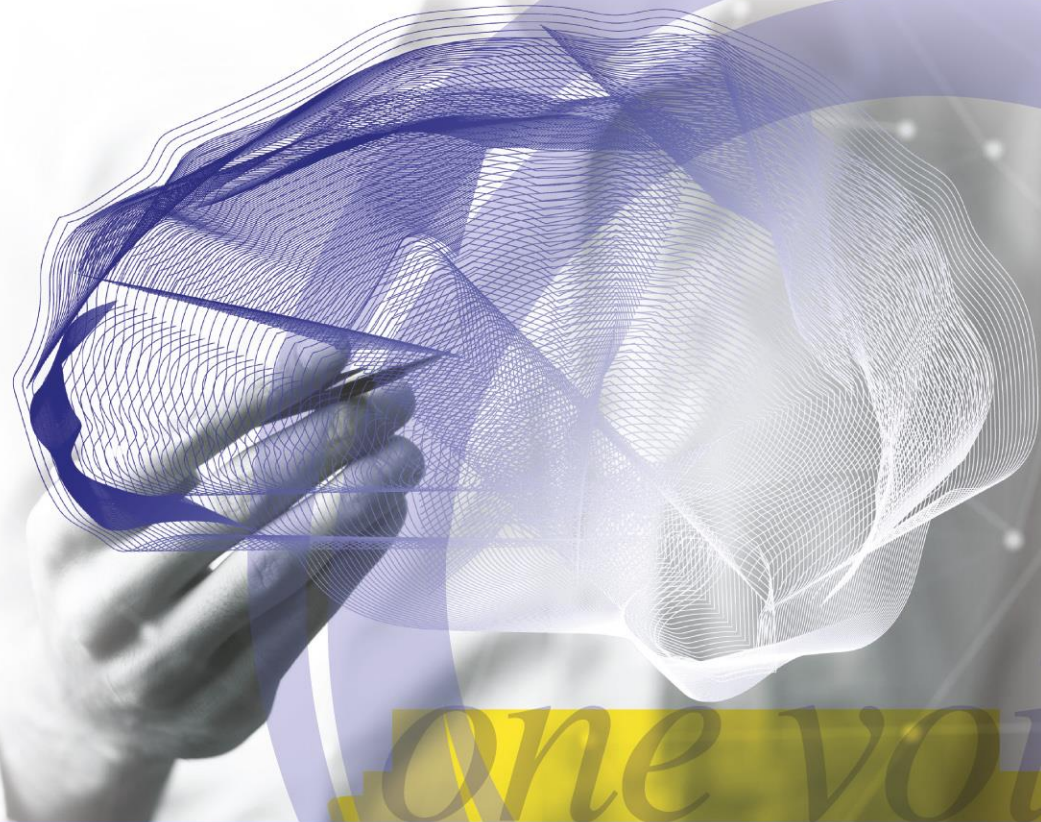




World Stroke
Organization



one voice

World Stroke Organization (WSO):
Global Stroke Fact Sheet 2022



Purpose:

The World Stroke Organization overviews the best available scientific evidence to provide reliable and up to date data on stroke and its impact around the world.

Using reliable and consistent stroke data to support stroke advocacy helps to build awareness of the scale of the disease and supports the call for urgent action at global, regional and national levels. This document provides information that can be used to inform communication with internal and external stroke stakeholders. All statistics have been reviewed and approved for use by the WSO Executive Committee.

Data sources:

These values have all been extracted from the most current Global Burden of Disease Stroke Statistics Worldwide for the year 2019 (<http://ghdx.healthdata.org/gbd-results-tool>). They will be reviewed and updated by the WSO executive committee on an annual basis as appropriate.

Notes:

* (Uncertainty Interval [UI] represents a range of values that reflects the certainty of an estimate. In GBD, every estimate is calculated 1,000 times, each time sampling from distributions rather than point estimates for data inputs, data transformations and model choice.

