

PROGRESS AND SETBACKS IN BREAST AND CERVICAL CANCER



This research was supported by funding from Susan G. Komen for the Cure®. The views expressed are those of the authors.

The contents of this publication may be reproduced and redistributed in whole or in part, provided the intended use is for noncommercial purposes, the contents are not altered, and full acknowledgment is given to IHME. This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License. To view a copy of this license, please visit http://creativecommons.org/licenses/by-nc-nd/3.0/.

For any usage that falls outside of these license restrictions, please contact IHME Communications at comms@healthmetricsandevaluation.org.

Citation: Institute for Health Metrics and Evaluation. The Challenge Ahead: Progress and setbacks in breast and cervical cancer. Seattle, WA: IHME, 2011.

Institute for Health Metrics and Evaluation 2301 Fifth Ave., Suite 600 Seattle, WA 98121 USA

To request copies of this report, please contact:

Telephone: +1-206-897-2800

Fax: +1-206-897-2899

Email: comms@healthmetricsandevaluation.org

www. health metrics and evaluation. org

Printed in the United States of America

ISBN 978-0-9840910-3-4

©2011 Institute for Health Metrics and Evaluation

THE CHALLENGE AHEAD

PROGRESS AND SETBACKS IN BREAST AND CERVICAL CANCER

Contents

- 3 About IHME
- 4 Acknowledgments
- 4 Acronyms
- 5 Figures and tables
- 9 Making breast and cervical cancer a reproductive health priority
- 11 Breast cancer cases rise, but deaths increase at a slower pace
- 18 Cervical cancer cases increase with little progress in reducing deaths
- 24 Changing cancer's course globally
- 26 Regional overviews
- **70** Country data
- **78** References





About IHME

The Institute for Health Metrics and Evaluation (IHME) is an independent global health research center at the University of Washington that provides rigorous and comparable measurement of the world's most important health problems and evaluates the strategies used to address them. IHME makes this information freely available so that policymakers have the evidence they need to make informed decisions about how to allocate resources to best improve population health.

For more information, please visit http://www.healthmetricsandevaluation.org.

LEAD AUTHORS:

Mohammad H Forouzanfar, MD PhD

Post-Graduate Fellow, IHME

Kyle J Foreman, MPH

Post-Bachelor Fellow, IHME

Allyne M Delossantos

Data Analyst, IHME

Rafael Lozano, MSc MD

Professor, IHME

Alan D Lopez, MS PhD

Professor, University of Queensland

Christopher JL Murray, MD DPhil

Institute Director and Professor, IHME

Mohsen Naghavi, MD MPH PhD

Associate Professor, IHME

CONTRIBUTING AUTHORS:

David Phillips

Data Analyst, IHME

Charles Atkinson

Data Analyst, IHME

Acknowledgments

The authors gratefully acknowledge the many registries around the world that have helped us in our search and collection of cancer incidence and mortality data. We greatly appreciate their time and assistance.

Special thanks go as well to members of the IHME community who have helped with this report, including Julio Frenk, Chair of IHME's Board; Haidong Wang for producing the global mortality data used in the modeling; Diana Haring for assisting with data collection and management; Katrina Ortblad for collecting and producing the covariate time trends; Rebecca Cooley for research coordination; Summer Ohno for project coordination; William Heisel for writing the report and assisting with research; Jill Oviatt for editorial guidance; and Patricia Kiyono for editing and managing the production of the report.

Finally, we extend our gratitude to Susan G. Komen for the Cure® for generously funding the research in this report.

Acronyms

GBD Global Burden of DiseaseHPV Human papillomavirus

IARC International Agency for Research on Cancer

IHME Institute for Health Metrics and Evaluation

MI Mortality-to-incidence

NCD Noncommunicable disease

UN United Nations

Figures and tables

PAGE FIGURE

- 12 1 Breast cancer cases by region, 1980 to 2010
- 12 2 Breast cancer cases in developed and developing countries by age, 1980 and 2010
- 14 3 Lifetime breast cancer risk, 2010
- 4 Growth in breast cancer cases and deaths in developed and developing countries, 1980 and 2010
- 17 5 Mortality-to-incidence ratio of breast cancer, 1980 to 2010
- **19** 6 Cervical cancer cases by region, 1980 to 2010
- 19 7 Growth in cervical cancer cases and deaths in developed and developing countries, 1980 and 2010
- 21 8 Change in the lifetime risk of death from cervical cancer, 1980 to 2010
- 23 9 Mortality-to-incidence ratio for breast cancer and cervical cancer in selected countries, 1980 to 2010

PAGE TABLE

- 16 1 Deaths in thousands from breast cancer by region and age group, 2010
- 22 Deaths in thousands from cervical cancer by region and age group, 2010

Report highlights

13 to 100

is the ratio of breast cancer deaths to new breast cancer cases in the United States in 2010, down greatly from 23 to 100 in 1980.

10%

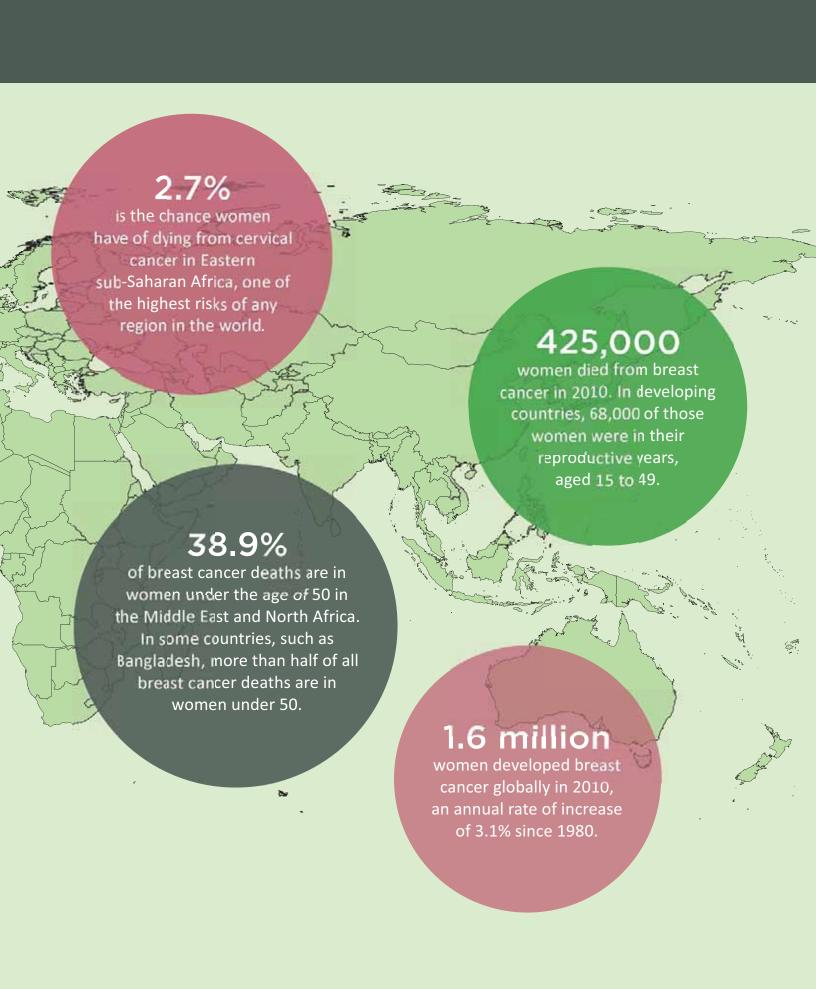
is the risk women face of developing breast cancer during their lives in high-income countries in North America, Australasia, and Western Europe, while some countries in sub-Saharan Africa and South Asia show a risk of less than 3%.

200,000

women died from cervical cancer in 2010, with a greater percentage of these deaths concentrated in developing countries over the past thirty years.

454,000

women developed cervical cancer globally in 2010, an annual rate of increase of 0.6% since 1980.





Making breast and cervical cancer a reproductive health priority

In calling for the High-level Meeting on Non-communicable Diseases (NCDs), the United Nations (UN) opened an opportunity to assess the world's progress in reducing the burden of a range of illnesses. We should seize this opportunity to make breast and cervical cancer – two of the deadliest NCDs – central to the discussion.

In 1994, visionary leaders in public health decided at the International Conference on Population and Development in Cairo to bring both breast and cervical cancer under the reproductive health umbrella. The conference called on countries to make prevention and treatment of "breast cancer and cancers of the reproductive system" universally accessible by 2015.¹

Similarly, two years later, 189 countries agreed in the Millennium Declaration to reduce deaths from pregnancy, birth, and postdelivery complications by 2015. The world has since mobilized to combat deaths from maternal causes, resulting in a steady decrease in maternal deaths worldwide, from 471,000 in 1980 to 273,000 in 2011, with the bulk of the deaths concentrated in a handful of countries.² Despite the important policy framing in Cairo, the same progress cannot be seen in combating deaths from breast and cervical cancer, which together take more women's lives than maternal causes.

IHME researchers have found that the number of cases and the number of deaths from these cancers continue to rise in most countries, especially in the developing world.³ We opted to use the set of developing regions determined by the Global Burden of Diseases, Injuries, and Risk Factors Study 2010 (GBD Study 2010), which excludes all European countries, Australasia, and highincome countries in North America and Asia. These areas are now included in developed regions.

As high-income countries enjoy the benefits of early cancer screenings, drug therapies, and vaccines, the burden of breast and cervical cancer is shifting to low-income countries in Africa and Asia. Within those countries, more women are developing breast and cervical cancer during their reproductive years, adding more pressure on families and societies already suffering

from high rates of infectious disease and high rates of child mortality.

The number of new breast cancer cases more than doubled around the world in just three decades. Global breast cancer incidence increased from 641,000 cases in 1980 to 1.6 million cases in 2010, an annual rate of increase of 3.1%. This pace exceeds global population growth. Global cervical cancer incidence grew at a slower pace, from 378,000 cases in 1980 to 454,000 in 2010, a growth rate of 0.6% annually. In both types of cancer, developing countries saw a faster pace of increase than the global average. Breast cancer cases grew by 4.4% annually in developing countries, and cervical cancer grew by 1.1%.

Some measure of encouragement can be taken from the fact that while cases are on the rise, deaths are increasing at a slower pace. Breast cancer deaths have risen from 250,000 in 1980 to 425,000 in 2010, a 1.8% annual increase. Cervical cancer deaths grew to 200,000 over the same period, an increase of 0.5% annually. As with the number of cases, the developing world saw a more rapid increase in women dying of cancer, with an annual increase of 2.7% for breast cancer and 0.8% for cervical cancer.

The progress has been very different, however, for women with breast cancer than for women with cervical cancer. Comparing the number of new breast cancer cases annually to the number of deaths from the disease can give breast cancer patients good reason for hope. In developing countries, there were 37 women dying for every 100 new cases of breast cancer in 1980. In 2010, that number was 26 to 100. For cervical cancer patients, despite 30 years of medical advancements and investments in health infrastructure, there are still more than 50 women dying from cervical cancer in some countries for every 100 women who are diagnosed with the disease.

To decrease the number of cases and deaths worldwide from these cancers, policymakers should consider the most troubling trend IHME found: the rising number of deaths in women of reproductive age. From 1980 to 2010, deaths in reproductive-aged women increased 1.5% per year for breast cancer and 0.5% per year for cervical cancer.

The increase is even faster in developing countries. Based on current trends, breast and cervical cancer are likely to soon approach maternal causes as a critical driver of mortality in women of reproductive age in developing countries. Today, there are 2.3 maternal deaths for every death from either breast or cervical cancer in women between the ages of 15 and 49 in the developing world. By 2025, we expect maternal deaths to fall and deaths from breast and cervical cancers to rise so that they are nearly equal among women of reproductive age.

The populations that have benefited most from screening and treatment are in the developed world, where women are less likely to die from breast or cervical cancer. The shift in the burden of these cancers from high-income countries to developing countries adds to an already full agenda of health challenges faced by developing countries.

This study on breast and cervical cancer grew from the foundational work at IHME to systematically collate the world's data on causes of death from vital registration systems, surveys, and censuses. We were able to take advantage of a growing body of evidence from verbal

autopsy studies, which depend on information gathered from household members and relatives to determine causes of death in areas lacking death registration. IHME used this dataset to develop new models for maternal mortality.² We will also use this work as a key component of the GBD Study 2010, the results of which are expected to be published in early 2012.

After seeing IHME's maternal mortality work, Susan G. Komen for the Cure® asked if IHME could prioritize work on both breast and cervical cancer in advance of the UN meeting on NCDs. We have taken up that challenge, and the results are in this report. We provide breakdowns of our estimates for breast cancer incidence and mortality, both by region and for each of 187 countries. In addition, we have included detailed data on breast and cervical cancer trends for all countries at the end of the report.

Some of our findings may run counter to other efforts to estimate incidence and mortality for these cancers worldwide. We address several technical reasons for these differences in the "Our approach" section. We hope that disagreements over scientific approaches to breast and cervical cancer will not cloud the discussion about how best to ensure a future in which fewer women develop breast and cervical cancer, and more women who are diagnosed survive.

Our approach

There are five main differences between our results and estimates produced by the International Agency for Research on Cancer (IARC) and released through the GLOBOCAN website. The differences can be traced to several key factors.

- IHME researchers based their estimates on additional sources of data, especially for cancer deaths. For example, in countries that lack vital registration data, we were able to use data from verbal autopsy studies, which gather information from relatives about how a family member died. Even in countries where rich data sources are available, IARC used modeled mortality estimates from the World Health Organization. For cervical cancer deaths in India, for example, the IARC approach yields a much higher number of deaths than the IHME approach.
- Many cancer deaths are inaccurately coded or ill-defined by the agencies collecting the data. IHME has fixed the coding and assigned the deaths to the appropriate categories.
- To generate the mortality-to-incidence (MI) ratio, a key measure for the number of women with cancer who die annually, IHME has attempted to improve on previous methods by factoring in age, country, and year. We have found that our estimates are in sync with data from cancer registries.
- IHME uses one approach for estimating mortality data in every country. GLOBOCAN data are based on 26 different approaches for different groups of countries. The approach used for Saudi Arabia and South Africa, for example, is different from the one used for Vietnam and China.
- Many of the approaches used for estimating mortality in the GLOBOCAN data rely on trends observed in Nordic countries. We believe relying on such a limited number of countries leads to an overestimation of MI ratios in many developing countries, particularly for breast cancer.

Breast cancer cases rise, but deaths increase at a slower pace

Globally, more women are developing breast cancer and more women are dying from it than ever before. Those trends tell only part of the story.

As public policies about early detection and targeted approaches for breast cancer treatment became more widespread over the past three decades, the patterns for breast cancer began to change. We now see that, even as cases rise, the number of women dying is not rising as quickly. This success is not being shared globally, as some countries are far outpacing others. This has led to a shift in the burden of breast cancer cases and deaths. What once was thought of as a problem mainly for highincome countries is now an even larger problem for low- and middle-income countries. Within those developing countries, a troubling trend is emerging: women are being hit by the disease at a younger age. While in high-income countries breast cancer has become less common among women of reproductive age, meaning ages 15 to 49, in developing countries breast cancer cases in younger women now make up 44.1% of the overall number of cases.

Breast cancer cases rising worldwide

Between 1980 and 2010, the number of breast cancer cases steadily increased more than two and a half times from 641,000 to 1.6 million annually. This represents an annual increase of 3.1%. The rise in breast cancer cases is happening in every region and in every country, with the number of cases in some countries increasing much faster than the global trend. The number of women with breast cancer in Malaysia, for example, grew from 1,529 to 8,429, an annual increase of 5.7% between 1980 and 2010. Over the same period, the United States, which has more breast cancer cases than any other country, went from 127,425 cases to 241,249, an annual increase of 2.1%.

The regions with the most growth in breast cancer cases are North Africa and the Middle East, Oceania, Southeast Asia, Western sub-Saharan Africa, and Central Latin America. In the high-income countries of North America, Western Europe, and Southern Latin America, breast cancer cases have grown at a slower pace than the global average. The United Kingdom had one of the lowest annual growth rates at 1%.

To put the number of cases in perspective, for each country we calculated the lifetime risk – the chance that a woman would develop breast cancer during her lifetime. Globally, that risk is 5.5%, meaning about 1 of every 18 women is at risk of developing breast cancer in the course of her life. But clear regional patterns vary greatly from the average. For example, incidence is very high in the high-income countries of North America, Australasia, and Western Europe, where more than 10% of women – or 1 in 10 – risk developing breast cancer. In contrast, some countries in sub-Saharan Africa and South Asia show a risk of less than 3%.

In the countries with the lowest risk for breast cancer, including Niger, Bangladesh, Guatemala, and Gambia, 1 in 58 women will develop breast cancer. Women with the highest risk are in countries such as Luxembourg, Denmark, Belgium, and Israel, where the risk ranges from 1 in 8 to 1 in 7.

If current trends continue, the risk will rise in the developing world. Those countries are experiencing an increase in the breast cancer burden. In 1980, 65% of all breast cancer cases were in developed countries. By 2010, the share of breast cancer cases in the developed world shrank to less than half, at 49%, with the majority of cases now found in the developing world. Some developing countries saw a rise in breast cancer cases of more than 7.5% annually, more than twice the global rate.

Figure 1: Breast cancer cases by region, 1980 to 2010

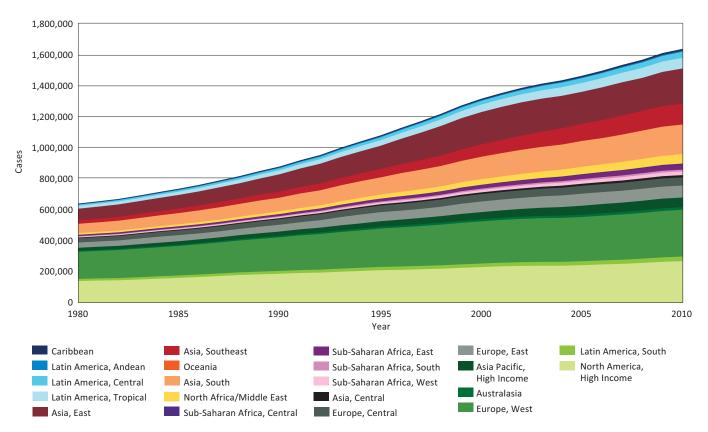
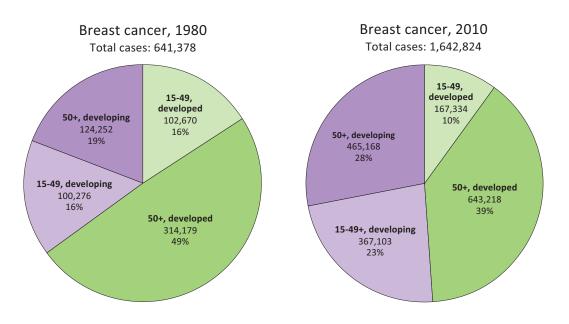


Figure 2: Breast cancer cases in developed and developing countries by age, 1980 and 2010



The number of women developing breast cancer grew 156% since 1980, but the number of deaths grew by only 70%. That difference is significant and promising, but the trend is not equally distributed around the world.

The shift in the breast cancer burden to the developing world is being felt most acutely in women who traditionally had the lowest risk for the disease: women of reproductive age. In developing countries, the risk of a woman developing breast cancer before age 50 more than doubled between 1980 and 2010.

This trend has greatly changed the profile of the typical breast cancer patient. In 1980, one could safely assume that most women who had breast cancer were 50 years of age or older, because 68% of all cases were in that age group. The remaining cases were split evenly between women of reproductive age in developed countries and developing countries, both at 16% of the global total.

Since 1980, developed countries drove down the percentage of women age 15 to 49 with breast cancer from 16% to 10%. Developing countries saw the opposite happen. In 2010, women of reproductive age in developing countries made up 23% of the global total of breast cancer cases, meaning there are now twice as many women under 50 with breast cancer in the developing world than in developed countries. There is no sign that the trend is slowing.

Breast cancer deaths increasing more slowly than cases

The first glimpses of progress in meeting the breast cancer challenge can be seen in the number of women dying from breast cancer. As we noted previously, breast cancer cases are rising at a rate of 3.1% annually. The global total number of deaths from breast cancer

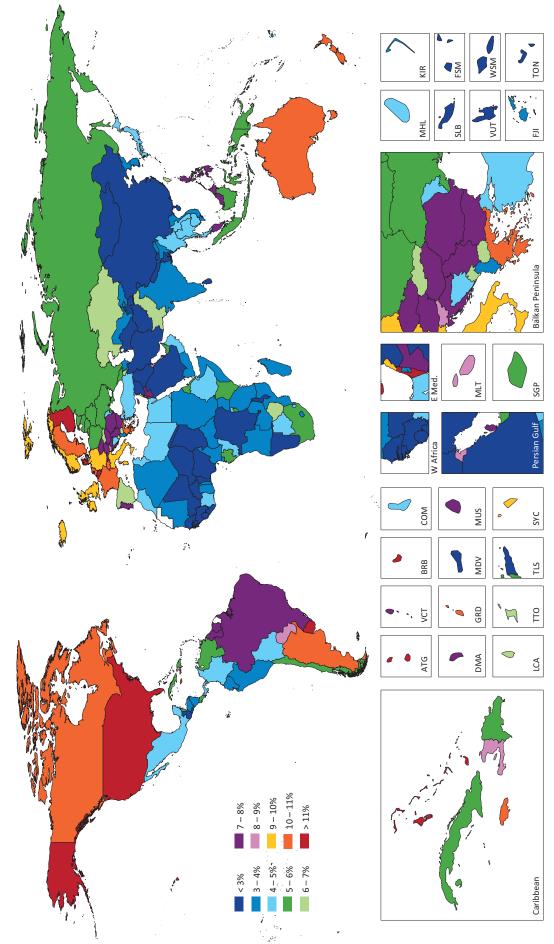
increased from 250,000 in 1980 to 425,000 in 2010, representing an annual increase of 1.8%.

Looked at another way, the number of women developing breast cancer grew 156% since 1980, but the number of deaths grew by only 70%. That difference is significant and promising, but the trend is not equally distributed around the world.

Because deaths are increasing at a slower pace than population growth in many countries, the actual risk of death from breast cancer dropped in some countries while rising in others. Cumulative probability of death increased throughout Central America, parts of Southeast Asia, North Africa, the Middle East, Eastern Europe, and sub-Saharan Africa. In many high-income countries, including the UK, US, and Belgium, the risk of death from breast cancer fell quite rapidly since the 1990s. In calculating cumulative probability of death and incidence, also known as risk, IHME did not take into account the risk of developing other health conditions or dying from other causes. This allowed us to make comparisons between countries more easily.

In 1980, women in Mongolia, Saudi Arabia, Thailand, and Bangladesh all had the lowest risk of dying from breast cancer, at less than 0.5%. By contrast, women in the UK, Uruguay, and Denmark all had a risk of more than 3.9% in 1980. Interestingly, even three decades later, the countries with the lowest risk of death remain the same, while women in Uruguay, Haiti, and the Bahamas now have the highest risk of death.

Figure 3: Lifetime breast cancer risk, 2010



The number of deaths in reproductive-aged women in developing countries is rising, along with the number of breast cancer cases. While the number of deaths in younger women in developed countries has remained virtually unchanged for 30 years, breast cancer deaths in the developing world are growing at a rate of 2.2% annually in women under 50.

The fraction of breast cancer deaths in women under 50 varies from 10.3% of the total number of deaths in Western Europe to 41% in Central sub-Saharan Africa. Within countries, the fraction of younger women dying from breast cancer can be even higher. In Bangladesh, 62% of all breast cancer deaths are in women under 50.

Prevention efforts appear to be working

By comparing annual cases to annual deaths in breast cancer, we provide one key measure for the number of women with cancer who die annually: the mortality-toincidence (MI) ratio. The MI ratio reveals the clearest evidence in our analysis that efforts to diagnose, treat, and control the disease are working. Researchers find the MI ratio by using all data available according to age and dividing the total number of deaths by the total number of cases. For most of the 1980s, the MI ratio for breast cancer remained high for both developed and developing regions. In developed countries, 32 women died for every 100 women diagnosed with breast cancer in 1980. In developing countries, the ratio was 37 to 100.

By 1990, the number of deaths for every 100 new cases fell in both developed and developing countries. The pace of change accelerated over the next two decades. By 2010, the MI ratio fell to 26 deaths for every 100 new cases in developing regions and 21 to 100 in developed regions.

This encouraging decline coincides with broader use of screening over the past three decades, especially mammography, and the introduction of new drugs to treat breast cancer, the most widely used being tamoxifen and raloxifene.

