

## BEHAVIORAL RESEARCH

CANCER CONTROL AND POPULATION SCIENCES

**The presentation will begin shortly**

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Prepared by:



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# Decision-Making Steering Committee Speaker Series

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National Institutes of Health



# Lung Cancer

## "Challenges for Patients/families and Physicians"

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# Background

## Diagnostic Challenges

Patients perspective

Physician perspective

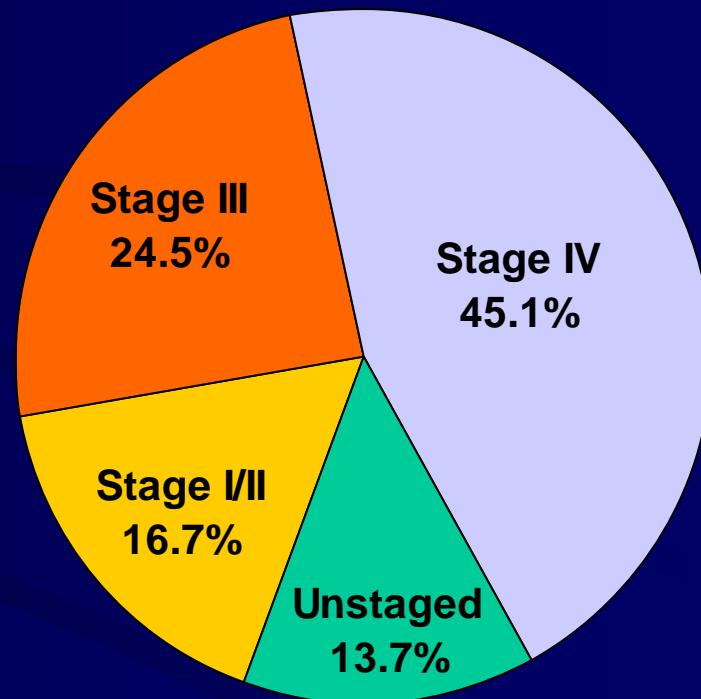
## Treatment selection challenges

Patients perspective

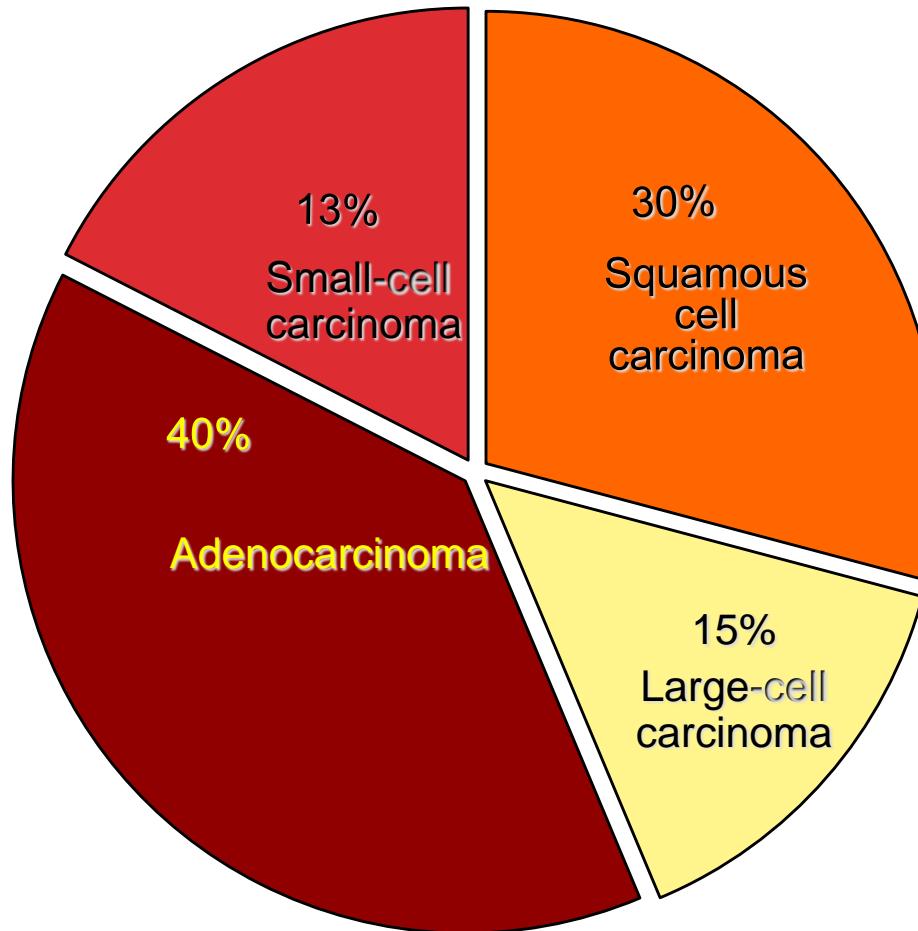
Physician perspective

# Incidence of Advanced-Stage NSCLC

- Lung cancer is the leading cause of cancer deaths
- Most cases ( $\approx 70\%$ ) are diagnosed in late stages of disease (stage III or IV)
- Approximately 173,770 new US cases of NSCLC expected each year.

