Leveraging technology for last mile healthcare delivery

CMD, HLL

Ahmedabad

9 March 2017

"It is health that is real wealth and not pieces of gold and silver."

~ Mahatma Gandhi

Introduction

- Health is a state of complete **PHYSICAL, MENTAL and SOCIAL** well being not merely an absence of disease which allows a person to live a socio-economically productive life
- According to WHO, 'healthcare delivery' consists of all **organizations, people and actions** whose primary intent is to promote, restore or maintain health
- It includes the work done in providing primary care, secondary care and tertiary care as well as in public health

Components of Healthcare delivery

- **People** in need of health care services, called health care **consumers**
- **People** who deliver health care services the **professionals**
- **Practitioners** called health care **providers**

“last mile health delivery”

“the final phase when the healthcare product or service is finally delivered to patients and providers”

today, it is plagued with a lack of timely information and logistical challenges

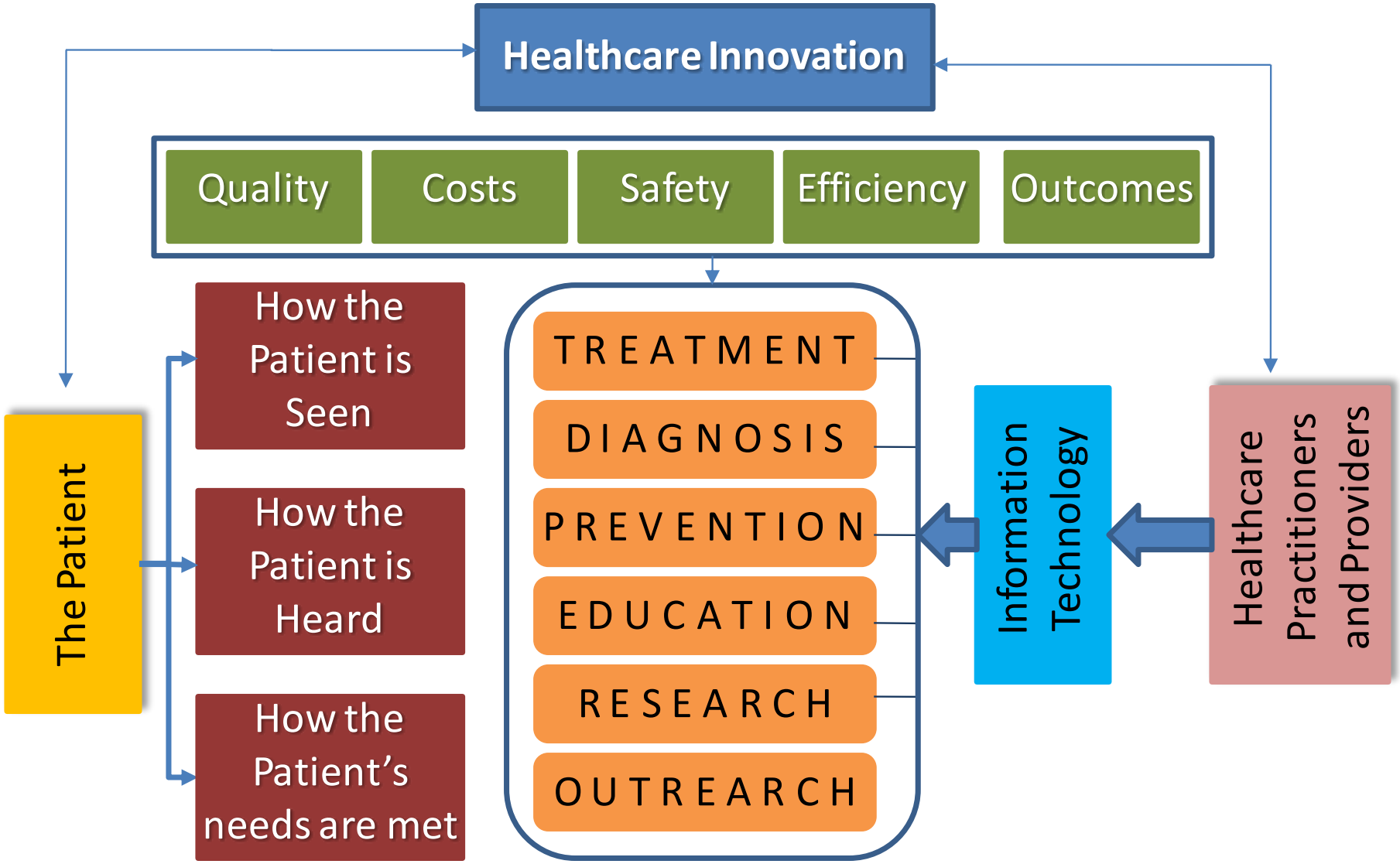
Healthcare Transition

20th Century	21st Century
Provider-centered	Patient-centered
Price-driven	Values driven
Knowledge-fragmented	Knowledge-organised
Slow diffusion of innovation	Rapid diffusion
Paper-based	Electronically based
Fragmented care	Co-ordinated care
Limited choice	More choice
Little quality measurement	Ubiquitous measurement
Management by process	Management for outcomes
Persistent escalating cost	Overall cost decline

Innovation in Healthcare

- **Product innovation:** what the customer pays for and typically consists of goods or services (for example, clinical procedure innovations).
- **Process innovation**: entails innovations in the production or delivery method (process is required in order to deliver a product or service)
- **Structural innovation**: usually affects the internal and external infrastructure, and creates new business models.

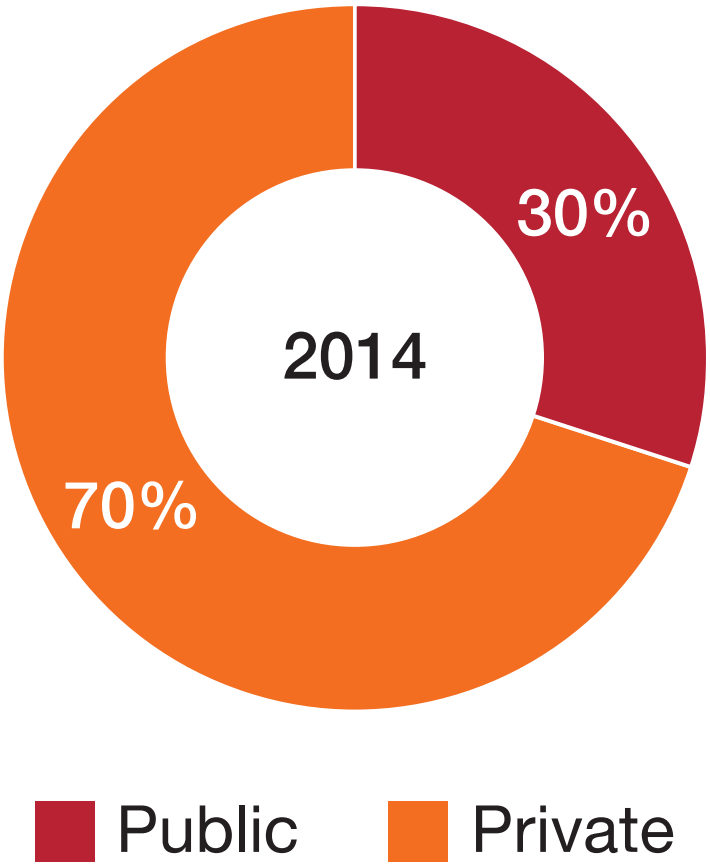
A conceptual Framework for Innovation in Healthcare



