

# They Said It Couldn't Be Done!

## Cancer Clinical Trial Success in Coastal Carolina ?!



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# Cancer Clinical Trial Success in Coastal Carolina: Overview

- Cancer Clinical Trials & Obstacles to Enrollment
- Cancer Disparities Research Partnership (CDRP)
- CDRP in Coastal Carolina – Lessons Learned & Keys to Success
- Conclusions



# Obstacles to Cancer Clinical Trial Enrollment

- Patients
- Doctors
- Other



# People's Attitudes About Cancer Clinical Trials

- 81% said “somewhat or very important” overall
- 82% said “somewhat or very willing” to participate for initial treatment
- 87% said “somewhat or very willing” to participate if initial treatment failed
  - Comis et al., Public Attitudes Toward Participation in Cancer Clinical Trials, J Clin Oncol 2003;21: 830-835



# Physician Excuses for Not Offering Clinical Trials

1. Doctor-Patient Relationship (73%)
2. Informed Consent (38%)
3. Uncomfortable w/ Uncertainty (22%)
4. Perceived Conflict: Scientist vs. Clinician (18%)
5. Difficulties w/ Following Procedures (9%)

**Taylor et al., Physicians' Reasons for Not  
Entering Eligible Patients in a Randomized  
Clinical Trial of Surgery for Breast Cancer,  
N Engl J Med 1984;310:1363-1367**



# Physician Excuses for Not Offering Cancer Clinical Trials

- Time                      Money                      Hassles

"If you ask the oncologists if they believe in clinical trials...they all say yes....there's a dichotomy between what the oncologists honestly believe and how that fits into their practice."                      (Walk the walk!)

- Robert L. Comis, M.D., president of the Coalition of National Cancer Cooperative Groups

Finn R. Oncologist's role critical to clinical trial enrollment. J Natl Cancer Inst 2000;92:1632-4.



# Other Obstacles to Trial Enrollment

- Protocol Not Available for Disease/Stage
  - Patient Poor Performance Status
- Bureaucratic Hurdles
  - More Time, Money, Hassles
  - Lawyers?



# Typical Case of Dwindling Numbers from UC Davis?

171 of 276 patients (62%) considered for protocol by MD

91 of 171 (53%) had protocol available for disease and stage

76 of 91 (84%) met eligibility

39 of 76 (51%) agreed to enroll & participate

TOTAL ENROLLMENT RATE: 39 of 276 (14%)

Lara et al., **Prospective Evaluation of Cancer  
Clinical Trial Accrual Patterns: Identifying Potential  
Barriers to Enrollment**, J Clin Oncol 2001;19:1728-1733



# Adult Enrollment onto Cancer Clinical Trials is Poor

Enrollment from Underserved  
Populations is Worse!



# Who Are We Failing Most?

- African Americans
- Hispanics/ Latinos
- American Indians & Alaskan Natives
- Asian Americans & Pacific Islanders
- The Elderly
- Poor Whites



# What are Cancer Health Disparities?

“Differences in the incidence, prevalence, mortality, and burden of cancer ...that exist among specific population groups.”

U.S. National Institutes of Health  
[www.cancer.gov](http://www.cancer.gov)

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# Racial Disparities in Cancer Death Rates in the U.S.

- Death rates for cancer are highest among blacks.<sup>1</sup>
- Black women diagnosed with breast cancer have a 5-year survival of 71% vs. 86% for white women.<sup>2</sup>
- The death rate from prostate cancer is ~2.4 times higher in black men than in white men.<sup>3</sup>

- 1. U.S. Cancer Statistics Working Group. [United States Cancer Statistics: 1999–2002 Incidence and Mortality Web-based Report](#). Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2005.
- 2. Ries LAG, Eisner MP, Kossary CL, Hankey BF, Miller BA, Edwards BK, editors. SEER cancer statistics review, 1973-1997. Bethesda, MD: National Cancer Institute; 2000. [http://seer.cancer.gov/csr/1975\\_2003/results\\_merged/topic\\_race\\_ethnicity.pdf](http://seer.cancer.gov/csr/1975_2003/results_merged/topic_race_ethnicity.pdf)
- 3. American Cancer Society. Cancer facts and figures for African Americans 2005-2006. Atlanta, GA: American Cancer Society; 2005.



