Trend and Incidence of Tuberculosis, Yemen, 2019 to 2021

Authors: Zainab A. Alaghbri, Labiba A., Esam A.

Abstract: Tuberculosis (TB) is the fourth leading cause of death in Yemen and is considered a major priority by the Ministry of Public Health. The war in Yemen has led to the emergence of one of the worst humanitarian crises in the world. These circumstances may lead to exacerbate the situation of tuberculosis. This study aims to describe the trend and incidence of TB in north and east governorates, Yemen 2019-2021 and provide recommendations for interventions. A descriptive analysis was conducted during July to September 2022. Data of TB cases were obtained from the national tuberculosis program as soft copy. The data included the TB case collected and diagnosed during 2019-2021. The data contains the following variables: Sex, age, governorates, smear-positive cases, extra-pulmonary cases, and treatment outcomes. 16791 TB cases were notified for an overall case notification rate 65.5/100000 for all forms (smear positive and Extra-pulmonary). There was a slightly declined in 2020 and 2021 by 1%. Both the pulmonary smear positive and Extra pulmonary rates were slightly decreased from 8.8 to 7.7 and 13.5 to 12.8 / 100,000 populations respectively. For Tuberculosis cases by type of patient, the incidence of extra-pulmonary was the highest (12.9, 11.3 and 12.2/100000) over the three years. However, the incidence of pulmonary failure was the lowest. The majority of cases were in the age group 25-34. The overall treatment success rate for smear-positive patients was 88%. Of the 627 patients with documented unsuccessful outcomes (e.g., failure, death, and default), 165 (23%) died, 52 (8.3%) failed treatment, and 410 (65%) defaulted. Overall, the magnitude of tuberculosis decreased over the periods reviewed. The proportion of Extra-pulmonary TB was the highest. The success rate achieved after treatment was below the levels established by the WHO End Tuberculosis Strategy (90%). Failure to complete treatment may be responsible for the low success rate. Monitoring and addressing the risk factors that were associated with treatment outcomes and duration may help improve the likelihood of achieving favorable outcomes among cases of smear-positive pulmonary TB.

Keywords: tuberculosis, trend, incidence, yemen

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