Innovative approaches in Mexico and North East India health care system and their implications in Other Ibero American Countries

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Objectives

- Discuss and look at the Innovative ideas in Mexico and North east India to structure a better healthcare system for other Ibero American Countries
- Overcome shortage of human resources for health and provide center for Information systems in North east India and its implications.
- Execute a more refined system in healthcare education.
Objectives

- Review various innovative things happened in Mexico and will look at its application in other Ibero American countries which can replicate the innovations.
- Review the services and facilities provided by CIS and its impact on various spheres of tribal life in NE India such as education, agriculture, health care, employment, public and policy information that enrich the knowledge base as well as access to important information to these people.
Challenges of healthcare delivery In Mexico

- Scarcity of human resources in health resulting in many health issues.
- Malnutrition, avitaminosis, anemia, dysentery, tuberculosis, malaria, and other infectious diseases.
- Recent studies of 2009, have also shown an encounter of a major outburst of swine flu that was immersed amongst the population of Mexico effecting close to half a percent of the population (total population around 120 Million).
- Diabetes now standing as the leading cause of death.
Challenges of healthcare delivery In Mexico

• With Mexico’s poverty rate so high and low economical class it has served as a sole purpose of the low academic level of medical schools drawing out poorly skilled doctors.

• As a result, under these poor circumstances, it has caused them to suffer profoundly from poor healthcare delivery, leading to these defective health conditions.

• In the North East India (mostly tribal area) especially in Arunachal Pradesh RIWATCH has been very active in health care and face similar challenges as faced in Mexico, and Ibero American countries.
The Development of innovative technology to improve on healthcare

- Public healthcare spending being on the rise in Mexico has allowed itself to create new innovative ways to tackle some of these health issues.
- Implementation of vaccination shots at your local health facilities have been used to stimulate a better immune system to fight off and prevent any of these pathogenic diseases.
- Facilitating a more improved infrastructure, building new clinics and specialized hospitals have been growing at a brisk rate.
- The medical education has also added some designing touches by enlightening the doctors allowing them to be more knowledgeable now granting them access to high-performance computing and better communicable resources from outsiders sharing information.
Assessment of Mexican Medical Services

Using a typical report card scale of A, B, C, D and F, how would you grade the health system in Mexico on the following dimensions?

- **Up-to-date technology**: 24%
- **Up-to-date buildings and equipment**: 33%
- **Medical innovation (new treatments or services)**: 31%
- **Focus on wellness rather than illness**: 33%
- **Access to services (availability and convenience)**: 19%
- **Patient- and consumer-centered**: 45%
- **Availability of medication products**: 19%
- **Wait times for service**: 74%

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Assessment of Mexican Medical Services

Using a typical report card scale with grades A, B, C, D and F, how would you grade the overall performance of Mexico’s healthcare system?

<table>
<thead>
<tr>
<th>Favorable Grade</th>
<th>Unfavorable Grade</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1%</td>
<td>14%</td>
</tr>
</tbody>
</table>

2011 Mexico

Note: Bars may not sum precisely to the totals above due to rounding.
Source: Deloitte 2011
Healthcare in Mexico

- Most Mexicans aren’t content with the healthcare system.
- Dissatisfying waiting times
- Lack of availability of medication
- Lack of patient-consumer orientation
- Limited access to services and conveniences
- Poor wellness-orientation
- All variables contribute to Mexico’s incompetent healthcare system.
Northeast India

- Mostly inaccessible by any means of transportation from the rest of India.
- Northeast (NE) India is one of the most diverse geographical areas with > 3000 dialects of tribal people.
- Integrating people with extreme diversity in terms of ethnicity, socioeconomic status, urbanization, education, and technological sophistication is a big challenge.
Community Information Services: A Unique Tool to Enhance E-Governance in Tribal and Remote Rural areas of Northeast India Using Modern Information Technology

- CIS are a boon to NE India providing interface between Government and citizens.
- Government have set up 30 CIS in pilot projects.
- By the end of 2015, planning to set up additional 457 CIS leaving a total of 487.
- CIS will play a vital role in changing the lives of the tribal people for the better.
# Status of Community Information Centers in the North East

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the State</th>
<th>Total No’s of CICs planned</th>
<th>Total No’s of CIC set up</th>
<th>Present CIC</th>
<th>Status CSC</th>
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<tbody>
<tr>
<td>1.</td>
<td>Assam</td>
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<tr>
<td>2.</td>
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<tr>
<td>7.</td>
<td>Sikkim</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td></td>
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<tr>
<td>8.</td>
<td>Tripura</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>555</strong></td>
<td><strong>555</strong></td>
<td><strong>125</strong></td>
<td><strong>430</strong></td>
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</table>
CSC North East rolls out status as on July 2011

