



World Mortality 2011

Country or area ³	Life expectancy at birth (years)					Probability of dying (per 1,000)					Death rates by cause (per 100,000) ¹					Maternal mortality ratio (maternal deaths per 100,000 live births) ²	
	Annual number of deaths (thousands)	Crude death rate (per 1,000)	Both sexes		Infant mortality (deaths per 1,000 live births)	Under-five mortality (deaths per 1,000 live births)	From birth to age 15	From age 15 to age 60	From age 60 to age 80	Group I: Communicable, perinatal, nutritional	Group II: Non-communicable diseases (NCDs)	Group III: Injuries	Percentage of deaths from NCDs occurring before age 60	2008	2009		2010
			Male	Female													
WORLD	58 093	8.2	69	67	72	42	60	71	161	221	232	536	76	25	1 800	260	
More developed regions ⁴	12 662	10.2	78	75	81	6	8	9	114	123	60	865	71	15	..	17	
Less developed regions ⁵	45 432	7.8	67	66	69	46	66	78	172	237	271	463	77	30	..	290	
Least developed countries ⁶	8 810	10.0	59	58	60	73	112	136	267	367	648	372	107	42	..	590	
Other developing countries ⁷	36 621	7.4	69	67	71	38	52	61	159	210	205	479	72	28	..	200	
Less developed regions, excluding China	35 083	7.9	66	64	68	50	73	86	196	266	342	420	79	34	..	..
Sub-Saharan Africa ⁸	10 841	11.9	55	54	56	77	121	152	349	448	827	362	91	42	1 300	640	
AFRICA	11 738	10.8	57	56	59	71	112	140	305	402	705	370	81	40	..	590	
Eastern Africa⁹	3 625	10.5	57	56	58	66	100	128	335	420	763	361	103	43	..	560	
Burundi	0	13.6	51	50	53	94	152	194	383	503	947	364	102	45	15	970	
Comoros	6	8.2	62	60	63	63	86	100	247	322	483	368	63	46	<0.1	340	
Djibouti	9	9.9	58	57	60	75	104	123	289	377	453	377	73	42	1	300	
Eritrea	41	7.2	62	60	64	48	62	72	286	338	291	240	70	41	2	280	
Ethiopia	797	9.1	60	58	62	63	96	122	268	358	709	419	107	46	..	470	
Kenya	430	9.9	58	57	59	58	89	115	348	423	589	266	86	36	80	530	
Madagascar	142	6.4	67	65	69	41	58	72	188	246	371	304	40	38	2	440	
Malawi	193	11.9	55	55	55	86	119	137	384	468	1 027	453	50	51	510	510	
Mauritius ¹⁰	9	7.2	74	70	77	12	15	17	149	164	46	617	43	30	<0.5	36	
Mayotte	1	2.4	77	74	82	6	6	7	140	146	..	..	..	..	..	..
Mozambique	342	13.8	51	50	52	78	123	156	454	539	1 005	430	123	46	74	550	
Réunion	5	6.0	78	74	82	6	6	7	133	139	..	..	..	..	..	..
Rwanda	131	11.5	56	54	57	93	114	155	325	430	633	290	75	42	4	540	
Somalia	143	14.4	52	50	53	100	162	204	334	470	971	422	167	48	2	1 200	
Uganda	423	11.7	55	54	55	72	114	145	376	467	863	336	139	44	64	430	
United Republic of Tanzania ¹¹	465	9.6	59	58	60	54	81	105	329	399	779	317	94	37	86	790	
Zambia	211	14.9	50	49	50	81	130	168	482	569	995	416	140	47	45	470	
Zimbabwe	155	11.7	54	54	53	47	71	101	515	564	1 106	306	56	25	83	790	
Middle Africa	1 994	14.7	50	49	52	103	168	211	368	501	1 066	364	107	45	..	690	
Angola	278	13.6	52	50	53	96	156	197	352	480	936	334	92	49	11	610	
Cameroon	277	13.4	52	51	54	85	136	173	381	488	910	449	94	44	37	600	
Central African Republic	17	15.3	50	48	51	96	155	200	425	540	1 092	458	120	40	11	850	
