An Overview of RAND's Research on Retail Clinics

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What motivated our research?

Many See Great Promise in Retail Clinics

- **Potential benefits of retail clinics**
  - **Improve access for all patients**
  - **Safety net provider for the underserved**
  - **Decrease non-urgent ED visits**

Concern From Physician Organizations

- **AAP “strongly discourages their use” by children and adolescents**
- **AMA tried to prevent retail clinics from opening in several states**

Potential Concerns Raised

1. **Disrupt primary care relationships**
2. **Decrease delivery of preventive care**
3. **Inaccurate diagnosis**
4. **Inappropriate triage**
5. **Lead to over-prescribing of antibiotics**
6. **Increase costs via unnecessary follow-up appointments**

RAND Research

- **What communities are served by retail clinics?**
- **Who goes to retail clinics and for what reason?**
- **Why do people choose a retail clinic?**
- **Is there a difference in costs, quality of care, and delivery of preventive care?**
- **What are the potential cost savings if retail clinics became wide spread?**

Research on Geographic Distribution

- **Craig Pollack go into depth in another session**
- **Most (88%) retail clinics are located in major metropolitan areas**
- **One third of the US urban population can easily access a clinic**
- **More likely to be located in regions with lower poverty rates and higher median incomes**

Rudavsky, Pollack, Mehrotra, Annals of Int Med, 8/09

Pollack, Armstrong, Achives of Int Med, 5/09

Rudavsky, Mehrotra, JABFM, 1/10

Comparison of RC, PCP, ED Visits

Retail Clinic

- Invited all retail clinic operators to participate
- Provided de-id visit data
- All patients they had seen to date
- Not all companies collected all data
- 1.4 million visits

PCP

- NAMCS survey
- Nationally representative
- 2002-2004
- FP, IM, and Peds
- 483 million visits

ED

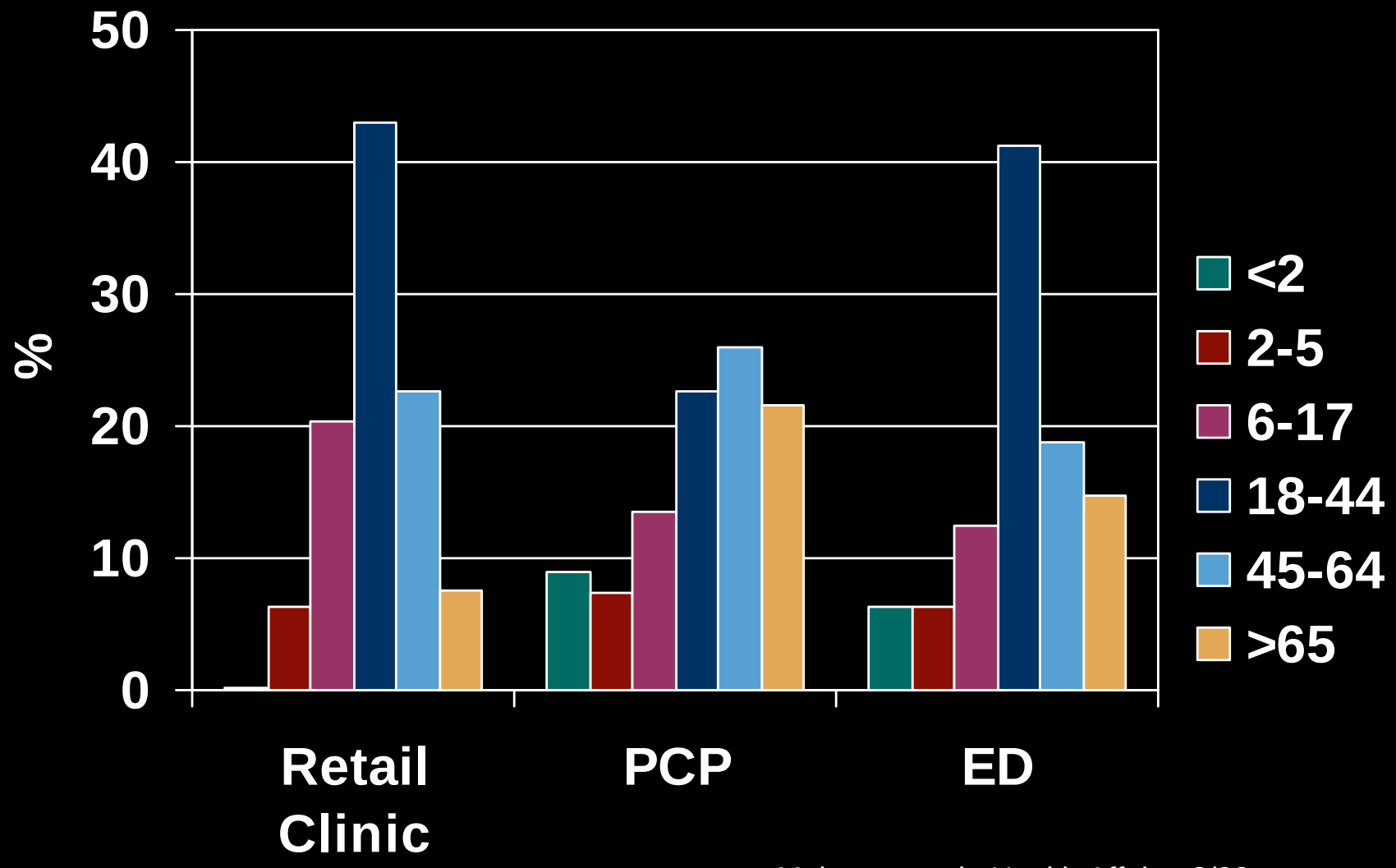
- NHAMCS survey
- Nationally representative
- 2002-2004
- 113 million visits

