>
<td>Combined</td>
<td>7.08</td>
<td></td>
</tr>
<tr>
<td>Homoeopathy Urban</td>
<td>4.42</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>6.32</td>
<td></td>
</tr>
<tr>
<td>Combined</td>
<td>6.25</td>
<td></td>
</tr>
<tr>
<td>Unani Urban</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>Combined</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Siddha Urban</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>Combined</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>SM&amp;H Urban</td>
<td>12.31</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>14.55</td>
<td></td>
</tr>
<tr>
<td>Combined</td>
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<td></td>
</tr>
<tr>
<td>Allopathy Urban</td>
<td>87.69</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>85.45</td>
<td></td>
</tr>
<tr>
<td>Combined</td>
<td>85.82</td>
<td></td>
</tr>
<tr>
<td><strong>ISM&amp;H</strong></td>
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<tr>
<td>High utilization district</td>
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</tr>
<tr>
<td>Low utilization district</td>
<td>9.0</td>
<td></td>
</tr>
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</table>
about 30 per cent in urban areas. The illnesses for which traditional healers were visited included bone setting (30%), dog bite (16%), snake bite (19%), scorpio bite (10%), jaundice (15%), sciatica (3%) and measles (7%).

The cost of allopathic treatment from private sources for three months was Rs.258 (Rs.219 for medicine and Rs.39 for consultation); Rs.252 in rural and Rs.273 in urban area. The cost of treatment for those availing ISM&H was Rs.160 (Rs.131 for medicine and Rs.29 for consultation); Rs.146 in rural and Rs.210 in urban area. The cost of treatment was little lower for ISM&H as compared to allopathy.

The percentage of households preferring ISM&H showed increase with income and literacy level more for common ailments. With increase in income and literacy, the preference, thus, might increase with time (Tables V & VI).

The preference of ISM&H for common and serious ailments was about 33 and 18 per cent respectively in the country. It varied from State to State, being higher in high utilization districts. About 14 per cent of sick

<table>
<thead>
<tr>
<th>System of medicine</th>
<th>Illiterate</th>
<th>Primary</th>
<th>High School</th>
<th>Above High School</th>
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<td></td>
<td></td>
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<td>28.9</td>
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<td>36.3</td>
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<td>11.8</td>
<td>12.1</td>
<td>14.0</td>
<td>12.7</td>
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<td>0.5</td>
<td>0.5</td>
<td>0.2</td>
<td>0.4</td>
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<td>0.6</td>
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<td>72.6</td>
<td>71.1</td>
<td>67</td>
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<td></td>
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<td>ISM&amp;H</td>
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<td>9.5</td>
<td>12.2</td>
<td>12.2</td>
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</tr>
<tr>
<td>Unani</td>
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<td>1.5</td>
<td>1.0</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Sidha</td>
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<td>0.4</td>
<td>0.6</td>
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<td>84.5</td>
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<table>
<thead>
<tr>
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<th>1001-3000</th>
<th>3001-5000</th>
<th>5001-7000</th>
<th>7001-9000</th>
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<td>46.2</td>
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<td>8.7</td>
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<td>61.9</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>15.1</td>
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<td>34.6</td>
<td>19.5</td>
<td>18.0</td>
</tr>
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<td>6.0</td>
<td>12.3</td>
<td>11.7</td>
<td>5.4</td>
<td>5.0</td>
</tr>
<tr>
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<td>11.4</td>
<td>15.6</td>
<td>10.3</td>
<td>7.6</td>
<td>14.1</td>
<td>11.4</td>
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<td>0.4</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Allopathy</td>
<td>89.8</td>
<td>84.9</td>
<td>78.2</td>
<td>63.2</td>
<td>65.4</td>
<td>80.5</td>
<td>82.0</td>
</tr>
</tbody>
</table>
persons were availing ISM&H treatment in the country. The reasons for preferring ISM&H treatment were mainly no side effect and low cost, while slow progress was the main reason for not availing these systems. The income and literacy level were shown to affect the preference for ISM&H.

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