Figure 4:
Growth in breast cancer cases and deaths
in developed and developing countries, 1980 and 2010

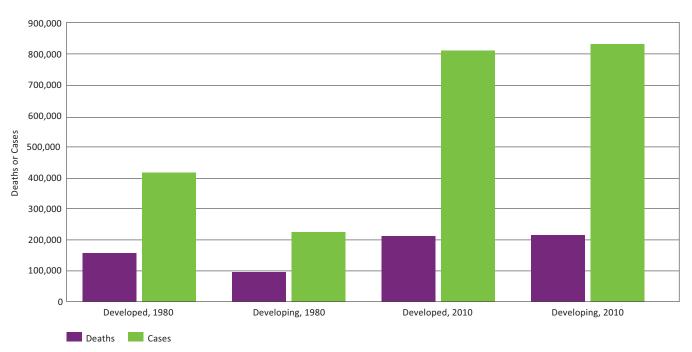
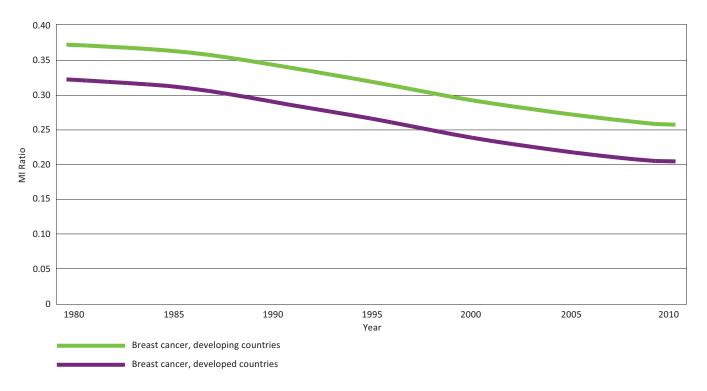


Table 1: Deaths in thousands from breast cancer by region and age group, 2010

	15-49	50+	Total
Global	94.0	331.2	425.2
Developing	67.8	145.9	213.7
Developing	26.1	185.3	213.7
Asia Pacific, High Income	2.3	11.8	14.1
_			
Asia, Central	1.7	3.2	4.8
Asia, East	13.2	32.1	45.3
Asia, South	20.1	38.8	58.8
Asia, Southeast	9.4	19.8	29.2
Australasia	0.5	3.2	3.8
Caribbean	0.8	3.5	4.4
Europe, Central	2.0	16.7	18.8
Europe, East	5.3	27.3	32.6
Europe, West	8.6	75.2	83.8
Latin America, Andean	0.5	1.3	1.8
Latin America, Central	3.0	7.8	10.7
Latin America, South	1.1	7.5	8.6
Latin America, Tropical	3.5	11.4	14.8
North Africa / Middle East	6.6	10.4	17.0
North America, High Income	6.1	43.7	49.8
Oceania	0.1	0.2	0.3
Sub-Saharan Africa, Central	1.0	1.4	2.3
Sub-Saharan Africa, East	4.0	8.1	12.1
Sub-Saharan Africa, South	0.8	3.0	3.8
Sub-Saharan Africa, West	3.3	4.9	8.2

See the list of countries in each region on pages 26-27.





The use of mammography to detect early breast tumors became widespread in high-income countries in the 1970s. Not until the 1980s did it become a standard of care in other parts of the world,⁴⁻⁶ although mammograms continue to be out of reach for patients in many developing countries.⁷

Tamoxifen was first approved for use in the US for treating breast cancer in 1977. Over the next two decades, it gradually became the drug of choice throughout much of the world, driven in part by the 1998 Breast Cancer Prevention Trial, which found a 45% reduction in the incidence of breast cancer in women who used the drug.⁸ Raloxifene, which became popular much more recently, gives women another treatment option.⁹

The US has experienced a strong reduction in the ageadjusted MI ratio. In 1980, 23 women died from breast cancer for every 100 new cases. In 2010, that dropped to 13 deaths from breast cancer for every 100 new cases, one of the lowest MI ratios globally.

Similar trends emerge in other regions, underscoring how the disease can affect countries – even neighboring countries – in widely diverse ways. It also indicates the possibility for in-depth research into the factors behind these divergent trends and the potential to both replicate success and accelerate progress to ultimately save more women's lives.

Cervical cancer cases increase with little progress in reducing deaths

With breast cancer, the trends in incidence, deaths, and reduction in deaths in proportion to new cases evolved over time, each moving at its own pace. Cervical cancer trends, however, appear to be in lock step and stubbornly impervious to significant change.

Cases are on the rise, and deaths are on the rise at nearly the same pace. As a result, the ratio of women dying compared to new cases of the disease is nearly the same in 2010 as in 1980. The fact that some countries have more than 50 deaths for every 100 new cases is a distressing sign of stagnation in a disease for which we have simple and effective tools for prevention and treatment.

With the recent advent of vaccines for preventing the human papillomavirus (HPV), which causes nearly all cervical cancer, ¹⁰ we might be entering a new era of progress in cervical cancer incidence, deaths, and the MI ratio. The vaccines have not been on the market long enough, though, for any measurable benefit to be detected at the global level.

For now, two trends are clear. First, as with breast cancer, the burden of cervical cancer is shifting to the developing world. Second, more women are being diagnosed with the disease during their reproductive years.

Cervical cancer incidence is rising

Worldwide, cervical cancer cases increased from 378,000 in 1980 to 454,000 in 2010. This is an average annual increase of 0.6%. The growth was almost entirely in the developing world.

Even more so than with breast cancer, the burden of new cervical cancer cases began to fall more heavily on the developing countries. High-income countries saw a decrease in cervical cancer cases. The risk of a woman developing cervical cancer in a high-income country is now less than 1%, meaning that in developed countries 1 out of every 100 women risk developing cervical cancer in her lifetime.

In the developing world, by contrast, the risk of cervical cancer is much higher. In fact, the risk is 35% greater than in high-income countries. Overall, 76% of new cervical cancer cases occur in developing regions. Sub-Saharan Africa alone makes up 22% of all cervical cancer cases, or 76,200 in 2010.

As with breast cancer cases, the fraction of women of reproductive age with cervical cancer is increasing in developing countries while decreasing in developed countries. In developing countries, there were 154,000 cases of cervical cancer in 2010 among women ages 15 to 49. That represents 34% of the global total, up from 30% in 1980. In developed countries, by contrast, the fraction of women of reproductive age with cervical cancer shrank slightly from 13% to 10%.

In some countries, younger women now make up the majority of new cases of cervical cancer. More than half the cases of cervical cancer are in women under age 50 in countries such as the Philippines, Indonesia, Uganda, Argentina, Venezuela, and Chile.

Cervical cancer deaths increase at almost the same pace as cases

While the number of cases of cervical cancer rose slowly over the past three decades at 0.6%, the number of deaths increased at a slightly slower pace. The total number of women dying from cervical cancer grew from 174,000 in 1980 to 200,000 in 2010, an annual rate of increase of 0.5%. Both the number of cases and the number of deaths rose more slowly than population growth, which increased at a rate of 1.2% annually.

Women died from cervical cancer at the highest rates in Zimbabwe, Eritrea, and Ethiopia in 1980. The lowest mortality levels that year were in Syria, Egypt, and Sri Lanka, all countries that also had a low risk of women developing cervical cancer. In 2010, the countries with the lowest levels of mortality were Syria, Iran, and Maldives. Guyana and Zambia had some of the highest mortality rates.

Figure 6: Cervical cancer cases by region, 1980 to 2010

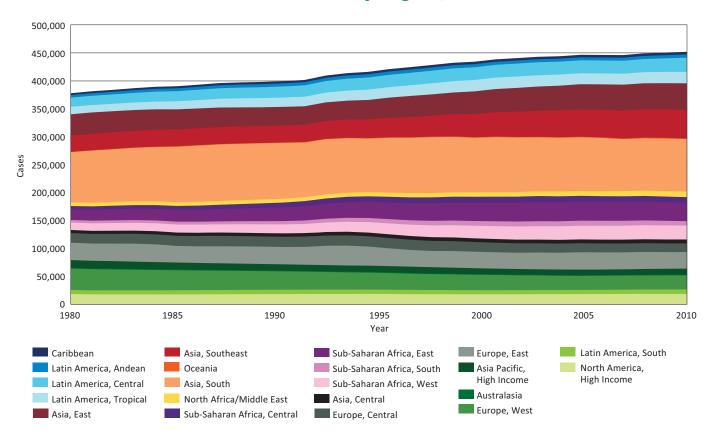
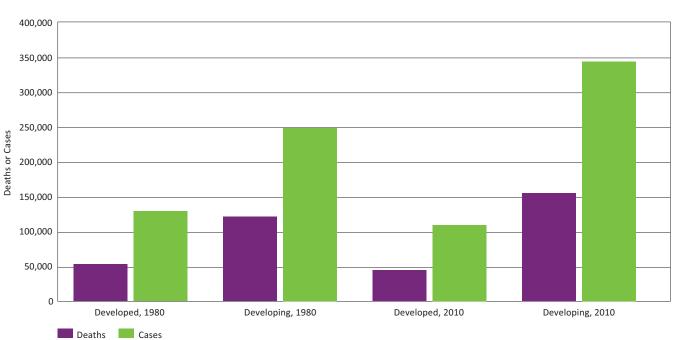


Figure 7:
Growth in cervical cancer cases and deaths
in developed and developing countries, 1980 and 2010



In some countries, younger women now make up the majority of new cases of cervical cancer. More than half the cases of cervical cancer are in women under age 50 in countries such as the Philippines, Indonesia, Uganda, Argentina, Venezuela, and Chile.

Because deaths from cervical cancer are not increasing as quickly as population growth, the risk of dying from cervical cancer fell in nearly every country from 1980 to 2010. The exceptions are Sri Lanka, Iraq, Thailand, and Zambia, where the risk either stayed the same or increased slightly.

That deaths from cervical cancer are not increasing in step with population growth is an encouraging sign. We see it is possible even for countries with very high mortality rates to change course. Our estimates show that large declines in the risk of dying from cervical cancer occurred in some countries in sub-Saharan Africa and in Latin America. Zimbabwe had a risk of death of 5.7% in 1980, and, by 2010, the risk had fallen to 3.5%, still much higher than the global average but a huge rate of improvement in comparison to its neighbors. In both Peru and Chile, the risk of death from cervical cancer was cut in half between 1980 and 2010.

In three decades, little change in women with cervical cancer dying

Even with positive trends in some countries, the relationship between the number of new cases of cervical cancer and the number of women dying continues to be cause for concern. The age-standardized MI ratio has shown little improvement globally over the past three decades. In 1980, there were 42 deaths from cervical cancer for every 100 new cases of cervical cancer in developing countries. Thirty years later, the death number fell by just two, to 40. Similarly, in developed countries, the ratio changed from 30 deaths for every 100 cases to 28 deaths for every 100 cases.

In many countries, the MI ratio for breast cancer was higher than for cervical cancer in 1980. Because of the lack of progress in decreasing cervical cancer cases and deaths and the relative progress in slowing the growth of breast cancer deaths, the MI ratio for cervical cancer is now higher than the MI ratio for breast cancer in most countries.

In Australia, the MI ratio for breast cancer was 26 deaths for every 100 new cases in 1980, and for cervical cancer it was 25 to 100. After three decades, Australia lowered its breast cancer MI ratio to 15 deaths for every 100 cases, one of the best ratios in the world. The situation for women with cervical cancer in Australia, though, remained unchanged for 30 years. Germany, similarly, saw its breast cancer MI ratio improve from 28 deaths to 17 deaths for every 100 new cases, while for cervical cancer, the ratio stayed at 27 to 100 over the three-decade period.

In developing countries, the patterns are the same. Malawi had 56 deaths for every 100 new cases of cervical cancer in 1980, and 55 for every 100 in 2010. Over the same period, though, the country greatly lowered its MI ratio for breast cancer from 47 deaths for every 100 new cases to 36. South Africa's MI ratio for cervical cancer barely moved from 45 deaths to 43 deaths for every 100 new cases between 1980 and 2010. The MI ratio for breast cancer – already lower than in most sub-Saharan African countries – dramatically improved, falling from 36 deaths to 25 deaths for every 100 new cases.

Previous research tells us the lack of progress in cervical cancer can be traced in part to weak or nonexistent screening programs in many countries. It has been

Change in the lifetime risk of death from cervical cancer, 1980 to 2010 Figure 8:

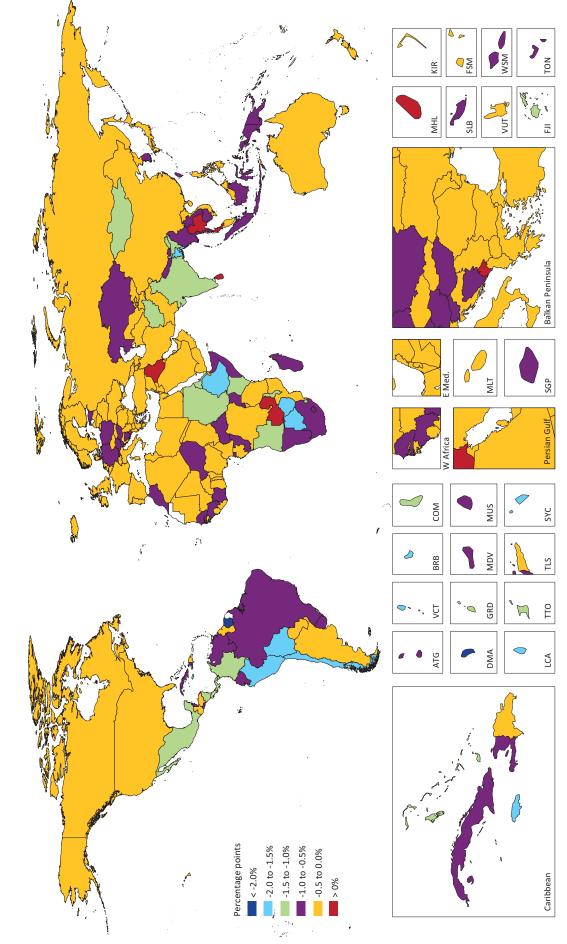
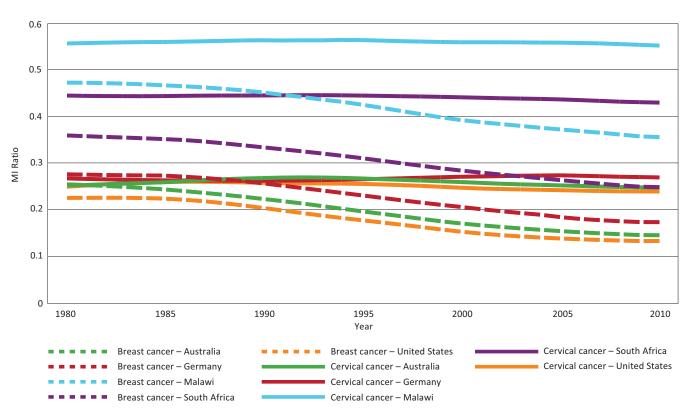


Table 2: Deaths in thousands from cervical cancer by region and age group, 2010

	15-49	50+	Total
Global	55.9	144.1	200.1
Developing	46.2	109.2	155.4
Developed	9.7	35.0	44.7
Asia Pacific, High Income	0.9	4.3	5.2
Asia, Central	1.0	1.5	2.6
Asia, East	4.5	14.2	18.7
Asia, South	9.8	30.2	40.1
Asia, Southeast	6.1	14.3	20.3
Australasia	0.1	0.3	0.4
Caribbean	0.6	1.7	2.3
Europe, Central	1.4	5.1	6.5
Europe, East	3.1	9.8	12.8
Europe, West	1.9	8.5	10.3
Latin America, Andean	0.8	2.0	2.8
Latin America, Central	3.5	7.9	11.4
Latin America, South	0.9	2.2	3.1
Latin America, Tropical	2.8	6.6	9.5
North Africa / Middle East	1.0	2.8	3.8
North America, High Income	1.5	4.8	6.3
Oceania	0.2	0.3	0.5
Sub-Saharan Africa, Central	2.6	3.2	5.7
Sub-Saharan Africa, East	6.5	13.4	19.9
Sub-Saharan Africa, South	1.1	3.2	4.3
Sub-Saharan Africa, West	5.8	7.7	13.5

See the list of countries in each region on pages 26-27.





estimated that more than 80% of all new cervical cancers are found in countries that lack organized Pap screening, a common test to detect cancer or abnormalities that may lead to cancer of the cervix.11 When women with cervical cancer are surveyed, research has shown that about 60% of them did not regularly see a physician for a Pap screening.12 We know that national strategies can work. In the UK, a national screening program begun in 1988 appears to have reversed an alarming trend in women younger than 35 developing cervical cancer.13 That country has seen one of the strongest annual declines in both cervical cancer cases and deaths. The trends in the MI ratio should be interpreted with caution, though, because of methodological difficulties. For example, some studies have reported that screening programs lead to identification and treatment of premalignant lesions. Therefore, data on incidence and deaths reflect only aggressive cancers.14

It is too soon to tell how the trends in cervical cancer will change following the recent advent of vaccines that promise to lower the incidence of HPV, a sexually transmitted infection. The HPV vaccines Cervarix and Gardasil were introduced in 2008 after clinical trials showed they were effective in preventing infection from two strains of HPV, HPV 16 and HPV 18. These two strains of the virus alone cause 70% of cervical cancer cases.

The scale-up of the vaccines globally remains in its infancy, but as observed with other interventions, such as insecticide-treated bed nets, countries can rapidly scale up distribution of interventions with the right policy approach and adequate funding. ¹⁷ Given the change seen in breast cancer since the introduction of new drugs that are effective in women with certain risk profiles, there is good reason to believe it is possible to significantly drive down cervical cancer cases and save more women's lives.

Changing cancer's course globally

This study is the first global assessment of country-specific trends in breast and cervical cancer for all countries and by age. The results show that deaths for breast and cervical cancer are increasing annually by 1.8% and 0.5%, respectively.

There are now more deaths from breast cancer than maternal causes, with cervical cancer deaths getting closer every year. In women of reproductive age, complications from pregnancy and birth still cause more deaths in the developing world, but breast and cervical cancer are quickly catching up. If nothing is done to change course, within the next two decades, women under 50 in developing countries will die as often from breast and cervical cancer as from maternal causes.

The challenge ahead cannot be ignored. In a world that has committed significant sums of health funding to combat deaths from maternal causes, our research shows that an increasing fraction of funding should be focused on breast and cervical cancer. Given the incredible groundswell around fighting maternal mortality — a fight that can point to real victories over the past three decades — it would be a wasted opportunity not to leverage the talent and momentum that could make similar progress in breast and cervical cancer. How societies respond to this challenge will determine the course of the two leading causes of cancer mortality in women for many years to come.

Based on our findings, we can make several key recommendations.

Increase country-level health data. Finding the necessary data to accurately measure trends in breast and cervical cancer is fraught with difficulties. For 47 countries, we could not find any data about these cancers. In another 66 countries, data were limited. This means that to capture the global burden from cancer, researchers have to rely more heavily on statistical modeling than

they do for other diseases. One step to increase country-level health data is to add more cancer registries in countries. Currently, cancer registries are predominately found in high-income countries. Another step is to create an integrated system to gather data for states, districts, or counties within a country. In doing so, the necessary evidence base will be built to document trends over time and to target strategies that will have the maximum impact.

Expand verbal autopsy in low-resource settings. Most countries have incomplete vital registration systems, meaning that births, deaths, and other health trends cannot be completely captured. The work IHME and others around the world have done to improve verbal autopsy methods provides new options for filling in gaps in national health data. Verbal autopsy is a relatively low-cost way of surveying populations to find trends in cancer deaths and a wide range of other diseases. Recently published work in the scientific journal *Population Health Metrics* shows that verbal autopsy methods using low-cost software to identify causes of death rival physician assessments for accuracy. ^{18, 19}

Pinpoint the drivers behind divergent trends. Our detailed analysis by country reveals a marked diversity of trends, particularly for breast cancer mortality, by region and within regions. Venezuela and Colombia, for example, have very different trends, despite sharing many of the same lifestyle and demographic characteristics. This tells us that major known risk factors, such as obesity and consumption of animal fat, do not account for all observed patterns. Explanation of these divergent trends may lie in the interaction between genes and known individual risk factors. The next step would be for researchers within the country to study health policies that may be driving these trends as well as underlying interactions between genes and the environment.

Implement national cancer control strategies. We have seen what can happen when screening protocols are followed for breast cancer. Countries such as the US that have promoted screening at the appropriate age levels for breast cancer and have continued to research the efficacy of screening also have the biggest improvements in the mortality-to-incidence ratio for breast cancer. With cervical cancer, national campaigns and programs to encourage screening have not been as successful. By learning from what is working in breast cancer strategies and replicating those efforts for cervical cancer, countries may be able to take advantage of the hope promised by HPV vaccines and make a significant change in cervical cancer trends. Developing national control strategies for both cancers that reflect local epidemiological patterns and trends would be of great benefit.

Efforts to improve maternal and child health include diverse initiatives such as the UN Commission on Women's and Children's Health, the US Global Health Initiative, and the Bill & Melinda Gates Foundation's appeal to countries to make a concerted effort to reduce maternal and child mortality.²⁰⁻²² These initiatives are increasing policy attention for women's health issues, particularly for reproductive-age women. Our findings suggest that breast and cervical cancer in low-income countries are major causes of death for women at these ages, and that the situation is getting worse. As the UN High-level Meeting on NCDs raises policy awareness of the importance of controlling breast and cervical cancer, we can make this moment matter. We know there are effective health system responses. We now need the targeted policy approaches to build on the noted success in reducing the burden of maternal causes of death. Four years away from the deadline set at the Cairo conference, breast and cervical cancer can become global health priorities, and the setbacks can be reversed.

Regional overviews

The following pages contain regional overviews of breast and cervical cancer in 21 regions of the world, encompassing 187 countries. We show the risk of developing breast or cervical cancer, the risk of dying of breast or cervical cancer, and trends in incidence and mortality for both diseases. In the regional overviews, the numbers for risk are the percentages commonly used by researchers in the field. Elsewhere in the report and in the country table at the end of the report, risks are explained using ratios to make them more easily understandable. Regional totals are in some cases larger than the sum of country estimates

because some countries or territories of countries are not included in the 187 countries in our primary analysis. To generate regional and global totals that reflect all populations, we assume that the age-specific incidence and death rates in these populations are equal to the population weighted rates in the countries included in the analysis for that region. United Nations Population Division regional population totals for each age, country, and year are divided by the sum of the country populations for each age, country, and year to yield the appropriate adjustment factor for the populations not included in the primary analysis.

The regions and countries are:

Asia Pacific, High Income

Brunei Darussalam

Japan

Singapore

South Korea

Asia, Central

Armenia

Azerbaijan Georgia

Kazakhstan

Kyrgyzstan

Mongolia

Tajikistan Turkmenistan

Uzbekistan

Asia, East

China

North Korea

Taiwan

Asia, South

Afghanistan Bangladesh

Bhutan

India

Nepal

Pakistan

Asia, Southeast

Cambodia

Indonesia

Laos

Malaysia

Maldives

Myanmar

Philippines

Sri Lanka Thailand

Timor-Leste

Vietnam

Australasia

Australia

New Zealand

Caribbean

Antigua and Barbuda

Bahamas

Barbados

Belize

Cuba

Dominica Dominican Republic

Grenada

Guyana

Haiti

Jamaica

Saint Lucia

Saint Vincent and the Grenadines

Suriname

Trinidad and Tobago

Europe, Central

Albania

Bosnia and Herzegovina

Bulgaria

Croatia

Czech Republic

Hungary

Macedonia Montenegro

Poland

Romania

Serbia

Slovakia

Slovenia

Europe, East

Belarus

Estonia

Latvia

Lithuania

Moldova

Russia

Ukraine

Europe, West

Andorra
Austria
Belgium
Cyprus
Denmark
Finland
France
Germany
Greece
Iceland
Ireland
Israel
Italy

Luxembourg
Malta
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom

Latin America, Andean

Bolivia Ecuador Peru

Latin America, Central

Colombia Costa Rica El Salvador Guatemala Honduras Mexico Nicaragua Panama Venezuela

Latin America, South

Argentina Chile Uruguay

Latin America, Tropical

Brazil Paraguay

North Africa / Middle East

Algeria
Bahrain
Egypt
Iran
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco

Occupied Palestinian Territory

Oman Qatar Saudi Arabia Syria Tunisia Turkey

United Arab Emirates

Yemen

North America, High Income

Canada United States

Oceania

Fiji Kiribati

Marshall Islands

Micronesia, Federated States of

Papua New Guinea

Samoa

Solomon Islands

Tonga Vanuatu

Sub-Saharan Africa, Central

Angola

Central African Republic

Congo

Congo, the Democratic Republic of the

Equatorial Guinea

Gabon

Sub-Saharan Africa, East

Burundi Comoros Djibouti Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Mozambique Rwanda Sevchelles Somalia Sudan Tanzania Uganda Zambia

Sub-Saharan Africa, South

Botswana Lesotho Namibia South Africa Swaziland Zimbabwe

Sub-Saharan Africa, West

Benin
Burkina Faso
Cameroon
Cape Verde
Chad
Côte d'Ivoire
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali

Mauritania Niger Nigeria

Sao Tome and Principe

Senegal Sierra Leone Togo

REGIONAL OVERVIEWS 27

Asia Pacific, High Income: Breast and cervical cancer trends

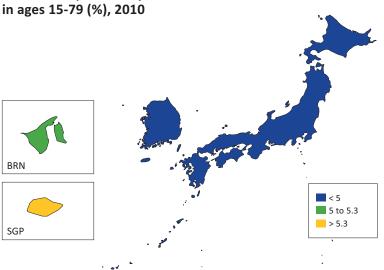
- Fewer younger women are dying from cervical cancer in the region. In Japan, for example, 86.7% of all cervical cancer deaths in 2010 were in women ages 50 and older, compared to 77.9% globally.
- For the risk of death from breast cancer, the gap between countries across the region is closing. In 2010, 1 in 67 Singaporean women risked dying from the disease, and 1 in 156 South Korean women were at risk.
- Singapore and Japan are the only countries in the region to lower the risk of dying from either cervical or breast cancer.

