

# 2020 DEATHS IN BIRMINGHAM

Birmingham Demographic Brief 2021/05 January 2022

Transport and Connectivity
Inclusive Growth Directorate
<a href="www.birmingham.gov.uk/census">www.birmingham.gov.uk/census</a>
Brenda.henry@birmingham.gov.uk

0121 303 4208

#### **Summary**

There were 10,359 deaths registered in Birmingham in 2020, this is up 25.3% on the previous year. This is the highest number of deaths registered in Birmingham since the 1990's. There were almost 2,000 deaths registered during the peak of the pandemic in April 2020. 16.0% of deaths in Birmingham mentioned COVID on the death certificate. There were more male than female deaths due to COVID, except in the oldest age group.

## 2020 Deaths in Birmingham

## **Death registrations**

Table 1: Death registrations and Age Standardised Mortality Rates (ASMR1)

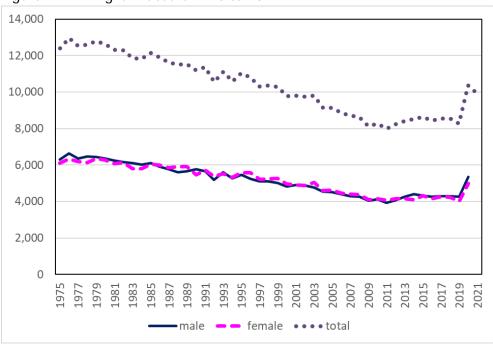
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Death Statistic	Birmingham	West Midlands region	England
2020 Total Population	1,140,500	5,961,900	56,550,100
2020 Population - Males	566,300	2,956,900	27,982,800
2020 Population -Females	574,300	3,005,000	28,567,300
2020 Deaths -Total	10,359	64,739	569,700
2020 Deaths -Males	5,361	33,112	288,742
2020 Deaths -Females	4,998	31,627	280,958
2019 Deaths -Total	8,267	5,4601	496,370
2019 Deaths -Male	4,251	27,477	247,894
2019 Deaths -Female	4,061	27,124	248,476
2020 ASMR <sup>1</sup> -Overall	1,245.4	1,122.5	1,042.7
2020 ASMR <sup>1</sup> -Males	1,497.8	1,335.6	1,231.1
2020 ASMR <sup>1</sup> -Females	1,040.4	950.1	888.9

<sup>1</sup> The age-standardised mortality rates are expressed per 100,000 population. Age-standardised rates are used to allow comparison between populations which may contain different proportions of people of different ages.

Source: ONS, Crown Copyright 2022

There were 10,359 deaths registered in Birmingham in 2020 calendar year, this is up 25.3% on the previous year, this compares with an 18.6% increase for the region and 14.8% nationally. 2020 deaths were influenced by the COVID-19 pandemic - 16.0% of deaths in Birmingham stated COVID-19 as the underlying cause of death or as a contributory factor.

Figure 1: Birmingham deaths 1975 to 2021<sup>1</sup>



Death registration from 1995 include boundary changes implemented April, 1995 Death registrations before 1995 do not include (Parish of Frankley and Kitwell)

1. Death registrations remain provisional until final annual data are released Source: ONS, Crown Copyright 2022

Figure 1 shows 1975 time series for death registrations in Birmingham. Since 1975 the overall number of deaths have been on a downward trajectory until 2013, from 2013 the number of deaths is generally upward, there was a sharp rise in 2020 due to the COVID pandemic. 2020 saw the highest number of death registrations since the 1990's.

