Simulation Result 1: C~Exp(0.2)

Success rate, include non-converged results

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

			$p = 0.7$		$p = 0.5$		$p = 0.3$	
Patients	N	Method	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR
50-150	20	HZ_P	74.97 (73.45, 76.48)	99.4	74.78 (73.43, 75.97)	99.2	74.68 (73.69, 75.66)	98.2
		HZ_O	76.30 (74.33, 78.03)	99.4	76.51 (74.57, 78.51)	99.2	77.03 (75.15, 79.14)	98.2
		$Prop_n$	75.53 (73.34, 77.73)	99.4	74.66 (72.30, 77.25)	99.2	73.74 (71.08, 76.28)	98.2
		$Prop_o$	76.29 (73.91, 78.60)	99.4	76.27 (73.63, 78.58)	99.2	75.96 (73.02, 78.95)	98.2
		$Prop_p$	75.73 (73.47, 77.88)	99.4	75.23 (73.02, 77.68)	99.2	74.70 (72.10, 77.02)	98.2
	30	HZ_P	74.79 (73.58, 75.95)	99.7	74.59 (73.54, 75.58)	99.6	74.52 (73.76, 75.32)	99.1
		HZ_O	75.89 (74.27, 77.41)	99.7	76.22 (74.54, 77.85)	99.6	77.01 (75.42, 78.57)	99.1
		$Prop_n$	75.27 (73.61, 77.12)	99.7	74.39 (72.43, 76.43)	99.6	73.74 (71.64, 76.14)	99.1
		$Prop_o$	75.66 (74.00, 77.81)	99.7	75.27 (73.10, 77.53)	99.6	75.27 (72.85, 77.47)	99.1
		$Prop_p$	75.38 (73.72, 77.27)	99.7	74.80 (72.84, 76.69)	99.6	74.48 (72.28, 76.40)	99.1
	50	HZ_P	74.68 (73.78, 75.58)	100.0	74.60 (73.73, 75.38)	100.0	74.52 (73.85, 75.12)	99.9
		HZ_O	75.76 (74.67, 76.93)	100.0	76.27 (75.06, 77.32)	100.0	76.79 (75.60, 78.07)	99.9
		$Prop_n$	75.15 (73.59, 76.57)	100.0	74.48 (73.00, 75.91)	100.0	73.78 (71.90, 75.78)	99.9
		$Prop_o$	75.32 (73.84, 76.85)	100.0	74.90 (73.30, 76.59)	100.0	74.45 (72.60, 76.53)	99.9
		$Prop_p$	75.19 (73.68, 76.58)	100.0	74.63 (73.16, 76.16)	100.0	74.21 (72.42, 76.02)	99.9
	100	HZ_P	74.54 (73.87, 75.17)	100.0	74.53 (73.96, 75.05)	100.0	74.42 (73.93, 74.82)	100.0
		HZ_O	75.53 (74.75, 76.31)	100.0	76.13 (75.32, 76.94)	100.0	76.80 (75.93, 77.54)	100.0
		$Prop_n$	74.83 (73.81, 76.07)	100.0	74.56 (73.37, 76.02)	100.0	74.05 (72.62, 75.44)	100.0
		$Prop_o$	74.96 (73.89, 76.18)	100.0	74.79 (73.61, 76.24)	100.0	74.33 (72.99, 75.66)	100.0
		$Prop_p$	74.88 (73.85, 76.11)	100.0	74.63 (73.50, 76.13)	100.0	74.20 (72.92, 75.48)	100.0
50-300	20	HZ_P	75.87 (74.66, 77.07)	99.4	75.73 (74.79, 76.82)	99.6	75.73 (74.99, 76.53)	98.9