Indian Healthcare – *challenges*

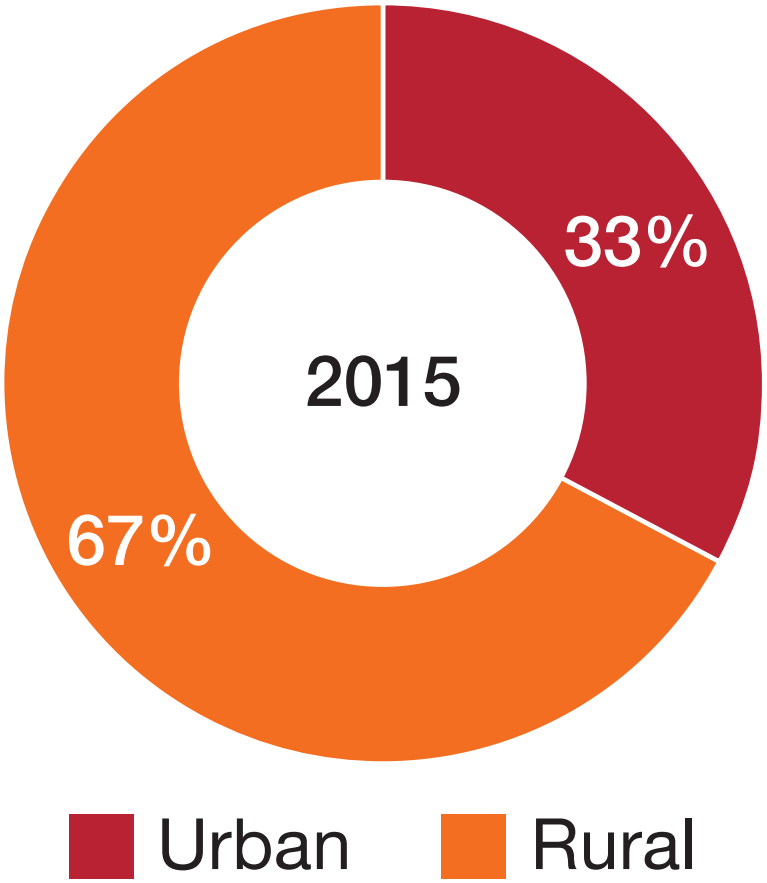
- Ageing population
- Shift in the disease burden
- Rural inaccessibility to healthcare rural areas
- Manpower shortage
- Low insurance penetration
- Inadequate public sector investment and
- Inconsistent quality standards

India spends 4.7% of its GDP on healthcare, with just 1.4% from the public sector



