



Iowa Cancer Facts & Figures

2012 Cancer Data Update

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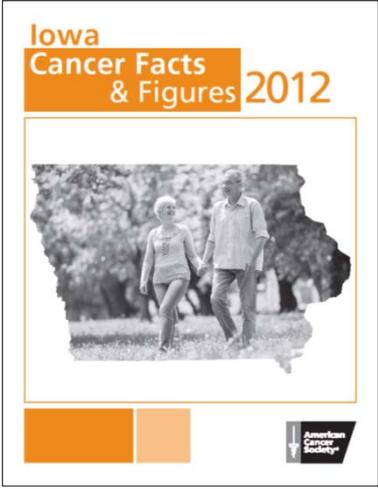
Facts & Figures: A Collaborative Effort

- American Cancer Society
- Iowa Cancer Consortium
- Iowa Department of Public Health
- State Health Registry of Iowa



Facts & Figures: A Cancer Control Tool

- Planning
- Monitoring and evaluating
- Increasing knowledge



Iowa
Cancer Facts
& Figures **2012**

American
Cancer
Society



Basic Cancer Facts

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Questions About Cancer

- What is cancer?
- What causes cancer?
- Who is at risk?
- Can cancer be cured?

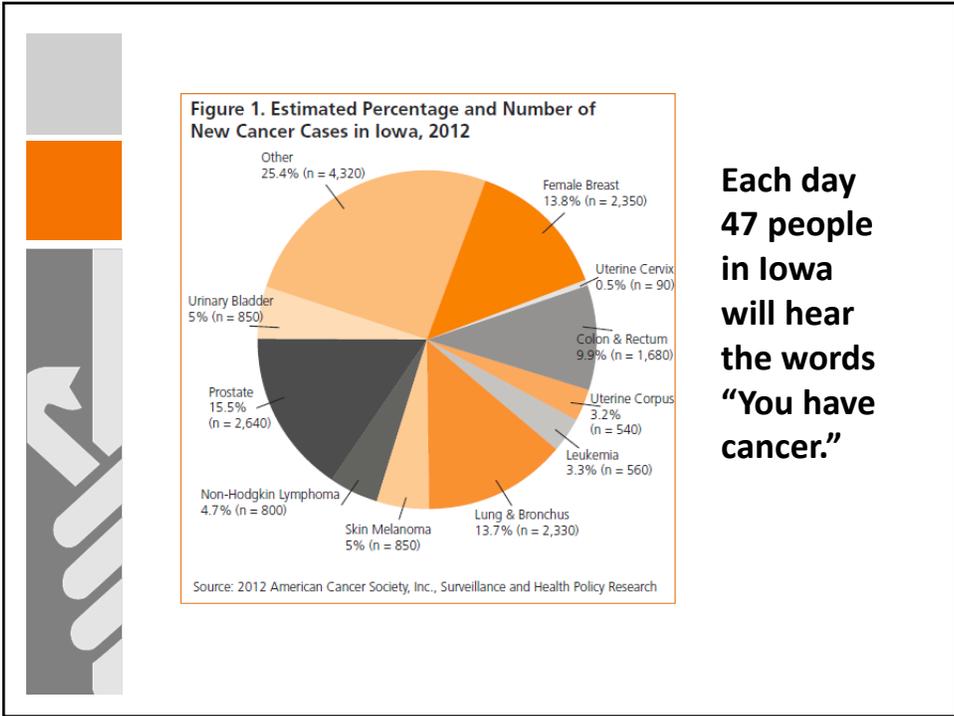


Cancer in Iowa

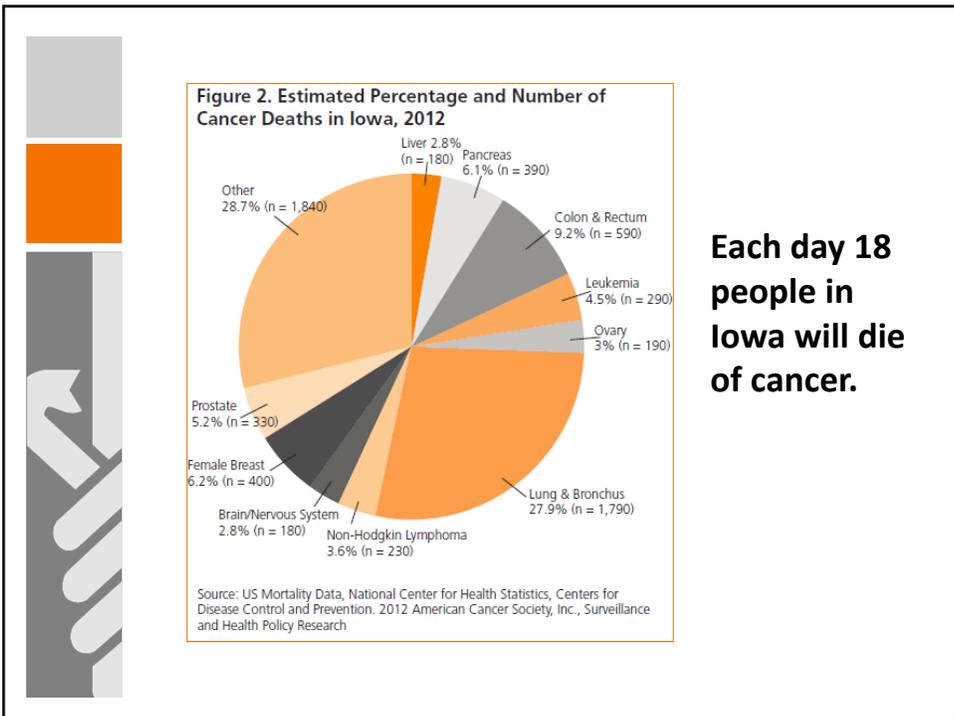
An Overview

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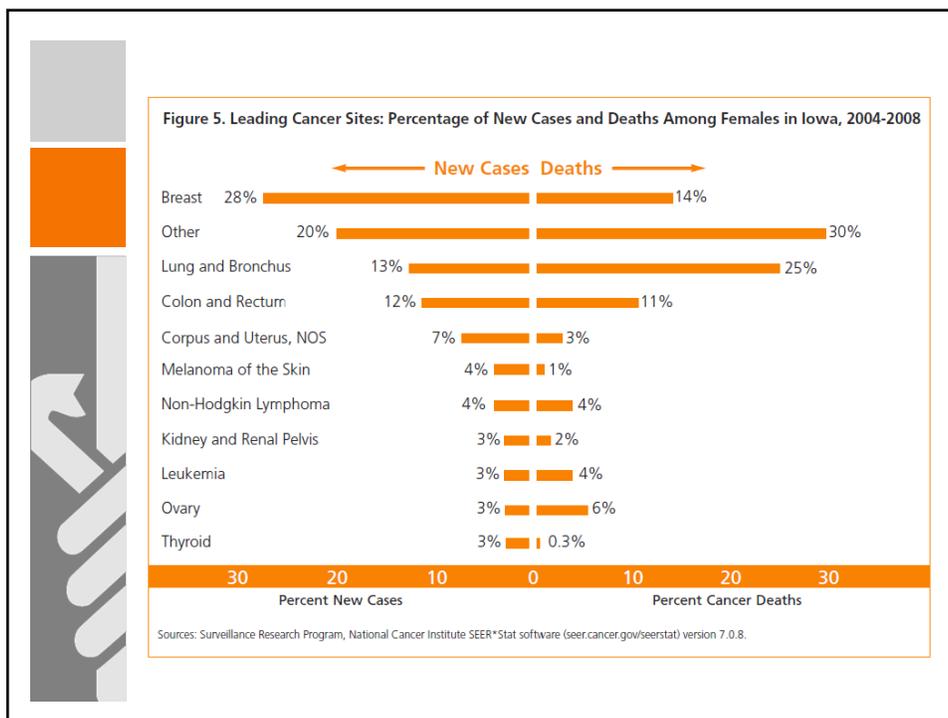
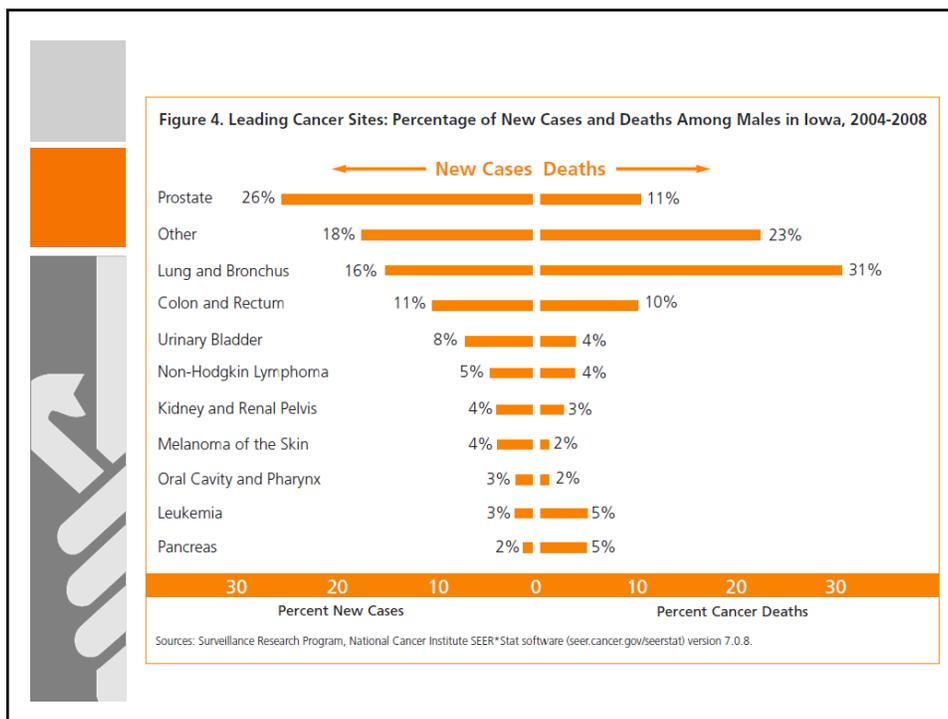