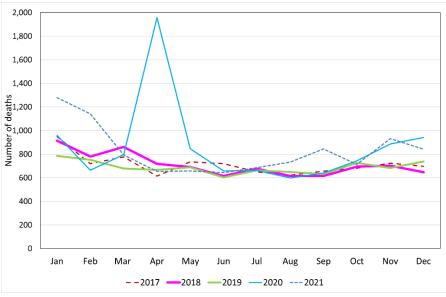


Figure 2: 2017 to 2021 monthly deaths - Birmingham

Monthly deaths for 2021 are provisional Source: ONS, Crown Copyright 2022

Figure 2 shows month on month deaths for years 2015 to 2021. The number of deaths in 2020 and 2021 were raised due the effects of the Coronavirus pandemic. The first wave of the virus peaked in April 2020, where almost 2,000 deaths were registered. During the 2<sup>nd</sup> lockdown starting November 2020 death registrations peaked at around 1,000 in December 2020. The 3<sup>rd</sup> national lockdown starting January 2021 showed a peak of 1,300 deaths in January 2021.

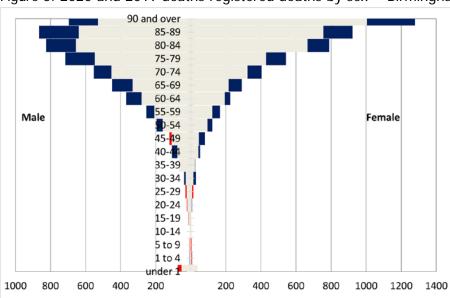


Figure 3: 2020 and 2019 deaths registered deaths by sex - Birmingham

Source: ONS, Crown Copyright 2022

Figure 3 shows 2020 and 2019 deaths by five-year age groups.

As is expected most deaths are concentrated at the older ages. 19% (1,974) of deaths were to those aged 90 and over, this is similar to the proportion of over nineties dying in 2019 (18.5%). There was an increase of 2,090 deaths in 2020 compared with 2019. People age 75 years and over accounted for 64% of the increase. There were 363 (6.8%) more male deaths than female in 2020, this compares with 235 (5.5%) in 2019. There were more then twice the number of deaths for children under 1 (90) than the sum of deaths for children aged 1 to 19 (42). There are more male than female deaths at all ages except for those aged 85 and over. The very elderly age groups shows significantly more female deaths than male, this reflects greater female longevity.

#### Mortality rates

Table 1 shows Age Standardised Mortality Rates (ASMRs), these take account of population size and age structure and so are a better measure of mortality than looking at the number of deaths. In 2020 Birmingham's mortality rate for both males and female was higher than the national and regional rates. Overall, there were 1,245 deaths per 100,000 of the population compared with 1,043 per 100,000 for England.

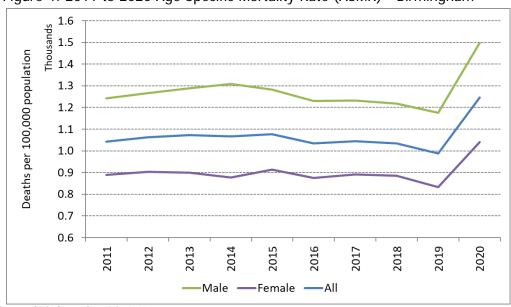


Figure 4: 2011 to 2020 Age Specific Mortality Rate (ASMR) - Birmingham

Source: ONS, Crown Copyright 2022

Figure 4 shows the ASMR 2011 Birmingham time series, the rate for males was above that for females for all years, the ASMR for both males and females rose sharply in 2020 – an increase of 28% for females and 25% for males.

Figure 5: Infant mortality rate 2001 to 2020

Source: Office for National Statistics, Crown Copyright 2022

Figure 5 compares 2011 to 2020 infant mortality rates in Birmingham with regional and national rates. Birmingham's infant mortality rate decreased from 7.3 deaths per 1,000 births in 2019 to 6.0 deaths per 1,000 births in 2020. Infant mortality rates were higher in Birmingham than the region (5.5) and national (4.0) averages.

#### Coronavirus

Figure 6 shows deaths due to COVID compared with deaths due to other causes. Between March and December 2020 there were 1,648 (16%) deaths where COVID-19 was the sited as the underlying cause or a contributory factor. The older age groups were most impacted by COVID-19. COVID was responsible for 18.3% of deaths in each of the older age groups - 80-84, 85-89 and 90 plus. More males than females died because of COVID, 933 (57%) male compared with 715 (43%) female. Despite there been more females in all age groups, except those aged below 35. The 90 plus age group was the exception where there were more female deaths than male.