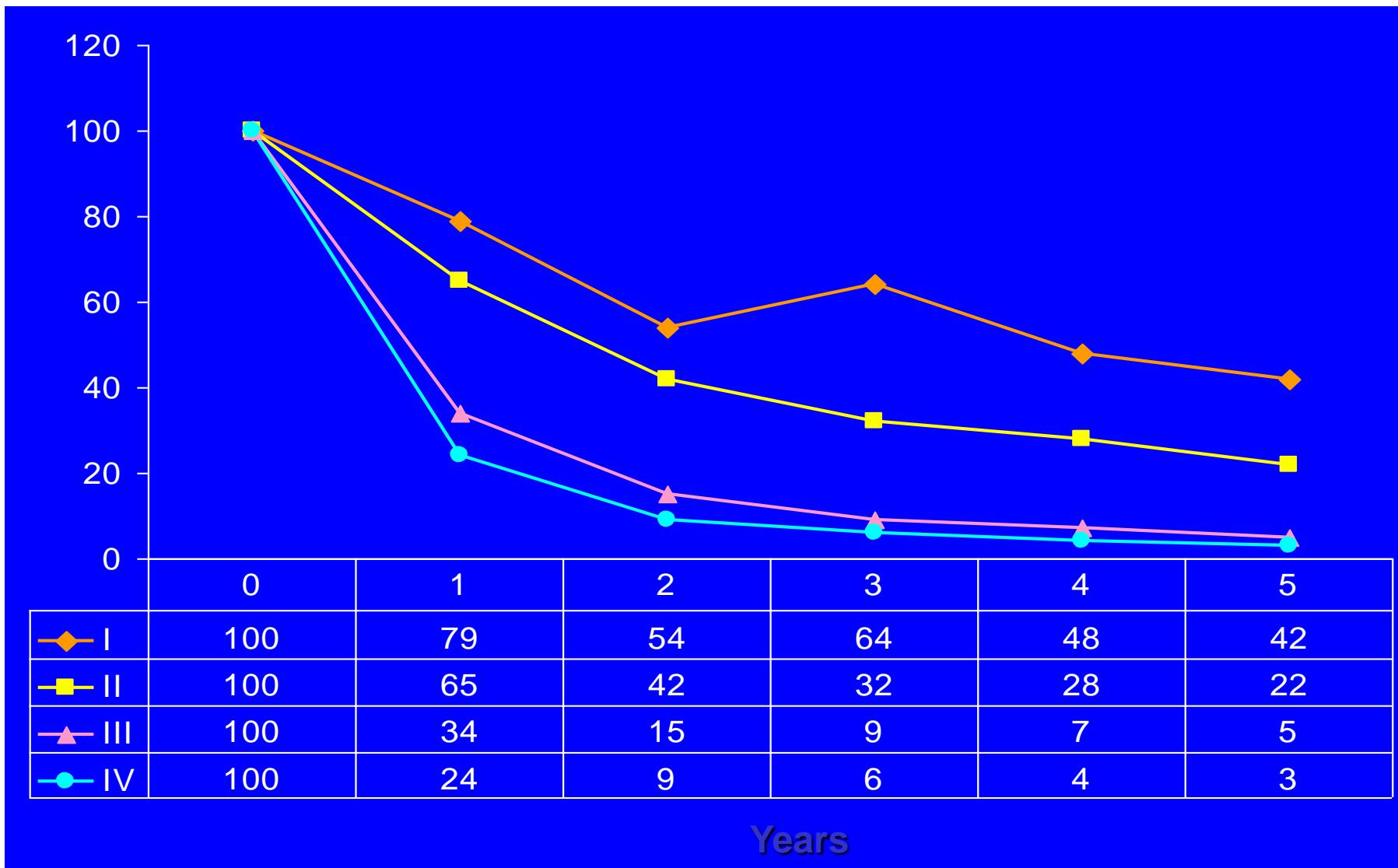


# Lung Cancer Incidence of major histologic types\*



\* Numbers do not sum to 100% because of differences in diagnostic criteria.