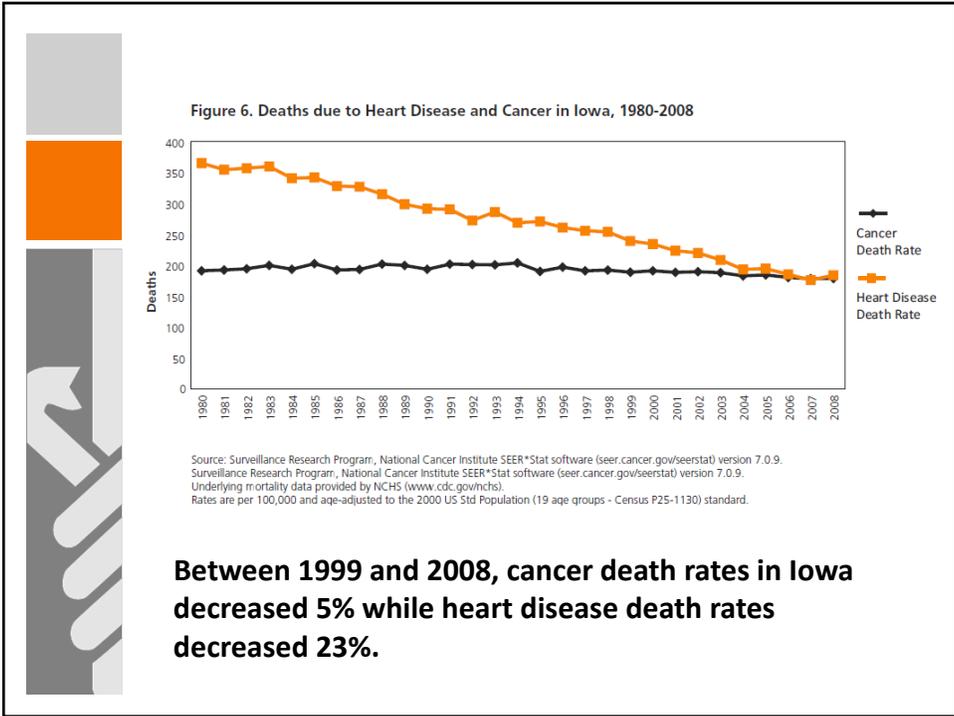


**Each day
47 people
in Iowa
will hear
the words
“You have
cancer.”**



**Each day 18
people in
Iowa will die
of cancer.**





Cancer Incidence in Iowa

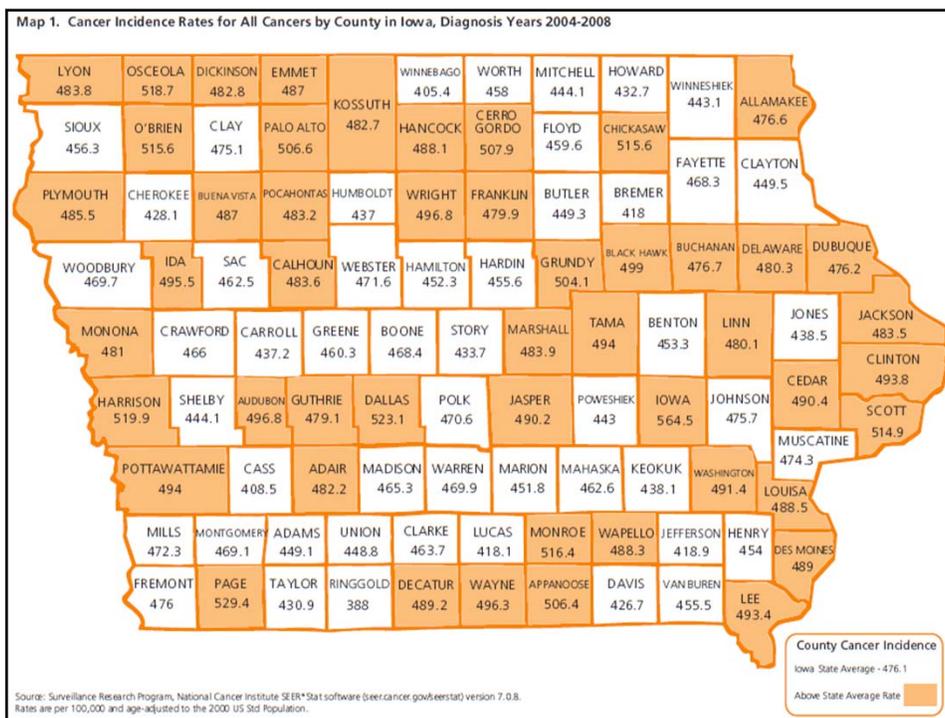
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Table 1 Average Annual Number of Cases and Age-Adjusted Incidence Rates by Sex, Iowa and US, 2004-2008

Primary Cancer Site/Type	Iowa			Males			Females		
	IA Cases	Total IA Rate	US Rate	IA Cases	IA Rate	US Rate	IA Cases	IA Rate	US Rate
All Sites	16,101	476.1	469.2	8,327	552.9	545.5	7,774	424.5	416
Lung and Bronchus	2,358	69.0	61.1	1,318	87.9	73.4	1,041	55.3	52.3
Prostate	2,172	141.7	162.5	2,172	141.7	162.5			
Female Breast	2,168	122.5	126.6				2,168	122.5	126.6
Colon and Rectum	1,862	53.5	46.6	916	61.3	53.6	946	47.1	41.0
Urinary Bladder	801	23.0	21.2	622	42.1	37.6	179	8.9	9.2
Non-Hodgkin Lymphoma	744	21.9	20.5	394	26.4	25.0	351	18.4	17.0
Melanoma of the Skin	632	19.7	21.7	350	23.4	27.1	282	17.4	17.9
Kidney and Renal Pelvis	563	16.7	14.5	349	22.9	19.6	214	11.6	10.3
Corpus and Uterus, NOS	509	28.4	25.1				509	28.4	25.1
Leukemia	489	14.4	12.9	275	18.6	16.7	215	11.2	10.0
Pancreas	398	11.4	12.2	200	13.3	14	198	9.8	10.7
Oral Cavity and Pharynx	385	11.4	10.7	269	17.4	15.8	116	6.3	6.3
Thyroid	324	10.7	11.5	89	5.9	5.8	235	15.6	17.0
Brain and Other Nervous System	242	7.6	6.6	137	9.1	7.7	106	6.2	5.6
Ovary	242	13.2	12.9				242	13.2	12.9
Stomach	191	5.5	7.4	126	8.4	10.5	65	3.3	5.0
Myeloma	190	5.5	5.8	106	7.1	7.3	84	4.3	4.7
Esophagus	184	5.4	4.8	148	9.7	8.2	37	1.9	2.0
Liver and Intrahepatic Bile Duct	156	4.5	7.0	106	6.8	10.8	51	2.5	3.7
Larynx	140	4.1	3.3	113	7.3	5.8	27	1.5	1.3
Cervix Uteri	105	6.9	6.8				105	6.9	6.8

Source: Surveillance Research Program, National Cancer Institute SEER*Stat software (seer.cancer.gov/seerstat) version 7.0.8. Rates are per 100,000 and age-adjusted to the 2000 US Std Population.



