Outcomes of hospital care in Aged Care residents

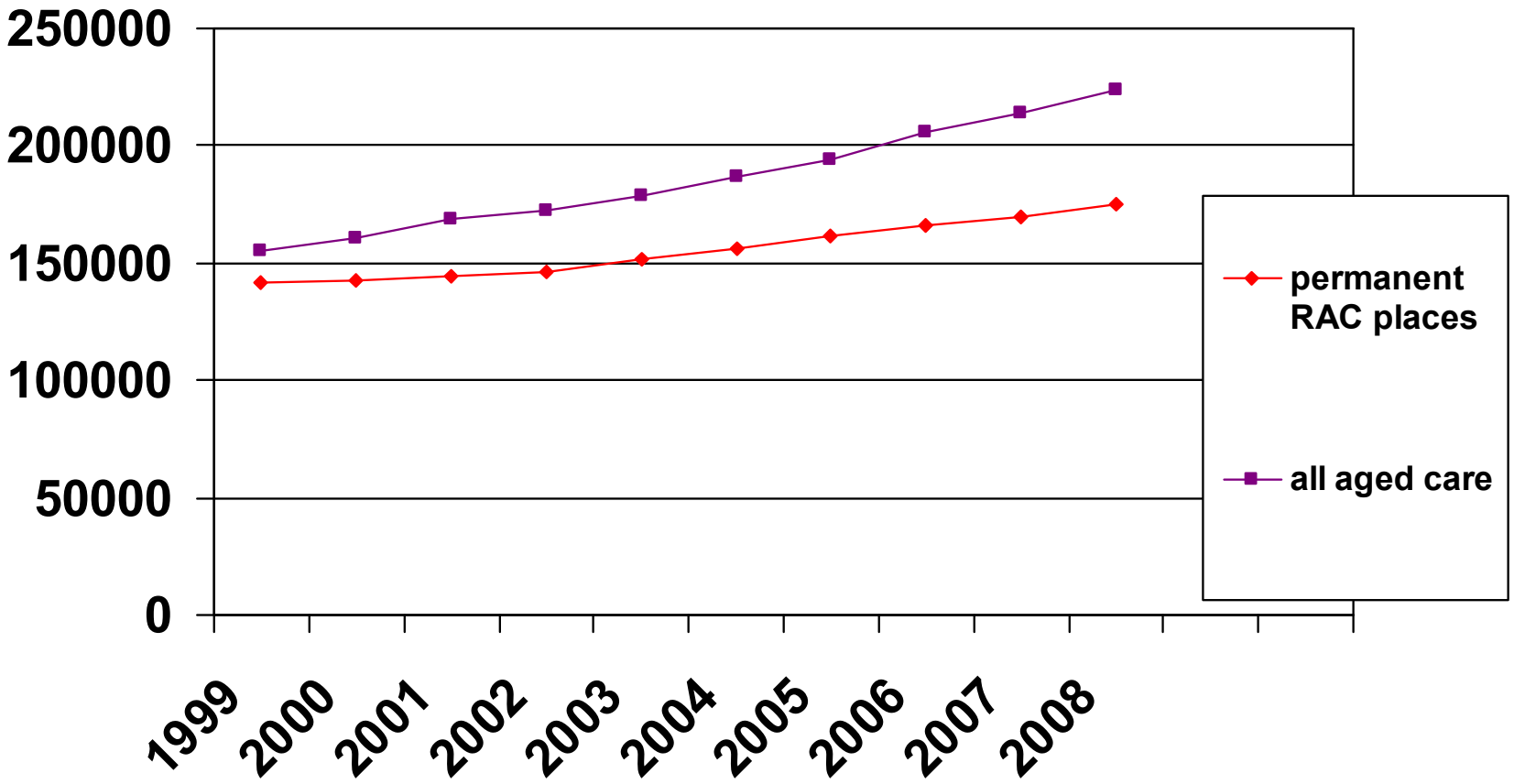
Dr A Mudge
A Prof C Denaro
Dr P O'Rourke