Chad	187	15.5	50	49	52	124	195	224	336	484	1 256	367	94	45	11	1 200	
Congo	46	10.7	58	57	59	67	104	131	307	398	713	412	114	36	5	580	
Dem. Republic of the Congo ¹²	1 110	15.7	49	47	51	109	180	228	375	518	1 152	337	117	46	..	670	
Equatorial Guinea	11	14.1	52	50	53	93	151	190	365	486	795	422	96	50	<1	280	
Gabon	14	8.6	63	62	64	44	64	80	269	328	488	388	69	30	2	260	
Sao Tome and Principe	1	7.4	65	64	66	47	69	87	205	274	296	316	38	26	..	..
Northern Africa	1 294	5.9	71	69	73	33	44	52	132	177	162	414	55	32	..	260	
Algeria	178	4.9	73	72	75	21	27	32	109	137	150	317	39	31	<1	120	
Egypt	433	5.1	74	72	76	22	25	27	108	132	69	455	32	33	<0.5	82	
Libyan Arab Jamahiriya	26	4.1	75	73	78	13	15	17	108	123	56	366	50	33	..	64	
Morocco	190	5.8	73	70	75	29	31	35	112	144	99	396	33	26	1	110	
Sudan ¹³	398	8.6	62	60	64	57	87	109	232	315	433	445	134	38	12	750	
Tunisia	65	6.0	75	73	77	18	23	26	93	117	116	379	35	21	<0.1	60	
Western Sahara	3	5.4	68	66	70	36	45	52	180	223	..	..	..	..	..	..
Southern Africa	822	14.0	54	53	54	46	64	83	504	545	878	386	71	35	..	400	
Botswana	28	13.8	53	54	51	35	46	64	575	602	603	317	86	39	6	190	
Lesotho	33	15.0	49	48	48	62	89	116	576	625	988	455	116	32	14	530	
Namibia	20	8.2	63	62	63	30	39	50	341	374	551	409	129	43	7	180	
South Africa	724	14.3	54	53	54	46	64	82	503	544	897	384	64	34	310	410	
Swaziland	17	14.1	49	50	49	65	92	117	567	618	930	416	158	43	7	420	
Western Africa¹⁴	4 003	12.3	55	54	56	81	132	163	332	441	840	347	68	43	..	710	
Benin	105	11.1	57	55	59	77	121	153	295	402	672	368	71	43	3	410	
Burkina Faso	200	11.2	56	55	57	71	147	166	265	387	991	284	90	54	7	560	
Cape Verde	3	5.5	74	71	78	18	22	25	110	132	159	294	56	34	..	94	
Côte d'Ivoire	234	11.2	56	55	58	69	107	138	341	432	867	492	140	44	36	470	
Gambia	16	8.7	59	58	60	66	93	109	264	344	548	313	59	48	<1	400	
Ghana	195	7.5	65	64	66	44	63	80	230	292	505	369	71	43	18	350	
Guinea	122	12.4	55	53	56	84	134	170	318	423	839	450	101	50	5	680	
Guinea-Bissau	25	15.9	49	47	50	110	181	229	376	518	1 119	462	95	46	1	1 000	
Liberia	44	10.2	58	56	59	77	107	127	313	400	793	325	48	38	4	990	
Mali	226	13.6	52	51	53	92	173	195	319	452	996	267	60	47	4	830	
Mauritania	34	9.2	59	57	61	70	106	122	248	340	571	309	76	48	<1	550	
Niger	207	12.2	55	55	56	86	144	164	286	403	1 005	197	34	43	4	820	
Nigeria	2 311	13.7	53	52	53	88	141	178	367	480	888	357	59	42	220	840	
Senegal	112	8.4	60	59	61	50	85	101	256	331	507	235	43	45	3	410	
Sierra Leone	92	14.9	48	48	49	103	157	187	442	546	1 158	265	79	56	3	970	
Togo	65	10.3	58	56	59	67	104	133	307	396	606	336	50	36	8	350	
ASIA	31 236	7.3	70	69	72	37	49	56	146	194	185	498	77	27	..	180	
Eastern Asia¹⁵	12 117	7.6	75	73	77	18	22	25	106	129	59	599	69	19	..	39	
China ¹⁶	10 138	7.5	74	72	76	20	24	27	110	135	51	595	70	20	26	38	
China, Hong Kong SAR ¹⁷	46	6.3	83	80	86	2	3	4	49	52	
China, Macao SAR ¹⁸	2	4.3	81	79	84	4	5	6	50	56			