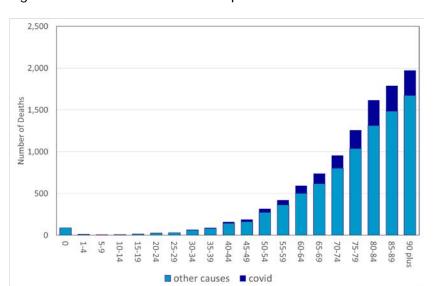


Figure 6: 2020 COVID deaths compared with other causes – Birmingham

Figure 7

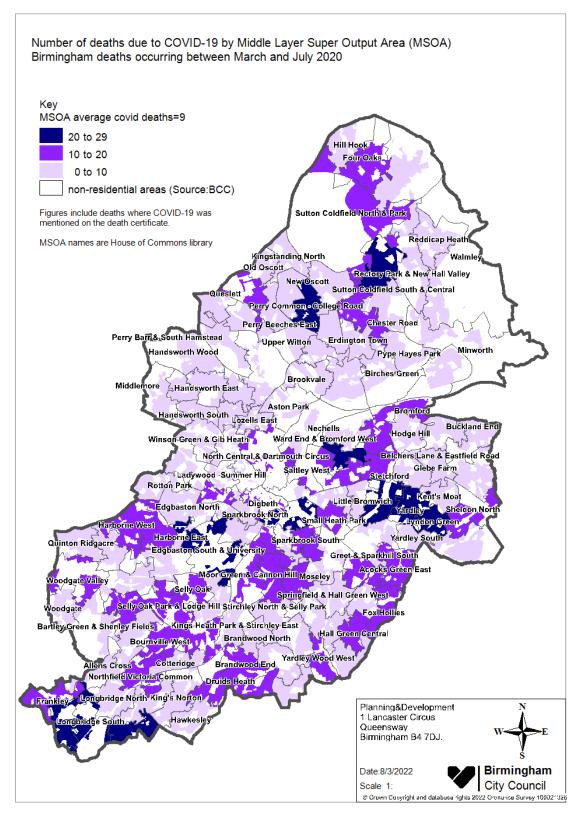


Figure 7 shows that the distribution of COVID deaths in Birmingham. Death registrations were 2 - 3 times the city average in pockets of the North, East and extreme southern periphery of Birmingham.

#### Deaths in small areas of Birmingham

250 registered numbers of deaths 200 100 50 Jewellery Quarter Hall Green North Sheldon Ladywoo Sutton Mere Green King's Norton North Sutton Walmley & Minwortl Sutton Vese Handsworth Woo Bournbrook & Selly Par Small Heat King's Norton Sout Yardley West & Stechfor Bournville & Cotterid Edgbasto Sutton Wylde Gree Druids Heath & Monyh Sparkbrook & Balsall Heath Perry Com