As of July 2007, Sample Included 74% of All Clinics

Retail Clinic Company	Clinics as of July 1, 2007
SmartCare	15
Lindora Health Clinics	1
Sutter Express	6
MedPoint Express	8
MinuteClinic	196
Redi-Clinic	47
Take-Care Health Clinics	50
WellnessExpress Clinic	3

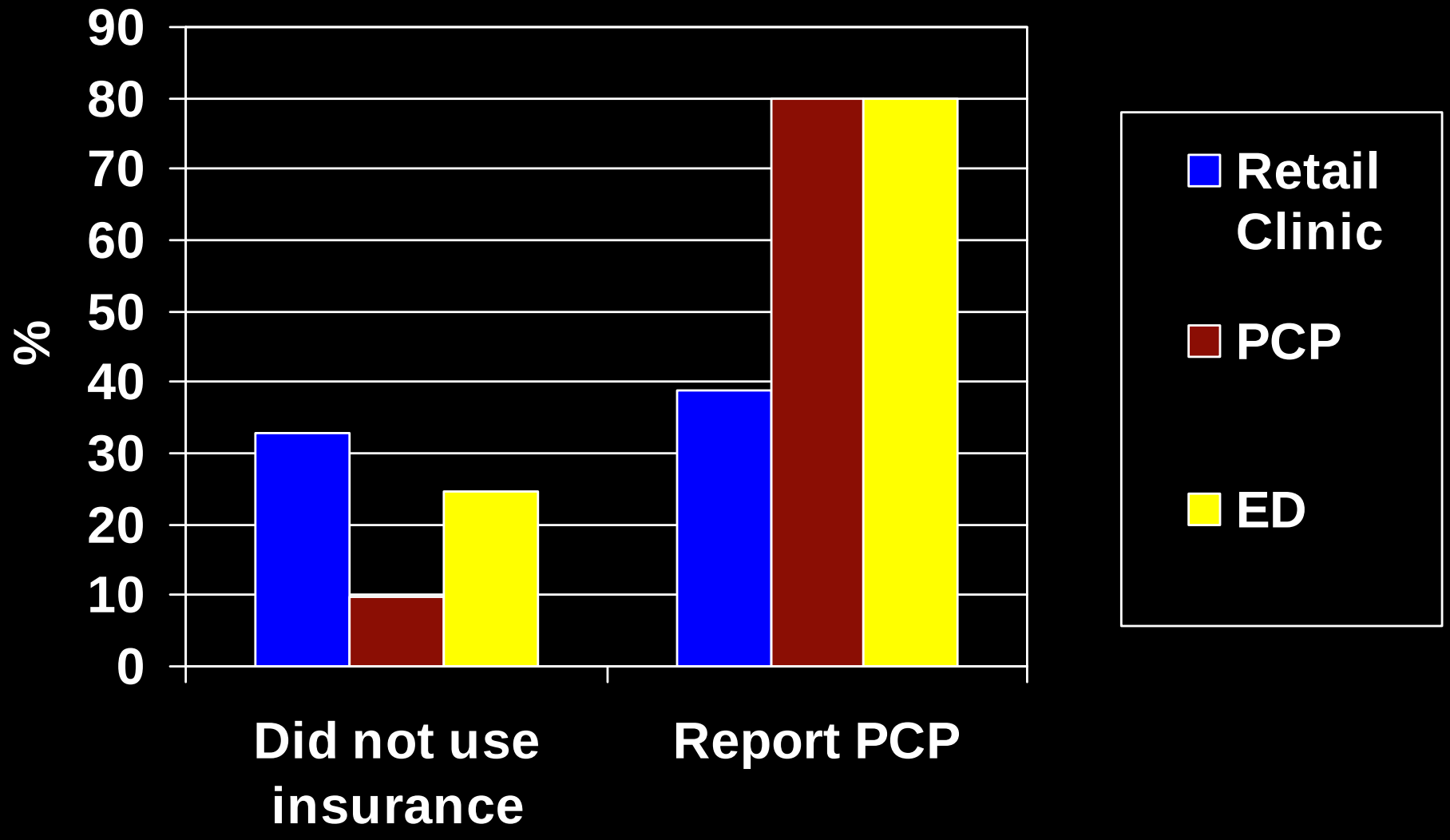
Mehrotra et al., Health Affairs, 8/08

Age Distribution of Patients



Mehrotra et al., Health Affairs, 8/08

Insurance Status and Relationship with PCP

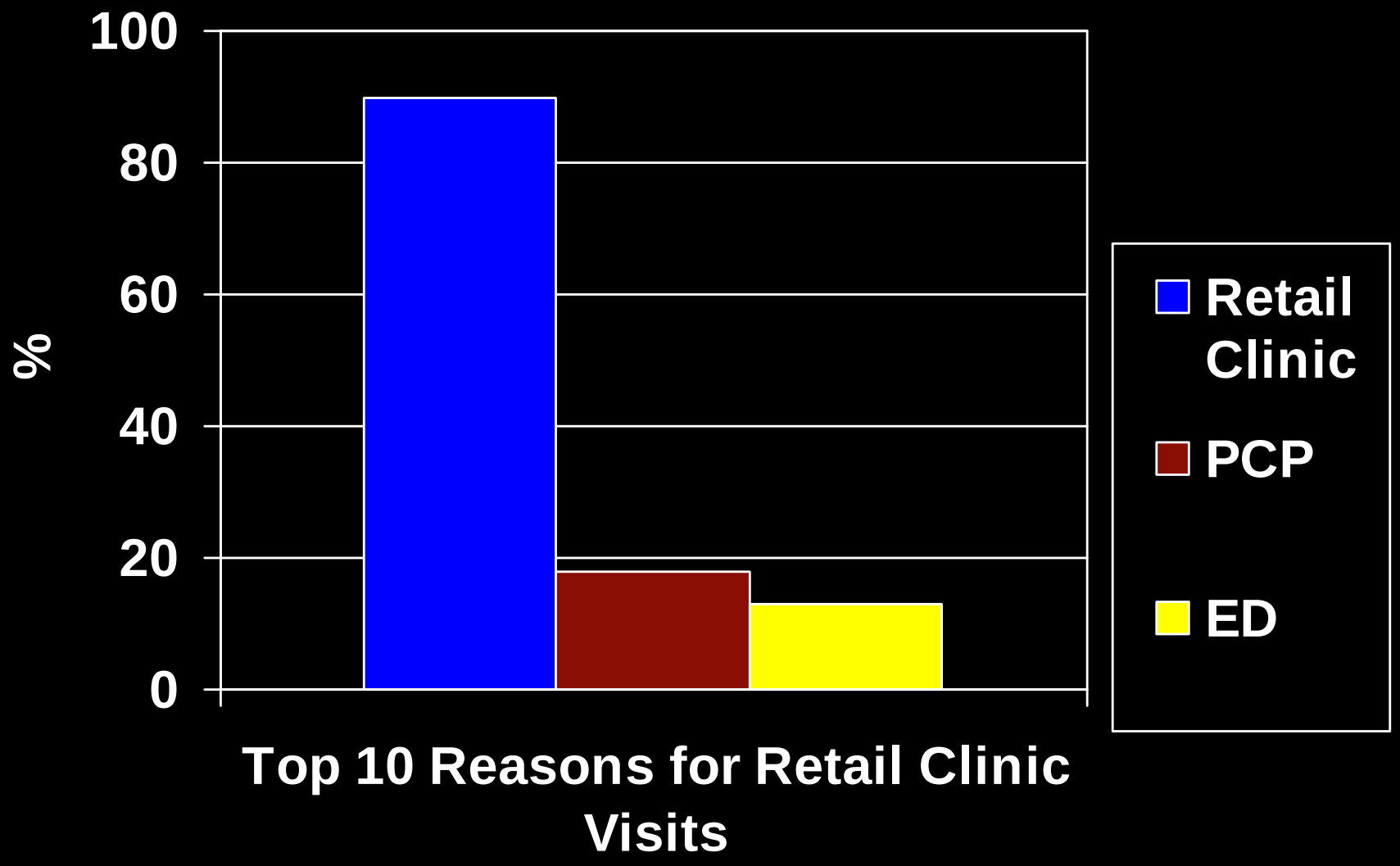


Mehrotra et al., Health Affairs, 8/08

Most Common Reasons Patients Visit Retail Clinics

	% of Retail Clinic Visits
Upper respiratory infection, sinusitis, or bronchitis	27
Pharyngitis	21
Immunizations	20
Otitis media or otitis externa	13
Conjunctivitis	5
Urinary tract infection	4
Screening lab test or blood pressure check	1
Total, ten most common reasons for visits to retail clinics	90

100 Million Visits Could be Seen at a Retail Clinic



Top Reasons Influencing Patients' Decision

Short travel distance	"the closest urgent care clinic was... about an hour drive from where I am."
Little or no wait	"Because we always work double shifts, we don't have time [to see a doctor]…" "It's really convenient. I'm in and out, I get the results."
Low cost and transparent pricing	"[going to a doctor] don't have medical insurance, is quite expensive." "I could take him [referring to child] to a doctor but I would not know how much things would cost. But here the cost is upfront." "… [ED] supposedly gave me an injection and they charged me $2,000."

Wang, McGlynn, Ryan, Mehrotra, Am Jo Med Qual, *In press*

Where Would They Have Gone?

Retail Clinic Care Costs and Quality as Compared to Other Medical Settings

- **Comparison of care at retail clinics with care in physician offices, urgent care clinics, EDs**
  1. **Costs of care**
  2. **Quality of care**
  3. **Rates of preventive care**

Mehrotra et al., Annals of Internal Medicine, 9/09

Analysis of Claims

- **2005-2006 claims data from HealthPartners, large Minnesota health plan**
  - **State in which retail clinics established**
  - **Health plan has covered care at retail clinics for 5 years**
- **Focus on three conditions**
  - **Otitis media, pharyngitis, and UTI**

Case-Control Study Design

- **Sampled 700 retail clinic visits for each of the three conditions (total 2100)**
- **Matched to similar physician office, urgent care, and ER visits**
  - **Matching based on condition, age, gender, co-morbidities, and income level of census tract**

Measuring Costs

- **Aggregated all care for a condition into an "episode"**
- **Includes initial appointment, follow-up appointments, testing, and prescriptions regardless of setting**