Breast cancer deaths in ages 15+, 2010

Total deaths: 14,089

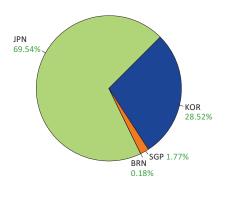


Cumulative probability of incidence for breast cancer in ages 15-79 (%) 2010

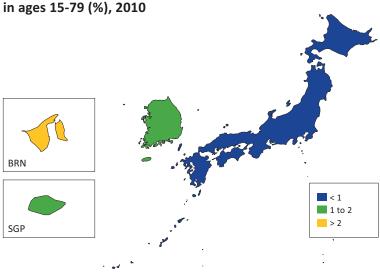


Cervical cancer deaths in ages 15+, 2010

Total deaths: 5,168



Cumulative probability of incidence for cervical cancer



Country abbreviations

BRN Brunei Darussalam

JPN Japan

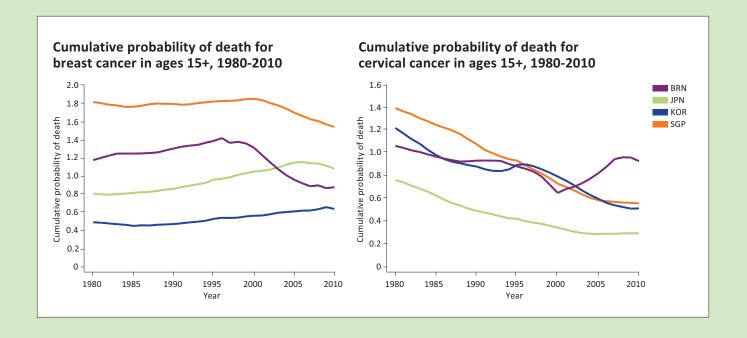
KOR South Korea

SGP Singapore

			Breast ca	ncer		Cervical cancer						
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Brunei Darussalam	5.1	0.9	13	46.8	3.2	4.5	2.3	0.9	9	36.0	3.5	2.8
Japan	5.0	1.1	11,644	13.3	3.0	3.6	0.7	0.3	3,550	15.9	-0.4	-1.4
Singapore	5.8	1.5	285	26.4	2.7	4.2	1.3	0.6	90	18.6	0.1	0.2
South Korea	3.5	0.6	1,975	33.4	3.8	5.6	1.1	0.5	1,456	19.7	0.3	0.2
Regional	4.7	1.0	14,089	16.5	3.1	3.9	0.8	0.3	5,168	17.0	-0.1	-0.9
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

Note: While some low-population countries may not be listed above, they are included in the regional and global analysis.



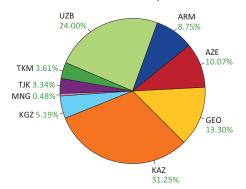
REGIONAL OVERVIEWS 29

Asia, Central: Breast and cervical cancer trends

- Deaths from breast and cervical cancer are rising in all countries except two. In Georgia and Kazakhstan, breast cancer deaths increased, but cervical cancer deaths decreased.
- Armenian women have the highest risk 1 in 16 of developing breast cancer during their lives, and 1 out of every 43 women risk dying from the disease.
- Mongolia experienced the sharpest decrease in the risk of death from cervical cancer since 1980 but still had the highest risk in the region in 2010.

Breast cancer deaths in ages 15+, 2010

Total deaths: 4,836

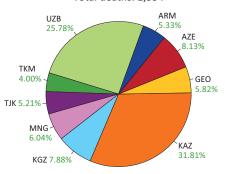


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010



Cervical cancer deaths in ages 15+, 2010

Total deaths: 2,554



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



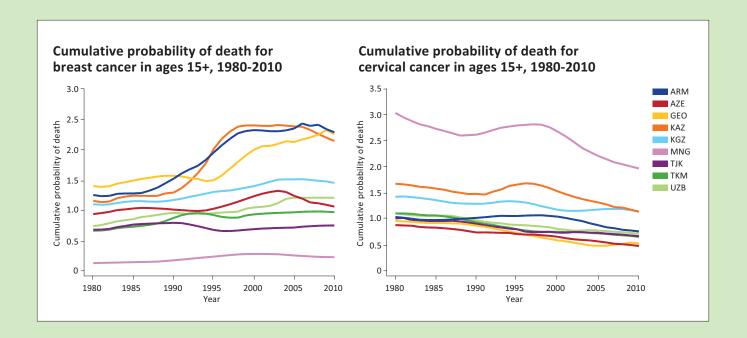
Country abbreviations

ARE	Armenia
AZE	Azerbaijan
GEO	Georgia
KAZ	Kazakhstan
KGZ	Kyrgyzstan
MNG	Mongolia
TJK	Tajikistan
TKM	Turkmenistan
UZB	Uzbekistan

	Breast cancer							Cervical cancer						
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010		
Armenia	6.2	2.3	423	26.1	3.5	4.5	1.7	0.8	136	31.4	0.6	0.9		
Azerbaijan	3.3	1.1	486	47.0	2.9	4.5	1.2	0.5	208	42.7	0.5	1.2		
Georgia	5.9	2.2	643	21.1	1.7	2.3	1.2	0.5	149	33.4	-1.7	-1.7		
Kazakhstan	6.0	2.1	1,510	23.5	2.7	3.7	2.7	1.1	812	32.6	-0.3	0.3		
Kyrgyzstan	3.4	1.4	251	38.2	2.0	3.0	2.3	1.1	201	45.1	0.6	1.4		
Mongolia	0.6	0.2	23	34.5	4.0	5.4	3.7	2.0	154	38.9	0.6	1.3		
Tajikistan	2.0	0.8	161	54.4	2.7	3.8	1.4	0.7	133	53.3	1.0	1.6		
Turkmenistan	2.8	1.0	175	50.5	4.0	5.4	1.4	0.7	102	42.8	0.8	1.5		
Uzbekistan	3.1	1.2	1,160	46.5	4.0	5.3	1.5	0.7	658	47.5	1.0	1.8		
Regional	4.2	1.6	4,836	34.1	2.9	4.0	1.8	0.8	2,554	40.1	0.2	0.8		
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6		

^{*}The percent of deaths in ages 15-49 is among women with cancer.

Note: While some low-population countries may not be listed above, they are included in the regional and global analysis.



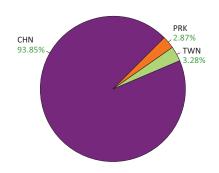
REGIONAL OVERVIEWS 31

Asia, East: Breast and cervical cancer trends

- All three countries in the region have different breast cancer patterns, underscoring the wide variation in trends globally.
- Taiwan saw the fastest growth in the region in the number of women dying from breast cancer, with an annual rate of increase of 4.8% between 1980 and 2010.
- China is one of the few countries to see a decline in both the risk of developing cervical cancer and the risk for breast cancer. Cervical cancer risk fell in the 1980s and early 1990s and has been declining since then.

Breast cancer deaths in ages 15+, 2010

Total deaths: 45,315

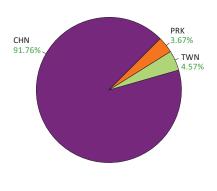


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

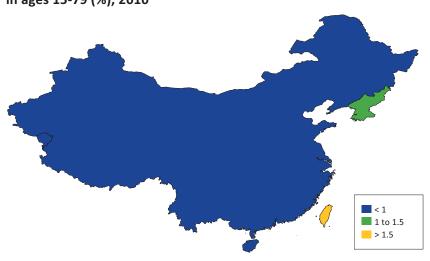


Cervical cancer deaths in ages 15+, 2010

Total deaths: 18,678



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

CHN China

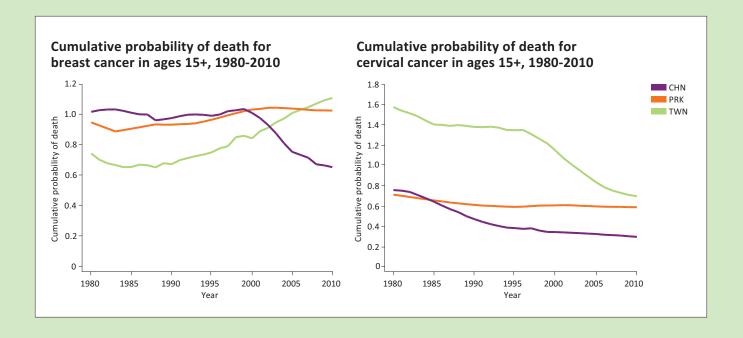
PRK North Korea

TWN Taiwan

		1	Breast ca	ncer		Cervical cancer						
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
China	2.9	0.7	41,966	29.3	1.1	3.6	0.6	0.3	16,955	24.6	-0.4	0.7
North Korea	3.6	1.0	1,281	29.9	2.8	3.4	1.1	0.6	677	21.2	2.3	1.5
Taiwan	6.3	1.1	1,469	26.9	4.8	6.7	1.8	0.7	845	17.7	0.9	1.1
Regional	3.0	0.7	45,315	29.1	1.3	3.7	0.7	0.3	18,678	24.1	-0.2	0.8
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

Note: While some low-population countries may not be listed above, they are included in the regional and global analysis.

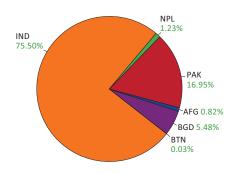


REGIONAL OVERVIEWS 33

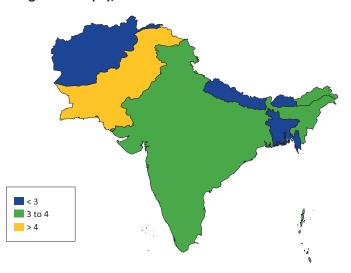
Asia, South: Breast and cervical cancer trends

- An increasing number of younger women are dying from breast and cervical cancer in the region. While globally only 22.1% of women who die from breast cancer are under the age of 50, in every country in the region more than 30% of breast cancer deaths are in younger women. In Bangladesh, Afghanistan, Nepal, and Pakistan, the fraction is greater than 40%.
- Pakistani women have the highest overall risk of developing breast cancer: 1 in 16. In neighboring India, the risk is 1 in 29.
- Women in all countries have seen moderate reductions in the risk of dying from cervical cancer, especially Bangladesh and Bhutan.

Breast cancer deaths in ages 15+, 2010 Total deaths: 58,825

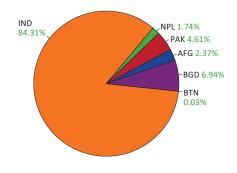


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

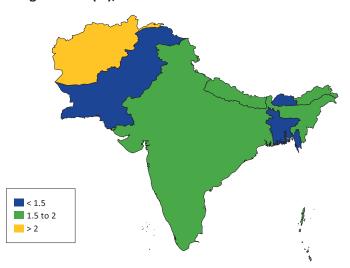


Cervical cancer deaths in ages 15+, 2010

Total deaths: 40,075



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

AFG Afghanistan

Bangladesh **BGD**

Bhutan BTN

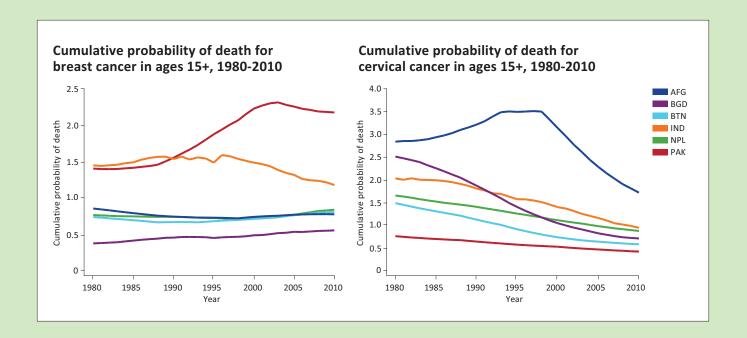
IND India

NPL Nepal

Pakistan PAK

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Afghanistan	2.0	0.8	480	49.2	2.0	3.1	3.3	1.7	950	39.0	0.5	0.6
Bangladesh	1.7	0.6	3,221	62.0	4.2	5.6	1.3	0.7	2,783	32.7	-1.6	-1.4
Bhutan	2.6	0.8	16	38.6	2.4	4.1	1.3	0.6	11	27.8	-1.0	-0.6
India	3.4	1.2	44,415	30.3	2.0	3.4	1.9	0.9	33,786	23.1	0.0	0.3
Nepal	2.2	0.8	724	41.5	3.1	4.3	1.6	0.9	697	30.8	0.6	0.7
Pakistan	6.3	2.2	9,970	40.6	4.6	6.0	0.9	0.4	1,848	28.0	1.2	1.6
Regional	3.5	1.2	58,825	34.1	2.4	3.9	1.8	0.9	40,075	24.5	-0.1	0.2
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

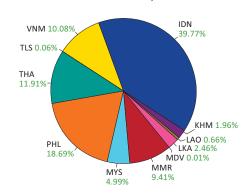


Asia, Southeast: Breast and cervical cancer trends

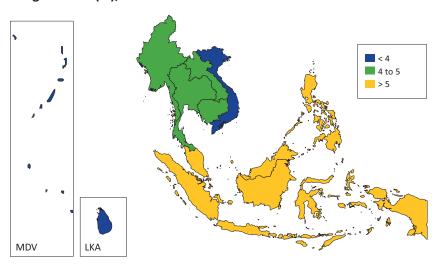
- In nearly every country in the region, more than 30% of all deaths from breast cancer are in women of reproductive age, compared to 22.1% globally. Sri Lanka has the lowest percentage at 20%.
- Filipino women have the highest breast cancer risk: 1 in 13. For cervical cancer, the highest risk is in Timor-Leste, where 1 in 40 women are at risk of developing the disease.
- All but one country, Maldives, saw an increase in cervical cancer deaths and cases, and in most countries the numbers increased at a faster rate than the global average.

Breast cancer deaths in ages 15+, 2010

Total deaths: 29,178

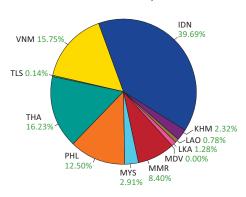


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

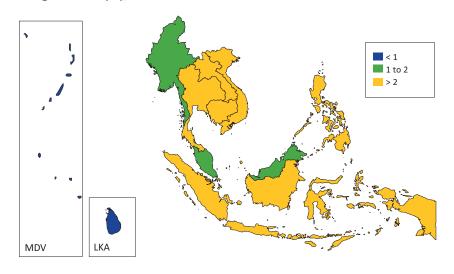


Cervical cancer deaths in ages 15+, 2010

Total deaths: 20,345



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

IDN Indonesia

KHM Cambodia

LAO Laos

LKA Sri Lanka

MDV Maldives

MMR Myanmar

MYS Malaysia

PHL Philippines

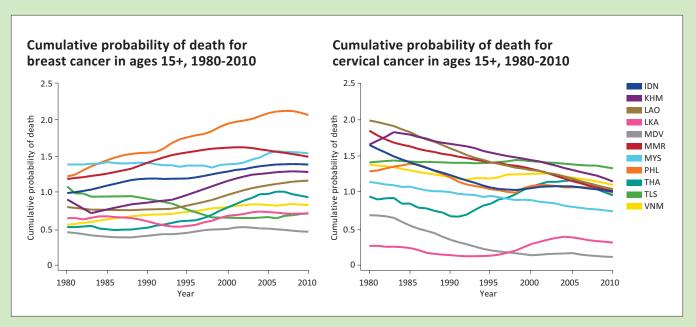
THA Thailand

TLS Timor-Leste

VNM Vietnam

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Cambodia	4.6	1.3	571	35.8	4.4	6.0	2.3	1.1	471	33.1	1.9	2.1
Indonesia	5.4	1.4	11,594	31.6	3.9	5.6	2.1	1.0	8,069	32.6	1.0	1.4
Laos	4.3	1.2	193	36.6	3.6	5.4	2.1	1.0	158	33.5	0.0	0.5
Malaysia	7.3	1.5	1,456	31.6	3.9	5.7	1.7	0.7	593	24.2	2.0	2.3
Maldives	1.9	0.5	4	41.2	3.4	5.2	0.2	0.1	1	36.7	-2.7	-2.4
Myanmar	5.0	1.5	2,744	36.9	3.2	5.0	1.9	1.0	1,708	34.5	0.2	0.8
Philippines	7.9	2.1	5,448	34.8	5.0	6.4	2.1	1.0	2,540	36.4	2.3	2.5
Sri Lanka	2.7	0.7	716	20.0	3.5	4.7	0.6	0.3	259	19.5	3.2	3.0
Thailand	4.1	0.9	3,473	26.3	5.3	6.7	2.2	1.0	3,299	24.0	3.4	3.2
Timor-Leste	2.5	0.7	17	35.6	1.1	2.3	2.5	1.3	29	32.9	2.3	2.0
Vietnam	3.2	0.8	2,937	34.4	4.0	6.0	2.1	1.1	3,201	23.2	1.7	2.3
Regional	5.1	1.3	29,178	32.2	4.2	5.9	2.0	1.0	20,345	30.0	1.6	1.9
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

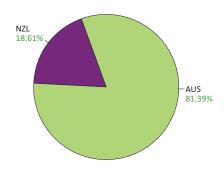


Australasia: Breast and cervical cancer trends

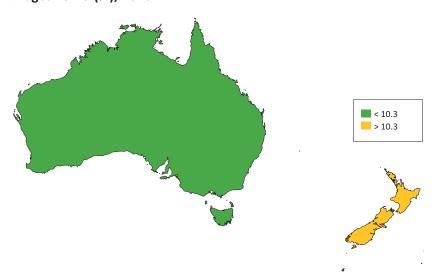
- Women in the region have a much higher risk of developing breast cancer during their lifetime than the global average. About 1 in 10 women are at risk, compared to 1 in 18 globally.
- Among high-income countries, New Zealand has one of the largest percentages of deaths in women under 50 from breast cancer at 16.6%.
 This is similar to the percentage of deaths found in Chile, Cuba, and other countries with weaker economies.
- In New Zealand, the number of women developing cervical cancer has dropped from 251 to 213, and the number of women dying has fallen from 97 to 73.

Breast cancer deaths in ages 15+, 2010

Total deaths: 3,754

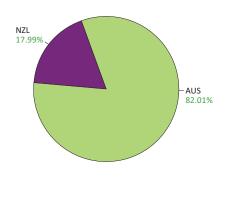


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

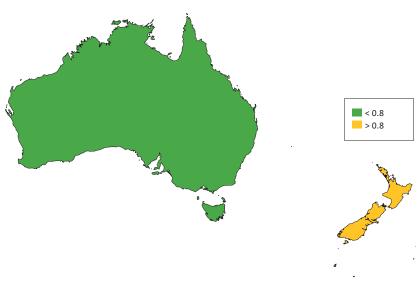


Cervical cancer deaths in ages 15+, 2010

Total deaths: 418



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



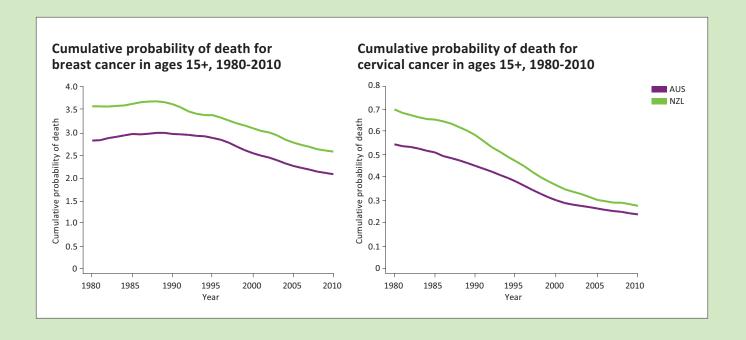
Country abbreviations

AUS Australia

NZL New Zealand

		1	Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Australia	10.2	2.1	2,975	13.4	1.5	3.2	0.7	0.2	334	20.5	-0.3	-0.4
New Zealand	10.4	2.6	680	16.6	1.0	2.8	0.8	0.3	73	25.5	-1.0	-0.5
Regional	10.2	2.2	3,754	14.0	1.5	3.2	0.7	0.2	418	21.4	-0.3	-0.4
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.



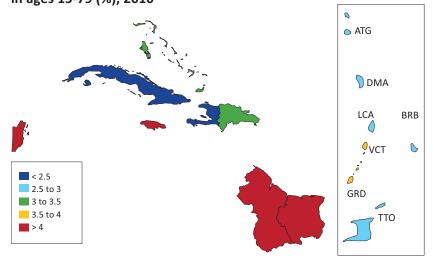
Caribbean: Breast and cervical cancer trends

- There is a very high risk of death from breast cancer in the region compared to the rest of the world. And the risk of dying from breast cancer during a woman's lifetime has remained nearly unchanged for the past 30 years, a marked difference from the global pattern, which has seen a strong decrease.
- Six countries have a risk that is twice the global average. In Haiti, for example, 1 in 26 women are at risk of dying from breast cancer, compared to 1 out of 67 globally. Belizean women and women in Saint Lucia have the lowest risk at 1 in 56 women.
- The number of deaths in most countries from cervical cancer is low, reflecting the small populations. Cuba, Haiti, the Dominican Republic, and Jamaica account for the vast majority of deaths, 86% of 2,109 deaths.

Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

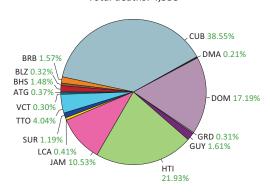


Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



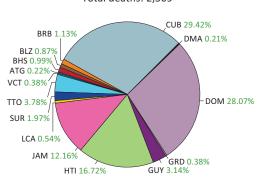
Breast cancer deaths in ages 15+, 2010

Total deaths: 4,358



Cervical cancer deaths in ages 15+, 2010

Total deaths: 2,309



Country abbreviations

ATG Antigua and Barbuda

BHS Bahamas

BL7 Belize

BRB Barbados

CUB Cuba

DMA Dominica

DOM Dominican Republic

GRD Grenada

GUY Guyana

HTI Haiti

JAM Jamaica

LCA Saint Lucia

SUR Suriname

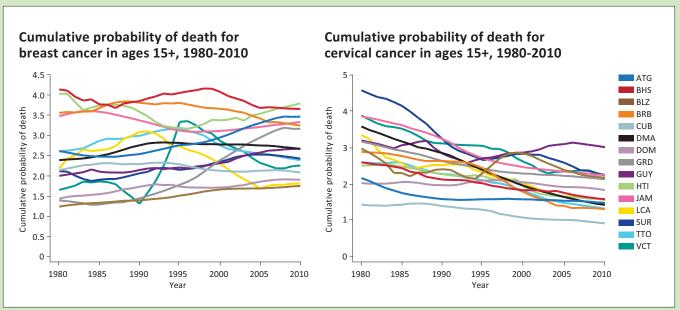
TTO Trinidad and Tobago

VCT Saint Vincent and

the Grenadines

		1	Breast ca	ncer				(Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Antigua and Barbuda	12.0	3.5	14	25.8	3.1	4.5	2.7	1.5	5	18.4	0.9	1.2
Bahamas	13.2	3.7	55	23.0	3.3	4.4	3.1	1.6	21	17.0	1.9	1.9
Barbados	11.5	3.2	59	15.7	1.2	2.3	2.5	1.3	24	11.1	-1.0	-0.9
Belize	5.2	1.8	12	25.0	4.1	5.4	4.1	2.2	18	40.1	2.1	2.6
Cuba	5.4	2.1	1,441	16.7	2.4	3.2	1.9	0.9	621	31.3	0.8	0.9
Dominica	8.0	2.7	8	18.8	1.8	2.9	2.6	1.4	4	25.5	-1.7	-1.4
Dominican Republic	5.9	1.9	643	25.6	4.8	5.9	3.3	1.8	592	22.3	3.4	3.5
Grenada	10.1	3.2	12	17.4	3.6	4.9	4.0	2.1	8	18.2	-0.4	0.1
Guyana	7.4	2.7	60	29.7	2.3	3.4	5.1	3.0	66	32.0	0.7	0.9
Haiti	8.6	3.8	820	17.0	1.9	2.5	2.3	1.6	353	17.8	0.5	0.3
Jamaica	10.3	3.3	394	24.3	1.8	2.7	4.3	2.2	256	30.9	0.1	0.4
Saint Lucia	6.0	1.8	15	21.6	3.1	4.2	3.0	1.6	11	28.7	0.4	0.7
Saint Vincent and the Grenadines	7.3	2.3	11	28.8	2.8	4.1	3.9	2.2	8	12.3	-0.7	-0.4
Suriname	7.2	2.4	44	20.2	3.3	4.2	4.0	2.2	42	26.0	0.2	0.0
Trinidad and Tobago	6.4	2.4	151	25.4	2.1	3.1	2.7	1.3	80	24.5	0.1	0.5
Regional	6.7	2.4	4,358	19.5	2.5	3.4	2.4	1.3	2,309	25.5	1.0	1.2
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

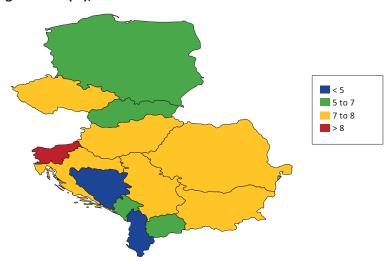
^{*}The percent of deaths in ages 15-49 is among women with cancer.



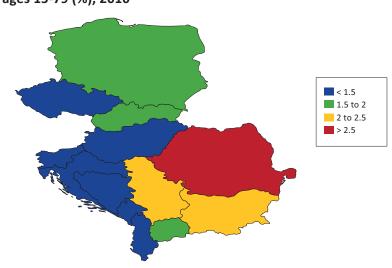
Europe, Central: Breast and cervical cancer trends

- Breast cancer risk varies widely in the region. Women in Albania have a 1 in 30 risk of developing breast cancer in their lifetime, while women in Slovenia have a 1 in 13 risk.
- Most countries have a low percentage of women aged 15 to 49 dying from breast cancer, with Albania being the one country with a higher fraction at 27.3%.
- There is a significantly higher risk of developing cervical cancer in Romania than elsewhere in the region or globally, 1 in 31 in Romania compared to 1 in 71 globally. The risk of death is also higher, 1 in 77 versus 1 in 143.

Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

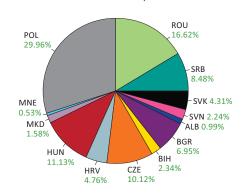


Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



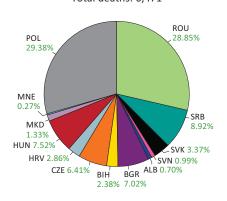
Breast cancer deaths in ages 15+, 2010

Total deaths: 18,758



Cervical cancer deaths in ages 15+, 2010

Total deaths: 6,471



Country abbreviations

ALB Albania

BIH Bosnia and Herzegovina

BGR Bulgaria

CZE Czech Republic

HRV Croatia

HUN Hungary

MKD Macedonia

MNE Montenegro

POL Poland

ROU Romania

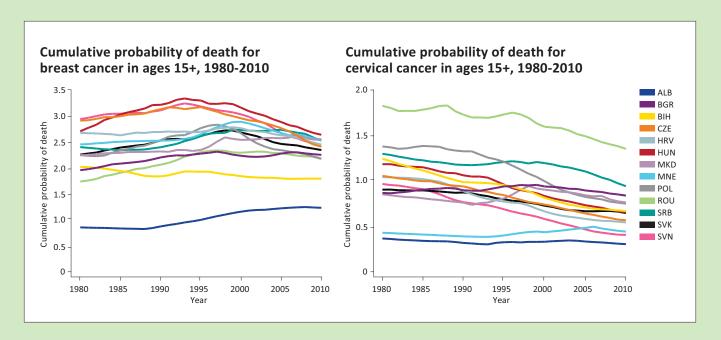
SRB Serbia

SVK Slovakia

SVN Slovenia

		I	Breast ca	ncer				(Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Albania	3.3	1.2	186	27.3	3.4	4.5	0.7	0.3	45	30.9	1.6	1.9
Bosnia and Herzegovina	4.7	1.8	438	20.3	1.4	2.7	1.3	0.7	154	16.5	-0.1	0.1
Bulgaria	7.4	2.2	1,302	11.6	1.1	2.1	2.1	0.8	454	25.6	0.4	0.6
Croatia	7.0	2.4	891	8.8	1.0	1.9	1.2	0.5	185	14.4	-0.9	-1.2
Czech Republic	7.5	2.4	1,896	7.3	0.3	1.5	1.4	0.6	415	19.1	-1.3	-1.2
Hungary	7.3	2.6	2,087	9.0	0.7	1.5	1.4	0.7	486	22.8	-1.4	-1.1
Macedonia	6.6	2.5	296	18.0	2.3	2.9	1.6	0.8	86	21.2	1.6	1.1
Montenegro	6.7	2.5	99	16.2	1.8	2.7	1.1	0.4	17	26.3	1.7	1.7
Poland	5.8	2.2	5,614	10.4	1.3	2.3	1.7	0.7	1,899	17.0	-0.7	-0.6
Romania	7.1	2.2	3,115	12.0	1.7	2.5	3.2	1.3	1,865	24.3	-0.1	0.0
Serbia	7.2	2.5	1,589	12.7	1.4	2.0	2.2	0.9	577	22.4	0.1	-0.4
Slovakia	6.3	2.3	808	11.3	1.5	2.4	1.7	0.6	218	25.7	0.2	0.3
Slovenia	8.0	2.4	419	7.7	1.2	2.4	1.0	0.4	64	18.3	-1.2	-1.2
Regional	6.6	2.3	18,758	10.9	1.2	2.1	1.9	0.8	6,471	21.2	-0.4	-0.4
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

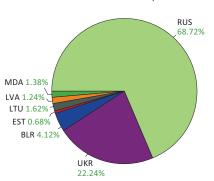


Europe, East: Breast and cervical cancer trends

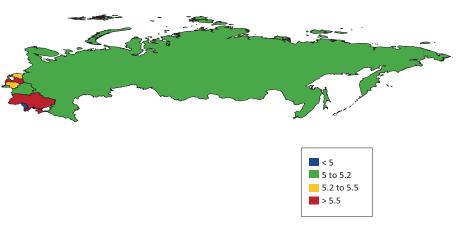
- The lifetime risk of dying from breast cancer rose in nearly every country in the region after 1980, although there has been a decline in some countries since the mid-1990s.
- No matter where women live in the region, they are likely to face a similar risk of developing breast cancer and dying from the disease. The risk of dying ranges from 1 in 45 women in Latvia, Ukraine, and Russia to 1 in 53 in Belarus.
- All but one country saw a slight annual decrease in cervical cancer cases and deaths since 1980. Cases and deaths in Belarus increased annually.

Breast cancer deaths in ages 15+, 2010

Total deaths: 32,615

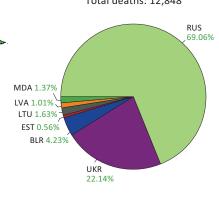


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

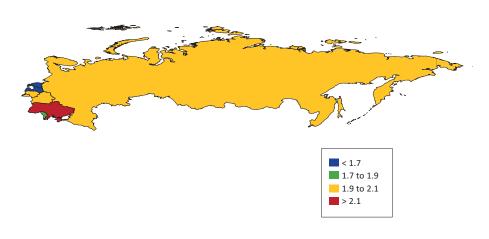


Cervical cancer deaths in ages 15+, 2010

Total deaths: 12,848



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

BLR Belarus

EST Estonia

LTU Lithuania

LVA Latvia

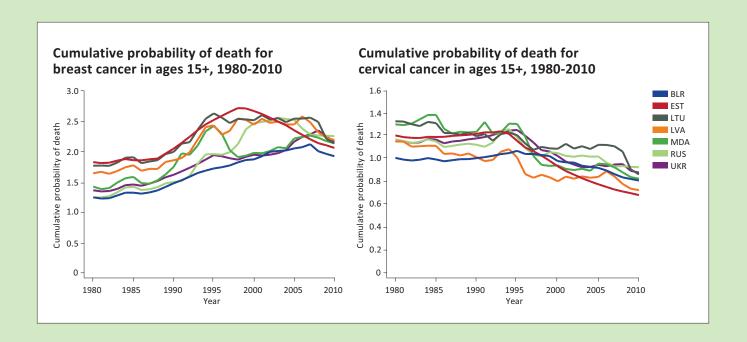
MDA Moldova

RUS Russia

UKR Ukraine

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Belarus	5.2	1.9	1,333	17.7	2.1	3.0	2.0	0.8	539	22.3	0.1	0.4
Estonia	5.5	2.1	220	10.4	0.9	1.4	1.6	0.7	71	17.4	-1.3	-1.0
Latvia	5.7	2.2	400	11.8	1.4	2.0	1.6	0.7	129	18.2	-1.0	-0.9
Lithuania	5.3	2.1	526	13.4	1.4	2.0	2.0	0.9	209	24.1	-0.5	-0.2
Moldova	4.9	2.1	447	16.6	1.6	2.0	1.8	0.8	175	31.2	-1.0	-1.1
Russia	5.2	2.2	22,263	16.7	2.6	2.9	2.0	0.9	8,812	23.2	-0.1	-0.1
Ukraine	5.6	2.2	7,205	15.5	1.7	2.3	2.1	0.9	2,826	26.1	-0.7	-0.4
Regional	5.3	2.2	32,615	16.3	2.3	2.7	2.0	0.9	12,848	23.8	-0.2	-0.2
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

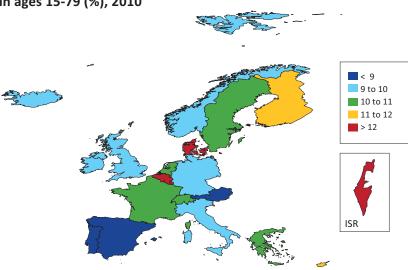
^{*}The percent of deaths in ages 15-49 is among women with cancer.



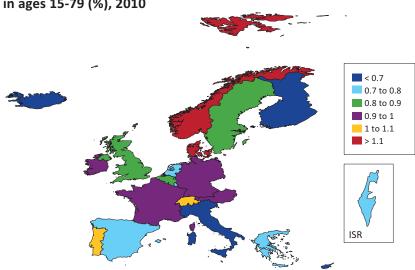
Europe, West: Breast and cervical cancer trends

- The region has some of the highest risks of developing breast cancer in the world, with Israel and Belgium being especially high at 1 in 7 women.
- Growth in breast cancer deaths has not kept pace with the growth in cases, an encouraging sign. In four countries – the United Kingdom, Norway, Austria, and Belgium – fewer women died from breast cancer in 2010 than in 1980, 17,750 compared to 19,508.
- Deaths from cervical cancer have declined at a pace that is in sharp contrast to the global trend. Austria, for example, saw a 2.9% annual decrease in deaths from 1980 to 2010, while globally the number of deaths increased 0.5% annually.

Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010

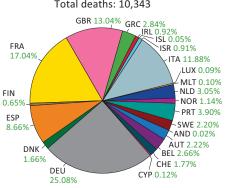


Breast cancer deaths in ages 15+, 2010



Cervical cancer deaths in ages 15+, 2010

Total deaths: 10,343



Country abbreviations

	AND	Andorra
--	-----	---------

AUT Austria

BEL Belgium

CHE Switzerland

CYP Cyprus

DEU Germany

DNK Denmark

ESP Spain

FIN Finland

FRA France

GBR **United Kingdom**

GRC Greece

IRL Ireland

Iceland ISL

ISR Israel

ITA Italy

LUX Luxembourg

MLT Malta

NLD Netherlands

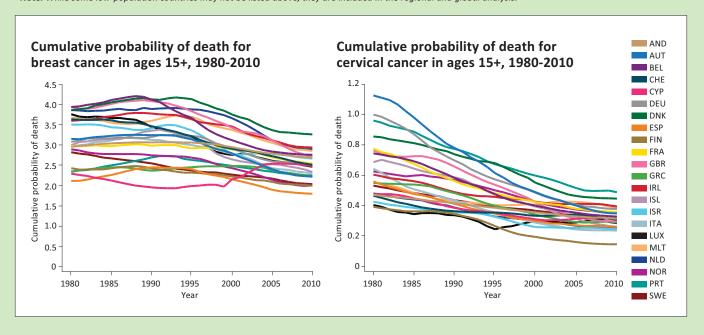
NOR Norway

PRT Portugal

SWE Sweden

		E	Breast ca	ncer				(Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Andorra	13.7	2.7	18	9.5	3.7	4.9	0.9	0.3	2	13.9	2.6	2.4
Austria	7.8	2.2	1,550	9.5	-0.1	0.9	1.0	0.3	228	15.9	-2.9	-2.7
Belgium	14.0	2.8	2,300	11.1	-0.3	1.2	0.9	0.3	273	17.8	-1.7	-1.3
Cyprus	11.2	2.5	109	13.4	1.7	3.5	0.6	0.3	13	6.8	0.5	0.8
Denmark	13.1	3.3	1,338	7.4	0.3	1.9	1.3	0.4	171	16.6	-1.3	-0.5
Finland	11.2	2.0	842	8.9	0.8	2.8	0.4	0.1	67	12.9	-1.4	-0.6
France	10.9	2.5	13,043	10.1	1.0	2.2	0.9	0.4	1,751	17.2	-1.0	-1.0
Germany	9.4	2.5	17,767	9.4	0.2	1.4	0.9	0.4	2,577	17.0	-2.3	-2.6
Greece	10.1	2.2	2,506	7.6	2.3	3.1	0.7	0.3	292	14.5	-0.1	-0.3
Iceland	9.9	2.3	40	11.8	1.0	2.4	0.6	0.3	5	20.6	-1.2	-0.9
Ireland	9.9	2.9	737	14.5	1.0	2.5	1.0	0.4	94	31.2	0.2	1.3
Israel	14.6	2.7	1,062	13.1	2.6	4.0	0.8	0.2	93	20.5	1.5	2.5
Italy	9.5	2.3	12,587	10.4	0.8	2.2	0.7	0.2	1,221	16.4	-1.7	-1.0
Luxembourg	12.9	2.5	84	8.8	0.1	1.7	0.7	0.3	9	10.5	0.2	0.2
Malta	8.1	2.9	83	9.2	1.5	2.5	0.9	0.4	11	15.5	0.9	0.6
Netherlands	10.6	2.9	3,706	11.4	0.8	2.0	0.7	0.3	313	17.6	-0.4	-0.3
Norway	9.6	2.0	714	10.6	-0.1	1.6	1.1	0.4	117	19.2	-0.7	-0.3
Portugal	8.0	2.3	1,983	13.1	1.5	2.5	1.1	0.5	401	19.9	-0.6	-0.8
Spain	6.8	1.8	6,543	13.9	1.5	2.6	0.7	0.3	890	21.2	-0.7	-0.5
Sweden	10.6	2.0	1,542	8.4	0.0	1.4	0.8	0.3	226	13.1	-0.6	-0.4
Switzerland	10.9	2.5	1,556	8.6	0.2	1.4	1.0	0.3	182	10.3	0.1	0.0
United Kingdom	9.3	2.7	13,186	10.0	-0.4	1.0	0.8	0.3	1,340	22.3	-2.3	-1.8
Regional	9.7	2.4	83,841	10.3	0.5	1.8	0.8	0.3	10,343	18.0	-1.6	-1.4
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

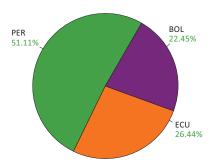


Latin America, Andean: Breast and cervical cancer trends

- Women in all countries in the region have a lower risk of developing breast cancer during their life than the global average, but they also have a higher risk of dying at a younger age from the disease.
- In Ecuador and Bolivia, the number of breast cancer cases and deaths
 are rising at a rate faster than the global average. Ecuador's deaths
 from breast cancer are going up by 3.5% annually, compared to 1.8%
 globally.
- The risk of developing cervical cancer is more than twice as high as the global average. In Bolivia, 1 in 37 women risk dying from cervical cancer, versus 1 in 143 globally.

Breast cancer deaths in ages 15+, 2010

Total deaths: 1,813

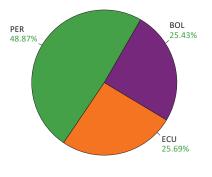


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010



Cervical cancer deaths in ages 15+, 2010

Total deaths: 2,819



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

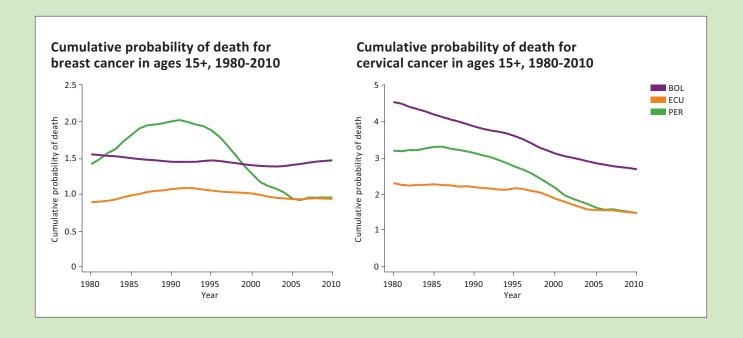
BOL Bolivia

ECU Ecuador

PER Peru

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Bolivia	4.5	1.5	407	30.6	2.4	3.5	4.6	2.7	717	30.8	0.8	0.8
Ecuador	3.3	0.9	479	25.6	3.5	4.4	2.7	1.5	724	26.7	1.7	1.7
Peru	3.4	1.0	927	25.9	1.9	3.0	2.7	1.5	1,378	26.4	0.4	0.5
Regional	3.5	1.0	1,813	26.8	2.3	3.4	3.0	1.7	2,819	27.6	0.8	0.8
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

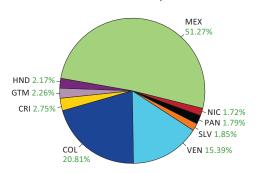


Latin America, Central: Breast and cervical cancer trends

- The region generally has lower risks of women developing breast cancer than the global average but generally higher risks for cervical cancer.
- Deaths from breast cancer rose in Honduras by 6.5% annually, one
 of the biggest increases in the world. Honduras had the largest
 increase in cervical cancer deaths in this region at 2.8% annually.
- A higher proportion of women in Venezuela, Nicaragua, El Salvador, and Guatemala are dying from cervical cancer than the global average, with more than 33% of the deaths among women ages 15 to 49. Globally, 28% of cervical cancer deaths are in that age group.

Breast cancer deaths in ages 15+, 2010

Total deaths: 10,736

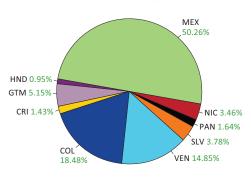


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010



Cervical cancer deaths in ages 15+, 2010

Total deaths: 11,442



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

COL Colombia

CRI Costa Rica

GTM Guatemala

HND Honduras

MEX Mexico

NIC Nicaragua

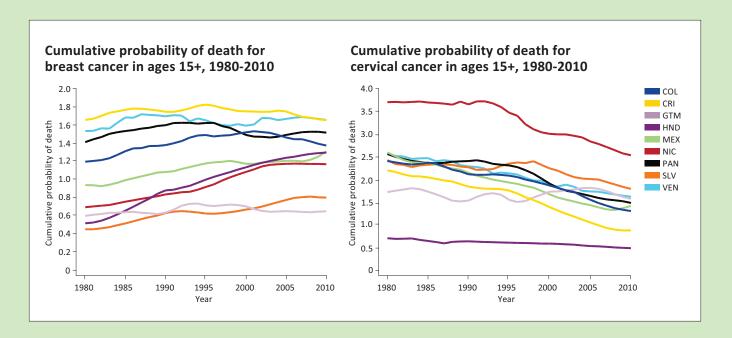
PAN Panama

SLV El Salvador

VEN Venezuela

		I	Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%),	Annualized rate of change in incidence (%), 1980-2010
Colombia	4.2	1.4	2,234	24.6	3.6	4.8	2.4	1.3	2,115	28.8	1.1	1.2
Costa Rica	5.4	1.7	295	20.2	3.9	5.0	1.7	0.9	163	29.1	0.9	1.1
El Salvador	2.6	0.8	198	29.1	4.1	5.1	3.4	1.8	433	28.9	1.4	1.4
Guatemala	2.0	0.7	242	30.6	3.6	4.7	2.9	1.6	589	35.4	2.7	2.7
Honduras	3.6	1.3	233	19.1	6.5	7.6	0.9	0.5	108	42.8	2.8	3.1
Mexico	4.6	1.3	5,505	29.9	4.3	5.6	2.8	1.4	5,751	28.5	1.1	1.2
Nicaragua	3.2	1.2	185	30.1	4.7	5.6	4.3	2.5	396	33.4	1.7	1.6
Panama	4.9	1.5	192	21.8	3.6	4.8	2.9	1.5	188	30.6	1.5	1.7
Venezuela	5.6	1.7	1,652	27.5	4.1	5.1	3.3	1.6	1,699	37.5	2.3	2.3
Regional	4.4	1.3	10,736	27.8	4.1	5.3	2.8	1.4	11,442	30.6	1.4	1.5
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

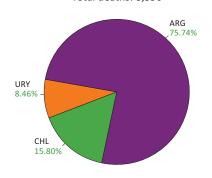


Latin America, South: Breast and cervical cancer trends

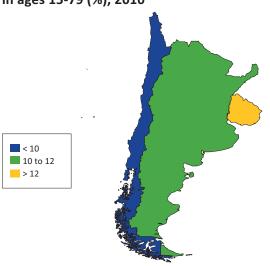
- The region generally has a lower percentage of younger women dying from breast cancer. Among Argentine women, just 12.6% of breast cancer deaths were in women ages 15 to 49. In the country's neighbor to the north, Bolivia, which is part of the Andean Latin America region, the fraction is 30.6%.
- Women in Chile have consistently had the lowest risk of dying from breast cancer in the region, but they also had a significantly higher risk of dying from cervical cancer. Beginning in the early 1990s, the risk of Chilean women dying from cervical cancer began to drop significantly, and by 2010, the risk was in line with Argentina and Uruguay.
- Argentina is the only country in the region to see an increase in both cervical cancer cases and deaths since 1980.

Breast cancer deaths in ages 15+, 2010

Total deaths: 8,590

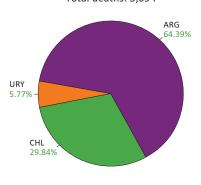


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

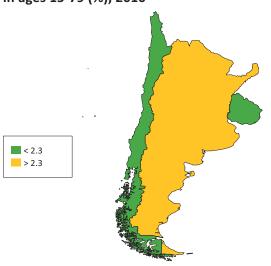


Cervical cancer deaths in ages 15+, 2010

Total deaths: 3,094



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

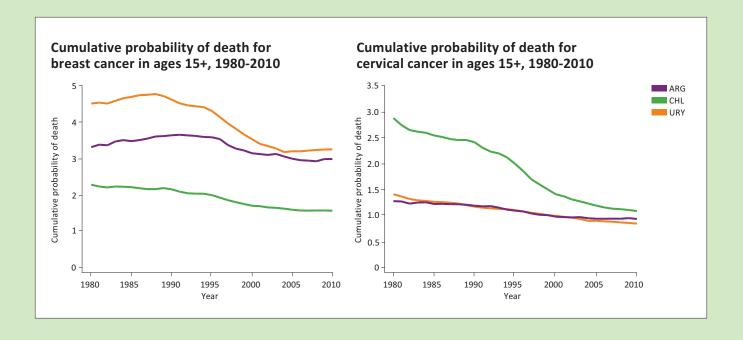
ARG Argentina

CHL Chile

URY Uruguay

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Argentina	10.5	3.0	6,433	12.6	1.8	2.6	2.5	0.9	1,970	32.3	0.7	0.7
Chile	5.6	1.6	1,342	17.2	1.8	3.1	2.2	1.1	913	24.4	-0.4	-0.4
Uruguay	13.7	3.2	719	11.6	0.4	1.5	2.2	0.8	176	26.9	-0.5	-0.4
Regional	9.5	2.6	8,590	13.2	1.7	2.6	2.4	1.0	3,094	29.6	0.3	0.3
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

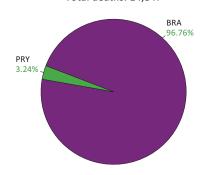


Latin America, Tropical: Breast and cervical cancer trends

- Brazil and Paraguay were nearly equal in the risk of dying from breast cancer in 1980 at about 1 in 53 women. The two countries have since taken different routes. Brazil's risk rose slightly but by 2010 was back to 1980 levels. Paraguay saw an increase in risk beginning in the mid-1990s, and now, at 1 in 36 women, is much higher than the global average.
- In cervical cancer, Brazil experienced significant declines in risk of death from the disease. In Paraguay, there has been a recent decline in the risk, but women in the country continue to have one of the highest risks of cervical cancer death in South America at 1 in 36.

Breast cancer deaths in ages 15+, 2010

Total deaths: 14,847

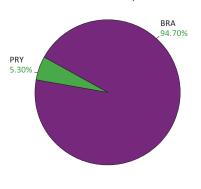


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010



Cervical cancer deaths in ages 15+, 2010

Total deaths: 9,461



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



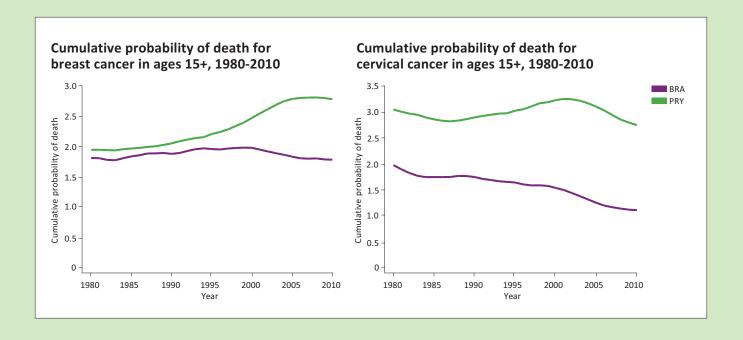
Country abbreviations

BRA Brazil

PRY Paraguay

		1	Breast ca	ncer				ı	Cervical o	cancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Brazil	7.9	1.8	14,366	23.3	3.3	4.3	2.2	1.1	8,959	29.9	1.3	1.3
Paraguay	8.0	2.8	482	21.5	4.3	5.3	4.8	2.7	502	28.9	2.8	2.9
Regional	7.9	1.8	14,847	23.3	3.3	4.3	2.2	1.1	9,461	29.8	1.3	1.4
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

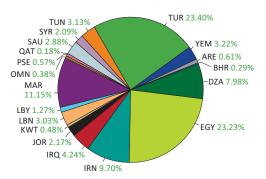


North Africa/Middle East: Breast and cervical cancer trends

- Throughout the region, there is a low risk of death from breast cancer, but those who are dying are younger than in much of the world.
 Women under 50 make up 38.9% of all deaths, compared to 22.1% globally.
- After 1990, the gap between countries in the risk of death from breast cancer widened considerably. By 2010, 1 out of every 33 women risk dying from the disease in Lebanon, while 1 out of every 167 were at risk in Syria.
- Fewer Iranian women died from cervical cancer in 1980 than in 2010, with deaths declining by 0.3% annually, while every other country in the region saw an annual increase.