		HZ_O	76.73 (75.22, 78.36)	99.4	77.29 (75.65, 78.87)	99.6	77.90 (76.18, 79.45)	98.9
		$Prop_n$	75.92 (73.60, 77.91)	99.4	75.45 (72.87, 77.78)	99.6	73.96 (69.71, 76.45)	98.9
		$Prop_o$	76.98 (74.93, 78.66)	99.4	76.96 (74.88, 78.91)	99.6	76.57 (74.66, 79.21)	98.9
		$Prop_p$	76.52 (74.68, 78.10)	99.4	76.35 (74.51, 77.90)	99.6	75.82 (73.93, 77.37)	98.9
	30	HZ_P	75.85 (74.85, 76.88)	100.0	75.68 (74.84, 76.53)	99.6	75.69 (75.03, 76.33)	99.7
		HZ_O	76.77 (75.43, 77.98)	100.0	77.02 (75.77, 78.34)	99.6	77.79 (76.19, 79.14)	99.7
		$Prop_n$	75.96 (74.29, 77.55)	100.0	75.55 (73.65, 77.53)	99.6	74.51 (71.58, 76.61)	99.7
		$Prop_o$	76.66 (75.17, 78.11)	100.0	76.45 (74.87, 78.35)	99.6	76.24 (74.59, 78.21)	99.7
		$Prop_p$	76.47 (75.03, 77.75)	100.0	76.02 (74.59, 77.53)	99.6	75.79 (74.15, 77.29)	99.7
	50	HZ_P	75.76 (74.96, 76.51)	100.0	75.61 (75.04, 76.22)	100.0	75.59 (75.08, 76.07)	100.0
		HZ_O	76.51 (75.48, 77.45)	100.0	76.75 (75.81, 77.69)	100.0	77.40 (76.36, 78.48)	100.0
		$Prop_n$	75.88 (74.75, 77.25)	100.0	75.51 (74.30, 76.84)	100.0	74.83 (73.01, 76.32)	100.0
		$Prop_o$	76.25 (75.15, 77.54)	100.0	75.96 (74.92, 77.23)	100.0	75.85 (74.57, 77.21)	100.0
		$Prop_p$	76.12 (75.04, 77.33)	100.0	75.79 (74.79, 76.96)	100.0	75.57 (74.42, 76.76)	100.0
	100	HZ_P	75.60 (75.04, 76.11)	100.0	75.53 (75.10, 75.98)	100.0	75.49 (75.15, 75.81)	100.0
		HZ_O	76.32 (75.58, 76.95)	100.0	76.56 (75.92, 77.29)	100.0	77.10 (76.37, 77.76)	100.0
		$Prop_n$	75.90 (75.12, 76.74)	100.0	75.60 (74.79, 76.49)	100.0	75.03 (74.02, 75.99)	100.0
		$Prop_o$	76.01 (75.20, 76.82)	100.0	75.82 (75.04, 76.65)	100.0	75.44 (74.65, 76.40)	100.0
		$Prop_p$	75.97 (75.15, 76.78)	100.0	75.74 (74.96, 76.59)	100.0	75.35 (74.54, 76.27)	100.0

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. Prop denotes the proposed sensitivity analysis method; HZ_P denotes the HZ model using the population (published and unpublished) studies; HZ_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of successfully convergenced estimates 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 $Exp(0.2)$.

