Healthy Arizona WORKSITES
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HEALTHY ARIZONA WORKSITES PROGRAM (HAWP) PRESENTS:

LATEST IN THYROID AND ENDOCRINE CANCERS

Presented by:

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Endocrine/General Surgeon Dignity Health St. Joseph's Hospital and Medical Center - Surgical Specialties Clinic in the Arizona Service Area

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WEBINAR HOUSEKEEPING

WELCOME

All lines have been muted.

Please type any questions into the chat or Questions panel and we will do our best to answer them all at the end.

All handouts and a copy of the presentation slides are available in the Handouts panel.

Please complete the survey that will be emailed out after the presentation

A recording will be added to the library of HAWP webinars on our website within 48 hours.

Special thanks to our supporting partner Dignity Health for their generous support in making this webinar possible.

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Q&A

PLEASE ENTER YOUR QUESTIONS IN THE CHAT.

Latest in Thyroid Cancer – Facts, Symptoms and Risks

Kathryn Coan, MD
Endocrine Surgeon
September 16, 2020

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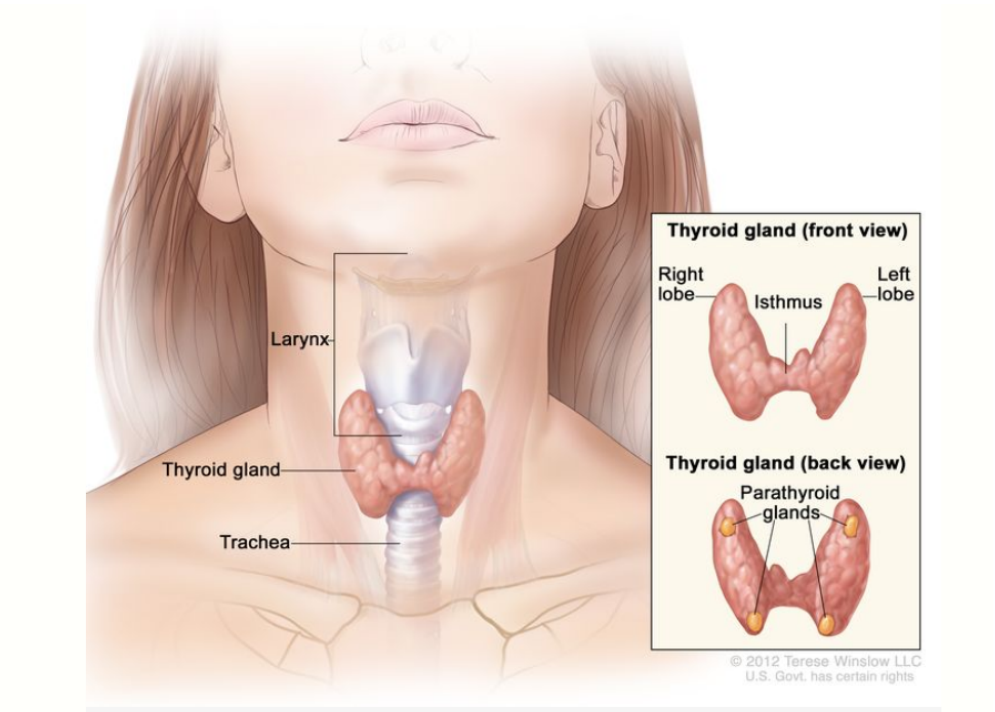
Objectives

- Thyroid anatomy and function
- National and statewide incidence rates of thyroid cancer
- Workup for thyroid cancer
- Types of thyroid cancer
- Prognosis of thyroid cancer
- Treatment for thyroid cancer
- The role of a multidisciplinary team in the treatment of thyroid cancer
- How employers can support employees undergoing thyroid cancer treatment

Thyroid Anatomy and Function

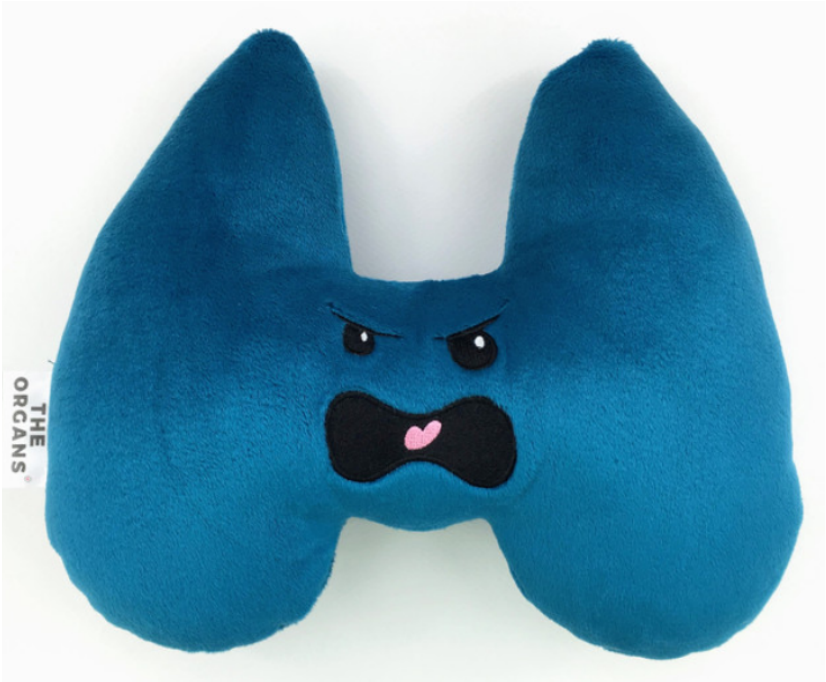
- Gland located in the neck overlying the trachea