Breast cancer deaths in ages 15+, 2010

Total deaths: 17,039



Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

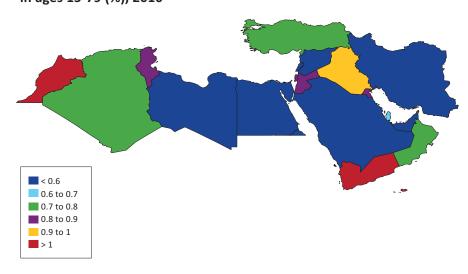


Cervical cancer deaths in ages 15+, 2010

Total deaths: 3,786



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

ARE United Arab Emirates

BHR Bahrain

DZA Algeria

EGY Egypt

IRN Iran

IRQ Iraq

ikų iraq

JOR Jordan

KWT Kuwait

LBN Lebanon

LBY Libya

MAR Morocco

OMN Oman

PSE Occupied Palestinian Territory

QAT Qatar

SAU Saudi Arabia

SYR Syria

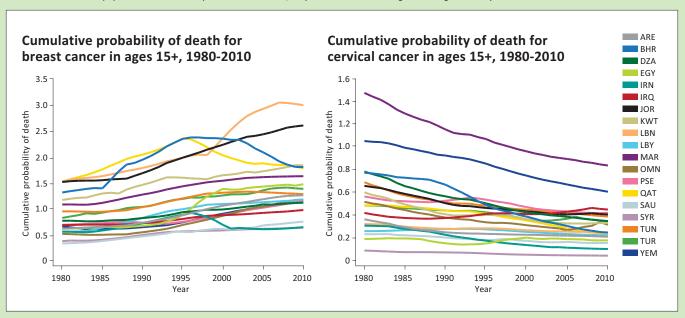
TUN Tunisia

TUR Turkey

YEM Yemen

		E	Breast ca	ncer				(Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Algeria	3.6	1.1	1,357	44.0	4.3	5.4	0.8	0.4	369	28.1	0.3	0.4
Bahrain	5.3	1.8	50	51.6	5.6	6.9	0.6	0.3	5	34.5	0.9	1.2
Egypt	4.5	1.5	3,952	36.2	5.3	6.4	0.4	0.2	443	32.8	2.3	2.3
Iran	2.2	0.7	1,650	43.1	3.9	5.0	0.2	0.1	223	29.0	-0.3	-0.3
Iraq	2.8	1.0	722	40.2	4.0	4.6	0.9	0.5	286	26.1	3.0	2.7
Jordan	7.7	2.6	369	40.2	5.3	6.5	0.9	0.4	49	24.4	2.0	2.2
Kuwait	8.0	1.8	82	44.7	4.0	4.9	0.9	0.3	13	39.7	1.1	0.8
Lebanon	9.7	3.0	515	27.9	4.8	5.7	0.6	0.2	40	22.2	1.6	1.3
Libya	4.2	1.2	216	41.6	6.5	7.2	0.5	0.2	35	27.2	3.7	3.1
Morocco	4.7	1.6	1,897	36.9	4.3	5.3	1.8	0.8	940	27.1	1.1	1.2
Occupied Palestinian Territory	3.2	1.2	97	46.0	5.2	6.2	0.8	0.4	30	31.7	2.7	2.6
Oman	4.5	1.2	65	47.5	5.4	6.7	0.8	0.3	14	29.4	1.1	1.4
Qatar	7.6	1.8	30	56.3	7.3	8.6	0.7	0.2	3	31.7	4.1	4.3
Saudi Arabia	2.9	0.8	490	47.0	6.6	7.6	0.4	0.2	78	30.4	2.4	2.2
Syria	1.9	0.6	355	37.9	5.1	6.2	0.1	0.0	24	29.5	1.3	1.5
Tunisia	4.1	1.3	533	32.6	4.1	5.3	0.8	0.4	144	22.9	1.5	1.5
Turkey	4.7	1.4	3,980	37.6	4.7	5.8	0.8	0.3	827	20.0	1.9	2.0
United Arab Emirates	5.2	1.3	103	68.3	9.4	10.7	0.6	0.2	12	55.7	4.8	5.1
Yemen	3.2	1.1	548	44.4	5.1	6.2	1.2	0.6	246	30.2	1.6	1.7
Regional	3.9	1.2	17,039	38.9	4.7	5.8	0.7	0.3	3,786	26.6	1.4	1.5
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

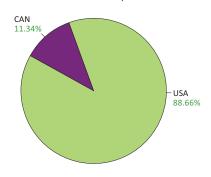


North America, High Income: Breast and cervical cancer trends

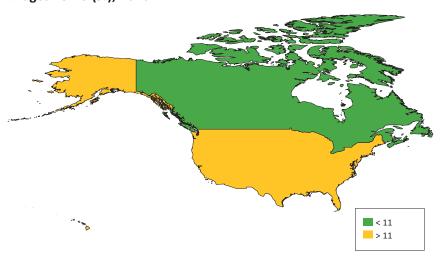
- In the risk of dying from either cancer, the two countries in the region –
 Canada and the United States track fairly closely to each other. Breast
 cancer deaths in the US, though, have been growing at a slower pace
 than in Canada, 0.6% annually compared to 1.3%.
- In the US, women have a higher chance of developing breast cancer than in Canada. About 1 in 8 women in the US risk developing breast cancer in her lifetime. In Canada, the risk is 1 in 10.
- While for breast cancer the risk of dying in the region is higher than
 the global average, for cervical cancer, the risk is lower. About 1 in 346
 women risk dying from the disease in Canada and the US, while
 1 in 143 women are at risk globally.

Breast cancer deaths in ages 15+, 2010

Total deaths: 49,803

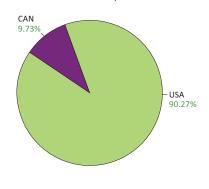


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

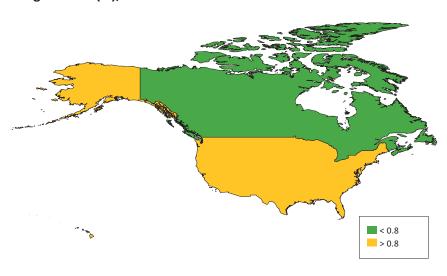


Cervical cancer deaths in ages 15+, 2010

Total deaths: 6,311



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



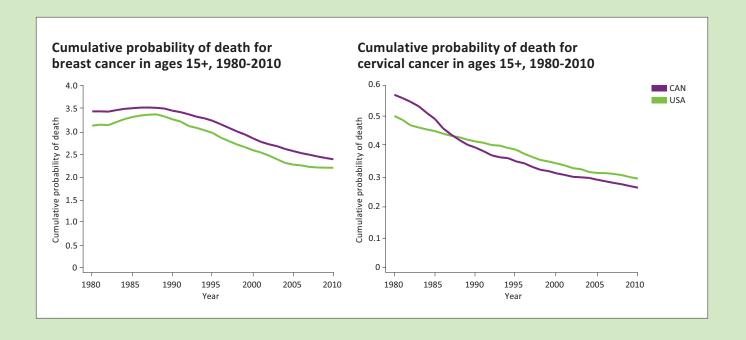
Country abbreviations

CAN Canada

USA United States

		I	Breast ca	ncer					Cervical o	cancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%),	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Canada	10.5	2.4	5,569	11.2	1.3	2.6	0.8	0.3	605	21.2	-0.2	-0.2
United States	12.6	2.2	43,553	12.5	0.6	2.1	0.9	0.3	5,620	24.3	-0.2	0.0
Regional	12.4	2.2	49,803	12.3	0.6	2.2	0.9	0.3	6,311	24.0	-0.2	0.0
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

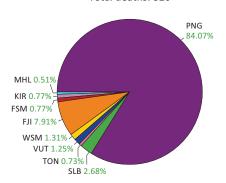


Oceania: Breast and cervical cancer trends

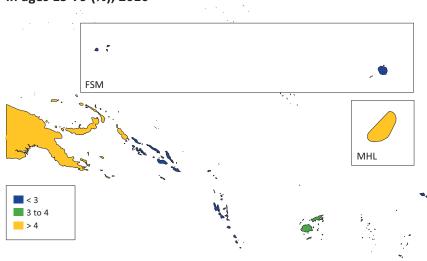
- In breast cancer, the region saw only a slight change in the risk of dying from breast cancer between 1980 and 2010. Papua New Guinea was the one exception, where the risk of death worsened from 1 in 84 women to 1 in 57.
- The total number of deaths in the region is very low, because of the small population sizes of the countries. Out of nine countries, six had fewer than five deaths from breast cancer in 2010.
- In cervical cancer in 1980, the countries had wide differences in the risk of dying from the disease, and the differences have not changed much over the past 30 years. In 2010, the risk levels ranged from 1 in 183 women at risk of dying to 1 in 35.

Breast cancer deaths in ages 15+, 2010

Total deaths: 320

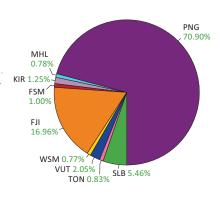


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

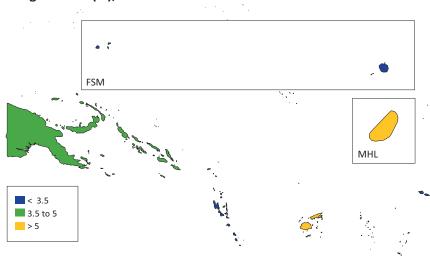


Cervical cancer deaths in ages 15+, 2010

Total deaths: 489



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

FJI Fiji

FSM Micronesia,

Federated States of

KIR Kiribati

MHL Marshall Islands

PNG Papua New Guinea

SLB Solomon Islands

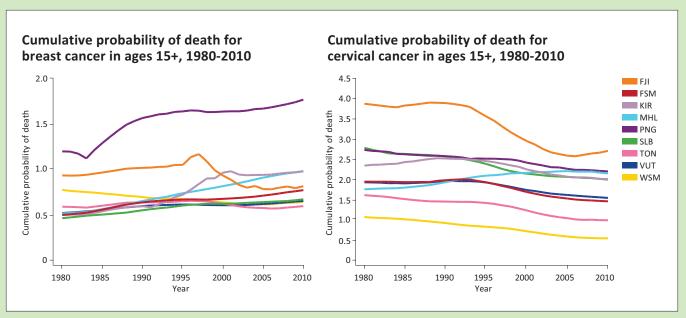
TON Tonga

VUT Vanuatu

WSM Samoa

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Fiji	3.2	0.8	23	32.6	2.5	4.0	5.8	2.7	75	31.1	1.5	1.5
Kiribati	3.9	1.0	2	28.2	5.6	6.6	4.6	2.0	6	46.8	2.9	2.5
Marshall Islands	4.2	1.0	1	38.7	6.4	7.9	5.1	2.1	3	41.9	4.9	4.9
Micronesia, Federated States of	3.0	0.8	2	26.9	3.7	5.1	3.1	1.5	4	29.9	1.2	1.2
Papua New Guinea	6.0	1.8	241	25.7	4.6	5.9	4.2	2.2	311	30.2	2.5	2.6
Samoa	2.6	0.6	4	30.4	2.1	3.0	1.3	0.5	3	29.0	0.1	-0.3
Solomon Islands	2.4	0.7	8	34.8	4.9	6.2	4.1	2.0	24	37.6	2.4	2.4
Tonga	2.5	0.6	2	21.7	1.7	2.9	2.2	1.0	4	23.0	0.0	-0.2
Vanuatu	2.6	0.7	4	34.4	4.3	5.8	3.4	1.5	9	37.1	2.7	2.7
Regional	5.1	1.5	320	26.7	4.3	5.6	4.3	2.2	489	31.2	2.2	2.2
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

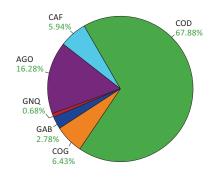


Sub-Saharan Africa, Central: Breast and cervical cancer trends

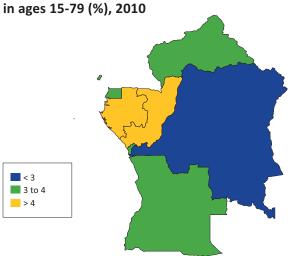
- The percentage of breast cancer deaths among women of reproductive age has increased in every country but South Africa. In Namibia in 2010, nearly one-third of all breast cancer deaths were in that group.
- A high percentage of the women dying from breast cancer are younger than the global pattern. In Angola, 40% of deaths from the disease were in women under 50.
- The risk of dying from cervical cancer is more than double the global average in almost every country, but the numbers have decreased slightly since the 1990s. Even with a significant decline in risk, women in the Democratic Republic of the Congo had a 1 in 31 chance of dying from the disease in 2010.

Breast cancer deaths in ages 15+, 2010

Total deaths: 2,339

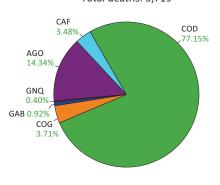


Cumulative probability of incidence for breast cancer

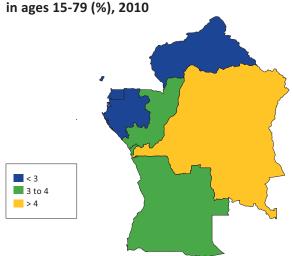


Cervical cancer deaths in ages 15+, 2010

Total deaths: 5,719



Cumulative probability of incidence for cervical cancer in ages 15, 79 (%), 2010



Country abbreviations

AGO Angola

CAF Central African Republic

COD Congo, the Democratic

Republic of the

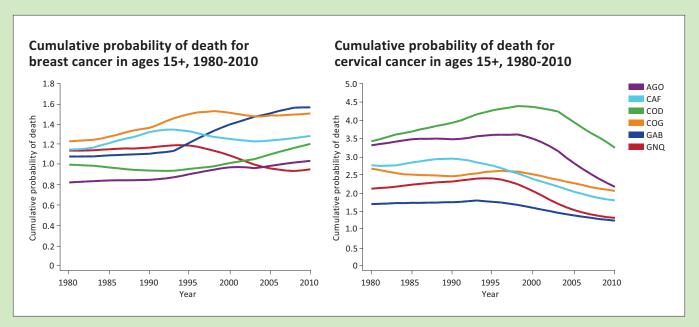
COG Congo

GAB Gabon

GNQ Equatorial Guinea

			Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Angola	3.1	1.0	381	40.4	3.5	4.8	3.7	2.2	820	44.3	1.3	1.6
Central African Republic	3.0	1.3	139	35.1	2.2	3.0	2.7	1.8	199	38.9	0.4	0.3
Congo	4.4	1.5	150	42.9	3.4	4.6	3.5	2.1	212	46.9	1.9	2.2
Congo, the Democratic Republic of the	2.6	1.2	1,587	41.6	3.1	3.6	4.5	3.2	4,412	45.1	2.3	2.0
Equatorial Guinea	3.6	1.0	16	43.6	2.4	4.9	2.6	1.3	23	47.8	1.4	3.1
Gabon	5.5	1.6	65	38.3	3.3	4.4	2.4	1.2	52	42.5	1.0	1.4
Regional	2.9	1.2	2,339	41.0	3.1	3.9	4.1	2.8	5,719	44.8	2.0	1.9
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

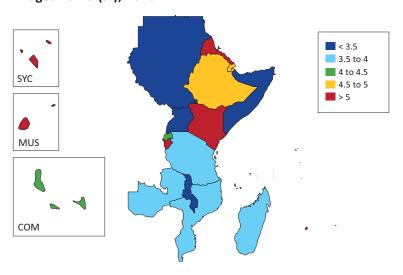
^{*}The percent of deaths in ages 15-49 is among women with cancer.



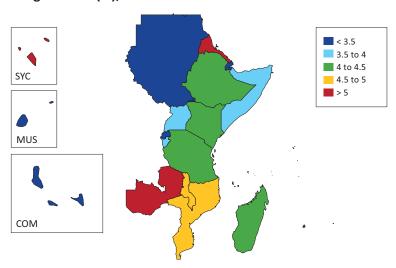
Sub-Saharan Africa, East: Breast and cervical cancer trends

- Across the region, breast cancer risks generally increased steadily between 1980 and 2010, and cervical cancer risks were quite variable during the same period.
- In every country, the percentage of younger women dying from breast cancer is higher than the global average. In Uganda, 40.9% of women dying are under age 50, while globally the percentage is 22.1%.
- The risk of dying from cervical cancer is much higher throughout the region. In Eritrea, the risk is 1 in 26 women, while the risk globally is 1 in 143.

Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



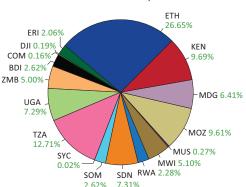
Breast cancer deaths in ages 15+, 2010

Total deaths: 12,101



Cervical cancer deaths in ages 15+, 2010

Total deaths: 19,940



Country abbreviations

BDI Burundi

COM Comoros

DJI Djibouti

ERI Eritrea

ETH Ethiopia

KEN Kenya

MDG Madagascar

MOZ Mozambique

MUS Mauritius

MWI Malawi

RWA Rwanda

SDN Sudan

SOM Somalia

SYC Seychelles

ore severience

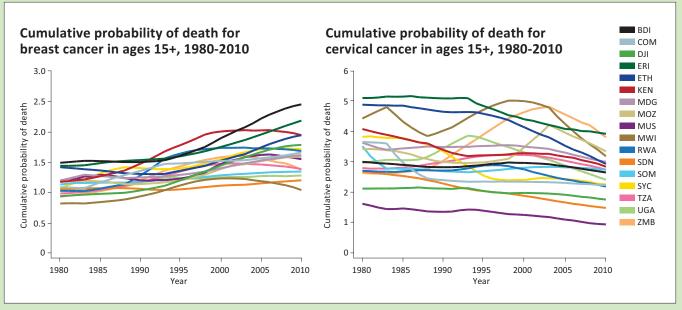
TZA Tanzania

UGA Uganda

ZMB Zambia

		1	Breast ca	ncer				(Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Burundi	5.4	2.4	489	35.3	4.1	5.0	3.7	2.6	523	35.4	1.9	2.1
Comoros	4.1	1.7	25	34.5	3.9	4.9	3.2	2.2	33	33.2	0.8	0.8
Djibouti	4.9	1.8	39	33.3	6.1	6.9	2.7	1.8	38	32.7	3.4	3.1
Eritrea	5.1	2.2	229	32.8	3.4	4.4	5.5	3.9	411	33.0	1.0	1.2
Ethiopia	4.6	1.9	3,544	31.4	3.9	4.9	4.1	2.9	5,313	31.3	1.1	1.1
Kenya	5.0	1.9	1,445	27.2	5.0	6.1	4.1	2.8	1,933	24.2	2.0	2.2
Madagascar	3.9	1.6	704	32.7	4.0	4.8	4.3	3.0	1,278	31.9	2.3	2.3
Malawi	2.5	1.0	338	35.4	3.9	4.7	4.5	3.2	1,018	32.2	2.0	2.0
Mauritius	7.3	1.5	102	28.6	4.1	5.9	2.1	0.9	54	21.3	1.2	1.4
Mozambique	3.9	1.6	912	39.6	3.4	4.6	4.9	3.3	1,916	39.8	2.3	2.7
Rwanda	4.2	1.7	359	34.7	4.3	5.3	3.2	2.2	455	33.5	1.9	2.0
Seychelles	9.0	1.7	3	36.8	2.7	4.7	6.3	2.3	4	41.0	-0.6	-0.2
Somalia	3.2	1.3	262	34.1	1.8	2.6	3.8	2.7	523	33.3	0.4	0.3
Sudan	3.2	1.2	1,218	31.2	3.3	4.4	2.2	1.5	1,458	29.2	0.8	0.9
Tanzania	3.5	1.4	1,300	33.5	4.2	5.3	4.1	2.7	2,534	32.6	3.0	3.1
Uganda	3.2	1.3	776	40.9	3.5	4.7	3.6	2.4	1,453	38.3	2.1	2.3
Zambia	3.6	1.4	359	37.1	4.0	4.9	5.8	3.8	998	37.2	4.0	4.0
Regional	4.0	1.6	12,101	33.0	3.9	4.9	3.9	2.7	19,940	32.6	1.8	1.9
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.

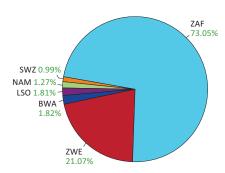


Sub-Saharan Africa, South: Breast and cervical cancer trends

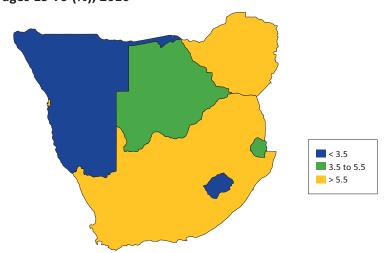
- A greater percentage of women dying from breast cancer in the region are under the age of 50. In every country, more than 20% of all breast cancer deaths are among women of reproductive age.
- The highest risk of death from breast cancer is in Zimbabwe, where 1 in 36 women risk dying from the disease.
- While there remains a high risk of dying from cervical cancer, the risk has been declining in every country, most prominently in Zimbabwe.

Breast cancer deaths in ages 15+, 2010

Total deaths: 3,825

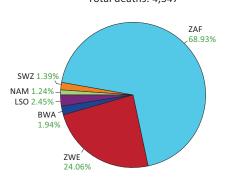


Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

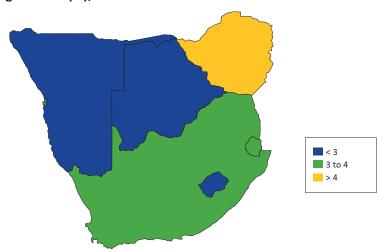


Cervical cancer deaths in ages 15+, 2010

Total deaths: 4,347



Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



Country abbreviations

BWA Botswana

LSO Lesotho

NAM Namibia

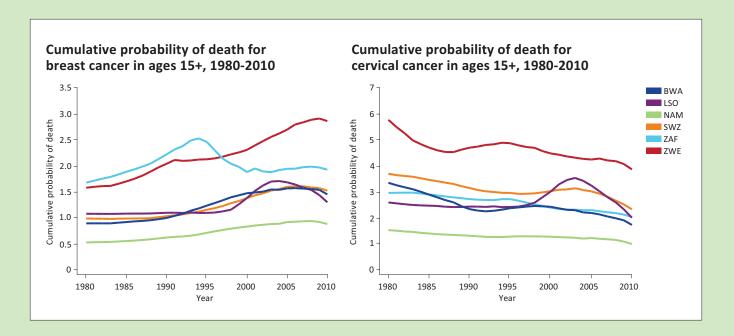
SWZ Swaziland

ZAF South Africa

ZWE Zimbabwe

		l	Breast ca	ncer					Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%),	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Botswana	4.7	1.4	69	21.3	5.2	6.9	3.0	1.7	84	25.3	1.3	1.9
Lesotho	3.1	1.3	69	21.0	2.6	3.7	2.9	2.0	106	26.1	1.0	1.4
Namibia	2.7	0.9	49	28.6	4.8	6.1	1.6	1.0	54	23.9	1.7	1.9
South Africa	5.8	1.9	2,794	19.7	3.6	4.6	3.4	2.0	2,996	25.8	1.8	1.9
Swaziland	4.3	1.5	38	27.0	4.5	5.8	3.8	2.3	60	32.6	1.5	2.0
Zimbabwe	6.1	2.8	806	26.0	4.7	5.4	5.2	3.8	1,046	24.1	1.3	1.3
Regional	5.6	2.0	3,825	21.3	3.8	4.8	3.5	2.2	4,347	25.4	1.6	1.8
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

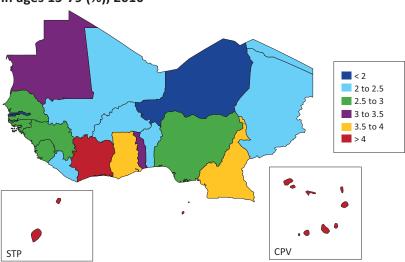
^{*}The percent of deaths in ages 15-49 is among women with cancer.



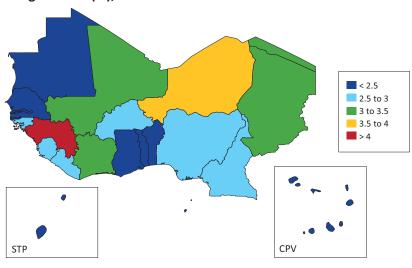
Sub-Saharan Africa, West: Breast and cervical cancer trends

- The risk of death from breast cancer is consistently increasing in most countries, while risk of death from cervical cancer is decreasing. There are signs of improvement in breast cancer risk in Côte d'Ivoire and Ghana.
- A large portion of the deaths from breast cancer are in women of reproductive age. In twelve countries, more than 40% of all deaths are in women ages 15 to 49.
- Despite the declines, there remains a very high risk of death from cervical cancer in all countries. In Niger, 1 in 37 women risk dying, compared to 1 in 143 women globally.

Cumulative probability of incidence for breast cancer in ages 15-79 (%), 2010

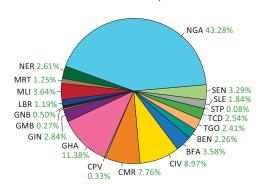


Cumulative probability of incidence for cervical cancer in ages 15-79 (%), 2010



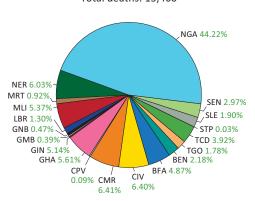
Breast cancer deaths in ages 15+, 2010

Total deaths: 8,203



Cervical cancer deaths in ages 15+, 2010

Total deaths: 13,460



Country abbreviations

BEN Benin

BFA Burkina Faso

CIV Côte d'Ivoire

CMR Cameroon

CPV Cape Verde

Ghana GHA

GIN Guinea

GMB Gambia

GNB Guinea-Bissau

LBR Liberia

MLI Mali

Mauritania MRT

NER Niger

NGA Nigeria

SEN Senegal

SLE

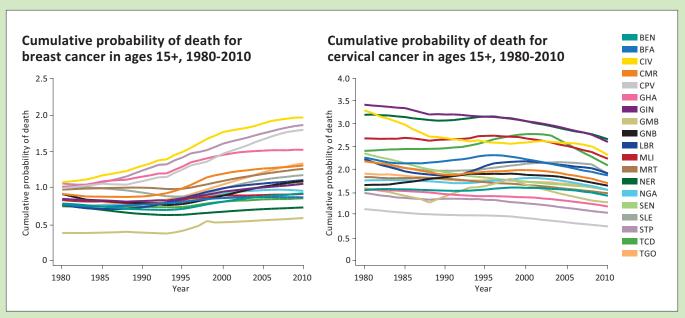
Sierra Leone Sao Tome and Principe STP

TCD Chad

TGO Togo

		ı	Breast ca	ncer				(Cervical o	ancer		
COUNTRY	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010		Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010	Cumulative probability of incidence (% all women), 2010	Cumulative probability of death (% all women), 2010	Number of deaths, 2010	Deaths in ages 15-49 (%), 2010*	Annualized rate of change in deaths (%), 1980-2010	Annualized rate of change in incidence (%), 1980-2010
Benin	2.4	0.9	186	39.3	3.1	4.2	2.2	1.4	294	41.0	2.2	2.4
Burkina Faso	2.2	0.9	294	43.3	3.0	4.2	2.8	1.9	656	45.3	1.8	2.1
Cameroon	3.6	1.3	636	42.9	3.8	5.0	2.8	1.7	862	45.8	1.8	2.0
Cape Verde	5.0	1.8	27	24.3	4.2	5.5	1.2	0.7	12	31.3	0.9	1.2
Chad	2.2	0.9	208	41.4	3.0	4.3	3.3	2.1	527	43.4	2.1	2.4
Côte d'Ivoire	4.9	2.0	736	27.7	5.7	6.5	3.3	2.3	861	22.0	2.4	2.3
Gambia	1.6	0.6	22	60.1	5.2	6.4	2.1	1.3	52	60.5	2.8	3.1
Ghana	3.9	1.5	933	39.9	4.7	5.8	1.9	1.2	755	41.9	2.4	2.5
Guinea	2.6	1.1	233	37.6	3.3	4.3	4.2	2.6	692	50.2	1.5	1.6
Guinea-Bissau	2.7	1.1	41	38.7	2.6	3.6	2.5	1.6	64	41.3	1.9	1.9
Liberia	2.5	1.1	98	43.3	3.9	4.4	2.7	1.9	175	45.1	2.1	1.7
Mali	2.3	0.9	298	47.7	2.3	3.5	3.5	2.2	722	47.2	1.3	1.6
Mauritania	3.4	1.3	102	42.4	4.0	5.1	2.3	1.5	124	44.1	2.3	2.4
Niger	1.7	0.7	214	43.9	3.3	4.1	3.9	2.7	811	45.7	2.6	2.4
Nigeria	2.6	1.0	3,550	40.5	3.4	4.6	2.5	1.5	5,952	42.8	2.1	2.3
Sao Tome and Principe	4.7	1.9	6	23.2	3.2	4.3	1.5	1.0	4	27.8	0.2	0.4
Senegal	2.9	1.1	270	44.4	4.1	5.2	2.4	1.5	400	46.1	1.3	1.4
Sierra Leone	2.8	1.2	151	47.9	2.5	3.5	2.9	1.9	256	49.7	1.4	1.5
Togo	3.3	1.3	198	42.6	5.1	6.0	2.4	1.5	239	45.0	2.4	2.4
Regional	2.9	1.1	8,203	40.2	3.7	4.8	2.7	1.7	13,460	42.9	2.0	2.2
Global	5.5	1.5	425,186	22.1	1.8	3.1	1.4	0.7	200,078	28.0	0.5	0.6

^{*}The percent of deaths in ages 15-49 is among women with cancer.