The 95th uncertainty interval is determined by the 25th and 975th value of the 1,000 values after ordering them from smallest to largest. Larger uncertainty intervals can result from limited data availability, small studies, and conflicting data, while smaller uncertainty intervals can result from extensive data availability, large studies, and data that are consistent across sources)

1. Incidence and Prevalence for all Stroke Types Combined

All Stroke types combined

Measure: Incidence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000 per year (95% UI)*	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	12,224,551	157.99 (142.71-175.63)	150.77 (136.52-167.46)	There are over 12.2 million new strokes each year. Globally, one in four people over age 25 will have a stroke in their lifetime.
15-49 years	1,978,946	50.29 (43.02-58.71)	-	Each year, over 16% of all strokes occur in people 15-49 years of age.
<70 years	7,622,088	104.79 (92.54-119.06)	-	Each year, over 62% of all strokes occur in people under 70 years of age.
Men (all ages)	5,787,446	149.12 (134.95-166.31)	151.10 (136.90-167.54)	Each year, 47% of all strokes occur in men.
Women (all ages)	6,437,105	166.92 (150.75-185.90)	149.75 (135.58-166.56)	Each year, 53% of all strokes occur in women.
Measure: Prevalence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)*	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	101,474,558	(1,002.23-1,167.80)	(1,093.20-1,273.43)	Globally, there are over 101 million people currently living who have experienced stroke.
15-49 years	22,766,796	578.56 (509.50- 654.80)	-	22% of people who have experienced a stroke and are currently living are people 15-49 years of age.
<70 years	68,406,930	940.46 (859.03-1,028.24)	-	67% of people who have experienced a stroke and are currently living are under the age of 70.
Men (all ages)	45,036,191	1,160.44 (1,059.77- 1,269.34)	1,150.19 (1,052.72- 1,259.30)	44% of people who have experienced a stroke and are currently living are men.
Women (all ages)	56,438,366	1,463.46 (1,347.19- 1,595.47)	1,316.73 (1,210.72- 1,433.71)	56% of people who have experienced a stroke and are currently living are women. Globally, women account for just over half (56%) of all persons who have experienced a stroke.

1. Mortality and Disability-Adjusted Life Years (DALYs) for all Stroke Types Combined

All Stroke types combined

Measure: Deaths	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)*	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	6,552,724	84.69 (77.48- 90.66)	-	Six and a half-million people die from stroke annually.
15-49 years	370,056	9.40 (8.63-10.20)	-	About 6% of all deaths from stroke occur in people 15-49 years old.
<70 years	2,207,612	30.35 (28.06- 32.65)	-	34% of all deaths from stroke occur in people under 70 years old.
Men (all ages)	3,331,206	85.8 (78.24-93.21)	96.36 (87.63-104.21)	51% of all deaths from stroke are in men.
Women (all ages)	3,221,518	83.53 (74.12-91.68)	73.50 (65.21-80.66)	49% of all deaths from stroke are in women.

Measure: DALYs	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)*	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	143,232,184	1,851.15 (1,720.15-1,980.52)	1,768.05 (1,640.65-1,889.39)	Over 143 million years of healthy life is lost each year due to stroke-related death and disability.
15-49 years	21,456,824	545.27 (498.83-593.40)	-	15% of healthy life lost due to stroke-related death and disability affects people 15-49 years old.
<70 years	82,035,620	292.35 (270.27-314.42)	-	57% of healthy life lost due to stroke-related death and disability affects people under the age of 70 years.
Men (all ages)	76,875,834	1,980.84 (1,809.11-2,150.30)	2,024.28 (1,852.42-2,195.62)	Men account for 54% of healthy life lost due to stroke-related disability.
Women (all ages)	66,356,349	1,720.64 (1,569.61-1,873.63)	1,531.27 (1,397.07-1,667.60)	Women account for 46% of healthy life lost due to stroke-related disability.

Notes: (95% Uncertainty Interval [UI] represents a range of values that reflects the certainty of an estimate. In GBD, every estimate is calculated 1,000 times, each time sampling from distributions rather than point estimates for data inputs, data transformations and model choice. The 95th uncertainty interval is determined by the 25th and 975th value of the 1,000 values after ordering them from smallest to largest. Larger uncertainty intervals can result from limited data availability, small studies, and conflicting data, while smaller uncertainty intervals can result from extensive data availability, large studies, and data that are consistent across sources).