Figure 8: Deaths registered during 2019 - Birmingham wards

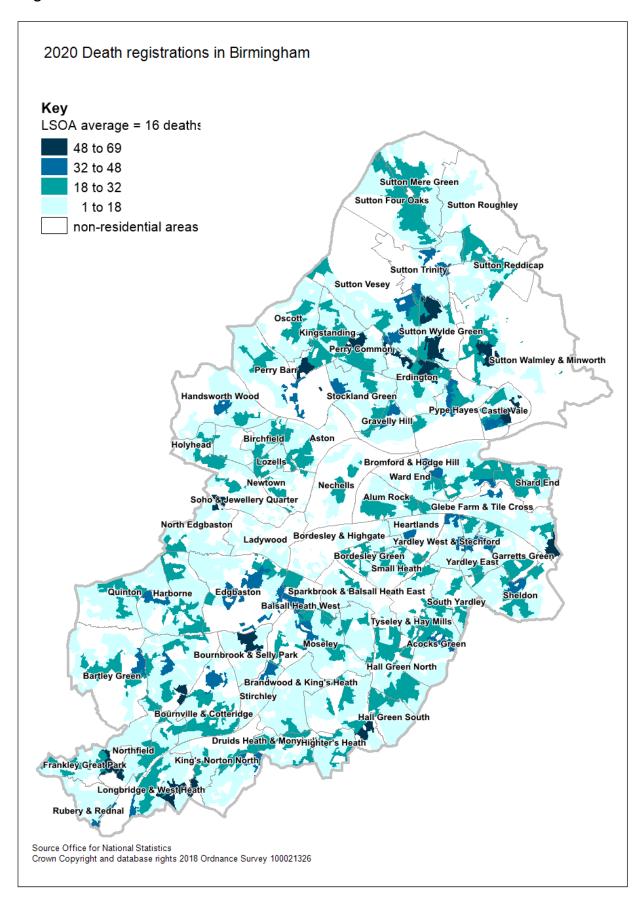
2020 Death information is not yet available for current wards

Source: Office for National Statistics, Deaths Statistics 2019, Copyright 2021

Soho &

Figure 8 shows 2019 Birmingham ward death registrations. Erdington (258), Longbridge & West Heath (217) and Weoly & Selly Oak (197) registered the highest number of deaths. The fewest number of registrations were from Bordesley Green (48), Lozells (50) and Bordesely & Highgate (50). 2020 ward death registrations are not yet published for Birmingham's current boundaries. Figure 9 shows the number of deaths distributed by Birmingham LSOAS.

Figure 9



Appendix I: 2001 to 2019 Death registrations in Wards – Birmingham

Ward	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Acocks Green	287	279	295	257	223	253	246	263	245	231	235	190	235	206	220	219	229	230	213	189
Allens Cross	99	94	87	78	86	98	91	85	99	84	86	85	95	86	94	96	81	95	88	80
Alum Rock	168	150	142	142	142	125	136	118	122	115	129	124	120	108	122	117	115	119	119	119
Aston	121	146	161	122	115	90	129	123	97	93	121	94	110	108	112	118	112	110	126	105
Balsall Heath West	88	82	89	94	79	61	91	58	72	48	72	48	85	60	88	81	69	75	85	65
Bartley Green	230	205	206	211	222	237	191	206	217	190	199	189	172	196	195	225	206	234	203	193
Billesley	249	254	236	253	229	235	224	208	225	228	203	198	205	217	223	213	193	225	216	188
Birchfield	73	66	81	80	78	70	70	56	59	69	60	55	51	57	74	79	61	51	73	64
Bordesley & Highgate	68	62	58	58	60	56	57	45	58	59	54	57	48	46	51	58	61	47	53	50
Bordesley Green	79	67	86	96	79	56	75	84	62	53	57	68	53	74	64	70	81	65	63	48
Bournbrook & Selly Park	153	136	140	168	143	153	115	168	122	125	150	103	109	106	124	100	131	112	101	97
Bournville & Cotteridge	242	224	230	250	215	197	207	185	213	163	196	173	192	191	170	195	172	198	168	169
Brandwood & King's Heath	163	176	163	155	139	142	136	137	149	130	126	140	138	136	135	141	118	137	145	137
Bromford & Hodge Hill	247	201	225	205	184	188	189	209	178	171	175	163	169	189	203	165	189	155	205	193
Castle Vale	93	106	86	94	102	104	103	131	100	118	110	144	109	123	107	158	143	136	142	136
Druids Heath & Monyhull	144	126	141	138	122	113	109	114	110	117	133	117	104	100	109	88	135	107	113	128
Edgbaston	112	122	139	129	123	106	113	123	133	112	104	110	112	138	138	133	119	147	139	134
Erdington	242	229	252	237	196	212	198	213	202	187	180	223	242	213	227	227	227	215	224	258
Frankley Great Park	130	100	105	147	113	122	94	111	100	112	118	70	100	94	95	118	125	109	143	103
Garretts Green	109	109	125	121	115	132	93	102	83	82	87	76	74	100	94	95	81	82	82	74
Glebe Farm & Tile Cross	216	236	212	266	237	210	229	205	211	185	216	257	224	265	219	217	223	205	207	195
Gravelly Hill	133	117	117	105	86	88	90	85	89	80	62	58	68	89	84	80	81	80	69	107
Hall Green North	179	186	155	210	180	196	156	151	158	156	152	154	139	156	146	148	139	136	163	156
Hall Green South	85	87	68	86	71	86	71	79	90	71	87	71	72	79	73	89	79	73	64	78
Handsworth	69	96	73	71	67	69	59	57	82	62	61	74	70	71	82	67	72	76	77	76
Handsworth Wood	185	159	162	140	152	137	150	147	138	130	107	125	126	123	151	122	121	147	100	145
Harborne	216	232	227	213	222	248	168	184	175	174	174	139	148	178	172	178	173	176	205	158
Heartlands	103	104	115	119	94	97	118	92	102	86	83	91	87	98	119	113	101	91	81	80
Highter's Heath	107	94	100	115	94	100	104	122	120	100	106	84	101	90	79	74	96	88	95	77
Holyhead	76	78	67	82	74	65	70	64	60	63	68	53	73	73	95	64	80	80	67	65
King's Norton North	134	143	140	150	109	145	132	126	135	120	118	110	103	109	121	124	121	130	106	99
King's Norton South	105	143	141	141	106	105	126	118	91	110	103	98	106	96	99	117	78	112	114	91
Kingstanding	236	239	255	227	231	261	241	243	203	206	222	200	210	193	200	207	209	194	201	183
Ladywood	118	103	115	125	107	104	107	91	96	101	82	74	90	99	85	93	93	87	89	101
Longbridge & West Heath	201	207	174	186	154	212	185	185	179	181	159	176	212	168	199	175	191	170	179	217