# The Cancer Disparities Research Partnership (CDRP) Solution - National Cancer Institute (NCI)

- Pilot program for community-based institutions new to NCI clinical research
- Focus on disparity populations utilizing RT-based protocols
- Dedicated PI at community-based hospital choosing mentor(s) at academic institution
- Mentoring/education facilitated through TELESYNERGY®



# CDRP's "Parents" at the NCI

- N. Coleman, MD
- R. Wong, PhD
- F. Govern, PhD
- B. Vikram, MD

THANK YOU!!



# Current CDRP Sites in the U.S.

- New Hanover Regional in NC (PI - Maguire)
- Rapid City Regional in SD (PI - Petereit)
- Singing River in MS (PI - Clarkson)
- UPMC McKeesport in PA (PI - Heron)
- 21<sup>st</sup> Century Oncology of CA (PI - Khan)



# Underserved Populations in Coastal Carolina

- African Americans
- Elderly
- Poor Whites



# Racial Disparities in Cancer Death Rates (per 100k population) in NC

<u>Cancer Type</u>	<u>African Americans</u>	<u>Whites</u>
Breast	34	23
Colorectal	23	17
Lung	56	59
Prostate	76	26



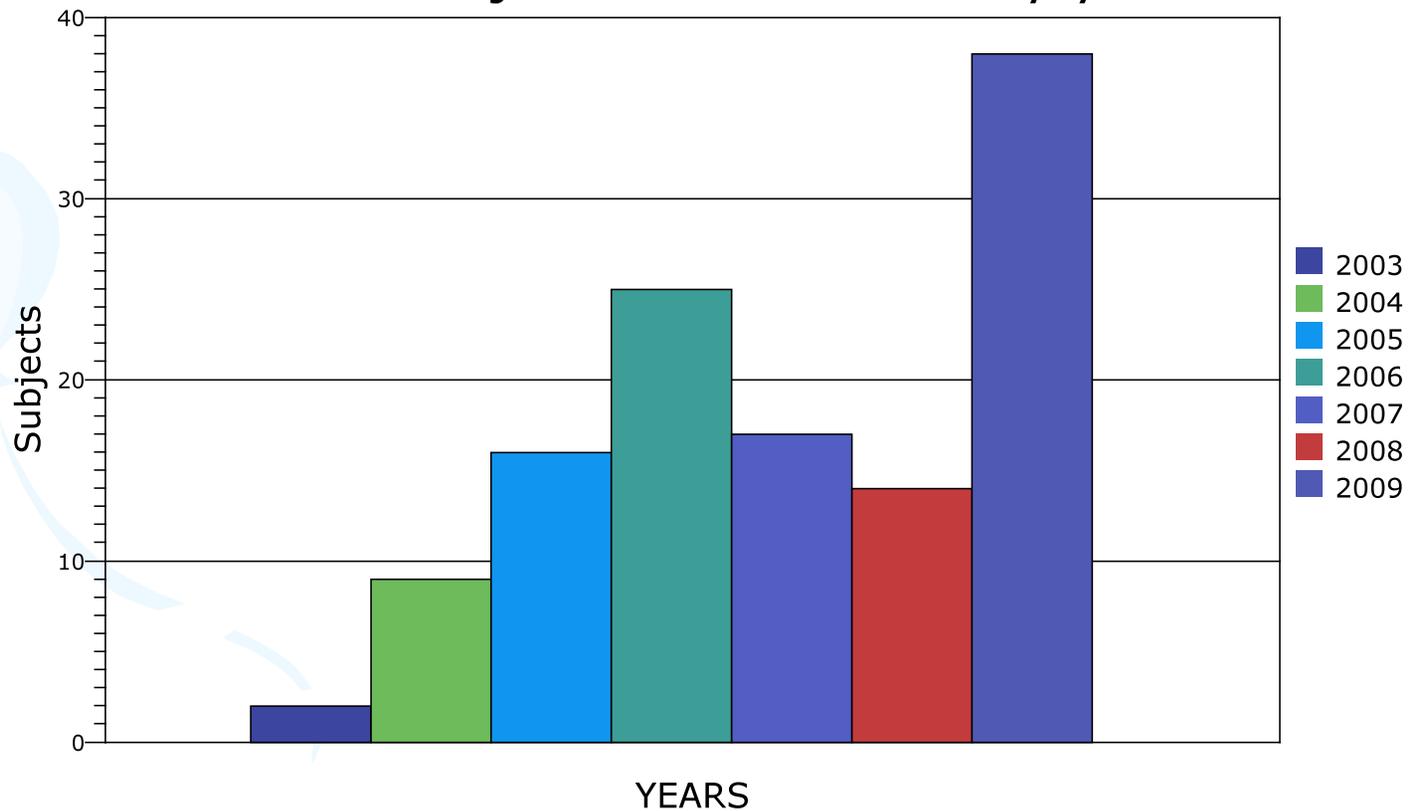
“Improving Cancer  
Outcomes for  
Underserved Patients in  
Southeastern North  
Carolina”

