

FATAL DROWNING IN COMMONWEALTH COUNTRIES



COMMONWEALTH
DROWNING
PREVENTION

FACT SHEET

Issue 1, 12 February 2020

Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as death, morbidity and no morbidity¹. The focus of this fact sheet is on fatal drowning in Commonwealth countries.

KEY FINDINGS



In 2017 over 110,000 people died from drowning in Commonwealth countries. The fatal drowning rate was 4.6 per 100,000 per year.



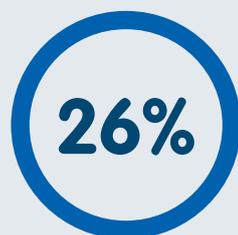
Over one third (37%) of global drowning deaths occurred in Commonwealth countries.



Approximately two thirds of total drowning deaths in Commonwealth countries were males, across all age groups.



51% of fatal drowning in Commonwealth countries occurred among children and adolescents (0-19 years).



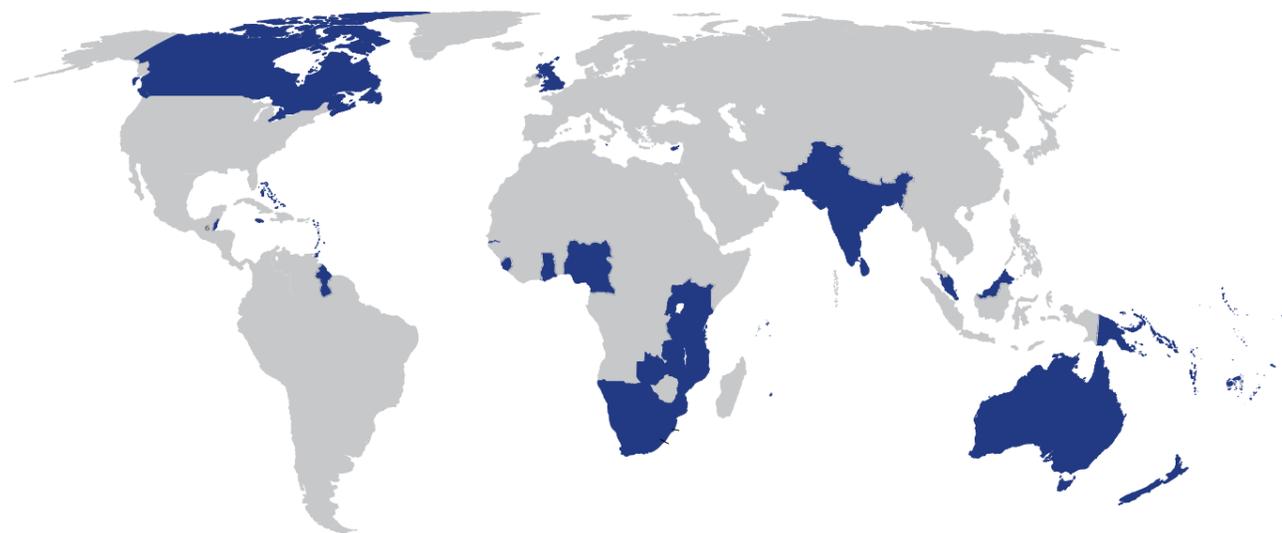
26% of drowning fatalities in these countries occurred among children under 5 years.

FATAL DROWNING GLOBALLY

The World Health Organization (WHO) cites drowning as a “major public health problem”. The most recent global drowning mortality estimates are produced by the Institute for Health Metrics and Evaluation.¹ (IHME) Global Burden of Disease Study 2017, which estimated that 295,000 people died from drowning².

These estimates under-report drowning due to exclusion of intentional drowning deaths (suicide and homicide) and drowning deaths as a result of water transportation and flood disasters. Injuries accounted for 9% of global mortality in 2017 and drowning accounts for 7% of all injury related death, making it the 3rd leading cause of unintentional injury death².

The Global Burden of Disease Study 2017 identified that males accounted for approximately two thirds (37.3%) of the total drowning deaths in Commonwealth countries. Tragically 50.8% of fatal drowning occurred among children and adolescent under 19 years, and 26.4% occurred among children less than 5 years.



