



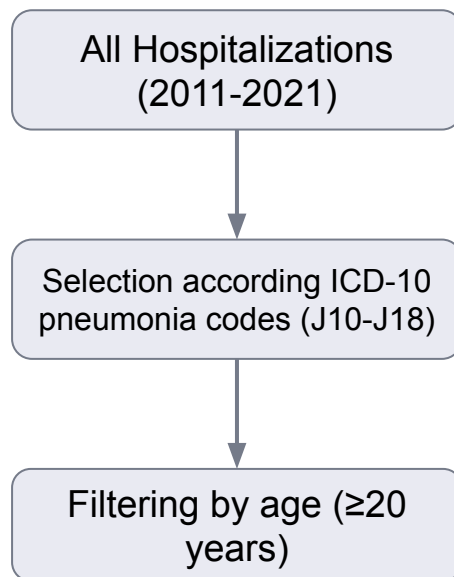
Community-acquired pneumonia in Brazil

IND2620 - Healthcare Operations Management

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Community-acquired pneumonia in Brazil

Selection of community-acquired pneumonia cases



Community-acquired pneumonia in Brazil

Informations by Region

Data Information	2011	2012	2013	2014	2015	2016	2017	2018	2019	%Δ*	AAPC [95% CI]	2020	2021	%Δ*	AAPC [95% CI]
Admissions	362,159	344,545	359,744	344,402	339,809	338,561	351,769	349,995	353,591	-2.37	-0.19 [-0.23 ; -0.15]	259,030	222,710	-37.01	-21.12 [-21.33 ; -20.91]
South	84,638	80,327	84,718	78,494	78,895	86,906	83,924	82,880	80,403	-5.00	-0.05 [-0.14 ; 0.04]	50,548	42,771	-46.80	-28.17 [-28.59 ; -27.74]
North	25,683	25,503	26,474	25,900	23,595	20,793	24,965	25,011	25,231	-1.76	-0.76 [-0.92 ; -0.6]	19,415	17,040	-32.46	-18.17 [-18.96 ; -17.37]
Northeast	85,814	77,000	81,068	79,515	81,580	69,061	81,625	84,532	86,787	1.13	0.35 [0.27 ; 0.44]	55,786	54,132	-37.63	-22.25 [-22.67 ; -21.82]
Southeast	136,663	133,306	136,724	131,235	127,786	134,384	134,129	131,308	133,712	-2.16	-0.25 [-0.32 ; -0.18]	111,833	93,840	-29.82	-16.23 [-16.58 ; -15.89]
Central-West	29,361	28,409	30,760	29,258	27,953	27,417	27,126	26,264	27,458	-6.48	-1.36 [-1.51 ; -1.21]	21,448	14,927	-45.64	-25.83 [-26.55 ; -25.11]
Age-adjusted Admissions rate ^a	286	265	268	249	238	230	231	223	218	-23.78	-3.26 [-3.31 ; -3.21]	157	131	-39.91	-23.13 [-23.4 ; -22.87]
South	435	399	407	364	353	377	350	334	313	-28.05	-3.46 [-3.57 ; -3.35]	192	157	-49.84	-30.43 [-30.98 ; -29.87]
North	334	324	322	311	281	237	280	272	264	-20.96	-3.31 [-3.48 ; -3.13]	192	163	-38.26	-21.83 [-22.68 ; -20.96]
Northeast	253	223	229	220	220	182	210	212	212	-16.21	-2.03 [-2.14 ; -1.93]	134	127	-40.09	-23.87 [-24.4 ; -23.33]
Southeast	236	223	221	205	193	197	189	180	177	-25.00	-3.58 [-3.66 ; -3.49]	146	119	-32.77	-18.1 [-18.56 ; -17.65]
Central-West	370	342	357	328	306	287	276	256	257	-30.54	-4.84 [-5 ; -4.67]	192	129	-49.81	-28.82 [-29.65 ; -27.98]
Deaths	43,615	45,225	49,196	49,246	52,225	55,595	55,836	57,379	59,337	36.05	3.9 [3.78 ; 4.01]	52,464	48,017	-19.08	-10.1 [-10.64 ; -9.55]
South	8,341	8,877	9,817	9,938	9,847	11,233	10,620	11,343	11,341	35.97	3.74 [3.48 ; 4]	9,182	9,222	-18.68	-10.15 [-11.4 ; -8.89]
North	1,738	1,944	1,934	2,213	2,330	2,508	2,871	3,025	3,138	80.55	7.97 [7.41 ; 8.54]	2,926	2,597	-17.24	-8.96 [-11.28 ; -6.57]
Northeast	6,982	7,458	9,246	9,416	10,979	11,215	12,239	12,594	13,420	92.21	8.24 [7.96 ; 8.51]	10,030	9,671	-27.94	-15.68 [-16.8 ; -14.56]
Southeast	23,622	23,993	24,901	24,255	25,265	26,806	26,359	26,601	27,352	15.79	1.86 [1.7 ; 2.03]	26,626	23,535	-13.96	-7.13 [-7.92 ; -6.32]
Central-West	2,932	2,953	3,298	3,424	3,804	3,833	3,747	3,816	4,086	39.36	4.09 [3.65 ; 4.54]	3,700	2,992	-26.77	-14.17 [-16.15 ; -12.15]
Age-adjusted In-hospital Mortality rate ^a	35	35	37	35	36	37	36	36	35	0.00	0.18 [0.04 ; 0.32]	31	27	-22.86	-12.65 [-13.35 ; -11.95]
South	43	44	47	45	43	47	42	43	42	-2.33	-0.6 [-0.93 ; -0.27]	33	32	-23.81	-12.98 [-14.66 ; -11.27]
North	26	29	27	30	31	32	35	36	36	38.46	4.29 [3.72 ; 4.86]	32	27	-25.00	-12.6 [-15.02 ; -10.11]
Northeast	21	22	26	26	29	29	31	31	32	52.38	5.42 [5.09 ; 5.76]	24	22	-31.25	-17.76 [-19.16 ; -16.33]
Southeast	41	40	40	37	37	38	36	35	35	-14.63	-2.06 [-2.27 ; -1.86]	33	28	-20.00	-9.46 [-10.53 ; -8.37]
Central-West	40	39	41	41	44	42	40	38	39	-2.50	-0.29 [-0.77 ; 0.19]	34	27	-30.77	-17.95 [-20.21 ; -15.63]