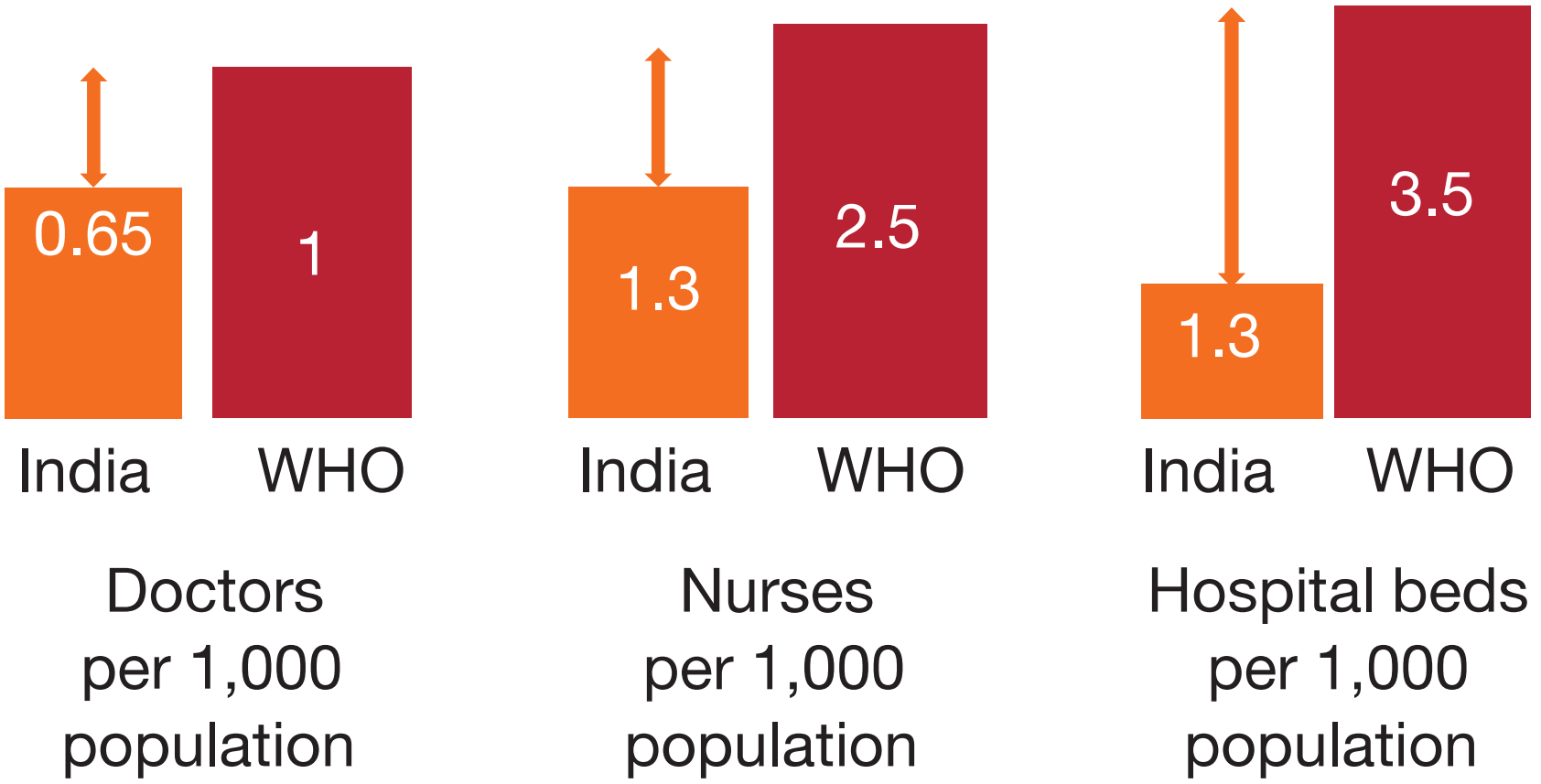
Source: World Bank

Rural areas have only 33% of Indian doctors



Source: PwC analysis

Healthcare workforce and infrastructure



Source: PwC analysis

Successful Healthcare delivery models from HLL


HLL Lifecare Limited
Innovating for Healthy Generations
The
Pink
Revolution

HLL - Business Overview

Contraceptives & Pharma

Condoms (Male & Female)

IUD

OCP/ ECP Tab / Cap

Vaccines / Injectables

Sanitary Napkin

Hospital Products

Blood bags

Sutures

Disinfectants

Rapid Test Kits

Healthcare & Retail Services

Hindlabs – pathology labs

Hindlabs – Imaging Services

AMRIT

Free Generic

HLL Pharmacy


HLL Lifecare Limited


HBL
Protecting Lives
HLL BIOTECH LIMITED
(Subsidiary of HLL Lifecare Limited)
(A Government of India Enterprise)


HITES
HLL INFRATECH SERVICES LTD


GAPL


HLFPPT
Partners for Better Health


Life Spring Hospitals
Quality Health Care for Women and Children


HML
HLL MEDIPARK LTD


HMA
HLL Management Academy

LifeSpring Hospitals

- 50-50 joint venture owned by HLL and Acumen Fund (a US-based social venture capital fund)
- A unique model for providing high quality maternal and child health care at affordable rates for low- income population group
- The business of LifeSpring is to meet the demand of low income women for safe, dignified and affordable maternity services
- The Delivery charges in LifeSpring are 40% - 50% lower compared with other Private hospital

Hindlabs

- Market intervention to bring down the costs in the disorganized **diagnostic services sector**
- Positioned as chain of Diagnostic lab Centers across India classified into the following categories:
  - Pathology,
  - Imaging Centres &
  - Specialty Clinics
- Provide a 30-50% lower than market rates
- Presence in 12 states across India
  - ❖ 7 imaging labs,
  - ❖ 7 diagnostic labs and
  - ❖ 1 Specialty clinic
- Scalable model

Recent Initiatives

- HLL is setting up **100 HINDLABGS in the 33 districts of Maharashtra** for providing free laboratory-testing services to the public in almost 2,300 government hospital centers at PHCs
- HLL was awarded project management consultancy services for 130 Mobile Medical Units in the state of Assam for a period of 5 years.
- HLL has been awarded a long term contract for running (MCH Wings) Maternal & Child Health Wings which is a 100 bedded Hospital along with other facilities like Skill station and District Early intervention centre in 20 districts of UP