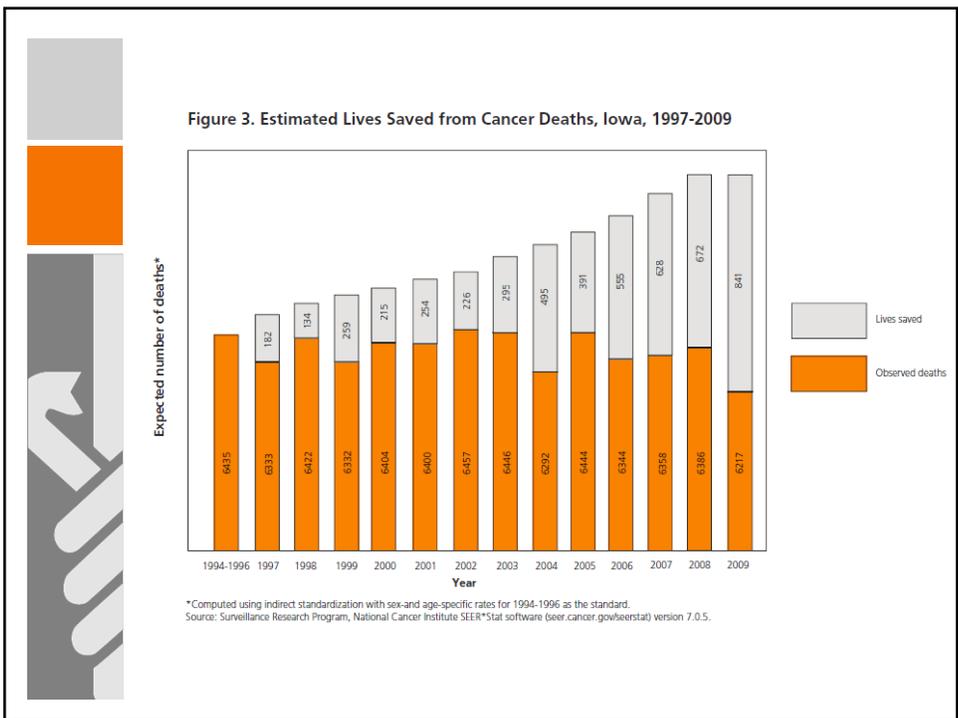
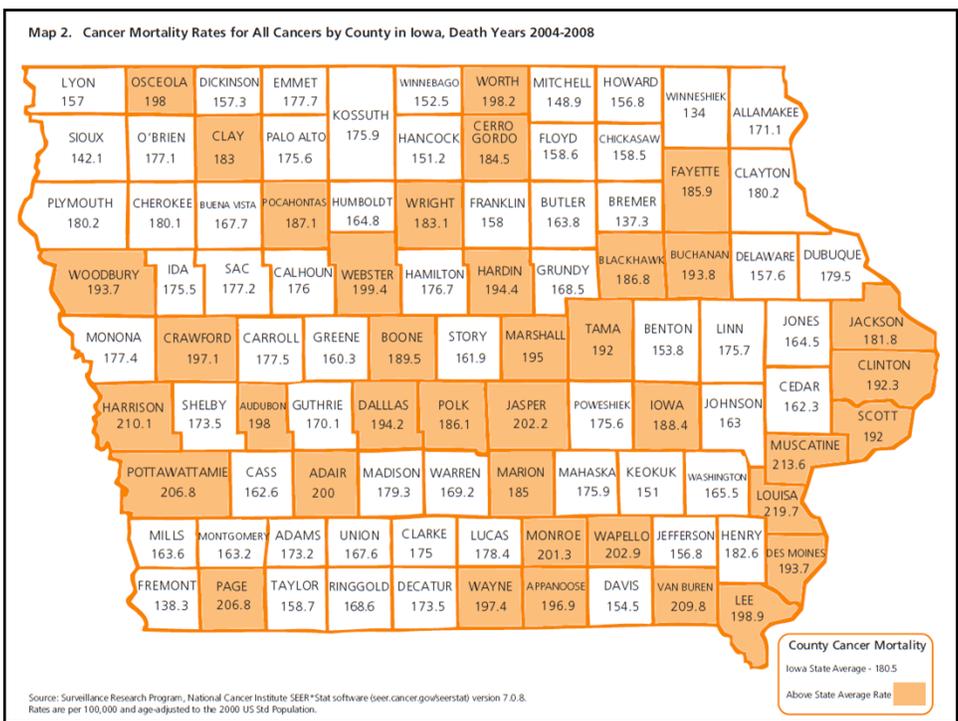
Cancer Mortality in Iowa