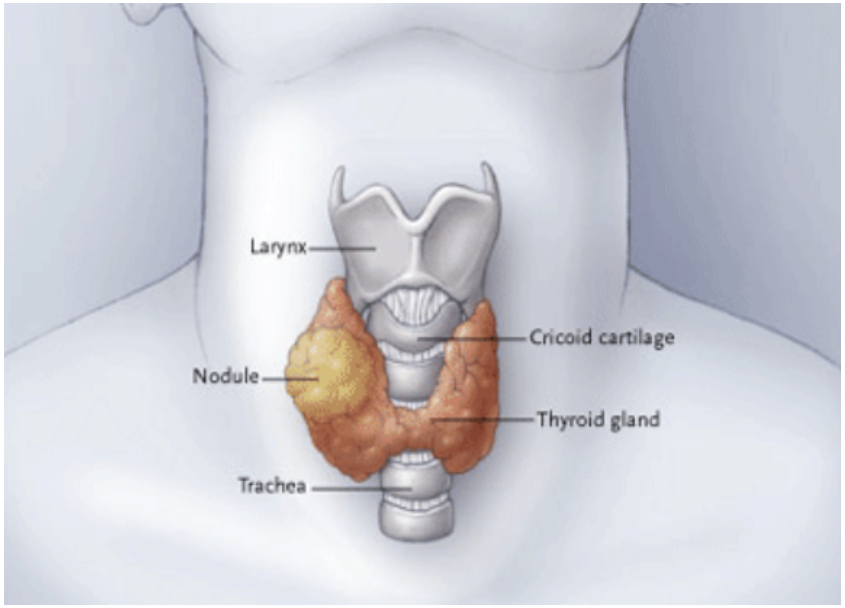
Source: cancer.gov/types/thyroid/patient/thyroid-treatment-pdq

Thyroid Anatomy and Function

- Thyroid takes up iodine to make thyroid hormone
- Acts on every cell and organ in the body
  - Metabolism impacting weight gain and loss
  - Heart rate
  - Body temperature
  - Rate of food digestion
  - Muscle contraction
  - Rate of cell turn over



Thyroid nodules



- Thyroid nodules are extremely common
- By age 60, 50% of people will have thyroid nodules on US
- The majority of nodules are benign (>90%)

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Source: Massachusetts Medical Society 2005 All rights reserved Utiger, R.D. NEJM 2005; 352:2376-2378

National Incidence Rates of Thyroid Cancer

Estimated new cases, 2020	Estimated deaths, 2020	Incidence rates, 2012-2016	Death rates, 2013-2017
52,890	**2,180**	**14.5** Average annual rate per 100,000, age adjusted to the 2000 US standard population.	**0.5** Average annual rate per 100,000, age adjusted to the 2000 US standard population. Rates for PR are for 2011-2015.

- 2.9% of new cancer diagnoses
  - 13th most common cancer
- 0.4% of cancer deaths
  - 23rd most common for deaths

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Source: American Cancer Society

Statewide and National Incidence Rates of Thyroid Cancer

Thyroid Cancer Nationwide

Estimated new cases, 2020	Estimated deaths, 2020	Incidence rates, 2012-2016	Death rates, 2013-2017
52,890	2,180	14.5	0.5
		Average annual rate per 100,000, age adjusted to the 2000 US standard population.	Average annual rate per 100,000, age adjusted to the 2000 US standard population. Rates for PR are for 2011-2015.