Ward	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Lozells	46	45	41	43	40	48	45	32	48	36	40	47	40	41	39	32	55	38	50	50
Moseley	276	240	258	249	242	193	202	195	182	180	204	153	169	180	185	183	180	178	155	177
Nechells	109	104	95	111	91	89	97	99	85	78	71	83	79	78	84	84	73	61	92	79
Newtown	82	82	75	78	78	77	57	52	61	60	53	53	46	66	58	64	76	60	59	56
North Edgbaston	159	177	172	166	137	135	122	123	149	122	120	124	110	128	113	157	127	144	129	125
Northfield	77	98	81	68	87	77	93	80	79	88	79	63	76	91	79	84	71	129	75	87
Oscott	197	205	245	214	199	197	191	170	178	171	183	168	178	151	166	170	161	171	174	162
Perry Barr	174	188	175	193	172	173	146	164	162	152	143	127	145	165	150	145	148	142	149	150
Perry Common	160	164	133	159	147	145	149	137	122	147	147	140	129	122	104	111	122	116	116	105
Pype Hayes	112	111	107	139	114	115	133	116	113	101	105	96	125	113	101	118	108	94	116	119
Quinton	229	210	191	203	217	158	193	161	179	155	131	181	181	153	163	175	160	161	185	162
Rubery & Rednal	81	97	90	87	92	84	95	88	89	71	77	68	73	88	82	89	84	80	84	72
Shard End	187	175	207	163	169	175	183	169	163	136	158	146	143	184	159	153	144	159	131	127
Sheldon	241	209	209	195	191	182	181	190	192	169	196	184	178	184	168	191	205	179	196	152
Small Heath	101	133	113	98	92	107	97	113	102	117	103	95	90	87	96	108	84	94	86	97
Soho & Jewellery Quarter	115	134	116	111	123	120	122	104	113	110	124	141	135	131	173	154	140	151	135	157
South Yardley	106	103	87	85	104	83	73	64	87	66	72	81	92	70	60	77	80	86	73	85
Sparkbrook & Balsall Heath East	173	148	156	158	161	147	149	136	119	130	122	118	127	129	133	126	118	118	116	120
Sparkhill	98	116	102	104	106	106	95	86	86	90	103	81	80	90	106	94	98	90	87	99
Stirchley	101	99	89	118	103	91	108	107	64	69	100	75	84	76	68	107	73	84	83	81
Stockland Green	199	201	188	187	186	185	177	159	165	164	131	146	167	178	167	169	149	143	153	194
Sutton Four Oaks	105	91	114	105	99	105	100	85	103	89	75	75	72	79	81	77	89	84	109	82
Sutton Mere Green	87	87	121	93	75	97	100	87	91	92	101	84	91	97	91	102	88	87	105	100
Sutton Reddicap	86	70	76	88	70	70	67	63	86	67	65	75	71	83	67	80	69	87	88	70
Sutton Roughley	94	109	84	99	110	95	98	98	94	72	93	98	95	122	95	104	90	94	102	83
Sutton Trinity	109	110	119	125	94	106	80	113	102	88	104	86	99	105	100	112	112	126	143	121
Sutton Vesey	144	174	167	163	157	172	181	175	174	172	152	180	172	139	170	151	164	177	160	146
Sutton Walmley & Minworth	115	142	128	126	124	131	116	116	139	152	138	144	136	131	146	130	139	179	155	162
Sutton Wylde Green	148	139	122	122	130	110	120	122	123	108	119	105	123	105	112	136	134	159	119	131
Tyseley & Hay Mills	110	99	110	88	102	88	94	98	96	73	92	79	95	89	84	95	75	76	78	58
Ward End	93	106	103	89	88	106	94	75	67	69	95	74	65	75	75	74	72	75	77	71
Weoley & Selly Oak	226	217	213	231	194	202	164	184	178	173	175	188	185	189	182	182	191	195	199	197
Yardley East	136	130	162	142	155	166	149	141	148	133	126	133	135	166	171	140	136	140	133	142
Yardley West & Stechford	129	137	134	126	127	122	120	114	126	104	77	103	93	98	119	102	107	100	107	91
Birmingham	9865	9808	9751	9797	9125	9130	8864	8704	8640	8116	8269	7985	8231	8418	8516	8640	8427	8551	8537	8267

