

TUNISIA-GARD

Pr ALI BEN KHEDER

28-29 March 2006 - Beijing, People's Republic of China

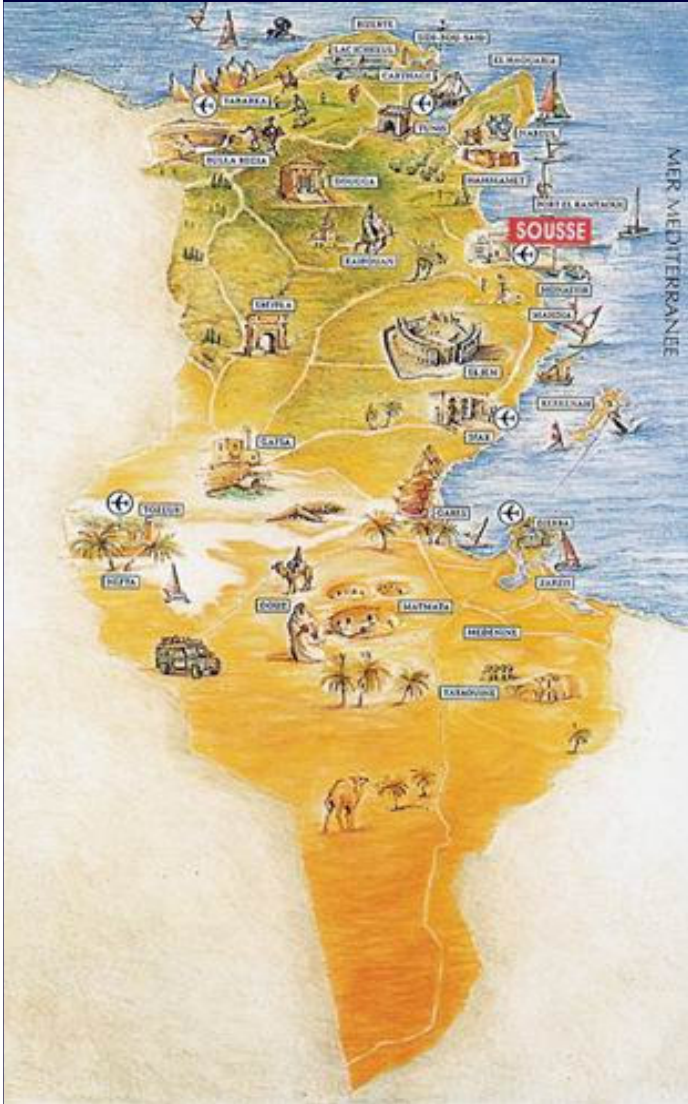


TUNISIA

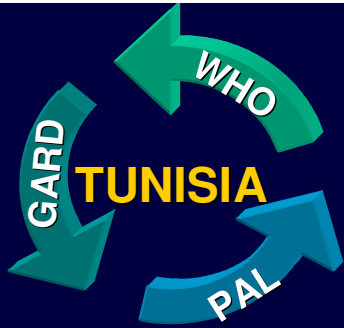




TUNISIA



- **Population:** 9. 870 000 inhabitants
- **Life expectancy:**
 - Men: 72 years
 - Women: 74 years
- **Gross national product:** 20.2 billions \$ US
- **Raw individual product:** 2100 \$ US
- **Health spending:** 5.6 % of Gross national product
- **Contribution:**
 - State: 31% - Social security office: 20%
 - Individual: 49%
- **General practionners:** 10000
- **Chest physician:**180
- **Health primary care:** > 2000

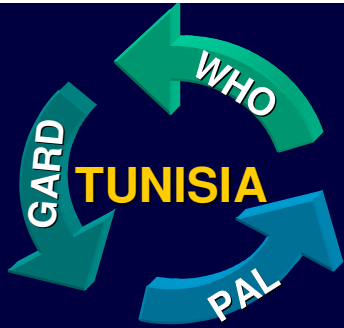


- Involved in GARD since the beginning of this project
- Participation in:
 - WHO meeting on prevention and control of CRD at country level (17-19 june 2004)
 - WHO meeting on the GARD (10-11 may 2005)



