CANCER
MORNITORING
INDICATOR

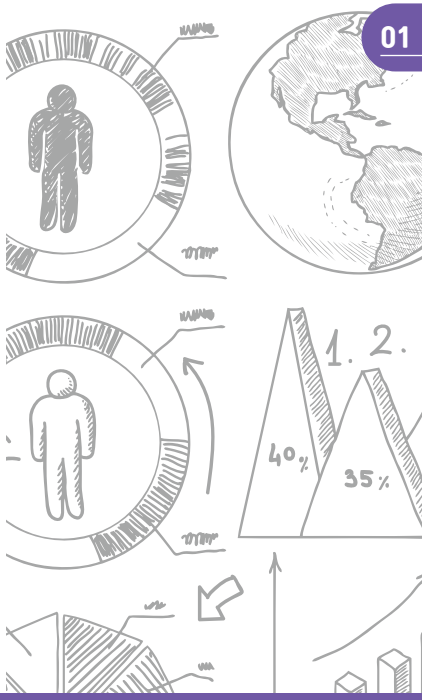
2021

Cancer Trends Report

NATIONAL CANCER CENTER

CONTENTS

The cancer monitoring program aims to



Monitoring the cancer-related indicators, including cancer prevention, occurrence, survivors, death, and so on, for exploring the cancer burden at a national level on the current state and for monitoring the national cancer burden.

Developing the cancer monitoring indicators throughout cancer trajectory by time series analyzing on the change of cancer burden, which are involved the comprehensive plan for cancer control.

Developing a cancer monitoring system

Cancer Monitoring Program Team

Partners
(NIER, KDCA)

Advisory mmittee
(Division of Cancer Epidemiology)

1 Prevention
Tobacco Use, Alcohol Drinking Obesity, Fruit and Vegetable Intake, Cadmium exposure

2 Screening
Gastric Cancer Screening, Colorectal Cancer Screening, Breast Cancer Screening, Cervical Cancer Screening

3 Diagnosis
Incidence Distant Metastasis Incidence

Life after Cancer 4
Survival, Tobacco Use among Cancer Survivors, Alcohol Drinking among Cancer Survivors, Obesity among Sancer Survivors, Quality of Life among Cancer Survivors

End-of life 5
Hospice/palliative care utilization

Death 6
Mortality, Preventable Cancer Mortality, Treatable Cancer Mortality

02

Cancer monitoring indicators

Cancer monitoring indicators are comprised of 54 indicators in six categories, including prevention, screening, diagnosis, life after cancer, end of life, and death.

Prevention

Adult tobacco use
Adult alcohol drinking
Adult obesity
Adult intake of fruits and vegetables
Tobacco use in middle and high school
Alcohol drinking in middle and high school students
Obesity in middle and high school
Cadmium exposure

Screening

Gastric cancer screening
Colorectal cancer screening
Breast cancer screening
Cervical cancer screening

Life after cancer

Survival
Tobacco use among cancer survivors
Alcohol drinking among cancer survivors
Obesity among cancer survivors
Quality of life among cancer survivors

Diagnosis

Incidence
Distant metastasis incidence

Death

Mortality
Preventable cancer mortality
Treatable cancer mortality

End-of-life

Hospice/palliative care utilization

Why do we need cancer monitoring?

1. To establish a systematical monitoring system for the current state and changes in disease burden and to generate an information at a national level

2. To enhance understanding on the current state and changes in disease burden due to cancer

3. To explore a target group of cancer patients that need monitoring and to facilitate follow-up

4. To derive indicators by establishing a national cancer burden monitoring database and a cancer surveillance system

5. To use as an evidence of cancer control policy through consistent production of statistics regarding overall cancer management including the diagnosis and treatment of cancer patients, continuously

04

Criteria for selecting cancer monitoring indicators

Primary selection criteria for cancer monitoring indicators:
Indicators that can be derived from survey data can represent the general population

Measure	Criteria
Prevention (behavioral factor)	Indicators to determine the compliance of individual rules presented by the national cancer prevention rules
Prevention (environmental risk factor)	Group 1 carcinogenic agents defined by the International Agency Research on Cancer Agents Classified by the IARC Monographs, Volumes 1–119
Screening	Cancers for which screening is recommended by the national cancer screening guideline Includes cancer screenings conducted, not only by the national cancer screening program NCSP, but also in the private sector
Diagnosis & death	All cancers including cancers subject to NCSP gastric cancer, colorectal cancer, liver cancer, lung cancer, breast cancer, and cervical cancer
End-of-life	Hospice/palliative care recipients

Procedure for selecting cancer monitoring indicators

For the selection of cancer monitoring indicators, we reviewed cancer-related literature and collected opinions from **internal and external** experts to establish the selection criteria and reflect in the indicator system.

Selection process for cancer monitoring indicators

STEP 01 **Defining and structuring the indicators based on a review of the literature**
- Identify the source of indicator data by category
- Select the criteria for indicators by category
- Determine Theoretical background of the indicators for each category, analyzing method, and target level

STEP 02 **Analyzing the indicators and summarizing the derived results**
Analyze the current state and trends of indicators by category

STEP 03 **Collecting opinions on the indicators**
- Reflect the internal opinions of the indicators by category
- Re-analyze and validate the indicators

STEP 04 **Holding a review meeting and workshop**
- Collect opinions from internal and external experts and the academic society through monitoring workshops
- Collect opinions from related agencies and research centers

STEP 05 **Deciding whether to select the indicator**
- Adequacy of the method to measure the indicator
- Accuracy of indicator analysis results

STEP 06 **Final selection of cancer monitoring indicators**

06

Representative indicators of cancer monitoring

Measure	Representative indicators	Desired change	Trend	Period
Prevention	Adult tobacco use	↓	↓	1998–2018
	Adult alcohol drinking	↓	–	2008–2018
	Adult obesity	↓	↑	1998–2018
	Adult intake of fruits and vegetables	↑	↓	1998–2018
Screening	Gastric cancer screening rate	↑	↓	2014–2020
	Colorectal cancer screening rate	↑	↑	2014–2020
	Breast cancer screening rate	↑	↓	2012–2020
	Cervical cancer screening rate	↑	↓	2014–2020
Diagnosis	Cancer incidence	↓	↑	2015–2018
	Gastric cancer incidence	↓	↓	2011–2018
	Colorectal cancer incidence	↓	↓	2014–2018
	Liver cancer incidence	↓	↓	2009–2018
	Lung cancer incidence	↓	↑*	2015–2018
	Breast cancer incidence	↓	↑	2002–2018

Measure	Representative indicators	Desired change	Trend	Period
Diagnosis	Cervical cancer incidence	↓	↓	2007–2018
Life after cancer	All cancers survival	↑	↓	2012–2014
	Gastric cancer survival	↑	−	2011–2014
	Colorectal cancer survival	↑	↓	2012–2014
	Liver cancer survival	↑	↑	2010–2014
	Lung cancer survival	↑	↑	2007–2014
	Breast cancer survival	↑	↑	2004–2014
	Cervical cancer survival	↑	−	1997–2014
End-of-life	Hospice/palliative care utilization•	↑	X•	2016–2019
Death	Cancer mortality	↓	↓	2003–2019
	Preventable Cancer mortality	↓	↓	2004–2019
	Treatable Cancer mortality	↓	↓	2013–2019

* Statistically non-significant change

• due to short period data (for 4 year), we did not analyze trend analysis

Adult Tobacco Use

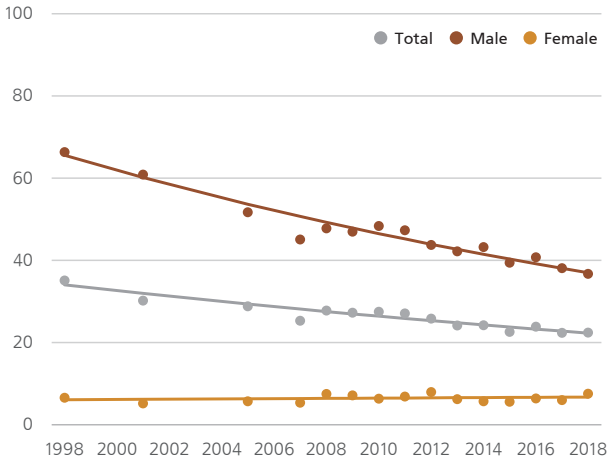
DEFINITION

The percentage of people aged ≥19 years who have smoked at least 5 packs (100 cigarettes) during their lifetime and currently still smoke (age-standardized)

DATA SOURCE

National Health and Nutrition Examination Survey (Ministry of Health and Welfare, KDCA)

