



General Directorate of Health Affairs  
Qassim Region  
Public Health Administration



## **National Tuberculosis Control Program, Qassim**

### **Surveillance Report 2011**

#### **Author**

**Dr. Ayman Ramadan**

Qassim Coordinator, National Tuberculosis Control Program

#### **Contributors and Reviewers**

**Dr. Abdullah Mohammed Al-Saigul**

Director General Assistant for Public Health

**Dr. Hussein Mohammed Hussein**

Director, Infectious Diseases & Vector Control Department

**Dr. Saulat Jahan**

Head of Research and Information Unit

**Dr. Amel Abdalrhim Suliman Ahmed**

Public Health Specialist, Research and Information Unit

**Infectious Diseases & Vector Control Department**

**Director**

Dr. Hussein Muhammad Hussein

**Qassim Coordinator, National Tuberculosis Control Program**

Dr. Ayman Ramadan

**Assistant Coordinator, National Tuberculosis Control Program**

Mr. Hamad Al Otibi

**For further information about this report, please contact:**

Infectious Diseases & Vector Control Department

Phone: 3266939 Ext. 101

Email: [prevent-qaseem@moh.gov.sa](mailto:prevent-qaseem@moh.gov.sa)

## **National Tuberculosis Control Program, Qassim Surveillance Report 2011**

### **Introduction**

Globally, tuberculosis (TB) is still a significant public health problem and is considered as one of the main causes of morbidity and mortality, despite availability of effective treatment. To combat TB, Gulf Council Countries proceeded towards its elimination by the year 2015. The National TB Control Program (NTP) in Saudi Arabia started in early 1970s and was reactivated in 1997. The strategy for Directly Observed Therapy Shortcourse (DOTS) was first adopted in late 1998 in eight provinces, then implemented all over Saudi Arabia in the beginning of the year 2000. The TB Control Program is supported by WHO TB program's vision and objectives.

