

Indian Healthcare Delivery System

Healthcare IT role

Dr Thanga Prabhu



Dr Thanga Prabhu

- 1990 : MBBS (Madras University)
- 1994 -2003: Abu Dhabi MoH (Ministry of Health)
Neurology, Emergency Medicine
- 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

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

Public Health Data integrity to guide Govt. spending

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 Ref: Medical Tourism
- Concentrated in Urban areas with little rural presence

reduce medical errors, optimize resources

Emerging Initiatives in India

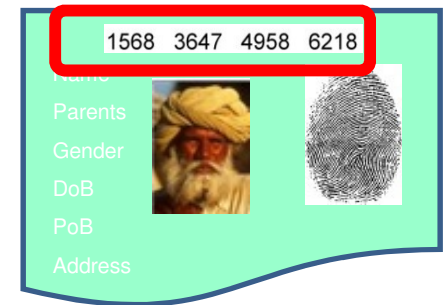
- **RSBY (National health insurance scheme)**

- 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



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 (Kalaingar 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



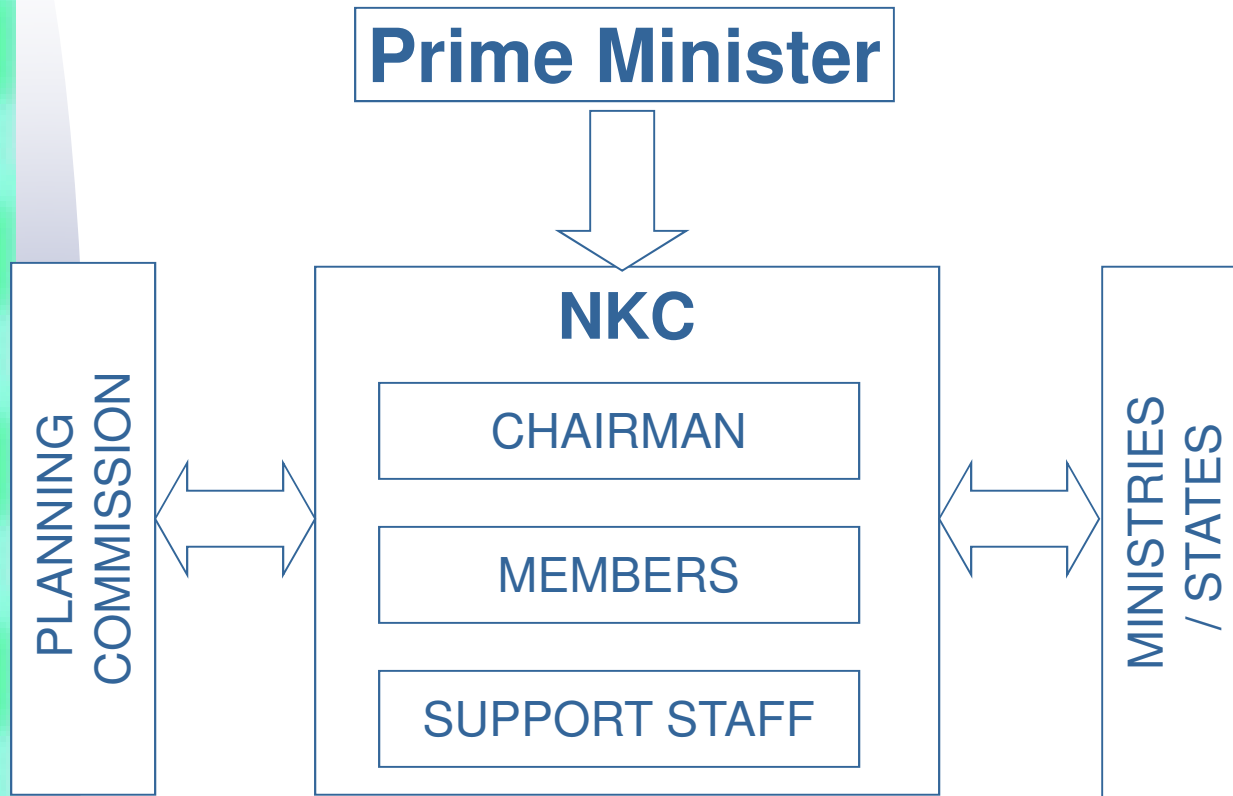
IT playing a major role in modernizing healthcare; Private and Government