Trends in prevalence of adult tobacco use



	Past (1998)			Recent (2018)			Annual Percentage Change (APC)		
	N	%*	95% CI	N	%*	95% CI	Period	APC	95% CI
Total	8,823	35.1	(34.0, 36.2)	6,183	22.4	(20.9, 23.9)	1998-2018	-2.1	(-2.4, -1.8)
Male	4,110	66.3	(64.5, 68.1)	2,713	36.7	(34.2, 39.1)	1998-2018	-2.8	(-3.1, -2.5)
Female	4,713	6.5	(5.6, 7.5)	3,470	7.5	(6.1, 8.9)	1998-2018	0.5	(-0.7, 1.8)

* Age adjusted to the 2005 projected Korean population

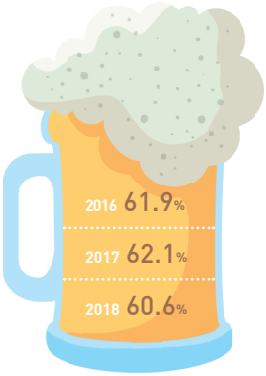
Adult Alcohol Drinking

DEFINITION

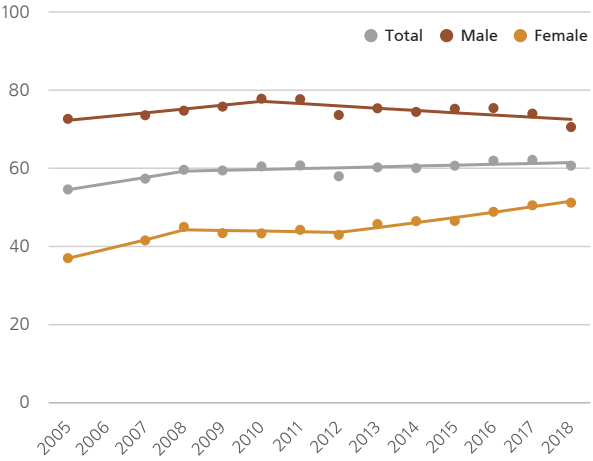
The percentage of people aged ≥19 years who have drunk at least once a month in the past year (age-standardized)

DATA SOURCE

National Health and Nutrition Examination Survey (Ministry of Health and Welfare, KDCA)



Trends in prevalence of adult alcohol drinking



	Past (2005)			Recent (2018)			Annual Percentage Change (APC)		
	N	%*	95% CI	N	%*	95% CI	Period	APC	95% CI
Total	7,802	54.6	(53.2, 56.0)	6,188	60.6	(58.9, 62.4)	2008-2018	0.4	(-0.1, 0.8)
Male	3,510	72.6	(70.8, 74.4)	2,717	70.5	(68.4, 72.6)	2010-2018	-0.8	(-1.4, -0.1)
Female	4,292	37.0	(35.2, 38.8)	3,471	51.2	(48.7, 53.7)	2012-2018	2.9	(2.1, 3.6)

* Age adjusted to the 2005 projected population

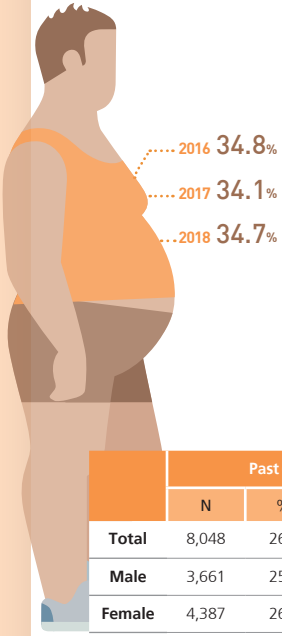
Adult Obesity

DEFINITION

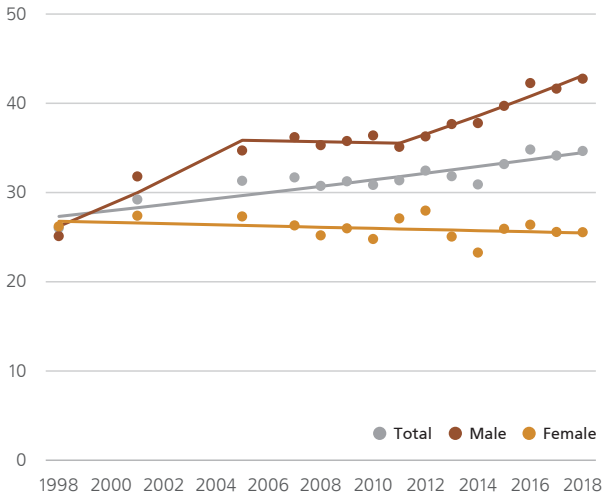
The percentage of people aged ≥19 years who have a body mass index ≥25 ㎏/㎡ (age-standardized)

DATA SOURCE

National Health and Nutrition Examination Survey (Ministry of Health and Welfare, KDCA)



Trends in prevalence of adult obesity



	Past (1998)			Recent (2018)			Annual Percentage Change (APC)		
	N	%*	95% CI	N	%*	95% CI	Period	APC	95% CI
Total	8,048	26.0	(24.9, 27.1)	6,170	34.7	(33.0, 36.3)	1998-2018	1.2	(0.9, 1.5)
Male	3,661	25.1	(23.3, 26.9)	2,719	42.8	(40.3, 45.2)	2011-2018	2.8	(2.0, 3.6)
Female	4,387	26.2	(24.8, 27.6)	3,451	25.5	(23.7, 27.3)	1998-2018	-0.3	(-0.6, 0.1)

* Age adjusted to the 2005 projected population

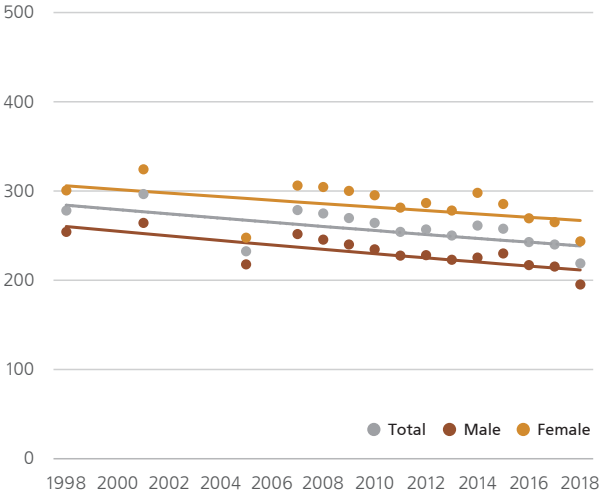
Adult Intake of Fruits and Vegetables

DEFINITION Daily intake of fruits and vegetables per 1,000kal by people aged 19 years and older (age-standardized)

DATA SOURCE National Health and Nutrition Examination Survey (Ministry of Health and Welfare, KDCA)

2016 242.6g
2017 239.9g
2018 218.9g

Trends in daily intake of fruits and vegetables per 1,000kal



	Past (1998)			Recent (2018)			Annual Percentage Change (APC)		
	N	g*	95% CI	N	g*	95% CI	Period	APC	95% CI
Total	10,400	277.9	(271.7, 284.1)	7,064	218.9	(213.7, 224.0)	1998-2018	-0.9	(-1.5, -0.3)
Male	4,984	254.0	(247.1, 260.9)	3,144	195.2	(189.1, 201.3)	1998-2018	-1.0	(-1.5, -0.6)
Female	5,416	300.5	(292.5, 308.5)	3,920	243.4	(236.5, 250.3)	1998-2018	-0.7	(-1.4, 0.0)

* Age adjusted to the 2005 projected population

SCREENING

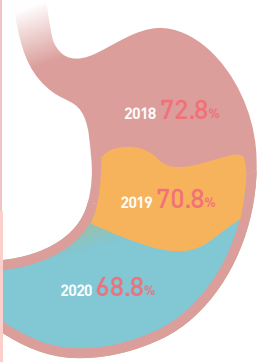
Gastric Cancer Screening Rate

DEFINITION

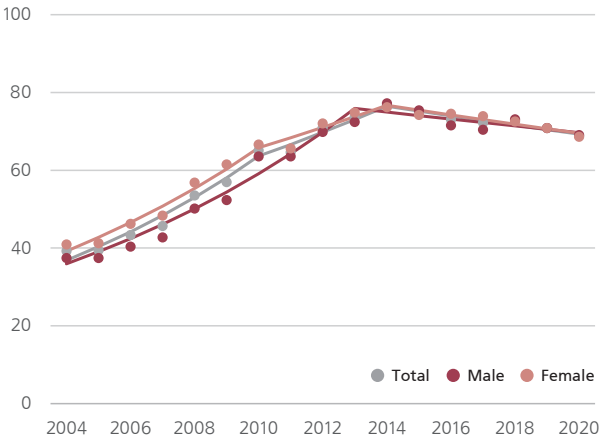
The percentage of males and females aged 40–74 years who underwent a upper endoscopy or upper gastrointestinal series within the past 2 years for gastric cancer screening, including not only NCSP screenings but also those conducted in opportunistic screening programs

