

# Reproductive-aged women and medication prescribing

*Perspectives from Primary Care*

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# Category D and X medications

- 11.7 million women of childbearing age are prescribed FDA Category D or Category X medications each year
- Despite FDA warnings, approximately 6% of US pregnancies occur in women taking medications with known teratogenic risk

Andrade SE, et al. Use of prescription medications with a potential for fetal Harm among pregnant women. *Pharmacoepidemiol Drug Saf* 2006;15:546-554.

Schwartz EB, et al. Prescription of teratogenic medications in the United States ambulatory Practices. *Am J Med* 2005;118(11):1240-9.

# Prevention

- The most common form of contraception used by women taking Category X medication is a combined oral contraceptive (COC)
- Patient adherence critical for effectiveness
- 40% of unintended pregnancies occur in women using contraception; 90% due to inconsistent or incorrect use

Kost K, et al. Estimates of contraceptive failure from the 2002 national survey of Family growth. *Contraception* 2008;77:10-21.

Steinkellner A, et al. Adherence to oral contraceptives in women on category X Medications. *Am J med* 2010; 123:929-934.

# National Ambulatory Medical Care Survey (N=12,000)

- Most frequently prescribed Category D and X medications in the primary care setting are anxiolytics, anticonvulsants, antibiotics and statins
- Prescriptions for these medications occurred at 1 in 13 visits for women aged 14-44 years

Schwartz EB, et al. Prescription of teratogenic medications in United States Ambulatory practices. Am J Med 2005;118:1240-9.

# National Ambulatory Medical Care Survey (N=12,000)

- 45% of prescriptions written by family physicians or internal medicine physicians
- Contraceptive counseling documented during <20% of visits
- Women receiving Category X medications received counseling at equal rates to women given Category A, B or C medications

# Eisenberg, et al. 2010

- Survey of internists
  - 87.6% of respondents felt it is the responsibility of the Primary Care Provider (PCP) to provide family planning and contraceptive services
  - When prescribing potential teratogenic medications, 98.1% answered physician counseling was most important (followed by information given by a pharmacist)
  - 2/3 encountered a reproductive-aged female on Category D or X medication within past year

# Why the disconnect?



# Challenges

- Time constraints
- “Unhealth” of America
- Physician comfort levels
- Continuity of care (or lack thereof)
- Controlled substances



# A day in the life of a family doctor

- Typical family physician sees between 25 and 30 patients in an average day
- Cradle to grave care
- Maternity and pediatric care
- In-office and in-hospital procedures
- Inpatient medicine patients
- Deliver patients on labor and delivery

