

Supplement appendix 2: Result of joinpoint regression model analysis of mortality due to drowning in sub-national level (N=12641), 2011-2022, Iran

Province	Time point	APC	Lower and Upper CI	P-value	AAPC	Lower and Upper CI	P-value
East- Azerbaijan	2011-2014	-19.47	47.85 to 24.35	0.23	-3.39	-20.82 to 17.87	0.73
	2014-2017	56.34	-35.78 to 280.64	0.23			
	2017-2022	-19.27*	-32.42 to -3.56	0.02			
West- Azerbaijan	2011-2015	-9.46	-27.77 to 13.49	0.28	2.90	-11.54 to 19.71	0.71
	2015-2018	16.47	-41.44 to 131.6	0.57			
	2018-2022	6.58	-10.41 to 26.81	0.36			
Ardebil	2011-2013	-8.82	60.35 to 109.67	0.77	-3.90	-18.40 to 13.16	0.63
	2013-2019	0.23	-18.19 to 22.82	0.97			
	2019-2022	-8.54	44.41 to 50.46	0.64			
Isfahan	2011-2016	-0.69	17.11 to 18.97	0.91	-0.48	-16.12 to 18.05	0.95
	2016-2019	18.88	-44.67 to 155.47	0.56			
	2019-2022	-16.41	-40.18 to 16.81	0.21			
Alborz	2011-2017	0.70	-6.91 to 8.94	0.81	3.04	-6.32 to 13.35	0.53
	2017-2020	20.52	-19.38 to 80.18	0.26			
	2020-2022	-12.72	-39.33 to 25.56	0.35			
Ilam	2011-2016	1.72	-16.12 to 23.37	0.81	-3.52	-21.62 to 18.74	0.73
	2016-2019	19.87	-53.38 to 208.30	0.62			
	2019-2022	-28.92	-52.83 to 7.10	0.08			
Bushehr	2011-2014	-29.98*	-48.10 to -5.54	0.02	-2.27	-16.87 to 14.89	0.780
	2014-2017	36.05	-36.35 to 190.88	0.323			
	2017-2022	-2.13	-13.16 to 10.30	0.64			

Province	Time point	APC	Lower and Upper CI	P-value	AAPC	Lower and Upper CI	P-value
Tehran	2011-2016	-9.16	-19.53 to 2.54	0.09	-0.24	-11.54 to 12.49	0.96
	2016-2019	18.05	-30.87 to 101.61	0.43			
	2019-2022	-1.46	-23.24 to 26.49	0.87			
Chaharmahal and Bakhtiari	2011-2016	-7.23	-19.29 to 6.63	0.20	-1.46	-14.08 to 13.01	0.83
	2016-2019	33.33	-27.58 to 145.49	0.26			
	2019-2022	-19.47	-39.33 to 6.90	0.10			
South- Khorasan	2011-2013	0.60	-93.94 to 1572.39	0.99	3.80	-33.18 to 61.2589	0.86
	2013-2020	21.71	-7.61 to 60.34	0.11			
	2020-2022	-38.65	-88.98 to 241.70	0.47			
Raza- Khorasan	2011-2015	-4.02	-38.65 to 50.15	0.81	5.36	-14.02 to 29.13	0.61
	2015-2020	7.68	-25.70 to 56.07	0.60			
	2020-2022	20.28	-52.13 to 202.28	0.60			
North- Khorasan	2011-2017	-4.58	-39.37 to 50.16	0.78	-0.92	-43.06 to 72.38	0.97
	2017-2020	34.29	-86.18 to 1205.50	0.73			
	2020-2022	-29.71	-92.70 to 577.19	0.68			
Khuzestan	2011-2013	-15.55	-44.35 to 28.16	0.32	-6.85	-14.25 to 1.18	0.09
	2013-2019	-0.46	-10.34 to 10.49	0.90			
	2019-2022	-12.90	-32.35 to 12.12	0.20			
Zanjan	2011-2014	-18.70	-59.80 to 64.44	0.46	-3.70	-29.96 to 32.39	0.81
	2014-2017	28.98	-69.26 to 441.2	0.64			
	2017-2022	-10.56	-30.75 to 15.52	0.29			
Semnan	2011-2016	0.01	-23.26 to 30.36	0.99	5.61	-19.71 to 38.93	0.69
	2016-2019	24.06	-66.00 to 352.85	0.66			