DATA SOURCE

Korean National Cancer Screening Survey (National Cancer Center)



Trends in gastric cancer screening rate



	Past (2004)			Recent (2020)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	N	APC	95% CI
Total	2,066	39.2	(37.1, 41.3)	3,557	68.8	(67.3, 70.3)	2014-2020	-1.6	(-2.4, -0.8)
Male	1,026	37.4	(34.4, 40.4)	1,757	69.0	(66.8, 71.2)	2013-2020	-1.2	(-2.2, -0.2)
Female	1,040	40.9	(37.9, 43.9)	1,800	68.6	(66.5, 70.7)	2014-2020	-1.6	(-2.5, -0.7)

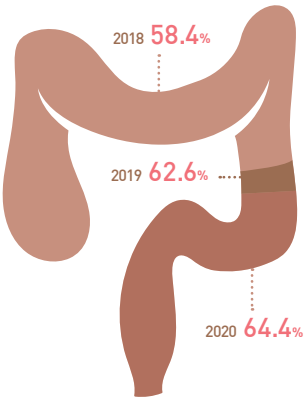
Colorectal Cancer Screening Rate

DEFINITION

The percentage of males and females aged 50–74 years who have received a fecal occult blood test in the past year, or colonoscopy in the past 10 years for colorectal cancer screening, including not only NCSP screenings, but also those conducted in opportunistic screening programs

DATA SOURCE

Korean National Cancer Screening Survey (National Cancer Center)



Trends in colorectal cancer screening rate

	Past (2004)			Recent (2020)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	N	APC	95% CI
Total	1,200	19.9	(17.6, 22.2)	2,467	64.4	(62.5, 66.3)	2014-2020	1.6	(-1.4, 4.7)
Male	577	22.0	(18.6, 25.4)	1,203	67.3	(64.6, 70.0)	2014-2020	1.3	(-1.4, 4.2)
Female	623	19.1	(16.0, 22.2)	1,264	61.6	(58.9, 64.3)	2014-2020	1.9	(-1.6, 5.6)

SCREENING

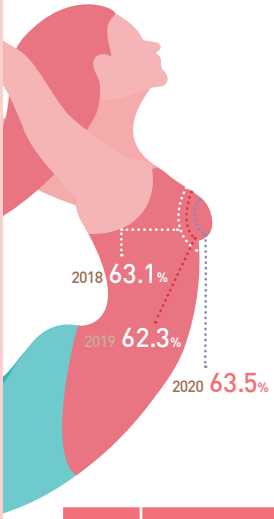
Breast Cancer Screening Rate

DEFINITION

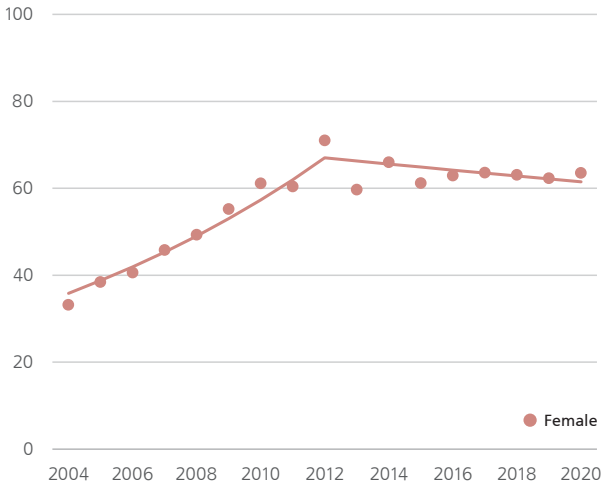
The percentage of females aged 40–74 years who have received a mammography in the past 2 years for breast cancer screening, including not only NCSP screenings, but also those conducted in opportunistic screening programs

DATA SOURCE

Korean National Cancer Screening Survey (National Cancer Center)



Trends in breast cancer screening rate



	Past (2004)			Recent (2020)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	N	APC	95% CI
Total	-	-	-	-	-	-	-	-	-
Male	-	-	-	-	-	-	-	-	-
Female	1,040	33.2	(30.3, 36.1)	1,800	63.5	(61.3, 65.7)	2012-2020	-1.1	(-2.1, -0.0)

SCREENING

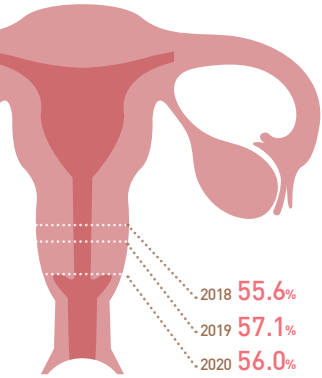
Cervical Cancer Screening Rate

DEFINITION

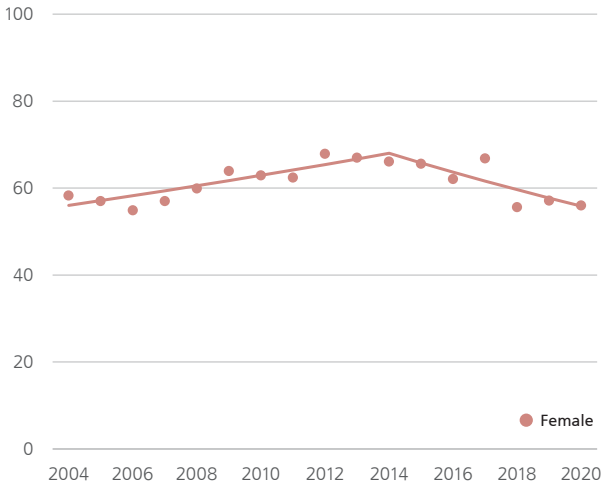
The percentage of females aged 30–74 years who have received a Pap smear test in the past 2 years for cervical cancer screening, including not only NCSP screenings, but also those conducted in opportunistic screening programs

DATA SOURCE

Korean National Cancer Screening Survey (National Cancer Center)



Trends in cervical cancer screening rate



	Past (2004)			Recent (2020)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	N	APC	95% CI
Total	-	-	-	-	-	-	-	-	-
Male	-	-	-	-	-	-	-	-	-
Female	1,545	58.3	(55.8, 60.8)	2,243	56.0	(53.9, 58.1)	2014-2020	-3.2	(-5.3, -1.1)

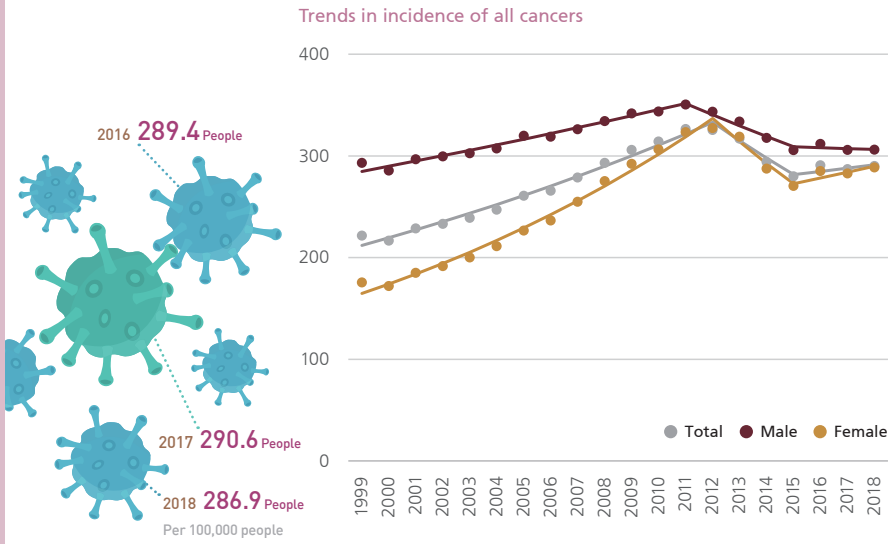
Cancer Incidence

DEFINITION

The observed number of new cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	101,834	221.6	(220.3, 223.0)	243,837	290.1	(288.8, 291.4)	2015-2018	1.1	(-1.1, 3.4)
Male	57,882	293.1	(290.7, 295.5)	128,757	306.1	(304.4, 307.9)	2015-2018	-0.3	(-1.7, 1.1)
Female	43,952	175.5	(173.9, 177.2)	115,080	288.5	(286.6, 290.3)	2015-2018	2.1	(-1.0, 5.2)

