



**ITU Kaleidoscope 2015**

*Trust in the Information Society*

# **The Impact of Cloud Computing on the Transformation of Healthcare System in South Africa**

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**Barcelona, Spain**

**9-11 December 2015**

# Republic of South Africa – post 1994 Healthcare system landscape

- President Dr. Nelson Mandela
    - 1994 to 1999
  - President Mr. Thabo Mbeki
    - 1999 to 2008
  - Interim President Mr. Kgalema Motlanthe
    - 2008 to 2009
  - President Mr. Jacob Zuma
    - 2009 to current
- ❑ Minister of Health: Dr. Dlamini-Zuma
  - ❑ Minister of Health: Dr. Tshabalala-Msimang
  - ❑ Minister of Health: Dr. Motsoaledi

# Republic of South Africa – post 1994 Milestones under Dr. Dlamini-Zuma



- ❑ In 1997, the minister of health in the newly democratic government, tabled a “White Paper for the Transformation of the Health System in South Africa” in the national parliament.

# Republic of South Africa – post 1994 Milestones under Dr. Tshabalala-Msimang



- ❑ In her own words, in 1999, the minister of health said: “There is not substantial data that AZT (anti-HIV drug) stops the transmission of HIV from mother to child. There is too much conflicting data to make concrete policy”.

# Republic of South Africa – post 1994 Milestones under Dr. Motsoaledi



- ❑ National Service Delivery Agreement - NSDA (2010)
- ❑ National Health Insurance - NHI (2011)
- ❑ National eHealth Strategy 2012/17 (2012)
- ❑ National Development Plan - NDP 2030 Vision on Promoting Health (2012)

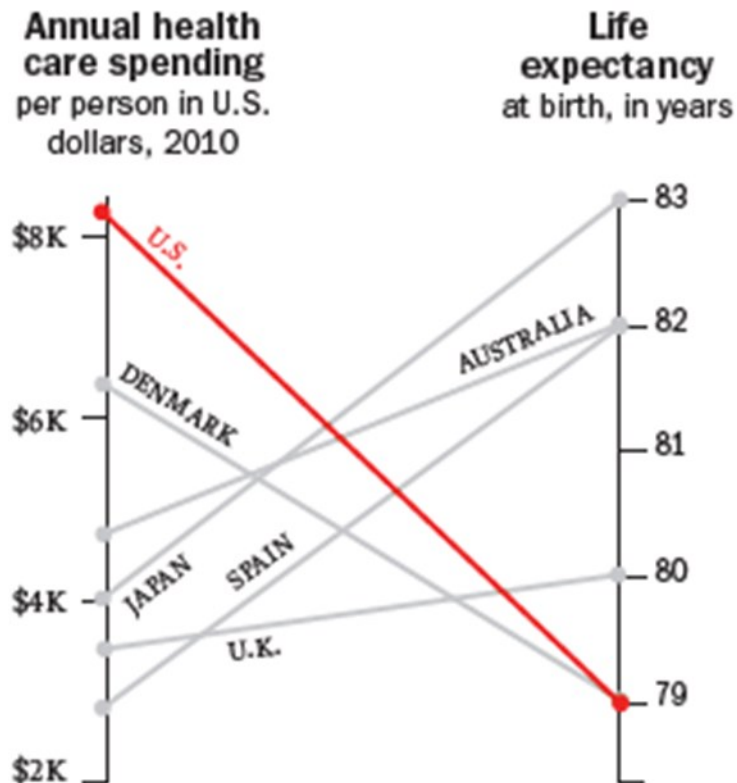
# Healthcare problem in South Africa

**Extract from the health sector's NSDA (2010-2014):** "Although large sums of money have been used to procure health information and communications technology (ICT), and health information systems (HIS) in South Africa in the past, the ICT and HIS within the public health system is not meeting the requirements to support the business processes of the health system thus rendering the healthcare system incapable of adequately producing data and information for proactive management and for monitoring and evaluating the performance of the national health system (NHS). This results from the lack of an overarching technology policy framework and supporting regulations to inform ICT procurement and management processes".

