

Simulation Result 1: $C \sim \text{Exp}(0.2)$

Y_i

2023-02-06

Table 1: Summary of the estimated SAUC for Biomarker1 when the true censoring is distributed as $Exp(0.2)$.

Patients	N	Method	$p = 0.7$	$p = 0.5$	$p = 0.3$	
			Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)	
50-150	20	HZ _P	0.00 (73.32, 76.39)	0.00 (73.57, 75.97)	0.00 (73.75, 75.66)	
		HZ _O	1.11 (74.27, 78.11)	1.70 (74.56, 78.28)	3.93 (75.73, 80.64)	
		Proposed	0.37 (72.96, 77.74)	0.05 (72.20, 77.40)	-1.05 (69.92, 77.96)	
		Succuess	63.76	60.95	40.72	
	30	HZ _P	0.00 (73.48, 75.93)	0.00 (73.56, 75.85)	0.00 (73.97, 75.48)	
		HZ _O	1.21 (74.25, 77.36)	1.67 (74.65, 77.90)	3.37 (76.09, 79.99)	
		Proposed	0.69 (73.39, 77.39)	0.10 (72.83, 77.08)	-0.21 (71.35, 77.19)	
		Succuess	72.72	70.51	56.53	
	50	HZ _P	0.00 (73.65, 75.57)	0.00 (73.77, 75.33)	0.00 (73.87, 75.09)	
		HZ _O	1.13 (74.60, 76.89)	1.67 (75.04, 77.40)	2.95 (76.02, 78.94)	
		Proposed	0.56 (73.68, 76.92)	0.16 (73.16, 76.30)	-0.49 (71.67, 76.25)	
		Succuess	83.98	80.6	67.45	
	100	HZ _P	0.00 (73.78, 75.15)	0.00 (73.93, 74.99)	0.00 (73.96, 74.84)	
		HZ _O	1.02 (74.70, 76.31)	1.62 (75.20, 76.88)	2.86 (76.25, 78.18)	
		Proposed	0.36 (73.77, 76.06)	0.09 (73.40, 75.91)	-0.42 (72.31, 75.68)	
		Succuess	89.9	87.3	78.2	
	50-300	20	HZ _P	0.00 (74.78, 77.08)	0.00 (74.71, 76.76)	0.00 (75.08, 76.61)
			HZ _O	0.95 (75.41, 78.40)	1.46 (75.69, 78.87)	3.34 (77.36, 80.88)
			Proposed	-0.28 (72.96, 77.63)	-0.32 (71.83, 77.29)	-1.54 (35.81, 77.63)
			Succuess	60.34	60.06	26.1
30		HZ _P	0.00 (74.88, 76.66)	0.00 (74.86, 76.51)	0.00 (74.93, 76.34)	
		HZ _O	0.85 (75.44, 77.72)	1.29 (75.71, 78.32)	2.78 (76.57, 80.30)	
		Proposed	0.07 (74.34, 77.37)	-0.29 (73.50, 77.07)	-0.66 (71.33, 77.48)	
		Succuess	68.94	68.47	38	
50		HZ _P	0.00 (74.83, 76.45)	0.00 (75.02, 76.26)	0.00 (75.12, 76.08)	
		HZ _O	0.75 (75.36, 77.36)	1.19 (75.88, 77.92)	2.67 (76.73, 79.72)	
		Proposed	0.22 (74.59, 77.05)	0.17 (74.52, 77.01)	-0.02 (72.99, 77.42)	
		Succuess	79.1	71.37	47.98	
100		HZ _P	0.00 (73.78, 75.15)	0.00 (73.93, 74.99)	0.00 (73.96, 74.84)	
		HZ _O	1.02 (74.70, 76.31)	1.62 (75.20, 76.88)	2.86 (76.25, 78.18)	
		Proposed	0.36 (73.77, 76.06)	0.09 (73.40, 75.91)	-0.42 (72.31, 75.68)	
		Succuess	89.9	87.3	78.2	

Median with 25th and 75th empirical quartiles (Q1, Q3) of the SAUC at $t = 2$ are reported. N denotes the number of the published studies. Proposed denotes the proposed sensitivity analysis method; BNM_P denotes the HZ model using the population (published and unpublished) studies; BNM_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of convergence among 1000 repetition All the entries are multiplied by 100.