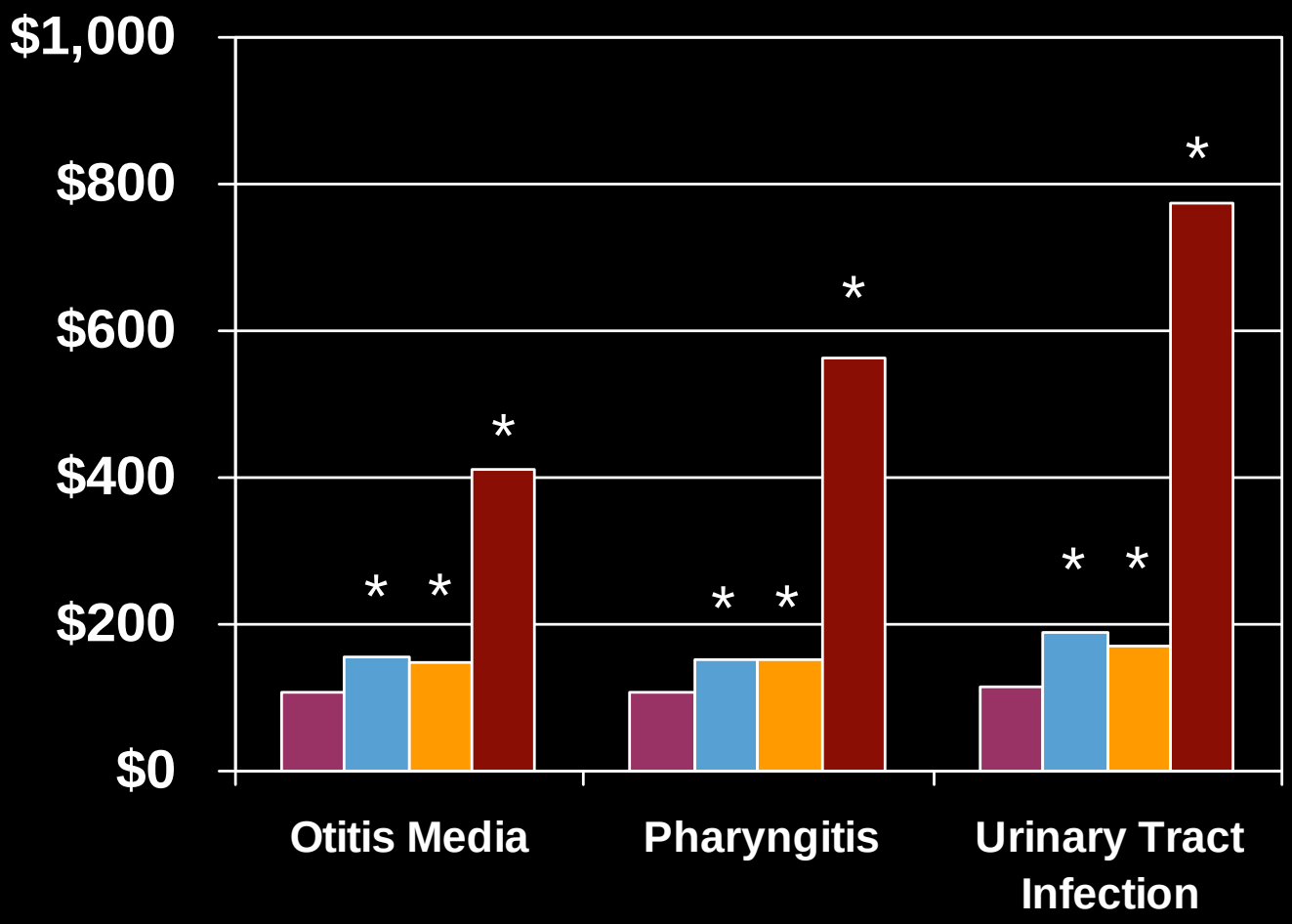
Measuring Quality

- **Used process quality measures based on guidelines**
  - **RAND QA tools**
  - **AAP/AAFP guidelines on otitis media**
  - **IDSA guidelines on pharyngitis**