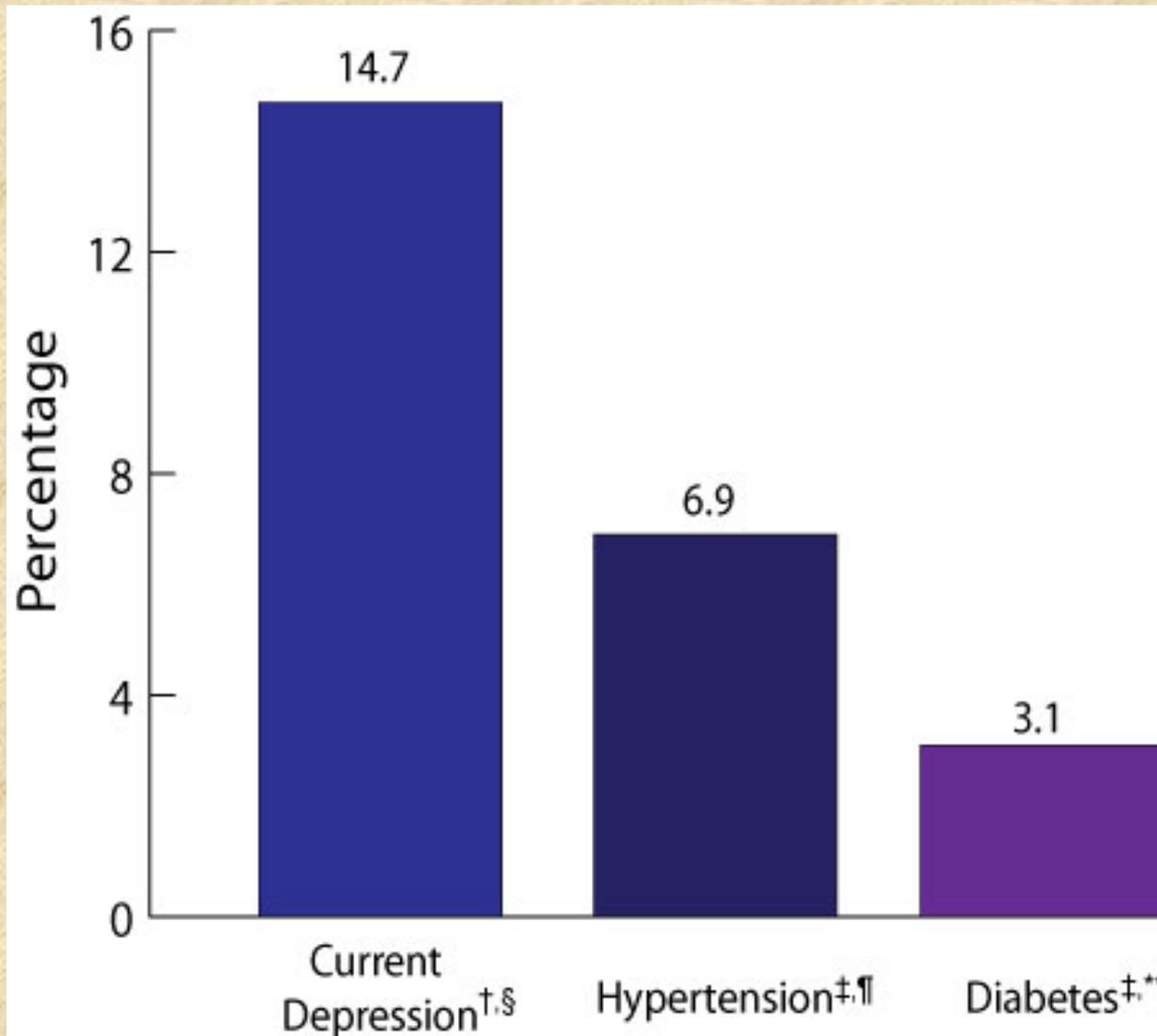
# Time matters

- Survey of internists on perceptions of barriers to counseling women taking potential teratogens
  - 61.3% listed time constraints as a major problem
  - 36.8%: inability to bill for counseling time
  - 44.3%: poor reimbursement for counseling time
  - 44.3% insufficient contraceptive knowledge
  - 45.7% insufficient knowledge of teratogens

