Global Progress Towards Survival Targets of International Conference on Population and Development



The largest International Conference on Population and Development (ICPD) ever held set targets for improving life expectancy at birth (e_0) for the next 20 years for all countries in the world starting with 1994. For countries with high mortality levels the target was set at 70 years, and for countries with low mortality levels at 75 years. Review of mortality levels in 2015 conducted here suggests that among the 57 countries with high levels of mortality in 1994, 54 countries or 95% missed the ICPD target of 70 years. Out of the 107 countries with lower levels of mortality in 1994, the target of 75 years was missed by 57 countries or by 53%. Failure to fully implement the ICPD Programme of Action on life expectancy goals resulted in nearly 116 million unprevented deaths globally and in a loss of 961 million years of life over the implementation period 1994-2015.

Data and Methods

Estimates of unprevented deaths and years of life lost over the 1995-2015 period have been produced by the cohort component method with alternative scenarios of mortality decline. The cohort component method was implemented for single calendar years and single years of age. Input parameters for the method are population age structure by single year of age (ages 0, 1, ... 110+) and by sex in 1995, annual complete life tables by sex for years 1995-2015, fertility rates by single age, and estimates of net migration by age and sex. To compute alternative scenarios of mortality decline, we used life tables with life expectancy at birth 70 or 75 years of age for the year 2015. To compute life tables for intermediate years, from 1995 to 2015, we assumed log-linear decline between death rates in 1994 and 2015. The target life tables for 2015 were adopted from the mortality projections mortality projection prepared by the Population Division (United Nations, 2019). For example, according to these projections, life expectancy at birth in Russian Federation equal to 75 years of age is expected to be reached in the year 2037. Accordingly, we used life tables for the year 2037 in our alternative scenario of mortality decline for the year 2015. We further assumed that the number of annual births remained unchanged in the alternative projection variant. This implies that lower fertility (as defined by the fertility rates) that seems to be consistent with known correlations between trends in mortality and fertility. There were no changes in assumptions regarding net migration.

We computed estimates of unprevented deaths by subtracting the total number of deaths for two projection scenarios over the years 1995-2015, the standard and the one with accelerated mortality decline, and years of life lost by subtracting population exposure estimates for the same period. Note that estimates of unprevented deaths exclude deaths that were postponed due to lower death rates in the second projection scenario but still occurred in 1995-2015, in later years and at older ages. It must be released that by lowering death rates, deaths cannot be completely prevented as we assume that everyone will eventually die. It is possible, however, to discuss deaths prevented over a certain period of time. Estimates of years of life lost are based on population exposure estimates for the period 1995-2015 only, and thus exclude any years of life lived by the survivors of the accelerated mortality decline scenario after 2015. The complete life tables by single calendar year of age for 201 countries are publicly available at MortalityTrends.org. The rest of demographic components, net migration and births by age and sex, are available on request from the authors. In future, they will also be disseminated via MortalityTrends.org.

Conclusions

Implementation of the ICPD Programme of Action on life expectancy goals has failed in majority of the countries. By the end of the implementation period for Sustainable Development Goals, by 2030, 15 years later, 91 countries are still not expected to reach life expectancy level of 75 years. And 80 years later, by the end of the century, 19 countries, all but one in Africa, are still expected to be below 75. The Sustainable Development Goal 3, "Ensure healthy lives and promote well-being for all at all ages", does not seem to be attainable for about half of the countries in the world.

Regions:

All but three countries have achieved improvements in the life expectancy at birth. The median gain in life expectancy at birth was 5.4 years, and for half of the countries, gains were between 4 and 7.5 years. In 33 countries gains in life expectancy at birth were 10 or more years, with the highest gain registered in Rwanda at nearly 40 years. Only three countries have experienced a net loss in life expectancy at birth since the ICPD: Lesotho, Eswatini, and Syrian Arab Republic.

