

Future trends in homicide – extrapolations from 2019 to 2030



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Future trends in homicide – extrapolations from 2019 to 2030

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Introduction

Homicide is a major cause of death worldwide. Hundreds of thousands of people are killed each year as a result of homicide – slightly less than the number of people dying from malaria and several times more than the number of people killed in armed conflicts.¹ Homicidal violence is also unevenly distributed. While just one percent of all deaths globally are due to homicide, this rises to ten percent in some of the most affected countries. Indeed, a relatively small number of countries and cities account for the overwhelming distribution of homicide around the world.

Yet despite the scale of homicide, it is still not accorded the same global importance as armed conflict. Indeed, high levels of murder are often normalized over time in some settings. Violent crime is often always treated as a domestic issue and mediated by concerns about national sovereignty. Although overall levels of lethal violence have steadily declined in most regions, it still remains a pernicious challenge. There continues to be a tendency to minimize or gloss over lethal violence, as a domestic concern, until it becomes too difficult to conceal.

Developing a better understanding of future trends in homicidal violence is critical. This is not just about assessing the scope and scale of the challenge, but also making smarter decisions about investing in prevention and reduction. Homicides generate massive social and economic costs,² and slow progress on the Sustainable Development Goals. Without a better appreciation of past, present and future dynamics, it is difficult to mobilize the necessary attention and resources to achieve impact.

Patterns of homicide are neither static nor evenly distributed. In this study, the intention is to extrapolate future tendencies of intentional homicide. The study is not a forecast. Rather, it is intended to highlight what the world could look like in the absence of global, regional, national, and municipal strategies to prevent and reduce murder. Ultimately, one cannot know or anticipate the future. That said, it is possible to begin understanding possible scenarios over the next decade based on observed trends.

Fortunately, most countries have actually experienced sustained declines in homicidal violence across several decades. Notwithstanding the disruptive effects of COVID-19 and associated economic stresses in 2020, these trends are expected to continue in several parts of the world. For most people, the world is a much safer place than it was at the beginning of the twenty-first century. This does not guarantee that the future will be more secure, but it does suggest whatever the causes, progress has been made.

Table 1. Summary of homicide, youth homicide and terrorism trends: 2019-2030

Homicidal violence				
	2019	2030	Change (%)	Change (abs.)
Americas	178,248	246,778	38.4%	68,530
Africa	55,365	100,062	80.7%	44,696
Europe	20,460	10,519	-48.6%	-9,940
Asia	97,479	91,041	-6.6%	-6,438
Oceania	1,202	1,571	30.7%	369
Total	352,754	449,971	27.6%	97,217
Homicide among young population (15-29 yrs.)				

	2019	2030	Change (%)	Change (abs.)
Americas	103,316	143,840	39.2%	40,524
Africa	5,461	22,035	303.5%	16,574
Europe	1,070	1,016	-5.0%	-54
Asia	5,586	7,554	35.2%	1,968
Oceania	49	27	-45.1%	-22
Total	115,482	174,472	51.1%	58,990

Terrorist killings				
	2019	2030	Change (%)	Change (abs.)
Americas	338	770	127.7%	432
Africa	7,673	25,404	231.1%	17,731
Europe	71	140	97.5%	69
Asia	18,092	45,106	149.3%	27,014
Oceania	2	4	81.8%	2
Total	26,176	71,423	172.9%	45,247

Note: Changes may not add up to 100% due to rounding.

Less positively, however, there are also signs of a worsening situation in regions and subregions. In parts of Latin America and the Caribbean, for example, homicidal violence has increased. If these observed trends persist, then global progress will be reversed within the next decade. Specifically, the total number of homicides could rise by 28 percent over the next ten years – three times the expected rate of global population growth. Increases would be most acute in the Americas and Africa. The cumulative total homicide count would reach 4.3 million by 2030. A similar point can be made with regards to terrorist killings, where terrorist violence could increase dramatically across all regions – especially in Africa and Asia. These projected trajectories are disconcerting and require urgent consideration.

Methods

The data for these extrapolations were drawn from the United Nations Office on Drugs and Crime (UNODC) and the Global Terrorism Database (GTD). For some countries, there was no data either on total homicide or youth homicide counts for any year (see Tables 1 and 2). The list of cities selected for extrapolation of homicide counts is also presented in the Appendix. With regards to terrorist killings data, there were 119 countries with information in the database with at least one killing between 2006 and 2018.

The following extrapolations are based on three trend extrapolation methods, namely, linear, geometric, and exponential trend extrapolation methods. These are each considered standard methods in demographic analysis.³ We applied these three methods because they are widely accepted, follow simple mathematical formulations, require limited data, and their results are easy to communicate to non-expert audiences. The basic premise of these methods is that future figures of, say, homicide counts, will depend on previous figures over time. The formulae are presented below.

Linear trend

It assumes that violence, in this case homicides, will increase or decrease by the same number every year over time. It uses an average yearly absolute change (d). This yearly change is computed as:

$$d = \frac{(H_l - H_b)}{y}$$

Where H_l is the number of homicides in the takeoff year, H_b is the number of homicides in the base year, and y is the number of years in the period. The projection method is expressed as:

$$H_t = H_l + z(d)$$

Where H_t is the projected number of homicides in the corresponding year and z is the number of years in the extrapolation distance.