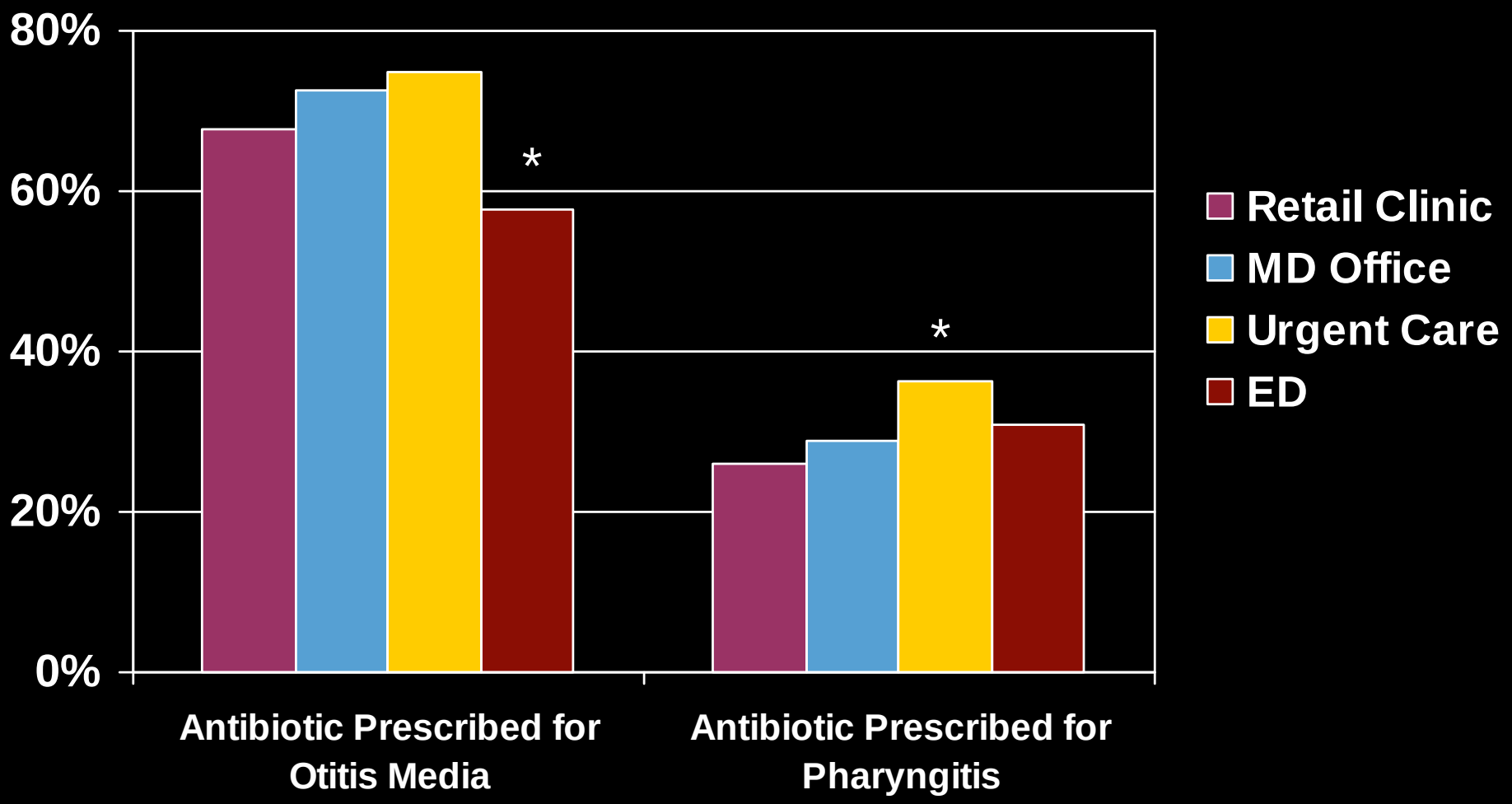
Measuring Preventive Care

- **Assessed whether patients received preventive care services on the day of the first visit and subsequent 3 months anywhere**
    1. **Preventive health examination**
    2. **Preventive vaccination**
    3. **Pap smear**
    4. **Mammogram**
    5. **Colon cancer screening**
    6. **Cholesterol or lipid testing**

