

Supplementary Table 1: Monthly mean hospitalization rates and standard deviation (SD) during influenza seasons compared with the preceding summers, 2005 – 2013 per 100,000 residents.

Age (Years)	Diagnoses	Summer Mean (SD)	Influenza Mean (SD)	Percent change between influenza and preceding summer season Mean [95% CI]*	Wilcoxon p-value
All	All	421.1 (24.1)	441.1 (40.1)	4.8 [-0.3, 9]	0.068
	Resp/cardio (390-519)	222.1 (22.8)	263.3 (37.2)	18.6 [9.5, 27.1]	< 0.001
	Flu/Pneumo (480-487)	26.2 (2.3)	42.1 (8.7)	60.8 [48.7, 70.1]	< 0.001
0	All	1339.8 (124.0)	1779.5 (376.6)	32.8 [17.8, 45.7]	< 0.001
	Resp/cardio (390-519)	189.0 (35.1)	775.5 (374.8)	310.4 [199.8, 372.6]	< 0.001
	Flu/Pneumo (480-487)	52.5 (12.7)	171.6 (67.8)	226.9 [160, 278.4]	< 0.001
1-4	All	437.1 (41.5)	510.0 (82.1)	16.7 [6.3, 24.9]	< 0.001
	Resp/cardio (390-519)	101.9 (17.9)	177.3 (42.5)	73.9 [53.1, 89.6]	< 0.001
	Flu/Pneumo (480-487)	41.7 (10.4)	87 (25.6)	108.6 [82, 128.9]	< 0.001
5-14	All	182.6 (11.9)	166.6 (12.6)	-8.8 [-12.4, -5.3]	< 0.001
	Resp/cardio (390-519)	32.2 (5.2)	38.3 (7.6)	19.0 [6.3, 28.4]	< 0.01
	Flu/Pneumo (480-487)	10.4 (3.5)	13.9 (5.1)	34.5 [8.5, 55]	< 0.05
15-24	All	131.4 (6.2)	114.0 (7.6)	-13.2 [-16.7, -10.2]	< 0.001
	Resp/cardio (390-519)	24.0 (2.1)	26.6 (4.1)	10.8 [1.8, 15.6]	< 0.05
	Flu/Pneumo (480-487)	5.1 (1.3)	6.7 (2)	30.1 [8.4, 42.5]	< 0.005
25-34	All	100.9 (5.5)	88.0 (8.7)	-12.8 [-18, -8.4]	< 0.001
	Resp/cardio (390-519)	26.5 (3.0)	30.3 (4.5)	14.3 [5.4, 22.4]	< 0.01
	Flu/Pneumo (480-487)	6.3 (1.6)	8.1 (1.9)	28.4 [10.8, 45.4]	< 0.01
35-44	All	168.9 (18.6)	149.4 (21.2)	-11.6 [-18.3, -5.3]	< 0.001
	Resp/cardio (390-519)	63.4 (11.2)	64.5 (13.0)	1.7 [-10.9, 12.3]	0.8
	Flu/Pneumo (480-487)	8.8 (2.0)	11.5 (2.8)	31.0 [14.7, 44.2]	< 0.001
45-54	All	337.6 (31.3)	315.0 (39.3)	-6.7 [-13.2, -0.8]	< 0.05
	Resp/cardio (390-519)	182.8 (27.9)	181.0 (31.0)	-1.0 [-12.2, 8.1]	0.9
	Flu/Pneumo (480-487)	13.1 (1.7)	18.4 (3.8)	40.8 [29.1, 51.8]	< 0.001

55-64	All	586.7 (59.2)	591.3 (80.2)	0.8 [-6.2, 7.6]	0.84
	Resp/cardio (390-519)	388.1 (61.8)	411.4 (73.4)	6.0 [-6.0, 15.4]	0.22
	Flu/Pneumo (480-487)	25.7 (2.8)	38.3 (7.0)	49.0 [36.8, 58.6]	< 0.001
65-74	All	1204.1 (130.9)	1265.4 (172.8)	5.1 [-2.4, 11.1]	0.19
	Resp/cardio (390-519)	882.9 (135.6)	964.1 (170.5)	9.2 [-1.9, 18.4]	0.11
	Flu/Pneumo (480-487)	64.0 (6.1)	96.8 (21.7)	51.3 [38.4, 62.4]	< 0.001
75-84	All	2291.6 (155.0)	2482.8 (258.6)	8.3 [1.9, 13.5]	< 0.01
	Resp/cardio (390-519)	1712.2 (180.5)	1934.8 (267.4)	13.0 [3.7, 20.4]	< 0.01
	Flu/Pneumo (480-487)	162.6 (12.7)	241.1 (46.7)	48.3 [39.3, 57.5]	< 0.001
85+	All	3693.2 (269.7)	4214.7 (494.7)	14.1 [7.1, 20.1]	< 0.001
	Resp/cardio (390-519)	2749.9 (277.7)	3289.6 (478.7)	19.6 [10.7, 27.8]	< 0.001
	Flu/Pneumo (480-487)	393.6 (33.4)	581.8 (124.3)	47.8 [36.1, 59.5]	< 0.001