Thyroid Cancer Arizona

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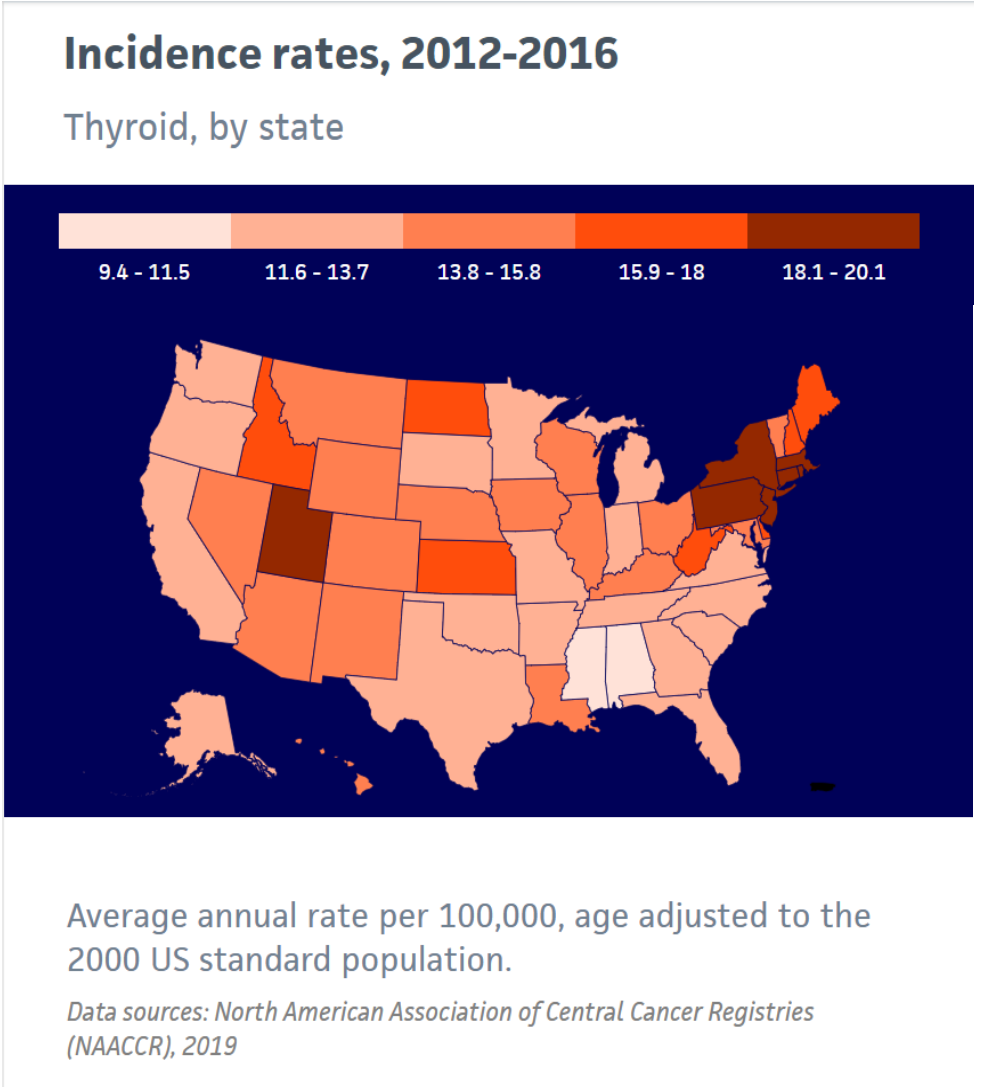
Source: American Cancer Society