Table 2: Summary of the estimated SAUC for Biomarker2 when the true censoring is distributed as $Exp(0.2)$.

Patients	N	Method	$p = 0.7$	$p = 0.5$	$p = 0.3$
			Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)
50-150	20	HZ _P	0.00 (59.09, 61.15)	0.00 (59.21, 61.01)	0.00 (59.45, 60.75)
		HZ _O	1.00 (59.71, 62.32)	1.84 (60.68, 63.44)	4.34 (62.43, 66.39)
		Proposed	-0.11 (58.34, 61.58)	-0.93 (57.33, 61.84)	0.73 (56.61, 64.91)
		Succuess	67.94	65.89	65.54
	30	HZ _P	0.00 (59.27, 60.95)	0.00 (59.45, 60.82)	0.00 (59.51, 60.64)
		HZ _O	0.99 (60.08, 62.18)	1.85 (60.99, 63.12)	4.35 (62.94, 65.96)
		Proposed	-0.27 (58.55, 61.15)	-1.45 (57.33, 60.38)	-1.15 (55.72, 64.68)
		Succuess	75	75.2	69.5
	50	HZ _P	0.00 (59.44, 60.76)	0.00 (59.56, 60.62)	0.00 (59.67, 60.53)
		HZ _O	0.91 (60.25, 61.90)	1.95 (61.18, 62.87)	4.31 (63.18, 65.65)
		Proposed	-0.62 (58.58, 60.52)	-1.64 (57.43, 59.63)	-2.53 (55.64, 61.72)
		Succuess	80.36	80.24	79.76
	100	HZ _P	0.00 (59.62, 60.52)	0.00 (59.68, 60.44)	0.00 (59.77, 60.34)
		HZ _O	0.94 (60.39, 61.57)	1.92 (61.32, 62.64)	4.10 (63.16, 65.11)
		Proposed	-0.67 (58.79, 60.04)	-1.71 (57.64, 59.04)	-3.43 (55.00, 58.17)
		Succuess	86.26	84	86.36
50-300	20	HZ _P	0.00 (59.51, 61.06)	0.00 (59.71, 61.00)	0.00 (59.86, 60.87)
		HZ _O	0.88 (60.24, 62.23)	1.79 (61.16, 63.13)	3.66 (62.44, 65.33)
		Proposed	-0.01 (59.21, 61.70)	0.20 (58.78, 62.29)	1.34 (58.27, 64.64)
		Succuess	61.96	65.6	54.81
	30	HZ _P	0.00 (59.71, 60.98)	0.00 (59.76, 60.85)	0.00 (59.92, 60.73)
		HZ _O	0.98 (60.50, 62.04)	1.76 (61.29, 62.93)	3.56 (62.74, 64.96)
		Proposed	-0.25 (59.06, 61.34)	-0.39 (58.66, 61.67)	-0.16 (57.63, 63.45)
		Succuess	68.83	72.72	63.87
	50	HZ _P	0.00 (59.85, 60.79)	0.00 (59.93, 60.71)	0.00 (60.01, 60.62)
		HZ _O	0.97 (60.66, 61.83)	1.80 (61.41, 62.74)	3.59 (63.00, 64.76)
		Proposed	-0.39 (59.14, 60.84)	-0.62 (58.66, 61.11)	-0.80 (57.71, 63.15)
		Succuess	75.18	80.77	72.02
	100	HZ _P	0.00 (59.62, 60.52)	0.00 (59.68, 60.44)	0.00 (59.77, 60.34)
		HZ _O	0.94 (60.39, 61.57)	1.92 (61.32, 62.64)	4.10 (63.16, 65.11)
		Proposed	-0.67 (58.79, 60.04)	-1.71 (57.64, 59.04)	-3.43 (55.00, 58.17)
		Succuess	86.26	84	86.36

Median with 25th and 75th empirical quartiles (Q1, Q3) of the SAUC at $t = 2$ are reported. N denotes the number of the published studies. Proposed denotes the proposed sensitivity analysis method; BNM_P denotes the HZ model using the population (published and unpublished) studies; BNM_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of convergence among 1000 repetition All the entries are multiplied by 100.