# NSCLC Survival by stage



# Risk factors

**Smoking causes:**

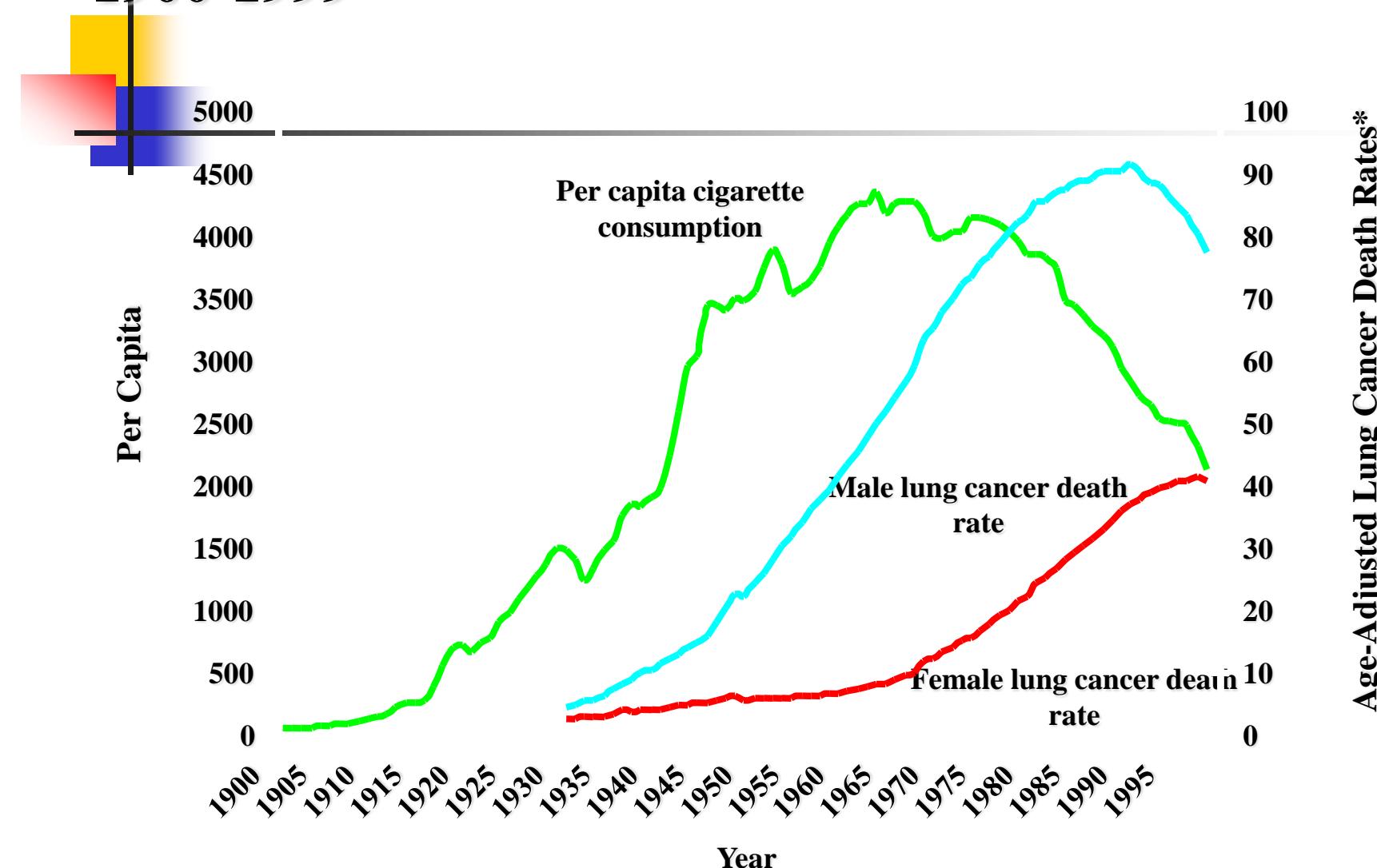
**80% of lung cancer deaths in men**

**75% of lung cancer deaths in women**

**28% of all cancer deaths**



# Tobacco Use in the USA 1900-1999



\*Age-adjusted to 2000 US standard population.

Source: Death rates: US Mortality Public Use Tapes, 1960-1999; US Mortality Volumes, 1930-1959; National Center for Health Statistics, Centers for Disease Control and Prevention, 2001. Cigarette consumption: US Department of Agriculture, 1900-1999.

# Risk factors other than smoking

Asbestos

Radon (from mining or indoor exposure)

Other “occupational carcinogens”

