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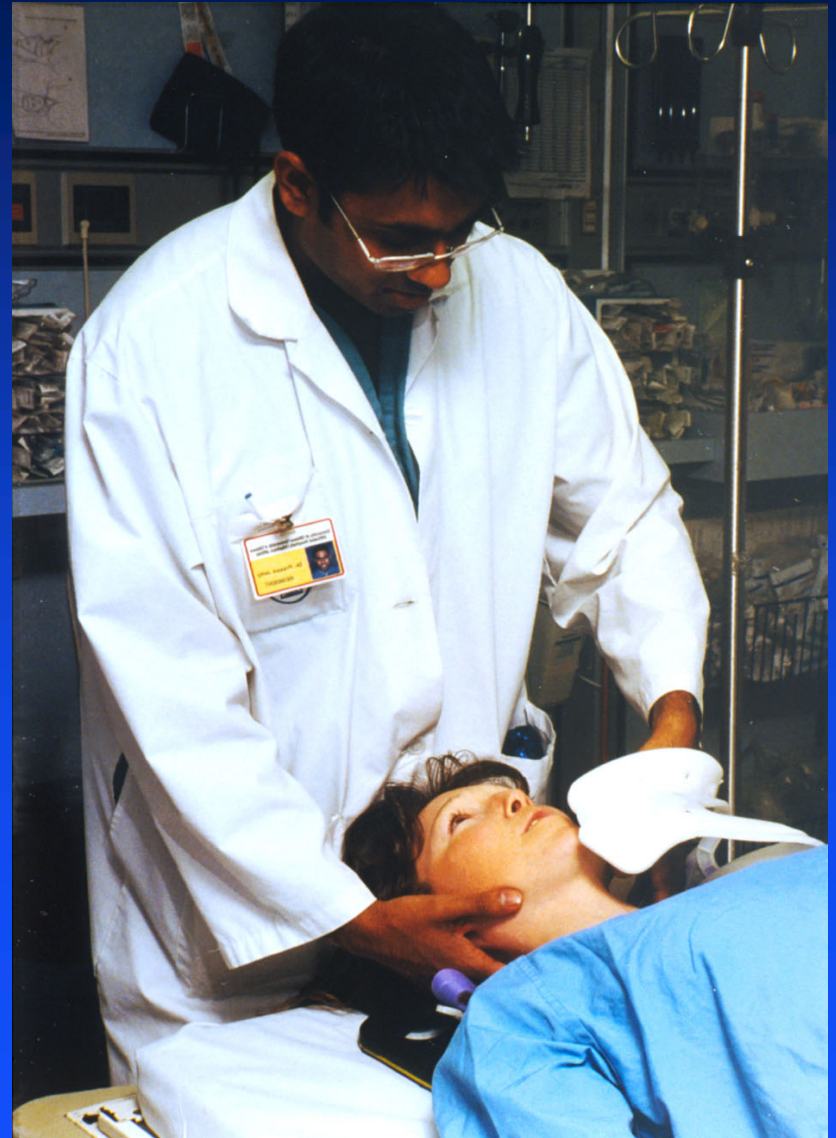
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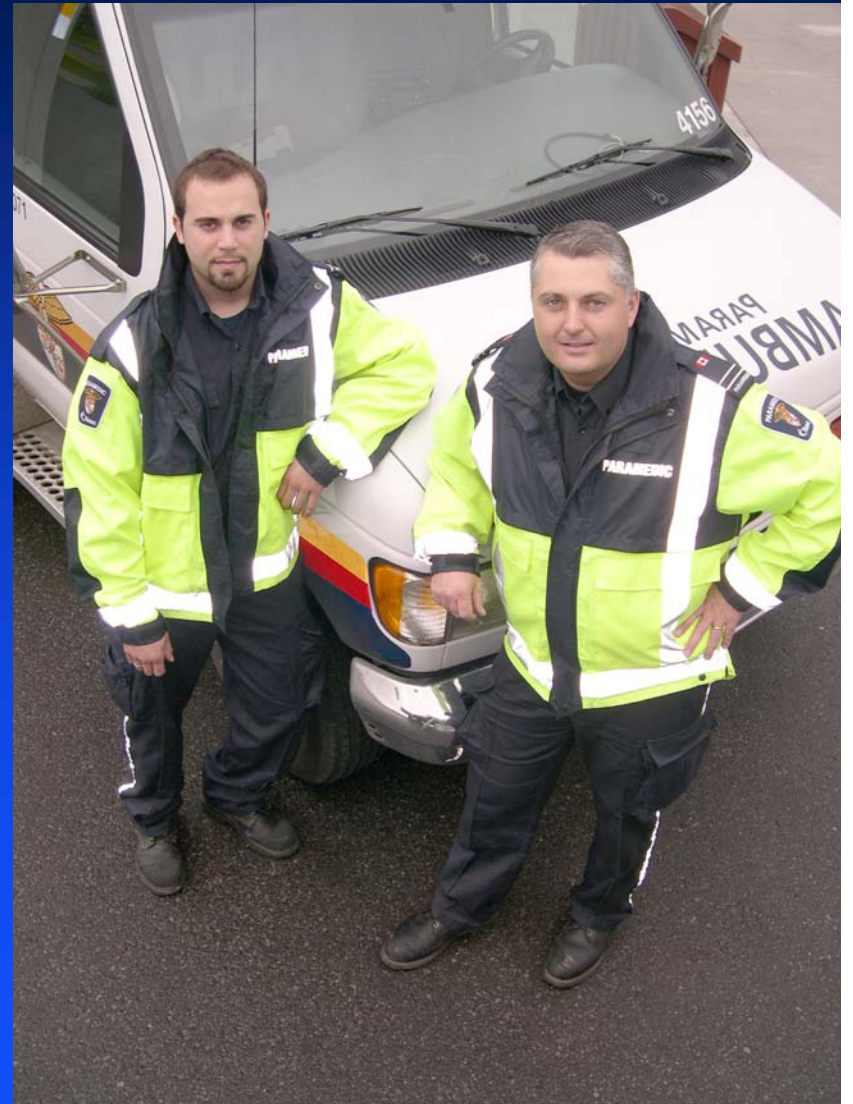
Background