Retail Pharmacy Division

- **AMRIT:** Affordable Medicines and Reliable Implants for Treatment - a cost effective model of chain pharmacies dispensing medicines
- **HLL Pharmacy & Surgicals/HLL Opticals**: Comprehensive medical retail outlets in partnership with State Governments / Medical Institutions at prices 10%- 50% less than the prevailing market price
- **Free generic Pharmacy (FGP)**: delivery model of dispensing generic medicines free-of-cost in partnership with an institution
- **Generic Drug Stores (GDS)**- in different states a chain of drug stores established near Government Hospital in a PPP model

Impact: 1st March 2017

Total number of patients serviced	: 12.18 Lakhs
Total Sale value till date	: 51.36 Cr
Total MRP Value to the patients	: 128.75 Cr
Total saving to the Patients	: 77.38 Cr

What does it mean for healthcare:

- ✓ Improve access
- ✓ Quality care
- ✓ Better information
- ✓ Better patient outcomes
- ✓ Increase patient engagement
- ✓ Enhance information flow
- ✓ Affordability

Digital technology can prove to be a game changer

FIVE digital revolutions in HEALTHCARE

1. M-Health

- Mobile apps, especially those connecting doctors to patients and enabling remote consultations, are a major segment within m-health
- Estimated market size of INR 2,083 crore INR in 2015, set to rise to 5,184 crore INR by 2020
- Acceptance of m-health is increasing simultaneously
- A study showed that 68% of doctors in emerging markets recommend m-health and
- 59% of patients are already using it.

2. Remote Diagnosis

- Low-cost portable innovations are being developed in India to cater to the needs of its vast rural population.
- These products help increase access to healthcare for remote and rural populations by providing point- of-care diagnostics, teleconsultation and e-prescription capabilities.
- India's remote healthcare delivery market was estimated at 7.5 million USD in 2011 and is expected to grow at a CAGR of 20%

3. Tele-medicine

- Telemedicine is the use of technology for remote diagnosis, monitoring and education.
- While telemedicine is usually categorized under remote diagnosis, the size of its market in India allows us to consider it as an independent segment.
- India's telemedicine market was valued at 100 million USD in 2011 and is expected to grow by over four times by the end of 2016
- Telemedicine has helped bring down provider and patient costs as well as provide care in the most remote areas.
- India is ahead of the curve on the global scale.

4. Digital & Social Connectivity

- Average Indian spending 25% of his/her time on social networking sites
- Patient side: patient support communities and knowledge portals
- Provider side: emergence of digital chatter platforms where medical professionals share knowledge and ask for help.
- Communication technologies that help connect doctors around the world for both a second opinion and training