Chloromethyl ether

Chromium

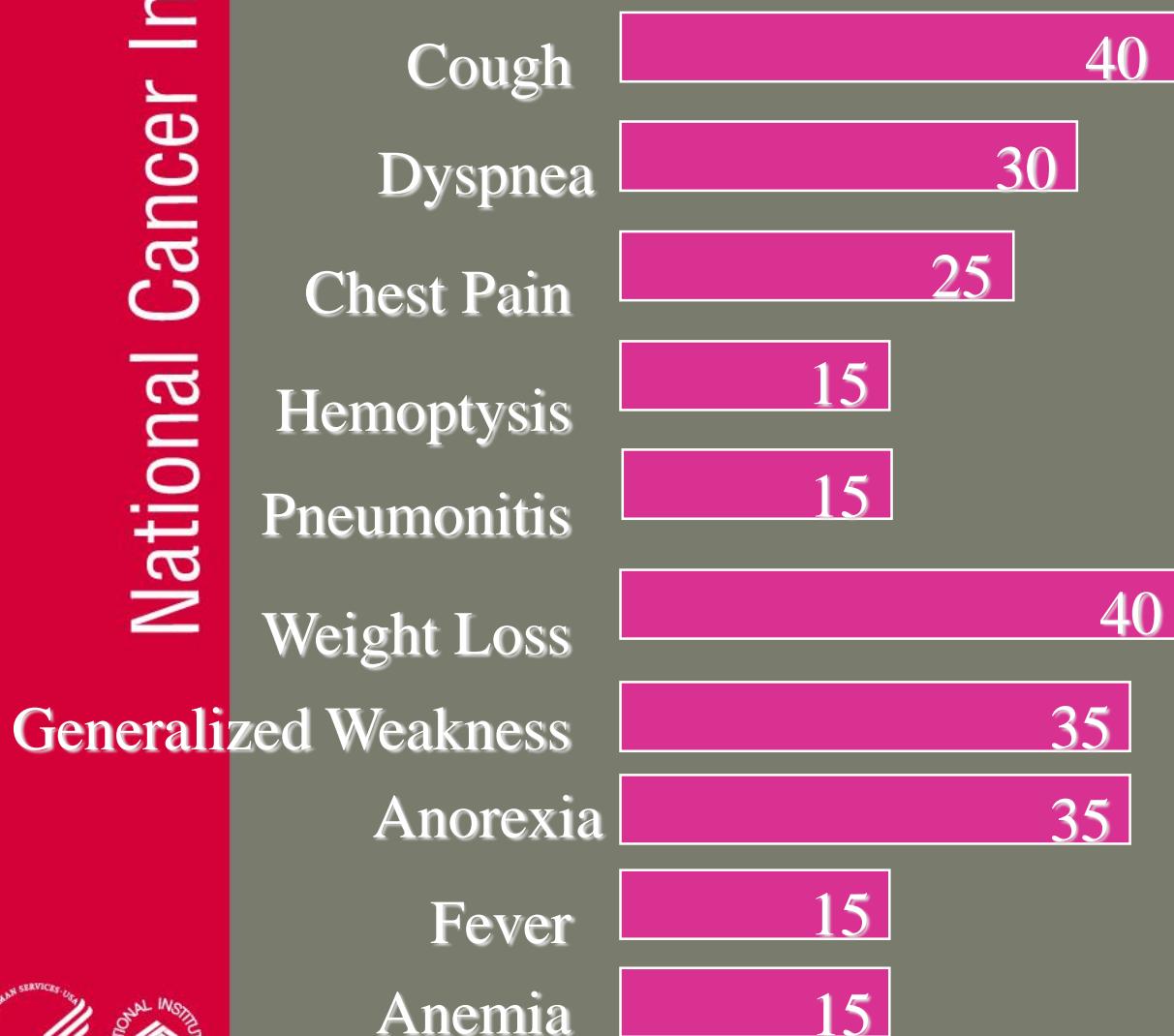
Nickel

Arsenic

Diet (vitamins A, C, E,  $\beta$ -carotene deficiencies)

Genetic/familial factors

# Lung Cancer signs and symptoms at diagnosis



# **NSCLC: Treatment and Outcome