Statewide and National Incidence Rates of Thyroid Cancer

- Arizona mid range 14.6



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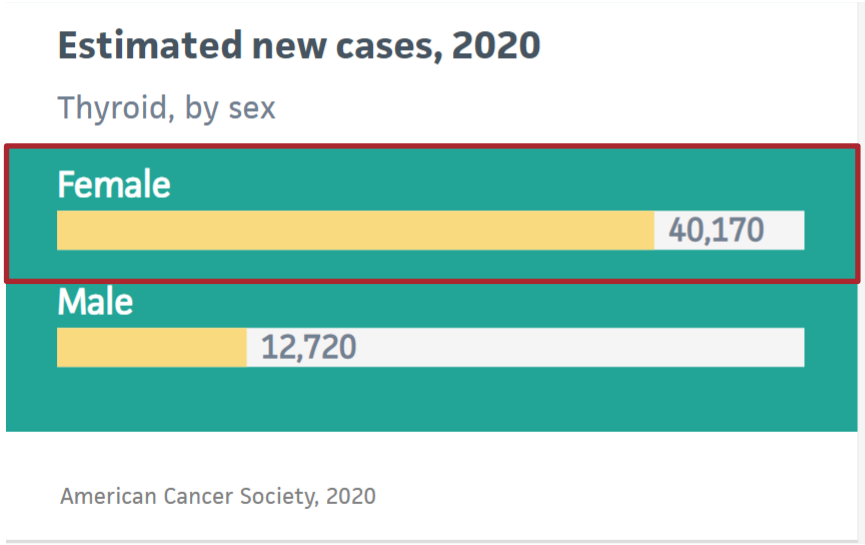
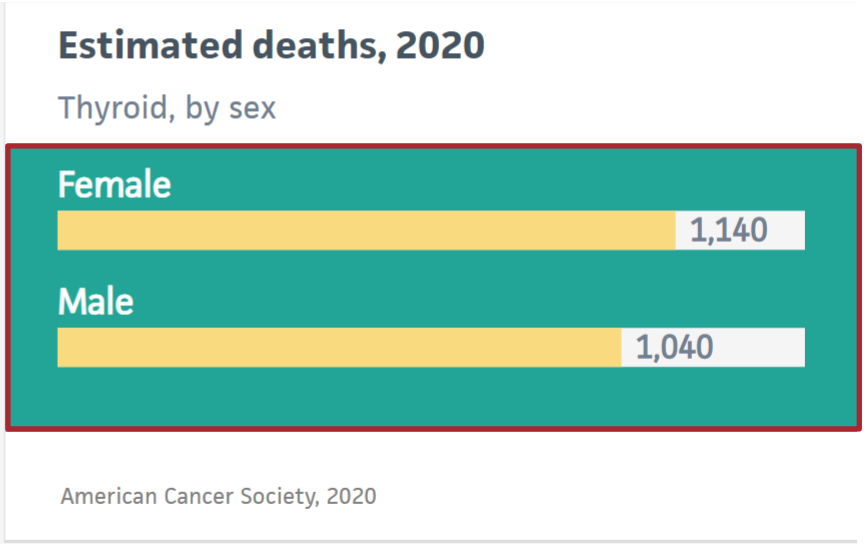
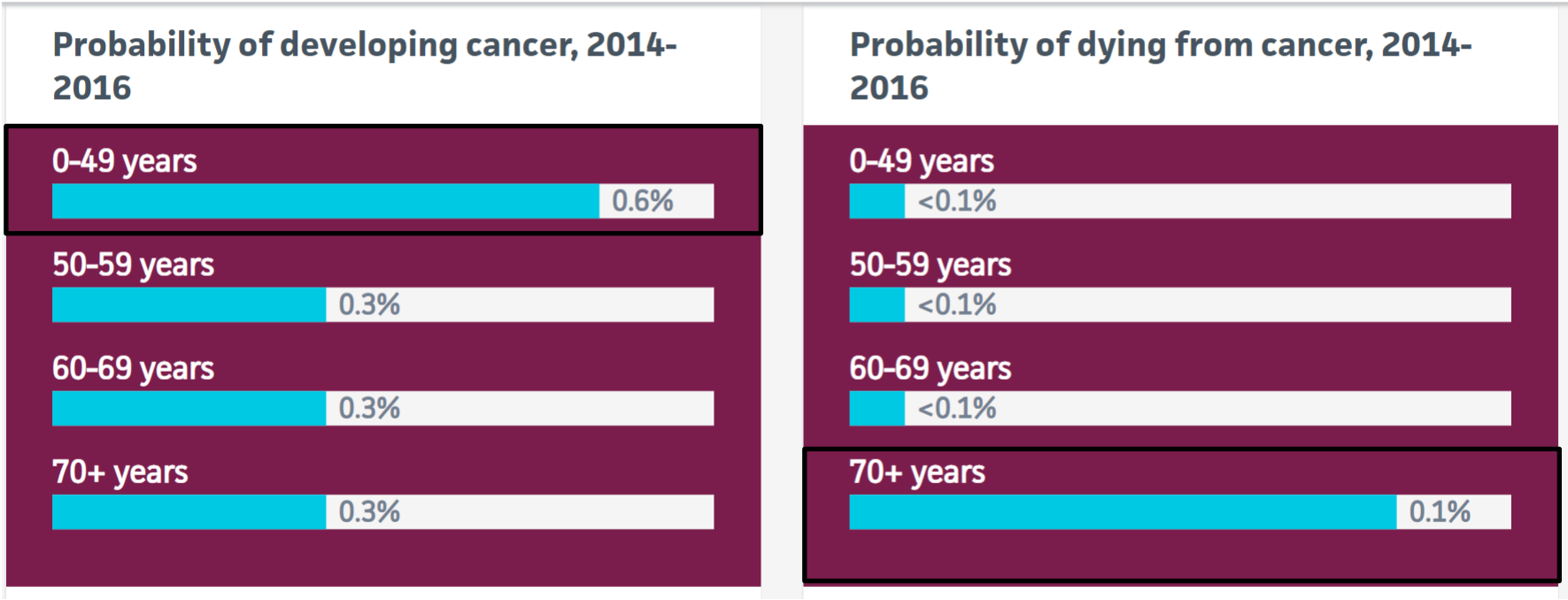
National Incidence Rates of Thyroid Cancer