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Table 2 Average Annual Number of Deaths and Age-Adjusted Mortality Rates by Sex, Iowa and US, 2004-2008									
Primary Cancer Site/Type	Total			Male			Females		
	IA Deaths	IA Rate	US Rate	IA Deaths	IA Rate	US Rate	IA Deaths	IA Rate	US Rate
All Malignant Cancers	6,390	180.5	181.3	3,326	224.7	223	3,065	151.7	153.2
Lung and Bronchus	1,803	52.2	51.6	1,044	70.0	67.4	759	39.3	40.1
Colon and Rectum	656	18.0	17.1	314	21.3	20.7	341	15.5	14.5
Female Breast	437	22.1	23.5				437	22.1	23.5
Pancreas	362	10.2	10.8	179	12.1	12.5	182	8.8	9.4
Prostate	359	25.1	24.4	359	25.1	24.4			
Leukemia	280	7.8	7.1	157	10.8	9.7	123	5.9	5.4
Non-Hodgkin Lymphoma	257	7.1	6.7	135	9.2	8.6	122	5.6	5.4
Ovary	180	9.1	8.4				180	9.1	8.4
Brain and Other Nervous System	175	5.3	4.3	101	6.8	5.2	73	4.1	3.5
Kidney and Renal Pelvis	173	4.9	4.0	106	7.1	5.9	67	3.3	2.7
Urinary Bladder	168	4.5	4.4	121	8.4	7.7	46	2.1	2.2
Esophagus	166	4.8	4.3	134	8.8	7.8	32	1.6	1.6
Liver and Intrahepatic Bile Duct	145	4.1	5.3	89	5.8	7.9	57	2.7	3.2
Myeloma	123	3.4	3.5	66	4.5	4.4	56	2.6	2.8
Corpus and Uterus, NOS	96	4.8	4.2				96	4.8	4.2
Stomach	93	2.6	3.7	57	3.8	5.2	36	1.8	2.7
Melanoma of the Skin	89	2.6	2.7	54	3.6	4.0	35	1.8	1.7
Oral Cavity and Pharynx	86	2.5	2.5	56	3.7	3.9	30	1.5	1.4
Larynx	36	1.0	1.2	28	1.9	2.2	9	0.5	0.5
Cervix Uteri	36	2.1	1.9				36	2.1	1.9

Source: Surveillance Research Program, National Cancer Institute SEER*Stat software (seer.cancer.gov/seerstat) version 7.0.8. Rates are per 100,000 and age-adjusted to the 2000 US Std Population.



Probability for Developing Cancer

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The Lifetime Probability of Developing Cancer for Men, 2007-2009*

Site	Risk
All sites [†]	1 in 2
Prostate	1 in 6
Lung and bronchus	1 in 13
Colon and rectum	1 in 19
Urinary bladder [‡]	1 in 26
Melanoma [§]	1 in 35
Non-Hodgkin lymphoma	1 in 43
Kidney	1 in 49
Leukemia	1 in 63
Oral Cavity	1 in 66
Stomach	1 in 92

* For those free of cancer at beginning of age interval.

[†] All sites exclude basal and squamous cell skin cancers and in situ cancers except urinary bladder.

[‡] Includes invasive and in situ cancer cases

[§] Statistic for white men.

Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.6.1 Statistical Research and Applications Branch, National Cancer Institute, 2012.

The Lifetime Probability of Developing Cancer for Women, 2007-2009*

Site	Risk
All sites [†]	1 in 3
Breast	1 in 8
Lung & bronchus	1 in 16
Colon & rectum	1 in 21
Uterine corpus	1 in 38
Non-Hodgkin lymphoma	1 in 52
Urinary bladder [‡]	1 in 87
Melanoma [§]	1 in 54
Ovary	1 in 72
Pancreas	1 in 69
Uterine cervix	1 in 147

* For those free of cancer at beginning of age interval.

† All sites exclude basal and squamous cell skin cancers and in situ cancers except urinary bladder.