by Stage**

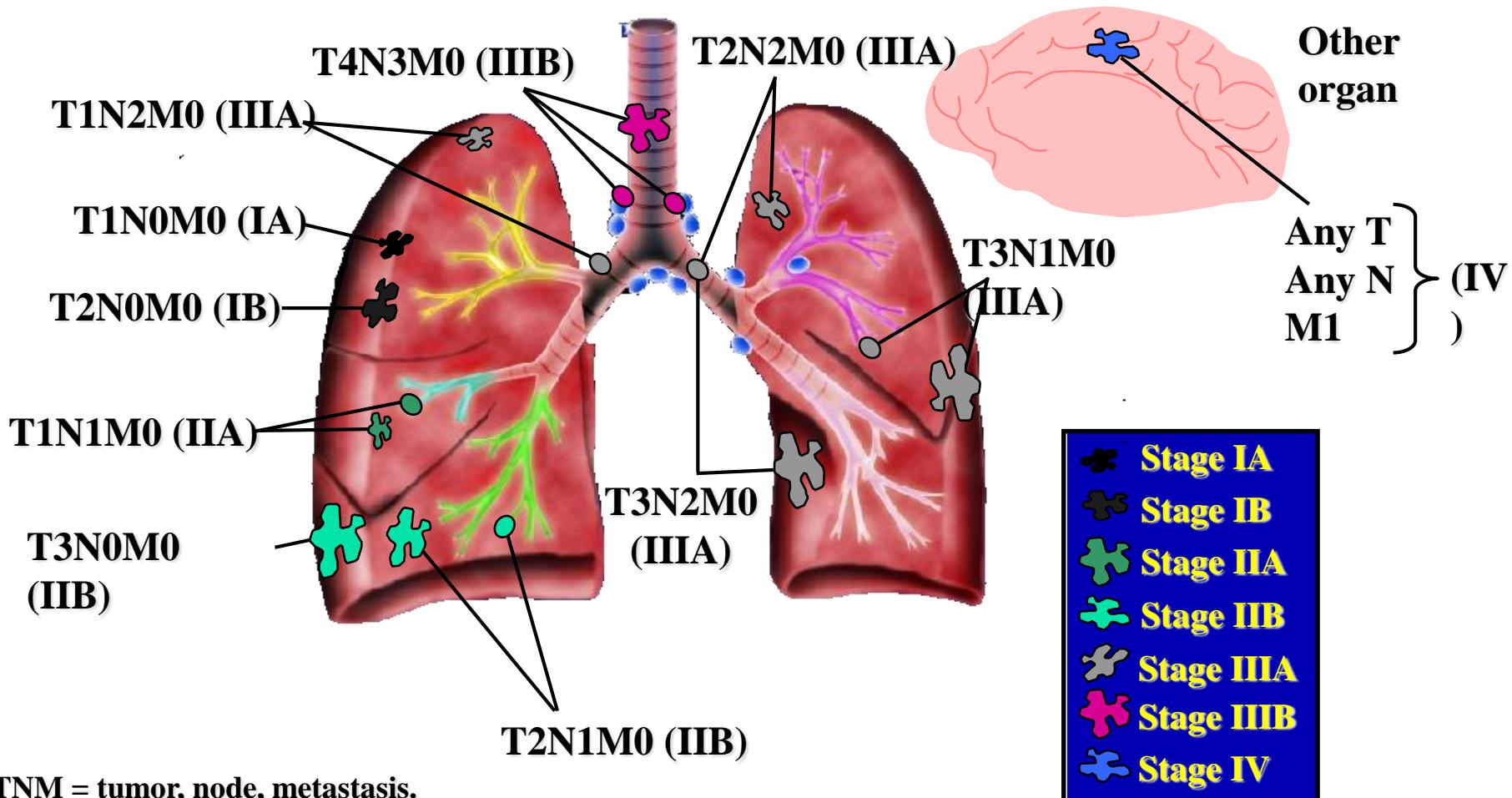
<b>Pathologic Stage</b>	<b>Treatment</b>	<b>5-Year Survival, %*</b>
I	Surgery	60-70
II	Surgery	30-50
III A	Surgery/ Multimodality Regimen	10-30
III B	Chemotherapy/ Radiation	5
IV	Chemotherapy	<1

