## 1 S9 Table. Expected lifetime disease-related cases, deaths, and costs in German adults ≥60 years (#5-#7)

Scenario		#5	i		#6 (#1 with 50% revaccination rate)				#7 (#2 with 50% revaccination rate)			
(description)	(#1 wit	h 64% NBP Ef	fectiveness	PPSV23)								
	Cur-	Hypothet-	Δ	95% CI	Current	Hypothet-ical	Δ	95% CI	Current	Hypothet- ical	Δ	95% CI
No. of Cases												
IPD (in thou-				(-0.819,				(-1.064,				(-1.157,
sands)	24.502	24.495	-0.008	0.792)	24.646	24.624	-0.023	1.161)	24.510	24.468	-0.042	1.075)
NBP (in millions)										<u> </u>		I
Requiring In-				(-0.035,				(-0.051, -				(-0.050, -
patient Care	6.471	6.446	-0.026	-0.013)	6.478	6.439	-0.039	0.020)	6.477	6.440	-0.037	0.019)
Requiring				(-0.053,				(-0.045, -				(-0.040, -
Outpatient Care	9.082	9.044	-0.038	-0.024)	9.103	9.081	-0.022	0.005)	9.103	9.084	-0.019	0.002)
No. of Deaths (in				(-0.009,				(-0.013,				(-0.013,
millions)	1.318	1.314	-0.004	0.001)	1.317	1.310	-0.007	0.000)	1.317	1.310	-0.007	0.000)
Total Costs (in billi	ons)									<u> </u>		I
Medical Care				(-0.150,				(-0.155, -				(-0.148, -
	16.357	16.279	-0.079	-0.006)	16.347	16.230	-0.116	0.071)	16.368	16.256	-0.112	0.065)
Non-Medical				(-0.006,				(-0.010, -				(-0.009, -
Care	0.676	0.673	-0.003	0.000)	0.679	0.674	-0.005	0.001)	0.679	0.674	-0.005	0.001)
Vaccination				(0.329,				(0.329,				(0.214,
	0.311	0.641	0.330	0.331)	0.312	0.641	0.330	0.331)	0.312	0.526	0.215	0.216)

Total												
Medical +				(0.180,				(0.176,				(0.067,
Vaccination	16.669	16.920	0.251	0.324)	16.658	16.872	0.213	0.258)	16.679	16.782	0.103	0.149)
Medical +												
Non-Medical +				(0.176,				(0.171,				(0.062,
Vaccination	17.345	17.593	0.248	0.320)	17.337	17.545	0.208	0.255)	17.358	17.456	0.098	0.146)
Patient-Level Resu	ılts											
Total Costs												
Medical Care				(-6.93, -				(-7.14, -				(-6.81, -
	755.14	751.51	-3.63	0.28)	754.66	749.28	-5.37	3.27)	755.64	750.47	-5.17	3.02)
Non-Medical				(-0.28, -				(-0.44, -				(-0.42, -
Care	31.23	31.07	-0.16	0.02)	31.34	31.10	-0.25	0.05)	31.34	31.11	-0.23	0.04)
Vaccination				(15.20,				(15.19,				
	14.38	29.61	15.23	15.26)	14.38	29.61	15.23	15.27)	14.38	24.29	9.91	(9.87, 9.96)
Total			1									1
Medical +				(8.30,				(8.11,				
Vaccination	769.52	781.12	11.60	14.95)	769.04	778.89	9.86	11.93)	770.02	774.76	4.74	(3.10, 6.86)
Medical +												
Non-Medical +				(8.14,				(7.88,				
Vaccination	800.75	812.19	11.44	14.78)	800.38	809.99	9.61	11.77)	801.36	805.87	4.51	(2.87, 6.75
Life-Years (dis-	10.317			(-0.0040,				(-0.0046,				(-0.0045,
counted)	5	10.3182	0.0007	0.0046)	10.3164	10.3182	0.0018	0.0076)	10.3166	10.3182	0.0016	0.0071)
QALY (discount-				(-0.0032,				(-0.0032,				(-0.0031,
ed)	8.6846	8.6852	0.0006	0.0036)	7.0067	7.0078	0.0011	0.0046)	7.0068	7.0078	0.0009	0.0042)

Healthcare System Perspective									
Cost per Life-									
Year Gained	€16,345	€5,404	€2,921						
Cost per QALY									
Gained	€20,720	€9,135	€5,149						
Societal Perspective									
Cost per Life-									
Year Gained	€16,121	€5,270	€2,777						
Cost per QALY									
Gained	€20,437	€8,908	€4,896						

QALY: quality-adjusted life year

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Note: Low-risk is specified as immunocompetent patients without any chronic medical conditions, moderate-risk describes immunocompetent patients with at least one chronic medical condition and high-risk represent immunocompromised/immunosuppressed patients, with or without chronic medical conditions (congenital or acquired). Healthcare system perspective includes medical and vaccination costs; societal perspective includes medical, and vaccination costs.