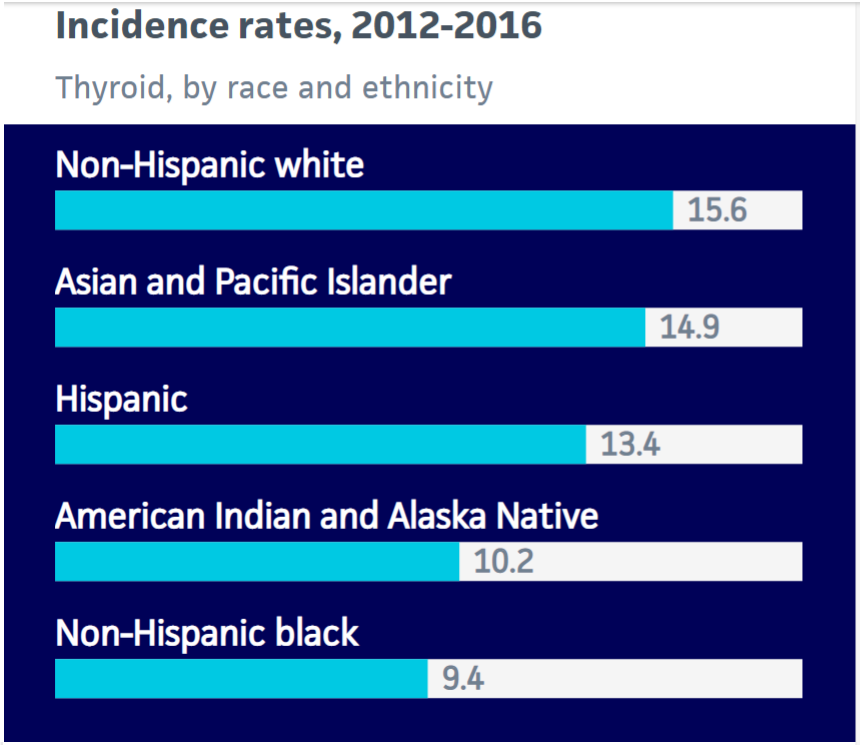
- Woman are more commonly diagnosed with thyroid cancer
- More aggressive in men

National Incidence Rates of Thyroid Cancer



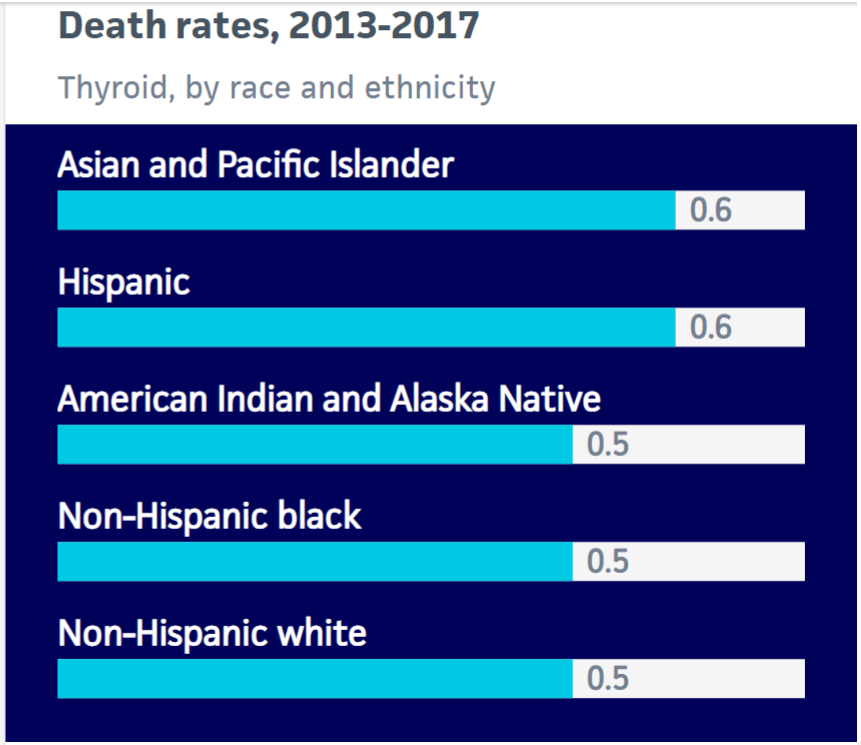
- Impacts younger patients
- Probability of dying higher in older patients

National Incidence Rates of Thyroid Cancer



Average annual rate per 100,000, age adjusted to the 2000 US standard population.

Data sources: North American Association of Central Cancer Registries (NAACCR), 2019

