Indian Healthcare Delivery System
Healthcare IT role

Dr Thanga Prabhu

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Dr Thanga Prabhu

• 1990 : MBBS (Madras University)
• 2003 - 2005: Health Informatics - United Kingdom
• 2005 - 2007: GE HCIT Engg (Clinical Analyst)
• 2007 - 2009: GE HCIT ITPS Kuwait/Doha (ePrescribing Consultant)

Clinical Director – GE HCIT India
India Healthcare landscape

Model PHC, Banavaram, Vellore, India, 2010

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Indian Healthcare Delivery System

**Government**

- Preventive Medicine
  - 23,236 PHCs provide curative, preventive, and family welfare services.
  - 1 PHC covers a population of 100,000
  - PHCs report into CHC (4045 present)
  - 289 Govt. medical colleges
  - 11,289 Govt. Hospitals (rural 6,298 / urban 2,774)
  - NRHM: National Rural Health Mission plan to spend USD 8 billion/4 years

**Private**

- Curative Medicine
  - 8,385 hospitals ... provide Tertiary level medical service maintain World class facilities
  - Several corporate hospitals are **JCI accredited** or in the process of getting accreditation
  - Concentrated in Urban areas with little rural presence

**Public Health Data integrity to guide Govt. spending**

reduce medical errors, optimize resources

Source: http://india.gov.in/citizen/health/primary_health.php
http://cbhidghs.nic.in/

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Emerging Initiatives in India

• **RSBY (National health insurance scheme)**
  - Aimed at providing access to services of private/govt hospitals through cashless and paperless transactions
  - Smartcard embedded with 11 types of software
  - Security, cost are key issues

• **I-HIND (Indian health info network development)**
  - Health e-cards for newborns
  - Store neonate’s health details: birth date, blood group, vaccination schedules
  - Potential to track HIV, other diseases

• **UID (Unique identification)**
  - Unique number for online authentication
  - Biometrics and demographic data of individuals
  - All India mobility

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Emerging Initiatives in India contd…

**Aarogyashri (Andhra Pradesh)**
- AP Govt initiated Health Insurance for BPL segment
- Started on 01.04.2007, 163 identified diseases in 6 systems, today
- Aarogyashri II covers 942 procedures in 31 systems
- to cover 20.4 million BPL families encompassing 70 million population
- Rs.1.5 lakhs per family per year (50k buffer)

**KKT (Kalaignar Kaapittu Thittam, Tamil Nadu)**
- covers all families of various welfare boards + families earning less than Rs. 72,000/- per annum
- Rs. 1 lakh per family for a period of 4 years.
- The scheme shall benefit over 1 crore families in the state of Tamil Nadu
- One year anniversary celebrated with recognizing hospitals in 3 categories

**HMRI – 104 advice, mobile, telemedicine…**
- Health Management Research Institute is creating the world’s largest integrated digital health network
- Providing mobile PHC and delivering healthcare at home
- Reduce the cost of access to healthcare services for people (wage loss, travel costs etc.).
- Provide access to regular preventive health checks and health

IT playing a major role in modernizing healthcare; Private and Government

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Constituted as an advisory body to the Prime Minister

To restructure knowledge related institutions and setup infrastructure to meet the challenges of the 21st Century

Focus on meeting the aspirations of the 550 million young in an increasingly global knowledge society
NKC Organization

Prime Minister

NKC

CHAIRMAN
MEMBERS
SUPPORT STAFF

PLANNING COMMISSION

MINISTRIES / STATES

Chairman: Sam Pitroda

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Recommendations 2007

• Management Education
  – Medical Education
  – Legal Education
  – Health Information Network
  – Traditional Health Systems
  – Intellectual Property Rights
  – Open Educational Resources
  – Open and Distance Education

• Report on “Innovation in India”
Health Information Network

• create a web-based network, connecting all health care establishments in both private and public sector

Establish national standards for clinical terminology and health informatics

Create a common electronic health record (EHR)

Promote use of IT in health care
• Form public-private partnership for a financially viable plan

Tabled in Parliament - October 2008
iHIND
Indian Health Information Network Development
iHIND components

* India Health Portal
  (St Johns Medical College & Apollo Health Street)

* Health Information Network
  (Formed team of 10 in Nov 2009, currently 30 member team)

* National Emergency Medical Services

80+ volunteers from 4 countries collaborated over 6 weeks for iHIND submitted report to Ghulam Nabi Azad & Dinesh Trivedi on 16 April 2010

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iHIND plan

- “hub-and-spoke” model RHIO (Regional Health Information Organization) per district in India (n = 626)
- The hub for each RHIO will be the CDR (central data repository) at a district level
- The hub will be connected to each of the participating sites in the network
- Target to be financially self-sustaining in about five years

Each of the 626 district level hubs to be connected to State level (or union territory) data warehouse

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iHIND plan

iHIND HUB and SPOKE Model

Data Use/Re-use

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**iHIND Pilot plan**

**iHIND Pilot Implementation: 2 Districts**

- **5/3/10** Proposal to MoH
- **5/6/10** Expert Review Complete
- **1/1/2011** PILOT Begins

**3/5/2010 - 12/31/2010** Pre-Pilot Implementation

- **7/6/10 - 31/12/10** Awareness, Legislation, Budget

**1/1/11 - 30/6/12** Infrastructure, Staff Hiring, Set up Hub & Link sites, Training, Evaluate, Report

**2 DISTRICTS**

**30/6/12**

**1/1/11 - 30/6/12** Pilot Implementation & Evaluation
National iHIND Implementation Timeline: 1/1/2011 – 31/12/2020

National Timeline: 10 years

TOTAL Districts to Cover: 626

Pilot Phase: 18 months: 2 Districts
Phase I: 18 months: 100 districts
Phase II: 18 months: 100 districts
Phase III: 18 months: 108 districts
Phase IV: 18 months: 108 districts
Phase V: 18 months: 108 districts
Phase VI: 12 months: 100 districts
iHIND standards

- Vocabulary Standards: ICD10 and SnomedCT
- Content Exchange Standards: DICOM, HL7 CDA
- Transport Standards: SOAP - XML
- Privacy and Security Standards

Standards list evolving as Pilots progress and stakeholders input flows in
iHIND progress

16 Apr 2010
Presented to Ghulam Nabi Azad, Dinesh Trivedi (Health Ministers), Sam Pitroda and 50 + senior bureaucrats from NRHM, NIC, CBHI, CDAC etc.

10 Aug 2010
Health Secretary (Sujata Rao) meeting for EMR Standards

13 Sep 2010
18 member expert committee formed by Health Secretary
30 Sep, 16 Dec 2010, 29 July 2011 meetings held in Delhi

June 2011
NIHFW given ownership of Portal work

Jan 2013
Prof (Dr) Supten Sarbhadikari appointed Director-CHI/NHP Centre for Health Informatics for National Health Portal, Govt of India [http://www.nihfw.org/National%20Health%20Portal.html]

19 Mar 2013: Final meeting of EMR interoperability stds committee, NIHFW, Delhi

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Volunteers welcome
Join here

http://edrprabhu.com/data/iHind.htm