Geometric trend

This method assumes that homicides, will increase or decrease based on a yearly geometric growth rate, calculated in discrete time intervals. The yearly rate of change (r) is computed as:

$$r = \left(\frac{H_l}{H_b}\right)^{\frac{1}{y}} - 1$$

The projection method thus is expressed as:

$$H_t = H_l(1 + r)^z$$

Exponential trend

This method, unlike the geometric method, assumes that the rate of change is based on continuous compounding. This assumption is achieved with the use of natural logs (\ln). This method is best for places where homicide counts are not changing rapidly. In this case, the yearly rate (r) is computed as:

$$r = \frac{\left[\ln\left(\frac{H_l}{H_b}\right)\right]}{y}$$

The projection method is expressed as:

$$H_t = H_l e^{rz}$$

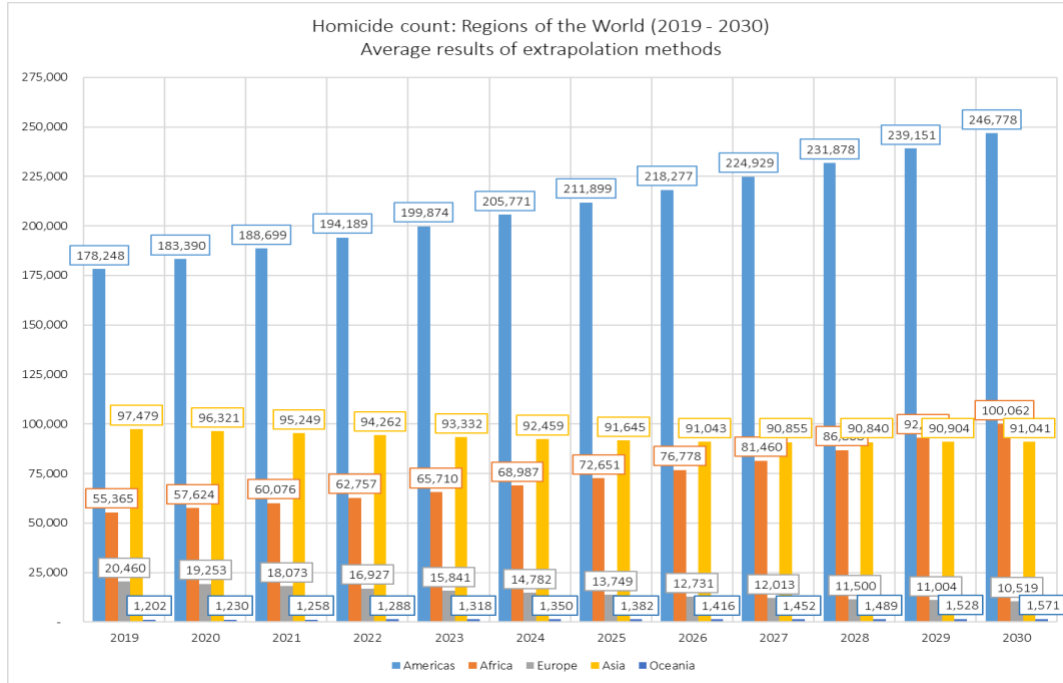
The same notation as above applies here.

The extrapolation period is 2019 to 2030, that is, 12 years. Extrapolations were undertaken using the observed dynamics between 2006 and 2018 when data was available. If either of these two data points (i.e. year) were not available, extrapolations were administered using the nearest corresponding data points. Trends in total homicide, youth homicide, and terrorist killings were projected for every country across every year. Country results were aggregated for each subregion and region of the world. The final results for each region and subregion are the arithmetic average of the three trend extrapolation methods.⁴

Findings

The assessment finds that the world will experience a higher absolute toll of homicidal violence by 2030. Assuming current trends, the total number of homicide victims is expected to increase 28 percent between 2019 and 2030. This is an increase from roughly 352,000 (according to UNODC) in 2019 to 449,000 by 2030. It is worth underlining that the global population is also expected to increase by approximately 9.7 percent between 2020 and 2030, from 7.7 billion to 8.5 billion people.⁵ Put another way, the rate of homicide increase is three times the rate of population growth, *ceteris paribus*. In the tables that follow, changes and averages may not add up to 100% due to rounding of the count numbers.

Figure 1. Homicide counts for regions of the world (2019 – 2030)



The region’s most likely to experiencing worsening homicidal violence are the Americas and Africa (see Figure 1 and Tables 2-3). Likewise, Oceania will also experience sharp increases in homicidal violence, though the absolute numbers are low when compared to other parts of the world. By contrast, Europe and Asia will register continued declines in homicide. If current trends persist, these two regions could register decrease of 48 and 7 percent respectively. The steady increases in homicidal violence in the Americas and Africa could obviate reductions made in Europe and Asia.

Table 2. Homicide counts per region of the world (2019 – 2030)
Averages of extrapolation methods

	Americas	Africa	Europe	Asia	Oceania	Total
2019	178,248	55,365	20,460	97,479	1,202	352,754
2020	183,390	57,624	19,253	96,321	1,230	357,819
2021	188,699	60,076	18,073	95,249	1,258	363,356
2022	194,189	62,757	16,927	94,262	1,288	369,422
2023	199,874	65,710	15,841	93,332	1,318	376,074
2024	205,771	68,987	14,782	92,459	1,350	383,348
2025	211,899	72,651	13,749	91,645	1,382	391,326
2026	218,277	76,778	12,731	91,043	1,416	400,245
2027	224,929	81,460	12,013	90,855	1,452	410,708
2028	231,878	86,808	11,500	90,840	1,489	422,515
2029	239,151	92,954	11,004	90,904	1,528	435,542
2030	246,778	100,062	10,519	91,041	1,571	449,971

Yearly Ch.*	6,230	4,063	- 904	-585	34	8,838
Change (%)	38.4%	80.7%	-48.6%	-6.6%	30.7%	27.6%
Change (abs.)	68,530	44,696	-9,940	- 6,438	369	97,217

*Note: Yearly average

Table 3. Homicide counts per extrapolation method (2019 – 2030)

Extrapolation methods and average

	Linear	Geometric	Exponential	Average
2019	346,016	351,293	360,954	352,754
2020	347,059	357,315	369,082	357,819
2021	348,204	363,337	378,527	363,356
2022	349,491	369,359	389,416	369,422
2023	350,908	375,381	401,935	376,074
2024	352,324	381,430	416,289	383,348
2025	353,741	387,515	432,721	391,326
2026	355,612	393,601	451,523	400,245
2027	359,399	399,687	473,038	410,708
2028	364,046	405,820	497,679	422,515
2029	368,727	411,963	525,935	435,542
2030	373,418	418,107	558,388	449,971
Yearly Ch.*	2,491	6,074	17,949	8,838
Change (%)	7.9%	19.0%	54.7%	27.6%
Change (abs.)	27,402	66,814	197,435	97,217

*Note: Yearly average

Sub-regional and even national shifts could change global and regional trajectories, especially in Latin America and the Caribbean and several subregions of Africa that are set to experience the sharpest increases in homicide. Indeed, Central America could witness homicide increases of 85 percent, South America 24 percent, and the Caribbean 18 percent by 2030 (Table 4). Meanwhile, Northern Africa, in particular, could experience a 288 percent increase in homicidal violence as compared to Eastern (68 percent), and Middle Africa (45 percent) (Table 5). Thus, focused interventions on countries, states, and cities in these regions warrants consideration.