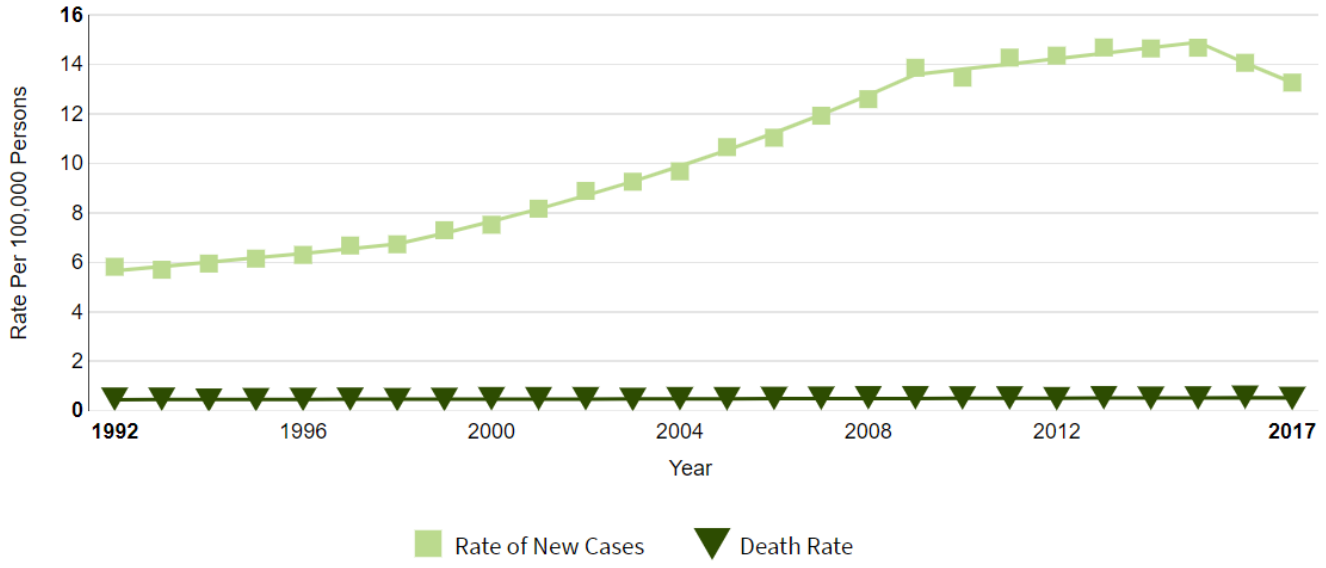


Average annual rate per 100,000, age adjusted to the 2000 US standard population. Rates for PR are for 2011-2015.

Data sources: National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention, 2019

National Incidence Rates of Thyroid Cancer

- Incidence of thyroid cancer has increased
- Some, but not all, likely secondary to increased testing



New cases come from SEER 13. Deaths come from U.S. Mortality.
All Races, Both Sexes. Rates are Age-Adjusted.
Modeled trend lines were calculated from the underlying rates using the Joinpoint Trend Analysis Software.

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Source: https://seer.cancer.gov/statfacts/html/thyro.html

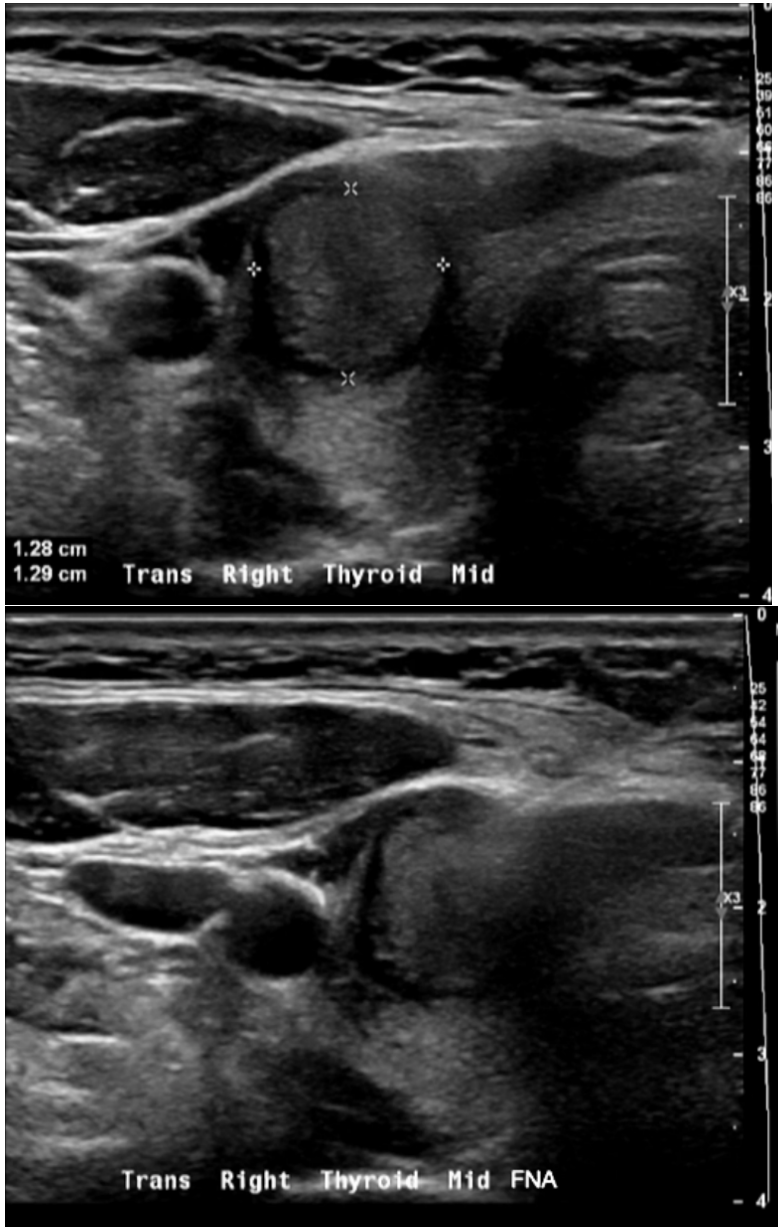
Workup for Thyroid Cancer

- Patient History
  - History regarding thyroid nodule
  - Compressive Symptoms
  - Symptoms of hyper or hypothyroidism
  - Family history of thyroid Cancer
  - History or head or neck radiation exposure