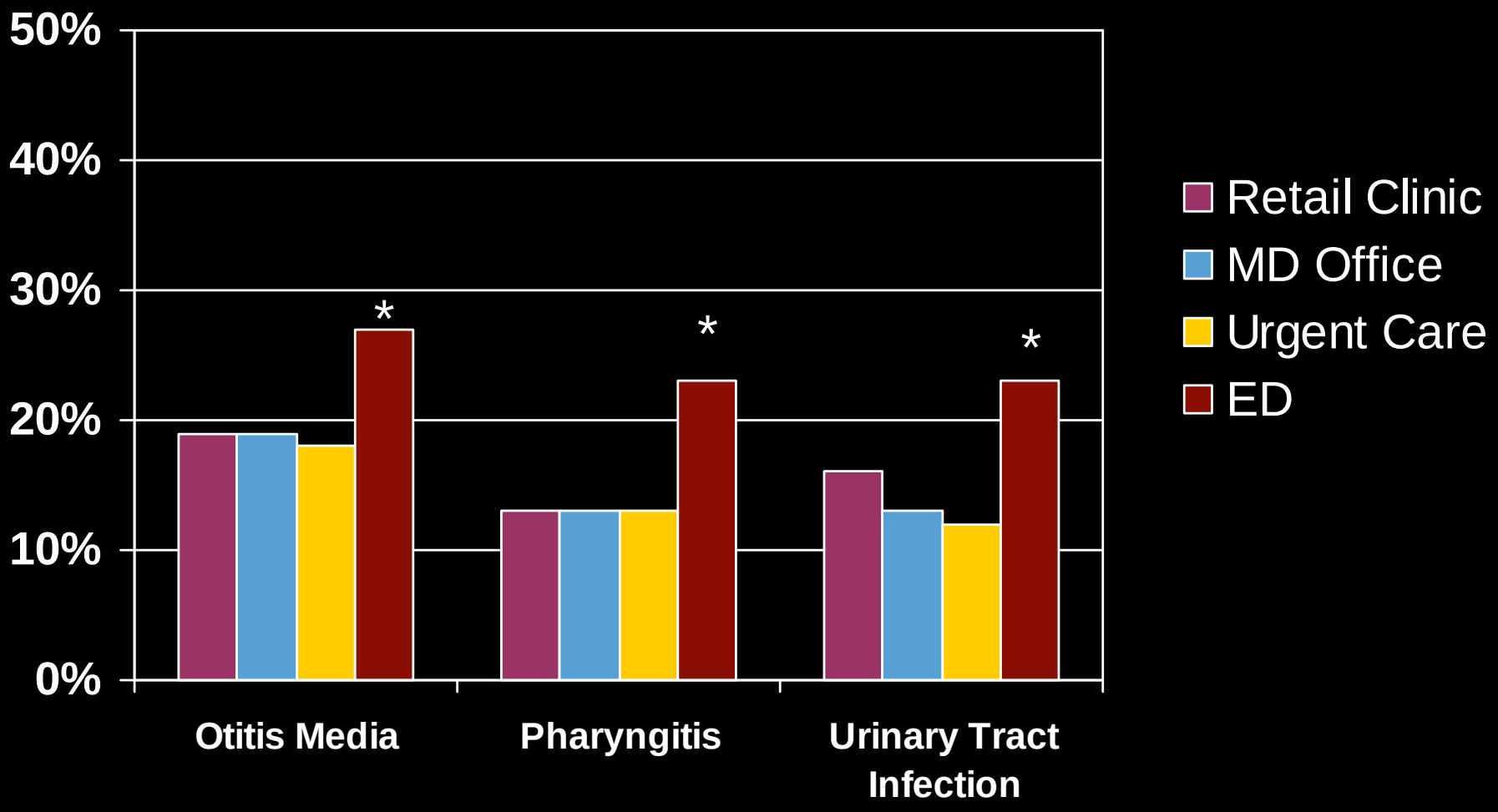
Comparison of Overall Costs for Episode



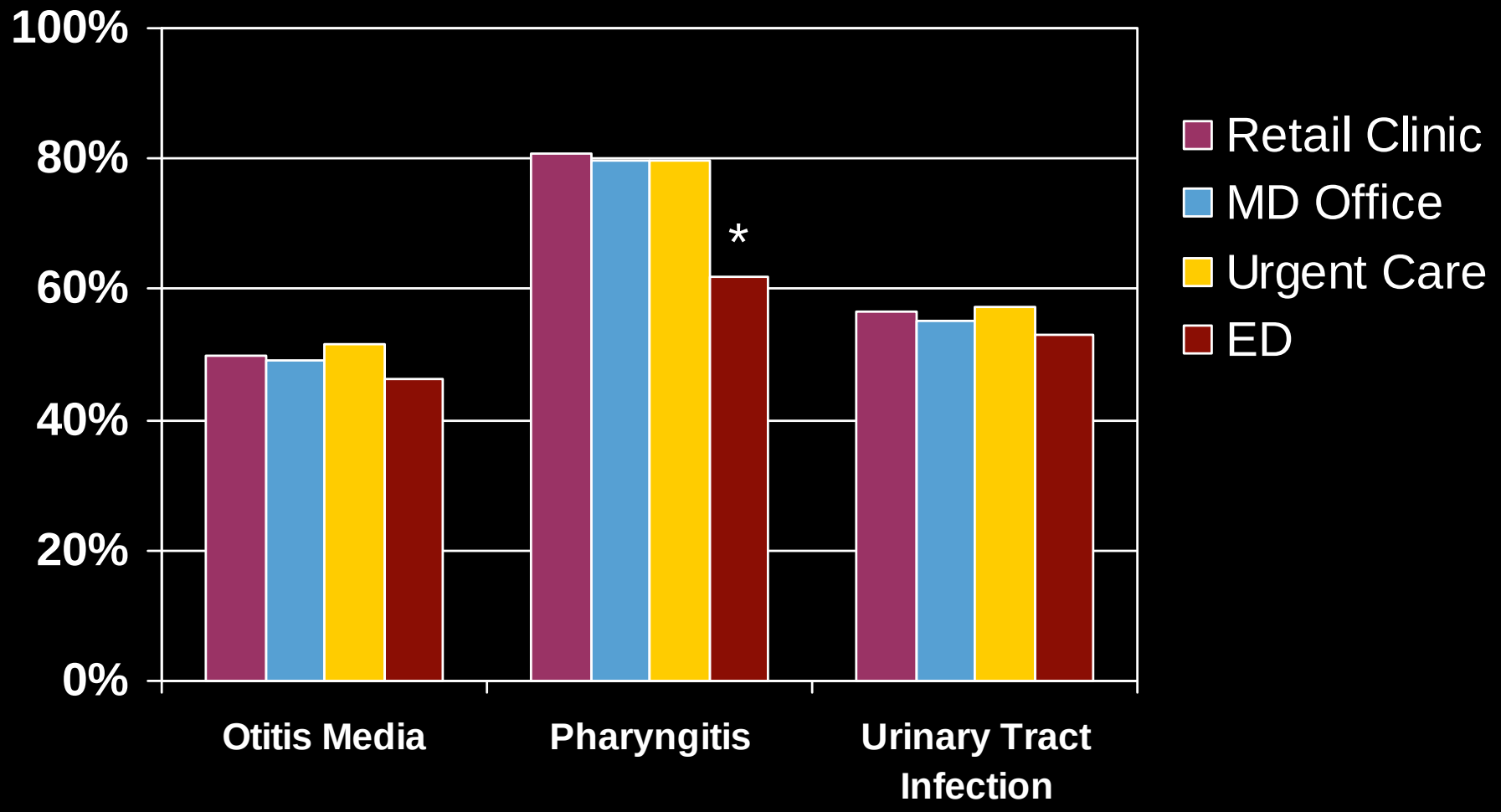
