Supplementary Table 1. Incidence Rates and HRs of Incident HCC Stratified by Family History of HCC and HBV DNA Levels

Characteristic	N	HCC cases, n	Person-years of follow-up evaluation	Incidence rate per 100,000 person-years	Crude HR (95% CI)	Multivariate adjusted HR (95% CI)
Age, y					1.07 (1.06–1.08)	1.08 (1.07–1.10)
BMI, kg/m^2					1.04 (1.01–1.08)	1.05 (1.01–1.09)
Sex						
Female	1396	45	22,773.5	197.6	Referent	Referent
Male	2260	199	34,776.5	572.2	2.90 (2.10–4.01)	2.25 (1.56–3.25)
Smoking habit						
No	2419	133	38,876.1	342.1	Referent	Referent
Yes	1234	110	18,622.9	590.7	1.74 (1.35–2.24)	1.14 (0.86–1.52)
Alcohol consumption						
No	3198	189	50,820.3	371.9	Referent	Referent
Yes	451	54	6633.0	814.1	2.20 (1.62–2.97)	1.48 (1.08–2.04)
Diabetes						
No	3564	230	56,409.9	407.7	Referent	Referent
Yes	85	14	1028.4	1361.3	1.09 (0.89–1.35)	1.12 (0.87–1.44)
ALT level, U/L						
≤45	3438	201	54,474.2	369.0	Referent	Referent
>45	218	43	3075.8	1398.0	3.80 (2.74–5.29)	2.70 (1.92–3.79)
HBeAg serostatus						
Negative	3091	140	49,196.2	284.6	Referent	Not included
Positive	565	104	8353.8	1244.9	4.41 (3.42–5.68)	
Family history of HCC						
Negative	3484	220	54,937.7	400.5	Referent	Referent
Positive	172	24	2612.3	918.7	2.30 (1.51–3.51)	2.18 (0.78–6.08)
HBV DNA, $copies/mL$						
<10,000	2035	45	32,851.6	136.9	Referent	Referent
>10,000	1621	199	24,698.4	805.7	5.94 (4.30–8.21)	5.76 (4.08–8.12)
Family history of HCC/HBV DNA level						
No/<10,000	1941	41	31,369.5	130.7	Referent	Not included
Yes/<10,000	94	4	1482.1	269.9	2.07 (0.74–5.77)	
No/≥10,000	1543	179	23,568.2	759.5	5.87 (4.18–8.24)	
Yes/≥10,000	78	20	1130.2	1769.6	13.75 (8.05–23.47)	

Supplementary Table 2. Multivariate Adjusted HRs of HCC Incidence Showing Interaction Between Family HCC HBV DNA Levels

Characteristic	Crude HR (95% CI)	Model 2 Age/sex-adjusted HR (95% CI)	Model 3 Multivariate adjusted HR (95% CI)	Model 4 Multivariate adjusted HR (95% CI)
Sex				
Female	Referent	Referent	Referent	Referent
Male	2.90 (2.10–4.01)	2.68 (1.94–3.71)	2.32 (1.62–3.32)	2.25 (1.56–3.25)
Age, y	1.07 (1.06–1.08)	1.08 (1.06–1.09)	1.08 (1.07–1.10)	1.08 (1.07–1.10)
BMI, kg/m^2	1.04 (1.01–1.08)		1.05 (1.01–1.09)	1.05 (1.01–1.09)
Smoking habit				
No	Referent		Referent	Referent
Yes	1.74 (1.35–2.24)		1.24 (0.93–1.64)	1.14 (0.86–1.52)
Alcohol consumption				
No	Referent			Referent
Yes	2.20 (1.62–2.97)			1.48 (1.08–2.04)
Diabetes				
No	Referent		Referent	Referent
Yes	1.09 (0.89–1.35)		1.13 (0.88–1.45)	1.12 (0.87–1.44)
ALT level, U/L				
≤45	Referent		Referent	Referent
>45	3.80 (2.74–5.29)		2.78 (1.99–3.89)	2.70 (1.92–3.79)
Family history of HCC/HBV DNA level				
No/<10,000	Referent	Referent	Referent	Referent
Yes/<10,000	2.07 (0.74–5.77)	2.22 (0.79–6.19)	2.19 (0.79–6.12)	2.18 (0.78–6.08)
No/≥10,000	5.87 (4.18–8.24)	6.26 (4.45–8.79)	5.79 (4.11–8.16)	5.76 (4.08–8.12)
Yes/≥10,000	13.75 (8.05–23.47)	15.95 (9.32–27.28)	16.46 (9.57–28.29)	15.72 (9.06–27.27)