THE COMMONWEALTH

The Commonwealth³ is made up of 54 independent countries that work together to pursue common goals which promote development, democracy and peace. Its combined population is 2.4 billion, of which more than 60% are aged 29 years or under.

The Commonwealth spans the globe and includes both high-, middle- and low-income countries and includes: Africa (19 countries), Asia (8), the Caribbean and Americas (13), Europe (3), and the Pacific (11). Thirty-one of the members are small states, with a population under 1.5 million, and 24 members are small island developing states (SIDS). The Pacific nation of Nauru is the smallest Commonwealth member country with a population of about 10,000 people. The most populous member country is India with over 1.3 billion people⁴. The population of each Commonwealth country is provided in Appendix A.

1 van Beeck, E.F., et al., A new definition of drowning: towards documentation and prevention of a global public health problem. Bull World Health Organ, 2005. 83(11): p. 853-6.

* This contrasts with the World Health Organization's 'Global Health Estimate' of 320,000 drowning deaths in 2016.

2 Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2017 (GBD 2017) Cause-Specific Mortality 1980-2017. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2018

3 Fast Facts on the Commonwealth at <http://thecommonwealth.org/fastfacts>

4 Extracted from Fast Facts on the Commonwealth, <https://thecommonwealth.org/fastfacts>

FATAL DROWNING SITUATION IN COMMONWEALTH COUNTRIES

The following table lists the top 20 Commonwealth countries for fatal drowning (all ages) by rate per 100,000 population. Table 1 also depicts the estimated number of fatal drowning in each of these Commonwealth countries.

Table 1: Commonwealth countries ranked by fatal drowning rates (top 20 countries) in 2017

Rank	Country	Rate/100,000	Estimated number
1	Papua New Guinea	16.70	1,541
2	Seychelles	12.30	12
3	Vanuatu	10.69	31
4	Solomon Islands	9.84	63
5	Bangladesh	8.94	14,029
6	Guyana	7.37	55
7	Fiji	7.11	64
8	The Bahamas	6.88	26
9	Saint Vincent and the Grenadines	6.58	8
10	Grenada	6.55	7
11	Tonga	6.54	7
12	Belize	6.50	26
13	Dominica	6.22	4
14	Pakistan	6.09	13,046
15	Lesotho	5.74	112
16	Saint Lucia	5.56	10
17	Kiribati	5.18	6
18	Antigua and Barbuda	4.94	4
19	Swaziland	4.88	55
20	Sierra Leone	4.81	377

When comparing drowning data across countries, it is important to consider the rate of drowning events relative to population size. However, it is also important to consider the absolute number of fatal drowning events in order to identify countries that contribute significantly to the drowning burden within the Commonwealth. For example, the three countries with the highest fatal drowning rates, Papua New Guinea, the Seychelles and Vanuatu, account for only 1.4% of fatal drowning within the Commonwealth.

5 British Commonwealth Countries Population. (2019-08-28). Retrieved 2019-09-23, from <http://worldpopulationreview.com/countries/british-commonwealth-countries/>

Table 2 shows the countries with the highest number of drowning deaths. India recorded the highest number of drowning deaths in 2017 with more than 60,000 fatalities, but has a low rate of drowning relative to its vast population (est. 1,366,417,754)⁵.

Table 2: Commonwealth countries ranked by estimated number of fatal drowning (Top 20 countries) in 2017

Rank	Country	Estimated number	Rate/100,000
1	India	60,199	4.36
2	Bangladesh	14,029	8.94
3	Pakistan	13,046	6.09
4	Nigeria	7,812	3.79
5	Tanzania	1,819	3.37
6	Papua New Guinea	1,541	16.70
7	South Africa	1,439	2.62
8	Mozambique	1,168	3.89
9	Kenya	1,106	2.29
10	Uganda	1,084	2.77
11	Sri Lanka	1,037	4.80
12	Cameroon	882	3.18
13	Malaysia	875	2.86
14	Ghana	790	2.62
15	Zambia	626	3.60
16	Malawi	576	3.35
17	Sierra Leone	377	4.81
18	Rwanda	357	2.84
19	United Kingdom	335	0.50
20	Canada	325	0.90
Total		109,423	

The estimated number of drowning deaths in the Commonwealth countries in 2017 was 110,594. The top 20 countries by number constitute almost all (99%) of the fatal drowning burden in Commonwealth countries. India, Bangladesh and Pakistan account for 78% of estimated drowning fatalities within the Commonwealth.

