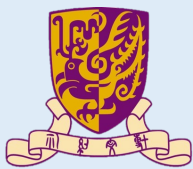


Increasing Incidence of Pancreatic Cancer in Hong Kong: a population-based study



Zehuan YANG, Claire Chenwen ZHONG, Martin C.S. WONG, Junjie HUANG*

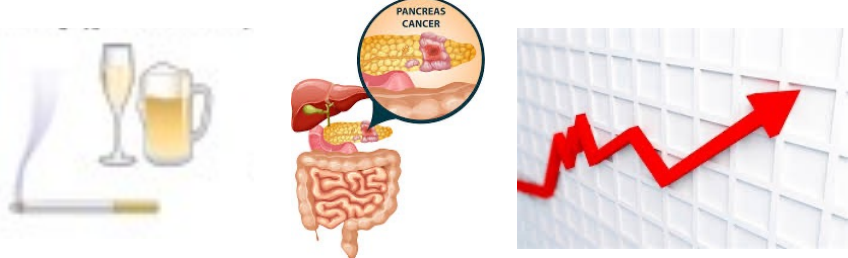
Correspondence: junjiehuang@cuhk.edu.hk

JC School of Public Health and Primary Care, The Chinese University of Hong Kong



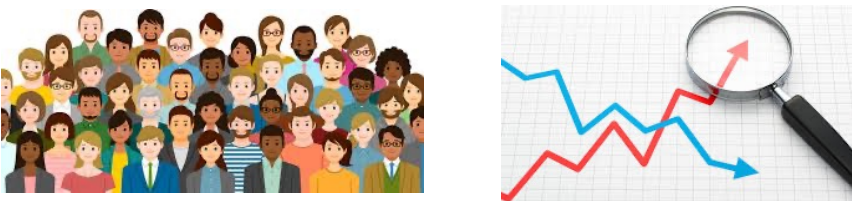
Background

- Globally, pancreas cancer is a growing public health concern due to its expanding incidence and poor prognosis.



Purpose

- The study aims to assess the burden of pancreas cancer in Hong Kong by estimating its incidence and trends.