The more promising areas include Europe and Asia. Specifically, a 48 percent decline is expected by 2030 in Europe, with the sharpest anticipated declines in Eastern (60 percent) and Southern Europe (44 percent) (Table 6). Falls are also projected in East (72 percent), Central (68 percent), and Southeast Asia (19 percent) (Table 7). Although homicide counts could increase in Oceania, the numbers are modest in absolute terms when compared to other parts of the world (Table 8).

Table 4. Homicide counts for the Americas region and subregions (2019 – 2030)
Average of extrapolation methods

	Caribbean	Central America	Northern America	South America	Total general
2019	6,039	49,775	17,955	104,479	178,248
2020	6,114	52,744	17,957	106,575	183,390
2021	6,193	55,840	17,959	108,705	188,699
2022	6,277	59,076	17,962	110,872	194,189
2023	6,365	62,466	17,964	113,075	199,874
2024	6,458	66,026	17,966	115,317	205,771
2025	6,555	69,772	17,969	117,597	211,899
2026	6,659	73,724	17,971	119,918	218,277
2027	6,768	77,901	17,974	122,281	224,929
2028	6,882	82,327	17,976	124,686	231,878
2029	7,004	87,026	17,979	127,135	239,151
2030	7,133	92,026	17,981	129,631	246,778
Yearly Ch. *	99	3,841	2	2,286	6,230
Change (%)	18.1%	84.9%	0.1%	24.1%	38.4%
Change (abs.)	1,094	42,251	27	25,151	68,530

*Note: Yearly average

Table 5. Homicide counts for the African region and subregions (2019 – 2030)
Average of extrapolation methods

	Eastern Africa	Middle Africa	Northern Africa	Southern Africa	Western Africa	Total general
2019	18,007	2,920	9,813	22,501	2,124	55,365
2020	18,772	3,015	10,977	22,700	2,160	57,624
2021	19,581	3,115	12,282	22,901	2,199	60,076
2022	20,441	3,219	13,758	23,102	2,239	62,757
2023	21,358	3,327	15,440	23,303	2,280	65,710
2024	22,342	3,441	17,373	23,506	2,324	68,987
2025	23,402	3,561	19,610	23,709	2,370	72,651
2026	24,549	3,685	22,214	23,912	2,417	76,778
2027	25,796	3,816	25,263	24,117	2,467	81,460
2028	27,158	3,954	28,854	24,322	2,520	86,808
2029	28,653	4,098	33,101	24,528	2,575	92,954

2030	30,302	4,250	38,143	24,734	2,633	100,062
Yearly Ch.*	1,118	121	2,576	203	46	4,063
Change (%)	68.3%	45.5%	288.7%	9.9%	24.0%	80.7%
Change (abs.)	12,294	1,329	28,331	2,233	509	44,696

*Note: Yearly average

Table 6. Homicide counts for the European region and subregions (2019 – 2030)
Average of extrapolation methods

	Eastern Europe	Northern Europe	Southern Europe	Western Europe	Total general
2019	15,174	2,127	1,111	2,049	20,460
2020	14,047	2,105	1,061	2,041	19,253
2021	12,940	2,083	1,017	2,033	18,073
2022	11,871	2,062	969	2,024	16,927
2023	10,859	2,044	922	2,016	15,841
2024	9,872	2,026	875	2,008	14,782
2025	8,910	2,009	829	2,001	13,749
2026	7,961	1,993	784	1,993	12,731
2027	7,306	1,982	739	1,985	12,013
2028	6,853	1,972	697	1,977	11,500
2029	6,412	1,965	657	1,969	11,004
2030	5,982	1,958	617	1,961	10,519
Yearly Ch.*	-836	-15	-45	-8	-904
Change (%)	-60.6%	-7.9%	-44.4%	-4.3%	-48.6%
Change (abs.)	-9,191	-169	-493	-87	-9,940

*Note: Yearly average

Table 7. Homicide counts for the Asia region and subregions (2019 – 2030)
Average of extrapolation methods

	Central Asia	Eastern Asia	South-Eastern A.	Southern Asia	Western Asia	Total general
2019	1,639	8,154	15,915	59,388	12,384	97,479
2020	1,504	7,441	16,099	59,074	12,204	96,321
2021	1,375	6,742	16,293	58,800	12,039	95,249
2022	1,250	6,055	16,504	58,562	11,891	94,262
2023	1,127	5,381	16,726	58,339	11,759	93,332

2024	1,006	4,719	16,958	58,132	11,644	92,459
2025	887	4,067	17,199	57,943	11,550	91,645
2026	785	3,484	17,527	57,773	11,475	91,043
2027	710	3,153	17,870	57,623	11,499	90,855
2028	645	2,833	18,224	57,509	11,629	90,840
2029	581	2,528	18,588	57,423	11,785	90,904
2030	518	2,230	18,962	57,363	11,969	91,041
Yearly Ch.*	-102	-539	277	-184	-38	-585
Change (%)	-68.4%	-72.6%	19.1%	-3.4%	-3.4%	-6.6%
Change (abs.)	-1,121	-5,924	3,047	-2,025	-415	-6,438

*Note: Yearly average

Table 8. Homicide counts for the Oceania region and subregions (2019 – 2030)
Average of extrapolation methods

	Australia and New Zealand	Melanesia	Micronesia	Polynesia	Total general
2019	216	963	16	8	1,202
2020	209	995	18	8	1,230
2021	202	1,028	20	8	1,258
2022	196	1,061	23	9	1,288
2023	189	1,095	25	9	1,318
2024	182	1,130	29	9	1,350
2025	175	1,165	32	10	1,382
2026	169	1,200	37	10	1,416
2027	162	1,237	42	11	1,452
2028	156	1,274	48	11	1,489
2029	149	1,312	55	12	1,528
2030	143	1,350	65	13	1,571
Yearly Ch.*	-7	35	5	0	34
Change (%)	-33.8%	40.2%	319.4%	65.1%	30.7%
Change (abs.)	-73	387	50	5	369

*Note: Yearly average

Demographically, there are wide variations in how younger population (15 to 29 years) are likely to be affected by homicidal violence. Assuming there are no major interventions, it is likely that Africa and the Americas could experience a sharp increase in youth killings (Table 9). The proportion of young people who are victims of homicide could increase by over 300 percent in Africa, for example, compared to 39 percent in

the Americas. The following analysis is based on data retrieved for 98 countries, thus comparisons within and across regions should be treated with caution. Any efforts to prevent and reduce murder should focus in a determined fashion on this category of the population since they are likely to experience rising vulnerability to murder in relation to other age groups.