‡ Includes invasive and in situ cancer cases

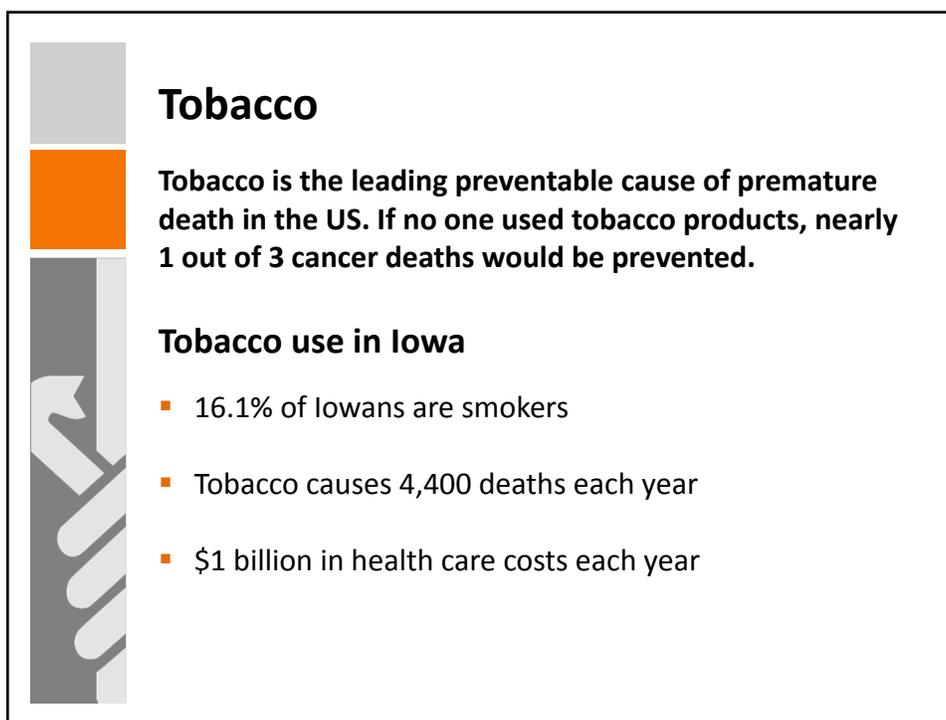
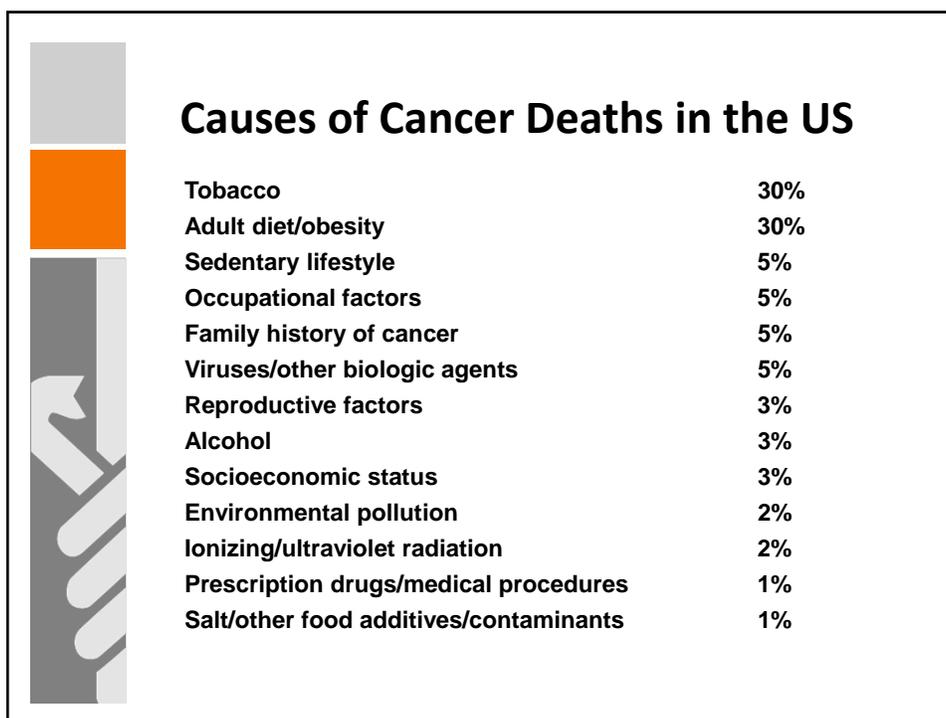
§ Statistic for white women.

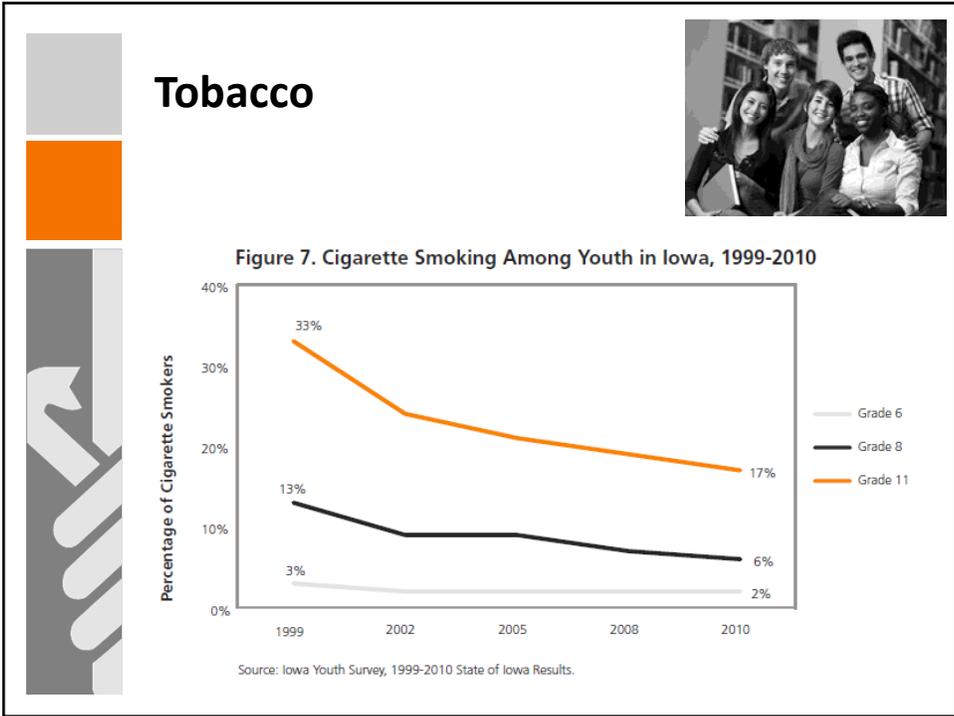
Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.6.1 Statistical Research and Applications Branch, National Cancer Institute, 2012.

Cancer Prevention

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Radon

Exposure to radon is the leading cause of lung cancer in nonsmokers.

Radon Exposure in Iowa

- Seven in ten homes have elevated radon levels
- Radon causes approximately 400 deaths each year



Nutrition and Physical Activity

On any given day in the U.S.



- 674 billion calories** consumed
- 49 million hot dogs
- 94 million pounds of red meat
- 25 million pounds of cheese
- 142 million eggs



On any given day in the U.S.

- 3 million gallons of ices cream
- 29 million gallons of soda
- 16 million gallons of beer
- 1.5 million gallons of hard liquor

(enough to make 26 million people drunk!)