Acknowledgments: We express our sincerely appreciation to Toby Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by Kirill Andreev for the World Mortality Report 2019 by excluded from the final publication while working in a second by the working in a second by the work and the work Demographic and Analysis Section of United Nations Population Division, years 2018-2019. This poster is also available at http://kirillandreev.com/2021_PAA/

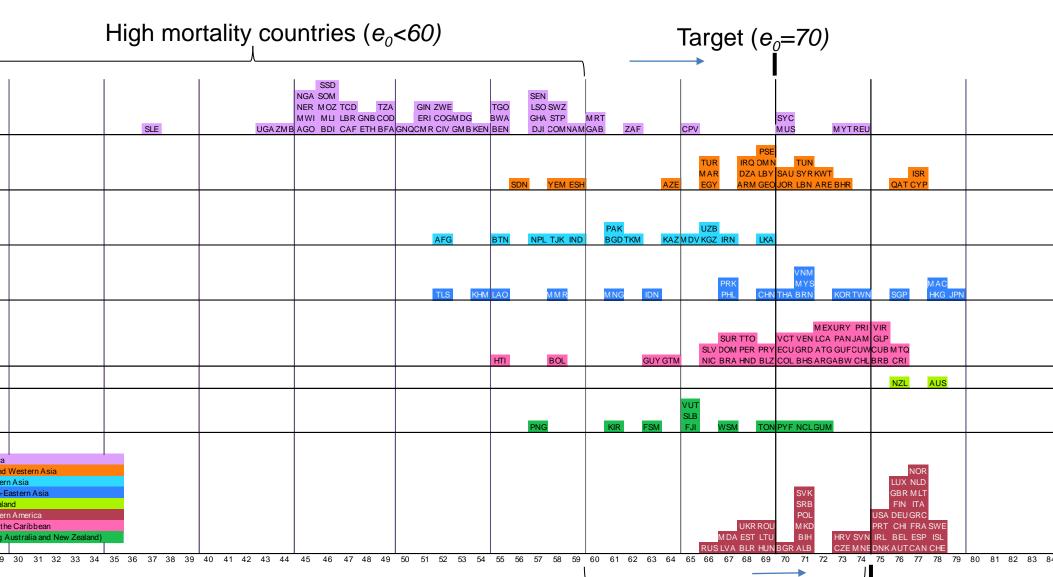
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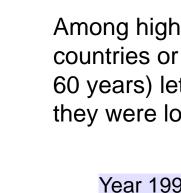
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Life expectancy at birth in 1994

Total number of countries or areas: 201

High mortality^{*} countries: 57 Low mortality ** countries that have not achieved the target of 75 years: 107 Low mortality countries that have already achieved the target of 75 years: 37