*95% CI for mean locations

Supplementary Table 2: Monthly mean rates of hospitalization days during influenza season compared with the preceded summer, 2005 – 2013 per 100,000 residents

Age (Years)	Diagnoses	Summer Mean (SD)	Influenza Mean (SD)	Percent change between influenza and preceding summer season Mean [95% CI]*	Wilcoxon p-value
All	All	1705 (70.6)	1841.2 (123.1)	8.0 [4.1, 11.16]	< 0.001
	Resp/cardio (390-519)	1040.6 (78.2)	1236.6 (136.6)	18.8 [12.6, 24.6]	< 0.001
	Flu/Pneumo (480-487)	174.9 (10.4)	252.1 (44.6)	44.2 [34.4, 52.1]	< 0.001
0	All	5004.5 (579.6)	6877.8 (1480.6)	37.4 [21.4, 48.4]	< 0.001
	Resp/cardio (390-519)	1125.3 (259.9)	3449.8 (1539.3)	206.6 [131.6, 246.7]	< 0.001
	Flu/Pneumo (480-487)	317.1 (115.2)	811.6 (306.5)	155.9 [102.9, 202.6]	< 0.001
1-4	All	1353.5 (145.2)	1592.3 (245.7)	17.6 [7.9, 26.0]	< 0.001
	Resp/cardio (390-519)	399.4 (80.9)	627.5 (150.3)	57.1 [40.6, 71.1]	< 0.001
	Flu/Pneumo (480-487)	166.5 (43.0)	310.1 (91.0)	86.3 [62.7, 102.9]	< 0.001
5-14	All	584.9 (34.5)	550.8 (47.7)	-5.8 [-10.1, -2.8]	< 0.01
	Resp/cardio (390-519)	137.6 (23.8)	161.1 (32.6)	17.1 [4.2, 27.1]	< 0.05
	Flu/Pneumo (480-487)	45.4 (16.4)	63.5 (22.2)	39.8 [15.5, 57.8]	< 0.001
15-24	All	407.6 (22.3)	371 (33.7)	-9.0 [-13.6, -5.3]	< 0.001
	Resp/cardio (390-519)	100.8 (14.3)	111.9 (18.8)	10.9 [0.8, 19.1]	< 0.05
	Flu/Pneumo (480-487)	28.7 (9.0)	34.1 (10.3)	18.5 [-1.8, 34.1]	0.059
25-34	All	324.1 (29.5)	287.9 (25.6)	-11.2 [-15.6, -6.5]	< 0.001
	Resp/cardio (390-519)	107.7 (20.6)	121.3 (22.5)	12.6 [4.5, 20.8]	< 0.01
	Flu/Pneumo (480-487)	30.2 (9.1)	38.7 (12.5)	28.3 [8.3, 40.7]	< 0.01
35-44	All	526.3 (56.2)	475.5 (52.5)	-9.6 [-15.9, -3.0]	< 0.01
	Resp/cardio (390-519)	230.4 (34.2)	233.3 (37.8)	1.3 [-8.6, 9.2]	0.88
	Flu/Pneumo (480-487)	45.3 (11.1)	56.7 (15.6)	25.1 [6.9, 38.8]	< 0.01
45-54	All	1148.5 (86.9)	1096.5 (107.6)	-4.5 [-9.8, 0.7]	0.078
	Resp/cardio (390-519)	683.8 (86.3)	687.4 (93.4)	0.5 [-7.1, 8.6]	0.87
	Flu/Pneumo (480-487)	85.6 (13.0)	105.7 (24.9)	23.4 [10, 37.8]	< 0.01

55-64	All	2270.6 (173.7)	2310.3 (228.2)	1.7 [-3.7,6]	0.55
	Resp/cardio (390-519)	1593.5 (195.7)	1702.7 (233.0)	6.9 [-1.9, 13.1]	0.12
	Flu/Pneumo (480-487)	186.5 (28.2)	236.6 (39.7)	26.9 [17.1, 37.2]	< 0.001
65-74	All	5315.9 (506.0)	5725.6 (664.9)	7.7 [0.9, 13.7]	< 0.05
	Resp/cardio (390-519)	4061.5 (527.8)	4542.5 (687.9)	11.8 [2.1, 19.7]	< 0.05
	Flu/Pneumo (480-487)	495.8 (58.9)	667.8 (157.1)	34.7 [22.6, 45.7]	< 0.001
75-84	All	11435.9 (561.2)	12616.2 (957.0)	10.3 [5.9, 13.3]	< 0.001
	Resp/cardio (390-519)	8858.7 (646.8)	10166.9 (1088.2)	14.8 [8.3, 19.4]	< 0.001
	Flu/Pneumo (480-487)	1305.9 (133.5)	1835.3 (320.9)	40.5 [28.8, 49.1]	< 0.001
85+	All	19590.7 (1054.6)	22646.8 (1967.5)	15.6 [11.6, 19.4]	< 0.001
	Resp/cardio (390-519)	15229 (1244.4)	18374.5 (2087.2)	20.7 [14.5, 27.2]	< 0.001
	Flu/Pneumo (480-487)	3132.8 (351.4)	4354.3 (845.9)	39.0 [29.4,48.1]	< 0.001

*95% CI for mean locations