Issues of Creating a New Cadre of Doctors For Rural India:

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Introduction

• Recommended by the NRHM task force on Medical Education
  -Proposed by the Study Group headed by GP Dutta

• MOHFW , Medical Council India (MCI) decided to start an “updated alternate model of medical education course”

• The course to be named ‘Bachelor’s degree in Rural Health Care’ (BRHC)

• The duration of the course would be 31/2 years+ 6 months of internship.
• After graduating, the candidate is expected to go back and serve the rural community
• Why ?
MISSION

To mitigate the crunch of available trained health manpower
For catering to the health needs of Indian rural population
Actualization of the constitutional mandate of ‘Welfare State’;
Fulfillment of their ‘Legitimate Expectations’ towards ‘Right to Health’
Part of entitlement to ‘dignified and decent life’ under Article 21 of the Constitution of India.
NEED

1. Health as a Human Right.
2. Health as a Fundamental Right.
3. ‘Health for all by 2015’ – Declaration.
4. Health for all to actualize ‘Welfare State’.
5. India a signatory to the “Millennium Development Goals”.
MANDATE

1. ‘State’ duty bound for the said fulfillment.

2. Poor ‘human development index’ including poor public health indices.

3. Binding concept of ‘equity and equality’ under Constitution

4. Yet glaring ‘inequity and inequality’.

5. Doctrine of ‘Legitimacy of Expectations’.

6. Persistent neglect negating ‘human concerns’.
Health & Health Gap

Health is a basic need of a human being &
Access to healthcare a basic human right.

Article 47 of the Indian Constitution enjoins the State to improve the standard of Public Health as one of its primary duties.
General Health Status

What? The general health status of the country

1. Below the average for developing countries.

2. Below socially acceptable levels.

- Continues to bear a disproportionate portion of the global burden of the Pre-transition communicable diseases.
“Shining India”

With 17% of the global population,
Accounts for 20% of the total global disease burden,

23% of the child deaths,
20% of the maternal deaths,
30% of Tuberculosis cases,
68% of Leprosy cases,
14% of HIV infections.

(NRHM Task force Report)
Public vs Private

Public sector provides Only
• 18% of the total outpatient care
• 44% of the inpatient care.

Private sector provides
• 58% of the hospitals
• 81% of the doctors.
(Concentrated in urban /peri urban areas).
Health For All.............?

Selective
Comprehensive Health Care
- Alma-Ata
World Bank

The First Difference

Only for those with paying capacity
Private = Profit driven

Money follows patient
1. ‘State’ duty bound for the said fulfillment.

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GDP growth is not = Health

Prevalence / 1Lakh population

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.TB</td>
<td>24</td>
<td>60</td>
<td>110</td>
<td>131</td>
</tr>
<tr>
<td>2.Malaria</td>
<td>201</td>
<td>176</td>
<td>177</td>
<td>134</td>
</tr>
<tr>
<td>3.Typhoid</td>
<td>47</td>
<td>47</td>
<td>64</td>
<td>73</td>
</tr>
</tbody>
</table>

Pre-transition communicable diseases

Indicators 1- social development, 2- Poverty, 3- sanitation

Source: CBHI 2009
IMR – Social Indictor

Madhya Pradesh -82, Orissa -83

More than 8 times higher than that for Kerala 11.

Pronounced disparity between rural and urban areas –

Andhra Pradesh-  
Rural 67  
Urban 33

Karnataka  
Rural 61  
Urban 24

Glaring in equality
### State wise and region wise disparity in IMR

- Right to die in infancy

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Health standards</th>
<th>IMR:Total</th>
<th>Rural</th>
<th>Urban</th>
<th>R-U</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td>55</td>
<td>61</td>
<td>37</td>
<td>+24</td>
</tr>
<tr>
<td>Kerala</td>
<td>Highest</td>
<td>13</td>
<td>14</td>
<td>10</td>
<td>+04</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Highest</td>
<td>35</td>
<td>38</td>
<td>31</td>
<td>+07</td>
</tr>
<tr>
<td>Assam</td>
<td>Worst</td>
<td>66</td>
<td>68</td>
<td>41</td>
<td>+27</td>
</tr>
<tr>
<td>Bihar</td>
<td>Worst</td>
<td>58</td>
<td>59</td>
<td>44</td>
<td>+15</td>
</tr>
<tr>
<td>UP</td>
<td></td>
<td>69</td>
<td>72</td>
<td>51</td>
<td>+21</td>
</tr>
<tr>
<td>Bengal</td>
<td></td>
<td>37</td>
<td>39</td>
<td>29</td>
<td>+10</td>
</tr>
</tbody>
</table>

(Source: SRS Report 2007)
Why there exist disparity?