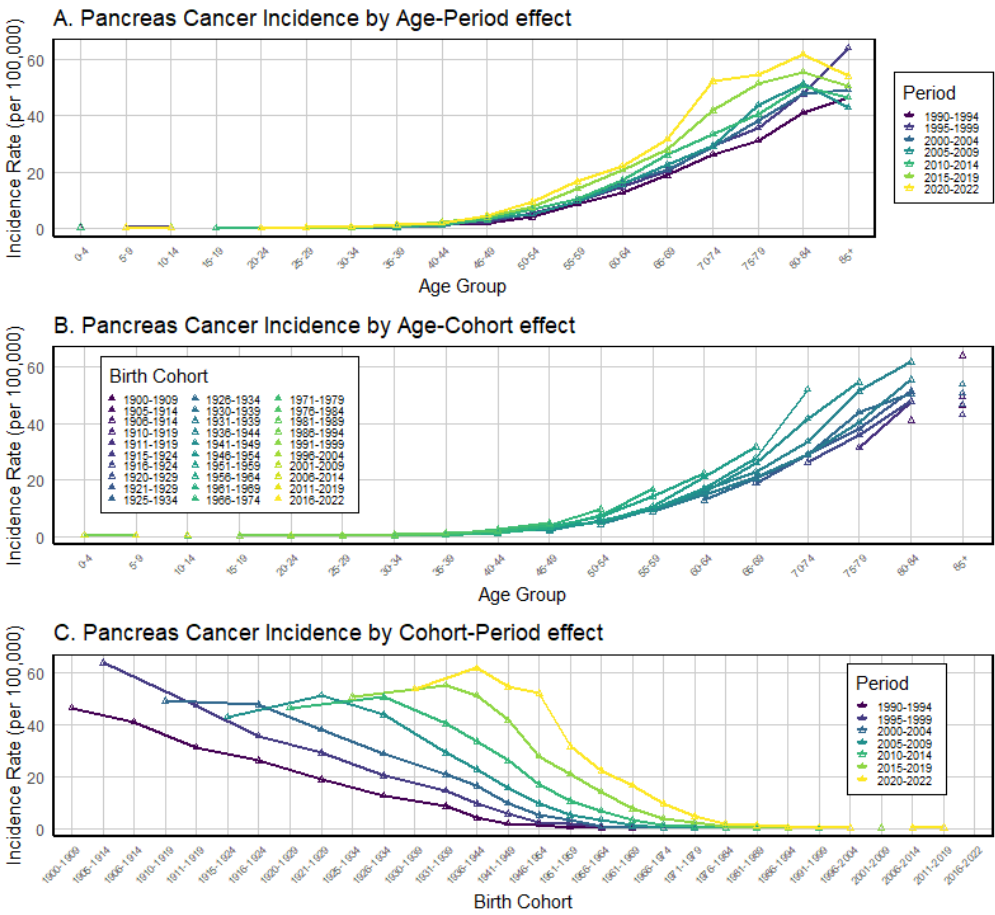


Methods

- ❑ Data on pancreas cancer incidence data were retrieved from [the Hong Kong Cancer Registry](#).
- ❑ [The World Health Organization 2000 standard population](#) was used to calculate age-standardized rate (ASR) of incidence.
- ❑ The Average Annual Percent Change (AAPC) of the incidence and mortality trends as evaluated by [Joinpoint regression analysis](#).
- ❑ [Age-period-cohort analysis](#) was performed to evaluate the effects of aging, period variations, and birth cohort differences.

Results

Fig1: Age-Period-Cohort (APC) Analysis of Pancreatic Cancer Incidence Trends (1990–2022). Plots A display age-period effects; Plots B present age-cohort effects; and Plots C depict period-cohort effects.



- Among the same age groups, more recent period and birth cohort were associated with higher pancreatic cancer incidence.
- For the same birth cohort, those who lived in more recent period were related to higher pancreatic cancer incidence.

Fig2: Joint point regression analysis of Pancreatic Cancer Incidence Trends (1990–2022).

Age Group	Incidence			Mortality			DALYs		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
20-24	-1.01*	NA	NA	NA	NA	NA	-2.34	NA	NA
25-29	1.94*	-1.63*	1.02	-4.38*	NA	1.61*	1.45	-23.01*	6.28
30-34	2.13	4.18	-0.94	1.70	-1.28	0.07	-6.81	6.93	-2.92
35-39	3.20*	3.31*	1.93	1.25	1.67	1.64*	1.17	2.36	3.61
40-44	0.99	1.11	1.68	-0.38	0.42	0.20	-0.27	-0.81	3.37
45-49	3.06*	4.69*	2.35*	0.63	1.67	-0.39	0.70	1.69	0.70
50-54	2.50*	2.50*	3.27*	1.43*	-0.30	2.88*	1.52*	-0.26	2.82*
55-59	2.19*	2.40*	1.45	0.29	0.65	0.18	0.31	0.67	0.20
60-64	1.72*	1.75*	0.38	0.11	1.09*	-0.56	0.09	1.10*	-0.51
65-69	0.69	0.65	1.64*	0.80	0.66	0.56	0.80	0.69	0.58
70-74	2.39*	2.19*	2.06*	1.65*	1.89*	1.47	1.60*	1.91*	1.49*
75-79	1.76*	0.98*	2.61*	1.04*	0.46	1.65*	1.10*	2.29*	1.69*
80-84	1.12*	2.84	1.08*	1.15*	1.13*	1.17*	0.76*	0.31	1.17*
85+	0.04	0.31	0.02	0.52	-0.30	1.05	0.44	NA	0.90
All	4.37*	4.53*	3.46*	3.39*	3.78*	3.01*	2.60*	2.92*	2.41*

- ❖ In 2022, there were 1,037 incident cases (ASR = 6.3 per 100,000) of pancreas cancer. The risk of pancreas cancer surged with increasing age, peaking at the 80-84 age group (ASR = 62.8).
- ❖ Males (ASR = 7.1) were more likely to develop pancreas cancer than females (ASR = 5.7).
- ❖ Between 1990 and 2022, there was a significant increasing trend of pancreas cancer incidence (AAPC: 1.81%, 95% CI: 1.30% to 2.27%; $p < 0.001$).
- ❖ Females experienced a larger increasing trend (AAPC: 2.01%, 95% CI: 1.30% to 2.66%; $p < 0.001$) than males (AAPC: 1.62%, 95% CI: 1.20% to 2.05%; $p < 0.001$).

Conclusions

- ✓ Our findings highlighted a **rising trend** in pancreatic cancer incidence, particularly among **younger and female populations**.
- ✓ Future studies should focus on identifying risk factors attributable to the persistent increase in pancreatic cancer burden among Hong Kong population to guide targeted strategies.

Acknowledgments

- The study was funded by the Direct Grant of Chinese University of Hong Kong