Education towards improving health care

Christian Medical College
Christian Medical College, Vellore

- 2700 bed super-speciality hospital
- 2 million outpatients
- 120000 inpatients
- Medical college
  - School of Nursing
  - Allied health science
- 3 Community health projects - 300,000 population
CMC MODEL

SERVICE

OUTREACH

TRAINING

RESEARCH

BETTER HEALTH FOR THE COMMUNITY
CMC MODEL
EDUCATION TOWARDS ADDRESSING HEALTH NEEDS

CMC HOSPITAL

CHAD  LCECU  RUHSA

COMMUNITY

NETWORK OF 200 SECONDARY HOSPITALS
CMC FUNCTIONING HEALTH SERVICE

- 90-95% of cases handled at primary and secondary level
- Patients requiring tertiary care referred to CMC hospital
- Patients referred back
- Telephonic consultation
- Liaison clinics and services
- Specialised community services

Efficient and appropriate use of resources
Patients receive care near their home
CMC MODEL
EDUCATION TOWARDS ADDRESSING HEALTH NEEDS

CMC HOSPITAL

- CHAD
- LCECU
- RUHSA

Rural block
Vellore Town
Rural block

NETWORK OF 200 SECONDARY HOSPITALS

Undergraduate training
Medicine, Nursing, AHS
- Community health training
- Secondary hospital programme
- Family medicine/practice training

Postgraduate training
- Need based fellowships & specialties
- Family medicine

Extension education
- Distance education/CME
- Telemedicine
- E-learning
CMC MODEL
RESEARCH TOWARDS ADDRESSING COMMUNITY HEALTH NEEDS

- Structures
- Processes
- Culture
to foster research towards solving priority health problems

Examples:
Hansen’s disease, diabetes
Neurocysticercosis, diarrhea,
Thallasemia, orthotics, stem cell research, vaccine research

NETWORK OF 200 SECONDARY HOSPITALS
Community health training
Community health training at CMC

I MBBS
COP (3 wks)

II MBBS
CHP-I (2 wks)

III MBBS
CHP-II (2 weeks)

Phase IV
Internship (2 mths)

Orientation to community health

Health system & health planning

Implementing health program

Primary care physician
Family Medicine training
Low cost effective care unit

Family medicine model of health care
## Family Medicine training

<table>
<thead>
<tr>
<th>I MBBS</th>
<th>II MBBS</th>
<th>III MBBS</th>
<th>Internship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation 3 days</td>
<td>FM posting 2 weeks</td>
<td>FM elective 3 weeks</td>
<td>Internship training Community health 2 months</td>
</tr>
</tbody>
</table>

**Aim:** To orient the students to the principles and practice of Family Medicine
Evaluation of family medicine posting

Overall posting rating: 4.1 out of 5

- Theory: 87.9%
- OSCE: 64.4%

Patient centredness, Socio-economic impact, Common illnesses, Cost-effectiveness
“It is not about prescribing drugs. We need to look at the person as a whole and address their needs. A GP is one who looks after 99% of the town’s illnesses. Bearing this in mind, he must understand the responsibility he carries and share the burden of the his patient”.

“Felt that this was more useful than 6 weeks in the main hospital”

Student Quotes
Secondary hospital programme
Network of Secondary Hospitals

200 secondary hospitals

20-200 bed hospitals

Rural and semi-urban areas of India

Broad based Services

2 years of service obligation after graduation
# Secondary Hospital Program

<table>
<thead>
<tr>
<th>I MBBS</th>
<th>II MBBS</th>
<th>III MBBS</th>
<th>Internship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>SHP I</strong></td>
<td><strong>SHP II</strong></td>
<td><strong>SHP III</strong></td>
</tr>
<tr>
<td></td>
<td>1 week</td>
<td>2 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

Aim: To orient the students to the practice of medicine in rural Secondary Hospitals
11 secondary hospitals
56 students divided into groups of 5-6
Faculty training
SH posting
“Assam itself was a memory to savor, the ubiquitous bamboo, the all-to-real possibility of being shot despite having a military escort, travelling on top a vehicle rather than inside one, bathing in open air, forgetting the intrusions of cell phones and the internet, and the gracious hospitality of villagers who opened their home to us strangers..”

Student Quote
Clinical work

Medical Ward

OPD

Labor Room

Operation Theatre
“Everyday we are faced with a host of new experiences we had never dealt with and will unlikely see again..”
Screening for hypothyroidism in a village

• Preventive Community Diagnosis
“What shocked me was the hard work, perseverance and commitment of the people who work hand-in-hand as one of the team. I realized that the life and work in rural areas with the less privileged and no great facilities is ‘no less’ to the work done in a tertiary hospital”

Student Quote
# Student Rating - SHP 2008

(Scale of 1-5) – Mean Scores

<table>
<thead>
<tr>
<th>Contribution</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Hospital Faculty</td>
<td>4.18</td>
</tr>
<tr>
<td>Tertiary Hospital Faculty</td>
<td>4.35</td>
</tr>
<tr>
<td>Value of Project</td>
<td>3.62</td>
</tr>
<tr>
<td>Overall rating of SHP</td>
<td>4.41</td>
</tr>
</tbody>
</table>
Distance education
Why use distance education?