# Healthcare problem in the United States

## The Mess We're In

*The U.S.'s uniquely high health care spending, which has been rising disproportionately to the economy, is not reflected in outcomes*

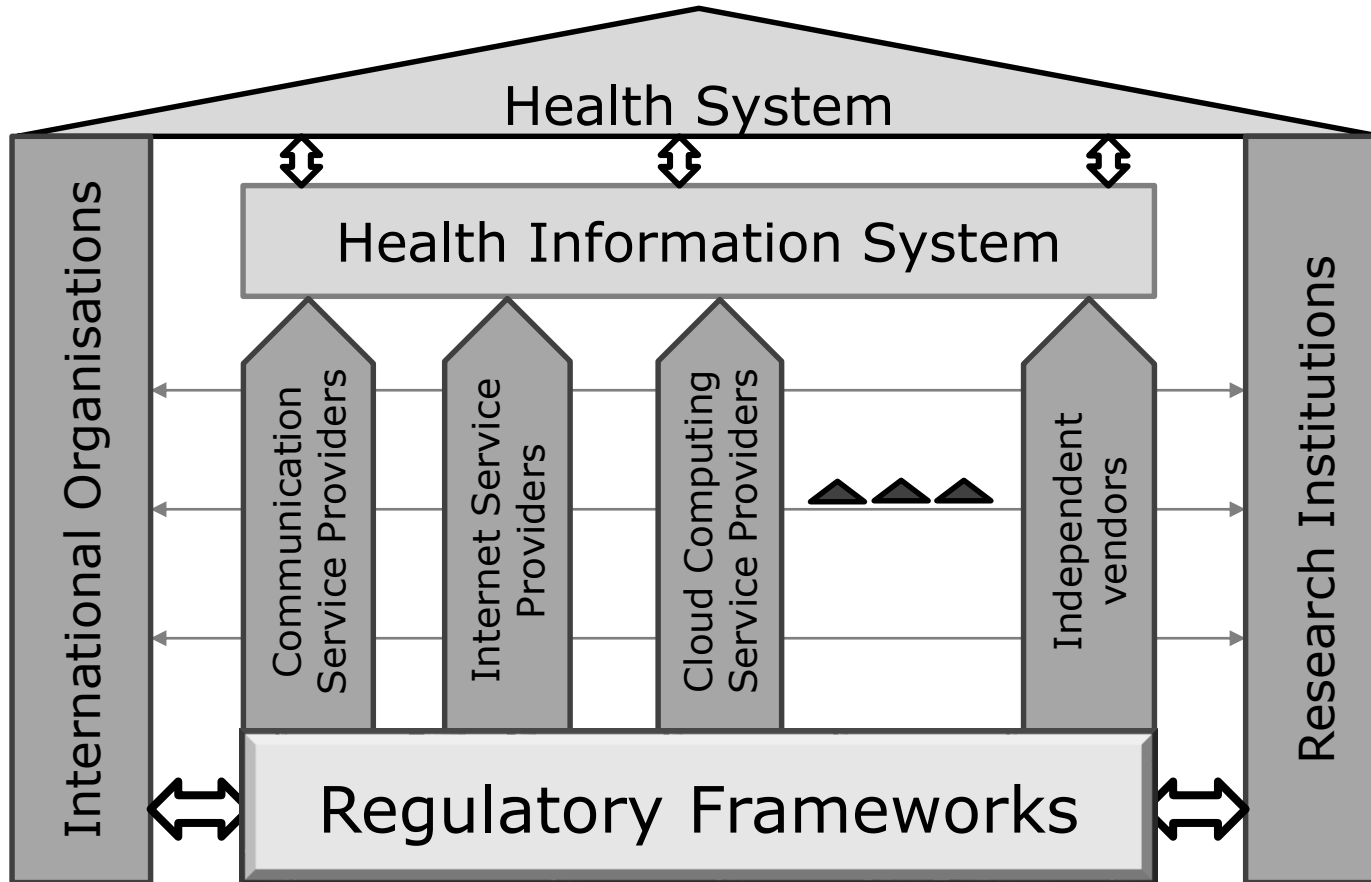


Infant mortality is relatively high

NO.  
**50**

U.S. RANK  
IN THE WORLD,  
NINE SPOTS  
BELOW CUBA,  
2012

# Cloud computing – conceptual model





# Research design, methodology and results

<b>Research subjects</b>	<b>Participants role</b>	<b>Description</b>	<b>Example</b>
Health system	Decision-makers	Strategic direction	National eHealth Steering Council
Health information system	Subject matter experts	Delivers HIS software	Health IT Service Provider
Cloud networking platforms	Key enablers	Enable connectivity	Internet Service Providers
Cloud computing ecosystem	Key influencers	Enable utility computing	Cloud Computing Service Providers
Enabling cloud computing ecosystem	IT innovators	Innovate infrastructure	IT specialist Company

# Discussion and conclusion

- **Disparate data sources:** unable to harness the power of data in clinical decision making – information is not shareable, and therefore not usable.
- **Infrastructure:** fragmentation of patient health information (PHI) systems and high bandwidth costs – making the information inaccessible.
- **Integration and interoperability:** removing the roadblocks, the silos that exist in healthcare – creating a centric viewpoint data repository.
- **Privacy and security:** lack of governance principles and coordinated regulatory frameworks - addressing key concerns of sensitive medical data.

Thank you!