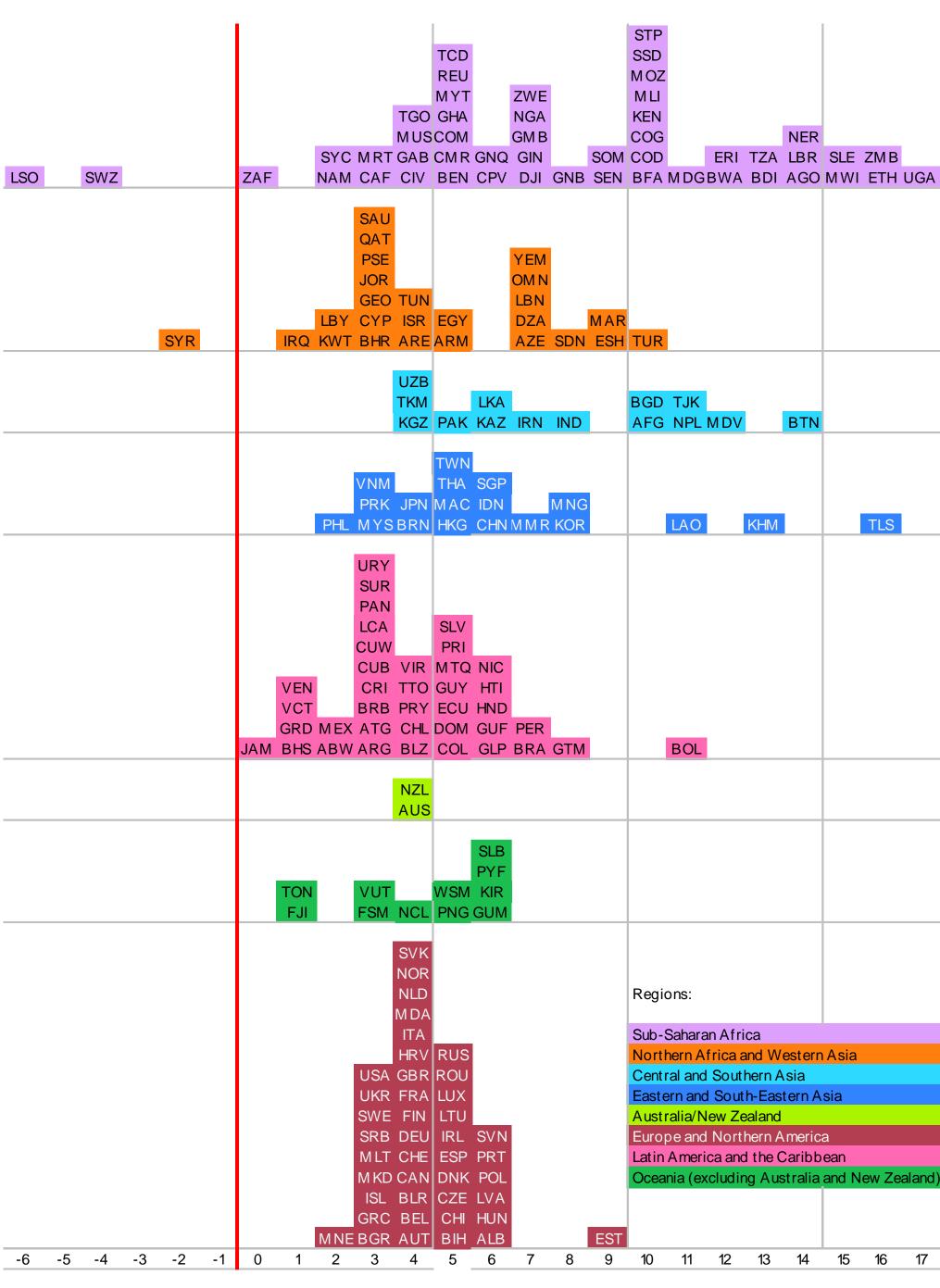


Year 2015



Low mortality countries ($e_0 \ge 60$) Target ($e_0 = 75$) ⁶ Countries with life expectancy at birth less than 60 years ^{**} Countries with life expectancy at birth more than 60 years

Progress made over the 1995-2015 period



Rwanda is not shown in this plot due to space limitations, as the gain in life expectancy at birth in Rwanda was exceptionally high, 39.7 years for the period from 1994 to 2015.

How many deaths in the period 1995-2015 could be averted if the ICPD targets were met?



