

# GBD PROFILE: ALGERIA

## GLOBAL BURDEN OF DISEASES, INJURIES, AND RISK FACTORS STUDY 2010

The Global Burden of Disease Study 2010 (GBD 2010) is a collaborative project of nearly 500 researchers in 50 countries led by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. It is the largest systematic scientific effort in history to quantify levels and trends of health loss due to diseases, injuries, and risk factors. GBD serves as a global public good to inform evidence-based policymaking and health systems design.

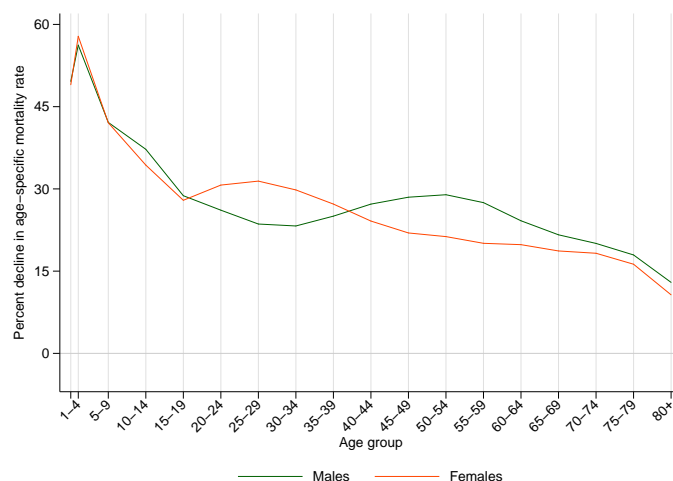
### PROFILE OVERVIEW

- In terms of the number of years of life lost (YLLs) due to premature death in Algeria, preterm birth complications, ischemic heart disease, and cerebrovascular disease were the highest ranking causes in 2010.
- Of the 25 most important causes of burden, as measured by disability-adjusted life years (DALYs), diarrheal diseases showed the largest decrease, falling by 75% from 1990 to 2010.
- The leading risk factor in Algeria is dietary risks.

### ALL-CAUSE MORTALITY RATE

- This chart shows the decline in mortality rate at every age range. The higher points on the chart indicate that declines in mortality rates were faster in those age groups between 1990 and 2010.
- The greatest reductions in all-cause mortality rate were experienced by females aged 1-4 years (58%). Females aged 80+ years saw the smallest decrease in mortality rate (11%).

Percent decline in age-specific mortality rate by sex from 1990-2010 in Algeria



### CAUSES OF PREMATURE DEATH

Years of life lost (YLLs) quantify premature mortality by weighting younger deaths more than older deaths.