Table 3: Summary of the estimated SAUC for Biomarker3 when the true censoring is distributed as $Exp(0.2)$.

Patients	N	Method	$p = 0.7$	$p = 0.5$	$p = 0.3$
			Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)
50-150	20	HZ _P	0.00 (72.90, 75.14)	0.00 (73.17, 75.02)	0.00 (73.19, 74.84)
		HZ _O	1.32 (74.20, 76.62)	2.34 (75.15, 77.52)	3.91 (76.53, 79.13)
		Proposed	0.45 (73.24, 75.81)	0.14 (72.60, 75.61)	-1.55 (70.24, 74.77)
		Succuess	67.27	65.38	53
	30	HZ _P	0.00 (73.16, 75.02)	0.00 (73.16, 74.79)	0.00 (73.29, 74.75)
		HZ _O	1.49 (74.42, 76.53)	2.40 (75.52, 77.39)	3.94 (76.66, 79.01)
		Proposed	0.59 (73.56, 75.80)	-0.10 (72.82, 75.27)	-1.54 (70.87, 73.88)
		Succuess	73.24	71.86	61.52
	50	HZ _P	0.00 (73.22, 74.74)	0.00 (73.22, 74.65)	0.00 (73.26, 74.52)
		HZ _O	1.58 (74.62, 76.30)	2.39 (75.58, 77.12)	4.04 (76.90, 78.88)
		Proposed	0.52 (73.62, 75.39)	-0.14 (73.04, 74.80)	-1.52 (70.96, 73.59)
		Succuess	81.93	79.78	75.77
	100	HZ _P	0.00 (73.19, 74.54)	0.00 (73.36, 74.47)	0.00 (73.31, 74.31)
		HZ _O	1.53 (74.60, 76.12)	2.46 (75.64, 76.93)	4.12 (77.10, 78.60)
		Proposed	0.49 (73.73, 75.09)	0.02 (73.29, 74.56)	-1.40 (71.33, 73.37)
		Succuess	89.08	88.88	85.11
	20	HZ _P	0.00 (74.20, 75.67)	0.00 (74.24, 75.59)	0.00 (74.43, 75.48)
		HZ _O	0.87 (74.94, 76.70)	1.58 (75.65, 77.22)	2.80 (76.84, 78.51)
		Proposed	-0.06 (73.67, 76.08)	-0.36 (72.79, 75.73)	-0.97 (71.57, 75.51)
		Succuess	58.6	65.26	43.77
	30	HZ _P	0.00 (74.27, 75.59)	0.00 (74.33, 75.41)	0.00 (74.50, 75.38)
		HZ _O	0.97 (75.23, 76.64)	1.57 (75.81, 77.15)	2.82 (77.04, 78.52)
		Proposed	0.27 (74.33, 75.93)	-0.10 (73.77, 75.70)	-0.49 (73.09, 75.35)
		Succuess	66.09	71.96	52.09
	50	HZ _P	0.00 (74.39, 75.39)	0.00 (74.48, 75.34)	0.00 (74.64, 75.36)
		HZ _O	0.99 (75.38, 76.45)	1.55 (75.94, 76.97)	2.77 (77.21, 78.32)
		Proposed	0.25 (74.47, 75.88)	-0.07 (74.09, 75.54)	-0.55 (73.65, 75.38)
		Succuess	76.89	77.84	68.59
	100	HZ _P	0.00 (73.19, 74.54)	0.00 (73.36, 74.47)	0.00 (73.31, 74.31)
		HZ _O	1.53 (74.60, 76.12)	2.46 (75.64, 76.93)	4.12 (77.10, 78.60)
		Proposed	0.49 (73.73, 75.09)	0.02 (73.29, 74.56)	-1.40 (71.33, 73.37)
		Succuess	89.08	88.88	85.11

Median with 25th and 75th empirical quartiles (Q1, Q3) of the SAUC at $t = 2$ are reported. N denotes the number of the published studies. Proposed denotes the proposed sensitivity analysis method; BNM_P denotes the HZ model using the population (published and unpublished) studies; BNM_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of convergence among 1000 repetition All the entries are multiplied by 100.