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# New Hanover Clinical Trial Enrollment

Total Subjects in RT studies by year





Lessons Learned

# Lessons Learned

- Referring MD “Buy-In”
  - Office visits
  - Tumor board presentations
- Personnel Turnover
- Trial Selection
  - Need more than interesting science





Good Decisions: Keys to Success

# Keys to Success

- Focus on key disease site: prostate cancer
- Focus on few high-volume trials
- Community PI initiated trials
- Hiring dedicated RN(s) for clinical research
- Practice expansion & new MD hires



# PI-Initiated Trial in Coastal Carolina:

## CLINICAL INVESTIGATION

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### PHASE II TRIAL OF HYPERFRACTIONATED INTENSITY-MODULATED RADIATION THERAPY AND CONCURRENT WEEKLY CISPLATIN FOR STAGE III AND IVa HEAD-AND-NECK CANCER

PATRICK D. MAGUIRE, M.D.,\* MICHAEL PAPAGIKOS, M.D.,\* SUE HAMANN, PH.D.,<sup>†</sup> CHARLES NEAL, M.D.,\*  
MARTIN MEYERSON, M.D.,\* NEIL HAYES, M.D.,<sup>‡</sup> PETER UNGARO, M.D.,<sup>§</sup> KENNETH KOTZ, M.D.,<sup>§</sup>  
MARION COUCH, M.D.,<sup>||</sup> HOKE POLLOCK, M.D.,<sup>¶</sup> AND JOEL TEPPER, M.D.<sup>#</sup>

Departments of \*Radiation Oncology, <sup>§</sup>Medicine, <sup>¶</sup>Surgery, and <sup>†</sup>Coastal Area Health Education Center, New Hanover Regional Medical Center, Wilmington, NC; and Departments of <sup>#</sup>Radiation Oncology, <sup>‡</sup>Medicine, and <sup>||</sup>Surgery, University of North Carolina Hospitals, Chapel Hill, NC

**Purpose:** To investigate a novel chemoradiation regimen designed to maximize locoregional control (LRC) and minimize toxicity for patients with advanced head-and-neck squamous cell carcinoma (HNSCC).

**Methods and Materials:** Patients received hyperfractionated intensity modulated radiation therapy (HIMRT) in 1.25-Gy fractions b.i.d. to 70 Gy to high-risk planning target volume (PTV). Intermediate and low-risk PTVs received 60 Gy and 50 Gy, at 1.07, and 0.89 Gy per fraction, respectively. Concurrent cisplatin 33 mg/m<sup>2</sup>/week was started Week 1. Patients completed the Quality of Life Radiation Therapy Instrument pretreatment (PRE), at end of treatment (EOT), and at 1, 3, 6, 9, and 12 months. Overall survival (OS), progression-free (PFS), LRC, and toxicities were assessed.