Ranks for top 25 causes of YLLs 1990-2010, Algeria

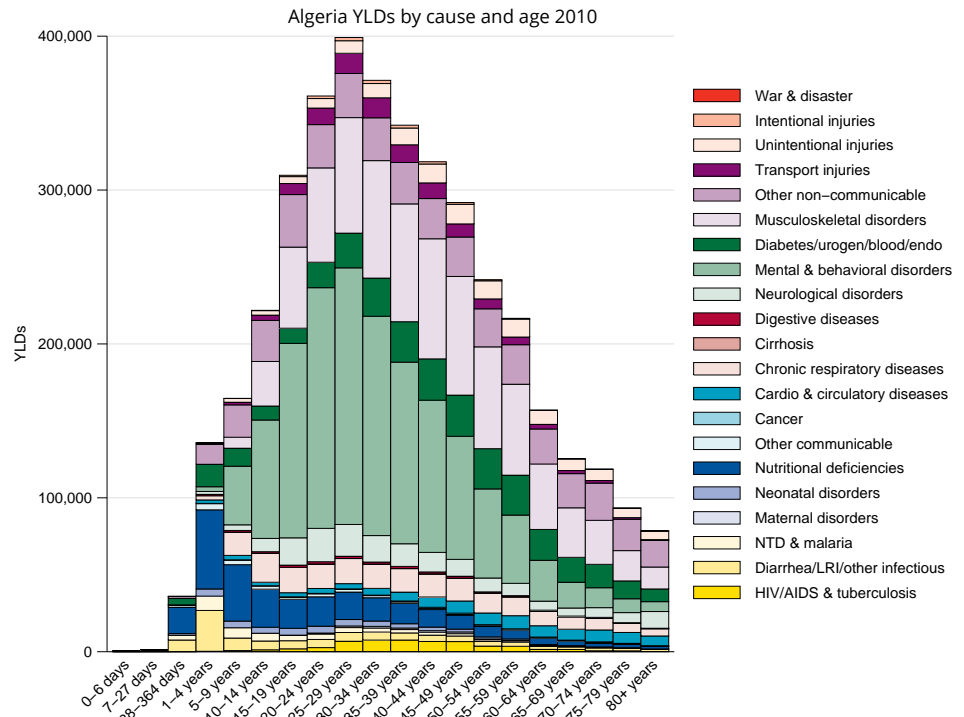
# YLLs in thousands (% of total)	Rank and disorder 1990	Rank and disorder 2010	# YLLs in thousands (% of total)	% change
782 (12.6%)	1 Preterm birth complications	1 Preterm birth complications	507 (10.7%)	-35
624 (10.0%)	2 Congenital anomalies	2 Ischemic heart disease	395 (8.4%)	12
468 (7.6%)	3 Lower respiratory infections	3 Stroke	375 (7.9%)	9
406 (6.5%)	4 Diarrheal diseases	4 Road injury	208 (4.4%)	-5
358 (5.8%)	5 Ischemic heart disease	5 Congenital anomalies	209 (4.4%)	-68
343 (5.5%)	6 Stroke	6 Diabetes	194 (4.1%)	43
217 (3.5%)	7 Road injury	7 Lower respiratory infections	192 (4.1%)	-59
211 (3.4%)	8 Neonatal encephalopathy	8 Neonatal sepsis	167 (3.5%)	2
170 (2.7%)	9 Neonatal sepsis	9 Neonatal encephalopathy	151 (3.2%)	-27
163 (2.6%)	10 Protein-energy malnutrition	10 Other cardio & circulatory	110 (2.3%)	14
136 (2.2%)	11 Diabetes	11 Chronic kidney disease	93 (2.0%)	67
118 (1.9%)	12 Meningitis	12 Hypertensive heart disease	87 (1.8%)	17
97 (1.6%)	13 Other cardio & circulatory	13 Fire	70 (1.5%)	-3
74 (1.2%)	14 Hypertensive heart disease	14 Diarrheal diseases	63 (1.3%)	-84
76 (1.2%)	15 Syphilis	15 Cardiomyopathy	59 (1.3%)	12
72 (1.2%)	16 Tuberculosis	16 Lung cancer	52 (1.1%)	35
72 (1.2%)	17 Fire	17 Interpersonal violence	51 (1.1%)	59
56 (0.9%)	18 Chronic kidney disease	18 Leukemia	51 (1.1%)	39
56 (0.9%)	19 Drowning	19 Tuberculosis	50 (1.1%)	-30
54 (0.9%)	20 Cardiomyopathy	20 Falls	50 (1.1%)	13
53 (0.8%)	21 Maternal disorders	21 Protein-energy malnutrition	51 (1.1%)	-69
44 (0.7%)	22 Falls	22 Meningitis	48 (1.0%)	-59
43 (0.7%)	23 COPD	23 HIV/AIDS	45 (1.0%)	> 9,999
41 (0.7%)	24 Intestinal obstructions	24 Breast cancer	42 (0.9%)	171
38 (0.6%)	25 Lung cancer	25 Drowning	42 (0.9%)	-26
	26 Leukemia	27 Intestinal obstructions		
	29 Interpersonal violence	29 COPD		
	46 Breast cancer	32 Maternal disorders		
	110 HIV/AIDS	39 Syphilis		

This chart shows the change in the top 25 causes of YLLs due to premature mortality from 1990 to 2010. Solid lines indicate a cause has moved up in rank or stayed the same. Broken lines indicate a cause has moved down in rank. The causes are color coded by blue for non-communicable diseases, green for injuries, and red for communicable, maternal, neonatal, and nutritional causes of death.

## YEARS LIVED WITH DISABILITY (YLDs)

Years lived with disability (YLDs) are estimated by weighting the prevalence of different conditions based on severity. The top five leading causes of YLDs in Algeria are major depressive disorder, low back pain, iron-deficiency anemia, anxiety disorders, and diabetes mellitus.

The size of the colored portion in each bar represents the number of YLDs attributable to each cause. The height of each bar shows which age groups had the most YLDs in 2010. The causes are aggregated. For example, musculoskeletal disorders include low back pain and neck pain.