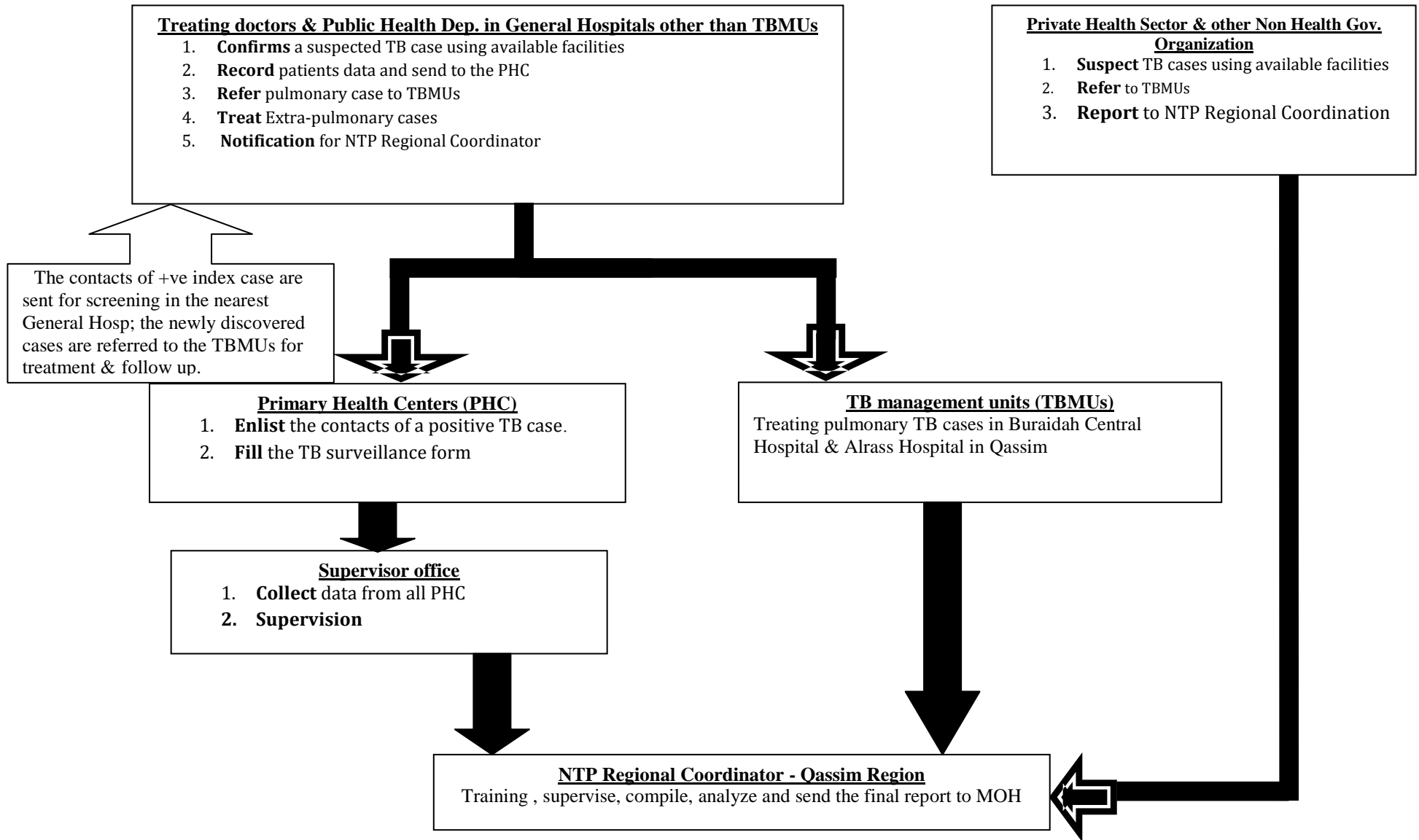
### **Demographic Data of Qassim**

Qassim is located in central north part of Saudi Arabia. It covers an area of 37,000 km<sup>2</sup>. Buraidah is the capital of Qassim. The total resident population of Qassim is 1,268,834; Saudis comprise 75.9% of the total population. The health care services are provided by three main sectors: Ministry of Health, which is the main health care provider; Private Sector; and other Governmental Health Care Facilities. The Ministry of Health (MOH) provides health care facilities through 178 Primary Health Care Centres (PHCCs) and 17 hospitals.

### **National TB Control Program Surveillance System**

Figure 1 displays the organizational structure and functions of various components of TB surveillance system in Qassim.

**Figure 1: Flow Chart for Tuberculosis Surveillance System in Qassim**



## **Tuberculosis Management Unit**

There are two TB management units in Qassim. They receive all suspected TB cases from PHC centers, private health centers or non- MOH Centers. They are responsible for treatment and follow-up of the patients, and for maintaining accurate and complete data of the patients. The extra-pulmonary cases are treated at the same hospital where they are diagnosed, and are not referred to the TB management unit. The contacts are expected to be screened within 5 days of the diagnosis of the index case as per MOH protocol.

## **NTP Achievements**

### **The Health Indicators of NTP in Qassim:**

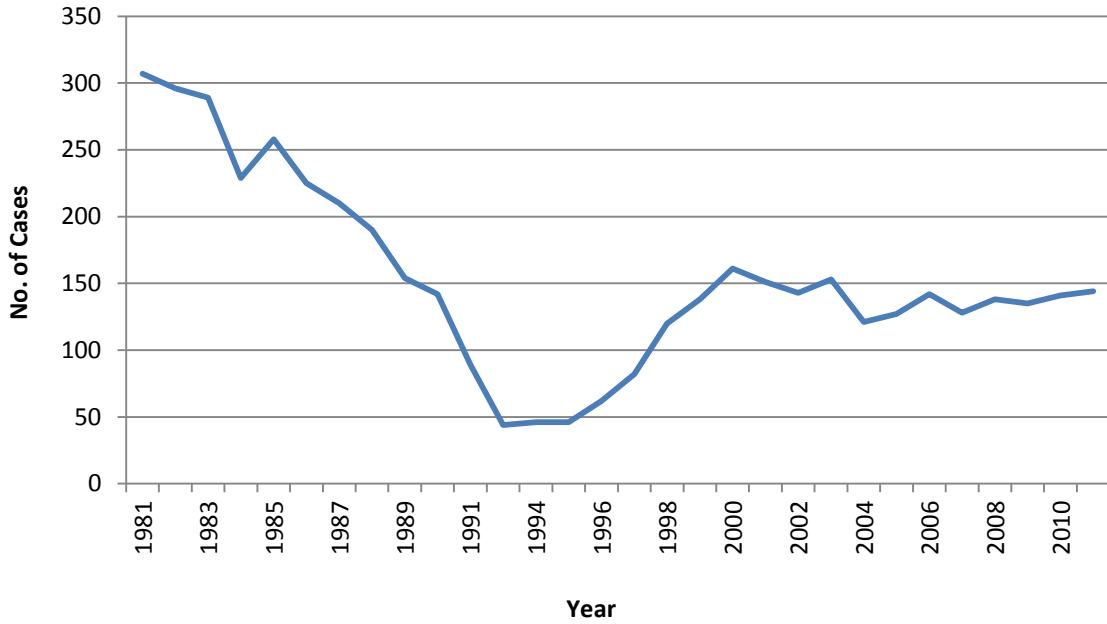
- Estimated national incidence rate by WHO = 17 per 100,000 population
- Estimated number of cases in Qassim = 215 cases
- Total number of TB cases detected = 144 cases
- Incidence rate in Qassim = 11.3 per 100,000
- National incidence rate = 13.7 per 100,000
- Detection rate = 66.9 % (WHO Target = 70%)
- Sputum conversion = 94.2 %
- Success rate (sputum positive cases) = 84.5 % (WHO Target = 85%)

Percentage of surveillance (case epidemiological investigation and investigation of contacts) to positive index cases is 97%.