			$p = 0.7$		$p = 0.5$		$p = 0.3$	
Patients	N	Method	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR
50-150	20	HZ_P	57.63 (56.65, 58.68)	98.7	57.74 (56.91, 58.64)	98.9	57.68 (57.07, 58.42)	97.8
		HZ_O	59.42 (58.40, 60.65)	98.7	60.69 (59.44, 61.90)	98.9	61.96 (60.72, 63.20)	97.8
		$Prop_n$	58.89 (57.56, 60.17)	98.7	59.51 (57.62, 61.13)	98.9	60.07 (57.02, 62.10)	97.8
		$Prop_o$	59.12 (57.82, 60.40)	98.7	60.34 (58.50, 61.74)	98.9	61.49 (59.17, 62.99)	97.8
		$Prop_p$	58.74 (57.45, 59.85)	98.7	59.17 (57.54, 60.66)	98.9	59.64 (57.22, 61.72)	97.8
	30	HZ_P	57.79 (56.95, 58.56)	99.6	57.77 (57.03, 58.42)	99.7	57.77 (57.23, 58.27)	97.6
		HZ_O	59.64 (58.67, 60.63)	99.6	60.64 (59.74, 61.60)	99.7	61.89 (60.92, 62.90)	97.6
		$Prop_n$	59.13 (57.76, 60.19)	99.6	59.62 (57.61, 61.07)	99.7	60.39 (56.93, 62.04)	97.6
		$Prop_o$	59.29 (58.03, 60.41)	99.6	60.28 (58.64, 61.39)	99.7	61.67 (60.12, 62.79)	97.6
		$Prop_p$	58.79 (57.67, 59.81)	99.6	59.29 (57.69, 60.63)	99.7	60.20 (57.32, 61.83)	97.6
	50	HZ_P	57.74 (57.09, 58.33)	99.9	57.73 (57.16, 58.24)	99.6	57.73 (57.32, 58.15)	95.8
		HZ_O	59.59 (58.88, 60.38)	99.9	60.67 (59.98, 61.41)	99.6	62.00 (61.22, 62.73)	95.8
		$Prop_n$	59.14 (58.21, 60.02)	99.9	59.71 (57.55, 60.92)	99.6	60.86 (56.98, 62.14)	95.8
		$Prop_o$	59.27 (58.21, 60.14)	99.9	60.48 (59.44, 61.24)	99.6	61.84 (60.66, 62.64)	95.8
		$Prop_p$	58.79 (57.76, 59.65)	99.9	59.48 (57.61, 60.63)	99.6	60.56 (57.09, 61.98)	95.8
	100	HZ_P	57.71 (57.31, 58.19)	100.0	57.72 (57.36, 58.10)	99.6	57.74 (57.44, 58.02)	95.9
		HZ_O	59.63 (59.13, 60.14)	100.0	60.68 (60.14, 61.21)	99.6	62.00 (61.44, 62.53)	95.9
		$Prop_n$	59.45 (58.71, 60.03)	100.0	59.59 (57.27, 60.72)	99.6	61.21 (57.19, 62.11)	95.9
		$Prop_o$	59.44 (58.51, 60.05)	100.0	60.56 (59.81, 61.14)	99.6	61.95 (61.30, 62.50)	95.9
		$Prop_p$	58.99 (57.97, 59.72)	100.0	59.69 (57.54, 60.69)	99.6	61.43 (57.61, 62.17)	95.9
50-300	20	HZ_P	57.91 (57.09, 58.64)	97.8	57.90 (57.31, 58.54)	97.8	57.93 (57.50, 58.38)	94.2
		HZ_O	59.27 (58.30, 60.07)	97.8	60.07 (59.24, 60.89)	97.8	61.06 (60.11, 61.99)	94.2
		$Prop_n$	58.47 (57.41, 59.46)	97.8	58.91 (57.46, 60.09)	97.8	59.51 (57.18, 61.26)	94.2
		$Prop_o$	58.92 (57.82, 59.91)	97.8	59.66 (58.02, 60.76)	97.8	60.78 (58.70, 61.94)	94.2
		$Prop_p$	58.38 (57.46, 59.23)	97.8	58.35 (57.17, 59.43)	97.8	57.90 (56.53, 59.14)	94.2
	30	HZ_P	57.95 (57.24, 58.59)	97.4	57.87 (57.37, 58.37)	97.5	57.92 (57.52, 58.33)	95.1
		HZ_O	59.34 (58.57, 60.05)	97.4	60.08 (59.44, 60.82)	97.5	61.07 (60.30, 61.81)	95.1
		$Prop_n$	58.42 (57.61, 59.26)	97.4	58.71 (57.41, 60.03)	97.5	59.90 (57.25, 61.33)	95.1
		$Prop_o$	58.82 (57.73, 59.89)	97.4	59.38 (57.65, 60.60)	97.5	60.78 (58.83, 61.78)	95.1
		$Prop_p$	58.32 (57.47, 59.11)	97.4	58.09 (57.19, 59.03)	97.5	57.60 (56.63, 58.77)	95.1