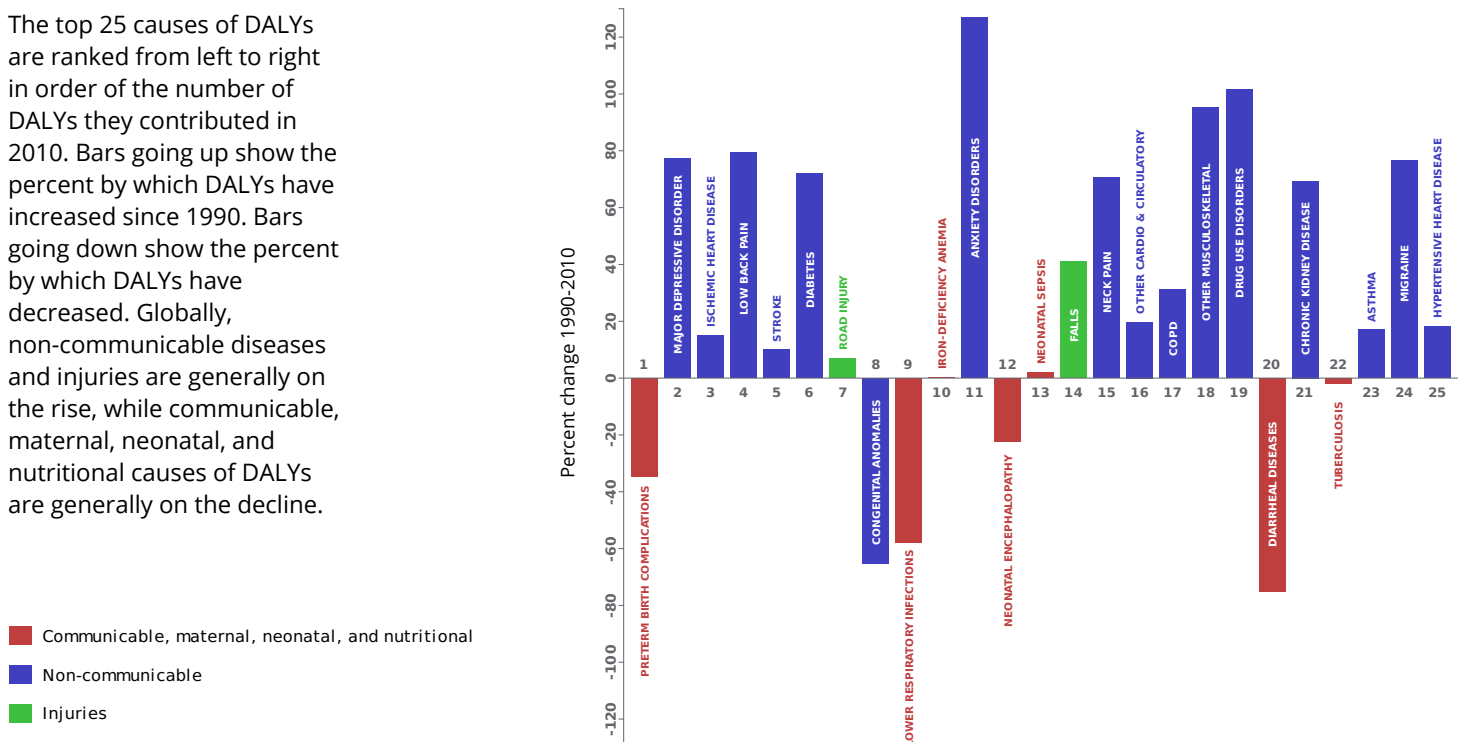


## DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In Algeria, the top three causes of DALYs in 2010 were preterm birth complications, major depressive disorder, and ischemic heart disease. Two causes that appeared in the 10 leading causes of DALYs in 2010 and not 1990 were diabetes mellitus and iron-deficiency anemia.

The top 25 causes of DALYs are ranked from left to right in order of the number of DALYs they contributed in 2010. Bars going up show the percent by which DALYs have increased since 1990. Bars going down show the percent by which DALYs have decreased. Globally, non-communicable diseases and injuries are generally on the rise, while communicable, maternal, neonatal, and nutritional causes of DALYs are generally on the decline.

