infection in demographically similar populations based on BCG immunization policy and thus further supports efficacy of BCG for prevention of tuberculosis infection.

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762. Sex Differences in the Epidemiology of Tuberculosis in Tunisia

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections

**Thursday, October 4, 2018:** 12:30 PM

**Background.** According to WHO, many more men than women are diagnosed with tuberculosis (TB) and die from it globally. In light of this fact, examining the gender differences among patients with TB is important to institute effective prevention, coverage and treatment. We aim to study sex differences in the epidemiology and clinical specificities of TB.

**Methods.** We conducted a retrospective study of patients with TB, of all ages between January 1995 and December 2016. Data were collected from the regional register of tuberculosis implanted at the anti tuberculosis center ATC of Sfax, Southern Sfax.

**Results.** We recorded 2,771 new cases of TB. Sex ratio was 1.2. Pulmonary Tuberculosis (PT) represented 40.5% of all cases of TB (n = 1,121) and was 2.5 times more frequent in men than women (50.3% vs. 28.7%; P < 0.001). The sex ratio for extra-pulmonary tuberculosis (EPT) was 0.83. Lymph node and abdominal TB were significantly more frequent in women with respectively 52.5% (vs. 30.9%; P < 0.001) and 12.6% (vs. 9.1%; P = 0.025). Pleural and miliary TB were significantly more common in men (20.3% vs. 8.9%; P = 0.001 and 13.4% vs. 9.8%; P = 0.023 respectively). We did not found any gender differences in other EPT forms. Between 1995 and 2016, overall TB (P = 0.001; rho = 0.64), EPT (P = 0.02; rho = 0.63) and PT (P = 0.03; rho = 0.46) cases were increasing, notified in women while they were stable in men. Death rates were significantly more important in men (3.5 vs. 2.1; P = 0.02). Women experienced recovery more frequently (89.2% vs. 86.7%; P = 0.04) and duration of treatment was significantly higher in women (9 months vs. 8 months; P = 0.01).

**Conclusion.** Our study highlighted sex differences of TB in the region of Sfax with a higher burden and morbidity in men. National TB programs should actively focus in these results with more routine diagnostic and screening.

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763. Risk Factors for Homeless Status and Mortality Among Homeless TB Cases in Texas, 2010–2017

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections

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**Background.** A disproportionate amount of tuberculosis (TB) cases and mortality occur among people experiencing homelessness in the United States. Our objective was to identify risk factors for mortality among reported homeless TB cases in Texas, a state with an increased TB prevalence in the United States.

**Methods.** Using data from the Centers for Disease Control and Prevention TB Genotyping Information Management System (TB GIMS), we evaluated the demographic, laboratory and clinical characteristics of people identified as being homeless in the Texas TB surveillance in Texas in 2010 to December 31, 2017. TB cases with missing or unknown homeless status were removed from the analysis. Multivariate logistic regression was used to analyze and evaluate risk factors associated with homeless status and mortality among homeless TB cases.

**Results.** Of the 10,103 newly diagnosed TB cases over the 8-year period, 543 (5.4%) were reported as being homeless in the year preceding TB diagnosis. In 412 homeless TB patients with a reported outcome as “died” or “completed,” 57 (13.8%) died during treatment and 355 (86.2%) completed therapy. Age >45, male, black ethnicity, foreign-born, urban living, excessive alcohol consumption, and long-term care facility resident, diabetes, previous TB, and pulmonary TB were associated with homeless TB cases. Being homeless and having TB increased the risk of mortality compared with having TB alone (OR 2.26, 95% CI 1.61–3.23). Age >45 years, positive HIV status, caviety and miliary radiographic findings, no or unknown culture conversion and TB death confirmation by a positive culture/NAA/smear compared with clinical case definition provider diagnosis were independent risk factors for mortality among homeless TB cases in Texas.

**Conclusion.** Being homeless increased the risk of TB mortality by nearly 130% compared with being housed prior to TB diagnosis. Our findings indicate that homelessness may be being diagnosed and treated in more advanced TB diseased homeless individuals who probably have poorer health due to the stresses of poverty, comorbidities, and lack of access to healthcare, leading to higher mortality. Additionally, testing and treatment for HIV among those reporting homelessness may reduce mortality among this high-risk group.

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764. Impact of Diabetes Mellitus on the Presentation and Response to Treatment of Adults With Pulmonary Tuberculosis in Qatar

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections

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**Background.** Persons with diabetes mellitus (DM) have a 3-fold increased risk of TB. Vitamin D deficiency also is associated with a 4-fold increase in risk of progression of TB from latent TB infection to active TB. Qatar is an oil rich country with high prevalence of diabetes, obesity, and vitamin D deficiency. We aimed to evaluate the effect of diabetes mellitus on manifestations and response to treatment in adults with DM and TB.

**Methods.** Retrospective national hospital-based study of adult from January 2007 to December 2011, comparing TB-infected patients with and without DM.

**Results.** Of 134 adults with DM and TB, 62 (47%) became culture negative after 8 weeks of anti-TB treatment compared with 84 (72%) patients without DM. Patients with DM had more frequent lower lobe disease (28% vs. 17%, P = 0.03). Week 8 sputum culture conversion did not differ between patients by the degree of dysglycemia at time of diagnosis and onset of anti-TB treatment (70% vs. 46%, P = 0.09).

**Conclusion.** Diabetes mellitus was associated with delayed sputum culture conversion at two month and atypical radiological findings in adults with pulmonary TB in Qatar. Glycemic control had no effect on week 8 sputum culture conversion.