Antibiotic Prescribing Rates



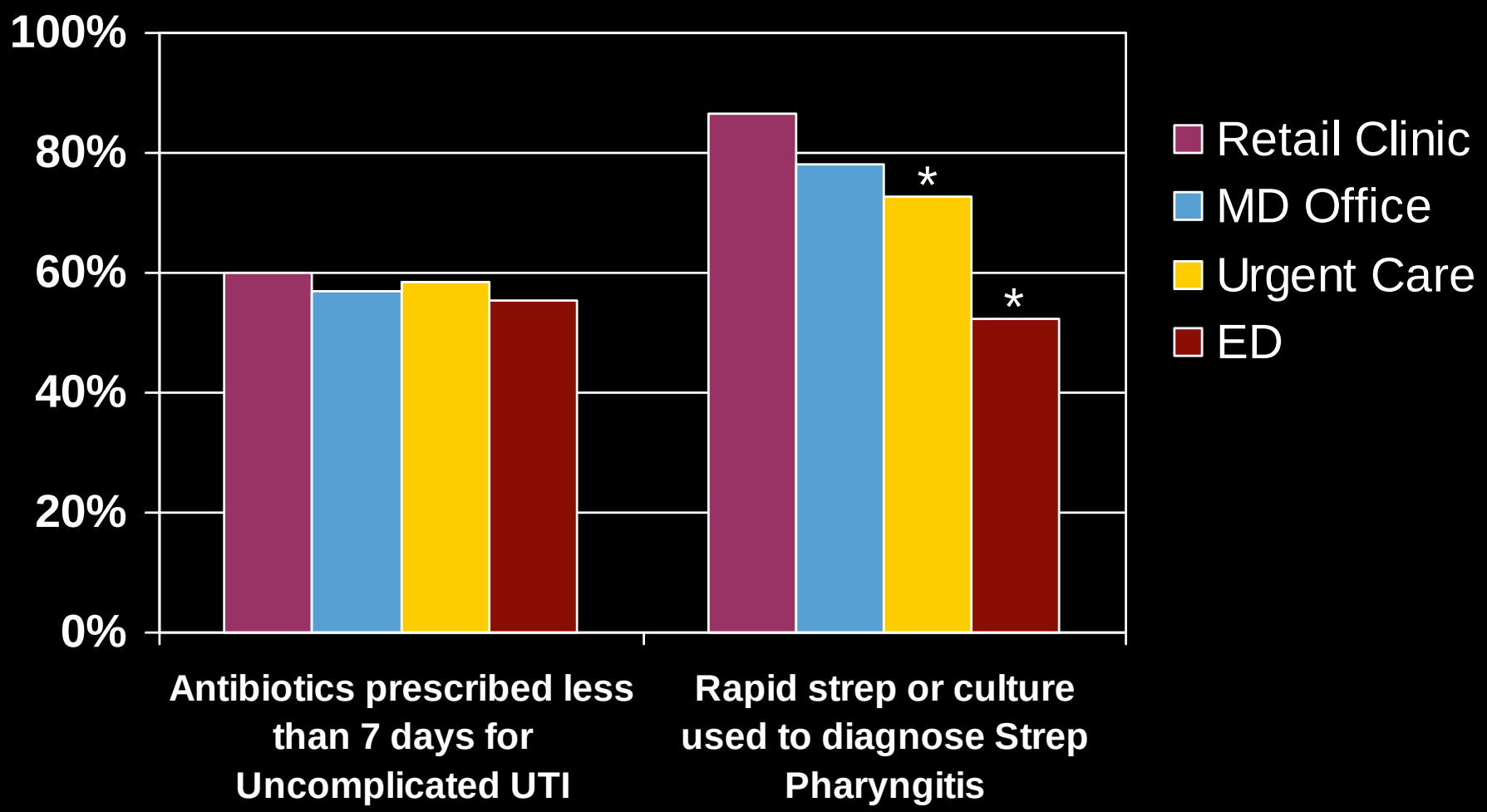
Fraction of Patients with One or More Follow-up Appointments