2. Incidence and Prevalence for all Ischemic Stroke

Ischaemic Stroke

Measure: Incidence	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	7,630,803	94.51 (81.91-110.76)	98.62 (84.90-115.80)	There are over 7.6 million new ischaemic strokes each year. Globally, over 62% of all incident strokes are ischaemic strokes.
15-49 years	865,723	22.00 (16.37-29.50)	-	Each year, over 11% of all ischaemic strokes occur in people 15-49 years of age.
<70 years	4,427,351	60.87 (49.72-72.93)	-	Each year, over 58% of all ischaemic strokes occur in people under 70 years of age.
Men (all ages)	3,445,762	88.79 (76.15-103.81)	90.91 (78.52-106.55)	Each year, 45% of all ischaemic strokes occur in men.
Women (all ages)	4,185,041	108.52 (93.57-127.20)	97.22 (84.12-113.94)	Each year, 55% of all ischaemic strokes occur in women.
Measure: Prevalence	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	77,192,498	997.65 (889.92-1,117.39)	950.97 (849.82-1,064.06)	Globally, there are over 77 million people currently living who have experienced ischaemic stroke.
15-49 years	14,480,207	367.97 (306.12-440.40)	-	19% of people who have experienced an ischaemic stroke and are currently living are people 15-49 years of age.
<70 years	47,161,262	648.37 (569.07-730.52)	-	61% of people who have experienced an ischaemic stroke and are currently living are under the age of 70.
Men (all ages)	33,216,442	855.88 (759.25-967.92)	863.51 (767.96-974.62)	43% of people who have experienced an ischaemic stroke and are currently living are men.
Women (all ages)	43,976,056	1,140.31 (1,020.45-1,273.16)	1,025.52 (918.48-1,144.69)	57% of people who have experienced an ischaemic stroke and are currently living are women. Globally, women account for just over half (56%) of all persons who have experienced an ischaemic stroke.

2. Mortality and Disability-Adjusted Life Years (DALYs) for all Ischemic Stroke

Ischaemic Stroke

Measure: Deaths	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	3,293,397	42.56 (38.43-45.70)	43.50 (39.08-46.77)	3.3 million people die from ischaemic stroke annually.
15-49 years	53,263	1.35 (1.20-1.53)	-	About 2% of all deaths from ischaemic stroke occur in people 15-49 years old.
<70 years	633,070	8.70 (7.94-9.45)	-	19% of all deaths from ischaemic stroke occur in people under 70 years old.
Men (all ages)	1,573,961	40.56 (36.68-44.19)	48.44 (43.68-52.55)	48% of all deaths from ischaemic stroke are in men.
Women (all ages)	1,719,435	44.59 (39.04-49.02)	39.12 (34.25-43.01)	52% of all deaths from ischaemic stroke are in women.
Measure: DALYs	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	63,478,271	820.40 (747.37-891.59)	798.81 (727.51-866.89)	Over 63 million years of healthy life is lost each year due to ischaemic stroke-related death and disability.
15-49 years	4,658,243	118.38 (99.31-138.26)	-	7% of healthy life lost due to ischaemic stroke-related death and disability affects people 15-49 years old.
<70 years	25,851,238	92.13 (82.11-102.17)	-	41% of healthy life lost due to ischaemic stroke-related death and disability affects people under the age of 70 years.
Men (all ages)	31,809,849	819.64 (737.05-895.47)	878.51 (793.52-956.67)	Men account for 50% of healthy life lost due to ischaemic stroke-related disability.
Women (all ages)	31,668,422	821.17 (733.39-901.65)	726.33 (648.67-798.32)	Women account for 50% of healthy life lost due to ischaemic stroke-related disability.

