



**Figure S1** Flow diagram for NCDB pancreas database cases selection. a, Missing EDUCATION variable 15,966 out of 276,395. No missing variable for Charlson. Missing INCOME 16,449. Missing INSURANCE 6,020. Missing AJCC clinical stage 27,505. Missing RACE 2,561.

**Table S1** Univariate and multivariable logistic regression models to evaluate the impact of SDH on the odds of being diagnosed with Stage IV pancreatic cancer (vs. 0-III)

Univariate models

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{age})}$$

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{sex})}$$

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{Charlsonscore})}$$

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{race})}$$

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{educationquart})}$$

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{incomequart})}$$

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{insurance})}$$

Multivariable model

$$Y = \beta_0 + \beta_1 X_{1(\text{clinical stage})} + \beta_2 X_{2(\text{age})} + \beta_3 X_{3(\text{sex})} + \beta_4 X_{4(\text{Charlsonscore})} + \beta_5 X_{5(\text{race})} + \beta_6 X_{6(\text{educationquart})} + \beta_7 X_{7(\text{incomequart})} + \beta_8 X_{8(\text{insurance})}$$

**Table S2** Multivariable Analysis. Cox Proportional Hazards model for survival of all patients with pancreatic cancer

Survival	Multivariable Analysis	
	Hazard Ratio (95% CI)	P value
Age (deciles)	1.30 (1.29–1.30)	<0.001
Race (vs. White)		
Black	1.00 (0.99–1.02)	0.869
Other	0.89 (0.87–0.91)	<0.001
Sex (vs. Female)		
Male	1.04 (1.03–1.05)	<0.001
Percent High School Attainment <sup>a</sup> (vs. <82.4)		
82.5–89.1	1.04 (1.03–1.06)	<0.001
89.2–93.7	1.03 (1.02–1.05)	<0.001
>93.7	0.98 (0.97–1.00)	0.057
Income (vs. <\$40,227) <sup>a,b</sup>		
\$40,227–\$50,353	0.94 (0.93–0.96)	<0.001
\$50,354–\$63,332	0.90 (0.89–0.91)	<0.001
>\$63,333	0.84 (0.82–0.85)	<0.001
Insurance Status (vs. no insurance)		
Private	0.78 (0.76–0.80)	<0.001
Medicaid	0.95 (0.93–0.98)	<0.001
Medicare	0.83 (0.81–0.86)	<0.001
Other Government	0.84 (0.80–0.88)	<0.001
Charlson Score (vs. 0 score) <sup>c</sup>		
1	1.10 (1.08–1.11)	<0.001
2	1.28 (1.26–1.30)	<0.001
≥3	1.59 (1.55–1.63)	<0.001
AJCC Stage Group		
1	2.82 (2.61–3.05)	<0.001
2	4.10 (3.80–4.42)	<0.001
3	6.63 (6.14–7.16)	<0.001
4	11.52 (10.68–12.44)	<0.001

AJCC, American Joint Committee on Cancer; ACS American Community Survey <sup>a</sup>, Percentage with high-school education from ACS 2016 matched with patient's zip code. <sup>b</sup>, In US dollars – Median household income from ACS 2016 matched with patient's zip-code. <sup>c</sup>, Charlson-Deyo Comorbidity score.