Table 4: Summary of the estimated SAUC for Biomarker1 when the true censoring is distributed as $U(1,4)$, but a misspecified exponential distribution is fitted.

Patients	N	Method	$p = 0.7$	$p = 0.5$	$p = 0.3$
			Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)
50-150	20	HZ _P	0.00 (73.88, 76.73)	0.00 (73.80, 76.42)	0.00 (73.97, 75.82)
		HZ _O	1.01 (74.44, 78.02)	1.76 (74.98, 78.94)	3.59 (76.25, 80.80)
		Proposed	0.22 (73.32, 77.99)	0.13 (72.58, 78.00)	-2.18 (69.60, 77.58)
		Succuess	40.74	39.76	22.58
	30	HZ _P	0.00 (73.86, 76.13)	0.00 (73.89, 75.86)	0.00 (74.02, 75.59)
		HZ _O	1.05 (74.67, 77.55)	1.86 (75.24, 78.03)	3.14 (76.17, 79.85)
		Proposed	0.76 (74.00, 77.84)	0.36 (73.08, 77.64)	-1.94 (70.18, 75.73)
		Succuess	47.25	46.35	25.34
	50	HZ _P	0.00 (73.87, 75.71)	0.00 (74.03, 75.52)	0.00 (74.29, 75.40)
		HZ _O	1.02 (74.68, 77.00)	1.68 (75.24, 77.59)	2.86 (76.40, 79.07)
		Proposed	0.57 (74.13, 77.10)	0.17 (73.23, 76.74)	-2.04 (70.94, 75.25)
		Succuess	60.96	49.35	31.6
	100	HZ _P	0.00 (74.15, 75.38)	0.00 (74.26, 75.28)	0.00 (74.38, 75.20)
		HZ _O	1.04 (75.02, 76.62)	1.48 (75.50, 77.03)	2.73 (76.46, 78.42)
		Proposed	0.60 (74.25, 76.58)	-0.04 (73.84, 76.11)	-1.65 (71.73, 74.70)
		Succuess	71.2	59.76	43.83
50-300	20	HZ _P	0.00 (75.06, 77.18)	0.00 (75.10, 77.06)	0.00 (75.30, 76.68)
		HZ _O	0.95 (75.72, 78.53)	1.61 (76.15, 79.17)	3.36 (77.45, 81.04)
		Proposed	-0.19 (73.97, 77.94)	-1.04 (66.46, 77.31)	-5.57 (35.09, 77.52)
		Succuess	30.09	27.23	9.32
	30	HZ _P	0.00 (75.15, 77.00)	0.00 (75.17, 76.70)	0.00 (75.38, 76.57)
		HZ _O	0.91 (75.79, 78.20)	1.39 (76.07, 78.57)	2.89 (77.36, 80.34)
		Proposed	0.11 (74.71, 77.73)	-0.45 (73.74, 77.09)	-3.73 (53.37, 76.00)
		Succuess	34.2	27.88	11.8
	50	HZ _P	0.00 (75.28, 76.70)	0.00 (75.27, 76.50)	0.00 (75.28, 76.29)
		HZ _O	0.83 (75.82, 77.74)	1.27 (75.97, 78.22)	2.79 (77.29, 79.82)
		Proposed	0.32 (75.15, 77.33)	-0.20 (74.39, 76.85)	-2.26 (62.30, 76.66)
		Succuess	37.94	34.84	11.67
	100	HZ _P	0.00 (74.15, 75.38)	0.00 (74.26, 75.28)	0.00 (74.38, 75.20)
		HZ _O	1.04 (75.02, 76.62)	1.48 (75.50, 77.03)	2.73 (76.46, 78.42)
		Proposed	0.60 (74.25, 76.58)	-0.04 (73.84, 76.11)	-1.65 (71.73, 74.70)
		Succuess	71.2	59.76	43.83

Median with 25th and 75th empirical quartiles (Q1, Q3) of the SAUC at $t = 2$ are reported. N denotes the number of the published studies. Proposed denotes the proposed sensitivity analysis method; BNM_P denotes the HZ model using the population (published and unpublished) studies; BNM_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of convergence among 1000 repetition All the entries are multiplied by 100.