“"The single most important Indicator of Political commitment to Health is Allocation of Adequate resources”

- Overtime resource allocation in health steadily falling 1.3% to <0.9 % GDP.
- Hardly Met 50% Of National health programmes. (National Commission on Macro economics &Health 2005)
- Resource constrains- Deterioration of Public health services : Cannot meet the needs (National health Policy 2002)
## Resources: Money

### Table 1.4: Health Spending in Select Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Health Exp. as % of GDP</th>
<th>Government Exp. on Health as % of Total Exp. on Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
</tr>
<tr>
<td>USA</td>
<td>15.4</td>
<td>15.2</td>
</tr>
<tr>
<td>Germany</td>
<td>10.6</td>
<td>10.7</td>
</tr>
<tr>
<td>France</td>
<td>10.5</td>
<td>11.2</td>
</tr>
<tr>
<td>Canada</td>
<td>9.8</td>
<td>9.7</td>
</tr>
<tr>
<td>UK</td>
<td>8.1</td>
<td>8.2</td>
</tr>
<tr>
<td>Brazil</td>
<td>8.8</td>
<td>7.9</td>
</tr>
<tr>
<td>Mexico</td>
<td>6.5</td>
<td>6.4</td>
</tr>
<tr>
<td>China</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>4.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>3.1</td>
<td>2.8</td>
</tr>
<tr>
<td>Nepal</td>
<td>5.6</td>
<td>5.8</td>
</tr>
<tr>
<td>India</td>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

## State wise Percapita health expenditure

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Health standards</th>
<th>Household %</th>
<th>Household Rupees</th>
<th>Public%</th>
<th>Public Rupees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>Highest</td>
<td>86.3</td>
<td>2663</td>
<td>10.8</td>
<td>287</td>
</tr>
<tr>
<td>Tamil Nad</td>
<td>Highest</td>
<td>60.7</td>
<td>1033</td>
<td>26.6</td>
<td>223</td>
</tr>
<tr>
<td>Assam</td>
<td>Worst</td>
<td>80.8</td>
<td>612</td>
<td>17.7</td>
<td>162</td>
</tr>
<tr>
<td>Bihar</td>
<td>Worst</td>
<td>90.2</td>
<td>420</td>
<td>8.3</td>
<td>93</td>
</tr>
<tr>
<td>UP</td>
<td></td>
<td>84.3</td>
<td>846</td>
<td>13</td>
<td>128</td>
</tr>
<tr>
<td>Bengal</td>
<td></td>
<td>78.4</td>
<td>1086</td>
<td>17.3</td>
<td>173</td>
</tr>
</tbody>
</table>

(National health accounts India)
“Funneling of funds”

- 82% of Indians are residing in villages

- Even after NRHM > 2/3 funds flows to urban/secondary care.

?Filtering-Urban style.

Urban Rural Gap
Utilization of Health Care - Public Sector

What is “Inverse care” Law?

APL Vs BPL Gap/disparity  
Source: NSSO
Health manpower

• Doctors

• Scarcity ?
  Availability/Deployment
Growth: Population VS Doctor

**Projected Population of India**

- P.P.: Population Projection of India
- R.G.: Registrar General of India

**Medical Practitioners Registered with Medical Councils**

**Trend Showing the availability of Allopathic Medical Practitioners, Dental Surgeons and Nurses per Lakh Population**

- Av. No. of Allopathic Doctors
- Dental Surgeons
- Nurses

Sources:
- Medical Council of India
- Department of AYUSH, MOHFW, GOI
MANDATE

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Skewed distribution……

• The rural areas are still unable to access the services of the Doctors
• 74% of the graduate doctors live in urban areas.
• Serving only 28% of the population,
• The rural population remains largely Un served.
Govt Sector : Number not Adequate

- Total Doctors registered- 725190
- Total Doctor population ratio-1676:1.