Supplementary Table 3. Incidence Rates and HRs of Incident HCC Stratified by Family History of HCC and HBeAg

Characteristic	N	HCC cases, n	Person-years of follow-up evaluation	Incidence rate per 100,000 person-years	Crude HR (95% CI)	Multivariate adjusted HR (95% CI)
Age, y					1.07 (1.06–1.08)	1.10 (1.08–1.11)
BMI, kg/m^2					1.04 (1.01–1.08)	1.04 (1.00–1.08)
Sex						
Female	1396	45	22,773.5	197.6	Referent	Referent
Male	2260	199	34,776.5	572.2	2.90 (2.10–4.01)	2.52 (1.74–3.64)
Smoking habit						
No	2419	133	38,876.1	342.1	Referent	Referent
Yes	1234	110	18,622.9	590.7	1.74 (1.35–2.24)	1.19 (0.89–1.58)
Alcohol consumption						
No	3198	189	50,820.3	371.9	Referent	Referent
Yes	451	54	6633.0	814.1	2.20 (1.62–2.97)	1.43 (1.04–1.97)
Diabetes						
No	3564	230	56,409.9	407.7	Referent	Referent
Yes	85	14	1028.4	1361.3	1.09 (0.89–1.35)	1.05 (0.82–1.36)
ALT level, U/L						
$\leq$45	3438	201	54,474.2	369.0	Referent	Referent
>45	218	43	3075.8	1398.0	3.80 (2.74–5.29)	2.26 (1.59–3.21)
HBV DNA, $copies/mL$						
<10,000	2035	45	32,851.6	136.9	Referent	Not included
>10,000	1621	199	24,698.4	805.7	5.94 (4.30–8.21)	
Family history of HCC						
Negative	3484	220	54,937.7	400.5	Referent	Referent
Positive	172	24	2612.3	918.7	2.30 (1.51–3.51)	2.19 (1.21–3.96)
HBeAg serostatus						
Negative	3091	140	49,196.2	284.6	Referent	Referent
Positive	565	104	8353.8	1244.9	4.41 (3.42–5.68)	6.08 (4.53–8.15)
Family history of HCC/HBeAg serostatus						
No/HBeAg (-)	2951	128	46,999.7	272.3	Referent	Not included
Yes/HBeAg (-)	140	12	2196.5	546.3	2.01 (1.11–3.63)	
No/HBeAg (+)	533	92	7938.1	1159.0	4.28 (3.28–5.60)	
Yes/HBeAg (+)	32	12	415.8	2886.2	10.86 (6.01–19.62)	

Supplementary Table 4. Multivariate Adjusted HRs of HCC Incidence Showing Interaction Between Family HCC and HBeAg Status

Characteristic	Crude HR (95% CI)	Model 2 Age/sex-adjusted HR (95% CI)	Model 3 Multivariate adjusted HR (95% CI)	Model 4 Multivariate adjusted HR (95% CI)
Sex				
Female	Referent	Referent	Referent	Referent
Male	2.90 (2.10–4.01)	2.98 (2.16–4.12)	2.60 (1.81–3.73)	2.52 (1.74–3.64)
Age, y	1.07 (1.06–1.08)	1.10 (1.08–1.11)	1.10 (1.08–1.11)	1.10 (1.08–1.11)
BMI, kg/m^2	1.04 (1.01–1.08)		1.04 (1.00–1.08)	1.04 (1.00–1.08)
Smoking habit				
No	Referent		Referent	Referent
Yes	1.74 (1.35–2.24)		1.26 (0.95–1.67)	1.19 (0.89–1.58)
Alcohol consumption				
No	Referent			Referent
Yes	2.20 (1.62–2.97)			1.43 (1.04–1.97)
Diabetes				
No	Referent		Referent	Referent
Yes	1.09 (0.89–1.35)		1.06 (0.82–1.38)	1.05 (0.82–1.36)
ALT level, U/L				
≤45	Referent		Referent	Referent
>45	3.80 (2.74–5.29)		2.33 (1.64–3.29)	2.26 (1.59–3.21)
Family history of HCC/HBeAg serostatus				
No/HBeAg negative	Referent	Referent	Referent	Referent
Yes/HBeAg negative	2.01 (1.11–3.63)	2.18 (1.21–3.95)	2.21 (1.22–3.99)	2.19 (1.21–3.96)
No/HBeAg positive	4.28 (3.28–5.60)	7.17 (5.43–9.48)	6.16 (4.60–8.26)	6.08 (4.53–8.15)
Yes/HBeAg positive	10.86 (6.01–19.62)	21.03 (11.50–38.46)	21.68 (11.80–39.83)	20.14 (10.71–37.87)