FATAL DROWNING SITUATION IN COMMONWEALTH COUNTRIES OF VARIOUS REGIONS

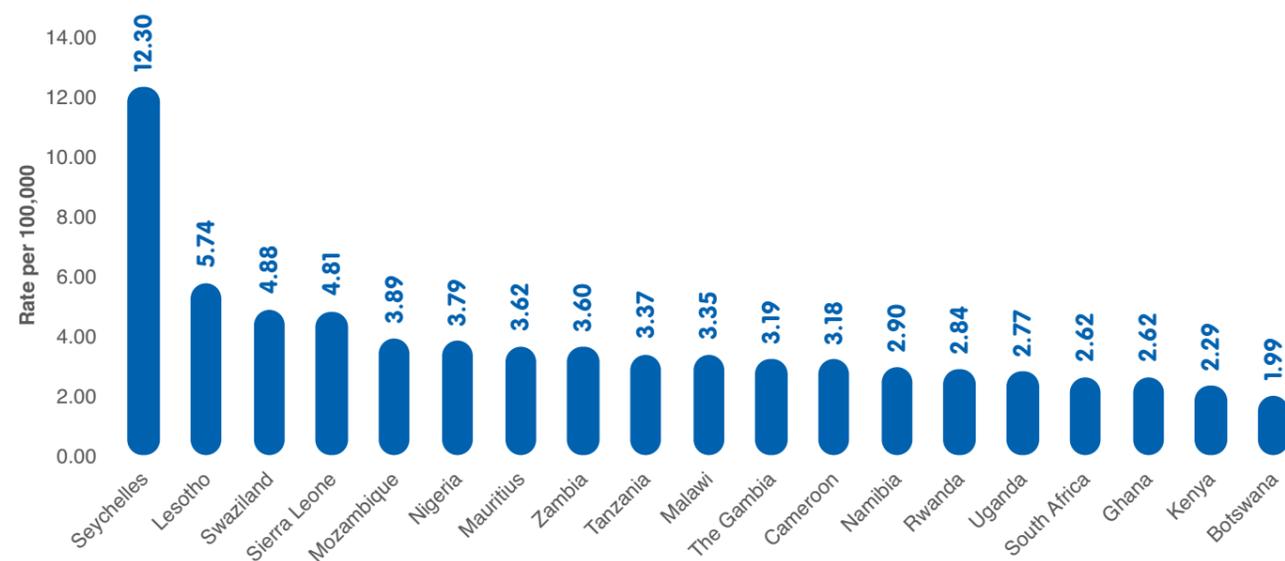
The following data presents the drowning rates in each of the five Commonwealth regions and includes the number of drowning fatalities (all ages) for each country.

Africa

While the Seychelles has the highest fatal drowning rate, the Commonwealth country in Africa with the highest estimated number of drowning deaths is Nigeria (refer to Table 2). The Seychelles is an archipelago country of 115 islands in the Indian Ocean, off East Africa. The island country has the smallest population, of about 98,000, of any sovereign African country. Unlike other low- and middle-income countries (LMICs) drowning occurs predominantly among the adult population. In 2017, approximately 84% of all fatal drowning occurred among people over 19 years. Occupations that involve exposure to water including fishing and tourism could be considered as one of the main reasons for the higher proportion of drowning deaths among the adult population.

Nigeria is a large country with several important rivers, notably the Niger and its main tributary, the Benue, both of which are navigable. The coastal region is low-lying, made up of lagoons, sandy beaches and mangrove swamps⁶.