**NB:** There were no registered cases resistant to treatment in the region; neither multidrug-resistant (MDR) nor extensively drug-resistant (XDR). Likewise there was no reported case with HIV co-infection.

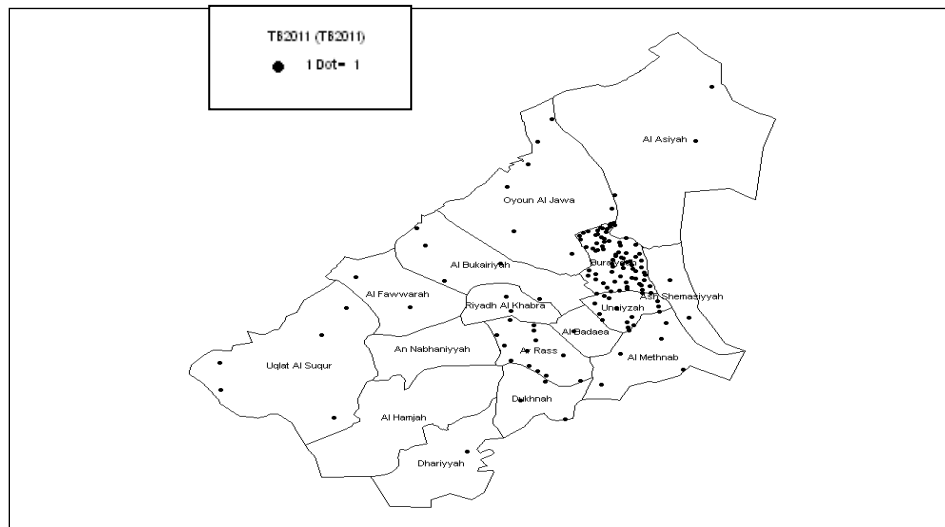
### Epidemiological Features of Reported Tuberculosis Cases: Qassim, 2011