With thanks to RBWH Internal Medicine Dept and Internal Medicine Research Unit

RAC in Australia 2008

- 175,000 aged care beds
  - 98% occupied by permanent residents
    - 54,000 new admissions (mean LOS 148 weeks)
    - 51,000 respite care episodes (mean LOS 3 weeks)
- 113 places per 1000 pop aged > 70
  - 88 residential, 25 community “packages”

RAC in Australia



Population ageing

- Projected increase in population by 2026:

65-85	2-2.5 million
85+	0.3-0.4 million

- Usage increases with age:

65-74	9 per 1000
75-84	52 per 1000
85+	236 per 1000

Why is this important for hospitals?

- 50% of RAC referrals from acute hospitals
- 20-25% of RAC residents admitted to hospital per annum

RAC and hospital outcomes

- Mortality
  - Gabow 1985 USA: 27 v 11% (35 v 20% @ 6/12)
  - Barba 2008 Spain: 17 v 6%
- Morbidity
  - Friedman 2008 ↑ risk delirium, falls, functional decline
- Hospital utilisation
  - Acute LOS
    - ↑ Gabow 11.4 v 8.4 days; ↓ Barba 7.8 v 8.3
  - Readmissions
    - ↑ (Kwok 1999, Zanocchi 2008); ↓ (Chu 1999)

Aims

- To describe the **characteristics** and **outcomes** of medical patients admitted from RAC
- To **compare** these to medical patients admitted from community living
- To **measure** the impact of an interdisciplinary **care intervention** in RAC patients

Setting and participants

- Planned subgroup analysis of trial data
- General medicine service, 950 bed metropolitan teaching hospital in Australia
- All consecutive medical admissions excluding ICU, day cases, early transfers
- 24 weeks (3 admitting cycles) recruitment
- 1004 participants aged 65+

Intervention

Allocated by medical unit (2 i/v, 2 control):

- Control group (n=491) “usual care”

- Intervention (n=513) interdisciplinary team
  - early discharge planning
  - daily communication
  - blanket referral
  - greater allied health staffing

Patient variables

- Age, sex, usual residence
- “Geriatric criteria”
  - History of ADL dependency, dementia, malnutrition, depression, incontinence, walking difficulty, falls, prior stroke, previous admission (Reuben 1995)
- Functional status 2 weeks prior, admission, discharge using 6 item Katz (Sager 1998)
- Diagnosis, cost-weight