# The “Unhealth” of America

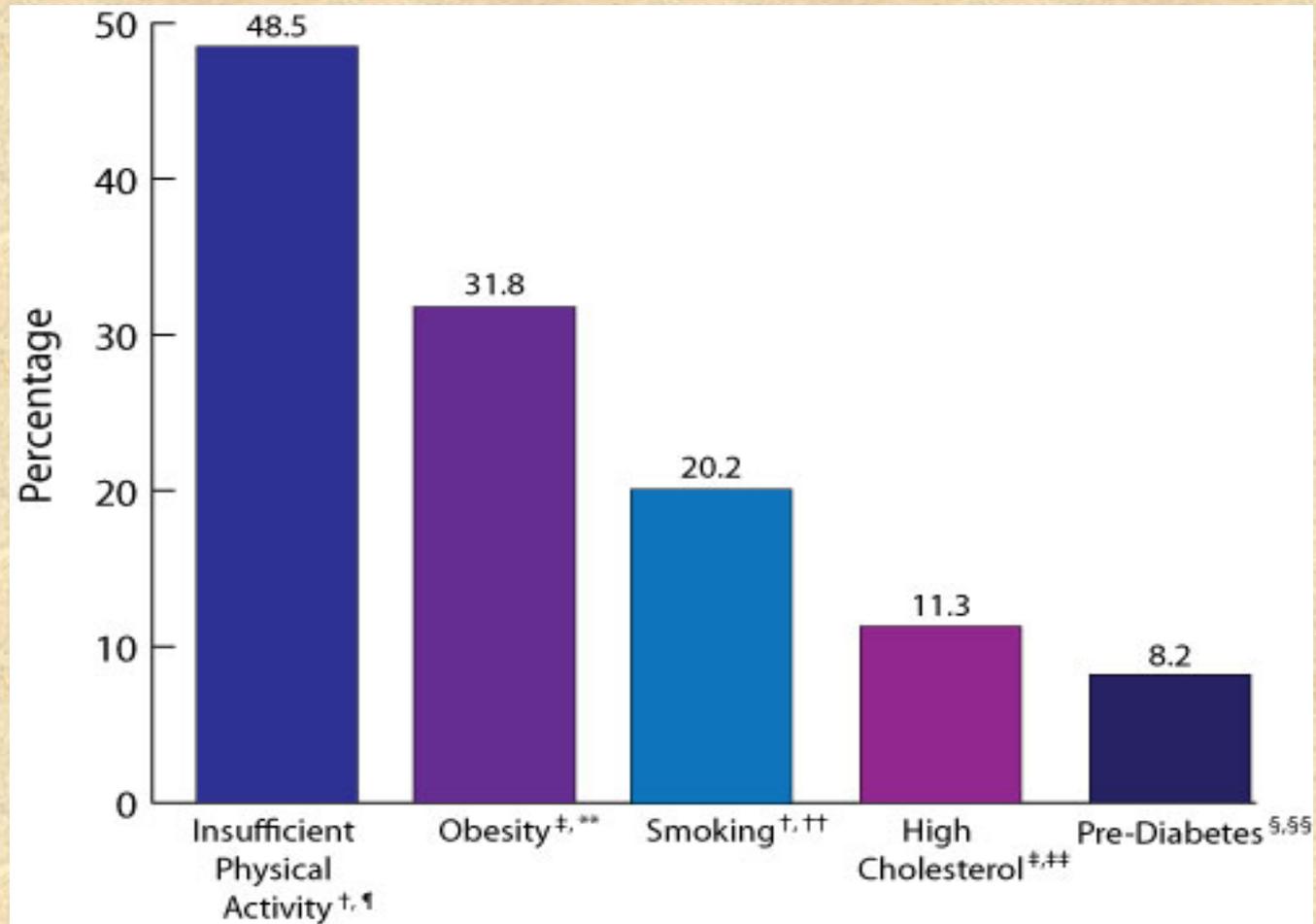


# Prevalence on chronic diseases among women of reproductive age



<http://www.cdc.gov/reproductivehealth/womensrh/ChronicDiseaseandReproductiveHealth.htm>

# Prevalence of Chronic Disease Risk Behaviors and Risk Factors Among Women of Reproductive Age



## EXHIBIT 1

### Chronic Disease Demographics Among Americans Age 18 And Older, 2007

Chronic disease	Entire population	Age (years)			Race				Income (percent of poverty)		
		45-64	65-74	75+	White	Black	Latino	Asian	<100%	100-200%	>200%
Diabetes	8%	11%	19%	18%	7%	12%	11%	8%	12%	10%	7%
Hypertension	24	33	53	54	22	31	20	19	28	25	22
Asthma <sup>a</sup>	7	8	8	6	7	8	5	6	12	8	7
CPD <sup>b</sup>	6	8	11	13	6	5	3	3	12	9	5
Arthritis <sup>c</sup>	21%	29%	48%	51%	21%	22%	15%	11%	26%	23%	21%
CHD <sup>d</sup>	6	7	18	26	7	6	5	4	10	8	6
Obesity <sup>e</sup>	26	31	28	18	25	35	27	8	30	29	25

**SOURCE:** Summary of Health Statistics for US Adults: National Health Interview Survey 2007.

**NOTES:** Race and income percentages are age-adjusted. Percentages represent number of patients with the disease over the total number of patients in that category. A person may be represented in more than one column.

<sup>a</sup> Respondents who had been told they had asthma were asked if they still had asthma.

<sup>b</sup> Chronic pulmonary disease (CPD) data are the sum of chronic bronchitis and emphysema.