	50	HZ_P	57.95 (57.47, 58.40)	99.0	57.95 (57.50, 58.35)	98.3	57.93 (57.60, 58.23)	95.5
		HZ_O	59.35 (58.82, 59.91)	99.0	60.11 (59.55, 60.68)	98.3	61.10 (60.50, 61.64)	95.5
		$Prop_n$	58.31 (57.62, 59.03)	99.0	58.50 (57.47, 59.76)	98.3	60.14 (57.51, 61.22)	95.5
		$Prop_o$	58.62 (57.72, 59.49)	99.0	59.22 (57.64, 60.38)	98.3	60.94 (59.34, 61.58)	95.5
		$Prop_p$	58.22 (57.61, 58.89)	99.0	57.98 (57.18, 58.74)	98.3	57.45 (56.64, 58.30)	95.5
	100	HZ_P	57.89 (57.56, 58.21)	99.1	57.91 (57.61, 58.18)	99.6	57.93 (57.68, 58.15)	94.1
		HZ_O	59.27 (58.92, 59.64)	99.1	60.12 (59.71, 60.53)	99.6	61.04 (60.66, 61.49)	94.1
		$Prop_n$	58.02 (57.53, 58.50)	99.1	58.03 (57.29, 59.57)	99.6	60.49 (57.42, 61.18)	94.1
		$Prop_o$	58.17 (57.61, 58.89)	99.1	58.56 (57.48, 60.04)	99.6	60.94 (60.03, 61.45)	94.1
		$Prop_p$	58.00 (57.52, 58.45)	99.1	57.74 (57.17, 58.29)	99.6	57.31 (56.69, 57.91)	94.1

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. Prop denotes the proposed sensitivity analysis method; HZ_P denotes the HZ model using the population (published and unpublished) studies; HZ_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of successfully convergenced estimates among 1000 repetition. All the entries are multiplied by 100.

Table 3: Summary of the estimated SAUC for Biomarker1 when the true censoring is distributed as $U(1,4)$, but a misspecified exponential distribution is fitted.

			$p = 0.7$		$p = 0.5$		$p = 0.3$	
Patients	N	Method	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR
50-150	20	HZ_P	75.07 (73.54, 76.47)	99.9	74.95 (73.75, 76.05)	100	75.01 (74.04, 75.88)	100.0
		HZ_O	76.29 (74.13, 78.10)	99.9	76.81 (74.77, 78.67)	100	77.66 (75.62, 79.53)	100.0
		$Prop_n$	76.43 (74.01, 78.84)	99.9	75.37 (72.79, 77.89)	100	73.79 (71.39, 76.53)	100.0
		$Prop_o$	77.15 (74.91, 79.43)	99.9	77.37 (74.61, 79.83)	100	77.27 (73.85, 80.34)	100.0
		$Prop_p$	76.47 (74.27, 78.62)	99.9	75.88 (73.57, 77.99)	100	75.18 (72.99, 77.49)	100.0
	30	HZ_P	75.05 (73.89, 76.20)	100.0	74.92 (73.98, 75.91)	100	74.88 (74.06, 75.66)	100.0
		HZ_O	76.24 (74.85, 77.58)	100.0	76.76 (75.36, 78.17)	100	77.27 (75.80, 78.85)	100.0
		$Prop_n$	76.19 (74.35, 78.33)	100.0	75.32 (73.20, 77.59)	100	73.61 (71.47, 75.97)	100.0
		$Prop_o$	76.90 (74.82, 79.14)	100.0	76.73 (74.40, 79.05)	100	76.41 (73.55, 79.17)	100.0
		$Prop_p$	76.27 (74.64, 78.23)	100.0	75.76 (73.92, 77.63)	100	74.85 (72.72, 76.92)	100.0
	50	HZ_P	74.94 (73.92, 75.78)	100.0	74.81 (74.04, 75.59)	100	74.80 (74.21, 75.36)	100.0
		HZ_O	75.95 (74.84, 77.03)	100.0	76.31 (75.05, 77.39)	100	76.98 (75.87, 78.08)	100.0
		$Prop_n$	75.86 (74.36, 77.53)	100.0	74.92 (73.09, 76.49)	100	73.40 (71.84, 75.31)	100.0
