Prescription Opioid Exposures and Outcomes among Older Adults

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Disclosure of Commercial Relationships

- Salary support provided by RMPDC
- RMPDC funding provided by RADARS program
  - Contracts with multiple pharmaceutical companies
  - RADARS owns the data

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Background

- Toxic exposures leading cause of death
- Increased rx opioids->increased misuse
- Little research on elderly

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Methods

- Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS®) System Poison Centers
- Covers 70-93% of population
- De-identified and transmitted for analysis

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Methods

- Unintentional exposures
  - oxycodone, fentanyl, hydrocodone, morphine, oxymorphone, hydromorphone, tramadol, and tapentadol
- January 1, 2006-June 30, 2014
- Adults >19 years
  - Older (60 or greater)
  - Younger (20-59)

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Methods

- Population
  - All calls
  - Serious outcomes
    - Death; major effect; moderate effect
- Analysis
  - Regressing rates on
    - age group
    - linear variable for time
    - age group by time interaction term
- Outcome: Trend in rate by age group

Results

- Both age groups showed initial increases then decrease
- Higher for older adults than for younger adults.
- Older adults began to decline later (early 2014) than younger adults (late 2010)

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Results

- Per prescriptions dispensed higher among older adults than among younger adults.
- Prescriptions dispensed
  - to younger adults declined
  - to older adults continued to increase.

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Results

- Rates of calls with serious outcomes increased for both groups
  - quarterly increases greater for older adults than for younger adults.

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Results

Rate	Age Group	Estimated rate at 2014Q2	Estimated slope at 2014Q2 (95% CI, p-value for slope)
Population rate per 1,000,000	20-59	6.72	-0.1952(-0.2659 to -0.1244, p<0.001)
	60 or more	14.08	-0.0094(-0.0802 to 0.0613, p=0.791)
Prescriptions rate per 100,000	20-59	2.87	-0.0589(-0.0892 to -0.0286, p<0.001)
	60 or more	4.68	-0.0454(-0.0757 to -0.0151, p=0.004)
Prescriptions per population rate per 100	20-59	23.36	-0.2038(-0.3034 to -0.1041, p<0.001)
	60 or more	29.90	0.1812(0.0815 to 0.2808, p<0.001)