Country data

			Breast o	ancer in	cidence						Breast	cancer	mortalit	У			
			Annualized							Annualized			Risk of	Risk of			
	No. of cases,	No. of cases, 2010	rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	mortality for all women, 1980	mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010	
Afghanistan	569	1,457	3.1	57.1	58.4	1 in 60	1 in 49	263	480	2.0	49.6	49.2	1 in 117	1 in 129	44 to 100	32 to 100	
Albania	137	533	4.5	42.2	39.7	1 in 62	1 in 30	68	186	3.4	32.1	27.3	1 in 116	1 in 81	42 to 100	28 to 100	
Algeria	971	4,864	5.4	55.8	56.9	1 in 54	1 in 28	375	1,357	4.3	44.7	44.0	1 in 129	1 in 89	36 to 100	25 to 100	
Andorra	20	87	4.9	18.9	16.9	1 in 10	1 in 7	6	18	3.7	12.0	9.5	1 in 34	1 in 37	22 to 100	14 to 100	
Angola	310	1,301	4.8	43.8	47.1	1 in 57	1 in 32	133	381	3.5	38.6	40.4	1 in 122	1 in 97	40 to 100	27 to 100	
Antigua and Barbuda	13	49	4.5	34.2	34.5	1 in 17	1 in 8	5	14	3.1	29.9	25.8	1 in 38	1 in 29	33 to 100	20 to 100	
Argentina	9,931	21,787	2.6	28.6	22.0	1 in 12	1 in 9	3,757	6,433	1.8	20.1	12.6	1 in 30	1 in 34	32 to 100	21 to 100	
Armenia	321	1,219	4.5	51.7	38.3	1 in 41	1 in 16	149	423	3.5	41.4	26.1	1 in 80	1 in 44	42 to 100	28 to 100	
Australia	5,241	13,781	3.2	26.2	22.8	1 in 13	1 in 10	1,914	2,975	1.5	16.2	13.4	1 in 36	1 in 48	26 to 100	15 to 100	
Austria	3,716	4,939	0.9	17.8	17.2	1 in 13	1 in 13	1,615	1,550	-0.1	11.6	9.5	1 in 32	1 in 45	32 to 100	20 to 100	
Azerbaijan	451	1,727	4.5	52.9	59.3	1 in 52	1 in 30	202	486	2.9	41.8	47.0	1 in 107	1 in 94	40 to 100	27 to 100	
Bahamas	58	219	4.4	30.0	31.2	1 in 9	1 in 8	21	55	3.3	23.8	23.0	1 in 24	1 in 27	28 to 100	19 to 100	
Bahrain	24	185	6.9	57.2	62.8	1 in 33	1 in 19	9	50	5.6	47.7	51.6	1 in 76	1 in 56	38 to 100	27 to 100	
Bangladesh	2,019	10,932	5.6	63.5	69.5	1 in 127	1 in 58	914	3,221	4.2	57.5	62.0	1 in 265	1 in 180	44 to 100	30 to 100	
Barbados	103	203	2.3	17.7	22.9	1 in 11	1 in 9	41	59	1.2	14.1	15.7	1 in 28	1 in 31	29 to 100	19 to 100	
Belarus	1,444	3,530	3.0	41.4	27.5	1 in 41	1 in 19	713	1,333	2.1	32.1	17.7	1 in 80	1 in 52	42 to 100	28 to 100	
Belgium	7,840	11,227	1.2	19.8	18.7	1 in 8	1 in 7	2,506	2,300	-0.3	12.9	11.1	1 in 25	1 in 36	23 to 100	14 to 100	
Belize	7,040	38	5.4	20.8	34.6	1 in 39	1 in 19	4	12	4.1	16.2	25.0	1 in 80	1 in 57	35 to 100	23 to 100	
Benin	148	526	4.2	37.4	46.0	1 in 67	1 in 42	74	186	3.1	32.1	39.3	1 in 128	1 in 108	45 to 100	33 to 100	
Bhutan	17	57	4.1	53.4	49.2	1 in 69	1 in 39	8	160	2.4	46.0	38.6	1 in 136	1 in 124	43 to 100	25 to 100	
			3.5	42.1	39.8			197		2.4							
Bolivia	486	1,389	3.5	42.1	39.8	1 in 29	1 in 22	197	407	2.4	35.4	30.6	1 in 65	1 in 68	35 to 100	24 to 100	
Bosnia and Herzegovina	519	1,170	2.7	42.0	31.7	1 in 30	1 in 21	292	438	1.4	33.5	20.3	1 in 50	1 in 56	48 to 100	28 to 100	
Botswana	31	242	6.9	25.2	28.6	1 in 57	1 in 21	15	69	5.2	19.9	21.3	1 in 112	1 in 69	41 to 100	24 to 100	
Brazil	18,597	67,753	4.3	39.7	34.2	1 in 18	1 in 13	5,374	14,366	3.3	30.1	23.3	1 in 55	1 in 56	25 to 100	16 to 100	
Brunei Darussalam	22	85	4.5	61.1	57.1	1 in 21	1 in 20	5	13	3.2	48.7	46.8	1 in 85	1 in 114	20 to 100	14 to 100	
Bulgaria	2,195	4,151	2.1	30.0	19.3	1 in 22	1 in 13	927	1,302	1.1	21.9	11.6	1 in 51	1 in 44	34 to 100	21 to 100	
Burkina Faso	235	829	4.2	40.9	49.5	1 in 72	1 in 46	119	294	3.0	36.5	43.3	1 in 130	1 in 115	48 to 100	34 to 100	
Burundi	265	1,181	5.0	34.5	40.5	1 in 39	1 in 18	144	489	4.1	30.5	35.3	1 in 67	1 in 41	50 to 100	39 to 100	
Cambodia	409	2,470	6.0	54.5	51.3	1 in 50	1 in 22	152	571	4.4	42.5	35.8	1 in 111	1 in 78	33 to 100	20 to 100	
Cameroon	431	1,931	5.0	39.0	49.8	1 in 54	1 in 28	201	636	3.8	33.7	42.9	1 in 109	1 in 77	43 to 100	31 to 100	
Canada	10,679	23,537	2.6	23.4	19.2	1 in 11	1 in 10	3,814	5,569	1.3	15.3	11.2	1 in 29	1 in 42	26 to 100	16 to 100	
Cape Verde	15	78	5.5	28.5	31.8	1 in 54	1 in 20	8	27	4.2	24.0	24.3	1 in 101	1 in 56	45 to 100	29 to 100	
Central African Republic	145	355	3.0	41.8	41.1	1 in 46	1 in 33	72	139	2.2	37.0	35.1	1 in 87	1 in 78	46 to 100	36 to 100	
Chad	165	601	4.3	36.9	48.0	1 in 72	1 in 45	83	208	3.0	32.1	41.4	1 in 134	1 in 117	47 to 100	33 to 100	
Chile	1,910	4,813	3.1	29.4	27.4	1 in 19	1 in 18	792	1,342	1.8	21.2	17.2	1 in 44	1 in 64	35 to 100	22 to 100	
China	70,656	209,427	3.6	45.9	45.9	1 in 46	1 in 34	29,807	41,966	1.1	33.8	29.3	1 in 98	1 in 153	34 to 100	16 to 100	
Colombia	1,761	7,454	4.8	41.1	35.7	1 in 39	1 in 24	749	2,234	3.6	31.3	24.6	1 in 84	1 in 73	36 to 100	23 to 100	
Comoros	16	69	4.9	36.5	40.2	1 in 48	1 in 24	8	25	3.9	31.8	34.5	1 in 92	1 in 60	45 to 100	34 to 100	
Congo	122	487	4.6	43.9	49.8	1 in 39	1 in 23	55	150	3.4	38.4	42.9	1 in 82	1 in 67	41 to 100	29 to 100	
Congo, the Democratic Republic of the	1 261	3,713	3.6	45.4	47.1	1 in 54	1 in 39	627	1,587	3.1	40.8	41.6	1 in 100	1 in 83	47 to 100	40 to 100	
	1,261																
Costa Rica	223	993	5.0	35.9	31.1	1 in 27	1 in 19	92	295	3.9	26.2	20.2	1 in 61		34 to 100	22 to 100	
Côte d'Ivoire	291	2,017	6.5	35.0	34.6	1 in 47	1 in 21	135	736	5.7	29.6	27.7	1 in 93	1 in 51	42 to 100	32 to 100	
Croatia	1,322	2,354	1.9	27.5	15.6	1 in 19	1 in 14	668	891	1.0	19.1	8.8	1 in 37	1 in 41	39 to 100	24 to 100	

^{*} The percent of cases in ages 15-49 is among women with cancer. † The percent of deaths in ages 15-49 is among women with cancer.

		Cervica	l cancer in	cidence						Cervical	cancer i	mortality	,		
No. of cases, 1980	No. of cases, 2010	Annualized rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	Annualized rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	Risk of mortality for all women, 1980	Risk of mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010
1,924	2,288	0.6	58.0	55.7	1 in 19	1 in 31	817	950	0.5	41.8	39.0	1 in 35	1 in 59	38 to 100	37 to 100
66	117	1.9	49.2	51.8	1 in 138	1 in 145	28	45	1.6	29.4	30.9	1 in 273	1 in 329	34 to 100	31 to 100
889	1,008	0.4	48.6	47.0	1 in 57	1 in 126	334	369	0.3	29.3	28.1	1 in 128	1 in 285	30 to 100	28 to 100
3	5	2.4	35.8	32.6	1 in 78	1 in 114	1	2	2.6	15.9	13.9	1 in 212	1 in 318	23 to 100	23 to 100
1,095	1,752	1.6	56.6	60.0	1 in 19	1 in 27	553	820	1.3	42.0	44.3	1 in 30	1 in 46	49 to 100	46 to 100
7	10	1.2	32.2	28.0	1 in 28	1 in 37	4	5	0.9	22.5	18.4	1 in 46	1 in 68	46 to 100	39 to 100
4,531	5,521	0.7	58.0	51.5	1 in 31	1 in 40	1,601	1,970	0.7	39.1	32.3	1 in 78	1 in 107	33 to 100	31 to 100
260	337	0.9	52.1	52.5	1 in 50	1 in 57	113	136	0.6	32.5	31.4	1 in 97	1 in 132	36 to 100	32 to 100
1,068	940	-0.4	46.0	46.9	1 in 69	1 in 149	361	334	-0.3	22.0	20.5	1 in 184	1 in 421	25 to 100	25 to 100
1,345	590	-2.7	30.1	32.7	1 in 35	1 in 102	550	228	-2.9	14.3	15.9	1 in 89	1 in 286	26 to 100	24 to 100
448	636	1.2	54.6	64.6	1 in 55	1 in 84	180	208	0.5	32.5	42.7	1 in 114	1 in 210	34 to 100	31 to 100
27	47	1.9	36.9	26.2	1 in 20	1 in 32	12	21	1.9	24.0	17.0	1 in 39	1 in 63	39 to 100	36 to 100
13	18	1.2	53.6	57.1	1 in 52	1 in 160	4	5	0.9	31.4	34.5	1 in 129	1 in 398	24 to 100	24 to 100
9,752	6,441	-1.4	51.2	49.4	1 in 22	1 in 75	4,458	2,783	-1.6	35.6	32.7	1 in 40	1 in 142	39 to 100	35 to 100
63	48	-0.9	16.8	15.9	1 in 19	1 in 40	33	24	-1.0	10.7	11.1	1 in 35	1 in 77	40 to 100	38 to 100
1,203	1,353	0.4	36.5	44.2	1 in 47	1 in 50	529	539	0.1	18.8	22.3	1 in 99	1 in 124	31 to 100	28 to 100
1,011	686	-1.3	24.8	33.9	1 in 59	1 in 111	460	273	-1.7	12.4	17.8	1 in 135	1 in 305	28 to 100	25 to 100
19	41	2.6	34.8	51.3	1 in 20	1 in 25	10	18	2.1	24.9	40.1	1 in 34	1 in 46	48 to 100	43 to 100
262	533	2.4	49.7	54.4	1 in 43	1 in 46	154	294	2.2	37.0	41.0	1 in 65	1 in 71	54 to 100	52 to 100
34	28	-0.6	54.3	46.2	1 in 36	1 in 79	14	11	-1.0	38.5	27.8	1 in 68	1 in 173	37 to 100	30 to 100
1,132 302	1,428 312	0.8	46.7	41.6	1 in 13	1 in 22	569 160	717 154	0.8	36.8 27.4	30.8	1 in 22	1 in 37	48 to 100	46 to 100
		1.9		33.0	1 in 50	1 in 78			-0.1		16.5	1 in 81	1 in 150	40 to 100	31 to 100
94 13,274	169 19,748	1.9	35.3 49.5	40.2 41.5	1 in 21 1 in 27	1 in 34 1 in 46	56 6,130	84 8,959	1.3	23.5 38.8	25.3 29.9	1 in 30	1 in 58 1 in 90	49 to 100 45 to 100	42 to 100 42 to 100
15,274	19,740	1.5	49.5	41.5	111127	1 111 46	0,130	0,939	1.5	30.0	29.9	1 in 51	111190	45 (0 100	42 10 100
12	29	2.8	65.3	52.9	1 in 32	1 in 44	3	9	3.5	44.4	36.0	1 in 94	1 in 108	22 to 100	24 to 100
968	1,158	0.6	47.7	48.1	1 in 53	1 in 47	404	454	0.4	27.0	25.6	1 in 116	1 in 120	32 to 100	29 to 100
639	1,206	2.1	52.8	58.2	1 in 30	1 in 35	378	656	1.8	41.4	45.3	1 in 44	1 in 54	56 to 100	53 to 100
440	820	2.1	38.9	45.5	1 in 24	1 in 27	292	523	1.9	29.3	35.4	1 in 33	1 in 38	59 to 100	58 to 100
599	1,135	2.1	55.1	50.2	1 in 34	1 in 44	264	471	1.9	39.0	33.1	1 in 61	1 in 87	39 to 100	34 to 100
924	1,699	2.0	52.0	60.1	1 in 29	1 in 35	508	862	1.8	38.7	45.8	1 in 46	1 in 59	51 to 100	50 to 100
1,769	1,683	-0.2	46.7	43.4	1 in 69	1 in 131	635	605	-0.2	23.0	21.2	1 in 176	1 in 381	26 to 100	24 to 100
15	21	1.2	42.0	45.5	1 in 60	1 in 82	9	12	0.9	30.9	31.3	1 in 89	1 in 134	54 to 100	48 to 100
307	336	0.3	53.2	51.5	1 in 24	1 in 38	176	199	0.4	40.3	38.9	1 in 36	1 in 56	54 to 100	56 to 100
478	980	2.4	48.9	56.8	1 in 28	1 in 31	285	527	2.1	36.9	43.4	1 in 42	1 in 48	55 to 100	52 to 100
2,350	2,097	-0.4	54.2	48.6	1 in 19	1 in 45	1,031	913	-0.4	31.3	24.4	1 in 35	1 in 92	36 to 100	32 to 100
34,628	43,311	0.7	32.9	44.4	1 in 83	1 in 156	18,894	16,955	-0.4	17.4	24.6	1 in 133	1 in 342	40 to 100	29 to 100
3,116	4,525	1.2	45.5	40.1	1 in 24	1 in 41	1,540	2,115	1.1	35.4	28.8	1 in 42	1 in 77	47 to 100	42 to 100
43	55	0.8	41.2	44.4	1 in 19	1 in 31	26	33	0.8	30.2	33.2	1 in 27	1 in 45	53 to 100	53 to 100
233	448	2.2	56.7	62.7	1 in 23	1 in 28	121	212	1.9	42.2	46.9	1 in 38	1 in 49	50 to 100	48 to 100
2.070	7.160	2.0	55.0	56.4	4 % 20	4 : 22	2 245	4.442	2.2	44.2	45.4	4 :- 20	4 !- 24	FF 1: 100	CO 1 - 100
3,879	7,160	2.0	56.9	56.4	1 in 20	1 in 22	2,215	4,412	2.3	44.2	45.1	1 in 29	1 in 31	55 to 100	60 to 100
256	361	1.1	43.9	41.0	1 in 25	1 in 58	124	163	0.9	32.8	29.1	1 in 46	1 in 114	45 to 100	41 to 100
689	1,377	2.3	33.8	32.0	1 in 21	1 in 30	417	861	2.4	23.7	22.0	1 in 30	1 in 43	50 to 100	52 to 100
567	393	-1.2	40.4	32.7	1 in 45	1 in 81	245	185	-0.9	20.5	14.4	1 in 96	1 in 185	29 to 100	28 to 100

(continued on next page)

			Breast o	ancer in	cidence						Breas	cancer	mortalit	у			
	No. of cases, 1980	No. of cases,	Annualized rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	Annualized rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	Risk of mortality for all women, 1980	Risk of mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010	
Cuba	1,380	3,556	3.2	25.7	20.9	1 in 25	1 in 18	709	1,441	2.4	23.8	16.7	1 in 47	1 in 48	40 to 100	28 to 100	
Cyprus	174	493	3.5	25.7	21.4	1 in 16	1 in 9	64	109	1.7	18.1	13.4	1 in 44	1 in 40	29 to 100	16 to 100	
Czech Republic	3,496	5,516	1.5	19.2	16.5	1 in 17	1 in 13	1,726	1,896	0.3	11.7	7.3	1 in 34	1 in 42	34 to 100	19 to 100	
Denmark	2,843	5,033	1.9	21.5	16.2	1 in 11	1 in 8	1,216	1,338	0.3	11.5	7.4	1 in 26	1 in 31	36 to 100	16 to 100	
Djibouti	15	118	6.9	43.4	39.2	1 in 49	1 in 21	6	39	6.1	38.1	33.3	1 in 107	1 in 56	39 to 100	31 to 100	
Dominica	10	24	2.9	25.6	26.4	1 in 20	1 in 13	5	8	1.8	21.5	18.8	1 in 42	1 in 37	36 to 100	23 to 100	
Dominican Republic	352	2,075	5.9	35.6	34.6	1 in 33	1 in 17	152	643	4.8	30.3	25.6	1 in 69	1 in 52	35 to 100	23 to 100	
Ecuador	469	1,758	4.4	45.0	36.6	1 in 44	1 in 31	169	479	3.5	35.1	25.6	1 in 112	1 in 107	33 to 100	22 to 100	
Egypt	1,970	13,413	6.4	55.0	47.4	1 in 73	1 in 22	817	3,952	5.3	46.7	36.2	1 in 160	1 in 68	40 to 100	27 to 100	
El Salvador	143	652	5.1	50.2	41.1	1 in 93	1 in 38	57	198	4.1	43.2	29.1	1 in 220	1 in 125	35 to 100	23 to 100	
Equatorial Guinea	16	70	4.9	26.7	50.7	1 in 44	1 in 28	8	16	2.4	22.7	43.6	1 in 88	1 in 105	44 to 100	22 to 100	
Eritrea	156	588	4.4	37.2	38.2	1 in 39	1 in 20	83	229	3.4	32.7	32.8	1 in 70	1 in 46	49 to 100	36 to 100	
Estonia	355	547	1.4	31.5	18.0	1 in 26	1 in 18	168	220	0.9	22.6	10.4	1 in 55	1 in 49	38 to 100	27 to 100	
Ethiopia	2,097	9,189	4.9	40.5	36.9	1 in 40	1 in 22	1,091	3,544	3.9	36.2	31.4	1 in 71	1 in 52	49 to 100	35 to 100	
Fiji	33	109	4.0	50.3	50.5	1 in 43	1 in 31	11	23	2.5	35.2	32.6	1 in 107	1 in 123	27 to 100	17 to 100	
Finland	1,930	4,461	2.8	22.9	16.1	1 in 14	1 in 9	663	842	0.8	13.8	8.9	1 in 41	1 in 50	24 to 100	13 to 100	
France	26,224	50,593	2.2	20.3	18.1	1 in 12	1 in 9	9,686	13,043	1.0	12.9	10.1	1 in 34	1 in 39	26 to 100	17 to 100	
Gabon	67	252	4.4	33.1	46.1	1 in 36	1 in 18	24	65	3.3	26.9	38.3	1 in 93	1 in 64	32 to 100	24 to 100	
Gambia	10	68	6.4	58.1	66.2	1 in 135	1 in 64	5	22	5.2	52.5	60.1	1 in 262	1 in 171	45 to 100	32 to 100	
Georgia	852	1,709	2.3	45.6	33.2	1 in 34	1 in 17	382	643	1.7	34.6	21.1	1 in 72	1 in 44	39 to 100	28 to 100	
Germany	40,599	60,927	1.4	22.1	18.4	1 in 13	1 in 11	16,560	17,767	0.2	12.9	9.4	1 in 32	1 in 40	28 to 100	17 to 100	
Ghana	470	2,643	5.8	43.4	46.7	1 in 52	1 in 26	230	933	4.7	38.3	39.9	1 in 99	1 in 66	46 to 100	33 to 100	
Greece	3,839	9,699	3.1	28.3	14.5	1 in 15	1 in 10	1,274	2,506	2.3	19.9	7.6	1 in 43	1 in 45	26 to 100	16 to 100	
Grenada	9	38	4.9	15.5	24.2	1 in 33	1 in 10	4	12	3.6	12.9	17.4	1 in 72	1 in 32	35 to 100	22 to 100	
Guatemala	195	799	4.7	42.3	41.4	1 in 77	1 in 49	83	242	3.6	34.9	30.6	1 in 166	1 in 153	36 to 100	24 to 100	
Guinea	175	629	4.3	41.6	44.2	1 in 64	1 in 38	88	233	3.3	36.7	37.6	1 in 118	1 in 95	47 to 100	34 to 100	
Guinea-Bissau	38	112	3.6	39.2	45.1	1 in 58	1 in 37	19	41	2.6	34.4	38.7	1 in 110	1 in 92	46 to 100	34 to 100	
Guyana	66	182	3.4	35.7	39.0	1 in 24	1 in 14	30	60	2.3	30.7	29.7	1 in 50	1 in 37	36 to 100	25 to 100	
Haiti	949	2,024	2.5	19.3	22.6	1 in 13	1 in 12	462	820	1.9	16.4	17.0	1 in 25	1 in 26	39 to 100	30 to 100	
Honduras	70	678	7.6	24.9	28.3	1 in 96	1 in 28	33	233	6.5	19.0	19.1	1 in 192	1 in 77	37 to 100	25 to 100	
Hungary	3,372	5,351	1.5	24.4	17.3	1 in 19	1 in 14	1,707	2,087	0.7	15.7	9.0	1 in 37	1 in 38	37 to 100	24 to 100	
Iceland	88	181	2.4	22.4	17.5	1 in 12	1 in 10	29	40	1.0	16.4	11.8	1 in 33	1 in 43	31 to 100	20 to 100	
India	51,089	143,000	3.4	43.5	40.8	1 in 36	1 in 30	24,340	44,415	2.0	35.3	30.3	1 in 69	1 in 85	43 to 100	27 to 100	
Indonesia	9,890	53,788	5.6	47.1	48.0	1 in 43	1 in 19	3,594	11,594	3.9	34.3	31.6	1 in 101	1 in 72	30 to 100	17 to 100	
Iran	1,451	6,422	5.0	54.9	55.1	1 in 70	1 in 45	507	1,650	3.9	45.1	43.1	1 in 176	1 in 154	33 to 100	24 to 100	
Iraq	586	2,337	4.6	48.5	51.6	1 in 59	1 in 35	218	722	4.0	38.8	40.2	1 in 145	1 in 102	34 to 100	28 to 100	
Ireland	1,179	2,460	2.5	24.6	24.1	1 in 13	1 in 10	548	737	1.0	17.0	14.5	1 in 28	1 in 34	35 to 100	21 to 100	
Israel	1,712	5,719	4.0	25.1	21.5	1 in 9	1 in 7	491	1,062	2.6	18.6	13.1	1 in 29	1 in 37	25 to 100	13 to 100	
Italy	23,525	45,249	2.2	24.6	19.5	1 in 14	1 in 10	9,909	12,587	0.8	15.7	10.4	1 in 34	1 in 43	31 to 100	19 to 100	
Jamaica	547	1,241	2.7	29.0	33.7	1 in 12	1 in 10	229	394	1.8	23.2	24.3	1 in 29	1 in 30	33 to 100	23 to 100	
Japan	16,711	48,866	3.6	43.4	21.9	1 in 38	1 in 20	4,764	11,644	3.0	30.7	13.3	1 in 124	1 in 93	24 to 100	17 to 100	
Jordan	181	1,269	6.5	50.7	51.4	1 in 30	1 in 13	74	369	5.3	41.3	40.2	1 in 66	1 in 38	37 to 100	27 to 100	
Kazakhstan	1,549	4,738	3.7	45.5	35.8	1 in 41	1 in 17	676	1,510	2.7	34.4	23.5	1 in 87	1 in 47	38 to 100	25 to 100	
Kenya	655	4,091	6.1	26.4	32.0	1 in 44	1 in 20	322	1,445	5.0	22.8	27.2	1 in 85	1 in 52	45 to 100	33 to 100	
Kiribati	1	10	6.6	42.9	41.8	1 in 68	1 in 26	0	2	5.6	30.7	28.2	1 in 200	1 in 102	25 to 100	18 to 100	
Korea, North	1,739	4,836	3.4	56.1	45.7	1 in 40	1 in 28	546	1,281	2.8	43.7	29.9	1 in 105	1 in 97	28 to 100	21 to 100	
Korea, South	2,113	11,186	5.6	59.5	45.0	1 in 68	1 in 29	641	1,975	3.8	50.3	33.4	1 in 203	1 in 156	29 to 100	15 to 100	
Kuwait	103	453	4.9	68.7	56.4	1 in 26	1 in 12	25	82	4.0	56.6	44.7	1 in 85	1 in 55	25 to 100	18 to 100	
Kyrgyzstan	276	680	3.0	42.1	50.4	1 in 49	1 in 29	138	251	2.0	32.4	38.2	1 in 91	1 in 69	43 to 100	32 to 100	
Kyrgyzoldii	2/0	000	5.0	42.1	50.8	1 111 49	1 111 29	138	251	2.0	52.4	50.2	1 111 31	1 111 09	45 (0 100	32 (0 100	

^{*} The percent of cases in ages 15-49 is among women with cancer. † The percent of deaths in ages 15-49 is among women with cancer.