<sup>c</sup> Includes any kind of arthritis, rheumatoid arthritis, gout, lupus, and fibromyalgia.

<sup>d</sup> Coronary heart disease (CHD) includes CHD, angina pectoris, and heart attack.

<sup>e</sup> Obesity is indicated by a body mass index (BMI) greater than or equal to 30 kg/m<sup>2</sup>.

## EXHIBIT 2

### Chronic Disease: Current And Projected Burden, United States, 2003–2023

Chronic disease	Increase in prevalence (2003–2023) <sup>a</sup>	Current cost (2003)	Future cost (2023)
Overall chronic illness <sup>b</sup>	42%	\$1.3 trillion	\$4.2 trillion
Cancers <sup>c</sup>	62	\$319 billion	\$1,106 billion
Diabetes	53	\$132 billion	\$430 billion
Hypertension	39	\$312 billion	\$927 billion
Pulmonary conditions	31	\$139 billion	\$384 billion
Heart disease	41	\$169 billion	\$927 billion
Mental disorders	54	\$217 billion	\$704 billion
Stroke	29	\$36 billion	\$98 billion

**SOURCE:** R. DeVol and A. Bedroussian, *An Unhealthy America: The Economic Burden of Chronic Disease* (Santa Monica, Calif.: Milken Institute, October 2007).

**NOTE:** Cost figures include medical costs plus reduced on-the-job productivity.

<sup>a</sup> Population is expected to grow 19 percent from 2003 to 2023.

<sup>b</sup> These figures do not include all chronic conditions but are based on data for the seven most common chronic diseases: cancers, diabetes, hypertension, stroke, heart disease, pulmonary conditions, and mental disorders.

<sup>c</sup> Includes breast, colon, lung, prostate, and other cancers.

# It's complicated...

- Family physicians address a mean of 3.05 problems per visit
- More than 3 problems are addressed in 37% of the encounters
- The more medical conditions to discuss, the less likely routine health maintenance is addressed

# Patient 1

- 30 year-old female for lab follow-up
  - Strong family history of cardiovascular disease
  - Her risks: Total Cholesterol >280mg/dl and BMI > 33kg/m<sup>2</sup>; 10 year pack-history smoking
  - She tried Niacin with prior physician; did not like flushing
  - Tried diet and exercise for 6 months without improvement
  - HgA1c elevated

# Continuity of care matters

- More medical conditions=more consults
- More consultants=more prescribers
- More prescriber=more medications
- More medications= more risk
  
- No communication= lots of risk

# Patient 2

- Post-partum visit
  - 28 year-old gravida 4, now para 4
  - Risk factors: obesity; history of chronic hypertension
  - Started on ACE-inhibitor prior to discharge after delivery
  - Did not come in for Depo-Provera injection as instructed
  - States that she has “only had sex 2 or 3 times”

# A good question

- Doctor: So, do you plan on getting pregnant sometime in the next year?
- *Patient: No way.*
- Doctor: What type of birth control are you using?
- *Patient: I'm not using anything.*
- Doctor: So, you're planning on getting pregnant next year?
- *Patient:??????*

# Controlled substances

- Drug misuse and abuse not limited to illicit
- 12 million Americans reported nonmedical use of prescription painkillers in 2009
- Between 1999-2010, quantity of prescription painkillers sold in the US rose by 400%
- During same period, the number of unintentional lethal overdoses involving prescription opioids increased by >350%.

Substance Abuse and Mental Health Services Administration, "National Survey on Drug Use and Health," [www.oas.samhsa.gov](http://www.oas.samhsa.gov) (2007)

# Food for thought

- Remember: Women over 30 (and 40)(and 50) do have sex and can get pregnant
- Last menstrual period (LMP) as the sixth vital sign
- “Impromptu” preconception counseling



# Other considerations

- Reality likely won't change, but....consider
  - Electronic health records automatic query for last menstrual period and contraceptive use
  - Better education of medical students, residents, and practicing physicians about contraception (methods, safety profiles, availability)
  - Schedule a separate well-woman or routine health maintenance exam in all patients with chronic health conditions
  - Up-to-date resources at point-of-care; patient handouts
  - Pharmacy prompts

Thank you