Composite Quality Scores



Specific Quality Metrics



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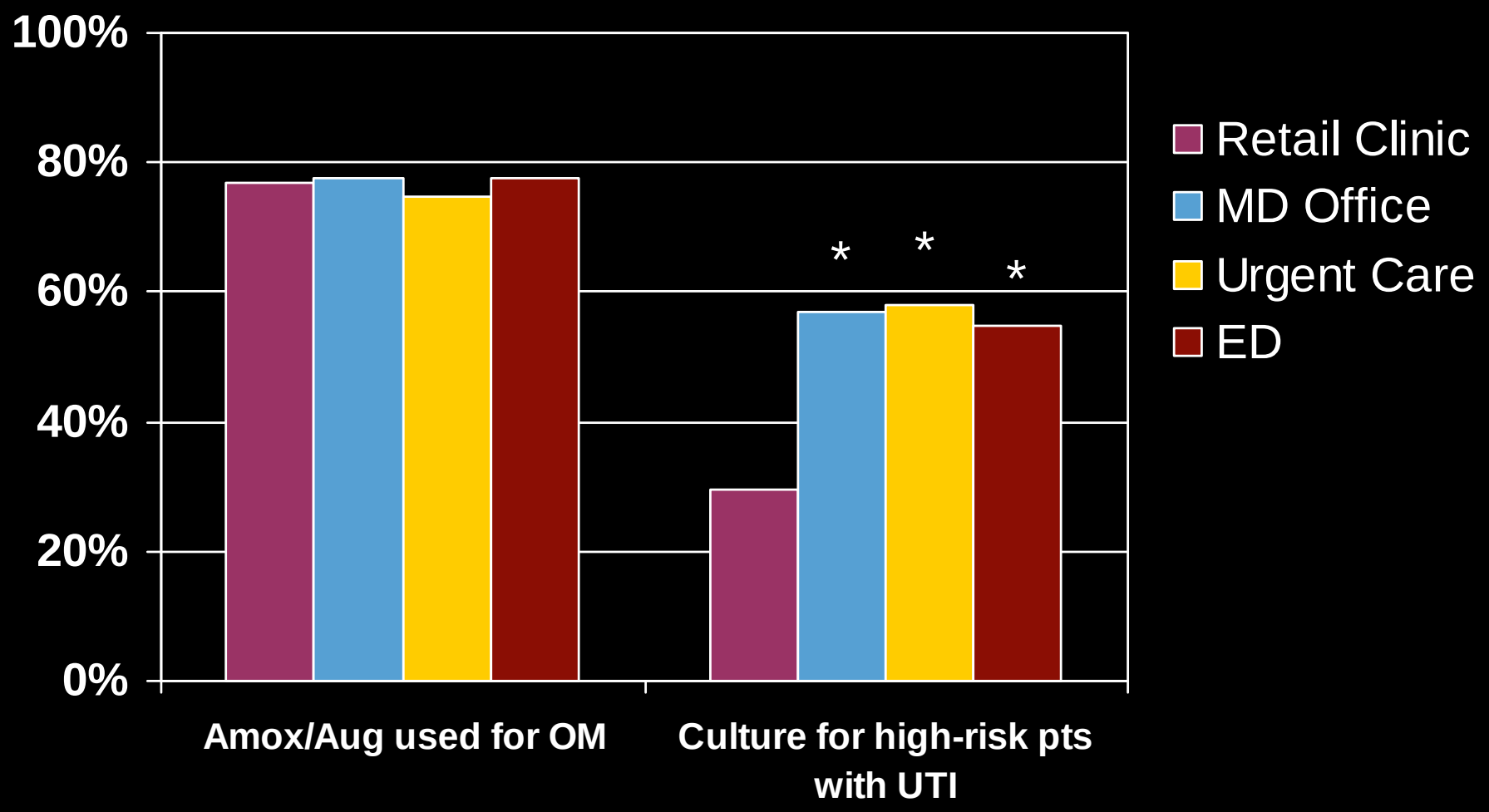
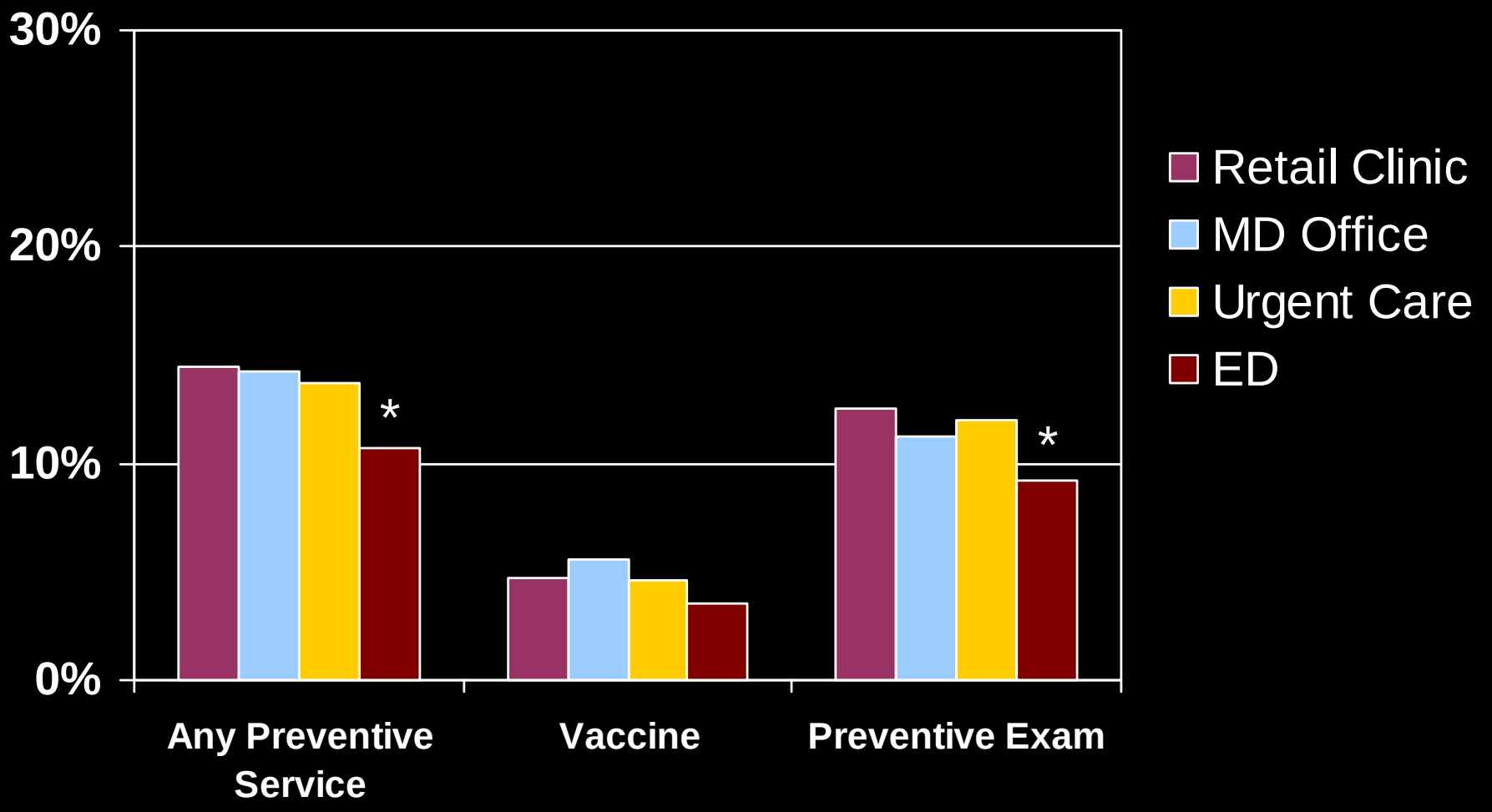