<table>
<thead>
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<th>S.No.</th>
<th>States</th>
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<th>Roll out as on July 2011</th>
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<td>Mizoram</td>
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<tr>
<td>8</td>
<td>Arunachal Pradesh</td>
<td>200</td>
<td>187</td>
</tr>
</tbody>
</table>
Status of Community Information Centers in the North East

- CIS provided the services and facilities which has impact on various spheres of tribal life in NE India such as
  - education,
  - agriculture,
  - health care,
  - employment,
  - public and policy information
  - that enrich the knowledge base as well as access to important information to these people.
Health care spending comparison

Total Healthcare Spend as % GDP

- **U.S.** $6,714
- **South Africa** $456
- **UK** $3,361
- **Brazil** $426
- **Egypt** $93
- **Mexico** $500
- **Russia** $369
- **India** $39
- **China** $90
- **UAE** $982
- **Indonesia** $34

- Total healthcare spend as a % of GDP
- Per capita total spend on healthcare ($USD)
Healthcare Expenditure

- The Mexican government spends only about 5.2% of its GDP (Gross domestic product) on healthcare compared to an average spent in other Ibero countries landing at 6.2%.
- India spending only about 4.1% of its GDP on healthcare.
- 2013 marked India having a low healthcare allocation which has led to high infant and mortality rates.
Infrastructure In Ibero American Countries

- Requirement of an expansion of overall physical infrastructure like buildings, equipment, transportation, auxiliary human resources, facilities, etc. has been rationalized for optimal use.

- Compared to other Ibero countries, Mexico has suffered in a low ratio of the amount of hospital beds to people in clinical facilities.

Currently Mexico has 38 certified medical schools growing at a brisk rate.

Graduate capacity is approximately 21,000 students.

Shortage of doctors by 2015 is supposed to be an estimated 63,000.

Majority of physicians 60 and older; ranking the highest percentage nationwide of elderly physicians.

At present 334 medical colleges serve in India (154 medical colleges in government sectors, remaining 180 in private sector).

Shortages of Doctors play a major impact in India as well; at an estimated 13,794 in 2010.
Conclusion

- Tremendous efforts have been made towards the reform of Mexico’s healthcare industry and other Ibero countries.
- Certain issues pertaining its healthcare still take a crippling toll on the population.
- North east of India has provided interesting solutions to health care and other problems of the remote areas by providing Community information centers in remote areas.
- Many healthcare problems are being resolved due to accessibility.
- These centers can be replicated in many other Ibero American Countries where such problems and diversity of population exists.
- Using the experience of Mexico and North east India we can improve health care delivery in many other Ibero American Countries.
Future implications

- Facilitating a more improved infrastructure, building new clinical facilities and specialized hospitals.
- Increase attention to medical infrastructure (setting up new medical colleges, as more land will be required).
- Increase amount of faculty in medical colleges (in past has been a shortage).
- Improve its alliances with internationally-recognized healthcare providers.
Future implications

- Improve more of its quality and cut cost in healthcare.
- Recruit more nurse practitioners who require less training to supplement for the shortage of doctors and reduce amount of wait time as well as pay.
- Cross-train future and current doctors, enlightening them on multiple specialties, to reduce patients from traveling across the state to see a specialists for a disease they may have encountered.
References

- Caudell, Thomas P., Kenneth L. Summers, Jim Holten, Takeshi Hakamata, Moad Mowafi, Joshua Jacobs, Beth K. Lozanoff, Scott
References

- Model E-Villages In North East India: An ICT Project For Development In Remote Tribal Areas, April 2012, Researched and Documented by: One World Foundation India.
- Leveraging Information and Communication Technology for the Base of the Pyramid. Innovative business models in education, health, agricultural and Financial Services: A JOINT REPORT BY Hystra Hybrid Strategic consulting ASHOKA in collaboration with TNO, 2012
- Bhaskar Mazumder, PhD., Vijay Swami**, M.S.W., Istu Pulu**, M.D (Gynecology) and Yashwant V Pathak#, PhD, Community Information Services: A Unique Tool to Enhance E-Governance in Tribal and Remote Rural areas of Northeast India Using Modern Information Technology , Innovationa and Technology, 16 (01) March 2014 In press
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Thanks

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