No. of		Annualized	l cancer ir									nortality			
cases, 1980	No. of cases, 2010	rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	Annualized rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	Risk of mortality for all women, 1980	Risk of mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010
1,010	1,330	0.9	44.1	42.3	1 in 38	1 in 54	495	621	0.8	32.9	31.3	1 in 70	1 in 109	45 to 100	42 to 100
20	26	0.8	12.1	13.1	1 in 114	1 in 154	11	13	0.5	7.3	6.8	1 in 210	1 in 323	31 to 100	27 to 100
1,487	1,033	-1.2	43.7	42.0	1 in 41	1 in 70	606	415	-1.3	21.0	19.1	1 in 95	1 in 177	29 to 100	27 to 100
544	472	-0.5	39.6	46.0	1 in 55	1 in 78	251	171	-1.3	19.9	16.6	1 in 117	1 in 224	32 to 100	23 to 100
27	68	3.1	49.4	45.1	1 in 30	1 in 37	14	38	3.4	35.8	32.7	1 in 47	1 in 57	48 to 100	50 to 100
14	9	-1.4	38.1	34.8	1 in 17	1 in 38	7	4	-1.7	28.8	25.5	1 in 28	1 in 70	48 to 100	43 to 100
415	1 200	2 5	41.7	32.4	1 in 30	1 in 30	215	592	2.4	32.4	22.3	1 in E0	1 in EE	48 to 100	42 to 100
893	1,200 1,487	3.5 1.7	47.8	37.1	1 in 24	1 in 37	432	724	3.4 1.7	37.8	26.7	1 in 50 1 in 44	1 in 55 1 in 68	46 to 100	42 to 100 43 to 100
637	1,274	2.3	63.4	55.5	1 in 236	1 in 243	222	443	2.3	41.9	32.8	1 in 517	1 in 549	34 to 100	30 to 100
595	897	1.4	50.2	40.5	1 in 23	1 in 30	285	433	1.4	39.7	28.9	1 in 41	1 in 56	46 to 100	44 to 100
333	057	1.4	30.2	40.5	111123	111130	203	433	1.4	33.7	20.5	111141	111130	40 to 100	44 (0 100
23	59	3.1	35.0	64.3	1 in 31	1 in 38	15	23	1.4	25.0	47.8	1 in 47	1 in 76	53 to 100	39 to 100
469	674	1.2	43.1	44.9	1 in 14	1 in 18	301	411	1.0	32.7	33.0	1 in 20	1 in 26	58 to 100	56 to 100
218	162	-1.0	34.4	36.8	1 in 42	1 in 61	105	71	-1.3	17.0	17.4	1 in 83	1 in 147	32 to 100	28 to 100
6,111	8,550	1.1	46.1	42.3	1 in 15	1 in 24	3,818	5,313	1.1	35.5	31.3	1 in 21	1 in 34	57 to 100	55 to 100
130	201	1.5	56.7	50.6	1 in 13	1 in 17	48	75	1.5	37.5	31.1	1 in 26	1 in 37	32 to 100	30 to 100
213	178	-0.6	23.5	30.4	1 in 126	1 in 227	103	67	-1.4	10.3	12.9	1 in 255	1 in 682	31 to 100	24 to 100
5,532	4,155	-1.0	28.5	32.2	1 in 55	1 in 107	2,387	1,751	-1.0	15.2	17.2	1 in 129	1 in 279	28 to 100	27 to 100
83	125	1.4	46.9	60.9	1 in 31	1 in 42	39	52	1.0	30.0	42.5	1 in 59	1 in 81	41 to 100	41 to 100
44	109	3.1	67.6	72.2	1 in 39	1 in 47	22	52	2.8	55.3	60.5	1 in 63	1 in 79	53 to 100	52 to 100
594	359	-1.7	49.1	53.7	1 in 48	1 in 82	245	149	-1.7	28.9	33.4	1 in 105	1 in 191	33 to 100	33 to 100
12,845	5,814	-2.6	39.0	37.8	1 in 40	1 in 107	5,101	2,577	-2.3	16.7	17.0	1 in 100	1 in 264	27 to 100	27 to 100
645	1,379	2.5	54.0	55.3	1 in 43	1 in 54	371	755	2.4	41.6	41.9	1 in 64	1 in 85	55 to 100	52 to 100
725	665	-0.3	37.6	33.2	1 in 77	1 in 134	297	292	-0.1	19.0	14.5	1 in 182	1 in 347	27 to 100	25 to 100
15	16	0.1	19.7	26.7	1 in 19	1 in 25	9	8	-0.4	13.8	18.2	1 in 32	1 in 47	48 to 100	41 to 100
554	1,247	2.7	54.3	47.3	1 in 33	1 in 35	263	589	2.7	43.7	35.4	1 in 58	1 in 64	47 to 100	45 to 100
793	1,300	1.6	61.4	62.6	1 in 19	1 in 24	437	692	1.5	49.7	50.2	1 in 29	1 in 39	55 to 100	54 to 100
63	112	1.9	52.0	54.0	1 in 40	1 in 40	36	64	1.9	39.7	41.3	1 in 61	1 in 61	55 to 100	54 to 100
102	132	0.9	44.0	42.1	1 in 19	1 in 19	53	66	0.7	34.2	32.0	1 in 31	1 in 33	49 to 100	46 to 100
519 89	568 223	0.3 3.1	30.0 44.6	23.2 53.7	1 in 26 1 in 86	1 in 43 1 in 112	307 47	353 108	0.5	22.9 34.8	17.8 42.8	1 in 40 1 in 141	1 in 63 1 in 204	52 to 100 49 to 100	52 to 100 46 to 100
1,488		-1.1	39.9	40.8	1 in 44	1 in 69	737	486	-1.4	22.6	22.8	1 in 85	1 in 204	37 to 100	33 to 100
1,400	1,057 11	-0.9	33.3	25.1	1 in 69	1 in 170	757	5	-1.4	27.1	20.6		1 in 382	43 to 100	39 to 100
73,167	79,159	0.3	44.8	38.2	1 in 27		33,742	33,786	0.0	30.1	23.1	1 in 50	1 in 106	37 to 100	32 to 100
13,901	21,187	1.4	52.3	51.4	1 in 32	1 in 53 1 in 47	5,900	8,069	1.0	35.3	32.6	1 in 61	1 in 99	35 to 100	31 to 100
724	656	-0.3	52.3	49.5	1 in 138	1 in 401	240	223	-0.3	32.1	29.0	1 in 321		28 to 100	27 to 100
318	705	2.7	47.4	45.4	1 in 106	1 in 110	115	286	3.0	26.4	26.1	1 in 237		29 to 100	31 to 100
180	265	1.3	37.6	54.9	1 in 86	1 in 102	88	94	0.2	19.2	31.2		1 in 253	34 to 100	29 to 100
138	291	2.5	34.7	37.9	1 in 109	1 in 131	59	93	1.5	18.8	20.5		1 in 407	30 to 100	22 to 100
4,156	3,113	-1.0	27.6	28.5	1 in 78	1 in 151	2,040	1,221	-1.7	15.3	16.4		1 in 423	33 to 100	25 to 100
494	549	0.4	37.5	43.1	1 in 14	1 in 23	249	256	0.1	26.3	30.9	1 in 26	1 in 45	45 to 100	42 to 100
10,916	7,200	-1.4	31.0	30.2	1 in 51	1 in 144	3,982	3,550	-0.4	18.8	15.9	1 in 131		28 to 100	32 to 100
65	125	2.2	45.6	43.0	1 in 75	1 in 117	27	49	2.0	27.3	24.4	1 in 152	1 in 245	32 to 100	30 to 100
2,100	2,314	0.3	46.3	57.2	1 in 30	1 in 37	878	812	-0.3	25.0	32.6	1 in 60	1 in 88	32 to 100	29 to 100
1,614	3,148	2.2	28.4	34.2	1 in 18	1 in 25	1,049	1,933	2.0	20.2	24.2	1 in 25	1 in 35	53 to 100	52 to 100
8	16	2.5	71.9	66.1	1 in 18	1 in 22	2	6	2.9	53.5	46.8	1 in 43	1 in 50	30 to 100	31 to 100
861	1,347	1.5	51.0	36.9	1 in 73	1 in 94	339	677	2.3	33.8	21.2	1 in 141	1 in 171	33 to 100	35 to 100
3,075	3,276	0.2	51.9	33.6	1 in 42	1 in 90	1,331	1,456	0.3	38.1	19.7		1 in 195	37 to 100	30 to 100
42	54	0.8	69.6	65.1	1 in 59	1 in 113	9	13	1.1	41.8	39.7	1 in 166	1 in 299	21 to 100	22 to 100
337	512	1.4	39.0	65.1	1 in 39	1 in 44	166	201	0.6	21.8	45.1	1 in 70	1 in 88	36 to 100	36 to 100

(continued on next page)

			Breast o	ancer in	ncidence					Annualized	Breas	t cancer	mortalit	Y Risk of		
	No. of cases, 1980	No. of cases,	rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	rate of change	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	mortality for all women, 1980	mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010
Laos	171	859	5.4	47.6	53.4	1 in 55	1 in 23	66	193	3.6	35.2	36.6	1 in 125	1 in 86	33 to 100	19 to 100
Latvia	535	983	2.0	32.6	19.8	1 in 30	1 in 17	259	400	1.4	24.1	11.8	1 in 61	1 in 46	39 to 100	27 to 100
Lebanon	337	1,860	5.7	44.4	38.8	1 in 26	1 in 10	122	515	4.8	34.3	27.9	1 in 65	1 in 33	32 to 100	23 to 100
Lesotho	57	172	3.7	19.5	27.8	1 in 54	1 in 32	32	69	2.6	15.7	21.0	1 in 93	1 in 77	47 to 100	33 to 100
Liberia	64	240	4.4	43.3	49.1	1 in 66	1 in 40	30	98	3.9	38.3	43.3	1 in 130	1 in 91	44 to 100	39 to 100
Libya	103	883	7.2	55.1	54.1	1 in 60	1 in 24	30	216	6.5	44.6	41.6	1 in 178	1 in 85	28 to 100	22 to 100
Lithuania	688	1,251	2.0	37.4	22.2	1 in 29	1 in 19	343	526	1.4	28.2	13.4	1 in 57	1 in 47	40 to 100	28 to 100
Luxembourg	250	413	1.7	20.4	16.1	1 in 9	1 in 8	81	84	0.1	13.5	8.8	1 in 27	1 in 41	24 to 100	13 to 100
Macedonia	332	798	2.9	42.6	28.8	1 in 22	1 in 15	150	296	2.3	31.7	18.0	1 in 45	1 in 40	38 to 100	27 to 100
Madagascar	435	1,864	4.8	38.8	38.2	1 in 43	1 in 26	211	704	4.0	33.7	32.7	1 in 84	1 in 62	45 to 100	35 to 100
Malawi	206	854	4.7	42.7	42.9	1 in 67	1 in 41	106	338	3.9	37.0	35.4	1 in 122	1 in 96	47 to 100	36 to 100
Malaysia	1,529	8,429	5.7	52.6	47.5	1 in 26	1 in 14	455	1,456	3.9	38.6	31.6	1 in 72	1 in 65	26 to 100	14 to 100
Maldives	5	23	5.2	68.1	60.8	1 in 88	1 in 52	2	4	3.4	55.6	41.2	1 in 219	1 in 216	31 to 100	17 to 100
Mali	301	850	3.5	46.4	54.3	1 in 65	1 in 43	151	298	2.3	41.9	47.7	1 in 120	1 in 109	48 to 100	34 to 100
Malta	106	227	2.5	29.8	15.5	1 in 14	1 in 12	53	83	1.5	21.5	9.2	1 in 27	1 in 35	40 to 100	25 to 100
Marshall Islands	1	8	7.9	52.2	55.7	1 in 69	1 in 24	0	1	6.4	38.1	38.7	1 in 194	1 in 103	25 to 100	16 to 100
Mauritania	67	309	5.1	43.7	48.6	1 in 52	1 in 30	31	102	4.0	39.0	42.4	1 in 103	1 in 80	44 to 100	32 to 100
Mauritius	91	531	5.9	42.9	46.0	1 in 32	1 in 14	30	102	4.1	29.0	28.6	1 in 85	1 in 65	26 to 100	15 to 100
Mexico	3,862	20,912	5.6	42.9	40.5	1 in 45	1 in 22	1,499	5,505	4.3	34.5	29.9	1 in 107	1 in 77	32 to 100	21 to 100
Micronesia, Federated States of	2	10	5.1	37.5	43.1	1 in 77	1 in 34	1	2	3.7	25.0	26.9	1 in 201	1 in 130	27 to 100	18 to 100
Moldova	581	1,064	2.0	45.2	25.1	1 in 36	1 in 20	278	447	1.6	35.4	16.6	1 in 70	1 in 47	42 to 100	32 to 100
Mongolia	13	69	5.4	33.0	45.8	1 in 395	1 in 157	7	23	4.0	25.1	34.5	1 in 747	1 in 433	44 to 100	30 to 100
Montenegro	118	262	2.7	30.2	26.4	1 in 21	1 in 15	58	99	1.8	20.1	16.2	1 in 41	1 in 39	37 to 100	27 to 100
Morocco	1,219	6,051	5.3	49.5	48.6	1 in 44	1 in 21	530	1,897	4.3	40.0	36.9	1 in 92	1 in 61	40 to 100	28 to 100
Mozambique	618	2,430	4.6	38.7	45.6	1 in 48	1 in 26	331	912	3.4	34.3	39.6	1 in 84	1 in 63	50 to 100	35 to 100
Myanmar	2,452	10,951	5.0	46.4	52.5	1 in 41	1 in 20	1,063	2,744	3.2	34.9	36.9	1 in 84	1 in 67	37 to 100	21 to 100
Namibia	26	162	6.1	28.0	35.4	1 in 88	1 in 37	11	49	4.8	23.1	28.6	1 in 190	1 in 114	38 to 100	27 to 100
Nepal	604	2,182	4.3	51.9	51.3	1 in 69	1 in 45	288	724	3.1	44.5	41.5	1 in 131	1 in 119	45 to 100	31 to 100
Netherlands	6,928	12,628	2.0	21.6	19.7	1 in 11	1 in 9	2,905	3,706	0.8	14.0	11.4	1 in 26	1 in 35	30 to 100	19 to 100
New Zealand	1,209	2,807	2.8	25.9	25.9	1 in 12	1 in 10	507	680	1.0	17.2	16.6	1 in 28	1 in 39	31 to 100	19 to 100
Nicaragua	103	548	5.6	40.7	40.3	1 in 68	1 in 31	45	185	4.7	33.3	30.1	1 in 143	1 in 86	37 to 100	27 to 100
Niger	164	566	4.1	49.5	49.7	1 in 71	1 in 58	80	214	3.3	44.9	43.9	1 in 132	1 in 137	47 to 100	36 to 100
Nigeria	2,713	10,757	4.6	40.3	47.5	1 in 67	1 in 38	1,280	3,550	3.4	35.1	40.5	1 in 132	1 in 105	44 to 100	31 to 100
Norway	1,930	3,092	1.6	17.4	19.6	1 in 13	1 in 10	728	714	-0.1	9.0	10.6	1 in 35	1 in 50	25 to 100	15 to 100
Occupied Palestinian																
Territory	48	308	6.2	57.7	56.5	1 in 68	1 in 32	20	97	5.2	49.1	46.0	1 in 143	1 in 87	40 to 100	30 to 100
Oman	39	292	6.7	63.2	60.9	1 in 74	1 in 22	13	65	5.4	52.7	47.5	1 in 191	1 in 85	33 to 100	21 to 100
Pakistan	5,567	33,415	6.0	50.1	50.8	1 in 36	1 in 16	2,497	9,970	4.6	42.0	40.6	1 in 71	1 in 46	41 to 100	27 to 100
Panama Papua New Guinea	153 171	1,002	4.8 5.9	36.0	31.4	1 in 32 1 in 35	1 in 20	66	192	3.6 4.6	28.7	21.8	1 in 71 1 in 84	1 in 66 1 in 57	35 to 100 28 to 100	22 to 100 19 to 100
	300	1,489	5.3	28.4	29.9	1 in 24	1 in 12	131	482	4.3	23.4	21.5	1 in 51	1 in 36	35 to 100	24 to 100
Paraguay Peru	1,438		3.0	39.5	37.0	1 in 24	1 in 12	531	927	1.9	31.1	25.9	1 in 51	1 in 105	33 to 100	24 to 100 22 to 100
Philippines	3,736	3,502 25,736	6.4	51.8	50.4	1 in 29	1 in 30	1,220	5,448	5.0	36.9	34.8	1 in 71 1 in 82	1 in 105	28 to 100	18 to 100
															36 to 100	
Poland	7,641	15,051	2.3	32.3 28.0	19.4 22.3	1 in 23	1 in 17	3,852	5,614	1.3	18.5 19.9	10.4	1 in 45	1 in 46	36 to 100 32 to 100	25 to 100
Portugal	3,065	6,470	2.5			1 in 18	1 in 13	1,268	1,983	1.5		13.1	1 in 43	1 in 44		21 to 100
Qatar	13	177	8.6	58.1	67.0	1 in 20	1 in 13	1 005	30	7.3	45.9	56.3	1 in 66	1 in 56	23 to 100	17 to 100
Romania	4,589	9,841	2.5	38.6	24.9	1 in 25	1 in 14	1,885	3,115	1.7	23.7	12.0	1 in 58	1 in 46	35 to 100	24 to 100
Russia	21,184	51,003	2.9	37.9	26.0	1 in 41	1 in 19	10,347	22,263	2.6	28.4	16.7	1 in 80	1 in 44	41 to 100	31 to 100
Rwanda	197	977	5.3	41.6	40.5	1 in 53	1 in 24	99	359	4.3	37.1	34.7	1 in 97	1 in 60	47 to 100	34 to 100

^{*} The percent of cases in ages 15-49 is among women with cancer. † The percent of deaths in ages 15-49 is among women with cancer.

		Cervica	ıl cancer ir	ncidence			Cervical cancer mortality										
No. of cases,	No. of cases, 2010	Annualized rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	Annualized rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	Risk of mortality for all women, 1980	Risk of mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010		
338	394	0.5	48.3	52.1	1 in 28	1 in 48	157	158	0.0	32.3	33.5	1 in 51	1 in 96	38 to 100	33 to 100		
356	268	-0.9	32.0	37.4	1 in 45	1 in 63	173	129	-1.0	15.9	18.2	1 in 87	1 in 138	32 to 100	31 to 100		
76	113	1.3	52.9	40.6	1 in 122	1 in 170	25	40	1.6	30.5	22.2	1 in 308	1 in 407	27 to 100	27 to 100		
113	172	1.4	26.7	38.5	1 in 29	1 in 34	78	106	1.0	18.5	26.1	1 in 39	1 in 50	56 to 100	52 to 100		
174	291	1.7	56.4	56.4	1 in 29	1 in 37	94	175	2.1	43.4	45.1	1 in 45	1 in 52	52 to 100	58 to 100		
42	106	3.1	54.7	48.4	1 in 146	1 in 186	11	35	3.7	31.4	27.2	1 in 380	1 in 444	24 to 100	25 to 100		
502	476	-0.2	38.5	45.0	1 in 39	1 in 50	240	209	-0.5	20.2	24.1	1 in 75	1 in 116	34 to 100	32 to 100		
21	22	0.2	36.3	25.9	1 in 100	1 in 138	8	9	0.2	18.8	10.5	1 in 248	1 in 351	25 to 100	22 to 100		
135	190	1.1	54.0	37.8	1 in 56	1 in 63	53	86	1.6	33.5	21.2	1 in 118	1 in 131	31 to 100	30 to 100		
1,061	2,092	2.3	44.3	42.9	1 in 19	1 in 23	635	1,278	2.3	32.7	31.9	1 in 28	1 in 33	53 to 100	54 to 100		
891	1,631	2.0	43.3	43.8	1 in 16	1 in 22	560	1,018	2.0	32.2	32.2	1 in 23	1 in 32	56 to 100	55 to 100		
847	1,678	2.3	47.9	41.9	1 in 42	1 in 60	327	593	2.0	29.5	24.2	1 in 88	1 in 136	31 to 100	26 to 100		
4	2	-2.4	63.5	51.2	1 in 84	1 in 446	2	1	-2.7	52.8	36.7	1 in 146	1 in 880	37 to 100	30 to 100		
841	1,351	1.6	53.7	60.2	1 in 25	1 in 29	491	722	1.3	42.1	47.2	1 in 37	1 in 45	56 to 100	53 to 100		
21	25	0.6	48.3	31.4	1 in 78	1 in 109	8	11	0.9	29.9	15.5	1 in 181	1 in 260	32 to 100	28 to 100		
3	11	4.9	64.6	62.9	1 in 25	1 in 20	1	3	4.9	44.5	41.9	1 in 57	1 in 47	30 to 100	29 to 100		
116	238	2.4	56.5	57.7	1 in 35	1 in 43	63	124	2.3	43.7	44.1	1 in 55	1 in 68	52 to 100	51 to 100		
89	137	1.4	42.2	38.9	1 in 31	1 in 47	37	54	1.2	24.9	21.3	1 in 62	1 in 106	31 to 100	27 to 100		
9,021	12,940	1.2	46.6	40.1	1 in 20	1 in 36	4,134	5,751	1.1	35.5	28.5	1 in 39	1 in 71	43 to 100	40 to 100		
8	11	1.2	50.2	49.6	1 in 24	1 in 32	3	4	1.2	30.1	29.9	1 in 51	1 in 69	32 to 100	31 to 100		
569	404	-1.1	49.7	51.6	1 in 37	1 in 56	239	175	-1.0	30.6	31.2	1 in 77	1 in 121	34 to 100	35 to 100		
265	387	1.3	46.6	60.3	1 in 19	1 in 27	128	154	0.6	27.4	38.9	1 in 33	1 in 51	37 to 100	34 to 100		
27	44	1.7	49.7	47.3	1 in 104	1 in 93	11	17	1.7	26.9	26.3	1 in 234	1 in 227	30 to 100	30 to 100		
1,631	2,344	1.2	48.0	45.3	1 in 34	1 in 56	678	940	1.1	29.8	27.1	1 in 68	1 in 119	34 to 100	31 to 100		
1,478	3,280	2.7	43.3	51.9	1 in 21	1 in 20	955	1,916	2.3	33.2	39.8	1 in 29	1 in 30	59 to 100	55 to 100		
3,084	3,898	0.8	46.6	51.5	1 in 32	1 in 53	1,589	1,708	0.2	32.1	34.5	1 in 54	1 in 99	42 to 100	36 to 100		
55	98	1.9	27.4	35.0	1 in 43	1 in 63	33	54	1.7	18.3	23.9	1 in 66	1 in 101	47 to 100	45 to 100		
1,287	1,567	0.7	52.2	46.9	1 in 34	1 in 61	585	697	0.6	36.6	30.8	1 in 61	1 in 115	39 to 100	36 to 100		
892	825	-0.3	38.6	39.7	1 in 84	1 in 138	352	313	-0.4	17.9	17.6	1 in 208	1 in 395	26 to 100	24 to 100		
252	213	-0.5	52.9	46.5	1 in 62	1 in 125	97	73	-1.0	29.1	25.5	1 in 144	1 in 364	31 to 100	25 to 100		
480	776	1.6	47.9	44.6	1 in 16	1 in 23	239	396	1.7	37.8	33.4	1 in 27	1 in 40	48 to 100	48 to 100		
687	1,420	2.4	62.0	57.6	1 in 21	1 in 26	375	811	2.6	50.2	45.7	1 in 31	1 in 38	55 to 100	56 to 100		
5,714	11,431	2.3	53.0	56.7	1 in 37	1 in 40	3,158	5,952	2.1	40.0	42.8	1 in 57	1 in 65	52 to 100	50 to 100		
383	351	-0.3	39.1	43.7	1 in 61	1 in 90	145	117	-0.7	18.4	19.2	1 in 160	1 in 282	26 to 100	22 to 100		
34	74	2.6	55.8	50.7	1 in 91	1 in 121	13	30	2.7	35.7	31.7	1 in 177	1 in 236	34 to 100	32 to 100		
31	46	1.4	54.0	54.0	1 in 85	1 in 126	10	14	1.1	32.0	29.4	1 in 193	1 in 313	28 to 100	24 to 100		
2,912	4,663	1.6	45.5	45.5	1 in 70	1 in 115	1,279	1,848	1.2	28.7	28.0	1 in 132	1 in 239	36 to 100	33 to 100		
248	415	1.7	46.9	42.6	1 in 22	1 in 35	121	188	1.5	36.0	30.6	1 in 39	1 in 68	46 to 100	41 to 100		
356	774	2.6	48.2	48.6	1 in 20	1 in 24	147	311	2.5	30.3	30.2	1 in 37	1 in 46	34 to 100	33 to 100		
422	998	2.9	40.3	39.8	1 in 19	1 in 21	219	502	2.8	30.8	28.9	1 in 33	1 in 36	48 to 100	46 to 100		
2,464	2,841	0.5	43.3	37.1	1 in 18	1 in 37	1,207	1,378	0.4	33.3	26.4	1 in 31	1 in 68	45 to 100	43 to 100		
3,282	6,939	2.5	54.6	55.7	1 in 38	1 in 47	1,264	2,540	2.3	35.2	36.4	1 in 78	1 in 101	33 to 100	31 to 100		
5,244	4,441	-0.6	41.7	32.7	1 in 35	1 in 58	2,325	1,899	-0.7	23.1	17.0		1 in 134	32 to 100	28 to 100		
1,066	845	-0.8	34.0	35.4	1 in 49	1 in 92	483	401	-0.6	20.5	19.9	1 in 104	1 in 205	32 to 100	31 to 100		
4	15	4.3	52.6	53.3	1 in 68	1 in 145	1 022	3	4.1	28.8	31.7		1 in 425	20 to 100	20 to 100		
4,717	4,662	0.0	47.1	45.7	1 in 25	1 in 31	1,933	1,865	-0.1	27.1	24.3	1 in 55	1 in 74	32 to 100	29 to 100		
20,690	20,072	-0.1	34.6	45.1	1 in 40	1 in 50	8,951	8,812	-0.1	17.7	23.2	1 in 86	1 in 108	30 to 100	32 to 100		
421	765	2.0	46.0	45.3	1 in 26	1 in 32	256	455	1.9	35.4	33.5	1 in 37	1 in 46	56 to 100	54 to 10		

