Epidemiology of AYA Cancers in Texas

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AYA Overview

• Background
• AYA Incidence
• AYA Mortality
• Survival
• Next Steps
• Conclusion

Background

Texas Cancer Registry: Who We Are

• The Texas Cancer Registry (TCR) is a combination active/passive population-based surveillance system that collects, manages, analyzes, and disseminates Texas cancer incidence data
• Serves as the foundation for measuring the Texas cancer burden, comprehensive cancer control efforts, health disparities, progress in prevention, diagnosis, treatment, and survivorship, as well as supports a wide variety of cancer-related research.
Background

Texas Cancer Registry: Who We Are

Vision: A cancer-free Texas.

Mission: To collect, maintain, and disseminate high quality cancer data that contribute towards cancer prevention and control, research, improving diagnoses, treatment, survival, and quality of life for all cancer patients.

Philosophy:
Maintain a high quality nationally certified statewide population-based cancer registry with complete, timely, and accurate data.

Meet the data needs of Texans, including public health officials, healthcare practitioners, cancer researchers, health planners, advocacy groups, the public, and other local, state, and national entities.

Make a significant contribution to the fight against cancer.

Incidence

 Adolescent and Young Adult (AYA) Cancers

• Because of their relatively low cancer incidence, the adolescent and young adult population has not been a major focus of cancer control and prevention in the U.S. or Texas.

• AYAs are particularly at risk of being “lost” in healthcare, public health, surveillance, and research systems.

Incidence Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups – Census P25-1130) standard.

Source: Incidence - Texas, 1995-2014, cut-off 11-14-2016, SEER*Prep 2.5.3 [19 Age Groups], Texas Cancer Registry, Texas Department of State Health Services, March 2017.

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Background

Adolescent and Young Adult (AYA) Cancers

- As an age group, this population is experiencing distinct physical changes, challenges, and emotional hurdles
- Cancer often poses a unique burden to their growth and development

Background

"Not everything that can be counted counts, and not everything that counts can be counted."

Incidence

- About 70,000 young people (ages 15-39) are diagnosed with cancer each year in the U.S.
- Accounts for about 5 percent of cancer diagnosed in the U.S.
- This is about 6 times the number of cancers diagnosed in children ages 0-14

Incidence

- Texas is a particularly challenging state for health care
  - Both geographically and ethnically diverse
  - 254 counties
  - Rural population
  - Medically underserved areas
  - Highest uninsured rate in the nation
Incidence

- About 6,400 young people (ages 15–39) are diagnosed with cancer each year in Texas.
- Accounts for 6 percent of cancer diagnosed in the Texas.
- Is just over 6 times the number of cancers diagnosed in children ages 0–14.

Incidence

Adolescent and Young Adult (AYA) Cancers

- Cancers in AYAs are unique in the distributions that occur.
- Hodgkin lymphoma, melanoma, testis cancer, female genital tract malignancies, thyroid cancer, soft tissue sarcomas, non-Hodgkin lymphoma, leukemia, brain and spinal cord tumors, breast cancer, bone sarcomas, and non-gonadal germ cell tumors account for 95% of the cancers in this age group in the U.S.
- For Texas, these cancers make up 94% of cancers in this age group.

Incidence

Adolescent and Young Adult (AYA) Cancers

- The most common AYA cancer sites vary by age group.
- The frequency distribution of cancer types changes dramatically from age 15–39, such that the pattern at the youngest age does not resemble the one at the oldest.
Incidence

Common Cancer Sites (ages 15-19) by Primary Site, Texas 2010-2014

Incidence

Common Cancer Sites (ages 30-39) by Primary Site, Texas 2010-2014

Incidence

Common Cancer Sites (ages 25-29) by Primary Site, Texas 2010-2014

Incidence

Adolescent and Young Adult (AYA) Cancers

- Young women are more likely to be diagnosed with cancer than young men
- Incidence varies by race/ethnicity, as well as geographically

Source: Incidence - Texas, 1995-2014, cut-off 11-14-2016, SEER*Prep 2.5.3 [19 Age Groups], Texas Cancer Registry, Texas Department of State Health Services, March 2017.
Incidence

New Cancer Cases by Sex According to Adapted Classification of Tumors for AYA (ages 15-39), Texas 2010-2014

Source: Incidence - Texas, 1995-2014, cut-off 11-14-2016, SEER*Prep 2.5.3 [19 Age Groups], Texas Cancer Registry, Texas Department of State Health Services, March 2017.