**Figure 2: Notified Cases of Tuberculosis by Year: Qassim, 1981 - 2010.**

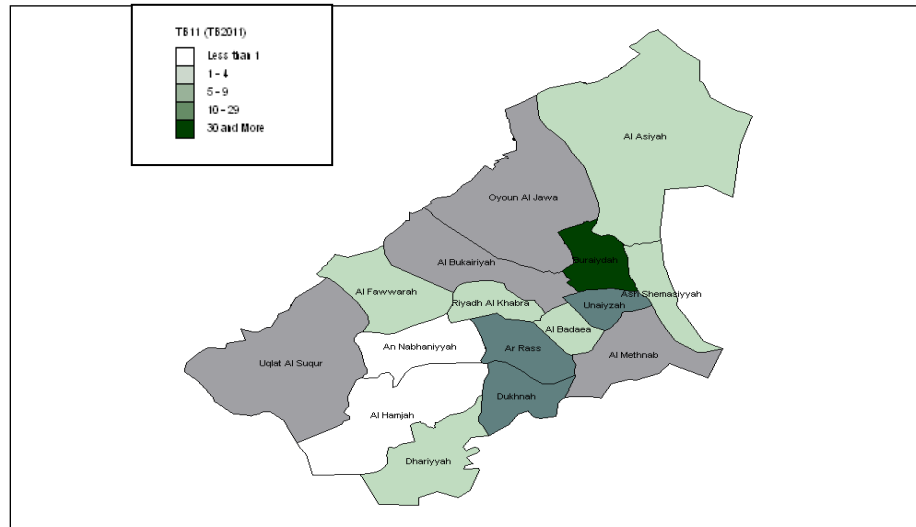


**Note:** Data are missing for the year 1992.

**Figure 3: Distribution of Tuberculosis Cases by Health Sector: Qassim, 2011. N= 144**

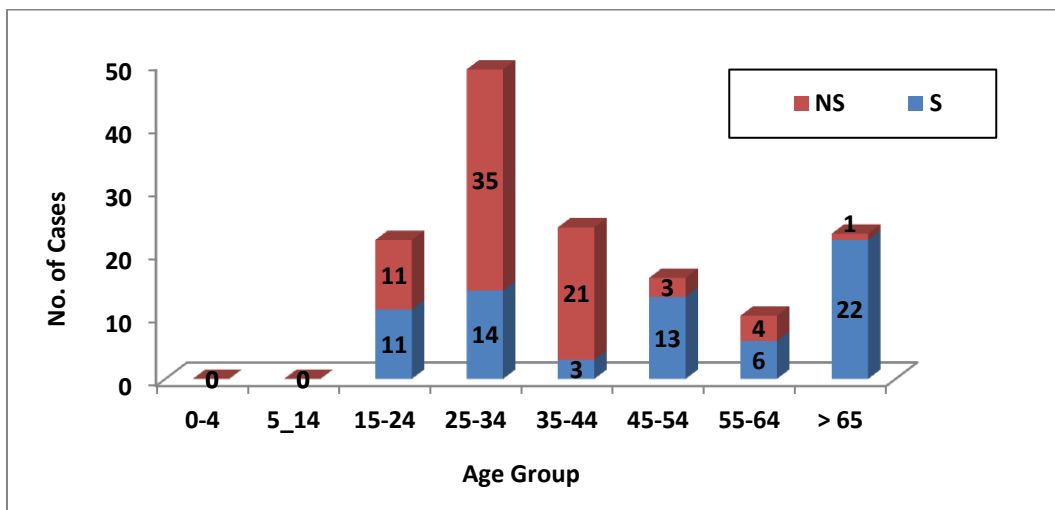


**Figure 4: Incidence Rate of Tuberculosis Cases by Health Sector: Qassim, 2011. N= 144**

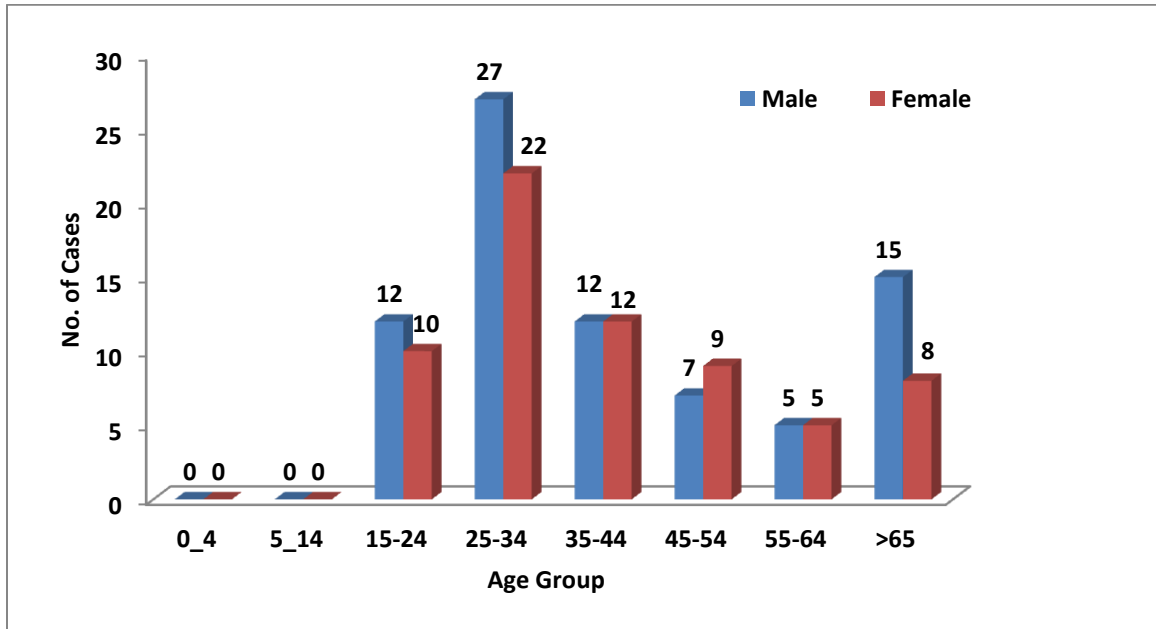


- Incidence rate = 11.3 per 100,000 populations

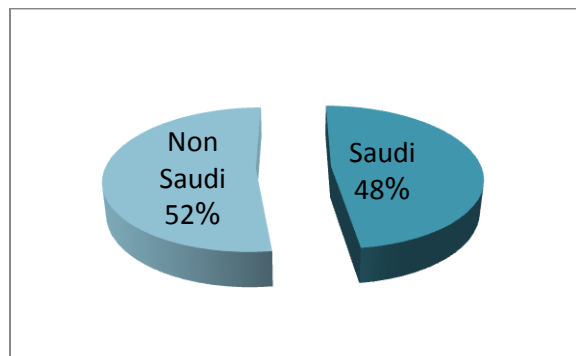
**Figure 5: Notified Cases of Tuberculosis by Nationality and Age Group: Qassim, 2011. N=144**



