

Additional file 7. Validation of the Asian America Breast Cancer Study model (AABCS) for predicting individual breast cancer risk in China Kadoorie Biobank (CKB) and Shanghai Women's Health Study (SWHS)

	CKB					SWHS				
	Overall AUC ^a	Adjusted AUC ^b	<i>E</i>	<i>O</i>	<i>E/O</i> (95% CI)	Overall AUC ^a	Adjusted AUC ^b	<i>E</i>	<i>O</i>	<i>E/O</i> (95% CI)
<i>Original AABCS model</i>										
Overall	0.574 (0.558-0.590)	0.543 (0.527-0.559)	4,325	2,287	1.89 (1.82-1.97)	0.553 (0.532-0.573)	0.556 (0.535-0.576)	1,639	1,409	1.16 (1.10-1.23)
1	--	--	180	154	1.17 (1.00-1.38)	--	--	102	117	0.87 (0.73-1.05)
2	--	--	250	181	1.38 (1.19-1.60)	--	--	132	125	1.06 (0.89-1.27)
3	--	--	276	162	1.70 (1.46-2.00)	--	--	143	132	1.08 (0.91-1.30)
4	--	--	318	212	1.50 (1.31-1.73)	--	--	140	117	1.19 (1.00-1.44)
5	--	--	354	181	1.96 (1.69-2.27)	--	--	147	121	1.22 (1.02-1.47)
6	--	--	363	193	1.88 (1.63-2.18)	--	--	161	132	1.22 (1.03-1.45)
7	--	--	406	269	1.51 (1.34-1.71)	--	--	176	131	1.35 (1.13-1.61)
8	--	--	465	292	1.59 (1.42-1.79)	--	--	181	163	1.11 (0.95-1.30)
9	--	--	599	306	1.96 (1.75-2.20)	--	--	200	169	1.18 (1.02-1.38)
10	--	--	1115	337	3.31 (2.97-3.69)	--	--	258	202	1.28 (1.11-1.47)
<i>Calibrated AABCS model^c</i>										
Overall	0.608 (0.0.592-0.623)	0.544 (0.529-0.590)	2,147	2,287	0.94 (0.90-0.98)	0.550 (0.530-0.570)	0.555 (0.535-0.575)	942	1,409	0.67 (0.63-0.71)
1	--	--	81	108	0.75 (0.62-0.91)	--	--	52	116	0.44 (0.37-0.54)
2	--	--	110	148	0.74 (0.63-0.88)	--	--	61	107	0.57 (0.47-0.70)
3	--	--	128	136	0.94 (0.80-1.13)	--	--	78	134	0.58 (0.49-0.69)
4	--	--	142	150	0.95 (0.81-1.12)	--	--	83	110	0.75 (0.63-0.92)
5	--	--	153	202	0.76 (0.66-0.87)	--	--	90	149	0.61 (0.52-0.72)
6	--	--	181	207	0.88 (0.76-1.01)	--	--	97	145	0.67 (0.57-0.79)

7	--	--	206	256	0.80 (0.71-0.91)	--	--	104	145	0.71 (0.61-0.85)
8	--	--	255	336	0.76 (0.68-0.85)	--	--	106	140	0.76 (0.64-0.90)
9	--	--	305	363	0.84 (0.76-0.93)	--	--	120	159	0.75 (0.64-0.88)
10	--	--	588	381	1.54 (1.39-1.71)	--	--	153	204	0.75 (0.65-0.86)

Abbreviations: AUC, area under the curve; E, expected number of cases; O, observed number of cases; CI, confidence interval; --, not applicable.

^aOverall AUC indicated the discriminating ability of the absolute risk predicted by our model.

^bAdjusted AUC were estimated adjusting for residence (urban/rural) and 10 age groups at entry, i.e. the prediction effect of age and residence was removed.

^cCalibrated using the breast cancer incidence rates and non-breast cancer mortality rates in China.