- Physical Exam
  - Evaluation of thyroid
  - Evaluation of lymph nodes

Workup for Thyroid Cancer

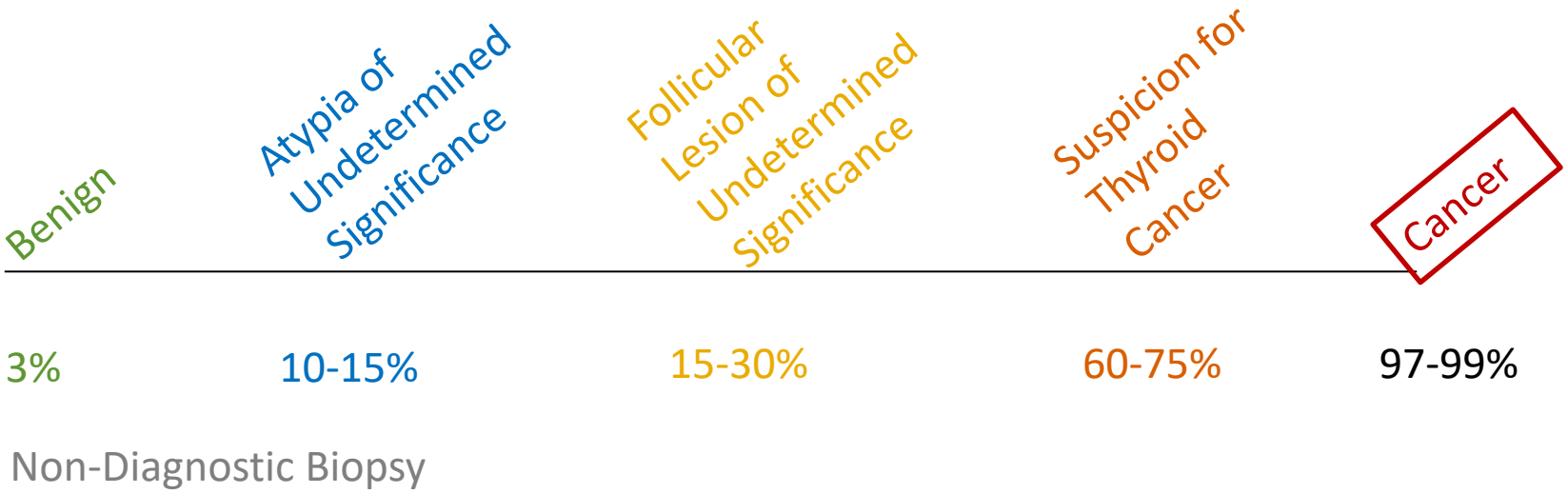
- Laboratory Testing
  - Thyroid function testing
- Imaging
  - Ultrasound
- Fine Needle Aspiration



Source: radiopaedia.org/cases/us-guided-thyroid-nodule-fna

Workup for Thyroid Cancer

- Results of Fine Needle Aspiration



- Depending on results determines next steps

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Types of Thyroid Cancer

- Well differentiated thyroid cancer (90%)
  - Papillary thyroid cancer (most common)-80%
  - Follicular thyroid cancer 10%
  - Hurthle Cell 3%
- Medullary thyroid cancer (2-4%)
  - Neuroendocrine cancer
  - Different workup and treatment
  - Possible genetic syndrome
- Anaplastic Thyroid Cancer (1-2%)
  - Rare
  - Bad prognosis