3. Incidence and Prevalence for Intracerebral haemorrhage

Intracerebral haemorrhage

Measure: Incidence	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	3,409,122	44.06 (38.39-50.52)	41.81 (36.53-47.88)	There are over 3.4 million new intracerebral haemorrhages each year. Globally, over 28% of all incident strokes are intracerebral haemorrhages.
15-49 years	776,886	19.74 (15.84-23.92)	-	Each year, over 23% of all intracerebral haemorrhages occur in people 15-49 years of age.
<70 years	2,326,254	31.98 (27.17-37.56)	-	Each year, over 68% of all intracerebral haemorrhages occur in people under 70 years of age.
Men (all ages)	1,830,930	47.18 (41.22-54.18)	47.17 (41.35-53.91)	Each year, 54% of all intracerebral haemorrhages occur in men.
Women (all ages)	1,578,192	40.92 (35.71-47.00)	36.81 (32.16-42.21)	Each year, 46% of all intracerebral haemorrhages occur in women.
Measure: Prevalence	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	20,663,889	267.06 (232.84-302.66)	248.77 (217.09-281.43)	Globally, there are almost 21 million people currently living who have experienced intracerebral haemorrhage.
15-49 years	6,748,084	171.48 (143.25-201.51)	-	33% of people who have experienced an intracerebral haemorrhage and are currently living are people 15-49 years of age.
<70 years	17,614,906	242.17 (209.07-277.36)	-	85% of people who have experienced an intracerebral haemorrhage and are currently living are under the age of 70.
Men (all ages)	10,705,233	275.84 (239.51-313.54)	262.74 (229.37-298.14)	52% of people who have experienced an intracerebral haemorrhage and are currently living are men.
Women (all ages)	9,958,655	258.23 (225.62-291.87)	235.22 (205.79-265.79)	48% of people who have experienced an intracerebral haemorrhage and are currently living are women. Globally, women account for just over half (56%) of all persons who have experienced an intracerebral haemorrhage.

3. Mortality and Disability-Adjusted Life Years (DALYs) for Intracerebral hemorrhage

Intracerebral hemorrhage

Measure: Deaths	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	2,886,196	37.30 (34.18-40.06)	36.04 (32.98-38.67)	Almost 3 million people die from intracerebral haemorrhage annually.
15-49 years	253,682	6.45 (5.85-7.04)	-	About 9% of all deaths from intracerebral haemorrhage occur in people 15-49 years old.
< 70 years	1,365,183	18.77 (17.16-20.30)	-	47% of all deaths from intracerebral haemorrhage occur in people under 70 years old.
Men (all ages)	1,571,624	40.50 (36.38-44.30)	42.89 (38.60-46.87)	55% of all deaths from intracerebral haemorrhage are in men.
Women (all ages)	1,314,571	34.09 (30.33-37.63)	30.06 (26.75-33.18)	45% of all deaths from intracerebral haemorrhage are in women.
Measure: DALYs	Number	Crude rate per 100,000 per year (95% UI)	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	68,572,498	886.24 (817.74-952.28)	832.77 (769.21-894.68)	Almost 69 million years of healthy life is lost each year due to intracerebral haemorrhage-related death and disability.
15-49 years	13,227,060	336.13 (305.58-366.49)	-	19% of healthy life lost due to intracerebral haemorrhage-related death and disability affects people 15-49 years old.
<70 years	47,440,867	169.07 (154.78-182.01)	-	69% of healthy life lost due to intracerebral haemorrhage-related death and disability affects people under the age of 70 years.
Men (all ages)	39,336,302	1,013.57 (912.53-1,106.61)	1,001.11 (902.02-1,092.01)	Men account for 57% of healthy life lost due to intracerebral haemorrhage-related disability.
Women (all ages)	29,236,195	758.10 (682.76-830.32)	676.79 (610.14-741.11)	Women account for 43% of healthy life lost due to intracerebral haemorrhage-related disability.

4. Incidence and Prevalence for subarachnoid haemorrhage

Subarachnoid haemorrhage

Measure: Incidence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	1,184,625	15.31 (13.00-17.97)	14.46 (12.33-16.94)	There are about 1.2 million new subarachnoid haemorrhages each year.
15-49 years	336,336	8.55 (6.70-10.64)	-	Each year, over 28% of all subarachnoid haemorrhages occur in people 15-49 years of age.
< 70 years	868,483	11.94 (9.84-14.28)	-	Each year, over 73% of all subarachnoid haemorrhages occur in people under 70 years of age.
Men (all ages)	510,753	13.16 (11.16-15.53)	13.02 (11.12-15.30)	Each year, 43% of all subarachnoid haemorrhages occur in men.
Women (all ages)	673,871	17.47 (14.85-20.47)	15.72 (13.40-18.34)	Each year, 57% of all subarachnoid haemorrhages occur in women.
Measure: Prevalence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	8,396,540	108.52 (92.90-127.09)	101.57 (87.13-118.54)	Globally, there are almost 8.4 million people currently living who have experienced subarachnoid haemorrhage.
15-49 years	2,911,795	74.00 (60.76-89.19)	-	35% of people who have experienced a subarachnoid haemorrhage and are currently living are people 15-49 years of age.
<70 years	6,883,509	94.63 (80.09-112.82)	-	82% of people who have experienced a subarachnoid haemorrhage and are currently living are under the age of 70.
Men (all ages)	3,332,026	85.86 (72.93-101.08)	82.24 (70.07-96.53)	40% of people who have experienced a subarachnoid haemorrhage and are currently living are men.
Women (all ages)	5,064,514	131.32 (112.51-153.81)	118.50 (101.58-138.36)	60% of people who have experienced a subarachnoid haemorrhage and are currently living are women. Globally, women account for just over half (56%) of all persons who have experienced a subarachnoid haemorrhage.