Fig 1: Fatal drowning rates in Commonwealth countries in Africa in 2017



⁶ Nigeria Topography, <https://thecommonwealth.org/our-member-countries/nigeria>

Table 3: Estimated number of fatal drowning in Commonwealth countries in Africa in 2017

Rank	Country	Estimated number
1	Nigeria	7,812
2	Tanzania	1,819
3	South Africa	1,439
4	Mozambique	1,168
5	Kenya	1,106
6	Uganda	1,084
7	Cameroon	882
8	Ghana	790
9	Zambia	626
10	Malawi	576
11	Sierra Leone	377
12	Rwanda	357
13	Lesotho	112
14	The Gambia	68
15	Namibia	68
16	Swaziland	55
17	Mauritius	46
18	Botswana	45
19	Seychelles	12

Asia

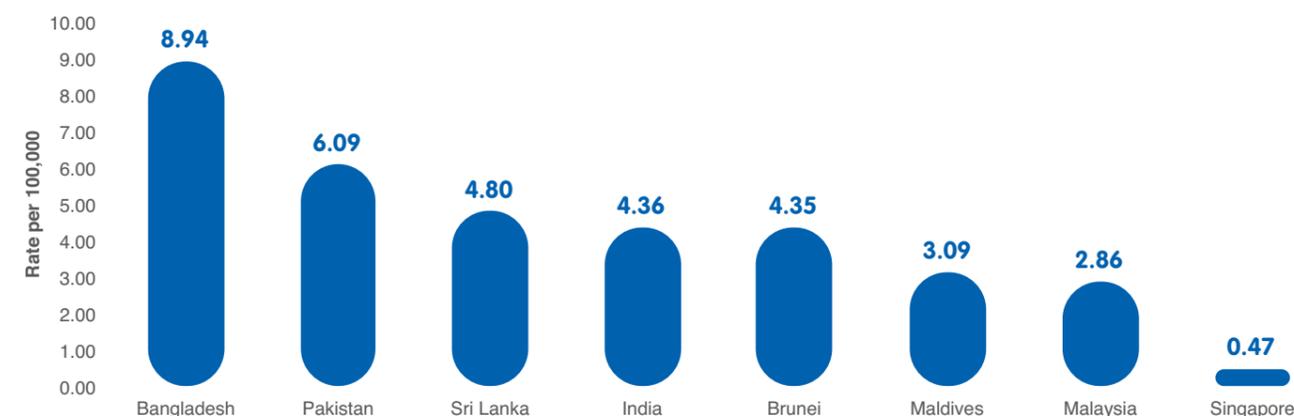
The Commonwealth country in Asia with the highest drowning rate is Bangladesh (Fig 2). Apart from hills to the south-east, most of Bangladesh is a flat alluvial plain crossed by navigable waterways – the Ganges (Padma), Brahmaputra (Jamuna) and Meghna river systems – flowing into the Bay of Bengal. Approximately 14% of the country is normally under water. Flooding is frequent and can be disastrous⁷. Not surprisingly, given the vast population of India (est. 1,366,417,754)⁴, the number of drowning deaths in India in 2017 was more than 60,000 persons.

The combined number of fatal drowning in India, Bangladesh and Pakistan is approximately 78% of the total number of drowning deaths in the 54 Commonwealth countries.

Table 4: Estimated number of fatal drowning in Commonwealth countries in Asia in 2017

Rank	Country	Estimated number
1	India	60,199
2	Bangladesh	14,029
3	Pakistan	13,046
4	Sri Lanka	1,037
5	Malaysia	875
6	Singapore	26
7	Brunei	19
8	Maldives	14