- Total Doctors (Public) 24375
- **Govt Doctor population ratio-34000:1.**

» Source : CBHI, MCI

*Internal + External brain drain*
# Govt Doctor Population ratio

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Health standards</th>
<th>Govt Doctor: Population *</th>
<th>PHC without Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>Highest</td>
<td>10116</td>
<td>0</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Highest</td>
<td>9234</td>
<td>0</td>
</tr>
<tr>
<td>Assam</td>
<td>Worst</td>
<td>13066</td>
<td>0</td>
</tr>
<tr>
<td>Bihar</td>
<td>Worst</td>
<td>23174</td>
<td>1243</td>
</tr>
<tr>
<td>UP</td>
<td></td>
<td>23986</td>
<td>197</td>
</tr>
<tr>
<td>Bengal</td>
<td></td>
<td>14089</td>
<td>71</td>
</tr>
</tbody>
</table>

RURAL HEALTH CARE SYSTEM IN INDIA

Community Health Centre (CHC)
A 30 beded Hospital/Referal Unit for 4 PHCs with Specialised services

Primary Health Centre (PHC)
A Referal Unit for 6 Sub Centres 4-6 beded manned with a Medical Officer Incharge and 14 subordinate paramediscal staff

Sub Centre
Most peripheral contact point between Primary Health Care System & Community manned with one HW(F)/ANM & one HW(M)
No More ........

Short falls. Based on 2001 census
20486 Sub Centres
4477 PHCs
2337 CHCs
Where there is no doctor

MO-PHC: 19%

HI: 41%

Lab tech: 38%

Specialist: 52%
Filling the blanks........

<table>
<thead>
<tr>
<th>Contract basis</th>
<th>State of “state subjects”</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Doctors</td>
<td>Male Health workers HI,JHI</td>
</tr>
<tr>
<td>• CRRI</td>
<td></td>
</tr>
<tr>
<td>• Provides a poor quality person for these jobs, and with very short term commitments to working there.</td>
<td>Remain unfilled</td>
</tr>
</tbody>
</table>

No permanent solution......

• *Compulsion will not work: “After all, one can force a horse to the water, but one cannot make it drink.”* 2010 Joe Varghese
Drawing picture without wall?

- Shortage of the physical infrastructure in the public health sector.
  - Community Health Centre: CHC – 68%
  - Primary Health Centre: PHC – 31%
  - Sub Centre: SC – 29%

Short fall of infrastructure in Rural areas.

1212/23458 PHC No building
# PHC Population

<table>
<thead>
<tr>
<th></th>
<th>PHC Population Range</th>
<th>PHC Count</th>
<th>States</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>30000-40000</td>
<td>9</td>
<td>Maharashtra, Punjab, Daman &amp; Din, Tripura, Andhra Pradesh, Goa, Uttar Pradesh, Haryana, Madhya Pradesh</td>
<td>30715, 33257, 33619, 34914, 35287, 35636, 35680, 35784, 38626</td>
</tr>
<tr>
<td>5</td>
<td>40000-50000</td>
<td>1</td>
<td>Bihar</td>
<td>45287</td>
</tr>
<tr>
<td>6</td>
<td>Above 50000</td>
<td>3</td>
<td>West Bengal, Jharkhand, Delhi</td>
<td>62499, 63491, 118091</td>
</tr>
</tbody>
</table>

|   | All India            | 34        | All India                       | 31652      |

1-PHC for 30000 population, 13 states it is above 40000.
The issue of health human resources in rural areas is not limited to their non-availability

- “Namukku
  Gramangalil chennu Raapaarkam......”
Why they are reluctant to go?

Facilities At PHC (As on March 2008)

<table>
<thead>
<tr>
<th>Name of state</th>
<th>Health standards</th>
<th>No motorable Road</th>
<th>No water supply</th>
<th>Without Electricity</th>
<th>No Telephone</th>
<th>No Computer</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerala</td>
<td>Highest</td>
<td>5.3</td>
<td>0</td>
<td>0</td>
<td>59.5</td>
<td>0</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Highest</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Assam</td>
<td>Worst</td>
<td>5</td>
<td>0</td>
<td>44.4 ↑</td>
<td>82.3</td>
<td>83</td>
</tr>
<tr>
<td>Bihar</td>
<td>Worst</td>
<td>5</td>
<td>21.3</td>
<td>NA</td>
<td>77.6</td>
<td>77</td>
</tr>
<tr>
<td>Jarkhand</td>
<td>Worst</td>
<td>27</td>
<td>50.9</td>
<td>29</td>
<td>87.9</td>
<td>NA</td>
</tr>
<tr>
<td>UP</td>
<td></td>
<td>10.4</td>
<td>10.4</td>
<td>13</td>
<td>91.4</td>
<td>96</td>
</tr>
<tr>
<td>Bengal</td>
<td></td>
<td>34.6</td>
<td>34.6</td>
<td>9.8</td>
<td>84.6</td>
<td>NA</td>
</tr>
</tbody>
</table>

Indian Public Health Standards ..............................