Table 5: Summary of the estimated SAUC for Biomarker2 when the true censoring is distributed as $U(1, 4)$, but a misspecified exponential distribution is fitted.

Patients	N	Method	$p = 0.7$	$p = 0.5$	$p = 0.3$
			Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)
50-150	20	HZ _P	0.00 (59.20, 61.22)	0.00 (59.40, 60.98)	0.00 (59.61, 60.82)
		HZ _O	1.41 (60.25, 62.94)	2.62 (61.39, 64.10)	5.10 (63.51, 67.13)
		Proposed	0.39 (58.92, 62.48)	0.03 (57.94, 62.91)	2.18 (57.88, 65.74)
		Succuess	46.32	45.84	42.6
	30	HZ _P	0.00 (59.44, 60.97)	0.00 (59.51, 60.84)	0.00 (59.67, 60.73)
		HZ _O	1.39 (60.67, 62.63)	2.59 (61.59, 63.81)	5.04 (63.81, 66.70)
		Proposed	0.02 (58.88, 61.49)	-0.72 (57.96, 61.31)	-0.58 (57.07, 65.21)
		Succuess	52.35	52.05	47.39
	50	HZ _P	0.00 (59.58, 60.75)	0.00 (59.66, 60.69)	0.00 (59.73, 60.54)
		HZ _O	1.33 (60.71, 62.27)	2.63 (61.85, 63.56)	5.18 (64.17, 66.37)
		Proposed	-0.42 (58.95, 60.83)	-1.16 (57.96, 60.12)	-1.57 (56.35, 61.30)
		Succuess	53.42	56.1	54.75
	100	HZ _P	0.00 (59.75, 60.55)	0.00 (59.83, 60.52)	0.00 (59.89, 60.45)
		HZ _O	1.33 (60.92, 62.03)	2.49 (62.06, 63.29)	4.96 (64.33, 65.92)
		Proposed	-0.57 (59.03, 60.32)	-1.42 (57.92, 59.58)	-2.49 (56.20, 59.39)
		Succuess	60.4	59.36	62.22
	20	HZ _P	0.00 (59.63, 61.21)	0.00 (59.74, 60.95)	0.00 (59.91, 60.85)
		HZ _O	1.34 (60.79, 62.63)	2.26 (61.56, 63.52)	4.03 (63.01, 65.63)
		Proposed	0.54 (59.49, 62.28)	0.37 (59.10, 62.36)	0.28 (58.23, 64.26)
		Succuess	37.56	37.56	32.56
	30	HZ _P	0.00 (59.77, 61.05)	0.00 (59.88, 60.84)	0.00 (60.00, 60.77)
		HZ _O	1.29 (60.91, 62.49)	2.23 (61.84, 63.33)	4.11 (63.31, 65.45)
		Proposed	0.08 (59.53, 61.76)	-0.32 (58.95, 61.27)	-0.67 (57.68, 61.85)
		Succuess	46.69	41.89	38.51
	50	HZ _P	0.00 (59.89, 60.78)	0.00 (59.87, 60.75)	0.00 (60.10, 60.71)
		HZ _O	1.23 (61.02, 62.23)	2.18 (61.87, 63.07)	3.99 (63.55, 65.17)
		Proposed	-0.09 (59.42, 61.06)	-0.52 (58.98, 60.66)	-1.38 (57.83, 60.47)
		Succuess	48.5	48.04	45.52
	100	HZ _P	0.00 (59.75, 60.55)	0.00 (59.83, 60.52)	0.00 (59.89, 60.45)
		HZ _O	1.33 (60.92, 62.03)	2.49 (62.06, 63.29)	4.96 (64.33, 65.92)
		Proposed	-0.57 (59.03, 60.32)	-1.42 (57.92, 59.58)	-2.49 (56.20, 59.39)
		Succuess	60.4	59.36	62.22

Median with 25th and 75th empirical quartiles (Q1, Q3) of the SAUC at $t = 2$ are reported. N denotes the number of the published studies. Proposed denotes the proposed sensitivity analysis method; BNM_P denotes the HZ model using the population (published and unpublished) studies; BNM_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of convergence among 1000 repetition All the entries are multiplied by 100.