* Age adjusted to the 2000 mid-year population / I=Incidence

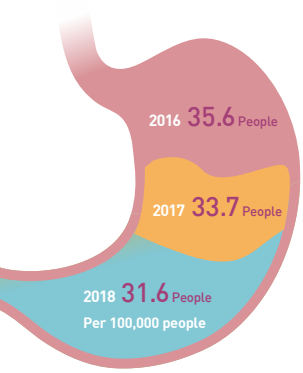
Gastric Cancer Incidence

DEFINITION

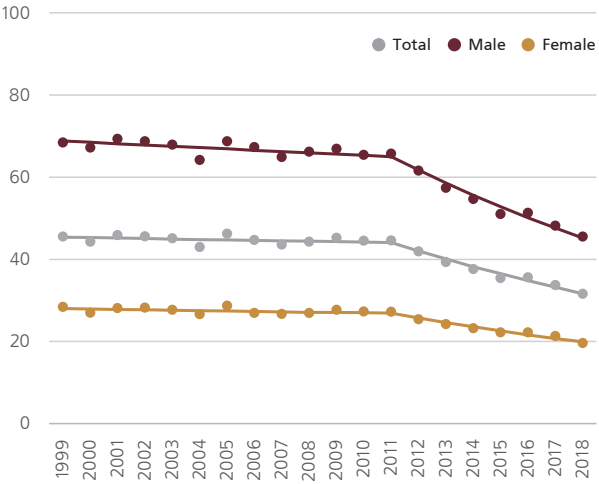
The observed number of new gastric cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in incidence of gastric cancer



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	20,897	45.5	(44.9, 46.2)	29,279	31.6	(31.2, 32.0)	2011-2018	-4.6	(-5.4, -3.9)
Male	13,563	68.4	(67.2, 69.6)	19,865	45.5	(44.8, 46.1)	2011-2018	-5.1	(-5.8, -4.3)
Female	7,334	28.4	(27.8, 29.1)	9,414	19.6	(19.1, 20.0)	2011-2018	-4.2	(-5.1, -3.3)

* Age adjusted to the 2000 mid-year population / I=Incidence

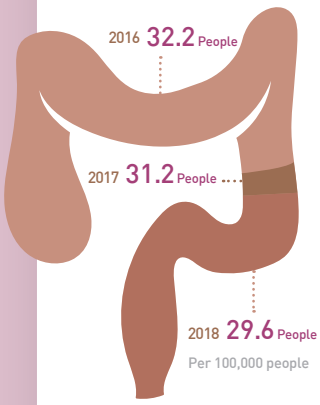
Colorectal Cancer Incidence

DEFINITION

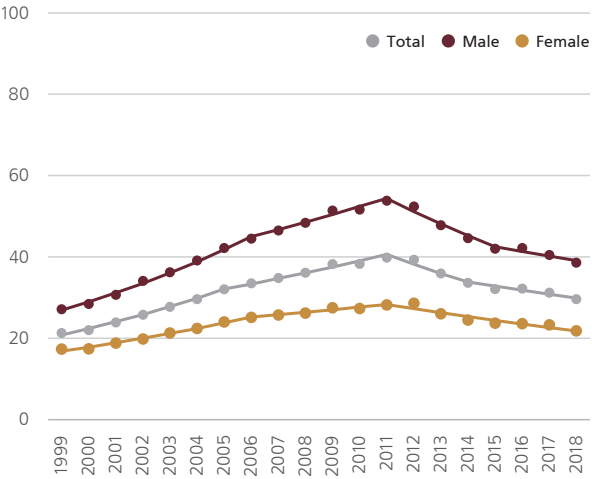
The observed number of new colorectal cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in incidence of colorectal cancer



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	9,780	21.3	(20.9, 21.7)	27,909	29.6	(29.2, 29.9)	2014-2018	-3.0	(-4.4, -1.7)
Male	5,340	27.1	(26.4, 27.9)	16,686	38.6	(38.0, 39.2)	2015-2018	-2.7	(-4.4, -1.1)
Female	4,440	17.3	(16.8, 17.8)	11,223	21.8	(21.3, 22.2)	2011-2018	-3.7	(-4.6, -2.8)

* Age adjusted to the 2000 mid-year population / I=Incidence

DIAGNOSIS

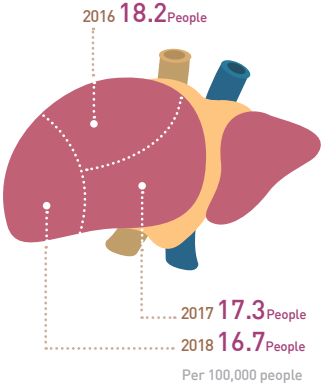
Liver Cancer Incidence

DEFINITION

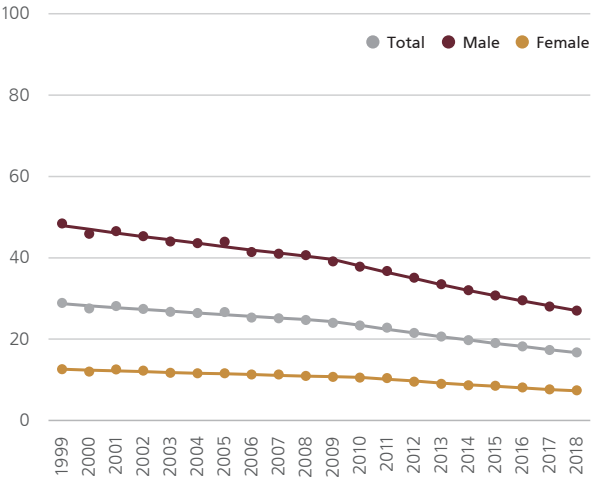
The observed number of new liver cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in incidence of liver cancer



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	13,262	28.9	(28.4, 29.4)	15,736	16.7	(16.4, 17.0)	2009-2018	-4.1	(-4.4, -3.8)
Male	10,022	48.4	(47.5, 49.4)	11,728	27.0	(26.5, 27.6)	2009-2018	-4.2	(-4.4, -3.9)
Female	3,240	12.6	(12.1, 13.0)	4,008	7.4	(7.1, 7.6)	2010-2018	-4.6	(-5.1, -4.0)

* Age adjusted to the 2000 mid-year population / I=Incidence

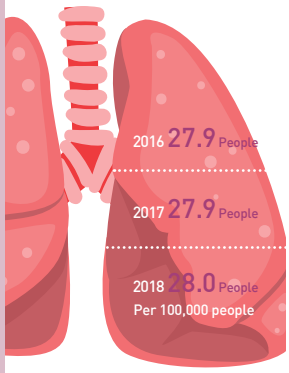
Lung Cancer Incidence

DEFINITION

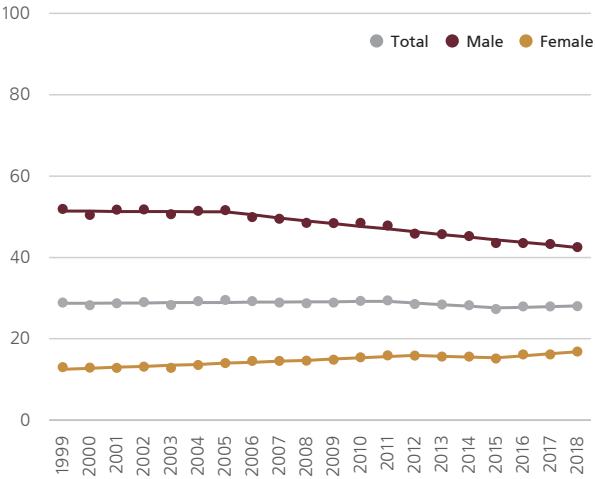
The observed number of new lung cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in incidence of lung cancer



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	13,229	28.9	(28.4, 29.4)	28,628	28.0	(27.7, 28.4)	2015-2018	0.7	(-0.7, 2.1)
Male	9,744	51.9	(50.8, 52.9)	19,524	42.5	(41.9, 43.2)	2005-2018	-1.4	(-1.6, -1.3)
Female	3,485	13.0	(12.6, 13.4)	9,104	16.8	(16.4, 17.2)	2015-2018	3.2	(0.4, 6.0)

