



Women's Health
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Assessing the Risk

Getting your patient's attention

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A Lifespan Partner



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Health Risks of Smoking

- **Cardiovascular Disease**
 - MI, CVA, PVD
- **Lung Disease**
 - COPD
- **Cancer**
 - Lung, Larynx, Liver, Pharynx, Renal, Pancreas, Esophagus, Nose, Bladder, Myeloid Leukemia, Stomach, Cervix
- **Reproductive Risk**
 - Premature menopause
 - Osteoporosis
 - Abnormal menses
 - Pregnancy risk
- **Peptic Ulcer Disease**
- **Facial Wrinkling**
- **Periodontal disease**
- **Second hand smoke exposure**



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Health Risks of Smoking

- The “Big Three”
 - Cardiovascular disease
 - COPD
 - Lung Cancer



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COPD

- Prevalence increasing in women
- Hospitalizations increasing in women
- Death rates rising in women
- Providers more likely to miss diagnosis
- Providers less likely to order spirometry

Han, et al. Am J Resp Crit Care Med. 2007;176:1179-1184.

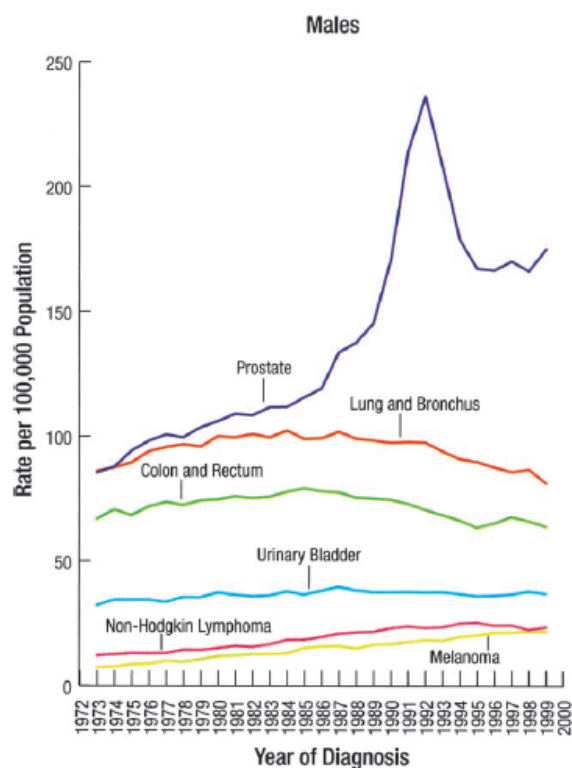


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Incidence rates of cancer in the U.S.

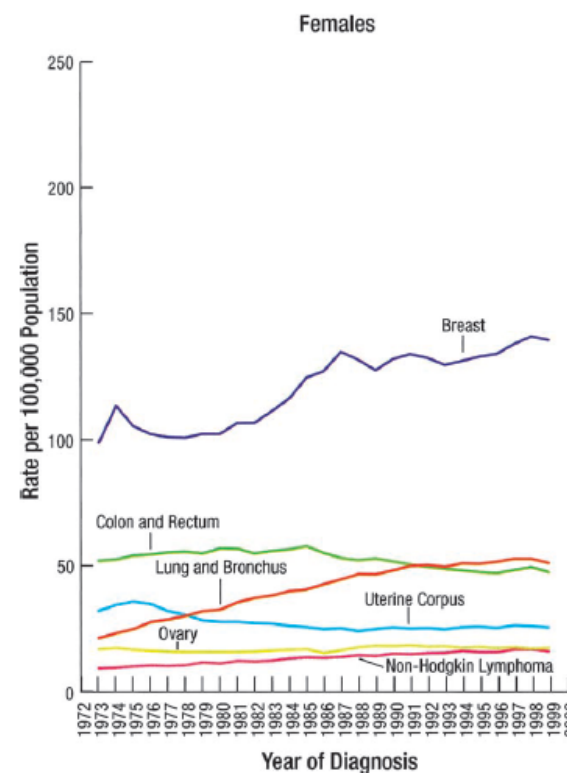
Men

M.P. Rivera, D.E. Stover / Clin Chest Med 25 (2004) 391-400



Women

M.P. Rivera, D.E. Stover / Clin Chest Med 25 (2004) 391-400



Rivera, et al. Clin Chest Med. 2004; 25: 391-400

Mortality Rate of Cancer in U.S.