		$Prop_o$	76.23 (74.65, 78.08)	100.0	75.76 (73.70, 77.91)	100	75.09 (73.05, 77.74)	100.0
		$Prop_p$	75.94 (74.50, 77.38)	100.0	75.09 (73.51, 76.59)	100	74.43 (72.73, 76.17)	100.0
	100	HZ_P	74.81 (74.14, 75.41)	100.0	74.77 (74.27, 75.28)	100	74.76 (74.30, 75.19)	100.0
		HZ_O	75.81 (74.98, 76.59)	100.0	76.32 (75.54, 77.10)	100	77.03 (76.18, 77.76)	100.0
		$Prop_n$	75.55 (74.46, 76.75)	100.0	74.86 (73.64, 76.24)	100	73.62 (72.32, 74.97)	100.0
		$Prop_o$	75.68 (74.51, 77.01)	100.0	75.24 (74.01, 76.66)	100	74.72 (73.23, 76.53)	100.0
		$Prop_p$	75.54 (74.48, 76.72)	100.0	74.98 (73.85, 76.25)	100	74.34 (73.01, 75.60)	100.0
50-300	20	HZ_P	76.22 (75.28, 77.32)	99.9	76.13 (75.17, 77.04)	100	75.97 (75.20, 76.64)	99.9
		HZ_O	77.13 (75.76, 78.71)	99.9	77.74 (76.27, 79.15)	100	78.24 (76.68, 79.81)	99.9
		$Prop_n$	77.23 (74.27, 80.09)	99.9	76.84 (73.69, 79.38)	100	75.25 (71.38, 77.56)	99.9
		$Prop_o$	78.04 (75.16, 80.72)	99.9	78.19 (75.32, 81.35)	100	78.01 (74.75, 81.51)	99.9
		$Prop_p$	77.43 (75.14, 79.55)	99.9	76.91 (74.83, 78.65)	100	76.05 (74.26, 77.71)	99.9
	30	HZ_P	76.08 (75.08, 76.99)	100.0	75.98 (75.14, 76.71)	100	75.82 (75.30, 76.36)	100.0
		HZ_O	76.99 (75.62, 78.19)	100.0	77.50 (76.27, 78.79)	100	78.15 (76.64, 79.48)	100.0
		$Prop_n$	76.70 (74.55, 79.18)	100.0	76.56 (73.80, 78.95)	100	75.33 (72.40, 77.26)	100.0
		$Prop_o$	77.29 (75.08, 79.86)	100.0	77.38 (74.93, 80.52)	100	77.18 (74.52, 80.73)	100.0
		$Prop_p$	76.96 (75.11, 78.73)	100.0	76.55 (74.86, 78.17)	100	76.04 (74.49, 77.57)	100.0
	50	HZ_P	75.97 (75.23, 76.61)	100.0	75.93 (75.36, 76.50)	100	75.82 (75.34, 76.26)	100.0
		HZ_O	76.72 (75.82, 77.63)	100.0	77.31 (76.24, 78.24)	100	77.80 (76.50, 79.06)	100.0
		$Prop_n$	76.51 (74.95, 78.27)	100.0	76.14 (74.18, 77.92)	100	75.03 (72.96, 76.79)	100.0
		$Prop_o$	76.74 (75.36, 78.82)	100.0	76.73 (75.00, 78.84)	100	76.16 (74.46, 78.70)	100.0
		$Prop_p$	76.63 (75.38, 78.08)	100.0	76.44 (75.08, 77.62)	100	75.64 (74.52, 76.95)	100.0
	100	HZ_P	75.86 (75.31, 76.34)	100.0	75.80 (75.37, 76.19)	100	75.75 (75.40, 76.05)	100.0
		HZ_O	76.51 (75.79, 77.16)	100.0	76.84 (76.15, 77.60)	100	77.37 (76.62, 78.16)	100.0
		$Prop_n$	76.21 (75.25, 77.34)	100.0	75.66 (74.52, 76.81)	100	74.65 (73.27, 75.74)	100.0
		$Prop_o$	76.33 (75.39, 77.43)	100.0	76.15 (75.17, 77.16)	100	75.37 (74.40, 76.49)	100.0
		$Prop_p$	76.32 (75.47, 77.20)	100.0	76.01 (75.11, 76.89)	100	75.30 (74.47, 76.16)	100.0

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. Prop denotes the proposed sensitivity analysis method; HZ_P denotes the HZ model using the population (published and unpublished) studies; HZ_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of successfully convergenced estimates among 1000 repetition. All the entries are multiplied by 100.