* Age adjusted to the 2000 mid-year population / I=Incidence

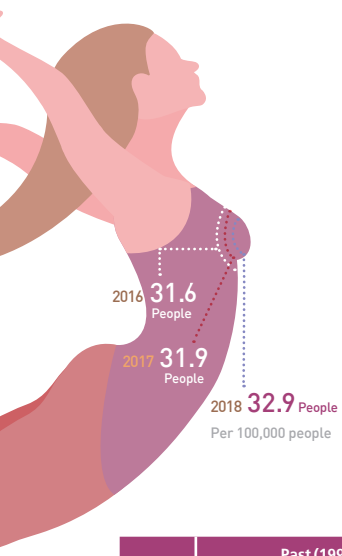
Breast Cancer Incidence

DEFINITION

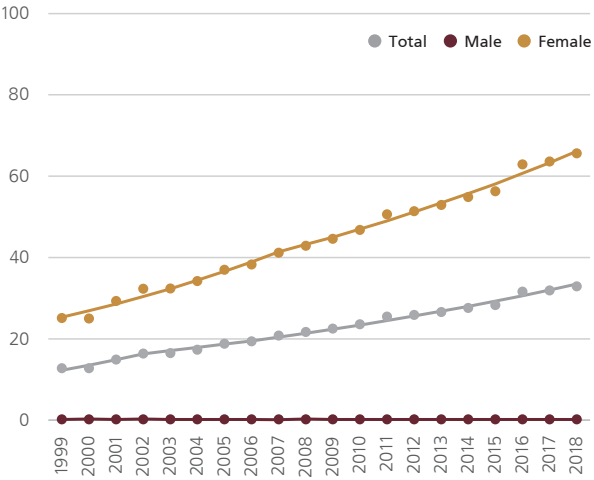
The observed number of new breast cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in incidence of breast cancer



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	5,879	12.8	(12.4, 13.1)	23,647	32.9	(32.5, 33.4)	2002-2018	4.6	(4.3, 4.9)
Male	42	0.2	(0.1, 0.3)	100	0.2	(0.2, 0.3)	1999-2018	-0.5	(-1.6, 0.7)
Female	5,837	25.1	(24.4, 25.7)	23,547	65.6	(64.7, 66.5)	2007-2018	4.4	(3.8, 4.9)

* Age adjusted to the 2000 mid-year population / I=Incidence

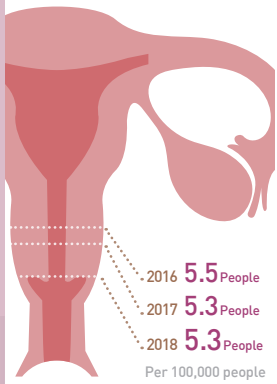
Cervical Cancer Incidence

DEFINITION

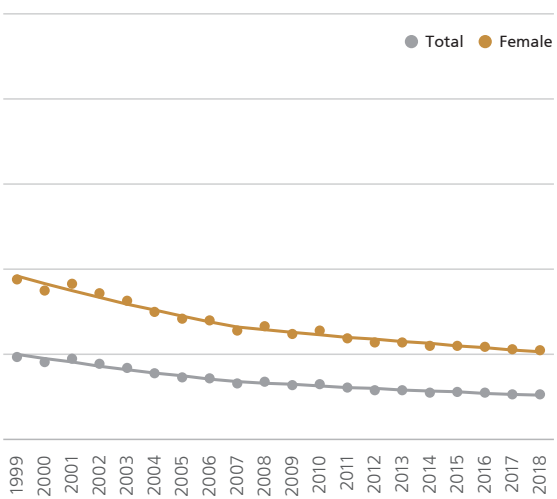
The observed number of new cervical cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in incidence of cervical cancer



	Past (1999)			Recent (2018)			Annual Percentage Change (APC)		
	N	I*	95% CI	N	I*	95% CI	Period	APC	95% CI
Total	4,488	9.7	(9.5, 10.0)	3,500	5.3	(5.1, 5.5)	2007-2018	-2.5	(-3.1, -1.9)
Male	-	-	-	-	-	-	-	-	-
Female	4,488	18.8	(18.3, 19.4)	3,500	10.5	(10.2, 10.9)	2007-2018	-2.2	(-2.8, -1.6)

* Age adjusted to the 2000 mid-year population / I=Incidence

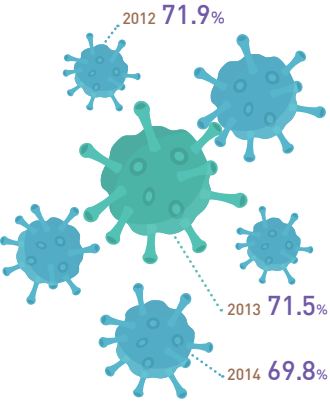
All Cancer Survival

DEFINITION

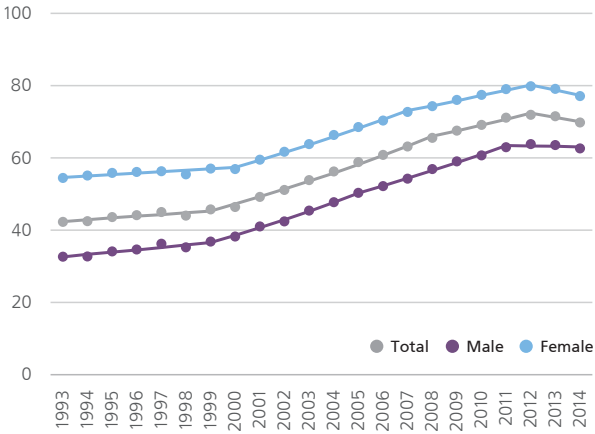
The proportion of cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in survival of all cancers



	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	54,681	42.3	(41.9, 42.7)	198,437	69.8	(69.5, 70.0)	2012-2014	-1.7	(-3.0, -0.3)
Male	30,794	32.6	(32.1, 33.3)	101,824	62.6	(62.3, 62.9)	2011-2014	-0.2	(-1.1, 0.7)
Female	23,887	54.4	(53.8, 55.1)	96,613	77.1	(76.8, 77.4)	2012-2014	-1.9	(-2.7, -1.0)

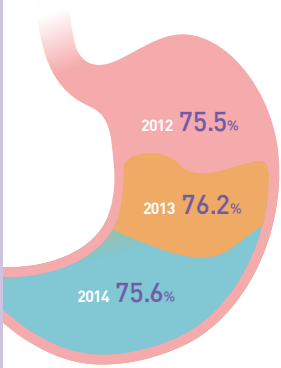
Gastric Cancer Survival

DEFINITION

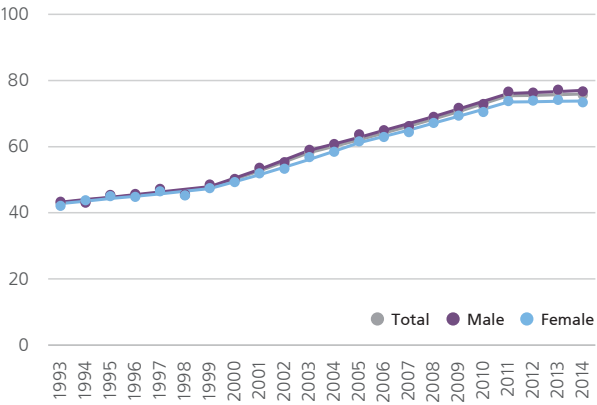
The proportion of gastric cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with gastric cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in survival of gastric cancer



	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	12,605	42.9	(42.0, 43.8)	28,067	75.6	(75.0, 76.2)	2011-2014	0.3	(-0.9, 1.4)
Male	8,388	43.3	(42.1, 44.5)	18,945	76.7	(75.9, 77.4)	2011-2014	0.4	(-0.8, 1.6)
Female	4,217	42.1	(40.5, 43.7)	9,122	73.4	(72.4, 74.4)	2012-2014	-1.9	(-2.7, -1.0)

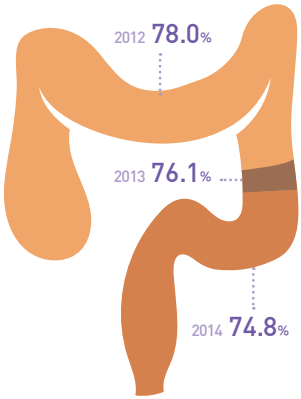
Colorectal Cancer Survival

DEFINITION

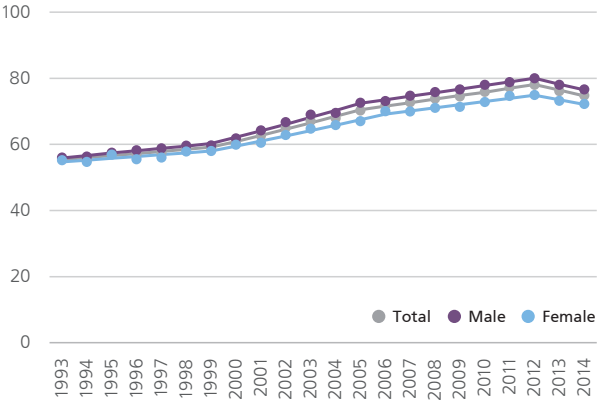
The proportion of colorectal cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with colorectal cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in survival of colorectal cancer