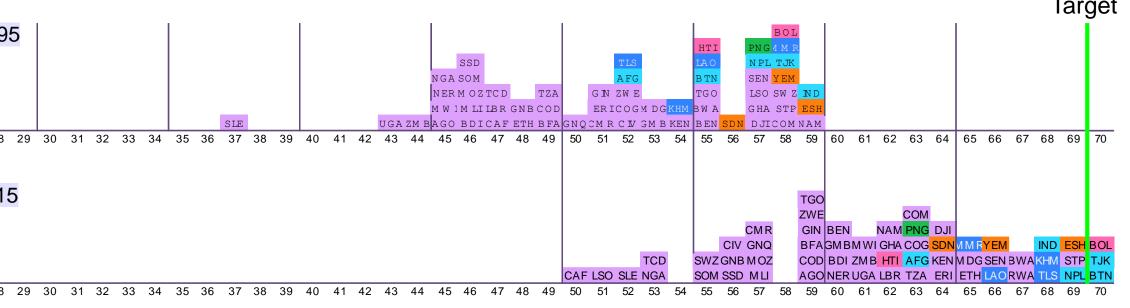


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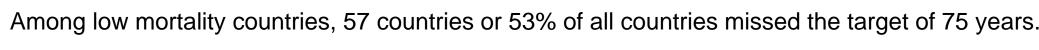
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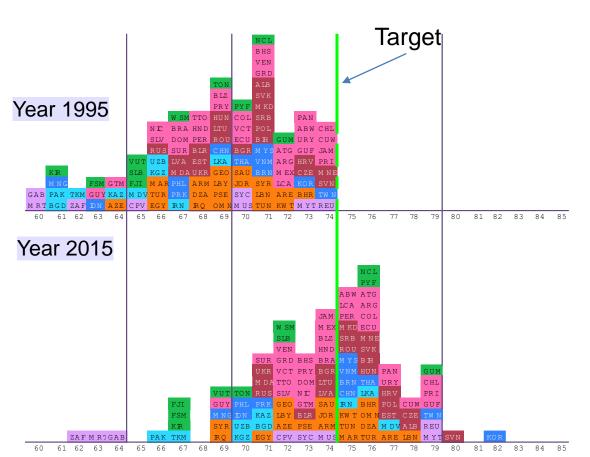
How many high mortality countries have fallen short of the **ICPD** targets?

Among high mortality countries, 54 countries or 95% of all high mortality countries missed the target of 70 years. 20 countries or 35% did not even graduate from the high mortality group (their life expectancy at birth in 2015 was less than 60 years) let alone to reach the ICPD target. If in 1994 high mortality countries were in all regions of the world, by 2015 they were located in sub-Saharan Africa only.

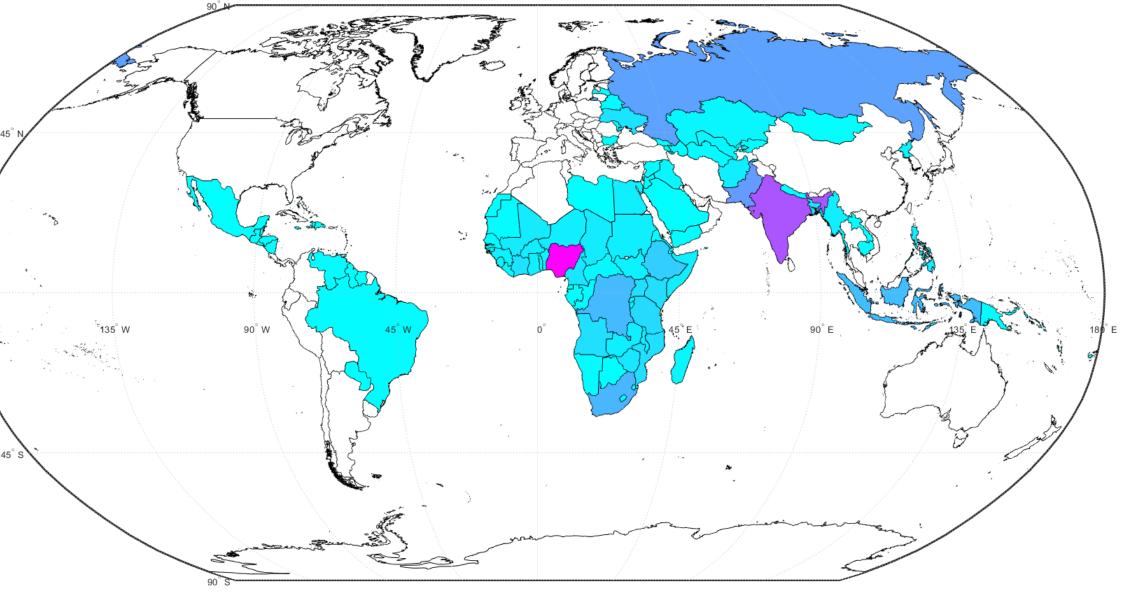


How many low mortality countries have fallen short of the **ICPD** targets?





• Overall, nearly 116 million deaths in the period 1995-2015 could be averted if the survival targets both for low and high mortality countries had been reached by all countries • 75% of all unprevented deaths occurred only in 19 countries.