153,503,275



196,484,192



Nutrition, Physical Activity, Obesity

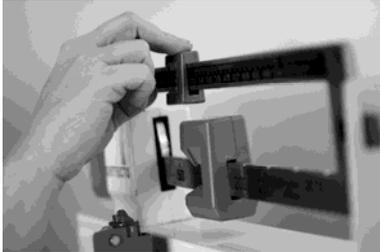
Approximately one-third of the cancer deaths that occur in the US each year are due to poor nutrition, physical inactivity and excess weight.

Nutrition, Physical Activity, Obesity in Iowa

- 37.1% of Iowans are overweight
- 29.1% of Iowans are obese
- 74.3% of Iowa males are over their healthy weight



ACS Guidelines on Nutrition and Physical Activity for Cancer Prevention



- Maintain a healthy weight
- Adopt a physically active lifestyle
- Consume a healthy diet
- Limit alcohol consumption



Alcohol

Alcohol raises the risk of cancers of the mouth, pharynx, larynx, esophagus, liver, breast, colon, and rectum.

Alcohol Use in Iowa

- 6.2% of men in Iowa reported heavy drinking
- 4.3% of women in Iowa reported heavy drinking



Ultraviolet Radiation

The vast majority of skin cancers are caused by unprotected exposure to excessive ultraviolet radiation.

Ultraviolet Radiation in Iowa

- Most skin cancer deaths are due to melanoma
- More than 600 Iowans are diagnosed with melanoma annually
- In 2004 a study found that 43.6% of white adults in Iowa had at least one sunburn in the past year



ACS Recommendations for the Prevention of Skin Cancer

- Avoid sun exposure
- Wear sunglasses to protect the eyes
- Use sunscreen
- Avoid tanning booths
- Protect children from sun exposure



Vaccines

6.2 million people become infected with HPV annually

- There are more than 100 types of HPV
- Virtually all cervical cancers are related to infections by HPV

Thanks to increased screening and vaccination, cervical cancer is now one of the most successfully controlled cancers in developed countries.



ACS Recommendations for the Early Detection of Cervical Cancer



Routine HPV Vaccination

- Recommended for females ages 11 to 12 years of age
- Recommended for females 13 to 18 years to catch up on missed vaccines or complete the vaccination series
- Women between 19 and 26 should consult their health care provider before receiving the vaccine
- Not recommended for women over age 26



Site-Specific Cancers

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Lung & Bronchus Cancer

Lung and Bronchus cancer is the leading cause of cancer death in Iowa for both men and women.

Lung & Bronchus Cancer in Iowa

- More than 85% of lung cancer deaths are caused by tobacco use
- 400 radon-related lung cancer deaths in Iowa each year
- 30 lung cancer deaths each year attributable to secondhand smoke



ACS Lung Cancer Screening

- **Criteria** – Those at high risk
 - Age 55 – 74 years
 - Fairly good health
 - Smoking history of a pack a day for 30 years
 - Currently smoke or quit within past 15 years
- **Method** – Low dose CT scan
- **Location** – Facility with experience in lung cancer screening

**Screening is NOT a substitute
for quitting smoking!**



Colorectal Cancer

Thanks to increased screening for colon cancer, colon cancer incidence and mortality rates in Iowa have been declining for the past decade.

Colorectal Cancer in Iowa

- Third most commonly diagnosed cancer
- More Iowans die of colorectal cancer than breast or prostate cancer
- Only two-thirds of Iowans age 50 and older report being screened as recommended



ACS Screening Recommendations for Colon Cancer



Beginning at age 50, men and women at average risk should follow one of the examination schedules:

Test that find polyps and cancer:

- **Colonoscopy** (every ten years) **or**
- **Flexible sigmoidoscopy** (every five years) **or**
- **Double-contrast barium enema** (every five years) **or**
- **CT colonography** (every five years)

Tests that primarily find cancer:

- **Fecal occult blood test** (annually) **or**
- **Fecal immunochemical test** (annually) **or**
- **Stool DNA test** (interval uncertain)



Breast Cancer

Breast cancer mortality in Iowa has decreased over the past decade. The majority of breast cancers can be treated successfully if detected early.

Breast Cancer in Iowa

- Most commonly diagnosed cancer among women
- Vast majority of women diagnosed were 50 or older
- Increased use of mammography



ACS Screening Recommendations for Breast Cancer



Women at average risk should follow the examination schedules:

- Yearly mammograms starting at age 40
- Clinical breast exams about every three years for women under 40; every year for women over 40
- Breast self-exams - option for women starting in their 20s and women should report any breast changes promptly to their health care providers



Prostate Cancer

It is estimated that about one in six men in the US will be diagnosed with prostate cancer during their lifetime.

Prostate Cancer in Iowa

- Most commonly diagnosed cancer among men
- Incidence and mortality rates have been declining
- When found early, the five year survival rate for prostate cancer is nearly 100%



ACS Screening Recommendations for Prostate Cancer



Starting at age 50, men should make an informed decision with their health care provider about whether to be tested for prostate cancer.

Men at increased risk should talk with their doctor at age 45:

- African American men
- Men who have a father or brother who had prostate cancer before the age 65



Melanoma of the Skin

Melanoma accounts for less than 5% of all skin cancer cases, yet accounts for the vast majority of skin cancer deaths.