4. Mortality and Disability-Adjusted Life Years (DALYs) for subarachnoid haemorrhage

Subarachnoid haemorrhage

Measure: Deaths	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	373,131	4.82 (4.27-5.38)	4.66 (4.13-5.17)	Over 373,000 people die from subarachnoid haemorrhage annually.
15-49 years	63,110	1.60 (1.37-1.95)	-	About 17% of all deaths from subarachnoid haemorrhage occur in people 15-49 years old.
< 70 years	209,358	2.88 (2.50-3.38)	-	56% of all deaths from subarachnoid haemorrhage occur in people under 70 years old.
Men (all ages)	185,619	4.78 (4.10-5.88)	5.03 (4.32-6.05)	50% of all deaths from subarachnoid haemorrhage are in men.
Women (all ages)	187,511	4.86 (4.29-5.47)	4.32 (3.81-4.87)	50% of all deaths from subarachnoid haemorrhage are in women.

Measure: DALYs	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	11,181,414	144.51 (127.86-163.73)	136.47 (120.83-154.66)	Over 143 million years of healthy life is lost each year due to subarachnoid haemorrhage-related death and disability.
15-49 years	3,571,519	90.76 (78.30-108.78)	-	15% of healthy life lost due to subarachnoid haemorrhage-related death and disability affects people 15-49 years old.
<70 years	8,743,514	31.16 (27.22-36.25)	-	57% of healthy life lost due to subarachnoid haemorrhage-related death and disability affects people under the age of 70 years.
Men (all ages)	5,729,682	147.64 (126.43-182.31)	144.67 (123.86-178.38)	Men account for 54% of healthy life lost due to subarachnoid haemorrhage-related disability.
Women (all ages)	5,451,732	141.37 (125.84-159.23)	128.15 (113.91-144.35)	Women account for 46% of healthy life lost due to subarachnoid haemorrhage-related disability.

5. Incidence and Prevalence of Atrial Fibrillation and Flutter

Measure: Incidence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	4,720,323.57	61.01 (47.10-77.05)	57.09 (44.07-71.90)	There are almost 5 million new cases of atrial fibrillation and flutter diagnosed each year.
Men	2,376,460.21	61.23 (47.35-77.58)	60.82 (47.14-76.29)	Half of all new cases of atrial fibrillation and flutter each year occur in men.
Women	2,343,863.36	60.78 (46.58-77.11)	53.50 (41.09-67.72)	Half of all new cases of atrial fibrillation and flutter each year occur in women.

Measure: Prevalence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	59,695,082.92	771.51 (591.02-973.02)	743.47 (571.16-938.34)	There are almost 60 million people who have atrial fibrillation and flutter.
Men	30,283,379.98	780.30 (603.58-987.72)	830.03 (641.26-1,044.43)	Half of all people living with atrial fibrillation and flutter globally are men.
Women	29,411,702.94	762.65 (581.40-968.36)	669.47 (510.23-849.77)	Half of all people living with atrial fibrillation and flutter globally are women.

6. Incidence and Prevalence of Diabetes Mellitus

Measure: Incidence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	22,239,396	287.42 (266.23-310.94)	267.54 (248.03-289.18)	There were over 22.2 million new cases of diabetes diagnosed in 2019.
Men	11,580,483	298.39 (276.31-322.72)	281.68 (261.66-304.05)	52% of new cases of diabetes diagnosed in 2019 were men.
Women	10,658,913	276.39 (255.63-299.11)	253.37 (234.55-273.62)	48% of new cases of diabetes diagnosed in 2019 were women.