Fig 2: Fatal drowning rates in Commonwealth countries in Asia in 2017



⁷ <https://thecommonwealth.org/our-member-countries/bangladesh>



Caribbean and Americas

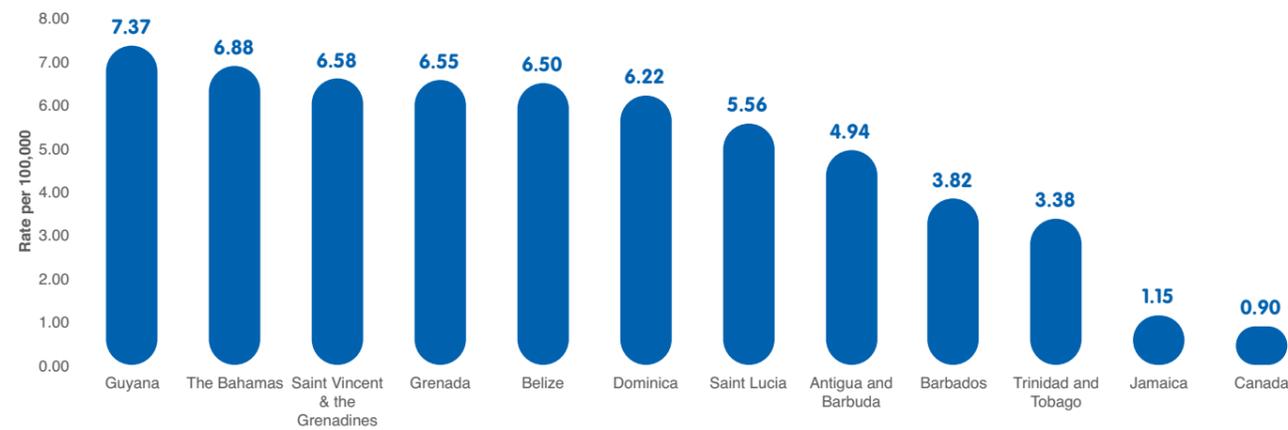
Most of the Commonwealth countries in this region are in the Caribbean. In this region, Canada has the largest population with more than 37 million people⁴ and recorded the highest number of drowning deaths (325, Table 5). As can be seen from Fig 3, Guyana recorded the highest drowning rate of this region at 7.4 per 100,000 population.

The Caribbean is an area often susceptible to disasters resulting from tropical storms and hurricanes. However, drowning deaths due to major disasters are not included in drowning data estimates. For example, the 2017 hurricane season was particularly bad with large numbers of deaths, many of which were due to drowning.

Table 5: Estimated number of fatal drowning in Commonwealth countries in the Caribbean and Americas in 2017

Rank	Country	Estimated number
1	Canada	325
2	Guyana	55
3	Trinidad and Tobago	47
4	Jamaica	32
5	The Bahamas	26
6	Belize	26
7	Barbados	11
8	Saint Lucia	10
9	Saint Vincent and the Grenadines	8
10	Grenada	7
11	Dominica	4
12	Antigua and Barbuda	4

Fig 3: Fatal drowning rates in Commonwealth countries in the Caribbean and Americas in 2017



Europe

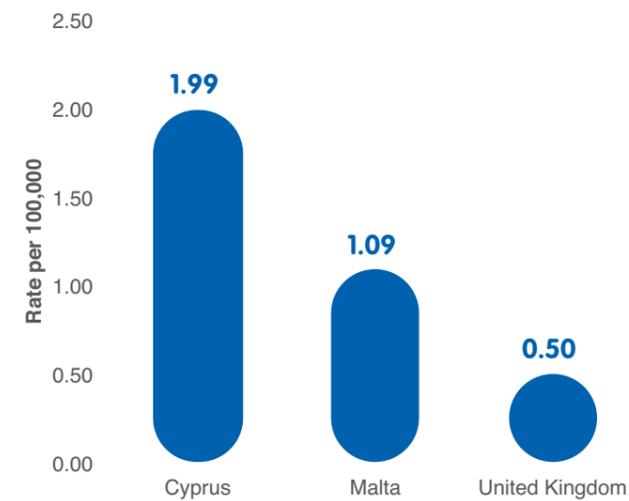
There are only three Commonwealth countries in Europe; Cyprus, Malta and the United Kingdom (UK). Of the three, the UK has the largest population with more than 67 million people and recorded the highest number of fatal drownings at (335 in 2017, Table 6). Cyprus recorded the highest drowning rate at 2.0 per 100,000 population (Fig 4).

Cyprus is an island country in the Eastern Mediterranean and the third largest and third most populous island in the Mediterranean^{8,9}.