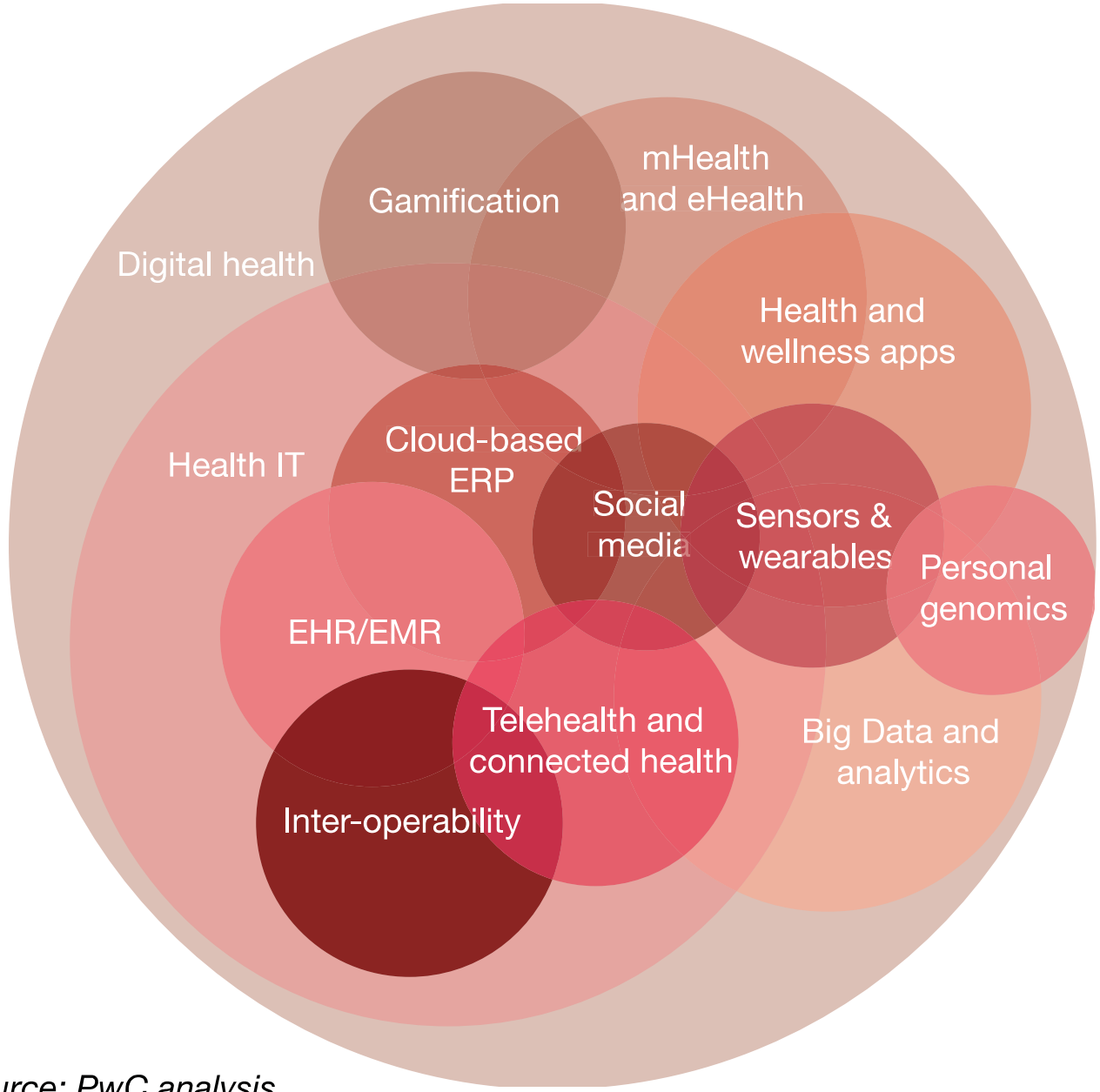
5. Wearables

- Wearables are being increasingly used to measure basic health parameters such as heart rate.
- The overall healthcare wearables market in India is currently valued at 30 crore INR and is expected to increase in value as wearable technology is beginning to expand
- Eg: there is a wristwatch that acts as a personal emergency response system and relays medical and GPS data to a remote server

New technologies that are gaining wider acceptance

- **Big data analytics:** combining consumer insights and internal company data to inform and optimise their product offerings
- **Smart cities:** Cities have begun to use technology to enhance the use of resources within existing infrastructure
- **Electronic medical records (EMR):** beginning to be adopted by healthcare providers. This digitisation has paved the way for advanced IT systems, such as health information systems and cloud computing to increase remote and ubiquitous accessibility to patient data. This should help reduce medical errors and improve health outcomes.

Digital health components



Source: PwC analysis

Evolving trends

- More patient-focused care
- Value vs Volume-driven healthcare
- Continuum of care and increasing digital integration
- Digital technology has already been integrated in areas such as education and training of doctors, patient records, and health information systems.

Way forward

- **I**nformation management is fundamental to health care delivery
- **H**arness social entrepreneurs as a source of disruption to find new and better ways to solve social issues
- **P**rocurement is power
- **W**e need to overhaul the way we see data

Conclusion

- Health information technology is a vehicle, not a destination
- Holistic approach: An appropriate technology, to be paired with a network of physical clinics, community health workers and qualified medical professionals, backed by a committed management team and international research partners, can create measurable impact on the health of the communities served

'He who has health,
has hope;
and he who has hope,
has everything.'

– Arabian proverb