**Figure 6: Notified Cases of Tuberculosis by Gender and Age Group: Qassim, 2011. N=144**



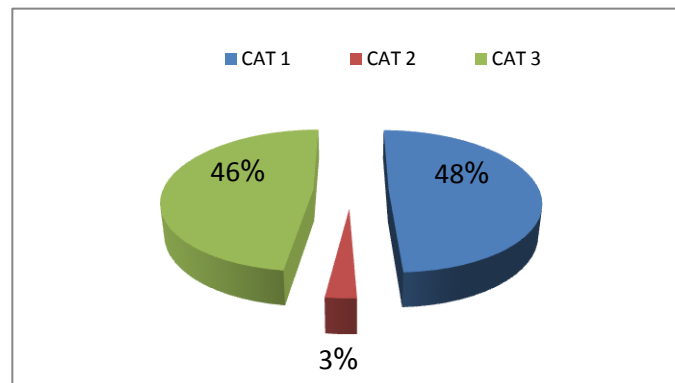
**Figure 7: Notified Cases of Tuberculosis by Nationality: Qassim, 2011. N=144**



- The notified TB cases are higher among Non-Saudis. Some nationalities comprise the bulk of TB cases such as Indonesians and Indians.
- The pulmonary TB cases represented 70% while extra-pulmonary cases were 30%.



**Figure 8: Notified Cases of Tuberculosis by Treatment Category:  
Qassim, 2011. N=144**



### **NTP Activities (Supervisory Visits, Training & Scientific Activities)**

- There were regular supervisory visits for TB management units and hospital laboratories that deal with TB specimens. Moreover, on demand supervisory visits were conducted.
- Training courses were conducted periodically aiming to improve the performance of the TB program targeting hospital physicians, district supervisors and health inspectors (3 training courses with 75 participants in each course).
- Training was conducted for healthcare staff responsible for performing Mantoux Test.
- The World TB Day was celebrated on March 24, 2011. Three workshops were conducted which aimed to improve the TB Control Program in Qassim.
- Activation of the role of private health sector was done for detection and referral of suspected TB cases to the regional TB management unit.
- As per program protocol, all prisoners are to be screened for TB. In 2011, the newly arrested prisoners were screened with tuberculin test and chest x-ray as part of the routine surveillance. All detected positive TB cases were referred to TB management unit.
- Due to presence of bovine TB cases, utilizing the existing Zoonotic disease committee, a campaign was conducted to screen for bovine TB in all cows, resulting in execution of

661 cows. During this campaign, 50 farm workers and shepherds were screened for bovine TB and no positive case of the bovine TB was detected in the screened persons.

### **NTP Constraints**

- There is a shortage of health care staff especially doctors, nurses and microbiologists.
- Out of 21 hospitals in Qassim, only 8 are providing facility for AFB smear and two are providing in-patient care for pulmonary TB. AFB smear is not done in any PHCC. The specimens of sputum for culture & sensitivity are sent to the referral lab in Riyadh.

### **Future Directions**

- Improving the surveillance and focusing screening program for contacts of positive TB pulmonary cases and improving the case detection rate in private health sector.
- Strengthening the laboratory capacity by providing relevant TB tests such as culture and sensitivity.
- Intensifying the training for all concerned health care staff for diagnosing the suspected cases of TB and improving the TB surveillance and management.

## **References**

Alkahtani, N. H., & Al Jeffri, M. H. (2003). Manual of the National Tuberculosis Control Program. Ministry of Health, Kingdom of Saudi Arabia.

Ministry of Health Saudi Arabia. (2014). Statistics Book 1432H. Retrieved from <http://www.moh.gov.sa/en/Ministry/Statistics/book/Pages/default.aspx>

Tuberculosis Coalition for Technical Assistance. (2006). *International Standards for Tuberculosis Care (ISTC)*. The Hague: Tuberculosis Coalition for Technical Assistance. Retrieved from [http://www.who.int/tb/publications/2006/istc\\_report.pdf](http://www.who.int/tb/publications/2006/istc_report.pdf)

World Health Organization. Tuberculosis country profiles, 2011. Retrieved from <http://www.who.int/tb/country/data/profiles/en/index.html>