National Knowledge Commission
Government of India

- ✓ 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



Chairman: Sam Pitroda



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

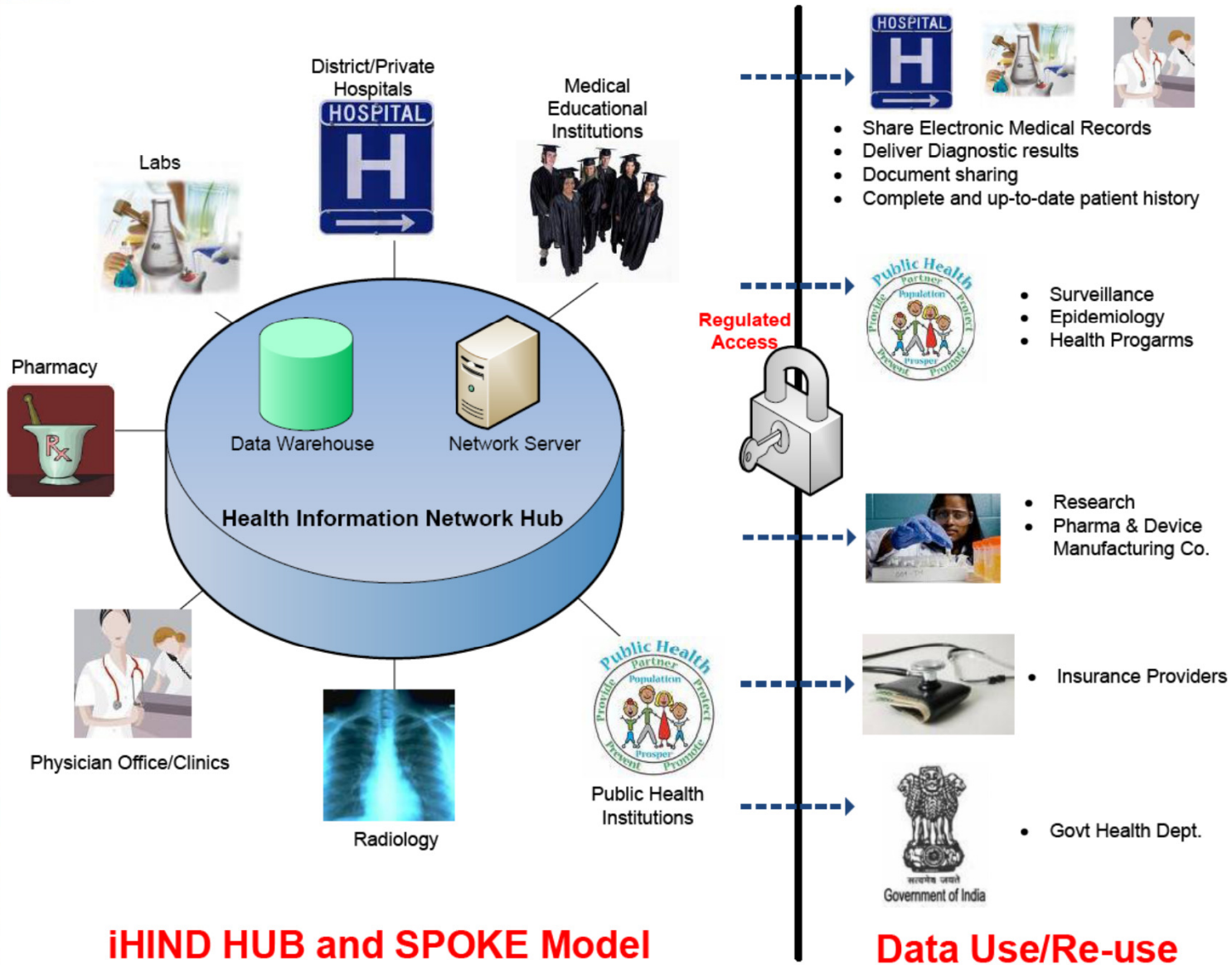
80+ volunteers from 4 countries collaborated over 6 weeks for iHIND submitted report to Ghulam Nabi Azad & Dinesh Trivedi on 16 April 2010

iHIND plan

- “hub-and-spoke” model RHIO (Regional Health Information Organization) perdistrict 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

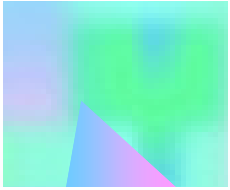
Each of the 626 district level hubs to be connected to State level (or union territory) data warehouse