AAPC - Annual Average Percent Change (estimated from Poisson regression model)

^a Rates per 100,000 population, adjusted to the WHO standard population

*Percentage change between 2011-2019 and 2019-2021, respectively

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Lethality by Region

Data Information	2011	2012	2013	2014	2015	2016	2017	2018	2019	%Δ*	AAPC [95% CI]	2020	2021	%Δ*	AAPC [95% CI]
Age-adjusted In-hospital Lethality rate	6.59%	7.02%	7.31%	7.39%	7.98%	8.66%	8.19%	8.58%	8.66%	31.54	3.48 [3.29 ; 3.68]	10.77%	11.64%	34.36	16.12 [14.96 ; 17.3]
South	5.10%	5.77%	5.85%	6.31%	6.22%	6.20%	5.91%	6.31%	6.60%	29.31	2.15 [1.69 ; 2.6]	8.73%	11.53%	74.62	32.14 [29.01 ; 35.34]
North	4.19%	4.63%	4.55%	5.24%	6.05%	7.23%	6.74%	7.23%	7.49%	78.61	8.06 [7.18 ; 8.94]	9.01%	9.17%	22.36	10.93 [6.5 ; 15.55]
Northeast	4.19%	4.63%	4.55%	5.24%	6.05%	7.23%	6.74%	7.23%	7.49%	78.61	8.06 [7.18 ; 8.94]	9.01%	9.17%	22.36	10.93 [6.5 ; 15.55]
Southeast	9.78%	9.91%	9.97%	9.61%	10.69%	10.77%	10.30%	11.10%	10.84%	10.74	1.55 [1.28 ; 1.82]	12.83%	14.14%	30.51	14.3 [12.66 ; 15.97]
Central-West	5.82%	5.87%	6.29%	6.48%	7.32%	8.17%	7.75%	8.23%	8.24%	41.55	5.15 [4.42 ; 5.89]	9.42%	11.40%	38.39	17.49 [13 ; 22.16]
Age-adjusted ICU Lethality rate	45.36%	44.94%	45.46%	45.88%	46.62%	45.59%	44.22%	44.20%	39.87%	-12.10	-1.12 [-1.45 ; -0.78]	39.90%	39.59%	-0.69	-0.34 [-2.14 ; 1.49]
South	42.99%	44.70%	42.02%	44.04%	43.96%	42.67%	38.81%	38.74%	34.09%	-20.70	-2.62 [-3.34 ; -1.88]	34.05%	40.39%	18.47	8.71 [4.19 ; 13.42]
North	51.92%	55.85%	57.50%	55.26%	58.47%	62.40%	56.39%	55.67%	51.55%	-0.71	-0.12 [-1.64 ; 1.42]	56.53%	49.99%	-3.03	-1.35 [-8.69 ; 6.58]
Northeast	51.92%	55.85%	57.50%	55.26%	58.47%	62.40%	56.39%	55.67%	51.55%	-0.71	-0.12 [-1.64 ; 1.42]	56.53%	49.99%	-3.03	-1.35 [-8.69 ; 6.58]
Southeast	44.35%	42.42%	40.87%	40.97%	43.99%	41.67%	41.37%	41.63%	37.39%	-15.69	-1.17 [-1.67 ; -0.66]	36.72%	37.43%	0.11	0.09 [-2.57 ; 2.83]
Central-West	44.64%	40.60%	48.77%	43.27%	44.30%	45.79%	40.24%	47.43%	42.26%	-5.33	-0.2 [-1.22 ; 0.82]	42.92%	39.33%	-6.93	-3.21 [-8.57 ; 2.46]

AAPC - Annual Average Percent Change (estimated from Poisson regression model)

*Percentage change between 2011-2019 and 2019-2021, respectively

Obrigado!

Dúvidas?