(continued on next page)

	Breast cancer incidence								Breast cancer mortality										
	No. of cases,	No. of cases,	Annualized rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	Annualized rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	Risk of mortality for all women, 1980	Risk of mortality for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010			
Saint Lucia	14	48	4.2	22.5	31.1	1 in 21	1 in 17	6	15	3.1	18.2	21.6	1 in 46	1 in 55	34 to 100	22 to 100			
Saint Vincent and the Grenadines	10	36	4.1	16.8	38.3	1 in 28	1 in 14	5	11	2.8	14.4	28.8	1 in 60	1 in 44	37 to 100	23 to 100			
Samoa	7	17	3.0	58.6	52.8	1 in 48	1 in 38	2	4	2.6	42.7	30.4	1 in 129	1 in 156	26 to 100	16 to 100			
Sao Tome and	,	17	3.0	36.0	32.8	111146	1 111 36	2	4	2.1	42.7	30.4	1 111 123	1 111 130	20 10 100	10 10 100			
Principe	5	17	4.3	22.2	29.2	1 in 50	1 in 21	2	6	3.2	18.1	23.2	1 in 95	1 in 54	44 to 100	32 to 100			
Saudi Arabia	228	2,211	7.6	55.7	58.8	1 in 99	1 in 35	67	490	6.6	44.7	47.0	1 in 295	1 in 132	28 to 100	21 to 100			
Senegal	171	809	5.2	44.2	50.7	1 in 68	1 in 35	80	270	4.1	39.6	44.4	1 in 133	1 in 93	44 to 100	32 to 100			
Serbia	2,425	4,481	2.0	30.9	20.4	1 in 19	1 in 14	1,038	1,589	1.4	22.4	12.7	1 in 42	1 in 40	35 to 100	25 to 100			
Seychelles	5	21	4.7	52.3	54.6	1 in 30	1 in 11	1	3	2.7	37.2	36.8	1 in 93	1 in 58	23 to 100	13 to 100			
Sierra Leone	147	417	3.5	43.5	53.2	1 in 53	1 in 35	71	151	2.5	39.1	47.9	1 in 99	1 in 85	46 to 100	35 to 100			
Singapore	349	1,213	4.2	53.8	41.0	1 in 24	1 in 17	126	285	2.7	33.7	26.4	1 in 55	1 in 65	37 to 100	20 to 100			
Slovakia	1,031	2,118	2.4	24.4	19.3	1 in 23	1 in 16	523	808	1.5	16.8	11.3	1 in 44	1 in 43	39 to 100	26 to 100			
Slovenia	577	1,192	2.4	26.3	18.3	1 in 18	1 in 12	293	419	1.2	17.6	7.7	1 in 34	1 in 41	39 to 100	21 to 100			
Solomon Islands	5	34	6.2	47.4	51.6	1 in 85	1 in 41	2	8	4.9	34.0	34.8	1 in 215	1 in 149	28 to 100	19 to 100			
Somalia	307	674	2.6	38.5	39.4	1 in 47	1 in 32	151	262	1.8	33.8	34.1	1 in 89	1 in 75	46 to 100	36 to 100			
South Africa	2,279	9,100	4.6	28.1	26.8	1 in 27	1 in 17	961	2,794	3.6	22.4	19.7	1 in 60	1 in 52	36 to 100	25 to 100			
Spain	10,245	22,425	2.6	29.2	24.2	1 in 20	1 in 15	4,171	6,543	1.5	18.8	13.9	1 in 47	1 in 56	30 to 100	19 to 100			
Sri Lanka	689	2,852	4.7	47.3	36.2	1 in 65	1 in 37	250	716	3.5	33.6	20.0	1 in 154	1 in 141	30 to 100	17 to 100			
Sudan	951	3,595	4.4	40.1	37.2	1 in 49	1 in 31	456	1,218	3.3	34.9	31.2	1 in 95	1 in 83	44 to 100	31 to 100			
Suriname	39	137	4.2	18.7	28.3	1 in 21	1 in 14	17	44	3.3	15.0	20.2	1 in 47	1 in 41	32 to 100	23 to 100			
Swaziland	20	117	5.8	24.6	34.7	1 in 53	1 in 23	10	38	4.5	19.9	27.0	1 in 102	1 in 66	42 to 100	28 to 100			
Sweden	4,635	7,042	1.4	17.8	17.0	1 in 12	1 in 9	1,558	1,542	0.0	10.1	8.4	1 in 35	1 in 49	22 to 100	13 to 100			
Switzerland	3,985	6,046	1.4	21.4	19.6	1 in 10	1 in 9	1,444	1,556	0.2	11.1	8.6	1 in 28	1 in 40	22 to 100	14 to 100			
Syria	182	1,186	6.2	49.2	48.6	1 in 116	1 in 52	77	355	5.1	39.3	37.9	1 in 260	1 in 156	38 to 100	27 to 100			
Taiwan	1,230	9,261	6.7	51.5	43.5	1 in 45	1 in 16	344	1,469	4.8	36.6	26.9	1 in 134	1 in 90	24 to 100	12 to 100			
Tajikistan	154	488	3.8	48.8	65.1	1 in 76	1 in 51	72	161	2.7	38.8	54.4	1 in 147	1 in 133	42 to 100	32 to 100			
Tanzania	738	3,598	5.3	40.5	39.2	1 in 55	1 in 28	372	1,300	4.2	35.9	33.5	1 in 102	1 in 72	47 to 100	33 to 100			
Thailand	2,256	16,660	6.7	56.3	43.9	1 in 69	1 in 24	706	3,473	5.3	42.8	26.3	1 in 190	1 in 107	28 to 100	16 to 100			
Timor-Leste	35	70	2.3	60.4	50.8	1 in 39	1 in 40	12	17	1.1	47.1	35.6	1 in 93	1 in 139	31 to 100	21 to 100			
Togo	88	530	6.0	40.2	49.0	1 in 70	1 in 31	43	198	5.1	35.0	42.6	1 in 135	1 in 75	44 to 100	35 to 100			
Tonga	4	9	2.9	42.3	39.9	1 in 67	1 in 41	1	2	1.7	29.5	21.7	1 in 170	1 in 168	28 to 100	16 to 100			
Trinidad and																			
Tobago	167	420	3.1	30.9	34.2	1 in 19	1 in 16	81	151	2.1	25.1	25.4	1 in 38		38 to 100	26 to 100			
Tunisia	382	1,877	5.3	48.2	43.1	1 in 47	1 in 24	153	533	4.1	39.5	32.6	1 in 105	1 in 78	37 to 100	25 to 100			
Turkey	2,631	15,171	5.8	52.7	49.8	1 in 50	1 in 21	984	3,980	4.7	42.6	37.6	1 in 121	1 in 72	35 to 100	24 to 100			
Turkmenistan	120	609	5.4	50.4	63.5	1 in 74	1 in 35	53	175	4.0	39.4	50.5	1 in 150	1 in 103	40 to 100	27 to 100			
Uganda	532	2,161	4.7	43.8	47.4	1 in 52	1 in 31	272	776	3.5	39.1	40.9	1 in 95	1 in 78	48 to 100	34 to 100			
Ukraine	9,410	18,502	2.3	38.6	25.0	1 in 35	1 in 18	4,350	7,205	1.7	28.5	15.5	1 in 73	1 in 46	39 to 100	28 to 100			
United Arab Emirates	24	594	10.7	64.0	76.6	1 in 49	1 in 19	6	103	9.4	52.4	68.3	1 in 161	1 in 79	25 to 100	19 to 100			
United Kingdom	30,812	41,453	1.0	20.6	18.4	1 in 12	1 in 11		13,186	-0.4	12.5	10.0	1 in 25	1 in 37	33 to 100	20 to 100			
			2.1		19.4					0.6		12.5		1 in 46		13 to 100			
United States	127,425	241,249		19.7 24.4	20.1	1 in 9 1 in 8	1 in 8 1 in 7	36,890 646	43,553 719	0.6	14.7 16.8	11.6	1 in 32 1 in 22	1 in 46	23 to 100 28 to 100	13 to 100			
Uruguay	1,857	2,916	1.5																
Uzbekistan	710	3,495	5.3	47.5	58.7 51.7	1 in 72	1 in 32	352	1,160	4.0	37.3 34.4	46.5 34.4	1 in 135	1 in 83	44 to 100	31 to 100 17 to 100			
Vanuatu	1 215	18	5.8	48.8	51.7	1 in 71	1 in 38	1	1 652	4.3			1 in 192	1 in 153	26 to 100				
Venezuela	1,315	6,059	5.1	42.0	37.7	1 in 27	1 in 18	483	1,652	4.1	34.2	27.5	1 in 65	1 in 61		22 to 100			
Vietnam	2,139	13,119	6.0	42.2	51.0	1 in 80	1 in 31	880	2,937	4.0	30.5	34.4	1 in 179	1 in 121		19 to 100			
Yemen	268	1,730	6.2	56.7	54.8	1 in 73	1 in 32	118	548	5.1	48.4	44.4	1 in 150	1 in 87	42 to 100	30 to 100			
Zambia	235	1,007	4.9	39.9	43.2	1 in 54	1 in 28	108	359	4.0	35.0	37.1	1 in 108	1 in 73	43 to 100	33 to 100			
Zimbabwe	352	1,804	5.4	29.3	33.1	1 in 37	1 in 16	195	806	4.7	24.3	26.0	1 in 64	1 in 35	48 to 100	38 to 100			

^{*} The percent of cases in ages 15-49 is among women with cancer. † The percent of deaths in ages 15-49 is among women with cancer.

Cervical cancer incidence								Cervical cancer mortality										
Annualized								Risk of										
No. of cases,	No. of cases, 2010	rate of change (%), 1980-2010	Cases in ages 15-49 (%), 1980*	Cases in ages 15-49 (%), 2010*	Risk of incidence, 1980	Risk of incidence, 2010	No. of deaths, 1980	No. of deaths, 2010	rate of change (%), 1980-2010	Deaths in ages 15-49 (%), 1980†	Deaths in ages 15-49 (%), 2010†	mortality for all women, 1980	for all women, 2010	Mortality- to- incidence ratio, 1980	Mortality- to- incidence ratio, 2010			
19	24	0.7	31.0	37.8	1 in 17	1 in 34	10	11	0.4	23.3	28.7	1 in 30	1 in 64	46 to 100	41 to 100			
17	15	-0.4	29.1	17.5	1 in 16	1 in 26	10	8	-0.7	19.7	12.3	1 in 26	1 in 45	50 to 100	42 to 100			
10	9	-0.3	61.1	50.2	1 in 41	1 in 77	3	3	0.1	39.7	29.0	1 in 93	1 in 183	32 to 100	29 to 100			
_				40.0	4. 4-	4 : 65					27.0	4 : 60	4	F0. 100	50. 400			
5 139	6 271	0.4 2.2	32.6 55.2	40.8 53.8	1 in 47 1 in 160	1 in 65 1 in 253	3	4 78	0.2 2.4	21.9	27.8 30.4	1 in 68	1 in 96 1 in 627	53 to 100 24 to 100	52 to 100 24 to 100			
499	769	1.4	56.6	59.4	1 in 28	1 in 41	270	400	1.3	44.4	46.1	1 in 43	1 in 65	53 to 100	51 to 100			
1,524	1,368	-0.4	52.5	43.2	1 in 33	1 in 46	565	577	0.1	30.7	22.4	1 in 77	1 in 107	30 to 100	30 to 100			
18	17	-0.2	65.3	66.6	1 in 11	1 in 16	5	4	-0.6	41.9	41.0	1 in 26	1 in 44	28 to 100	24 to 100			
301	468	1.5	55.9	61.1	1 in 30	1 in 35	170	256	1.4	44.2	49.7	1 in 45	1 in 53	55 to 100	55 to 100			
226	238	0.2	46.9	35.6	1 in 34	1 in 79	88	90	0.1	26.8	18.6	1 in 72	1 in 179	31 to 100	26 to 100			
542	596	0.3	50.2	48.4	1 in 48	1 in 60	208	218	0.2	27.9	25.7	1 in 111	1 in 155	30 to 100	27 to 100			
224	154	-1.2	43.5	39.8	1 in 46	1 in 96	93	64	-1.2	21.9	18.3	1 in 104	1 in 247	29 to 100	26 to 100			
31	63	2.4	59.5	57.7	1 in 18	1 in 24	12	24	2.4	39.9	37.6	1 in 36	1 in 50	33 to 100	33 to 100			
779	844	0.3	43.5	43.8	1 in 20	1 in 26	471	523	0.4	32.4	33.3	1 in 29	1 in 37	54 to 100	56 to 100			
3,245	5,806	1.9	38.9	40.8	1 in 21	1 in 30	1,739	2,996	1.8	25.3	25.8	1 in 34	1 in 49	45 to 100	43 to 100			
2,649	2,303	-0.5	31.9	40.7	1 in 75	1 in 140	1,084	890	-0.7	17.2	21.2	1 in 179	1 in 384	28 to 100	26 to 100			
237	590	3.0	51.7	34.9	1 in 196	1 in 161	100	259	3.2	34.0	19.5	1 in 379	1 in 323	35 to 100	30 to 100			
1,939	2,539	0.9	44.8	41.2	1 in 26	1 in 44	1,148	1,458	0.8	33.2	29.2	1 in 37	1 in 68	53 to 100	50 to 100			
83	84	0.0	45.2	36.7	1 in 12	1 in 25	39	42	0.2	33.8	26.0	1 in 22	1 in 45	44 to 100	42 to 100			
63	116	2.0	33.7	47.8	1 in 19	1 in 26	39	60	1.5	22.8	32.6	1 in 27	1 in 43	51 to 100	46 to 100			
589	521	-0.4	41.6	38.0	1 in 88	1 in 124	271	226	-0.6	15.8	13.1	1 in 188	1 in 317	30 to 100	25 to 100			
517	521	0.0	32.7	25.2	1 in 72	1 in 100	175	182	0.1	15.2	10.3	1 in 215	1 in 325	22 to 100	19 to 100			
44	69	1.5	53.0	51.6	1 in 499	1 in 934	16	24	1.3	30.7		1 in 1078		32 to 100	30 to 100			
1,719 226	2,368 368	1.1	41.8 52.0	36.0 72.2	1 in 29 1 in 54	1 in 57 1 in 72	654 98	845 133	0.9	25.7 30.3	17.7 53.3	1 in 64 1 in 99	1 in 145 1 in 150	29 to 100 36 to 100	23 to 100 36 to 100			
1,699	4,310	3.1	44.9	44.6	1 in 25	1 in 25	1,043	2,534	3.0	33.9	32.6	1 in 36	1 in 37	55 to 100	53 to 100			
3,314	8,565	3.2	60.7	43.2	1 in 48	1 in 46	1,206	3,299	3.4	42.3	24.0	1 in 106	1 in 105	34 to 100	28 to 100			
37	67	2.0	62.0	49.4	1 in 38	1 in 40	14	29	2.3	43.6	32.9	1 in 71	1 in 75	36 to 100	35 to 100			
207	425	2.4	52.6	57.7	1 in 35	1 in 42	117	239	2.4	40.1	45.0	1 in 53	1 in 65	53 to 100	55 to 100			
9	9	-0.2	53.3	44.5	1 in 30	1 in 45	4	4	0.0	34.6	23.0	1 in 62	1 in 101	33 to 100	29 to 100			
160	186	0.5	33.5	36.1	1 in 21	1 in 37	77	80	0.1	23.8	24.5	1 in 39	1 in 76	42 to 100	37 to 100			
232	366	1.5	46.7	39.4	1 in 72	1 in 118	92	144	1.5	30.3	22.9	1 in 145		32 to 100	28 to 100			
1,202	2,210	2.0	41.5	36.6	1 in 98	1 in 127	466	827	1.9	23.8	20.0	1 in 205	1 in 287	29 to 100	27 to 100			
194	302	1.5	51.4	66.2	1 in 46	1 in 70	80	102	0.8	29.7	42.8	1 in 91	1 in 154	34 to 100	31 to 100			
1,271	2,540	2.3	46.9	50.6	1 in 24	1 in 27	785	1,453	2.1	36.7	38.3	1 in 34	1 in 42	57 to 100	53 to 100			
7,720	6,908	-0.4	35.9	48.3	1 in 41	1 in 48	3,435	2,826	-0.7	18.5	26.1	1 in 87	1 in 114	31 to 100	31 to 100			
13	59	5.1	65.7	74.3	1 in 94	1 in 171	3	12	4.8	38.1	55.7	1 in 273	1 in 467	21 to 100	22 to 100			
6,091	3,561	-1.8	38.5	48.2	1 in 56	1 in 119	2,642	1,340	-2.3	18.4	22.3	1 in 131	1 in 336	30 to 100	26 to 100			
16,622	16,486	0.0	45.6	46.7	1 in 75	1 in 116	5,920	5,620	-0.2	22.7	24.3	1 in 201	1 in 343	25 to 100	24 to 100			
514	450	-0.4	48.2	47.2	1 in 31	1 in 46	207	176	-0.5	29.7	26.9	1 in 71	1 in 118	32 to 100	30 to 100			
1,051	1,780	1.8	48.2	67.4	1 in 49	1 in 67	487	658	1.0	28.7	47.5	1 in 90	1 in 140	37 to 100	35 to 100			
11	26	2.7	61.4	58.1	1 in 24	1 in 29	4	9	2.7	40.3	37.1	1 in 52	1 in 65	31 to 100	30 to 100			
2,000	4,032	2.3	52.4	50.2	1 in 20	1 in 30	846	1,699	2.3	40.4	37.5	1 in 39	1 in 62	42 to 100	41 to 100			
3,638	7,175	2.3	38.3	40.7	1 in 44	1 in 48	1,910	3,201	1.7	23.2	23.2	1 in 73	1 in 91	39 to 100	32 to 100			
370	614	1.7	54.3	49.2	1 in 51	1 in 83	152	246	1.6	34.8	30.2	1 in 95	1 in 165	35 to 100	32 to 100			
526 1.050	1,768	4.0	45.2 31.7	50.6	1 in 25	1 in 17	302 715	998	4.0	33.1	37.2	1 in 38	1 in 26	52 to 100	53 to 100			
1,050	1,534	1.3	31.7	34.1	1 in 13	1 in 19	715	1,046	1.3	22.7	24.1	1 in 17	1 in 26	57 to 100	58 to 100			

References

- 1 United Nations. Population and Development: Programme of action, adopted at the International Conference on Population and Development. Cairo: United Nations, 1994 Sept 5-13.
- 2 Lozano R, Wang H, Foreman K, Rajaratnam JK, Naghavi M, Marcus JR, Dwyer-Lindgren L, Lofgren K, Phillips D, Atkinson C, Lopez A, Murray CJL. Progress on maternal and child mortality: which countries will achieve MDGs 4 and 5? *The Lancet*. 2011.
- 3 Forouzanfar MH, Foreman KJ, Delossantos AM, Lozano R, Lopez, Murray CJL, Naghavi M. Breast and cervical cancer trends for 187 countries, 1980-2010: a systematic analysis. *The Lancet*. 2011.
- 4 Peto R. Mortality from breast cancer in UK has decreased suddenly. *British Medical Journal*. 1998; 317(7156):476-476.
- 5 Peto R, Boreham J, Clarke M, Davies C, Beral V. UK and USA breast cancer deaths down 25% in year 2000 at ages 20–69 years. *The Lancet*. 2000; 355(9217):1822.
- 6 Levi F, Lucchini F, Negri E, La Vecchia C. Continuing declines in cancer mortality in the European Union. *Annals of Oncology*. 2007; 18(3):593-595.
- 7 Galukande M, Kiguli-Malwadde E. Rethinking breast cancer screening strategies in resource-limited settings. *African Health Sciences*. 2010; 10(1):89-92.
- 8 Goel V. Tamoxifen and breast cancer prevention: what should you tell your patients? *Canadian Medical Association Journal*. 1998; 158(12):1615-1617
- 9 Vogel VG, Costantino JP, et al.. Effects of tamoxifen vs raloxifene on the risk of developing invasive breast cancer and other disease outcomes: the NSABP Study of Tamoxifen and Raloxifene (STAR) P-2 Trial. *The Journal of the American Medical Association*. 2006; 295: 2727-2741.
- 10 Bosch FX, Lorincz A, Munoz N, Meijer CJ, Shah KV. The causal relation between human papillomavirus and cervical cancer. *Journal of Clinical Pathology.* 2002; 55:244-265.
- 11 Parkin DM, Bray F, Ferlay J, Pisani P. Global cancer statistics. *A Cancer Journal for Clinicians*. 2005; 55:74–108.
- 12 Sawaya GF, Grimes DA. New technologies in cervical cytology screening: a word of caution. *Obstetrics & Gynecology*. 1999; 94:307–310.
- 13 Peto J, Gilham C, Fletcher O, Matthews FE. The cervical cancer epidemic that screening has prevented in the UK. *The Lancet*. 2004; 364 (9430):249–256.
- 14 de Vries E, Karim-Kos HE, Janssen-Heijnen MLG, Soerjomataram I, Kiemeney LA, Coebergh JWW. Explanations for worsening cancer survival. *Nature Reviews Clinical Oncology*. 2010; 7(1):60-63.
- 15 Kahn JA. HPV vaccination for the prevention of cervical intraepithelial neoplasia. *The New England Journal of Medicine*. 2009; 361:271-278
- 16 Lowy DR, Schiller JT. Prophylactic human papillomavirus vaccines. *The Journal of Clinical Investigation*. 2006; 116(5):1167-1173.

- 17 Flaxman AD, Fullman N, Otten MW Jr., Menon M, Cibulskis RE, Ng M, Murray CJL, Lim SS. Rapid scaling-up of insecticide-treated bed net coverage in Africa and its relationship with development assistance for health: a systematic synthesis of supply, distribution, and household survey data. *PLoS Medicine*. 2010; 7(8):e1000328.
- 18 Flaxman AD, Vahdatpour A, Green S, James SL, Murray CJL, the Population Health Metrics Research Consortium (PHMRC). Random forests for verbal autopsy analysis: multisite validation study using clinical diagnostic gold standards. *Population Health Metrics*. 2011; 9:29.
- 19 Murray CJL, Lopez AD, Black R, Ahuja R, Ali SM, Baqui A, et al. Population Health Metrics Research Consortium gold standard verbal autopsy validation study: design, implementation, and development of analysis datasets. *Population Health Metrics*. 2011; 9:27.
- 20 UN Commission on Women's and Children's Health. http://www.itu.int/en/osg/activities/Pages/2011-01-health-commission.aspx.
- 21 US Global Health Initiative. http://www.ghi.gov/.
- 22 Gates MF. Women Deliver Conference Address. 2010. http://www.gatesfoundation.org/speeches-commentary/Pages/melinda-gates-2010-women-deliver.aspx.

REFERENCES 79

Institute for Health Metrics and Evaluation 2301 Fifth Ave., Suite 600 Seattle, WA 98121 USA

Telephone: +1-206-897-2800

Fax: +1-206-897-2899

Email: comms@healthmetricsandevaluation.org

www.healthmetricsandevaluation.org