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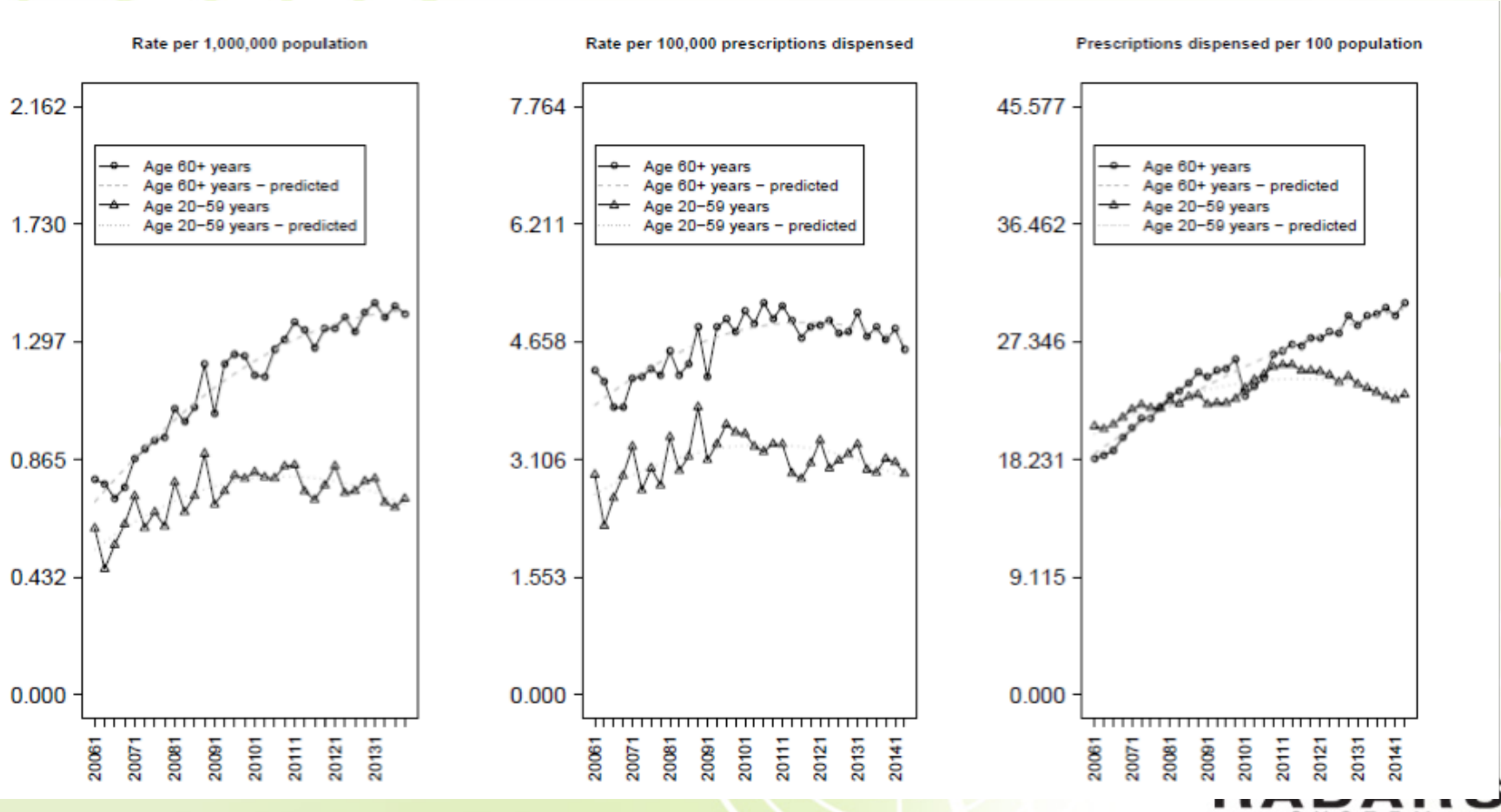
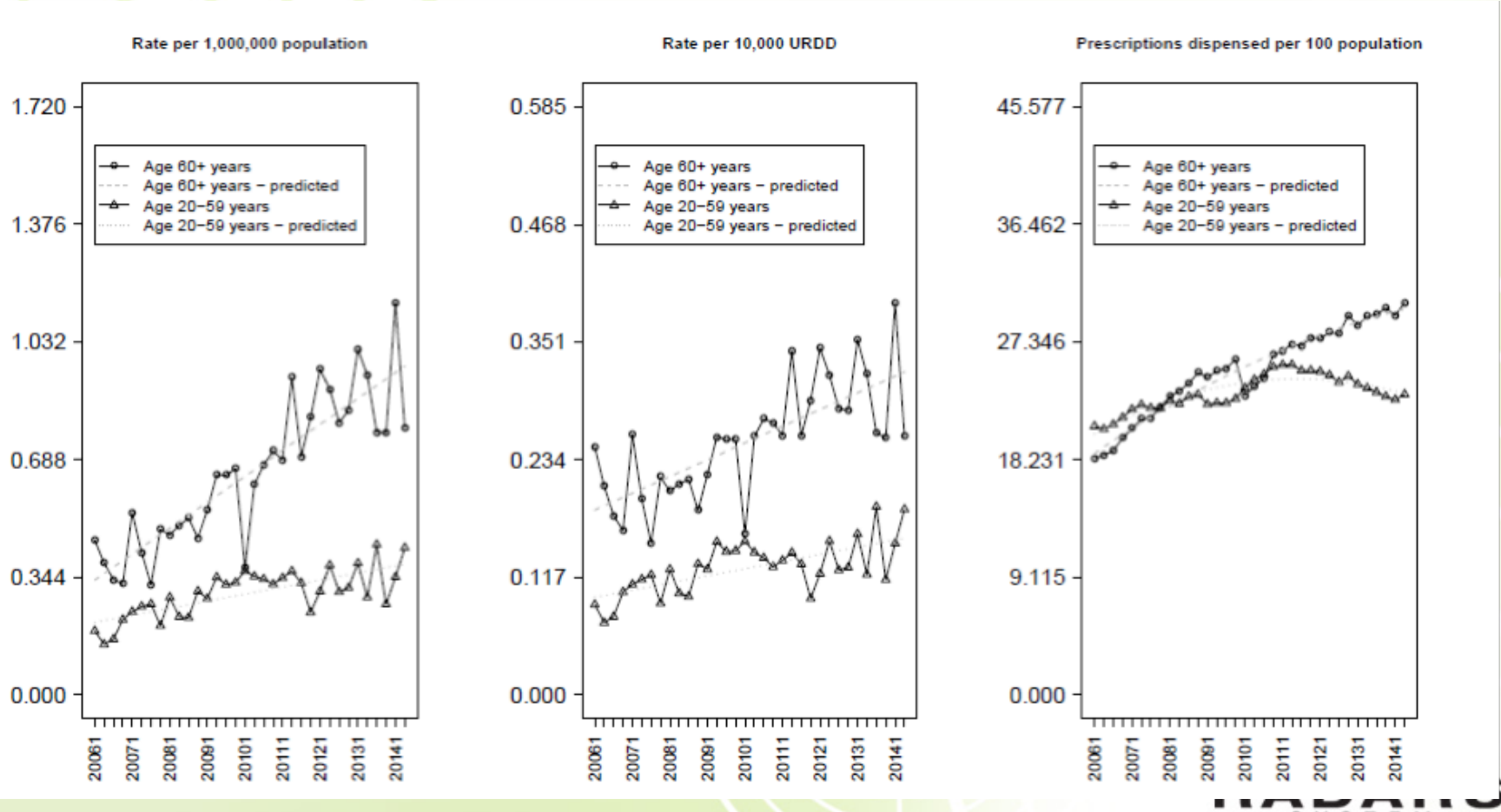
All outcomes



Serious outcomes



Conclusions

- Unintentional exposures higher for older adults than younger adults.
  - rates have declined for both age groups
  - decline began earlier for younger adults
- rates of serious outcomes
  - increased for both age groups
  - greater among the 60+ group

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