Table 6: Summary of the estimated SAUC for Biomarker2 when the true censoring is distributed as $U(1, 4)$, but a misspecified exponential distribution is fitted.

Patients	N	Method	$p = 0.7$	$p = 0.5$	$p = 0.3$
			Median (Q1, Q3)	Median (Q1, Q3)	Median (Q1, Q3)
50-150	20	HZ _P	0.00 (73.27, 75.26)	0.00 (73.45, 75.18)	0.00 (73.57, 75.02)
		HZ _O	1.48 (74.67, 76.82)	2.25 (75.50, 77.48)	3.69 (76.64, 79.18)
		Proposed	0.54 (73.55, 76.04)	0.03 (73.05, 75.55)	-1.59 (70.74, 74.64)
		Succuess	43.57	42.2	38.02
	30	HZ _P	0.00 (73.54, 75.19)	0.00 (73.58, 75.08)	0.00 (73.81, 74.89)
		HZ _O	1.56 (75.07, 76.72)	2.27 (75.81, 77.41)	3.79 (77.12, 79.15)
		Proposed	0.58 (73.91, 75.90)	-0.15 (73.06, 75.21)	-1.75 (71.04, 74.26)
		Succuess	45.28	46.99	38.78
	50	HZ _P	0.00 (73.72, 75.04)	0.00 (73.63, 74.88)	0.00 (73.84, 74.75)
		HZ _O	1.61 (75.22, 76.60)	2.42 (76.02, 77.35)	3.91 (77.47, 78.98)
		Proposed	0.68 (74.21, 75.83)	-0.13 (73.38, 74.91)	-1.84 (71.42, 73.46)
		Succuess	52.66	57.99	48.35
	100	HZ _P	0.00 (73.77, 74.81)	0.00 (73.76, 74.74)	0.00 (73.86, 74.63)
		HZ _O	1.59 (75.30, 76.39)	2.49 (76.18, 77.24)	4.00 (77.67, 78.81)
		Proposed	0.64 (74.37, 75.49)	0.04 (73.70, 74.85)	-1.76 (71.71, 73.27)
		Succuess	58.82	59.11	58.94
50-300	20	HZ _P	0.00 (74.32, 75.77)	0.00 (74.39, 75.58)	0.00 (74.65, 75.62)
		HZ _O	0.90 (75.19, 76.75)	1.49 (75.73, 77.25)	2.83 (77.08, 78.59)
		Proposed	0.11 (74.20, 76.09)	0.00 (73.91, 75.79)	-1.30 (71.54, 75.15)
		Succuess	35.37	36.4	32.42
	30	HZ _P	0.00 (74.47, 75.70)	0.00 (74.53, 75.62)	0.00 (74.70, 75.49)
		HZ _O	0.95 (75.41, 76.65)	1.46 (75.91, 77.12)	2.76 (77.01, 78.51)
		Proposed	0.32 (74.61, 76.22)	-0.20 (73.97, 75.70)	-1.12 (72.46, 75.06)
		Succuess	42.61	43.25	31.92
	50	HZ _P	0.00 (74.55, 75.55)	0.00 (74.66, 75.49)	0.00 (74.75, 75.38)
		HZ _O	0.95 (75.48, 76.51)	1.50 (76.11, 77.05)	2.64 (77.15, 78.19)
		Proposed	0.40 (74.88, 76.01)	0.13 (74.49, 75.73)	-0.78 (73.20, 75.28)
		Succuess	49.5	48.08	34.23
	100	HZ _P	0.00 (73.77, 74.81)	0.00 (73.76, 74.74)	0.00 (73.86, 74.63)
		HZ _O	1.59 (75.30, 76.39)	2.49 (76.18, 77.24)	4.00 (77.67, 78.81)
		Proposed	0.64 (74.37, 75.49)	0.04 (73.70, 74.85)	-1.76 (71.71, 73.27)
		Succuess	58.82	59.11	58.94

Median with 25th and 75th empirical quartiles (Q1, Q3) of the SAUC at $t = 2$ are reported. N denotes the number of the published studies. Proposed denotes the proposed sensitivity analysis method; BNM_P denotes the HZ model using the population (published and unpublished) studies; BNM_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of convergence among 1000 repetition All the entries are multiplied by 100.