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Introduction. The potential to live a long and healthy life is a fundamental aspect of human development. The second part of the twentieth century witnessed enormous progress in improving health and survival around the world. Life expectancy at birth for the world population rose from 48 years in 1950-1955 to 69 years in 2010-2015. However, wide disparities remain in levels of mortality across countries and regions. Those differences reflect inequalities in access to food, safe drinking water, sanitation, medical care and other basic human needs. They also reflect differences in risk factors, behavioural choices and societal contexts that affect the survival of individuals. The reduction of mortality, particularly child and maternal mortality, is part of the internationally agreed development goals, such as those contained in the Programme of Action of the International Conference on Population and Development and in the United Nations Millennium Declaration. To fulfil the task of documenting trends and prospects in regard to mortality, the Population Division presents in this wall chart key indicators of projected mortality at the global, regional and country levels for the period 2010-2015 and for other selected years. The main findings regarding each indicator are presented below.

Annual deaths. Worldwide, the average annual number of deaths during 2010-2015 is expected to be 58.1 million, with 12.7 million occurring in the more developed regions and 45.4 million in the less developed regions.

Crude death rate. The crude death rate (CDR) is the average annual number of deaths divided by the overall population and expressed per 1,000 population. Worldwide, the crude death rate in 2010-2015 is expected to be 8.2 deaths per 1,000 people. Ukraine is projected to have the highest crude death rate in the world, at 16.2 deaths per 1,000, while the United Arab Emirates is expected to have the lowest, at 1.4 deaths per 1,000. The more developed regions are projected to have a crude death rate of 10.2 deaths per 1,000, compared to 7.8 deaths per 1,000 population in the less developed regions. The crude death rate is higher in the more developed regions because, although their overall mortality levels are lower, their population is at the later stages of the ageing process and has therefore a higher proportion of older persons than that of the less developed regions. For that reason, the crude

death rate is not an optimal indicator to compare mortality across populations with different age structures.

Life expectancy at birth. The life expectancy at birth is the average length of life in a population that would be subject during all its life to the mortality risks prevalent during a given period. In 2010-2015, the global life expectancy at birth is projected to be 69 years. Life expectancy is expected to be higher in the more developed regions (78 years) and much lower in the group of least developed countries (59 years), which are the most disadvantaged in terms of survival prospects. The average life expectancy in the rest of the countries in the less developed regions is expected to be 69 years. At the country level, life expectancy at birth is expected to range from a low of 48 years in Sierra Leone to a high of 84 years in Japan. In nearly all countries, women have a higher life expectancy at birth than men, and at the global level, female life expectancy exceeds that of males by 5 years (72 years vs. 67 years).

Infant and under-five mortality. The United Nations Millennium Declaration identified the reduction of child mortality as a critical challenge for the twenty-first century. Every year millions of young children die of preventable causes. Mortality in childhood is highest in the least developed countries, where infant mortality is projected to average 73 deaths per 1,000 live births in 2010-2015 and 112 children out of every 1,000 born alive are expected to die before age five. Sub-Saharan Africa has particularly high levels of infant mortality, which is expected to average 77 deaths per 1,000 live births in 2010-2015 and of under-five mortality (121 deaths per 1,000 live births), and both indicators have declined more slowly in sub-Saharan Africa than in other regions. Differences in the survival chances of young children reflect major disparities among countries in terms of health and development. In 2010-2015, under-five mortality is expected to be highest in Chad, where 195 out of every 1,000 children born alive are expected to die before age five. In sharp contrast, the populations of Finland, Hong Kong Special Administrative Region of China, Iceland, Japan, Luxembourg and Singapore have very low under-five mortality, with fewer than 4 out of every 1,000 children born alive projected to die before their fifth birthday over the period 2010-2015.

Probability of dying. Another useful indicator of mortality across different parts of the age range is the probability of dying between specific ages, expressed per 1,000 individuals alive at the initial age. The probability of dying between birth and age 15 reflects the likelihood of dying during the full period of childhood. In Western Europe, just 5 out of every 1,000 children born alive are expected to die before age 15 at the mortality rates projected for 2010-2015, whereas in Middle Africa the equivalent figure ascends to 211 out of every 1,000 children born alive. The probability of dying between ages 15 and 60 is an indicator of mortality in the working ages. This probability is particularly high in countries highly affected by HIV/AIDS, such as South Africa where 503 out of every 1,000 persons who reach age 15 are expected to die before age 60. The probability of dying during the working ages is also high in countries where death rates due to injuries are high, such as in the Russian Federation, where 244 out of every 1,000 persons who reach age 15 are expected to die before age 60 at the mortality rates projected for 2010-2015. In the more developed regions, the probability of dying between ages 15 and 60 is expected to be 114 per 1,000 in 2010-2015, while in the less developed regions it is more than 50 per cent higher, at 172 per 1,000. The probability of dying between birth and age 60 reflects the cumulative impact of mortality up to age 60. In countries with low mortality, a majority of people survive to their sixtieth birthday. In Iceland, where the probability of dying before age 60 is among the lowest in the world, only 58 out of every 1,000 children born alive would die before age 60 given the mortality risks expected during 2010-2015. In contrast, in sub-Saharan Africa, high mortality in childhood combined with high mortality in the working ages means that nearly half of all children born alive would die before age 60 given the mortality projected for 2010-2015 (a total of 448 deaths before age 60 are expected for every 1,000 children born alive).