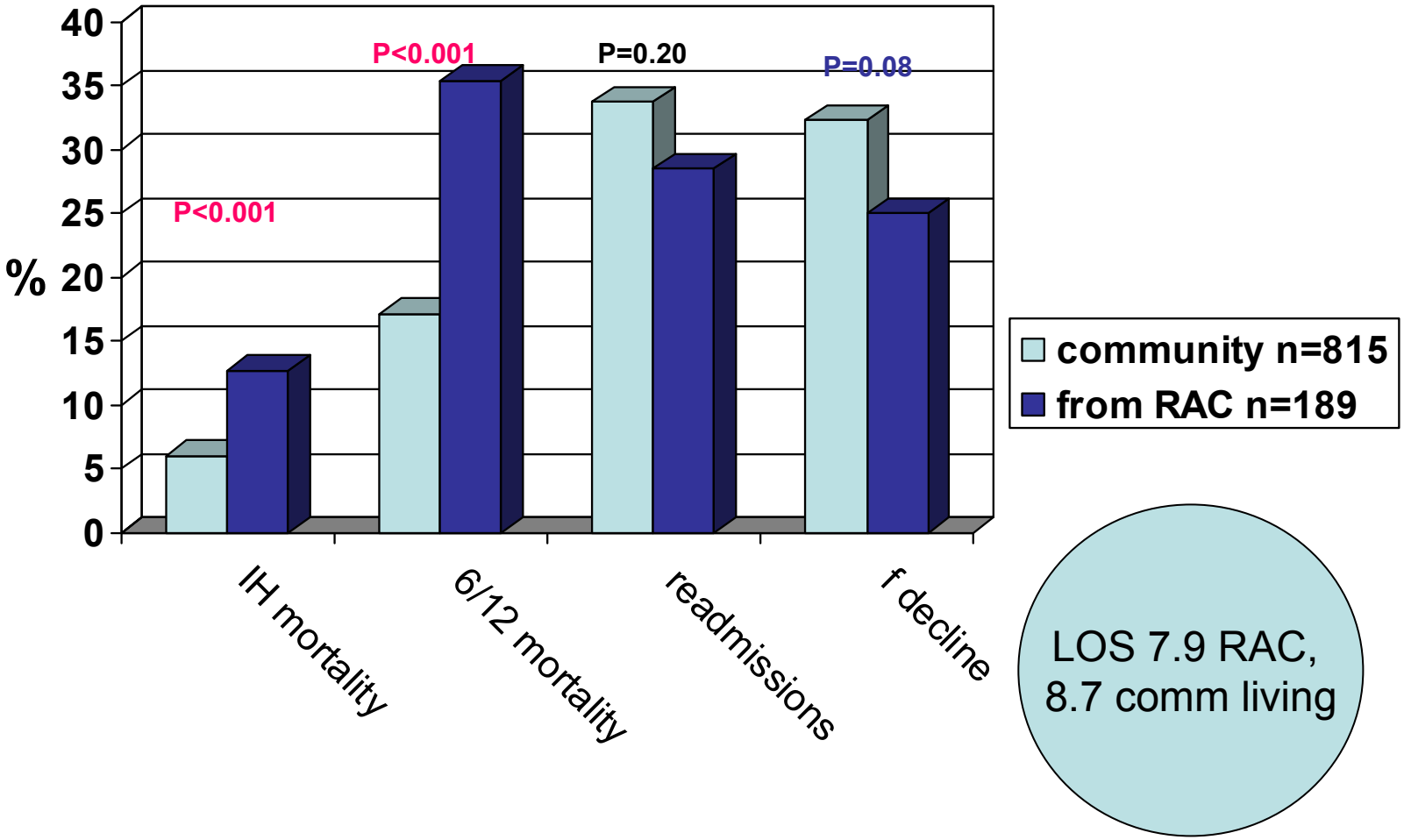
Outcomes

- In-hospital and 6/12 death
- Length of stay, 6 month bed use & readmissions
- Functional decline

Characteristics of patients

	From RAC (n=189)	Community living (n=815)	p
Mean age (yrs)	83.7	80.0	<0.001
Female (%)	67	56	0.006
Independent in ADL (%)	18	73	<0.001
History of dementia (%)	43	11	<0.001
History of falls (%)	32	33	0.84
Admission past 6/12 (%)	15	14	0.60
Mean cost-weight	2.0	1.8	0.35

