



HEALTHCARE COSTS IN THE LONG-TERM

NICHOLAS ACTUARIAL SOLUTIONS

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This white paper examines the healthcare cost in Malaysia in the long-term, examining the age and quality of living aspects, using a data science approach. This is a succinct summary. We welcome discussions and collaborations.

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BACKGROUND

Future healthcare cost can be expressed as a multiplicative function of the current healthcare cost, medical inflation, age and quality of healthcare services. We present the age factors and quality factors in this paper, derived using data science techniques.

AGE FACTOR

Age	Factor	Age	Factor	Age	Factor
1	1.3435633	34	1.1329481	67	6.6245491
2	1.2727519	35	1.1742415	68	7.0430819
3	1.2101091	36	1.2191340	69	7.4862984
4	1.1547146	37	1.2678453	70	7.9550661
5	1.1057794	38	1.3206150	71	8.4502002
6	1.0626258	39	1.3777028	72	8.9724499
7	1.0246710	40	1.4393904	73	9.5224830
8	0.9914139	41	1.5059815	74	10.1008698
9	0.9624242	42	1.5778035	75	10.7080659
10	0.9373313	43	1.6552087	76	11.3443933
11	0.9158178	44	1.7385750	77	12.0100213
12	0.8976122	45	1.8283074	78	12.7049463
13	0.8824832	46	1.9248390	79	13.4289705
14	0.8702346	47	2.0286321	80	14.1816815
15	0.8607020	48	2.1401793	81	14.9624304
16	0.8537488	49	2.2600044	82	15.7703108
17	0.8492637	50	2.3886634	83	16.6041381
18	0.8471579	51	2.5267453	84	17.4624303
19	0.8473638	52	2.6748726	85	18.3433893
20	0.8498327	53	2.8337017	86	19.2448848
21	0.8545336	54	3.0039236	87	20.1644403
22	0.8614528	55	3.1862627	88	21.0992215
23	0.8705919	56	3.3814779	89	22.0460295
24	0.8819682	57	3.5903606	90	23.0012965
25	0.8956133	58	3.8137342	91	23.9610867
26	0.9115740	59	4.0524521	92	24.9211027
27	0.9299107	60	4.3073958	93	25.8766967
28	0.9506986	61	4.5794714	94	26.8228880
29	0.9740270	62	4.8696069	95	27.7543872
30	1.0000000	63	5.1787473	96	28.6656269
31	1.0287364	64	5.5078497	97	29.5507985
32	1.0603704	65	5.8578774	98	30.4038978
33	1.0950523	66	6.2297927	99	31.2187748

QUALITY FACTOR

Quality Multiple	Factor	Quality Multiple	Factor
1.00	1.000000	1.75	1.206690
1.25	1.077794	2.00	1.262018
1.50	1.145829		

BACKGROUND

“Healthcare Costs in the Long-Term Using Data Science Techniques in Actuarial Work” is our ninth issue of succinct white paper. Our objective of issuing succinct white papers is to enable our thought leadership to reach a wider audience, and make a larger positive impact. Our white papers are publicly available and we do not claim any proprietary intellectual property on the contents.

ABOUT US

Nicholas Actuarial Solutions is founded as a platform to collaborate with like-minded businesses and individuals to make a difference. Our interests are wide and varied, with our core focus being the actuarial field.

Our mission is to develop and implement novel and cutting-edge solutions to make our clients more successful.

It is our vision to achieve global recognition of our thought leadership and innovative solutions in the actuarial field.

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