Melanoma in Iowa

- The number of melanomas diagnosed has risen
- Each year 630 Iowans are diagnosed with melanoma
- Each year nearly 90 Iowans die from the disease



ACS Guidelines for the Early Detection of Melanoma

The ABCD rule is a guide to the usual signs of melanoma. Tell your doctor about spots that have any of the following features:

- A – Asymmetry** (one half doesn't match the other)
- B – Border** (irregular, ragged, notched, or blurred edges)
- C – Color** (color is not the same all over)
- D – Diameter** (larger than 6 millimeters across)
- E – Evolving** (mole changing in size, shape, or color)



Cervical Cancer

Nationwide, cervical cancer incidence and mortality rates have decreased 50% over the past three decades with most of the reduction attributed to the Pap test.

Cervical Cancer in Iowa

- 95% of Iowa women have had a Pap test
- Close to 105 women in Iowa develop cervical cancer each year
- Approximately 36 women die of cervical cancer each year



ACS Guidelines for the Early Detection of Cervical Cancer

Women ages 21-29

- Pap test every three years (Recommend against annual Pap test)

Women ages 30-65

- HPV and Pap test every five years (cotesting) **OR**
- Pap test alone every three years (Recommend against more frequent screening)

Women over 65

- Discontinue if 3 normal pap tests or 2 negative HPV tests with most recent test in past 5 years



Cancer Survival in Iowa

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Facts & Figures: What is Survivorship?

During the 1970's, about one in two people diagnosed with cancer survived at least five years. Now more than two in three survive at least five years.



Survivorship in Iowa:

- Today there are more than 135,000 survivors in Iowa
- In 2010, nearly one-fourth of cancer diagnoses occurred in Iowans between the ages of 60 and 70 years

Five-Year Relative Survival in Iowa

Table 6. 5-Year Relative Survival Rate by Cancer Type, Diagnosis Years 1999-2006

	Relative Survival		Relative Survival
All Sites.....	65.10%	Non-Hodgkin Lymphoma	68.00%
Prostate.....	97.90%	Kidney and Renal Pelvis.....	67.20%
Thyroid.....	96.60%	Leukemia.....	53.60%
Breast.....	90.70%	Ovary.....	39.80%
Melanoma of the Skin.....	90.40%	Myeloma.....	37.20%
Corpus and Uteruse, NOS.....	84.40%	Brain.....	27.00%
Urinary Bladder.....	80.90%	Esophagus.....	22.70%
Cervix Uteri.....	70.40%	Stomach.....	22.70%
Larynx.....	68.40%	Lung and Bronchus.....	14.20%
Oral Cavity and Pharynx.....	68.30%	Liver and Intrahepatic Bile Duct.....	12.60%
Colon and Rectum.....	68.10%	Pancreas.....	5.40%



ACS Nutrition and Physical Activity Guidelines for Cancer Survivors

For many cancers, the following actions can increase the likelihood of disease-free survival after a diagnosis:

- Maintaining a healthy weight
- Getting adequate physical activity
- Eating a healthy diet



Cancer Disparities in Iowa

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Health Disparities

- Socioeconomic Status
- Age
- Education
- Race/Ethnicity
- Gender
- Geographic Location
- Income

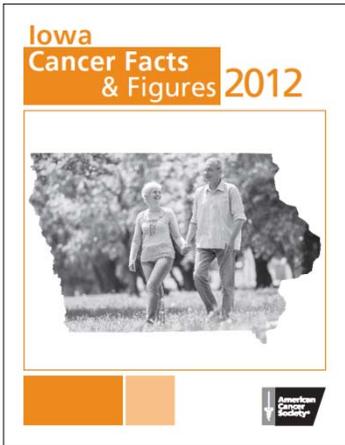



Facts & Figures: For More Information

Iowa Cancer Facts & Figures 2012 is available online!
www.CancerIowa.org

For a hard copy of Iowa Cancer Facts & Figures, or to provide feedback on the publication, please contact:

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We **save lives** and create more birthdays
by helping you stay well, helping you get well,
by finding cures, and by fighting back.

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State Employees Cancer Experience

Health claims incurred from 11/01/2011 – 10/31/2012

Preventive Cancer Screening

Screening Percentage	Employee	Spouse/Partner
Cervical Cancer Screening <i>Average Candidates</i>	43% <i>16,506</i>	40% <i>8,534</i>
Colon Cancer Screening <i>Average Candidates</i>	18% <i>18,178</i>	17% <i>9,273</i>
Mammogram Screening <i>Average Candidates</i>	58% <i>13,447</i>	54% <i>6,559</i>
PSA Screening <i>Average Candidates</i>	47% <i>7,521</i>	41% <i>4,738</i>

3

Cancer Impact – Employees

Clinical Condition	Patients	Net Wellmark Pay
Cancer – Breast	607	\$2,559,199.90
Cancer – Cervical	297	\$273,331.32
Cancer – Colon	126	\$1,173,319.90
Cancer – Lung	89	\$638,962.69
Cancer – Ovarian	52	\$362,535.48
Cancer – Prostate	577	\$814,195.71
Total	1,714	\$5,821,545.00

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Cancer Impact – Spouse/Partner

Clinical Condition	Patients	Net Wellmark Pay
Cancer – Breast	229	\$762,363.27
Cancer – Cervical	90	\$78,994.80
Cancer – Colon	67	\$530,289.25
Cancer – Lung	44	\$484,116.48
Cancer – Ovarian	24	\$188,700.30
Cancer – Prostate	292	\$687,137.26
Total	732	\$2,731,601.36

Preventive Screening

- Blue Advantage – \$10 copay
- Blue Access – \$10 copay
- Iowa Select – \$15 copay for the office visit + 10% coinsurance for a test in the office.
- Program 3 Plus – \$15 copay for the office visit + 20% coinsurance for a test in the office.
- Deductible 3 Plus – 20% coinsurance after meeting the deductible of \$300 (single) or \$400 (family)