Source: ONS, Crown Copyright 2022

### Appendix II: Notes Death Statistics

Death statistics are compiled annually for each local government and health area from the information collected at death registration. A death is normally assigned to the area of usual residence of the deceased. If this is outside England and Wales, the death is included in any aggregate for England and Wales (and hence the UK total) but excluded from the figure for any individual areas.

**Crude Death Rate (CDR)** is the simplest overall measure of mortality. It is the number of deaths per thousand mid-year population. It is limited as it does not take account of varying population structures.

**Age-specific death rates** may be calculated for each age group. These are defined as the number of deaths in the age group per 1,000 population in the same age group.

**Age-standardised mortality rates (ASMRs)** allow for differences in the age structure of populations and therefore allow valid comparisons to be made between geographic areas, over time and between sexes. Using the direct method, the age-standardised rate for a particular condition is that which would have occurred if the observed age-specific rates for the condition had applied in a given standard population.

**Perinatal mortality rate** is the number of deaths at ages under seven days (early neonatal deaths) plus stillbirths per 1,000 live births and stillbirths in the same period.

**Infant mortality rate** is the number of deaths at ages under one year per 1,000 live births.

**Standardised mortality ratios (SMRs)** compare mortality in one population with mortality in a "standard" population, while allowing for differences in age structure. Using the indirect method, the ratio is of "observed" to "expected" deaths. "Expected" deaths are the number that would have occurred if the sex and age-specific mortality rates of the standard year had applied to the population of interest. SMRs for males and females separately are calculated using the appropriate sex- and age-specific standard rates. For persons, the SMRs are based on age-specific standard rates for males and females combined. Thus: SMR equals (observed deaths divided by expected deaths) multiplied by 100.