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## Tunisian e-Health Program

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 @ Speaker twitter handle

30 Ekim - 1 Kasım 2019  
Pullman Hotel Yenibosna  
**İSTANBUL, TÜRKİYE**

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# Agenda



- ❑ What are the main challenges in healthcare sector?
- ❑ How investing in "digital health" will help?
- ❑ What are our national challenges in "e-Health"?
- ❑ What are the main ongoing programs led by the Ministry of Health?
- ❑ How can we accelerate these projects?

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# Tunisia



- **11.551 millions inhabitants** (1st July 2018)
- Gross national income per capita (PPP international \$, 2013) : **10,960**
- **Annual population growth rate = 1.39**
- **Life expectancy (years)**
  - 78.1 F
  - 74.5 M
- Total expenditure on health per capita (Intl \$, 2014): **785**
- Total expenditure on health as % of GDP (2018): **5.2**

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# What are the main challenges in healthcare sector?

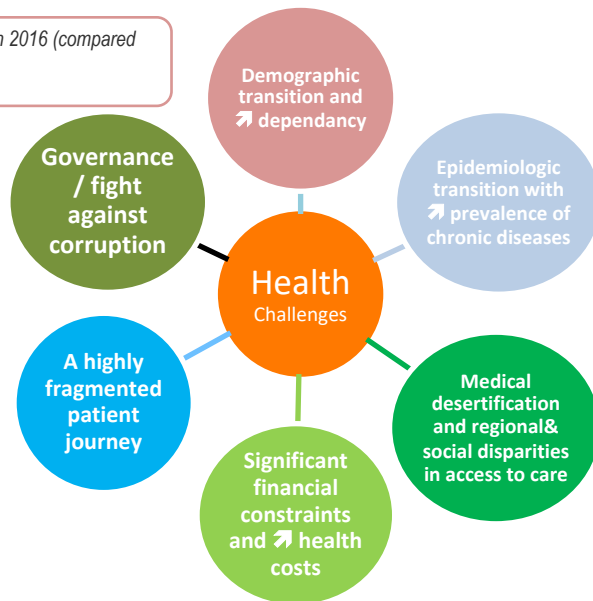
75,4 years of life expectancy at birth on average in 2016 (compared to 52 in 1960)

(source: INS Tunisia )

The complexity of the health system, the variety of actors and stakeholders and the political and socio-sanitary issues, the fight against corruption: health reform requires a good knowledge of the field, and an objective assessment of perspectives, that the system current information does not provide

Health expenditure represents 5.2% of Tunisian GDP in 2018 compared to 7% in 2014.

(source : WHO)



In 2016, diabetes affects more than 15.5% of the Tunisian population aged 15 years and above, against 7.5% in 1996. (sources : THE 2016, INNTA 1996-7)

28.7% of Tunisians aged 15 and above have high blood pressure in 2016, and 60% of them do not know. (source : THE 2016)

16 out of 23 University-hospitals located in the Tunis region  
(source : MoH)

Need for the reinforcement of the first care-line (primary care) to be closer to the citizens

# How investing in "digital health" will help?



Digitalization offers many potentialities:

1. **Strengthening the Health sector's management (health monitoring / planning)**
2. **Optimizing the care provision**
  1. improved access / quality & territorial rebalancing
  2. more integrated care path and coordination of care between stakeholders
  3. reinforcement of prevention
  4. limitation of un-necessary hospitalizations
  5. limitation of redundant acts
3. **Tool for achieving better governance and fight against corruption**

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# What are our national challenges in “e-Health” ?

## 1. Challenges in terms of Information Systems:

Develop “an integrated and comprehensive information system that supports evidence-based, timely, shareable and patient-centric decision making with respect to care pathways.”

## 2. Challenges in terms of Health Democracy

Leverage on digital technology to offer "health care service with high quality for all citizens and everywhere"

1. Improving quality and access to care in a context of unequal medical care distribution in the territory and increasing demand;
2. The transformation of medical practices and patient engagement;
3. The rationalization of health expenditures.

# Our Vision



Tele-services  
Tele-medicine  
Innovation



Tele-services



Quantified self (IoT)



Tele-medicine



Tele monitoring tele expertise, Tele-assistance, Télé consulting



Innovation

Research, Personalized Medicine  
(Big Data), Decision Support Systems  
Epidemiological surveillance, etc.



GP



Private Hospitals



Public Hospitals



Central Pharmacie



Payers(CNAM, insurances...)



Other healthcare stakeholders



Patient Records



1st line of care



2nd line of care



3rd line of care

IT Infr@structure

M-Health

Accompanying measures :

Regulation, training, capacity support, driving of change, interoperability framework, Gouvernance

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# What are the ongoing programs led by the MoH ?



1. Modernization of Health Information System
2. Modernization of Hospital Information System
3. Development of m-Health and tele-services
4. Development of telemedicine for national and international purposes
5. Big Data and innovative approaches

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# HIS Example:

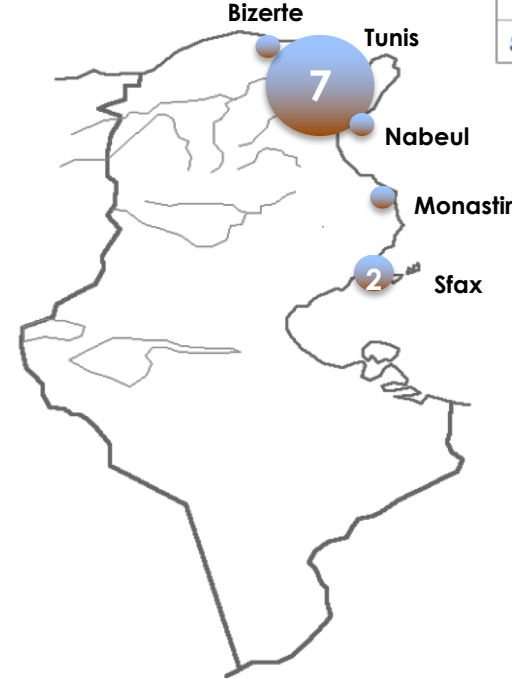
## Priority projects deployed on 12 sites

12 major hospital sites in the first phase, representing about 30% of total bed capacity in Tunisia

1 Hôpital Charles Nicolle	Tunis
2 Hôpital d'Enfants Bechir Hamza	Tunis
3 Institut Salah Azaiez	Tunis
4 Hopital Ia Rabta	Tunis
5 Institut de Neurologie	Tunis
6 Hôpital Abderrahmen Mami Ariana	Ariana
7 CHU Mongi Slim	Tunis (b)
8 Hopital Hédi Chaker Sfax	Sfax
9 Hopital Habib Bourguiba Sfax	Sfax
10 Hopital Fattouma Bourguiba	Monsatir
11 Hopital Taher Maamouri Nabeul	Nabeul
12 Hopital Habib Bougatffa Bizerte	Bizerte

### HIS deployment priority projects:

- DPI: Electronic Health Record
- DJINM: Daily Individual and Nominative Dispensing of Drugs
- PACS: Picture Archiving & Communication System
- AMN: Digital Medical Archives



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Teşekkürler!  
Thank you!

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