Measure: Prevalence	Number	Crude rate per 100,000 per year (95% UI)*	Age-adjusted rate per 100,000, per year (95% UI)	Approved Statement for use in WSO Materials
Ages (all), Sexes (both)	459,875,371	5,943.49 (5,473.04-6,435.97)	5,555.39 (5,118.84-6,013.77)	Almost 460 million people have diabetes.
Men	237,871,820	6,129.18 (5,653.08-6,648.14)	5,970.35 (5,514.62-6,462.83)	Among people living with diabetes globally, 52% are men.
Women	222,003,551	5,756.62 (5,280.58-6,233.67)	5,168.86 (4,748.06-5,600.73)	Among people living with diabetes globally, 48% are women.

2019 Global Burden of Disease estimates for stroke burden (as measured by DALYs) attributable to risk factors*



Metabolic risks (high systolic blood pressure (SBP), high body-mass index (BMI), high fasting plasma glucose (FPG), high total cholesterol, and low glomerular filtration rate) account for

71.0%

(64.6–77.1)
of stroke burden.



Behavioural factors (smoking, poor diet, and low physical activity) account for

47.0%

[41.3 to 54.4]
of stroke burden, and environmental risks (air pollution and lead exposure)

37.8%
[35.0 to 41.0].



Globally, high systolic blood pressure is the largest single risk for stroke (contributing 79.6 million DALYs [67.7-90.8]; or 55.5% of total stroke DALYs [48.2-62.0]), high body-mass index (BMI) (34.9 million [22.3-48.6]; 24.4% [15.7-33.2]), high fasting plasma glucose (28.9 million [19.8-41.5]; 20.2% [13.8-29.1]), ambient particulate matter (PM2.5) pollution (28.7 million [23.4-33.4]; 20.1% [16.6-23.0]), and smoking (25.3 million [22.6-28.2]; 17.7% [16.4-19.0]).



All risk factors combined account for

87.0%

(84.2- 89.8)
of the global stroke burden

* From the GBD viz <http://ghdx.healthdata.org/gbd-results-tool>

Stroke infographic (modified from Owolabi et al.,² with permission)

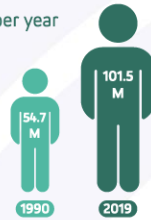


Around the world, there are **12.2 MILLION** new strokes per year
ONE EVERY 3 SECONDS

101 MILLION

people worldwide are living with stroke aftermath

THIS NUMBER HAS ALMOST DOUBLED OVER THE LAST 30 YEARS

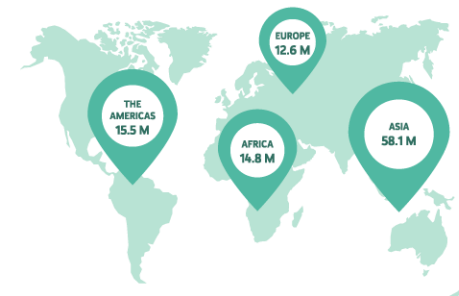


The total estimated worldwide cost of stroke (in international dollars) in 2017 was **1 \$451 BILLION**

(ABOUT 0.36% OF THE GLOBAL GDP)

The number of stroke survivors in world regions in 2019.

89% OF THE GLOBAL STROKE DEATHS AND DISABILITY COMBINED RESIDE IN LOW-TO MIDDLE-INCOME COUNTRIES



Up to **80%** of strokes and heart attacks happen in people with **LOW OR MODERATE CVD ABSOLUTE RISK**

1 in 4 people will have a stroke in their lifetime
THIS NUMBER HAS INCREASED 50% OVER THE LAST 17 YEARS



In 2019, **63%** of stroke happened in people younger than 70 years old.

STROKE IS NO LONGER A DISEASE OF THE ELDERLY

10

LEADING STROKE RISK FACTORS IN THE WORLD*

56%

ELEVATED SYSTOLIC BLOOD PRESSURE

24%

HIGH BODY MASS INDEX

20%

HIGH FASTING GLUCOSE

20%

AIR POLLUTION

18%

SMOKING

31%

POOR DIET

10%

HIGH LDL CHOLESTEROL

8%

KIDNEY DYSFUNCTION

6%

ALCOHOL USE

2%

LOW PHYSICAL ACTIVITY

*The sum of stroke burden attributable to the risk factors exceeds 100% because the effect of many of these risk factors overlap and are mediated partly or wholly through another risk factors. Percentages show stroke-related disability-adjusted life years attributable to each risk factor.

Ecosystem for primary stroke prevention (adapted from Owolabi et al.,² with permission)