Table 6: Estimated number of fatal drowning in Commonwealth countries in Europe in 2017

Rank	Country	Estimated number
1	United Kingdom	335
2	Cyprus	25
3	Malta	5

Fig 4: Fatal drowning rates in Commonwealth countries in Europe in 2017



⁸ <https://www.britannica.com/place/Cyprus>

⁹ <https://www.worldatlas.com/articles/the-most-populated-islands-in-the-mediterranean-sea.html>



Pacific

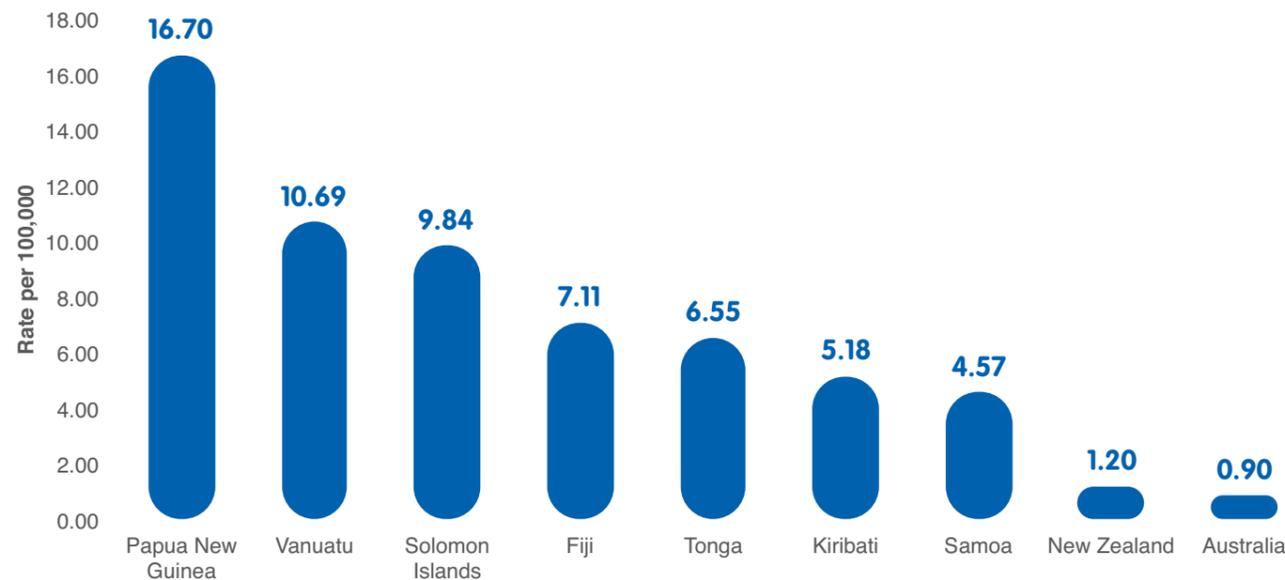
The highest rate (16.7 per 100,000 population) of fatal drowning not only in the Pacific region but of all the Commonwealth countries of the world is observed in Papua New Guinea (Fig 5 and Table 7). The estimated number of fatal drowning deaths in Papua New Guinea is the highest in the Pacific region.

Papua New Guinea comprises approximately 600 small islands and has some 5,150 km of coastline, and only 13% of people live in urban areas, the lowest proportion in the Commonwealth.

Table 7: Estimated number of fatal drowning in Commonwealth countries in the Pacific region in 2017

Rank	Country	Estimated number
1	Papua New Guinea	1,541
2	Australia	215
3	Fiji	64
4	Solomon Islands	63
5	New Zealand	54
6	Vanuatu	31
7	Samoa	9
8	Tonga	7
9	Kiribati	6

Fig 5: Fatal drowning rates in Commonwealth countries in the Pacific region in 2017



INTERVENTIONS TO PREVENT DROWNING

The 2017 WHO Preventing Drowning: An Implementation Guide¹⁰, page 1, provides

'10 evidence-based interventions and strategies designed to help drowning prevention practitioners (from non-governmental organizations (NGOs) and researchers to government officials and policy-makers), – approach drowning prevention in a strategic, evidence based and multisectoral way'.

At national or community level, drowning can be prevented through implementing six selected **interventions** and four "cross-cutting" **implementation strategies** that underpin them.