Province	Time point	APC	Lower and Upper CI	P-value	AAPC	Lower and Upper CI	P-value
Sistan	2019-2022	-1.55	-33.80 to 46.42	0.91	-2.14	-11.86 to 8.64	0.68
	2011-2014	-16.38	-37.38 to 11.65	0.16			
	2014-2020	12.79	-0.17 to 27.45	0.05			
Fars	2020-2022	-19.13	-54.94 to 45.12	0.37	0.84	-10.22 to 13.27	0.88
	2011-2015	-7.43	-24.89 to 14.09	0.36			
	2015-2019	12.57	-20.3 to 59.00	0.39			
Qazvin	2019-2022	-2.38	-25.76 to 28.34	0.81	1.05	-15.98 to 21.55	0.91
	2011-2015	-10.46	-37.94 to 29.16	0.44			
	2015-2020	13.07	-20.96 to 61.77	0.39			
Qom	2020-2022	-2.77	-58.64 to 128.56	0.93	2.05	-27.71 to 44.09	0.90
	2011-2016	4.82	-37.64 to 76.20	0.81			
	2016-2020	19.09	-44.98 to 157.79	0.56			
Kurdistan	2020-2022	-29.89	-88.11 to 313.48	0.60	-5.78	-12.71 to 1.69	0.12
	2011-2014	-12.92	-28.48 to 6.02	0.12			
	2014-2020	5.33	-3.83 to 15.38	0.18			
Kerman	2020-2022	-24.14	-51.07 to 17.60	0.15	3.28	-23.41 to 39.27	0.83
	2011-2017	-1.58	-22.99 to 25.77	0.86			
	2017-2020	21.44	-66.98 to 346.74	0.70			
Kermanshah	2020-2022	-6.38	-66.69 to 163.17	0.86	-3.28	-16.86 to 12.51	0.66
	2011-2017	-3.09	-13.03 to 7.98	0.46			
	2017-2020	27.46	-30.83 to 134.91	0.33			
Kohgiluyeh	2020-2022	-36.44	-67.35 to 23.70	0.13	-4.15	-34.37 to 39.96	0.82
	2011-2016	-7.44	-35.69 to 33.20	0.58			

Province	Time point	APC	Lower and Upper CI	P-value	AAPC	Lower and Upper CI	P-value
	2016-2019	15.57	-78.82 to 530.85	0.82			
	2019-2022	-15.75	-61.67 to 85.18	0.57			
Golestan	2011-2014	-33.27	-83.50 to 169.86	0.46	-13.10	-49.63 to 49.89	0.61
	2014-2019	5.67	-66.50 to 233.38	0.90			
	2019-2022	-18.34	-82.67 to 284.71	0.73			
Gilan	2011-2013	9.38	-39.69 to 98.40	0.69	0.53	-10.72 to 13.21	0.93
	2013-2017	-9.66	-33.99 to 23.63	0.41			
	2017-2022	5.87	-7.16 to 20.74	0.29			
Lorestan	2011-2013	-3.94	-66.93 to 179.03	0.92	-3.49	-20.30 to 16.85	0.71
	2013-2019	8.82	-13.64 to 37.13	0.36			
	2019-2022	-23.8642	-54.648 to 27.82	0.21			
Mazandaran	2011-2013	11.64	-26.92 to 70.58	0.51	-2.53	-10.99 to 6.73	0.58
	2013-2017	-20.72	-37.94 to 1.26	0.05			
	2017-2022	8.90	-2.82 to 22.06	0.10			
Markazi	2011-2014	-7.53	-63.47 to 134.04	0.82	2.88	-23.84 to 39.00	0.85
	2014-2019	23.19	-34.03 to 130.06	0.40			
	2019-2022	-15.20	-58.06 to 71.47	0.55			
Hormozgan	2011-2015	-15.69	-38.89 to 16.31	0.214	-2.53	-19.25 to 17.63	0.78
	2015-2020	9.51	-25.31 to 60.57	0.54			
	2020-2022	-2.65	-60.61 to 140.58	0.93			
Hamadan	2011-2013	-4.68	-86.13 to 555.17	0.94	6.21	-22.08 to 44.81	0.70
	2013-2019	19.76	-14.07 to 66.94	0.20			
	2019-2022	-10.19	-55.68 to 81.97	0.69			

Province	Time point	APC	Lower and Upper CI	P-value	AAPC	Lower and Upper CI	P-value
Yazd	2011-2013	8.08	-60.38 to 194.87	0.84	1.25	-24.97 to 36.65	0.93
	2013-2016	-18.89	-79.24 to 216.93	0.69			
	2016-2022	10.69	-6.89 to 31.61	0.17			

•*p<0.05

Abbreviation: AAPC, Average Annual Percent Change; APC, Annual Percent Change; CI, Confidence Interval