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

			$p = 0.7$		$p = 0.5$		$p = 0.3$	
Patients	N	Method	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR	Median (Q1, Q3)	CR
50-150	20	HZ_P	57.78 (56.84, 58.68)	99.3	57.80 (56.96, 58.65)	99.6	57.79 (57.16, 58.39)	99.2
		HZ_O	59.82 (58.64, 60.88)	99.3	61.09 (59.90, 62.16)	99.6	62.47 (61.29, 63.67)	99.2
		$Prop_n$	58.80 (57.30, 60.27)	99.3	59.43 (57.16, 61.33)	99.6	60.24 (56.70, 62.73)	99.2
		$Prop_o$	59.72 (58.21, 60.94)	99.3	60.78 (59.17, 62.13)	99.6	62.19 (60.38, 63.62)	99.2
		$Prop_p$	58.71 (57.60, 59.84)	99.3	58.83 (57.39, 60.22)	99.6	58.44 (56.70, 60.35)	99.2
	30	HZ_P	57.72 (56.99, 58.42)	99.3	57.79 (57.13, 58.40)	99.7	57.82 (57.29, 58.32)	98.9
		HZ_O	59.79 (58.96, 60.71)	99.3	61.08 (60.17, 61.93)	99.7	62.52 (61.65, 63.44)	98.9
		$Prop_n$	58.80 (57.54, 60.01)	99.3	59.27 (57.10, 61.18)	99.7	61.19 (56.81, 62.87)	98.9
		$Prop_o$	59.60 (58.42, 60.57)	99.3	60.66 (59.07, 61.74)	99.7	62.18 (60.11, 63.25)	98.9
		$Prop_p$	58.58 (57.60, 59.57)	99.3	58.61 (57.28, 59.96)	99.7	58.04 (56.56, 60.13)	98.9
	50	HZ_P	57.90 (57.27, 58.43)	99.9	57.84 (57.34, 58.29)	99.6	57.79 (57.37, 58.16)	98.4
		HZ_O	59.97 (59.30, 60.62)	99.9	61.10 (60.49, 61.76)	99.6	62.43 (61.72, 63.12)	98.4
		$Prop_n$	58.85 (57.69, 60.10)	99.9	59.08 (57.26, 61.16)	99.6	61.67 (57.00, 62.82)	98.4
		$Prop_o$	59.61 (58.39, 60.48)	99.9	60.64 (58.53, 61.55)	99.6	62.13 (59.47, 63.01)	98.4
		$Prop_p$	58.51 (57.77, 59.39)	99.9	58.32 (57.39, 59.55)	99.6	57.70 (56.48, 59.24)	98.4
	100	HZ_P	57.82 (57.37, 58.21)	99.8	57.80 (57.47, 58.17)	99.6	57.81 (57.54, 58.08)	99.6
		HZ_O	59.85 (59.38, 60.32)	99.8	61.12 (60.64, 61.59)	99.6	62.45 (61.98, 62.94)	99.6
		$Prop_n$	58.67 (57.57, 59.89)	99.8	58.92 (57.23, 61.14)	99.6	62.19 (57.18, 62.83)	99.6
		$Prop_o$	59.53 (58.60, 60.14)	99.8	60.55 (58.17, 61.33)	99.6	61.96 (57.73, 62.72)	99.6
		$Prop_p$	58.36 (57.69, 59.07)	99.8	57.91 (57.24, 58.84)	99.6	57.26 (56.42, 58.31)	99.6
50-300	20	HZ_P	58.01 (57.28, 58.74)	98.1	57.90 (57.33, 58.50)	98.1	58.00 (57.50, 58.45)	96.7