Death rates by cause. As countries undergo the transition from high to low mortality, they experience a shift in the major causes of death as part of a process known as “the epidemiologic transition”. In countries with high mortality, death rates from communicable diseases, as well as from maternal, perinatal and nutritional conditions (collectively called Group I causes), tend to be higher than death rates from non-communicable diseases (NCDs), which include cardiovascular diseases, cancers, diabetes and chronic lung disease, among others (collectively called Group II causes). In contrast, in low-mortality populations, death rates from Group II causes tend to exceed those from Group I causes. In the least developed countries, where both communicable and non-communicable diseases contribute to high morbidity and

mortality, Group II causes were responsible for 372 deaths per 100,000 persons in 2008, a rate much lower than the death rate from Group I conditions which stood at 648 deaths per 100,000 persons. In contrast, in the rest of the countries in the less developed regions, where mortality rates are generally lower than in the least developed countries, the death rate from Group II causes (479 deaths per 100,000 persons) was more than double the death rate from Group I causes (205 deaths per 100,000 persons). In the more developed regions, where populations experience low mortality on average, the death rate from Group II causes was over 14 times higher than the death rate from Group I causes (865 deaths per 100,000 vs. 60 deaths per 100,000). Injuries are the third major category of causes of death and include those caused by accidents as well as homicide and suicide. Injuries caused 76 deaths per 100,000 persons worldwide in 2008. The populations of the least developed countries faced the highest death rates from injuries, with 107 deaths per 100,000 persons in 2008.

Percentage of deaths from non-communicable diseases (NCDs) occurring before age 60. The risks of morbidity and mortality associated with many of the non-communicable diseases that constitute the causes in Group II tend to increase with age, reflecting the accumulation of exposures to risk factors over the life course. As a result, countries with a large proportion of the population concentrated in older ages—that is, countries that are far advanced in the ageing process—tend to experience the highest death rates from Group II causes. However, even countries with relatively low death rates from Group II causes may face large burdens of mortality caused by NCDs, especially when that mortality occurs among adults of working age. The percentage of deaths caused by NCDs before age 60 is one measure of the premature mortality caused by those illnesses, which include cardiovascular diseases, cancers, diabetes and chronic lung disease, among others. Although the least developed countries have the lowest death rate from Group II causes, a disproportionate percentage of deaths caused by NCDs in those countries occurs before age 60 (42 per cent in 2008), especially when compared with the equivalent percentage in the other countries in the less developed regions (28 per cent) and with that in the more developed regions (15 per cent). Multi-sectoral prevention and control efforts are needed to postpone the morbidity and mortality associated with NCDs to later periods of life.

AIDS deaths. Advances in the prevention and treatment of HIV/AIDS have resulted in a decline in the annual numbers of deaths due to AIDS, from the peak of 2.1 million in 2004 to 1.8 million in

2009. Nearly three-quarters of AIDS deaths in 2009 occurred in sub-Saharan Africa where the disease is the leading cause of death and the provision of antiretroviral treatment to all those who need it remains a major challenge.

Maternal mortality. The Millennium Declaration urged the international community to strive for a dramatic reduction in maternal mortality. The World Health Organization defines a maternal death as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes” (WHO et al., 2010; see the source of column 16 for a full reference). The usual indicator of maternal mortality is the maternal mortality ratio (MMR) defined as the number of maternal deaths per 100,000 live births. At the global level, an estimated 358,000 women died because of maternal causes in 2008, resulting in an MMR of 260 maternal deaths per 100,000 live births. The pace of decline in the MMR from 400 in 1990 to 260 in 2008 remains insufficient to achieve the two-thirds reduction in the maternal mortality ratio by 2015 called for under Millennium Development Goal 5. Women in the least developed countries face the highest risks of maternal death, with 590 maternal deaths occurring for every 100,000 live births. Efforts to reduce maternal mortality must be targeted to the most disadvantaged populations.

A note on the data: The quality of the data available for estimating mortality varies widely from country to country. Data for countries having reliable vital registration systems are the most complete. For other countries, estimates of overall mortality are usually based on data gathered via special questions included in sample surveys or population censuses. Such sources can produce robust estimates of child mortality but are less successful in producing adequate estimates of adult mortality. Therefore, estimates for those countries are frequently based on model mortality schedules that permit the extrapolation of the estimated mortality in childhood to the full age range. Data on causes of death, including HIV/AIDS and maternal causes, are less commonly available than data on overall mortality and reported causes of death are more prone to error than reports on the occurrence of deaths even in countries with good vital registration coverage. Readers are encouraged to consult the references provided for columns (11) to (16), which discuss the issue of data quality and the uncertainty associated with the estimates of death rates by cause as well as the number of deaths caused by AIDS and the estimated maternal mortality ratios.



Economic & Social Affairs

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Printed at the United Nations, NY

United Nations publication
ST/ESA/SER/A/308
Designed by the Graphic Design Unit, Outreach Division, DPI
ISBN 978-92-1-151485-8
Sales No. E.11.XIII.9



11-44336—September 2011—2,500



United Nations