Medical Education

- Total medical Colleges: 300
- Medical seats: 34,000.
- Increasing day by day – Private sector

- Who cares?
  - Criteria for selection?
  - Govt – Only merit,
  - Pvt – Only money
- Aptitude/Attitude.
Medical Education
Not problem (need) Based

Figure 2: Mismatch between Curricular Content & Morbidity Pattern in Ambulatory Setting (OPD)

<table>
<thead>
<tr>
<th>Morbidity Pattern in Ambulatory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Upper Respiratory Tract Infection</td>
</tr>
<tr>
<td>• Skin Diseases</td>
</tr>
<tr>
<td>• Trauma</td>
</tr>
<tr>
<td>• Musculo-skeletal</td>
</tr>
<tr>
<td>• Anemia</td>
</tr>
<tr>
<td>• Fungal</td>
</tr>
<tr>
<td>• Epilepsy</td>
</tr>
<tr>
<td>• Helminthiasis</td>
</tr>
<tr>
<td>• Hypertension</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content Coverage Faculty Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ischemic heart disease</td>
</tr>
<tr>
<td>• Diabetes</td>
</tr>
<tr>
<td>• Hypertension</td>
</tr>
<tr>
<td>• Urinary Tract Infection</td>
</tr>
<tr>
<td>• Upper Respiratory Tract Infection</td>
</tr>
<tr>
<td>• Convulsions</td>
</tr>
<tr>
<td>• Low Back pain</td>
</tr>
<tr>
<td>• Vertigo</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics Covered in Examination – Students’ Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Asthma</td>
</tr>
<tr>
<td>• Malaria</td>
</tr>
<tr>
<td>• Thyroid</td>
</tr>
<tr>
<td>• Typhoid</td>
</tr>
<tr>
<td>• Tetanus</td>
</tr>
<tr>
<td>• Anemia</td>
</tr>
<tr>
<td>• Renal failure</td>
</tr>
<tr>
<td>• Pericardial disease</td>
</tr>
</tbody>
</table>

Source: NRHM Task force
MANDATE

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Regional distribution of Medical Colleges

### 6 southern states: 65%
- Maharashtra: 39, 4410
- Karnataka: 32, 4005
- Andhra Pradesh: 31, 3925
- Tamilnadu: 22, 2515
- Kerala: 15, 1650
- Gujarat: 13, 1625

Total Percent: 62.8% 66.6%

### EAG states: Only 17.5%
- Uttar Pradesh: 13, 1412
- Uttaranchal: 2, 200
- Bihar: 8, 510
- Jharkhand: 3, 190
- Madhya Pradesh: 8, 970
- Chhattisgarh: 2, 200
- Rajasthan: 8, 800
- Orissa: 4, 484

Total Percent: 19.8% 17.5%

### NE Hilly: 2.5%

#### Number of Medical Colleges in North-Eastern/Hilly States

<table>
<thead>
<tr>
<th>Name of the State</th>
<th>Total</th>
<th>Total No. of Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>3</td>
<td>391</td>
</tr>
<tr>
<td>Manipur</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Sikkim</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Tripura</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mizoram</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nagaland</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Total Percent: 2.6% 2.6%

Regional imbalance = Scarcity
NRHM Task force Recommendations

Figure 9
Schematic Presentation of the Recommendations of the Task Force

Current MBBS curriculum + Modifications
- Addition
- Deletion
- Emphasis
- Restructuring

Neglected

Incentives for doctors serving in rural areas

Human Resources for Delivery of Healthcare at SC, PHC & CHC

Short-term Certificate course for MBBS Doctors (1 year)
- Anesthesia
- Radiology
- Paediatrics
- Obstetrics & Gynaecology
- Rural Surgery
- Community Health

Community Health Practitioners Course
- 3 years for 10+2 Candidates
- 2 years for Alternative Medicine/Nursing Graduates
Coverage all over India

RURAL VS URBAN

Applicable to health service
Twin track health care system.
1 Superior urban .2. Sub standard rural

- Do we need another substandard undergraduate degree to our rural population because most of our trained doctors are unwilling to serve them?
- Will the cadre be able to handle the population's healthcare needs?
- Why should there be substandard care for the rural population?
- If candidates for the BRHC course are selected from a rural background, will they serve rural areas after qualification?
- After 5 years?

- One of the principles of healthcare ethics is the principle of justice.
- Important expression of justice is equity.
- The provision of a primary level of care to all sections of society according to their need is crucial in achieving equity in healthcare provision.

**MCI Act 1956-Section 12b: Minimum qualification for Medical practitioner - 4\(\frac{1}{2}\) year+1 year internship. LMP abolished in 60’s.**
“The Heart of India lies in its villages”

Mahathma Gandhi