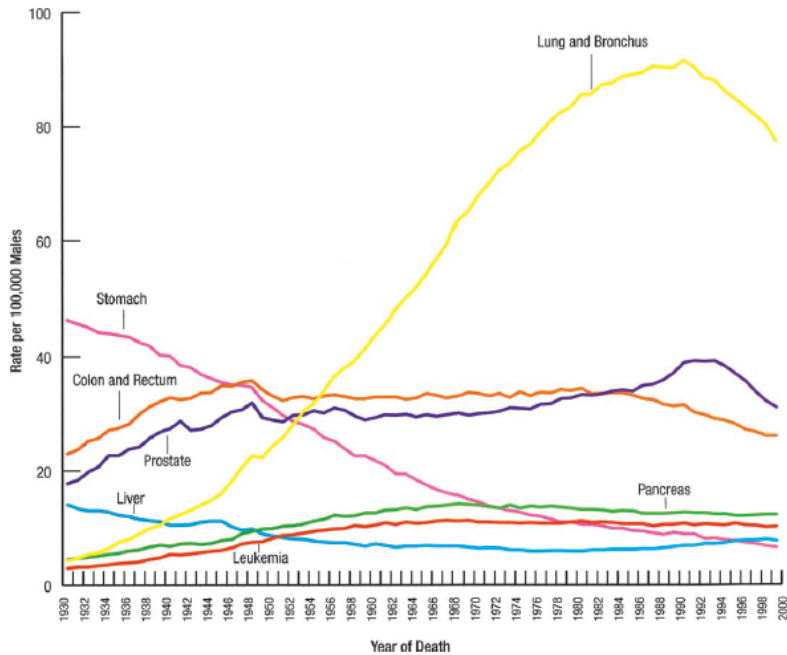
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Men

Women

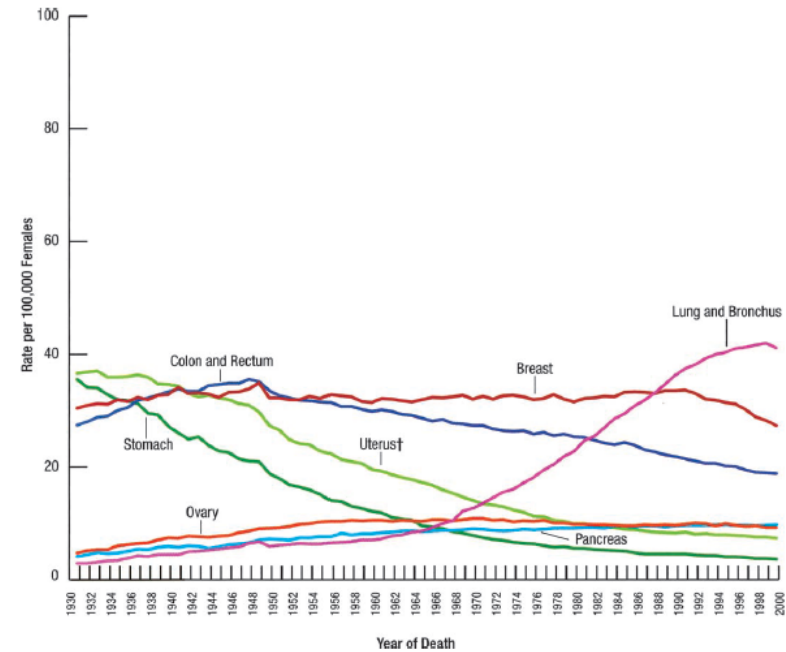
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Rivera, et al. Clin Chest Med. 2004; 25: 391-400



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Lung Cancer

- 80% of lung cancer in women due to smoking
- Some studies show higher risk for development of lung cancer among women smokers than men smokers¹
- Women have higher odds of developing small cell carcinoma than squamous cell carcinoma²
- HRT may influence both the development and the natural history of lung cancer³

¹ Brownson, et al. *Epidemiology*. 1992;3:61-4.

² De Perrot, et al. *J Thorac surg* 2000; 69:245.

³ Chlebowski, et al. *Lancet* 2009; 374: 1243.



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Are women different in their susceptibility to tobacco smoke?

- Differences in nicotine metabolism
- Differences in the balance between metabolic activation and detoxification of carcinogens
- Plasma clearance of nicotine is lower in women
- Airways smaller so each cigarette represents a proportionately greater exposure
- Differences in incidence of genetic mutation
- More exposure to second hand smoke
- Differences in brand preferences
- Hormonal effects



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Cervical Cancer

International Collaboration of Epidemiological Studies of Cervical Cancer

23 studies combined data on 13,541 women with cervical cancer and 23,017 women without cervical cancer

Int J Cancer 2006; 118:1481-1495

Smoking status	HPV status	Squamous cell carcinoma	Adenocarcinoma
Current	--	1.60	0.89
Past	--	1.12	0.89
Current	Positive	1.95	1.06

- Risk of squamous cell carcinoma increases with:
 - number of cigarettes smoked per day
 - younger age at starting smoking



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Pregnancy and smoking

- Decreased fertility
- Low birth weight and small for gestational age babies
- Miscarriage
- Premature rupture of membranes
- Preterm birth
- Stillbirth
- Placental abruption/placental previa



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Postnatal morbidities

- Increased risk of:
 - Neonatal death
 - SIDS
 - Decreased milk volume production
 - Poor sleep in infant



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Second Hand Smoke

- **Effects in Children**
 - SIDS
 - Respiratory illness
 - Middle ear disease
 - Quality of life and costs
- **Effects in Adults**
 - Lung cancer
 - Cardiovascular disease
 - Respiratory illness

Report of the Surgeon General on the adverse health consequences of smoking and SHS exposure can be found at: <http://www.surgeongeneral.gov/library/reports/index.html>



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