

Supplemental Table S1. Demographic and Tumor Characteristics Stratified by Early-Onset (EOPC) and Late-Onset (LOPC) Invasive Pancreatic Cancer, 1995-2018

Characteristic	EOPC (age 0-54) (N=80,908)		LOPC (age 55+) (N=632,714)		Total (N=713,622)	
	N	Col %	N	Col %	N	Col %
Sex						
Male	47,533	58.7%	317,062	50.1%	364,595	51.1%
Female	33,375	41.3%	315,652	49.9%	349,027	48.9%
Race/ethnicity						
Non-Hispanic White	56,007	69.2%	498,709	78.8%	554,716	77.7%
Non-Hispanic Black	13,409	16.6%	71,467	11.3%	84,876	11.9%
Hispanic	8,033	9.9%	40,655	6.4%	48,688	6.8%
Non-Hispanic Asian/Pacific Islander	2,602	3.2%	17,443	2.8%	20,045	2.8%
Other/Unknown	857	1.1%	4,440	0.7%	5,297	0.8%
Year of diagnosis						
1995-1999	11,954	14.8%	87,611	13.9%	99,565	14.0%
2000-2009	35,118	43.4%	243,150	38.4%	278,268	39.0%
2010-2018	33,836	41.8%	301,953	47.7%	335,789	47.0%
Summary stage						
Localized	5,242	6.5%	59,918	9.5%	65,160	9.1%
Regional	26,817	33.1%	202,639	32.0%	229,456	32.2%
Distant	44,908	55.5%	313,350	49.5%	358,258	50.2%
Unknown	3,941	4.9%	56,807	9.0%	60,748	8.5%
Grade						
Well differentiated; Grade I	3,649	4.5%	25,383	4.0%	29,032	4.1%
Moderately differentiated; Grade II	14,233	17.6%	91,474	14.5%	105,707	14.8%
Poorly differentiated; Grade III	15,319	18.9%	96,423	15.2%	111,742	15.6%
Undifferentiated; anaplastic; Grade IV	605	0.8%	3,586	0.6%	4,191	0.6%
Unknown	47,102	58.2%	415,848	65.7%	462,950	64.9%
Tumor site						
Head	39,832	49.2%	317,808	50.2%	357,640	50.1%
Body	9,011	11.2%	71,334	11.3%	80,345	11.3%
Tail	11,015	13.6%	75,527	11.9%	86,542	12.1%
Other	21,050	26.0%	168,045	26.6%	189,095	26.5%

Supplemental Methods

Using the 1995-2018 CiNA Public Use Data Set from the North American Association of Central Cancer Registries (NAACCR), we identified incident invasive pancreatic adenocarcinoma cancer cases based on SEER Site Recode ICD-O-3/World Health Organization 2008 definitions (ICD-O-3 site codes C25.0-C25.9 and adenocarcinoma-specific histology codes) and stratified cases by EOPC (diagnosed aged 0-54) and LOPC (diagnosed age 55+). We evaluated the distribution of sex (male, female), race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, non-Hispanic Asian/Pacific Islander, non-Hispanic American Indian, other/unknown), year of diagnosis (1995-1999, 2000-2009, 2010-2018), SEER summary stage (localized, regional, distant, unknown), grade (I, II, III, IV, unknown) and tumor site (head, body, tail, other) within EOPC and LOPC separately. Due to small sample sizes, non-Hispanic American Indian and other racial/ethnic groups were excluded from the calculation of incidence rates.

We used SEER*Stat software version 8.3.9 to obtain case distributions by demographic and tumor characteristics and calculate annual age-adjusted incidence rates (AAIR) standardized to the 2000 US Standard Population for the entire cohort and by sex and race/ethnicity. Average annual percent change (AAPC) in AAIRs was calculated using the Joinpoint Regression Program version 4.9.0.0 to analyze the time trends in AAIRs by sex and race/ethnicity. AAIRs and AAPCs were calculated for EOPC and LOPC separately.