**Results:** Of 39 patients, 30 (77%) were alive without disease at median follow-up of 37.5 months. Actuarial 3-year OS, PFS, and LRC were 80%, 82%, and 87%, respectively. No failures occurred in the electively irradiated neck and there were no isolated neck failures. Head and neck QOL was significantly worse in 18 of 35 patients (51%): mean 7.8 PRE vs. 3.9 EOT. By month 1, H&N QOL returned near baseline (mean 6.2, SD = 1.7). The most common acute Grade 3+ toxicities were mucositis (38%), fatigue (28%), dysphagia (28%), and leukopenia (26%).

**Conclusions:** Hyperfractionated IMRT with low-dose weekly cisplatin resulted in good LRC with acceptable toxicity and QOL. Lack of elective nodal failures despite very low dose per fraction has led to an attempt to further minimize toxicity by reducing elective nodal doses in our subsequent protocol. © 2010 Elsevier Inc.

Hyperfractionation, IMRT, Chemoradiation, Head-and-neck cancer.

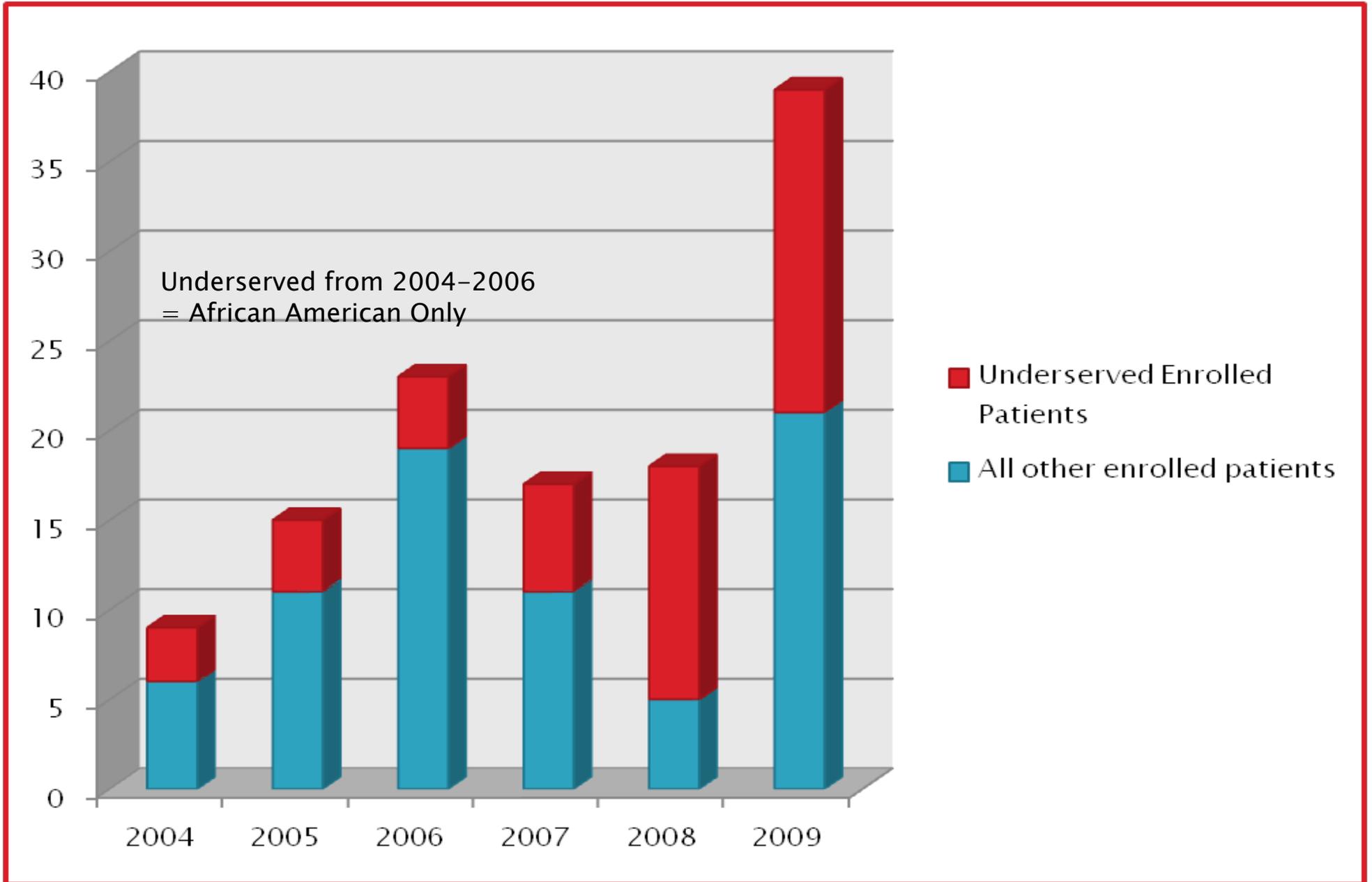
- Int J Radiat Oncol Biol Phys 2010, Apr 7 [Epub ahead of print]

