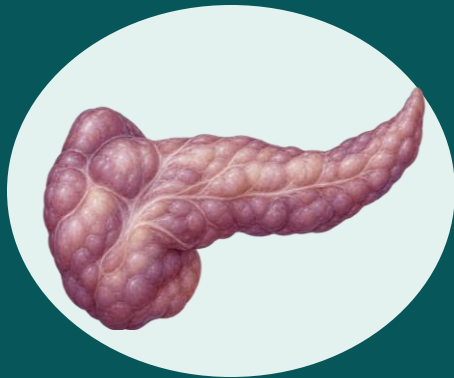


Regional trends in pancreatic cancer incidence, mortality, and disability-adjusted life years in Pakistan, 1990-2023



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Background & objective

Pancreatic cancer is highly prevalent and fatal.
Provincial trends in Pakistan remain poorly described.

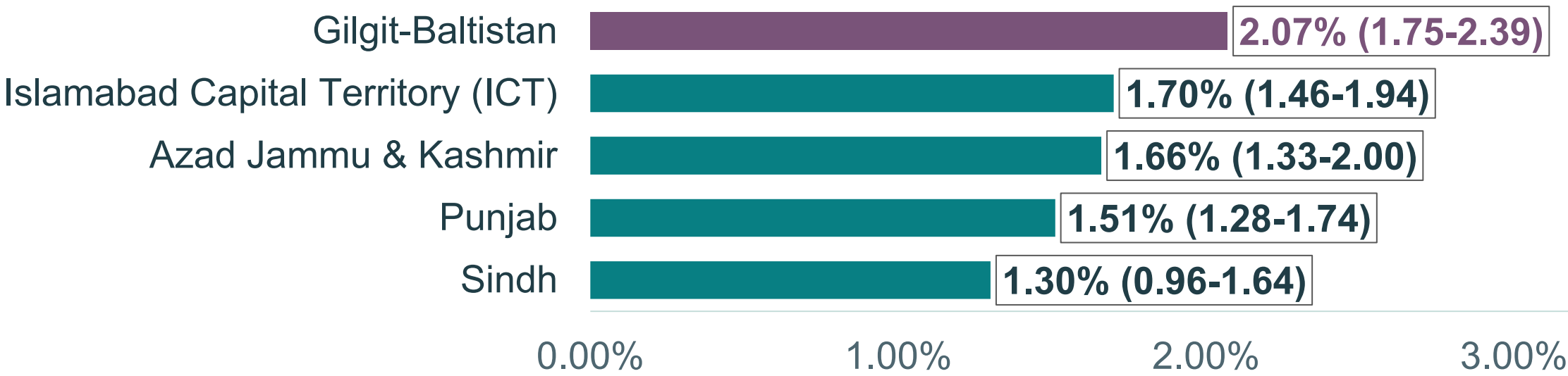
Objective

Assess long-term temporal and geographic patterns of disease burden in Pakistan.

Methodology

- 01 » Global Burden of Disease 2023 Database
Pakistan based estimates, 1990-2023
- 02 » Age-standardized rates per 100,000
Stratified by province
- 03 » Joinpoint regression analysis with APC (Annual Percent Change) and AAPC (Average Annual Percent Change)

Incidence AAPC, 1990-2023 (95% CI)



Mortality and DALYs

Highest AAPCs, % (95% CI), 1990-2023

Region	Mortality	DALYs
Gilgit-Baltistan	1.98 (1.68-2.29)	2.19 (1.84-2.53)
ICT	1.61 (1.38-1.85)	1.67 (1.45-1.90)

Higher rates in males

Across all outcomes and provinces

Recent accelerations

APC, % (95% CI)

Punjab, 2018-2023	
Incidence	3.23 (2.12-4.35)
Mortality	3.18 (2.12-4.24)
DALYs	3.21 (2.0-4.44)
Sindh, 2017-2023	
Incidence	3.08 (2.11-4.06)

Incidence: ICT and Balochistan accelerated in 2020-2023.
Khyber Pakhtunkhwa grew modestly after a 1995-2000 decline.

Mortality/DALYs: Sindh and Azad Jammu & Kashmir declined in 1990-1996, then grew again after 2017.

Conclusion

Pancreatic cancer burden is rising, with regional and sex disparities.
Priorities: early detection, equitable care and stronger surveillance.

APC: annual percent change. AAPC: average annual percent change. CI: confidence interval.

Source: Jahangir A et al., Research sponsor: None.