

## **Spatial Distribution of TB and HIV Co-infection in South of Iran**

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### **Abstract Background:**

The aim was describing the spatial distribution of TB/HIV co-infection using GIS and Exploratory Spatial Data Analysis (ESDA) and to identify district of Hormozgan province (south of Iran) with significant disease clustering. Materials and Methods: Data were collected from health centers in Hormozgan province. Moran global and local indicators of spatial associations (LISA) were used to test the evidence of global and local spatial clustering via ArcGIS 9.3 software.

**Results:** The spatial distribution of TB/HIV cases was non-random and clustered, with a Moran's I = 0.12 ( $p = .03$ ). Spatial clustering suggested that six districts could be grouped as "hot spots". These districts also have high population density.

**Conclusion:** The findings showed existence of significant clustering of TB/HIV incidence in Hormozgan. The present study identified important geographical areas to control coinfection of TB/HIV and revealed that the GIS technology can be used to organize health services.

**Key Words:** Tuberculosis, HIV/AIDS, Distribution, Developing Countries