Table 9. Young population homicide counts per region of the World (2019 – 2030)

	Average of extrapolation methods					
	Americas	Africa	Europe	Asia	Oceania	Total
2019	103,316	5,461	1,070	5,586	49	115,482
2020	106,929	6,964	1,048	5,740	47	120,729
2021	110,543	8,468	1,026	5,895	45	125,976
2022	114,157	9,971	1,005	6,049	43	131,225
2023	117,772	11,474	987	6,204	41	136,477
2024	121,423	12,978	971	6,366	39	141,777
2025	125,111	14,482	964	6,529	37	147,122
2026	128,822	15,990	964	6,693	35	152,503
2027	132,545	17,501	965	6,905	33	157,948
2028	136,307	19,012	976	7,120	31	163,445
2029	140,073	20,524	996	7,335	29	168,956
2030	143,840	22,035	1,016	7,554	27	174,472
Yearly Ch.*	3,684	1,507	-5	179	-2	5,363
Change (%)	39.2%	303.5%	-5.0%	35.2%	-45.1%	51.1%
Change (abs.)	40,524	16,574	- 54	1,968	-22	58,990

*Note: Yearly average

Table 10. Young population homicide counts of the World (2019 – 2030)

	Extrapolation methods and average			
	Linear	Geometric	Exponential	Average
2019	101,180	110,253	135,012	115,482
2020	102,820	116,347	143,019	120,729
2021	104,462	122,440	151,026	125,976
2022	106,108	128,534	159,033	131,225
2023	107,765	134,628	167,040	136,477
2024	109,561	140,722	175,047	141,777
2025	111,496	146,817	183,054	147,122
2026	113,538	152,911	191,061	152,503
2027	115,745	159,005	199,093	157,948

2028	117,983	165,174	207,179	163,445
2029	120,221	171,376	215,272	168,956
2030	122,462	177,588	223,365	174,472
Yearly Ch.*	1,935	6,121	8,032	5,363
Change (%)	21.0%	61.1%	65.4%	51.1%
Change (abs.)	21,282	67,335	88,353	58,990

*Note: Yearly average

A key dimension of homicidal violence is the way it concentrates in urban settings. An illustration of this involves examining cities reporting a minimum of 500+ homicides in 2018 according to the UNODC and Igarapé Institute. Some 31 cities in 7 countries were included in this sample (see Table 11 and 12 and Appendices 1-3). The table below highlights the likely continued increase of homicidal violence in these cities – over 12 percent by 2030).

Table 11. Homicide counts per extrapolation method at the city scale (2019 – 2030)
Extrapolation methods and average (n:31)

	Linear	Geometric	Exponential	Average
2019	30,696	31,535	31,399	31,210
2020	30,278	31,923	31,651	31,284
2021	30,122	32,312	31,950	31,461
2022	29,965	32,818	32,402	31,728
2023	30,044	33,374	32,855	32,091
2024	30,177	33,931	33,307	32,472
2025	30,310	34,487	33,760	32,852
2026	30,443	35,044	34,213	33,233
2027	30,576	35,642	34,785	33,668
2028	30,709	36,338	35,385	34,144
2029	30,856	37,033	35,986	34,625
2030	31,083	37,729	36,586	35,133
Yearly Ch.*	35	563	472	357
Change (%)	1.3%	19.6%	16.5%	12.6%
Change (abs.)	387	6,194	5,187	3,923

*Note: Yearly average

Meanwhile, there are also signs that terrorist-related killings will continue increasing in Africa and Asia, as has been the case over the past decade. The largest increase in the number of incidents and victims is likely to occur in Africa (231 percent) and Asia (149 percent). Worryingly, increases in terrorist killings are also potentially likely in the Americas (128 percent) and Europe (97 percent), however at a comparatively lower

intensity (Table 12). Even so, a caution is warranted when interpreting these figures. Terrorist-related violence is among the most difficult types of violence to foresee and to prevent.

Table 12. Terrorist killings per region of the World (2019 – 2030)
Average of extrapolation methods

	Americas	Africa	Europe	Asia	Oceania	Total
2019	338	7,673	71	18,092	2	26,176
2020	377	9,275	74	20,532	2	30,261
2021	416	10,880	77	22,973	2	34,349
2022	456	12,488	83	25,415	3	38,444
2023	495	14,099	89	27,859	3	42,544
2024	534	15,710	94	30,302	3	46,644
2025	573	17,324	100	32,746	3	50,747
2026	613	18,940	108	35,192	3	54,856
2027	652	20,556	116	37,640	3	58,967
2028	691	22,172	124	40,087	4	63,077
2029	730	23,788	132	42,596	4	67,249
2030	770	25,404	140	45,106	4	71,423
Yearly Ch.*	39	1,612	6	2,456	0.2	4,113
Change (%)	127.7%	231.1%	97.5%	149.3%	81.8%	172.9%
Change (abs.)	432	17,731	69	27,014	2	45,247