**\*Overall 5-year survival is 14%.**

1. Mountain CF. Semin Surg Oncol. 2000;18:106-115.

2. National Cancer Institute. SEER Cancer Statistics Review 1973-1999.

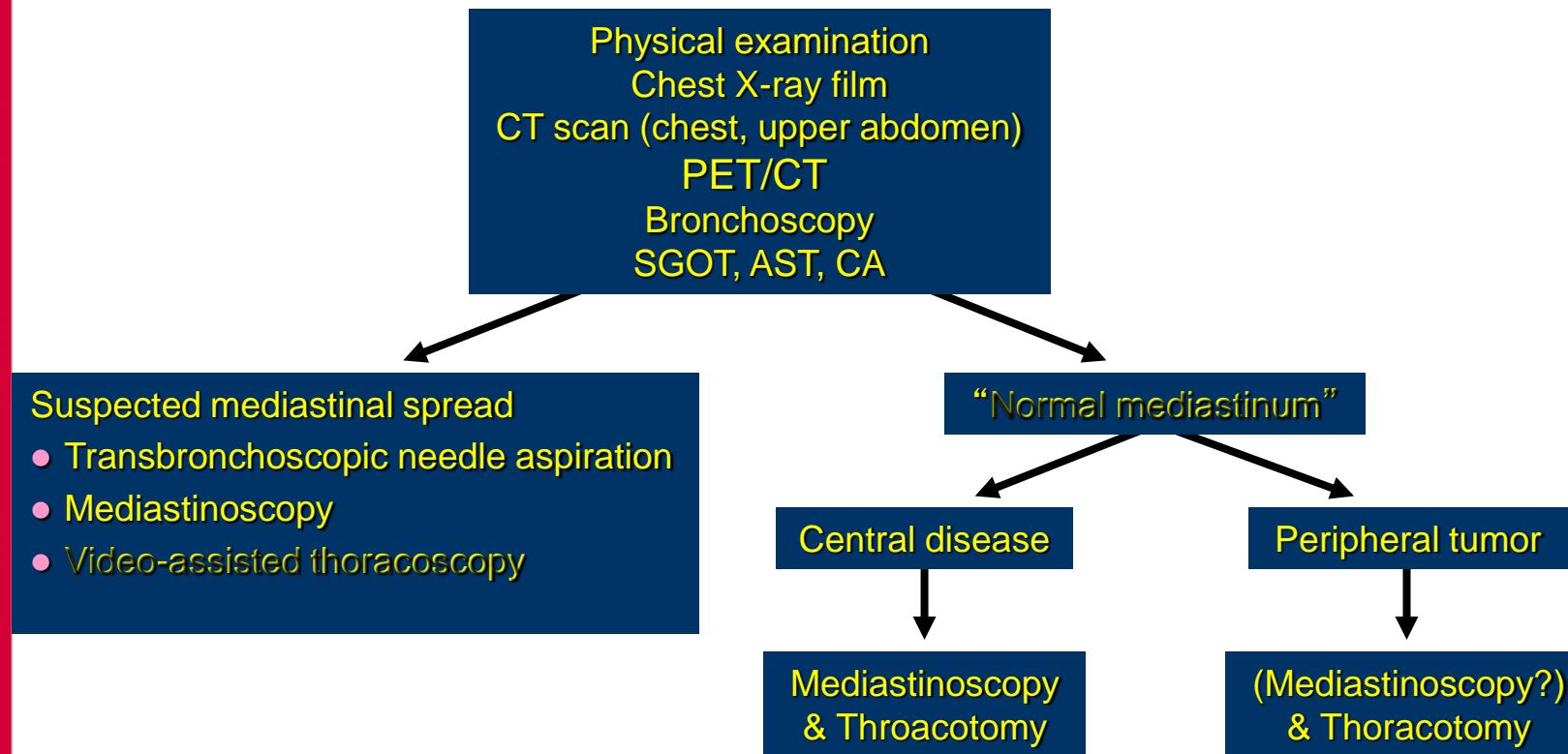
# NSCLC: Stage Grouping of the TNM Subsets