	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	4,059	55.6	(53.9, 57.3)	24,595	74.8	(74.1, 75.4)	2012-2014	-2.2	(-3.2, -1.2)
Male	2,151	56.0	(53.6, 58.4)	14,700	76.6	(75.7, 77.4)	2012-2014	-2.2	(-3.4, -1.0)
Female	1,908	55.2	(52.8, 57.6)	9,895	72.2	(71.1, 73.2)	2012-2014	-1.9	(-3.6, -0.2)

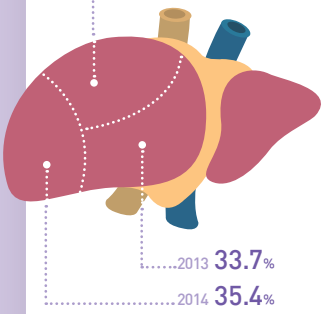
Liver Cancer Survival

DEFINITION

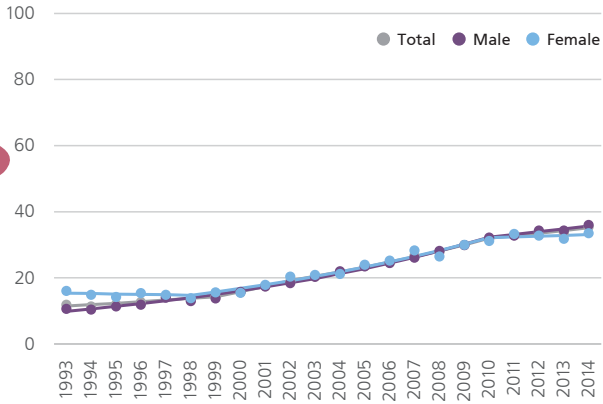
The proportion of liver cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with liver cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in survival of liver cancer



	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	6,203	11.9	(11.0, 12.7)	14,228	35.4	(34.5, 36.2)	2010-2014	2.4	(0.9, 4.0)
Male	4,819	10.6	(9.7, 11.6)	10,731	36.0	(35.0, 36.9)	2010-2014	2.5	(0.7, 4.4)
Female	1,384	16.1	(14.2, 18.2)	3,497	33.5	(31.8, 35.1)	2010-2014	0.6	(-2.4, 3.7)

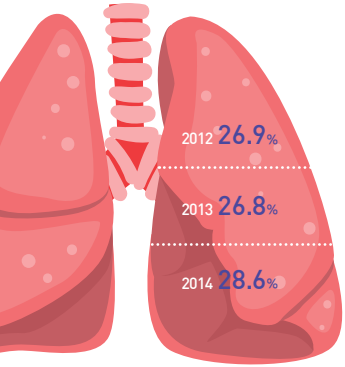
Lung Cancer Survival

DEFINITION

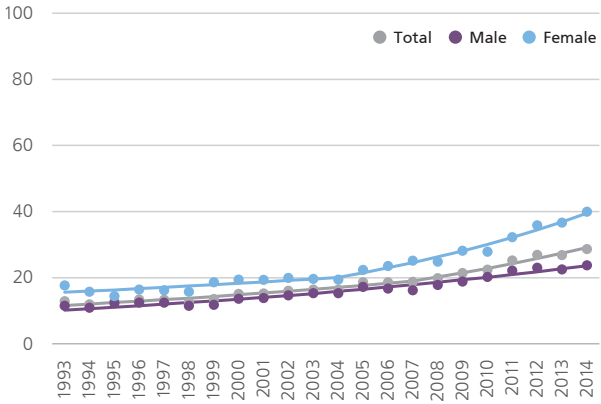
The proportion of lung cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with lung cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in survival of lung cancer



	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	6,485	12.9	(12.0, 13.8)	20,318	28.6	(28.1, 29.3)	2007-2014	6.3	(5.1, 7.5)
Male	5,037	11.5	(10.6, 12.5)	14,197	23.7	(22.9, 24.4)	1993-2014	4.1	(3.7, 4.5)
Female	1,448	17.6	(15.5, 19.7)	6,121	39.9	(38.6, 41.2)	2004-2014	7.0	(6.1, 7.9)

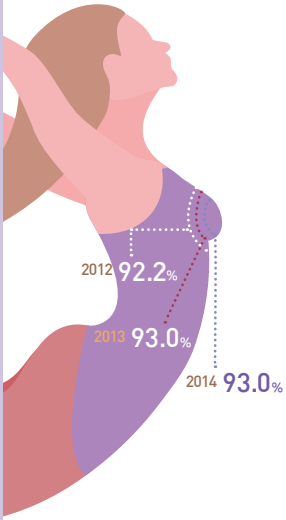
Breast Cancer Survival

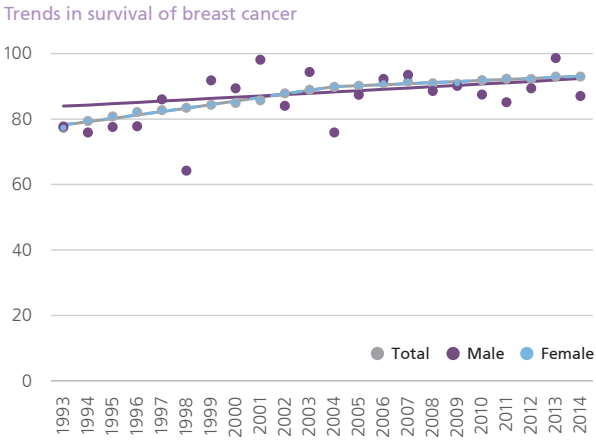
DEFINITION

The proportion of breast cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with breast cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)





	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	3,054	77.3	(75.7, 78.9)	17,699	93.0	(92.6, 93.4)	2004-2014	0.4	(0.3, 0.4)
Male	37	77.7	(57.5, 92.2)	74	87.0	(73.1, 97.3)	1993-2014	0.5	(-0.1, 1.0)
Female	3,017	77.3	(75.7, 78.9)	17,625	93.0	(92.6, 93.4)	2004-2014	0.4	(0.3, 0.4)

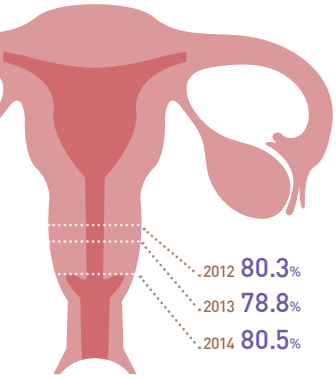
Cervical Cancer Survival

DEFINITION

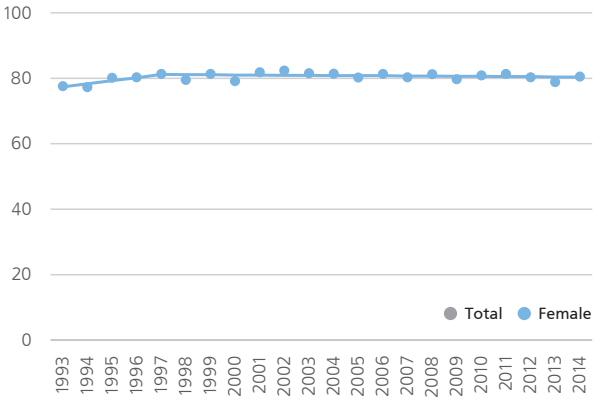
The proportion of cervical cancer patients surviving 5 years after diagnosis calculated in the absence of other causes of death, which is defined as the survival of patients with cervical cancer (observed rate) divided by the expected survival of the general population

DATA SOURCE

National Cancer Statistics (Ministry of Health and Welfare, Korea Central Cancer Registry)



Trends in survival of cervical cancer



	Past (1993)			Recent (2014)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	4,140	77.6	(76.2, 79.0)	3,357	80.5	(79.0, 81.9)	1997-2014	-0.1	(-0.2, 0.1)
Male	-	-	-	-	-	-	-	-	-
Female	4,140	77.6	(76.2, 79.0)	3,357	80.5	(79.0, 81.9)	1997-2014	-0.1	(-0.2, 0.1)