		HZ_O	59.52 (58.68, 60.39)	98.1	60.33 (59.49, 61.11)	98.1	61.40 (60.52, 62.26)	96.7
		$Prop_n$	58.59 (57.52, 59.78)	98.1	58.56 (57.36, 59.97)	98.1	59.60 (57.22, 61.51)	96.7
		$Prop_o$	59.47 (58.31, 60.47)	98.1	60.12 (58.74, 61.12)	98.1	61.34 (60.08, 62.37)	96.7
		$Prop_p$	58.40 (57.45, 59.34)	98.1	58.03 (57.16, 58.98)	98.1	57.73 (56.65, 58.71)	96.7
	30	HZ_P	57.97 (57.37, 58.56)	98.2	57.96 (57.43, 58.41)	97.3	57.91 (57.58, 58.30)	98.9
		HZ_O	59.50 (58.84, 60.14)	98.2	60.41 (59.66, 61.00)	97.3	61.33 (60.65, 61.98)	98.9
		$Prop_n$	58.36 (57.49, 59.34)	98.2	58.35 (57.33, 59.76)	97.3	60.02 (57.21, 61.48)	98.9
		$Prop_o$	59.19 (58.07, 60.01)	98.2	60.16 (58.58, 61.01)	97.3	61.23 (60.09, 61.94)	98.9
		$Prop_p$	58.23 (57.47, 58.98)	98.2	58.04 (57.23, 58.74)	97.3	57.56 (56.65, 58.38)	98.9
	50	HZ_P	57.94 (57.50, 58.43)	98.1	57.93 (57.51, 58.30)	98.7	57.94 (57.66, 58.22)	99.3
		HZ_O	59.47 (58.97, 59.99)	98.1	60.35 (59.83, 60.86)	98.7	61.36 (60.79, 61.83)	99.3
		$Prop_n$	58.23 (57.54, 58.99)	98.1	58.17 (57.32, 59.35)	98.7	58.92 (56.96, 61.42)	99.3
		$Prop_o$	58.94 (58.00, 59.77)	98.1	60.01 (58.07, 60.79)	98.7	61.20 (59.88, 61.81)	99.3
		$Prop_p$	58.15 (57.58, 58.79)	98.1	57.87 (57.19, 58.53)	98.7	57.42 (56.64, 58.12)	99.3
	100	HZ_P	57.93 (57.63, 58.24)	99.6	57.92 (57.68, 58.18)	99.6	57.93 (57.73, 58.13)	99.9
		HZ_O	59.47 (59.11, 59.83)	99.6	60.32 (59.99, 60.72)	99.6	61.40 (61.02, 61.75)	99.9
		$Prop_n$	58.08 (57.65, 58.58)	99.6	57.94 (57.37, 58.63)	99.6	60.82 (57.20, 61.58)	99.9
		$Prop_o$	58.48 (57.86, 59.44)	99.6	59.93 (57.85, 60.59)	99.6	61.23 (60.28, 61.67)	99.9
		$Prop_p$	58.06 (57.65, 58.50)	99.6	57.79 (57.27, 58.30)	99.6	57.35 (56.75, 57.93)	99.9

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. Prop denotes the proposed sensitivity analysis method; HZ_P denotes the HZ model using the population (published and unpublished) studies; HZ_O denotes the HZ model using only the observed (published) studies. CR denotes the proportion of successfully convergenced estimates among 1000 repetition. All the entries are multiplied by 100.