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765. Tuberculosis and Diabetes Mellitus Among Prison Inmates in Peru: Results of a National Survey, 2016

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections

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**Background.** Diabetes mellitus (DM) increases the risk of tuberculosis disease (TB) and is associated with poor TB treatment outcomes in the general population. We examined the relationship between TB and DM in prison inmates in Peru.

**Methods.** We analyzed data from a cross-sectional, national survey of adult prison inmates in Peru conducted in 2016. The survey collected sociodemographic
Results. Of 75,971 inmates, 3,104 (4.3%) reported a history of TB diagnosis. Table 1 shows the characteristics of the TB and non-TB groups. The prevalence of DM was higher in the TB group compared with the non-TB group (4.2% vs. 2.4%; P < 0.001). In multivariate analysis, DM was associated with twice the odds of having had a diagnosis of TB (adjusted OR = 2.2; 95% CI: 1.8–2.7). Male sex, Spanish language, no college/university education, imprisonment, hypertension, and HIV infection were also associated with increased odds of prevalent TB (Figure 1).

Conclusion. There was a high prevalence of TB among prison inmates in Peru. DM was associated with an increased likelihood of prevalent TB. Our results are consistent with findings in noninstitutionalized populations and underscore the need to implement aggressive screening and treatment interventions for both TB and DM in prison settings.

**Table 1:** Characteristics of TB and Non-TB Groups in Peruvian Prisons

| Variables               | TB group | Non-TB group | P-value |
|-------------------------|----------|--------------|---------|
| Age in years, mean ± SD | 35 ± 10.4 | 36 ± 11.5    | <0.001  |
| Male sex, n (%)         | 3,053 (98.3) | 68,516 (93.3) | <0.001  |
| College/University education, n (%) | 8,996 (6.6) | 201 (12.7) | <0.001  |
| Spanish language, n (%) | 2,893 (93.2) | 64,295 (98.2) | <0.001  |
| Reimprisonment, n (%)   | 723 (270) | 9,110 (16.2) | <0.001  |
| Hypertension, n (%)     | 175 (4.7) | 3,399 (6.8) | 0.011   |
| Diabetes mellitus, n (%)| 131 (4.2) | 1,766 (24.2) | <0.001  |
| HIV infection, n (%)    | 65 (2.1) | 251 (0.3) | <0.001  |

**Figure 1.** Factors associated with TB in Peruvian prisons

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767. A 7-Year Retrospective Study of Pediatric Tuberculosis in a Third-Level Hospital in Mexico City

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections

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**Background.** From 2013 to 2017 an increase in TB admissions was documented with a significant higher number of EPTB cases, particularly in extra-European immigrants. The doubled risk in 2015–2017 was likely the consequence of the recent ongoing escalating levels of migration from African countries and may result as an ongoing Public Health problem.

**Disclosures.** All authors: No reported disclosures.

**Table:** Characteristics of TB and Non-TB Groups in Peruvian Prisons

| Variables               | TB group | Non-TB group | P-value |
|-------------------------|----------|--------------|---------|
| Age in years, mean ± SD | 35 ± 10.4 | 36 ± 11.5    | <0.001  |
| Male sex, n (%)         | 3,053 (98.3) | 68,516 (93.3) | <0.001  |
| College/University education, n (%) | 8,996 (6.6) | 201 (12.7) | <0.001  |
| Spanish language, n (%) | 2,893 (93.2) | 64,295 (98.2) | <0.001  |
| Reimprisonment, n (%)   | 723 (270) | 9,110 (16.2) | <0.001  |
| Hypertension, n (%)     | 175 (4.7) | 3,399 (6.8) | 0.011   |
| Diabetes mellitus, n (%)| 131 (4.2) | 1,766 (24.2) | <0.001  |
| HIV infection, n (%)    | 65 (2.1) | 251 (0.3) | <0.001  |

**Figure 1.** Factors associated with TB in Peruvian prisons

**Disclosures.** All authors: No reported disclosures.

768. Epidemiological and Clinical Profile of Miliary Tuberculosis in Southern Tunisia

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**Session:** 70. Tuberculosis and Other Mycobacterial Infections

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**Background.** Miliary tuberculosis (MT) is a severe rare form of tuberculosis (TB). It is often due to lymphohematogenous dissemination of tubercle bacilli. Although the global incidence of TB has been slowly decreasing with globally conducted program, MT incidence is relatively increasing owing mainly to widespread use of immunosuppressive drugs and HIV/AIDS pandemia. Few reports were found regarding epidemiological data of MT in developing countries. We aim to evaluate epidemiological characteristics of MT in the region of Sfax Southern Tunisia.

**Methods.** We conducted a retrospective study of all new cases of MT of all ages between January 1995 and December 2016. Data were collected from the regional register of tuberculosis implanted in the anti-tuberculosis center of Sfax.

**Results.** We analyzed 22 patients with MT accounting for 0.8 of all cases of tuberculosis. Incidence rates of MT were stable over the 22-year study period. Their median age was of 41 years (IQR = 17–63.5) and a half of them were females. MT was significantly more common in patients less than 15 years old (2.4% vs. 0.7%; OR = 3.5; P = 0.001). The risk of MT doubled in 2015–2017 respect 2013–2014.

**Conclusion.** From 2013 to 2017 an increase in TB admissions was documented with a significant higher number of EPTB cases, particularly in extra-European immigrants. The doubled risk in 2015–2017 was likely the consequence of the recent ongoing escalating levels of migration from African countries and may result as an ongoing Public Health problem.

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