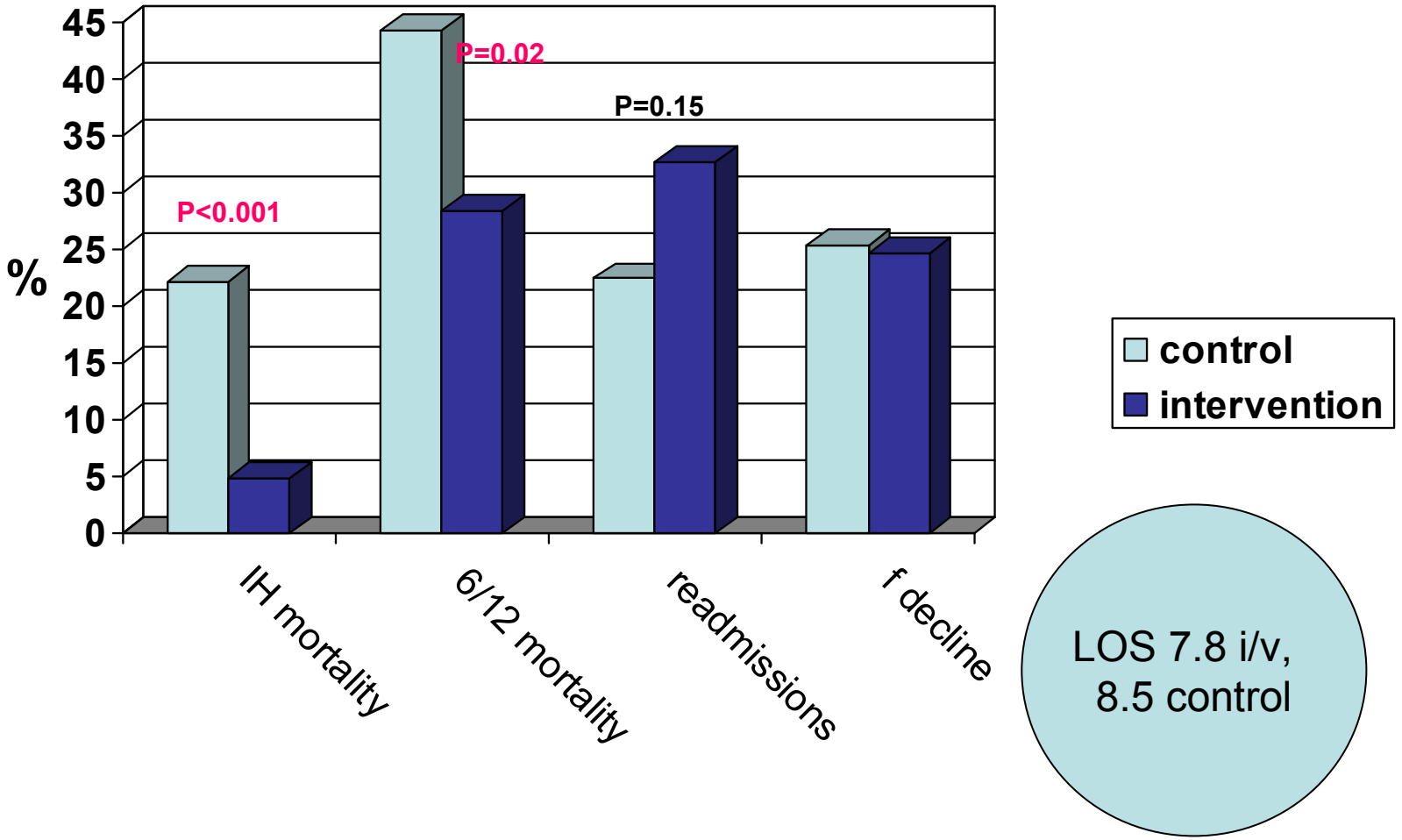
Comparing outcomes overall



Intervention v control RAC pts

	Control (n=86)	Intervention (n=103)	p
Mean age (yrs)	83.7	83.9	0.65
Female (%)	64	69	0.39
Independent in ADL (%)	17	19	0.30
History of dementia (%)	48	40	0.28
History of falls (%)	28	35	0.30
Mean cost-weight	2.0	1.9	0.80

Intervention outcomes in RAC pts



LOS 7.8 i/v,
8.5 control

Discussion

1. Outcomes are poor in medical patients admitted from RAC
2. Some of this is due to patient characteristics…but
3. The mortality difference was dramatically reduced by an interdisciplinary intervention
   - Caveats
     - Subgroup analysis
     - Single site
     - Limited adjustments for severity and comorbidities

Conclusions

- What do these results mean?
  - Challenge therapeutic nihilism in RAC pts
  - Challenge evidence for hospital avoidance
  - Challenge excluding RAC patients from trials and aged care programs


Heinz
ESTD 1869
BAKED
BEANZ
in tomato sauce
57