Carcinomas 51%

Incidence

Age-Adjusted Cancer Incidence by Age and Race/Ethnicity, Texas 2010-2014

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (a9 age groups – Census P25-1130) standard.

Source: Incidence - Texas, 1995-2014, cut-off 11-14-2016, SEER*Prep 2.5.3 [19 Age Groups], Texas Cancer Registry, Texas Department of State Health Services, March 2017.

Incidence

Age-Adjusted Cancer Incidence by Health Service Region, Texas 2010-2014

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (a9 age groups – Census P25-1130) standard.

Source: Incidence - Texas, 1995-2014, cut-off 11-14-2016, SEER*Prep 2.5.3 [19 Age Groups], Texas Cancer Registry, Texas Department of State Health Services, March 2017.

Mortality

• About 9,000 young people (ages 15-39) die from cancer each year in the U.S.
• Almost 1,100 young people (ages 15-39) die from cancer each year in Texas
• Accounts for nearly 10 percent of cancer deaths
• Is the leading cause of death from disease among females and is 2nd only to heart disease among males

Source: Mortality - Texas, 1990-2014, SEER*Prep 2.5.3 [19 Age Groups], Texas Cancer Registry, Texas Department of State Health Services, March 2017.

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Mortality

Age-Adjusted Cancer Mortality by Cancer Site, Texas 1995-2014

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Rates are per 100,000 and were age-adjusted to the 2000 US Std Population (all age groups - Census P25-1130) and are from Texas Cancer Registry, Texas Department of State Health Services, March 2017.

Survival

• For the U.S., the survival deficit is rrilval rates for cancer in young adults have not changed much in recent decades, unlike improvements seen in many cancers in children and young adults.
• Survival rates vary based on age, the type of cancer, and other factors

5-Year Relative Survival Rates by Age at Diagnosis, Texas 1995-2014

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<td>81.3%</td>
<td>82.5%</td>
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<td>84.0%</td>
<td>84.6%</td>
<td>85.2%</td>
<td>85.8%</td>
<td>86.4%</td>
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<td>88.4%</td>
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<td>89.4%</td>
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<tr>
<td>Bone and Soft Tissue Cancer</td>
<td>58.7%</td>
<td>60.5%</td>
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<td>71.6%</td>
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<tr>
<td>Leukemia Cancer</td>
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<td>63.3%</td>
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<td>80.0%</td>
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### SEER (a) 5-Year Relative Survival (Percent) for the Top 5 Cancer Sites (b) by Age
### All Races, Both Sexes, 1975-2012

#### Ages 15-19

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<td>76.3</td>
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<tr>
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<td>88.9</td>
<td>94.2</td>
<td>95.9</td>
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<td>Brain and ONS</td>
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<td>62.2</td>
<td>73</td>
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<td>Thyroid</td>
<td>99</td>
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<td>98.9</td>
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<td>Testis</td>
<td>74.4</td>
<td>51.4</td>
<td>69.4</td>
<td>72</td>
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#### Ages 20-24

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<td>74.7</td>
<td>78.4</td>
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#### Ages 25-29

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<td>All Malignant Cancers</td>
<td>81.2</td>
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<td>Breast</td>
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#### Ages 30-34

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<td>All Malignant Cancers</td>
<td>82.2</td>
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<td>Breast</td>
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SEER(a) 5-Year Relative Survival (Percent) for the Top 5 Cancer Sites(b) by Age All Races, Both Sexes, 1975-2012

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<td>65.8</td>
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<td>99.2</td>
<td>99.4</td>
<td>99.3</td>
<td>99.9</td>
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<tr>
<td>Colon and Rectum</td>
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<td>51.6</td>
<td>52.6</td>
<td>73.4</td>
<td>83.3</td>
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Texas Cancer Registry

Next Steps

- Continue to support AYA-related research and activities
- Provide annual AYA Texas statistics
- Estimated new cases and deaths
- Survival
- Prevalence
- Evaluate when sufficient data will be available for trends
- Provide annual Fact Sheets
- AYA in Texas Special Report
- Add AYA to web query tool

Questions?

Thank you

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CancerData@dshs.texas.gov