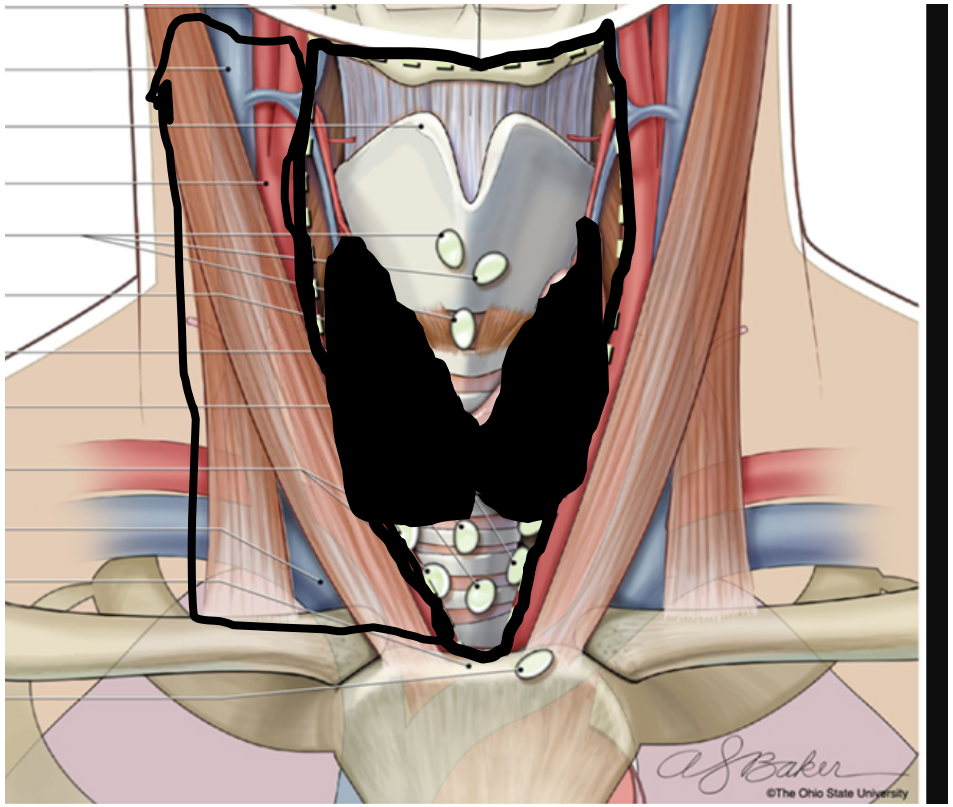
Prognosis for Thyroid Cancer

5 year Survival				
	Papillary Thyroid Cancer	Follicular Thyroid Cancer	Medullary Thyroid Cancer	Anaplastic Thyroid Cancer
Localized	100%	100%	100%	31%
Regional	99%	96%	90%	12%
Distant	78%	63%	39%	4%

Source: https://seer.cancer.gov/statfacts/html/thyro.html

Treatment for Thyroid Cancer

- Surgery
- Extent of surgery varies by disease
  - Thyroid Lobectomy
  - Total Thyroidectomy
  - Total Thyroidectomy with central neck lymph node dissection
  - Modified Radical Neck Lymph Node Dissection



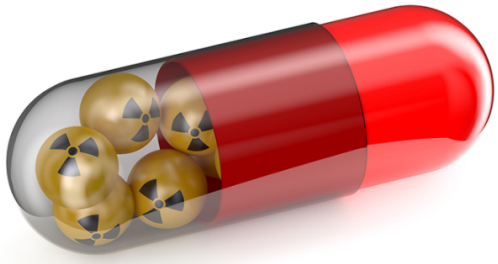
Treatment for Thyroid Cancer

- Goals of Surgery
  - Improve survival
  - Decrease recurrence
  - Accurately stage the disease
  - Avoid placing the patient at unnecessary surgical risk
  - Risks of surgery
    - Bleeding
    - Hoarseness
    - Hypocalcemia
  - Risk of complication increases with surgeons who perform <25 thyroid surgeries per year
  - 51% of thyroid surgery performed in the US is performed by someone who does 1 case per year and 81% by someone who does <25

Treatment for Thyroid Cancer

- Additional adjuvant therapies
  - Well differentiated thyroid cancers
    - Thyroid suppression -Prevents additional stimulation of any remaining thyroid cells

    - Radioactive Iodine-Ablation of cells thyroid cells that take up iodine



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Treatment for Thyroid Cancer

- Medullary thyroid cancer
  - Not impacted by these treatments
  - Genetics important (25% familial)
    - Early detection in relatives
    - Potentially associated with other diseases
- Aggressive thyroid cancers
  - Chemotherapy
  - Radiation

The role of a multidisciplinary team in the treatment of thyroid cancer

- Primary Care Physician
- Endocrinologist
- Radiologist
- Interventional Radiologist
- Pathologist
- Surgeon
- Radiation Oncologist
- Genetics Counselor
- Medical Oncologist

How employers can support employees undergoing thyroid cancer treatment

- Recognize that thyroid cancer is a cancer
- Patients will need time off work for workup and testing
- Time off after surgery
- Time for additional treatments

Instructions to reduce exposure to others after I-131 RAI treatment

ACTION	DURATION (DAYS)
Sleep in a separate bed (~6 feet of separation) from another adult	1-11*
Delay return to work	1-5*
Maximize distance from children and pregnant women (6 feet)	1-5*
Limit time in public places	1-3*
Do not travel by airplane or public transportation	1-3*
Do not travel on a prolonged automobile trip with others	2-3
Maintain prudent distances from others (~6 feet)	2-3
Drink plenty of fluids	2-3
Do not prepare food for others	2-3
Do not share utensils with others	2-3
Sit to urinate and flush the toilet 2-3 times after use	2-3
Sleep in a separate bed (~6 feet of separation) from pregnant partner, child or infant	6-23*

*duration depends on dose of I-131 given

How employers can support employees undergoing thyroid cancer treatment

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Summary

- Thyroid cancer, although not common, has increased in incidence
- It is more common in women and younger patients
- Good survival profile but can recur
- Mainstay of treatment is surgery
- Treatment requires a multidisciplinary approach
- Patient support is crucial to improving patient outcomes

Resources

- American Thyroid Association
- American Association of Endocrine Surgeons
- Thyca.org
- American Cancer Society

Thank You!

For more information about cancer prevention, treatment, screening, or to request a speaker for your worksite on any cancer-related topic, **call:**

602.699.3366

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Cancer Center at Dignity Health St. Joseph's Hospital

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THANK YOU FOR WATCHING!

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