*Note: Yearly average

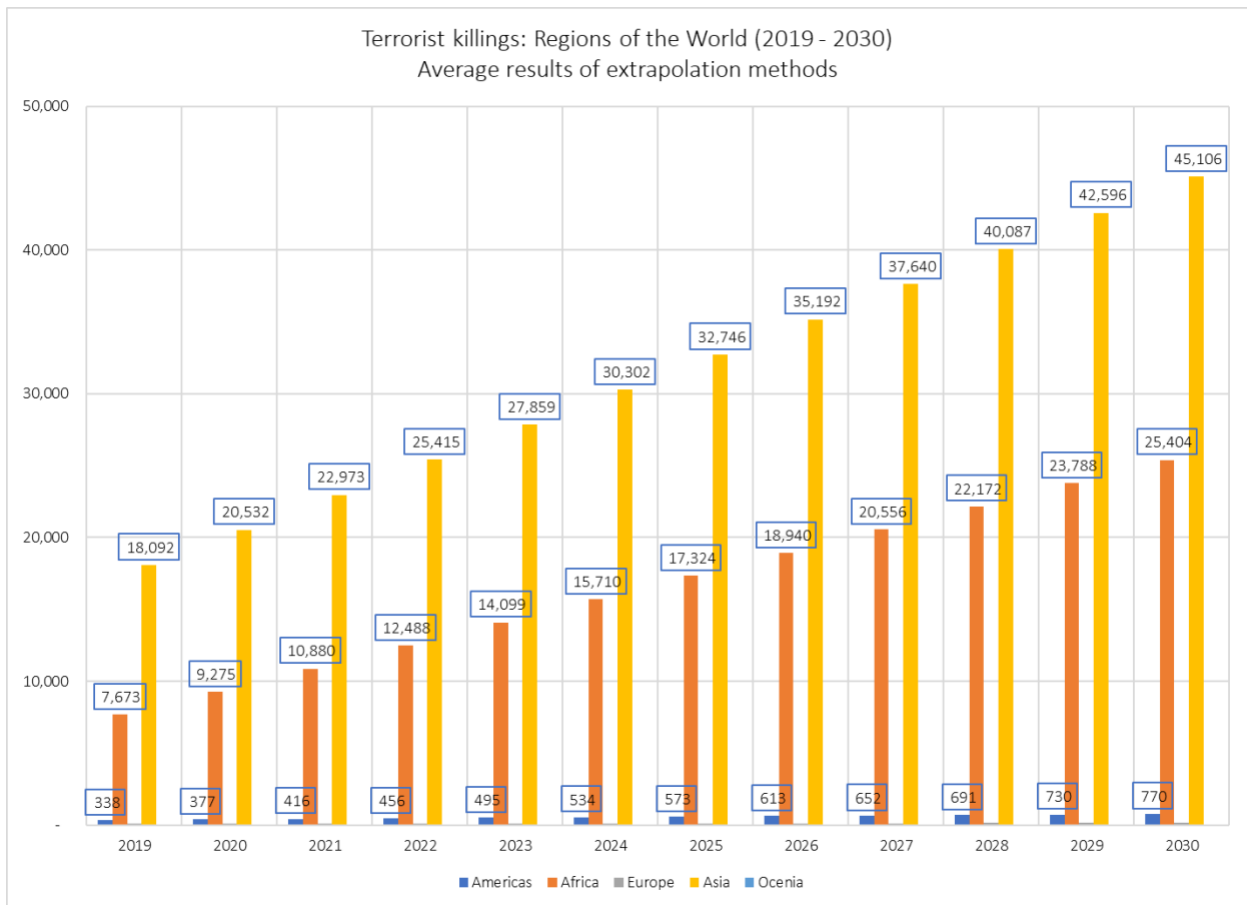
Table 13. Terrorist killings of the World (2019 – 2030)
Extrapolation methods and average

	Linear	Geometric	Exponential	Average
2019	23,540	27,982	27,005	26,176
2020	24,979	33,888	31,915	30,261
2021	26,426	39,793	36,828	34,349
2022	27,889	45,701	41,743	38,444
2023	29,356	51,613	46,663	42,544
2024	30,822	57,526	51,585	46,644
2025	32,287	63,441	56,512	50,747
2026	33,762	69,362	61,444	54,856
2027	35,237	75,286	66,377	58,967
2028	36,713	81,210	71,310	63,077

2029	38,373	87,133	76,242	67,249
2030	40,032	93,058	81,179	71,423
Yearly Ch.*	1,499	5,916	4,925	4,113
Change (%)	70.1%	232.6%	200.6%	172.9%
Change (abs.)	16,493	65,076	54,173	45,247

*Note: Yearly average

Graph 3. Terrorist killings for regions of the World (2019 – 2030)
Averages of extrapolation methods



Graph 4. Terrorist killings for regions of the World (2019 – 2030)
Comparison of extrapolation methods