These are:

Interventions



Install barriers controlling access to water



Provide safe places (for example a day-care centre) away from water for preschool children, with capable child-care



Teach school-age children swimming and water safety skills



Train bystanders in safe rescue and resuscitation



Set and enforce safe boating, shipping and ferry regulations



Build resilience and manage flood risks and other hazards locally and nationally

Strategies



Strengthen public awareness of drowning through strategic communications



Promote multisectoral collaboration



Develop a national water safety plan



Advance drowning prevention through data collection and well-designed studies

The Royal Life Saving Society (RLSS), established in 1891, is a Non-Governmental Organisation (NGO) charity registered in the United Kingdom (Charity Commission No: 306094) and is governed by Royal Charter. RLSS is accredited to the Commonwealth Secretariat as a Civil Society Organisation. Our vision is: **“No person in the Commonwealth should drown”**.

The RLSS is working to eliminate drowning in the Commonwealth. With active Member Branches in 30 Commonwealth Nations, we aim to reduce the incidence of drowning around the world by developing community-based drowning prevention strategies and lifesaving education programmes, and providing advice and education to Governments, NGOs and individuals on the development of water skills.

Data and Limitations

The Institute for Health Metrics and Evaluation (IHME), Seattle, United States in its Global Burden of Disease Study 2017 (GBD 2017) provided Cause-Specific Mortality for 1980-2017, which includes fatal drowning. A considerable limitation of these estimates for informing drowning prevention is that they do not include drowning deaths that occur in water-related disasters (e.g. floods or cyclones), water-transportation incidents or self-harm. From this database the fatal drowning information of the Commonwealth countries was retrieved and analysed.

There are 54 countries in the Commonwealth with a total population of 2.4 billion people. Population estimates were available for all Commonwealth countries, sourced from the British Commonwealth Countries Population (see pg.11 for reference).

The GBD estimates are derived from synthesizing a wide range of available data, however the number of sources varies significantly by country. ‘For many parts of the world, good data on health are not readily available. In some cases, the infrastructure and resources are not available to support a fully functioning health information system. In others, core systems exist but there is a need to augment existing data with new data collection’¹¹.

As there are no available non-fatal drowning estimates for the data sections in this Fact Sheet, only fatal drowning data is shown.

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11 <http://www.healthdata.org/data-tools>

Rank	Flag	Country	Population 2019
1		India	1,366,417,754
2		Pakistan	216,565,318
3		Nigeria	200,963,599
4		Bangladesh	163,046,161
5		United Kingdom	67,530,172
6		South Africa	58,558,270
7		Tanzania	58,005,463
8		Kenya	52,573,973
9		Uganda	44,269,594
10		Canada	37,411,047
11		Malaysia	31,949,777
12		Ghana	30,417,856
13		Mozambique	30,366,036
14		Cameroon	25,876,380
15		Australia	25,203,198
16		Sri Lanka	21,323,733
17		Malawi	18,628,747
18		Zambia	17,861,030
19		Rwanda	12,626,950
20		Papua New Guinea	8,776,109
21		Sierra Leone	7,813,215
22		Singapore	5,804,337
23		New Zealand	4,783,063
24		Jamaica	2,948,279
25		Namibia	2,494,530
26		Gambia	2,347,706
27		Botswana	2,303,697

Rank	Flag	Country	Population 2019
28		Lesotho	2,125,268
29		Trinidad And Tobago	1,394,973
30		Mauritius	1,269,668
31		Cyprus	1,198,575
32		Swaziland	1,148,130
33		Fiji	889,953
34		Guyana	782,766
35		Solomon Islands	669,823
36		Maldives	530,953
37		Malta	440,372
38		Brunei	433,285
39		Belize	390,353
40		Bahamas	389,482
41		Vanuatu	299,882
42		Barbados	287,025
43		Samoa	197,097
44		Saint Lucia	182,790
45		Kiribati	117,606
46		Grenada	112,003
47		Saint Vincent And The Grenadines	110,589
48		Tonga	104,494
49		Seychelles	97,739
50		Antigua And Barbuda	97,118
51		Dominica	71,808
52		Saint Kitts And Nevis	52,823
53		Tuvalu	11,646
54		Nauru	10,756

Source: British Commonwealth Countries Population. (2019-08-28). Retrieved 2019-09-23, from <http://worldpopulationreview.com/countries/british-commonwealth-countries/>



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