Adapted from Schrump et al. Non-small cell lung cancer. In: Cancer: Principles & Practice of Oncology. 2005:753. Greene et al, eds. AJCC Cancer Staging Manual. 6th ed. 2002.

# NSCLC

## Evaluation of disease extent



# Diagnostic Challenges

## Patients/Family perspective

**Devastating Diagnosis  
Uncertainty?  
Undergoing testing  
Family/Friend's support system?  
Family Dynamics?**

# Diagnostic Challenges

**Physician perspective**

**Breaking bad news to the patient/family**

**Scheduling and decisions of tests**

**Co-coordinating care with other disciplines**

# Treatment Challenges

## **Patients/Family perspective**

**How confident am I with my Physician?**

**Do I need second opinion? If so, will I offend my physician?**

**Should I get treatment at a large academic center or a community center what if there will be the difference?**

# Treatment Challenges

## **Patients/Family perspective**

**Should I participate in a clinical trial? Or get standard on care treatment?**

**What will happen to me? How long will I live?**

**Will I be in pain when drugs stop working?**

# Treatment Challenges

## Physician perspective

**Making decision of therapy**

**Giving patient a realistic picture of prognosis  
but hope at the same time**

**Finding the best clinical trial**

## Case Study

70 years old gentleman was diagnosed with Lung Cancer.

His local physician told him he could get chemotherapy or nothing and will live about 6months by his estimate

His son who lived in DC bought him for 2<sup>nd</sup> opinion to an academic center

After Work up patient underwent a surgical resection followed by adjuvant chemotherapy

He is well and alive 6yrs later

*He decided on getting second opinion*

## Case Study

45 yrs. Old female an ICU nurse by profession comes to ER with acute shortness of breath

Had large amounts of fluid in lungs and after testing was diagnosed with metastatic lung cancer

1 cycle of standard of care chemotherapy

Patient worsens with possible plans to get on hospice

Starts a targeted oral therapy before going home

## Case Study

Patient improves, oxygen requirement goes down slowly and patients gets off oxygen in 6weeks

At 9 months later she is still doing well and sends me a touching thank you card “thank you, because of you I am able to spend another thanksgiving with my family”.

She lives 15 months

*She made a decision to go on an experimental drug*

# Q & A

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# Thank You

Questions/Comments, contact:

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