Distribution of unprevented deaths over the 1995-2015 period (millions)



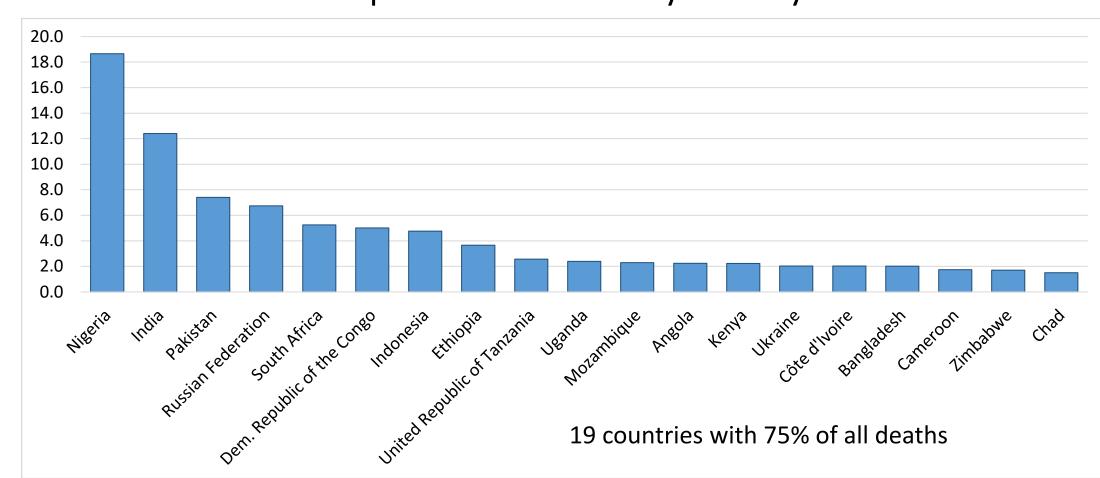
10.7

93

12.1 13.5 15.0 16.4

2.1 3.6 5.0 6.4 7.8

Only countries with >500,000 deaths show



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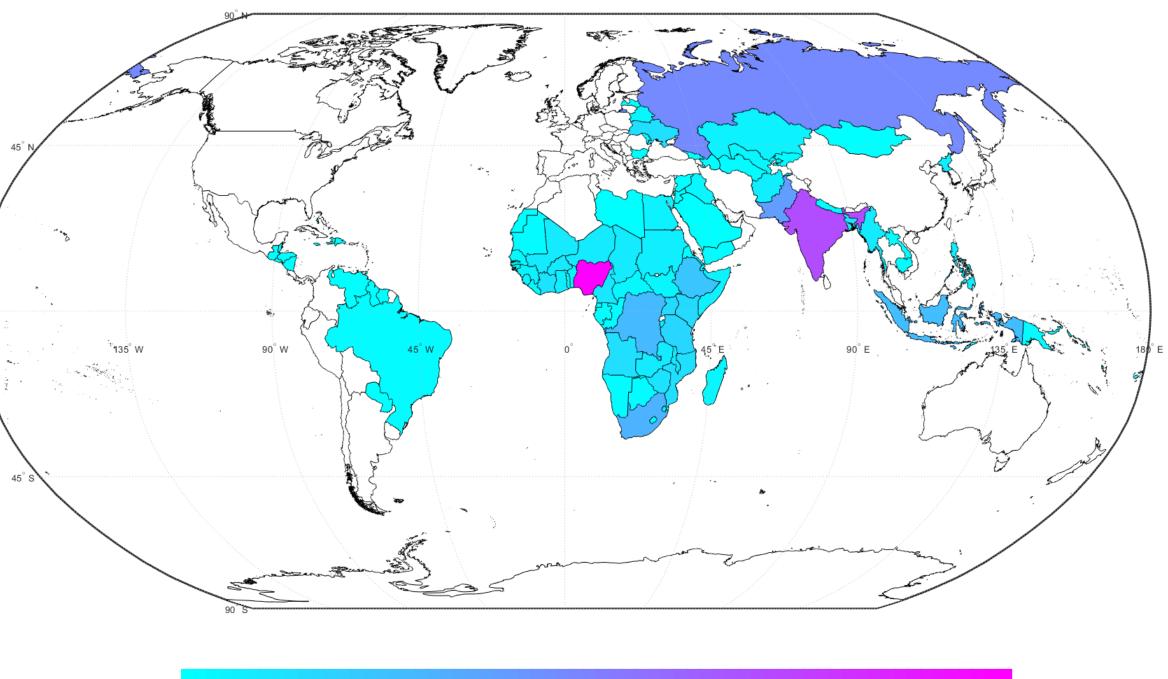
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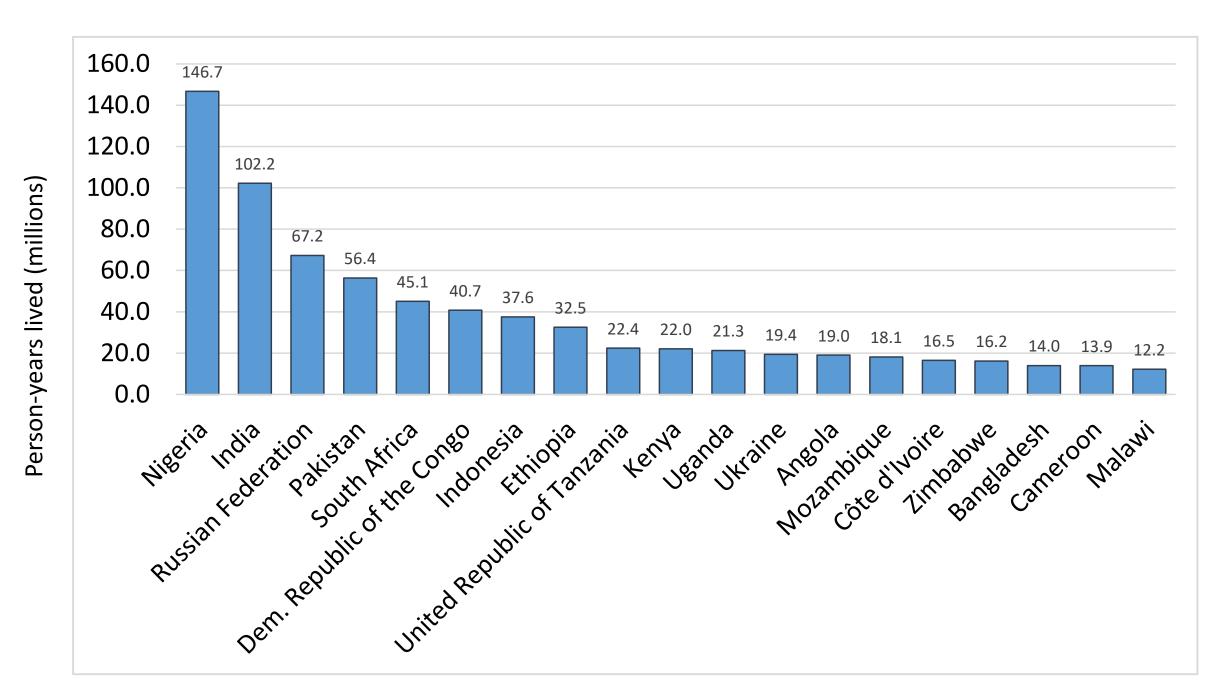
How many years of life have been lost?

• Overall, 961 million person-years lived have been lost due to slower than planned reductions in death rates over the ICPD implementation period, 1995-2015. The estimate excludes any years of life lived beyond 2015 by the survivors. • 75% of all person-years lived losses occurred only in 19 countries.

Distribution of years of life lost over the 1995-2015 period (millions)



Losses in person-years lived by country



When we expect the ICPD survival targets to be reached?

• Only 87 (43%) out of 201 countries reached the life expectancy level of 75 years by 2015, the end of the ICPD implementation period. Another 23 countries are expected to reach this level by 2030, the end of the implementation period for Sustainable Development Goals, bringing the total number of countries to 110, about half of all countries. By the end of the century, 182 countries are expected to have life expectancy at birth 75 years or higher. And 19 countries are not expected to reach this level over next 80 years, in this century. All of these countries, except Papua New Guinee, are in Africa.

Distribution of countries by year when life expectancy at birth equal to 75 years of age is reached