iHIND plan



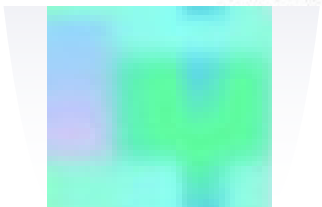
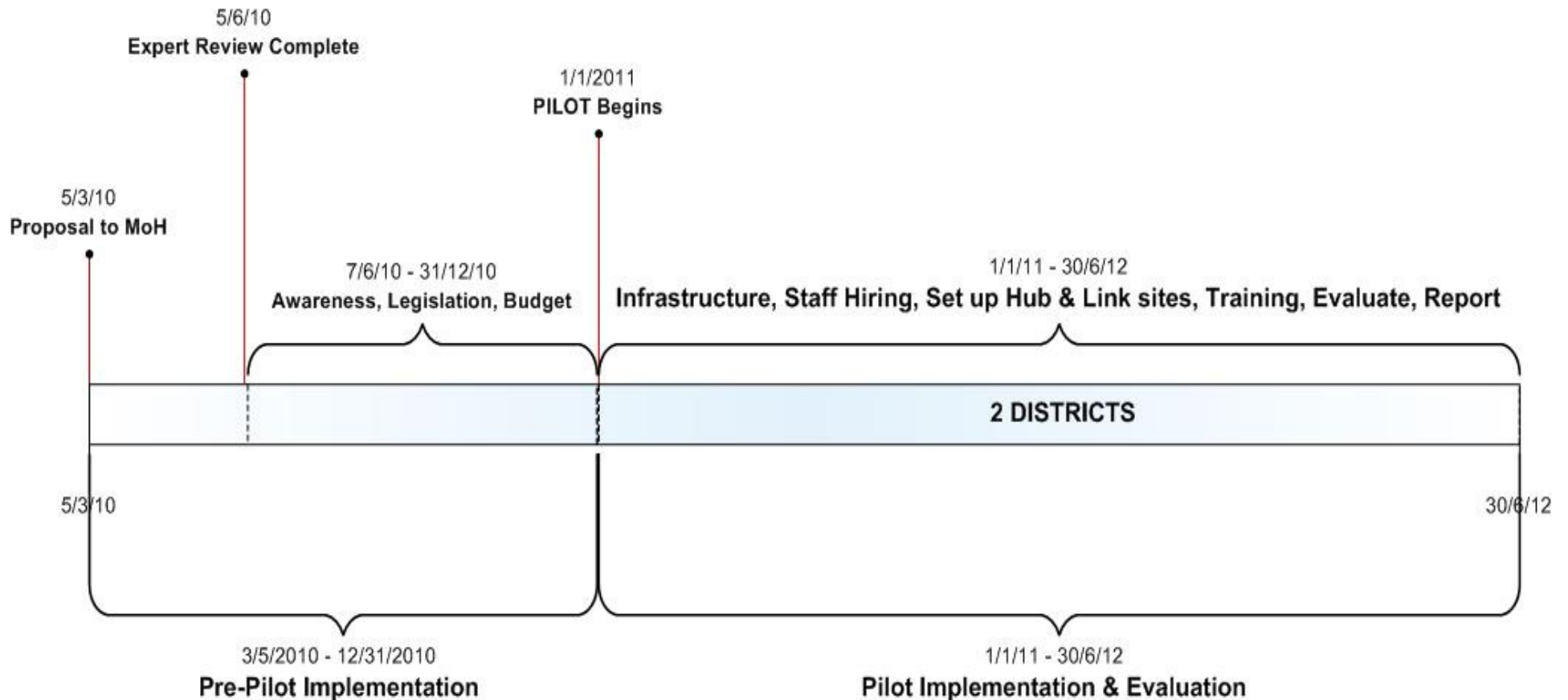
iHIND HUB and SPOKE Model

Data Use/Re-use

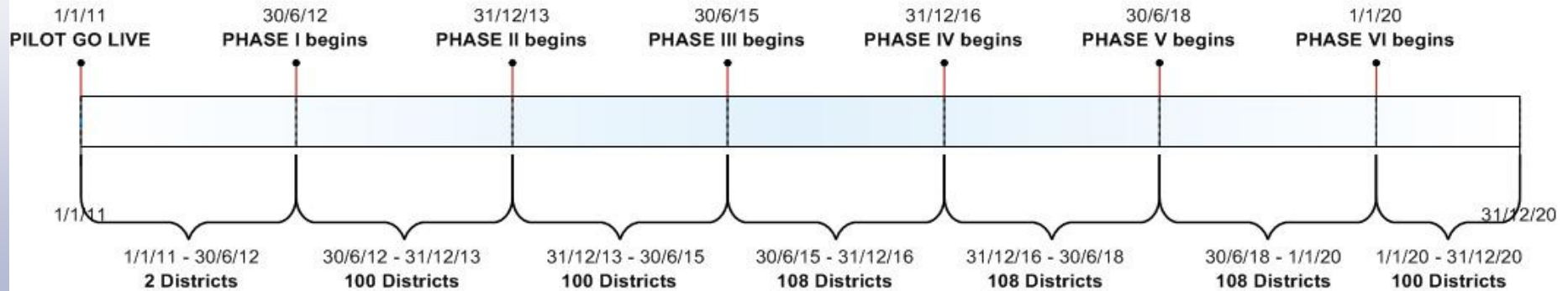


iHIND Pilot plan

iHIND Pilot Implementation: 2 Districts



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



Volunteers welcome
Join here

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