# Key Cooperative Group Trials in Coastal Carolina:

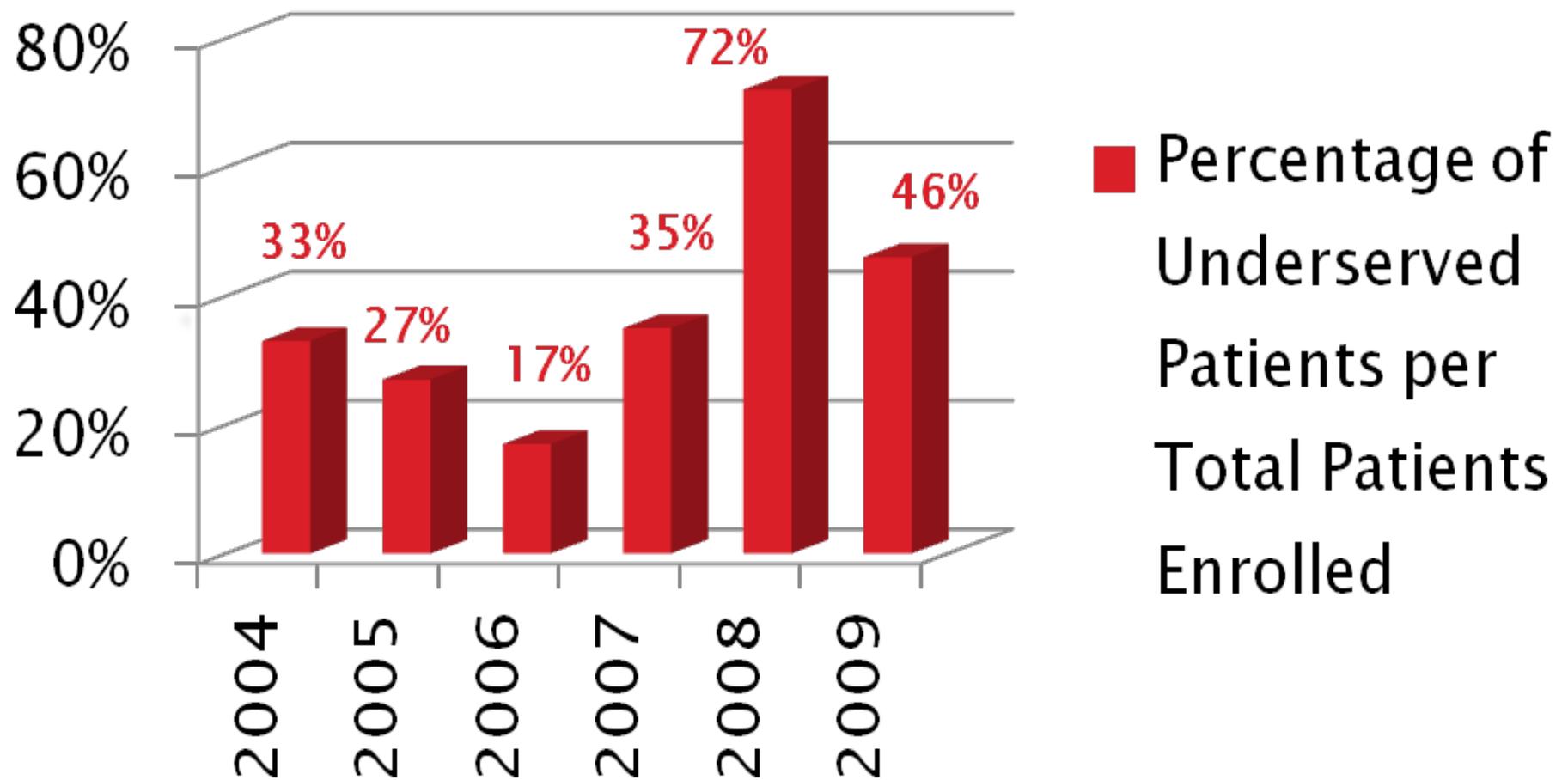
- RTOG
  - Prostate (multiple)
    - 0232: brachy +/- EBRT for intermediate risk
    - 0415: standard vs. hypofx for low risk
- Univ. Washington
  - Advanced Head & Neck
    - OSI: chemoRT +/- Tarceva