Respiratory Disease in Tunisia

- **Communicable disease:** ↓
 - **Tuberculosis incidence:** 19 ‰000 - RAI = 0,3
 - TB morbidity not high
 - 100% DOTS population coverage
 - Treatment success rate over 85%
 - Estimated detection rate: 85%
 - Pulmonary TB confirmation rate: 90%
- **Non Communicable disease:** ↑
 - **Chronic respiratory diseases**
 - **COPD prevalence:** 6.8 ‰
 - **Asthma prevalence:** 5 ‰



In Tunisia

CRD: Increase of prevalence



Increase of the burden
to governments, health care systems



GARD



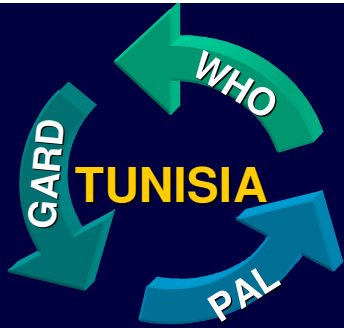
- Tunisia: country for pilot study of CRD management (WHO) since 2002
- This study is a practical approach to the management of patients who attend health services for respiratory symptoms (PAL)



Encouraging results

Concerning diagnosis

- Increase diagnosis of pathology: asthma, BPCO and TB suspicion
- Increase demand of specialized opinions (1,96 % a 4,2 %)
- Better indication of exams



Concerning prescriptions

- Reduction of prescriptions
- Decrease of the antibiotics prescriptions
- Increase of bronchodilators prescription (inhaled forms) (correlated in the increase of the diagnosis of asthma and COPD)
- Decrease of systemics corticoids prescription



Concerning the cost

Decrease of average cost of all
prescription (19.3%)



		BASELINE	IMPACT	Variation	p
Diagnosis	Asthma	0.8	2.8		0.000008
	COPD	0.2	1		0.0003
	TB suspicion	0.2	1		0.01
Referral		134 (5.7)	172 (11.7)	+ 101	< 0.0001
Detection of TB		0.5%	1.6 %		0.00043
Drug Prescription	All prescription	98.9%	96.4%	- 2.5	< 0.0001
	Antibiotic prescription	71.3%	57.8%	- 19.0	< 0.0001
	Antiasthmatic drug	2.2%	4.7%	+ 113.0	< 0.0001
	Systemic steroids	6.1%	3.6%	- 41.0	< 0.002
Cost of drugs prescription		8.3	6.7	- 19.3	< 0.0001



ENCOURAGING RESULTS

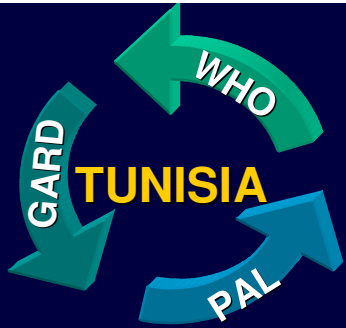


DISSEMINATION OF THIS PROJECT



SCHEDULE

	Jan-06	juin-06	juil-06	sept-06	nov-06	déc-06	janv-07	janv-08	janv-09	janv-10
Authorities agreement	Yellow									
National committee meeting	Yellow									
Cost estimation	Yellow									
Finding funds	Red	Red								
Preparation of training material			Blue							
Preparation of informative sheets			Blue							
Introduction in university programs			Black	Green						
Material acquisition			Purple							
Assessment of drugs availability		Orange								
Trainers training					Dark Blue					
Specialists training						Green				
GP training						Green				
Nurses training						Green				
Beginning of the first part							Blue			
Beginning of the 2nd part								Purple		
Beginning of the 3rd part									Dark Red	



PERSPECTIVES

EXPERIENCE



**Active participant
of the GARD**



**Model for middle
income country**



**Spread
GARD**

WELCOME TO TUNISIA

