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# **Resident Duty Hour Restrictions: Cost impact**

**Institute of Medicine Resident Hours Meeting  
Beckman Center , Irvine, CA March 4, 2008**

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# Background

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- n IOM Report on Medical Errors
  - n Patient safety
  - n Medical errors
- n ACGME July 2003 Mandate
  - n 80 hours/week
  - n Continuous work hours (24 + 6)
  - n On call limits (every 3<sup>rd</sup> day max.)
  - n Days off requirement (once/week)

# Background

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## n Patient Safety

- n No compelling evidence prior to restriction that decreasing work hours lead to safety benefits (1)
- n 3 studies published 2007 yielded mixed results on any mortality benefit associated with duty hour restrictions (2,3,4)

1 Fletcher KE, et al *Ann Intern Med* 2004;141(11):851-857

2 Shetty KD, et al *Ann Intern Med* 2007;147(2):73-80

3 Volpp KG, et al *JAMA* 2007;298(9):975-983

4 Volpp KG, et al *JAMA* 2007;298(9):984-992

# Background

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- n Cost associated with duty hour limits
  - n No strong national data available
  - n Estimates up to 37% of resident work were over the 80 hour maximum per week
  - n Replacement cost 673 million to 2.2 billion dollars annually (1)

1) Nuckols TK, et al. J Gen Intern Med.2005;20(10);873-878

# Cedars-Sinai Medical Center Experience

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## n Academic Community Medical Center

- n Mission: Quality care, Medical Research, Medical Education, Community Service
- n 952 Licensed Beds (84 Med/Surg ICUs and 53 Peds/Neonatal ICUs)
- n 50,000 admissions/year
- n 200 full time faculty and 2200 voluntary physicians
- n Primary through tertiary care center

# Cedars-Sinai Medical Center Experience

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## n Research

- n 54 million in research grant support in 2007

## n Medical Education

- n 26 ACGME accredited residency and fellowships – 250 trainees
- n 100 addition trainees in programs where ACGME does not offer accreditation

# Cedars-Sinai Medical Center Experience

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- n Methods to limit residents' duty hours
  - n Limiting number of patients on teaching services
  - n Replacing residents with “mid level substitute)
  - n Replace residents with “moonlighting” physicians
  - n Hire faculty to run services previously run with residents

# Cedars-Sinai Medical Center Experience

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## n Institutional Cost Estimates: Methods

- n Contact department chairs and program directors
- n Determine any additional FTEs hired since 2003 doing services previously done by residents
- n Finance Department gave estimates based on average salary and benefit cost



# Cedars-Sinai Medical Center

## Experience

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- n Limitations on ability for cost reimbursement
  - n Physician effort and number increased, but billing similar as when resident were supervised caring for similar patient numbers
  - n No billing done for advance practice nurse activity
  - n “moonlighting” physicians are frequently board certified fellows who can not bill “double dipping”
  - n Estimate new reimbursement generated by physicians doing “resident coverage” only \$168,000

# Cedars-Sinai Medical Center Experience

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- n Patient safety improvement

- n Multiple changes in all systems since 2003 makes analysis of impact on work hour limitations impossible

# Summary and Personal Opinions

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- n The “good” of Resident Work hour restrictions
  - n Better life quality, less fatigue for trainees
  - n Effort to improve patient care “hand offs”
  - n No worsening of patient outcomes, and possibly some improvements

# Summary and Personal Opinions

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- n The “bad” of Resident work hour restrictions
  - n Greater focus on work hours at sacrifice of resident education
  - n Financial cost are significant and largely non compensated
  - n Residents can be punished for “professionalism”
  - n Problem of the slow or less efficient resident
  - n Some limitations of procedures done in some specialty fields

# Summary and Personal Opinions

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- n No turning back
- n More information needed before enacting any further limitations on resident duty hours.