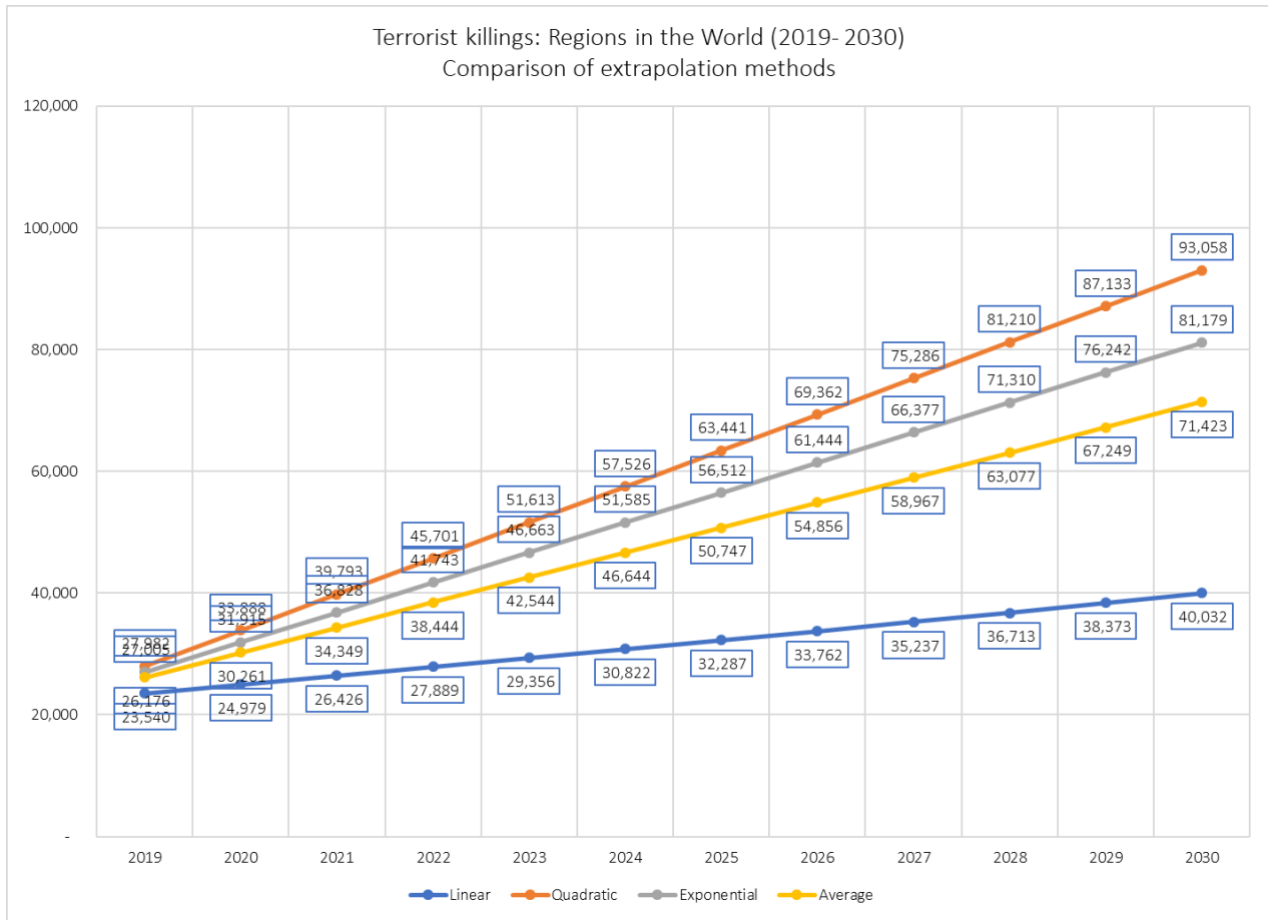


Table 14. Terrorist killings for the Americas region and subregions (2019 – 2030)
Average of extrapolation methods

	Caribbean	Central America	Northern America	South America	Total general
2019	4	37	72	225	334
2020	4	39	87	248	373
2021	4	40	101	271	412
2022	5	41	116	294	451
2023	5	43	130	317	490
2024	6	44	144	340	529
2025	6	46	159	363	567
2026	6	47	173	386	606
2027	7	48	188	409	645
2028	7	50	202	432	684

2029	8	51	216	455	723
2030	8	53	231	478	761
Yearly Ch.*	0	1	14	23	39
Change (%)	125.1%	43.0%	218.7%	112.3%	127.7%
Change (abs.)	4	16	158	253	427

*Note: Yearly average

Table 15. Terrorist killings for the African region and subregions (2019 – 2030)
Average of extrapolation methods

	Eastern Africa	Middle Africa	Northern Africa	Southern Africa	Western Africa	Total general
2019	1,800	920	554	32	4,368	7,673
2020	2,019	1,160	695	38	5,364	9,275
2021	2,238	1,399	837	44	6,361	10,880
2022	2,457	1,639	983	51	7,358	12,488
2023	2,677	1,878	1,132	57	8,355	14,099
2024	2,896	2,118	1,281	64	9,352	15,710
2025	3,115	2,358	1,432	70	10,350	17,324
2026	3,334	2,597	1,585	76	11,347	18,940
2027	3,554	2,837	1,739	83	12,344	20,556
2028	3,773	3,076	1,892	89	13,342	22,172
2029	3,992	3,316	2,045	95	14,339	23,788
2030	4,212	3,555	2,199	102	15,337	25,404
Yearly Ch.*	219	240	150	6	997	1,612
Change (%)	134.0%	286.4%	296.8%	222.6%	251.1%	231.1%
Change (abs.)	2,412	2,635	1,645	70	10,969	17,731

*Note: Yearly average

Table 16. Terrorist killings for the European region and subregions (2019 – 2030)
Average of extrapolation methods

	Eastern Europe	Northern Europe	Southern Europe	Western Europe	Total general
2019	39	2	7	22	71
2020	38	3	7	26	74
2021	38	3	8	29	77
2022	39	3	8	33	83

2023	41	3	8	36	89
2024	43	3	9	40	94
2025	45	3	9	43	100
2026	48	4	10	47	108
2027	52	4	10	50	116
2028	56	4	10	54	124
2029	60	4	11	57	132
2030	64	4	11	60	140
Yearly Ch.*	2	0.2	0.4	3	6
Change (%)	64.5%	70.9%	59.1%	169.2%	97.5%
Change (abs.)	25	2	4	38	69

*Note: Yearly average

Table 17. Terrorist killings for the Asia region and subregions (2019 – 2030)
Average of extrapolation methods

	Central Asia	Eastern Asia	South-Eastern A	Southern Asia	Western Asia	Total general
2019	60	1	670	12,746	4,614	18,092
2020	73	1	719	14,490	5,249	20,532
2021	85	0	768	16,234	5,885	22,973
2022	98	0	818	17,979	6,520	25,415
2023	111	0	867	19,724	7,157	27,859
2024	123	0	916	21,469	7,794	30,302
2025	136	0	966	23,214	8,430	32,746
2026	149	0	1,018	24,959	9,067	35,192
2027	162	0	1,070	26,703	9,704	37,640
2028	174	0	1,123	28,448	10,341	40,087
2029	187	0	1,176	30,207	11,026	42,596
2030	200	0	1,230	31,965	11,711	45,106
Yearly Ch.*	13	-0.1	51	1,747	645	2,456
Change (%)	233.0%	-98.0%	83.6%	150.8%	153.8%	149.3%
Change (abs.)	140	-1.2	560	19,219	7,097	27,014

*Note: Yearly average

Conclusions

Any extrapolation—including of homicide or terrorism—is freighted with caveats. For one, it is based on past trends which are not necessarily always a predictor of the future. Moreover, they are only as good as the underlying data on which they are based, and it is important to stress that data on lethal violence is often patchy and prone to error. Ultimately, the extrapolations presented in this study should not be mistaken for hard and fixed forecasts. Rather, they are projections based on observed trends.