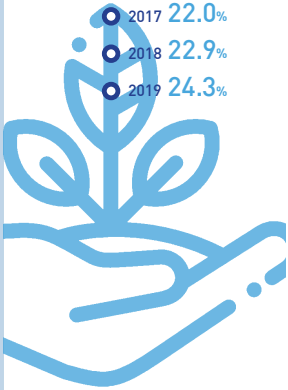
Hospice/Palliative Care Utilization

DEFINITION

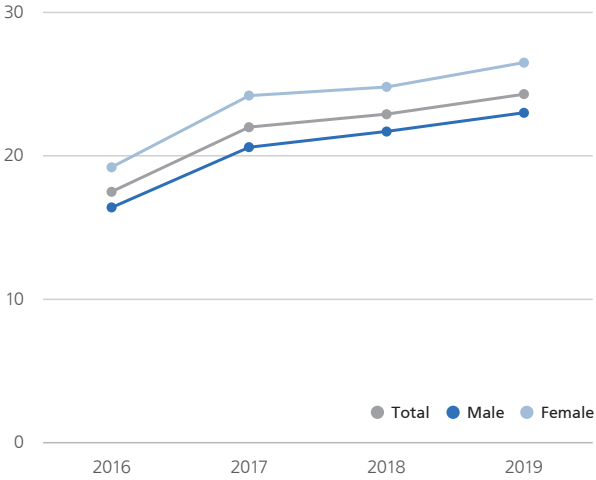
The number of cancer patients who have utilized a hospice or palliative care for the first time relative to annual cancer deaths in the same year

DATA SOURCE

Hospice/palliative care system (National Cancer Center·National Hospice Center), Cause–of–death statistics (Statistics Korea)



Trends in proportion of hospice/palliative care utilization



	Past (1992)			Recent (2019)			Annual Percentage Change (APC)		
	N	%	95% CI	N	%	95% CI	Period	APC	95% CI
Total	13,662	17.5	(17.2, 17.7)	19,772	24.3	(24.1, 24.6)	-	-	-
Male	7,904	16.4	(16.1, 16.7)	11,570	23.0	(22.6, 23.4)	-	-	-
Female	5,758	19.2	(18.8, 19.7)	8,202	26.5	(26.0, 27.0)	-	-	-

DEATH

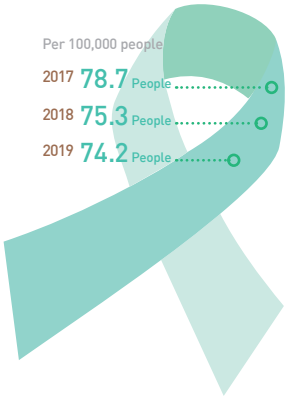
Cancer Mortality

DEFINITION

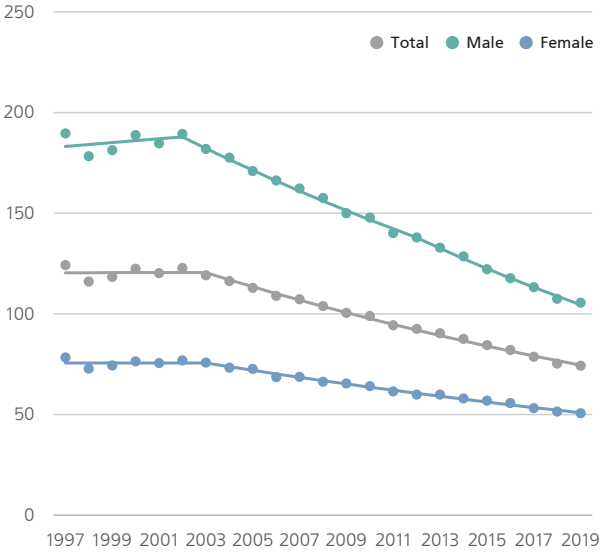
The observed number of death cancer cases each year for every 100,000 people (age-standardized)

DATA SOURCE

Cause-of-death statistics (Statistics Korea)



Trends in mortality of all cancers



	Past (1997)			Recent (2019)			Annual Percentage Change APC		
	N	M*	95% CI	N	M*	95% CI	Period	APC	95% CI
Total	52,848	124.2	(123.1, 125.2)	81,203	74.2	(73.6, 74.7)	2003-2019	-3.0	(-3.1, -2.8)
Male	33,795	189.6	(187.6, 191.7)	50,281	105.5	(104.6, 106.5)	2012-2019	-3.9	(-4.4, -3.4)
Female	19,053	78.3	(77.2, 79.4)	30,922	50.6	(49.9, 51.2)	2003-2019	-2.4	(-2.6, -2.3)

* Age adjusted to the 2000 mid-year population / M=Mortality

Preventable Cancer Mortality

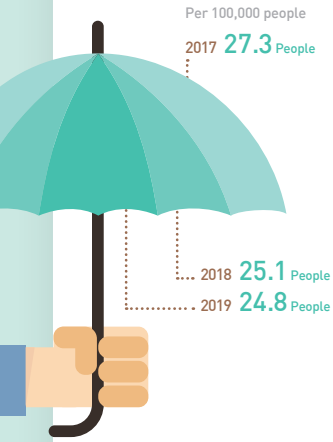
DEFINITION

The observed deaths from preventable cancers* aged 0– 74 each year for every 100,000 people (age-standardized)

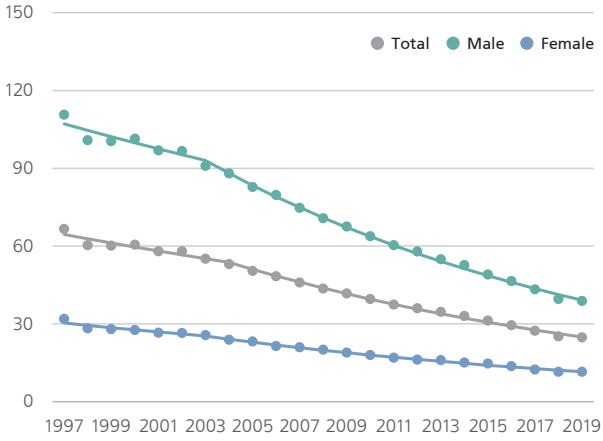
* Lip, oral, pharyngeal cancer (C00–C14), esophageal cancer (C15), gastric cancer (C16), liver cancer (C22), lung cancer (C33–C34), mesothelioma (C45), melanoma (C43), bladder (C67), cervical cancer (C53, 50%)

DATA SOURCE

Cause-of-death statistics (Statistics Korea)



Trends in mortality of preventable cancers



	Past (1997)			Recent (2019)			Annual Percentage Change APC		
	N	M*	95% CI	N	M*	95% CI	Period	APC	95% CI
Total	28,418	66.6	(65.6, 67.4)	22,166	24.8	(24.4, 25.1)	2004-2019	-5.0	(-5.2, -4.7)
Male	20,934	110.6	(109.1, 112.1)	17,171	38.8	(38.2, 39.4)	2003-2019	-5.3	(-5.5, -5.1)
Female	7,484	31.9	(31.2, 32.6)	4,995	11.5	(11.1, 11.8)	2003-2019	-4.8	(-5.1, -4.5)

* Age adjusted to the 2000 mid-year population / M=Mortality

DEATH

Treatable Cancer Mortality

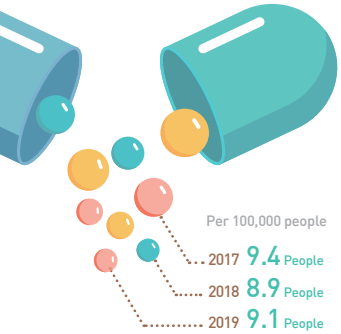
DEFINITION

The observed deaths from treatable cancers* aged 0– 74 each year for every 100,000 people (age-standardized)

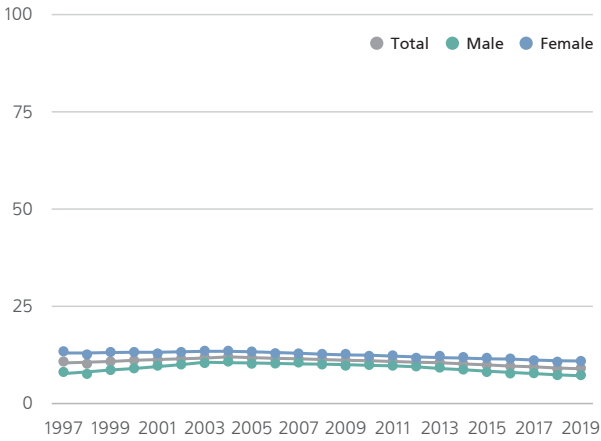
* Colorectal cancer (C00–C21), female breast cancer (C50), ovarian cancer (C54–C55), testicular cancer (C62), thyroid cancer (C73), Hodgkin lymphoma (C81), lymphoid leukemia (C91.0, C91.1), benign tumor (D10–D36), cervical cancer (C53, 50%)