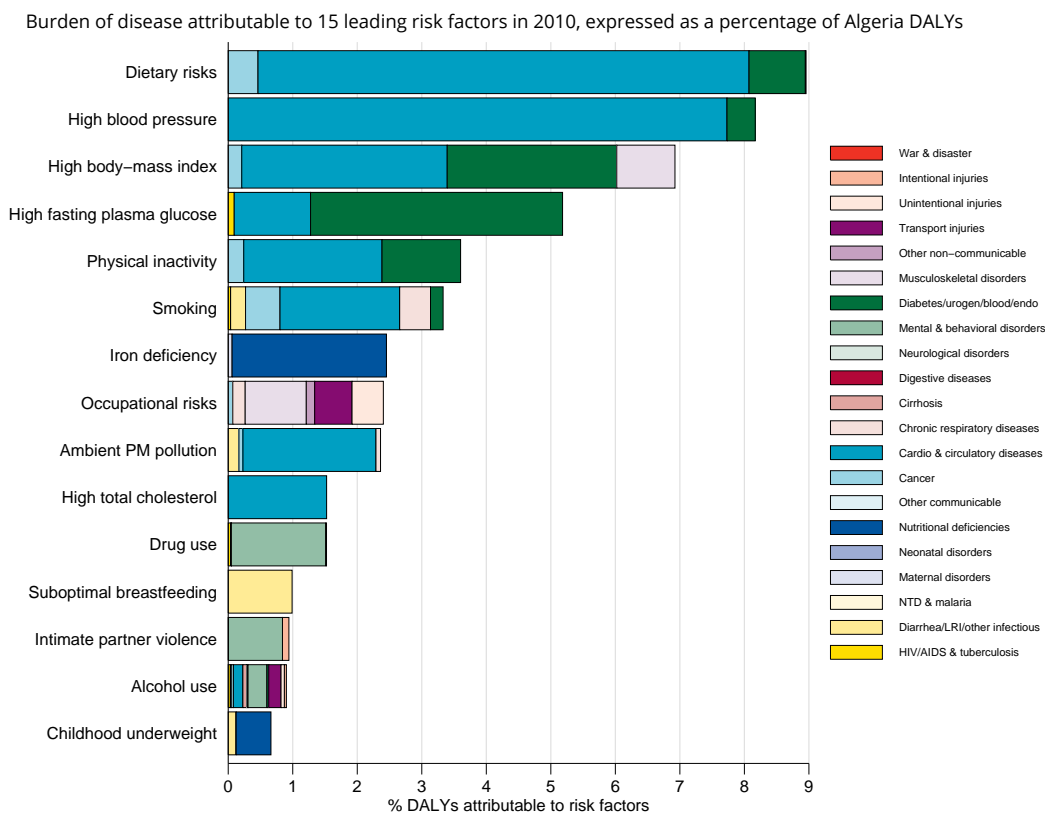
Leading causes of DALYs and percent change 1990 to 2010 for Algeria



## RISK FACTORS

Overall, the three risk factors that account for the most disease burden in Algeria are dietary risks, high blood pressure, and high body-mass index. The leading risk factors for children under 5 and adults aged 15-49 years were suboptimal breastfeeding and dietary risks, respectively, in 2010.

The graph shows the top 15 risk factors for Algeria. The colored portion of each bar represents the specific diseases attributable to that risk factor while bar size represents the percentage of DALYs linked to specific risk factors.



## COUNTRY BENCHMARKING OF BURDEN OF DISEASE

Understanding the relative performance of Algeria against other comparator countries provides key insight into public health successes and areas where Algeria might be falling behind. The table identifies Algeria's rank across 14 other comparator countries, selected and ordered by income per capita, for five metrics of interest, with 1 indicating the best rank and 15 indicating the worst rank.

- Age-standardized rates are used to make meaningful comparisons across time by adjusting for changes in population size and age structure.
- Life expectancy incorporates mortality, and health-adjusted life expectancy further incorporates years lived in less than ideal health.
- In 2010, Algeria ranked 4th for age-standardized death rate and 13th for age-standardized YLD rate.