Nevertheless, it is useful to build out simulations of the future, if only to highlight basic trends and patterns. The analysis presented here does not present a universally dark picture. Rather, the analysis highlights the extremely positive developments in reducing lethal violence in certain parts of the world. However, it reveals that considerably more investment is needed so as not to lose this progress. Simply ignoring or refuting the possibility of these developments is not advisable.

The findings presented here are basic on elementary statistical methods. For one, they do not account for underlying causes, future interactions, or unexpected shocks and disruptions. Significantly, they do not account for COVID-19, which is likely to have drastic and enduring negative effects on the global economy and mental health of vulnerable populations. It is too early to know the short- and long-run effects of the pandemic, though there are glimmers of what the future holds.⁶ Ultimately, these extrapolations are designed to draw attention to direction of global homicide, and potential for prevention and reduction.

Endnotes

¹ See UNODC (2020) Global Homicide Report. Vienna: UNODC, <https://www.unodc.org/unodc/en/data-and-analysis/global-study-on-homicide.html>

² See Wickramasekera, N., Wright, J., Elsey, H., Murray, J., and Tubeuf, S. (2015). "Cost of crime: A systematic review". *Journal of Criminal Justice*, 43(3), 218-228; and Aboal, D., Lanzilotta, B., Dominguez, M., and Vairo, M. (2016). "The cost of crime and violence in five Latin American countries". *European Journal on Criminal Policy and Research*, 22(4), 689-711.

³ See Smith, S. K., Tayman, J., and Swanson, D. A. (2006). "State and local population projections: Methodology and analysis." Springer Science & Business Media.

⁴ We extrapolate counts rather than rates given that rates would have included one source of uncertainty in our analysis, namely, population trends. Thus, to avoid denominator errors, we only extrapolated counts. Rates can be later calculated based on census official data for each country. In the tables that follow, changes and averages may not add up to 100 percent due to rounding.

⁵ The UN expects a total population increase of 9.7 percent between 2020 and 2030, that is, passing from 7.7 billion to 8.5 billion. See: https://population.un.org/wpp/Graphs/1_Demographic%20Profiles/World.pdf

⁶ See, for example, ACLED (2020) COVID-19 Disorder Tracker, <https://www.google.com/search?q=acled+covid19&oq=acled+covid19&aqs=chrome..69i57j0j69i64.2223j0j4&sourceid=chrome&ie=UTF-8>; Carnegie (2020) Global Protest Tracker, <https://carnegieendowment.org/publications/interactive/protest-tracker>; Muggah, R. (2020) COVID-19's impact on instability and violence. London: DFID and Pathfinders; Muggah, R. and Pinker, S. (2020) "We can make the post-coronavirus world a much less violent place", *Foreign Policy*, 14 April, <https://foreignpolicy.com/2020/04/14/we-can-make-the-post-coronavirus-world-much-less-violent/>, Milante and Muggah (2020) "World Bank needs to make fragility a central priority in the COVID-19 era", *DEFEX*, 30 April, <https://www.devex.com/news/opinion-world-bank-needs-to-make-fragility-a-central-priority-in-the-covid-19-era-97064>.

Appendix

Appendix 1. Homicide counts for selected cities of the World (2019 – 2030)*

Average of extrapolation methods

City	Country	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Tijuana	Mexico	2,716	3,186	3,656	4,127	4,597	5,067	5,537	6,007	6,477	6,947	7,418	7,888
Cape Town	South Africa	2,990	3,089	3,187	3,286	3,384	3,483	3,581	3,680	3,778	3,877	3,975	4,074
Ciudad de Mexico	Mexico	1,300	1,375	1,450	1,526	1,601	1,676	1,751	1,826	1,901	1,976	2,051	2,127
Johannesburg	South Africa	1,725	1,757	1,788	1,819	1,851	1,882	1,913	1,945	1,976	2,007	2,038	2,070
Fortaleza	Brazil	1,515	1,548	1,580	1,613	1,646	1,679	1,712	1,744	1,777	1,810	1,843	1,876
eThekwin - Durban	South Africa	1,767	1,752	1,736	1,721	1,705	1,690	1,674	1,659	1,643	1,628	1,612	1,597
Manaus	Brazil	1,011	1,054	1,098	1,141	1,184	1,227	1,271	1,314	1,357	1,400	1,443	1,487
Cancún	Mexico	611	685	758	832	906	980	1,054	1,127	1,201	1,275	1,349	1,423
Ekurhuleni	South Africa	1,160	1,177	1,193	1,210	1,227	1,244	1,260	1,277	1,294	1,311	1,327	1,344
O.R Tambo	South Africa	831	851	870	890	909	928	948	967	987	1,006	1,026	1,045
Chicago	USA	568	602	636	670	704	738	772	806	839	873	907	941
Cali	Colombia	1,129	1,107	1,085	1,064	1,042	1,020	998	976	954	933	911	889
Belém	Brazil	901	900	898	896	894	893	891	889	887	886	884	882
Chris Hani	South Africa	617	636	656	675	694	713	733	752	771	790	810	829
Rio de Janeiro	Brazil	1,373	1,316	1,260	1,204	1,148	1,091	1,035	979	923	866	810	754
Porto Alegre	Brazil	561	577	593	609	625	640	656	672	688	704	720	736
Amathole	South Africa	608	619	631	642	654	666	677	689	700	712	723	735
Bogotá	Colombia	1,014	986	959	931	904	876	849	821	794	766	739	711

Nelson Mand. Bay	South Africa	650	650	649	648	648	647	646	645	645	644	643	643
Acapulco	Mexico	816	794	771	749	726	703	681	658	635	613	590	568
City of Tshwane	South Africa	548	539	531	523	515	506	498	490	482	473	465	457
Culiacán	Mexico	496	492	489	485	481	477	474	470	466	462	458	455
Medellín	Colombia	599	577	554	532	510	488	465	443	421	399	377	354
Ciudad Juárez	Mexico	947	890	833	776	719	662	605	548	491	434	376	319
Maceió	Brazil	579	550	522	493	465	436	408	379	351	323	294	266
Salvador	Brazil	1,067	992	917	842	767	692	617	542	467	392	317	242
Recife	Brazil	570	538	506	475	443	411	379	347	315	284	252	220
São Paulo	Brazil	624	577	529	482	434	387	339	292	244	197	149	114
Guatemala	Guatemala	562	517	472	427	382	337	292	247	202	157	117	90
Caracas	Venezuela	1,020	827	635	443	329	233	138	42	0	0	0	0
Valencia	Venezuela	334	124	17	0	0	0	0	0	0	0	0	0
Total		31,210	31,284	31,461	31,728	32,091	32,472	32,852	33,233	33,668	34,144	34,625	35,133