• Lack of PG training opportunities
• Possibility of training large number of existing workforce and addressing health care disparities
• Distance education can be as effective as conventional forms of medical education
• Tailoring training to local needs
• Learning in the setting of practice
• Application of knowledge to improve practice
• Cost effective
Distance education at CMC

Postgraduate courses in Family Medicine
- M. Med in Family Medicine
- Diploma - Fresh MBBS graduates
- Diploma - Government doctors-NRHM

Fellowship in Diabetic care
Need of the Hour
“Family physicians”

Multi-competent Specialists who can provide a single-window healthcare to local communities.

• Cares for all ages
• Patient- family- community
• Multi-competent
• Deals with all stages of illness
• Can deals with emergencies
• Knows when to refer
• Cost-effective treatment
• Curative & preventive and promotive
Generating a Critical Mass of Family Physicians in India through distance education

NUMBER OF FAMILY PHYSICIANS TRAINED

• GPs - 1739

• Government doctors - 247
Main components

- Training modules
- Learning around case problems
- Reflection
- Feedback
- Assignments
Contact Programs

Contact programs (total of 30 days in 2 years)

Skills development
• Fractures
• Deliveries
• Caesarian section
• Spinal anesthesia
• Basic suturing
• Neonatal emergencies
• Basic emergency care
• Reading x-rays and ECGs
Centres for Face-to-face contact sessions

Use of video
Conferencing
For teaching from CMC
UTILIZATION OF ANTE-NATAL CARE SERVICES AMONG PREGNANT WOMEN
EVANGELICAL HOSPITAL, KHARIAR

IMPROVING ANTIBIOTIC PRESCRIPTION PRACTICES
CSI HOSPITAL BANGALORE

BIOMEDICAL WASTE SEGREGATION AND DISPOSAL MANAGEMENT
BISHOP WALSH MEMORIAL HOSPITAL, THADAGAM

ESTABLISHING A DIABETIC CLINIC
THE SALVATION ARMY HOSPITAL NAGERCOIL
Gudalur Adivasi Hospital

- Unique health system
- Democratic tribal organisation

Dr. Narayan Devadasan

Dr. Roopa

Dr. Nandakumar and Dr. Shyla
<table>
<thead>
<tr>
<th>Tribes</th>
<th>Population</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mullukurumba</td>
<td>1256</td>
<td>Agriculturalist Land owners</td>
</tr>
<tr>
<td>Bettakurumba</td>
<td>3945</td>
<td>Work with Elephants</td>
</tr>
<tr>
<td>Panniya</td>
<td>10314</td>
<td>Labourers Bonded labour to Chetty</td>
</tr>
<tr>
<td>Kattunaykan</td>
<td>2446</td>
<td>Live closest to forest</td>
</tr>
</tbody>
</table>

**Total population- 20,000**
Adivasi Munetra Sangham

Gudalur Adivasi Hospital
ASHWINI

ACCORD
JUST CHANGE
Tea cooperative

Vidyodaya school

1986
ASHWINI

300 hamlets
1200 sq. Km
8 Area centres
20,000 population

Kattunayakan hamlet

Primary health care
Conclusion
# Effective models of training doctors for primary and secondary care

## The pipeline concept

<table>
<thead>
<tr>
<th>SELECTION</th>
<th>UNDERGRADUATE COURSE</th>
<th>POSTGRADUATE TRAINING</th>
<th>SUPPORT FOR PRIMARY CARE DOCTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate background</td>
<td>Family medicine orientation</td>
<td>Significant time in training at Primary/secondary Level</td>
<td>Family Medicine PG</td>
</tr>
<tr>
<td>Motivated to work in needy area</td>
<td></td>
<td></td>
<td>MD/MS Medicine Surgery</td>
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<td>OG, Paeds</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Need based Fellowships</td>
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<td>Career</td>
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<td></td>
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<td>Incentives</td>
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<td>CME</td>
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<tr>
<td></td>
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<td></td>
<td>Involvement as teachers</td>
</tr>
</tbody>
</table>

*University of New Mexico, University of Washington, Seattle, Walter Sisulu University, Flinder’s University*
Challenge

- To translate these ideas into a pilot project: **Medical college supporting a district health system**
- To study the **requirements** for such change and the **difficulties** involved
- Demonstrate the **impact on health care provision** and the **quality of medical education**