Receipt of Preventive Care Services in Subsequent 3 Months



Modeling Future Cost Savings

- **Potential savings if retail clinics become wide spread**
- **IOM Thygeson**
  - **$2.0 to 7.5 billion per year**
- **RAND**
  - **$0 to 4.0 billion per year**
  - **0-0.6% of health care spending**

IOM report, 2009

Hussey, NEJM, 2009

Findings Consistent with Other Research

- **Patient satisfaction very high[1]**
- **Cost savings found[2]**
- **Quality**
  - **Follow-up visit rates lower[3]**
  - **Care concordant with guidelines[4]**
  - **Minnesota HealthScores**

1 Harris Interactive

2 Thygeson, Health Affairs, 2007

3 Rohrer, Qual Manag Health Care, 2008

4 Woodburn, AJMQ, 2007

Summary of Our Research

Concerns Raised	Our Findings
Disrupt primary care relationships	Possible, but we note almost 2/3 report no PCP
Decreased delivery of preventive care	Limited metrics, but no evidence
Inadequate quality of care	Among limited metrics, no evidence
Inaccurate diagnoses	No increase in follow-up visits
Over-prescribing of antibiotics	Comparable rates of antibiotic prescriptions
Increased costs due to unnecessary follow-up	Aggregate costs 30-40% lower

Many Unanswered Questions on Impact of RC

- **Non-emergent ED utilization**
- **Coordination of care and patient-MD relationships**
- **Overall utilization and costs**

Acknowledgments

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Otitis Media	Duration of therapy should be for 10 days	2-5 yo
	Follow-up within 8 weeks	2-12 yo
	Fraction of patients with acute otitis media receive antibiotics at first appointment?	2-12 yo
	What fraction of antibiotics prescribed are for amoxicillin?	2-12 yo
	If no antibiotics prescribed, how many are seen in 48-72 hours after first appointment?	2-12 yo
Pharyngitis	In diagnosis of Strep pharyngitis, a culture or rapid strep should be obtained	< 18 yo
	In diagnosis of Strep pharyngitis, % of visits where culture or rapid strep obtained	>18 yo
	In treatment of Strep recommended antibiotics should be used	All patients
	In treatment of Strep tetracycline or bactrim were not prescribed	All patients
	In treatment of Strep duration of therapy should be at least 10 days	All patients
	In all visits for sore throat what % had antibiotics prescribed	All patients
Urinary Tract Infection	Urine culture obtained for high risk patients: 1) 3 or more UTI infections in past year, 2) diabetes, 3) immunocompromised state, 4) any structural or functional anomalies of urinary tract, 5) relapse of symptoms 6) a recent invasive procedure	>18 yo
	Treatment with antimicrobials for uncomplicated lower tract infections in women under age 65 should not exceed 7 days	>18 yo
	Regimens of at least 7 days should be used for patients with complicated lower tract infections: that is, those with: diabetes or structural anomaly of urinary tract	>18 yo