*Note: Cities with 500+ homicides in 2018

Appendix 2. List of countries for which no homicide data was available

Region	Subregion	Country
Americas	Caribbean	Bonaire, Saint Eustatius and Saba
Americas	Caribbean	Sint Maarten (Dutch part)
Americas	South America	Falkland Islands (Malvinas)
Africa	Eastern Africa	Comoros
Africa	Eastern Africa	Djibouti
Africa	Eastern Africa	Eritrea
Africa	Eastern Africa	Ethiopia
Africa	Eastern Africa	Madagascar
Africa	Eastern Africa	Somalia
Africa	Middle Africa	Chad
Africa	Middle Africa	Congo
Africa	Middle Africa	Democratic Republic of Congo
Africa	Middle Africa	Equatorial Guinea
Africa	Middle Africa	Gabon
Africa	Northern Africa	Libya
Africa	Northern Africa	Western Sahara
Africa	Western Africa	Cote d'Ivoire
Africa	Western Africa	Gambia
Africa	Western Africa	Guinea
Africa	Western Africa	Mali
Africa	Western Africa	Mauritania
Africa	Western Africa	Nigeria
Africa	Western Africa	Saint Helena
Africa	Western Africa	Senegal
Africa	Western Africa	Togo
Europe	Northern Europe	Faroe Islands
Europe	Northern Europe	Isle of Man
Europe	Southern Europe	Gibraltar
Europe	Southern Europe	Holy See
Asia	Eastern Asia	Democratic People's Republic of Korea
Asia	South-Eastern Asia	Lao People's Democratic Republic
Oceania	Melanesia	Vanuatu
Oceania	Micronesia	Micronesia (Federated States of)
Oceania	Micronesia	Nauru
Oceania	Micronesia	Northern Mariana Islands
Oceania	Micronesia	Palau
Oceania	Polynesia	Niue
Oceania	Polynesia	Samoa
Oceania	Polynesia	Tokelau
Oceania	Polynesia	Wallis and Futuna Islands

N = 40

Appendix 3. List of countries for which young population homicide data was available

Region	Country
Africa	Algeria
Africa	Mauritius
Africa	Cabo Verde
Africa	Eswatini
Africa	Morocco
Africa	Réunion
Asia	Azerbaijan
Asia	Hong Kong
Asia	Iran (Islamic Republic of)
Asia	Israel
Asia	Jordan
Asia	Mongolia
Asia	Palestine, State of
Asia	Qatar
Asia	Singapore
Asia	Sri Lanka
Asia	Thailand
Asia	Egypt
Asia	Macao
Asia	Philippines (the)
Asia	Japan
Europe	Albania
Europe	Andorra
Europe	Austria
Europe	Belarus
Europe	Bosnia and Herzegovina
Europe	Bulgaria
Europe	Croatia
Europe	Cyprus
Europe	Czechia
Europe	Denmark
Europe	Estonia
Europe	Finland
Europe	France
Europe	Georgia
Europe	Germany
Europe	Greece
Europe	Holy See (the)

Europe	Hungary
Europe	Iceland
Europe	Italy
Europe	Latvia
Europe	Liechtenstein
Europe	Luxembourg
Europe	Malta
Europe	Moldova (the Republic of)
Europe	Monaco
Europe	Montenegro
Europe	Netherlands (the)
Europe	Norway
Europe	Poland
Europe	Portugal
Europe	Serbia
Europe	Slovenia
Europe	Spain
Europe	Sweden
Europe	Switzerland
Europe	United Kingdom
Oceania	Australia
Oceania	New Zealand
Americas	Argentina
Americas	Bahamas (the)
Americas	Barbados
Americas	Belize
Americas	Bermuda
Americas	Brazil
Americas	Canada
Americas	Chile
Americas	Colombia
Americas	Costa Rica
Americas	Cuba
Americas	Dominican Republic (the)
Americas	El Salvador
Americas	French Guiana
Americas	Grenada
Americas	Guatemala
Americas	Guyana
Americas	Honduras
Americas	Jamaica
Americas	Martinique

Americas	Panama
Americas	Paraguay
Americas	Peru
Americas	Puerto Rico
Americas	Suriname
Americas	Trinidad and Tobago
Americas	Turks and Caicos Islands (the)
Americas	United States of America (the)
Americas	Uruguay
Americas	Venezuela
Americas	Anguilla
Americas	Cayman Islands (the)
Americas	Ecuador
Americas	Mexico
Americas	Montserrat
Americas	Saint Lucia
Americas	Saint Vincent and the Grenadines
Americas	Virgin Islands (British)

N = 98

Appendix 4. List of world cities with 500+ homicides in 2018

City	Country
Belem	Brazil
Fortaleza	Brazil
Maceio	Brazil
Manaus	Brazil
Porto Alegre	Brazil
Recife	Brazil
Rio de Janeiro	Brazil
Salvador	Brazil
São Paulo	Brazil
Bogotá	Colombia
Cali	Colombia
Medellin	Colombia
Guatemala	Guatemala
Acapulco	Mexico
Cancun	Mexico
Ciudad de Mexico	Mexico
Ciudad Juarez	Mexico
Culiacan	Mexico
Tijuana	Mexico
Amathole	South Africa
Cape Town	South Africa
Chris Hani	South Africa
City of Tshwane	South Africa
Ekurhuleni	South Africa
eThekweni - Durban	South Africa
Johannesburg	South Africa
Nelson Mandela Bay	South Africa
O.R Tambo	South Africa
Chicago	USA
Caracas	Venezuela
Valencia	Venezuela

N = 31



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