Age-standardized death rates, YLL rates, YLD rates, and life expectancy at birth and health-adjusted life expectancy at birth for 1990 and 2010, both sexes combined																				
Country	Age-standardized death rate (per 100,000)				Age-standardized YLL rate (per 100,000)				Age-standardized YLD rate (per 100,000)				Life expectancy at birth				Health-adjusted life expectancy at birth			
	1990		2010		1990		2010		1990		2010		1990		2010		1990		2010	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	LE	Rank	LE	Rank	HALE	Rank	HALE	Rank
Belize	765	6	805	11	20,556	3	21,887	11	12,951	14	13,377	14	72	3	71.2	11	61.2	7	59.4	14
Thailand	712	4	663	9	20,676	4	17,227	8	11,069	2	10,369	2	72.4	2	74.1	9	63.2	1	65.3	6
Peru	803	7	551	3	27,953	12	14,679	4	12,854	13	11,692	9	68.9	12	76.4	4	58.6	12	65.7	5
Azerbaijan	961	13	695	10	31,387	13	20,272	10	12,212	8	11,620	7	66.7	13	72.5	10	57.4	13	62.5	10
Tunisia	698	2	541	2	21,287	5	13,716	2	11,328	4	11,199	5	72	4	76.4	3	62.2	3	66	4
Ecuador	700	3	522	1	22,420	6	14,956	5	12,265	9	11,404	6	72	5	77	1	61.7	6	66.4	2
Bosnia and Herzegovina	834	9	584	5	19,064	1	12,248	1	12,186	7	11,057	3	71.9	6	76.5	2	61.8	4	66.3	3
<b>Algeria</b>	<b>762</b>	<b>5</b>	<b>584</b>	<b>4</b>	<b>23,346</b>	<b>9</b>	<b>15,484</b>	<b>7</b>	<b>12,395</b>	<b>10</b>	<b>12,215</b>	<b>13</b>	<b>70.9</b>	<b>7</b>	<b>75.5</b>	<b>6</b>	<b>60.3</b>	<b>9</b>	<b>64.2</b>	<b>8</b>
El Salvador	809	8	661	8	26,931	11	18,474	9	12,585	12	11,781	10	69.6	10	74.2	8	59.5	11	63.9	9
Albania	666	1	653	7	19,166	2	15,110	6	11,609	5	11,628	8	73.1	1	74.9	7	63	2	64.6	7
Ukraine	913	11	917	13	22,976	8	23,559	13	11,316	3	11,159	4	70	9	69.7	13	60.9	8	60.8	12
Marshall Islands	1,270	15	1,309	15	36,253	14	36,337	15	14,368	15	13,968	15	63.9	14	63.9	15	54	15	54.4	15
Tonga	914	12	882	12	22,822	7	22,195	12	12,546	11	11,940	12	70	8	70.4	12	60.1	10	61	11
Turkmenistan	1,144	14	919	14	39,780	15	24,522	14	11,911	6	11,933	11	62.8	15	69.3	14	54.4	14	60	13
China	896	10	607	6	24,989	10	14,024	3	9,639	1	8,782	1	69.3	11	75.7	5	61.7	5	67.8	1

## COUNTRY BENCHMARKING OF BURDEN OF DISEASE, CONTINUED

This figure shows the rank of Algeria relative to the same comparator countries for the leading causes of DALYs in 1990 (top) and 2010 (bottom).

- The columns are ordered by the absolute number of DALYs in Algeria for that particular year, with greatest burden on the left.
- The numbers indicate the rank across countries for each cause in terms of age-standardized DALY rates, with 1 as the best performance and 15 as the worst.

Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 1990																									
Country	Preterm birth complications	Congenital anomalies	Lower respiratory infections	Diarrheal diseases	Ischemic heart disease	Stroke	Major depressive disorder	Road injury	Low back pain	Neonatal encephalopathy	Iron-deficiency anemia	Diabetes	Protein-energy malnutrition	Neonatal sepsis	Meningitis	Other cardio & circulatory	COPD	Tuberculosis	Falls	Anxiety disorders	Asthma	Neck pain	Fire	Hypertensive heart disease	Syphilis
Belize	8	3	8	7	8	6	13	2	2	8	15	12	6	9	9	15	1	6	2	14	12	7	5	8	6
Thailand	6	8	5	4	7	4	5	10	1	3	8	5	5	7	4	11	10	12	1	4	7	3	1	14	11
Peru	13	5	13	13	2	1	9	6	6	13	13	4	13	15	8	5	2	15	3	13	11	8	10	2	15
Azerbaijan	10	13	14	10	14	8	6	9	8	14	12	8	8	3	12	3	9	10	7	9	3	14	13	13	10
Tunisia	11	14	3	9	11	7	10	15	5	4	7	6	15	8	5	9	5	2	5	8	10	2	9	12	12
Ecuador	5	7	10	12	3	2	8	13	3	7	14	10	12	11	6	7	11	13	13	12	5	10	8	10	8
Bosnia and Herzegovina	7	6	1	2	12	14	12	1	12	6	3	11	2	4	2	10	8	4	12	15	4	12	2	4	4
<b>Algeria</b>	<b>15</b>	<b>15</b>	<b>6</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>7</b>	<b>13</b>	<b>10</b>	<b>9</b>	<b>13</b>	<b>11</b>	<b>13</b>	<b>11</b>	<b>14</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>11</b>	<b>15</b>	<b>13</b>
El Salvador	14	9	7	14	4	3	14	14	7	11	10	9	10	14	7	6	6	3	4	11	13	9	6	6	7
Albania	1	4	12	3	6	9	3	3	15	1	5	1	4	1	10	12	4	1	9	5	2	13	4	5	5
Ukraine	2	12	2	1	13	11	4	11	14	5	4	2	1	5	1	1	12	5	6	2	6	15	7	1	1
Marshall Islands	9	1	11	11	10	13	11	8	9	9	2	15	14	12	15	13	14	14	15	10	15	4	15	7	14
Tonga	3	2	4	6	5	5	2	5	10	2	6	14	9	10	14	8	7	8	14	3	14	5	12	3	3
Turkmenistan	12	10	15	15	15	15	7	12	11	15	11	7	7	6	13	4	13	11	10	7	9	11	14	11	2
China	4	11	9	5	1	12	1	4	4	12	1	3	3	2	3	2	15	9	11	1	1	6	3	9	9
Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 2010																									
Country	Preterm birth complications	Major depressive disorder	Ischemic heart disease	Low back pain	Stroke	Diabetes	Road injury	Congenital anomalies	Lower respiratory infections	Iron-deficiency anemia	Anxiety disorders	Neonatal encephalopathy	Neonatal sepsis	Falls	Neck pain	Other cardio & circulatory	COPD	Other musculoskeletal	Drug use disorders	Diarrheal diseases	Chronic kidney disease	Tuberculosis	Asthma	Migraine	Hypertensive heart disease
Belize	9	10	8	2	6	13	12	9	8	15	5	10	8	9	7	12	2	10	13	10	11	6	12	9	13
Thailand	5	9	4	1	5	7	15	4	10	4	4	3	7	2	3	8	11	4	2	5	10	11	9	11	6
Peru	11	7	2	7	2	3	4	6	14	13	13	13	14	1	8	6	4	11	11	7	7	12	11	7	3
Azerbaijan	14	4	13	8	9	8	3	13	15	12	8	15	4	6	12	11	9	7	12	9	8	10	3	12	12
Tunisia	12	14	10	5	7	10	14	14	2	8	6	5	9	4	2	9	7	1	5	6	5	3	10	2	11
Ecuador	8	5	1	3	3	6	13	10	11	14	14	8	12	8	10	3	5	9	6	11	12	8	4	4	9
Bosnia and Herzegovina	4	2	9	11	10	5	1	1	1	2	7	1	3	15	15	10	10	6	3	1	2	4	5	14	1
<b>Algeria</b>	<b>15</b>	<b>15</b>	<b>7</b>	<b>13</b>	<b>8</b>	<b>12</b>	<b>6</b>	<b>11</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>11</b>	<b>15</b>	<b>11</b>	<b>1</b>	<b>15</b>	<b>3</b>	<b>3</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>3</b>	<b>15</b>
El Salvador	7	11	6	6	1	11	11	12	7	7	9	4	11	3	9	5	1	13	4	12	14	2	13	8	7
Albania	1	8	11	15	12	1	7	2	9	3	11	2	2	14	13	14	6	5	8	2	6	1	2	15	5
Ukraine	3	3	14	14	13	2	9	15	4	6	2	9	6	13	14	1	8	12	10	4	1	13	6	10	4
Marshall Islands	13	12	12	10	14	15	5	8	13	5	10	12	13	10	4	13	13	15	14	15	15	15	15	5	10
Tonga	6	6	5	12	4	14	2	7	6	9	3	6	10	5	5	7	12	14	15	13	13	7	14	6	2
Turkmenistan	10	13	15	9	15	9	8	3	12	11	12	14	5	7	11	4	14	8	7	14	4	14	7	13	14
China	2	1	3	4	11	4	10	5	3	1	1	7	1	12	6	2	15	2	1	3	3	5	1	1	8
Ranking Legend	1 - 3			4 - 7				8 - 11				12 - 15													