DATA SOURCE

Cause-of-death statistics (Statistics Korea)

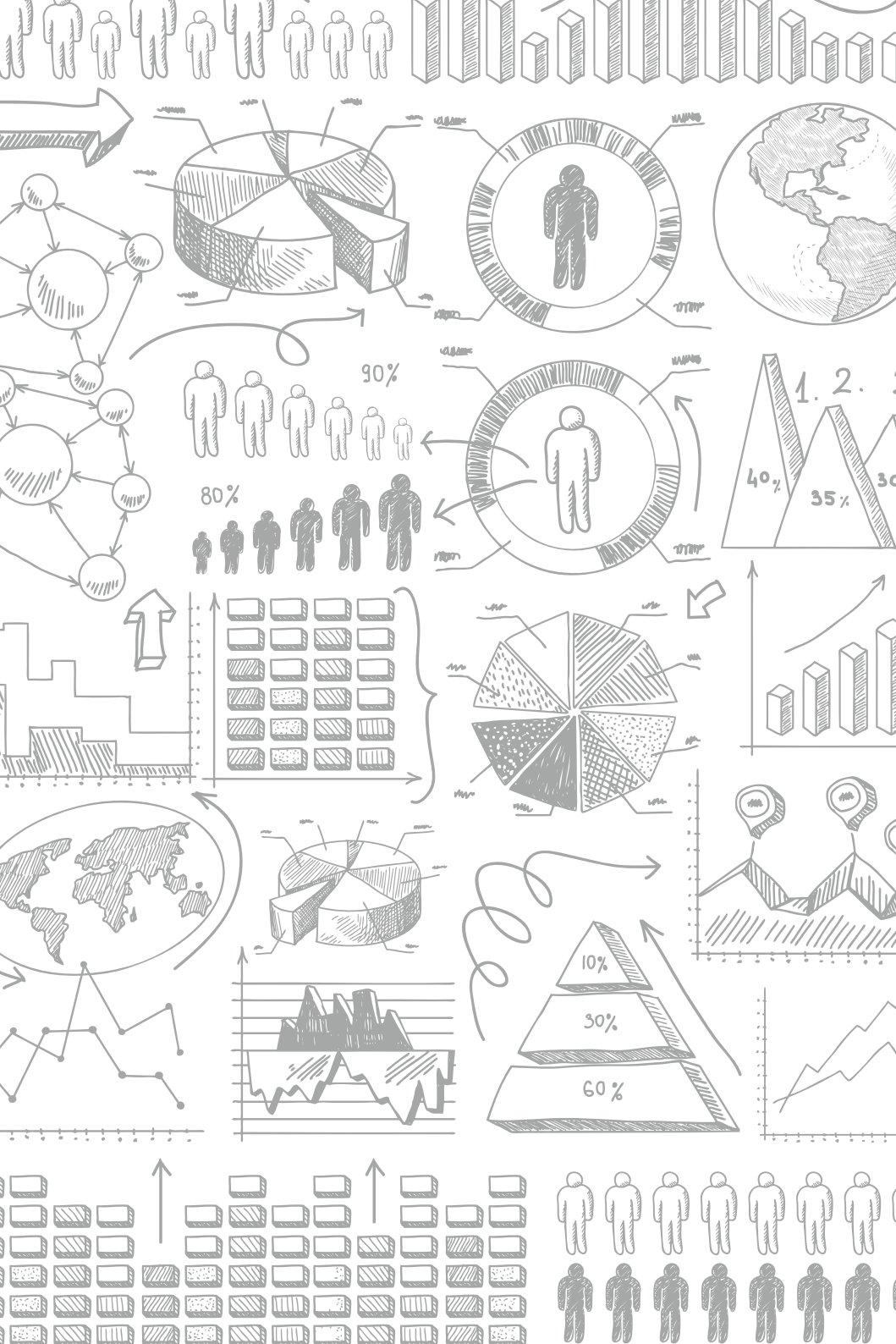


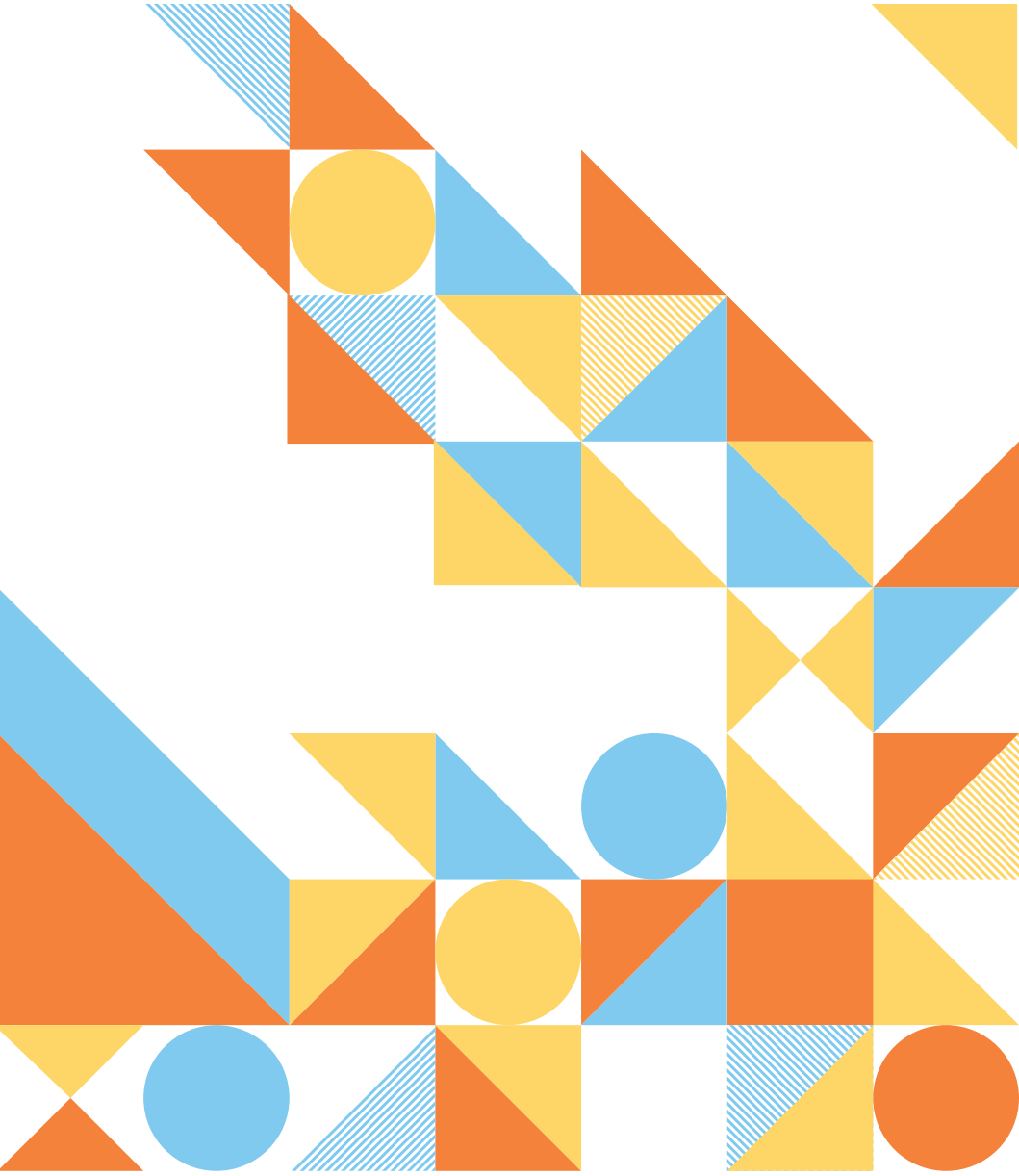
Trends in mortality of treatable cancers



	Past (1997)			Recent (2019)			Annual Percentage Change APC		
	N	M*	95% CI	N	M*	95% CI	Period	APC	95% CI
Total	4,650	10.8	(10.5, 11.1)	7,459	9.1	(8.9, 9.3)	2013-2019	-2.8	(-3.6, -2.0)
Male	1,566	8.1	(7.7, 8.5)	3,072	7.3	(7.1, 7.6)	2011-2019	-3.9	(-4.7, -3.0)
Female	3,084	13.4	(13.0, 13.9)	4,387	10.9	(10.5, 11.2)	2004-2019	-1.4	(-1.6, -1.2)

* Age adjusted to the 2000 mid-year population / M=Mortality


90%
80%
1. 2.
40%
35%
10%
30%
60%



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