# Patient Enrollment by Status 2004–2009



# Percentage of Underserved Patients per Total Patients Enrolled



# Exciting Current & New Clinical Trials

- Continued focus on prostate cancer
  - START: surveillance vs RT for low risk
  - R0232: brachy +/- EBRT for int risk
  - R0815: “high-dose” RT +/-hormones for int risk
  - R0534: bed+/-nodes+/-hormones post-prostatectomy
- SRS & SBRT – referring MD & patient excitement



# Exciting Current & New Clinical Trials

- PI-initiated trials
  - Cosmesis of Hypofx RT s/p Standard or Oncoplastic Lumpectomy for Early Breast Cancer
  - Elective Nodal IMRT Dose De-escalation for Advanced HNSCC
  - SBRT for Oligometastases
- Mentor Institution Trials (WFUCCC)
  - Breast Biomarker Assay for RT Skin Toxicity
  - ArginMax for ED s/p Prostate RT



# Highlights & Awards

- 2010 American Society of Clinical Oncology (ASCO) Clinical Trials Participation Award
  - Only Rad Onc practice in country to win!
- Highest accruing RTOG site in North Carolina



# Conclusions

- Cancer clinical trial enrollment in the U.S. is poor, especially for underserved patients
- Obstacles include both patient & doctor factors
- The Cancer Disparities Research Partnership (CDRP) program was designed to help overcome this problem



# Conclusions: Keys to Clinical Trial Success in Coastal NC

- Commitment from Referring MDs
- High-Volume, Disease-Focused Trials
- Hiring of Key Personnel & Expanding Practice
  - Research Nurses
  - New Physicians
- Goal-Oriented (Eyes on the Prize)



# THANKS To:

- Our patients!
- Referring doctors
- My partners:
  - Dr. Papagikos, our PI for RTOG
  - Drs. Meyerson, Neal, & Nichols
  - Drs. Ali, Powell, & Rusthoven, our new additions
- Research nurses: Deb, Amy, Lynette, Monique
- CCRO & NHRMC Staff
- Academic partners:
  - UNC: Drs. Tepper, Marks, Rosenman, & Morris
  - WFU: Drs. Shaw & Urbanic