- The Canadian C-Spine Rule was derived and validated using over 16,000 patients
- Used by physicians, the rule can identify 99.7% of injuries
- We are validating its use by paramedics in the field



Background

- Patient enrollment by paramedics in prehospital studies is often lower than expected, for a variety of reasons



Objectives

**To determine the impact of
a peer-paramedic research assistant
on the enrollment rate in the
Canadian C-Spine Rule (CCR)
*Prehospital Validation Study***

Methods

- **Ottawa Paramedic Service PCP and ACP Paramedics voluntarily followed the Canadian C-Spine Rule**
- **Paramedics continued to immobilize all trauma patients according to their pre-existing protocols, and filled out a study form**
- **Research Ethics Board approved waiver of informed consent**

Methods

We compared two successive 3-month periods using similar enrollment strategies: (Apr. 1st to Sept. 30th, 2005)

- **Before** – By members of the Ottawa Health Research Institute
- **After** – By a paramedic research assistant with direct access to paramedics

Enrollment Strategies

Before Phase – By independent researcher

- **Recurrent training and information sessions**
- **Promotional posters in participating base hospitals and emergency departments**
- **Study forms available with equipment, and at receiving base hospitals**
- **Laminated pocket cards attached to immobilizing material**

Enrollment Strategies

Before Phase – Continued...

- **Distribution of monthly newsletters via electronic mail, paramedic's website, and hard copy**
- **Monthly draw for an educational incentive**
- **Brainstorming session with paramedics**

Enrollment Strategies

After Phase – Paramedic research assistant

- **Daily motivation about the study at morning briefing**
- **Ensured that promotional material and study forms were in view and available**
- **Distribution of monthly newsletters in ambulances**
- **Weekly draw for an educational incentive**
- **Acted as a resource person for peer paramedics who had questions about the study**

Methods

- **Outcome Measures:**
 - Patient characteristics
 - Paramedic comfort using the rule
 - Enrollment rates in the CCR Prehospital Validation Study
- **Analysis**
 - Descriptive statistics
 - χ^2 (Chi-Square)
 - Absolute risk statistics with 95%CI

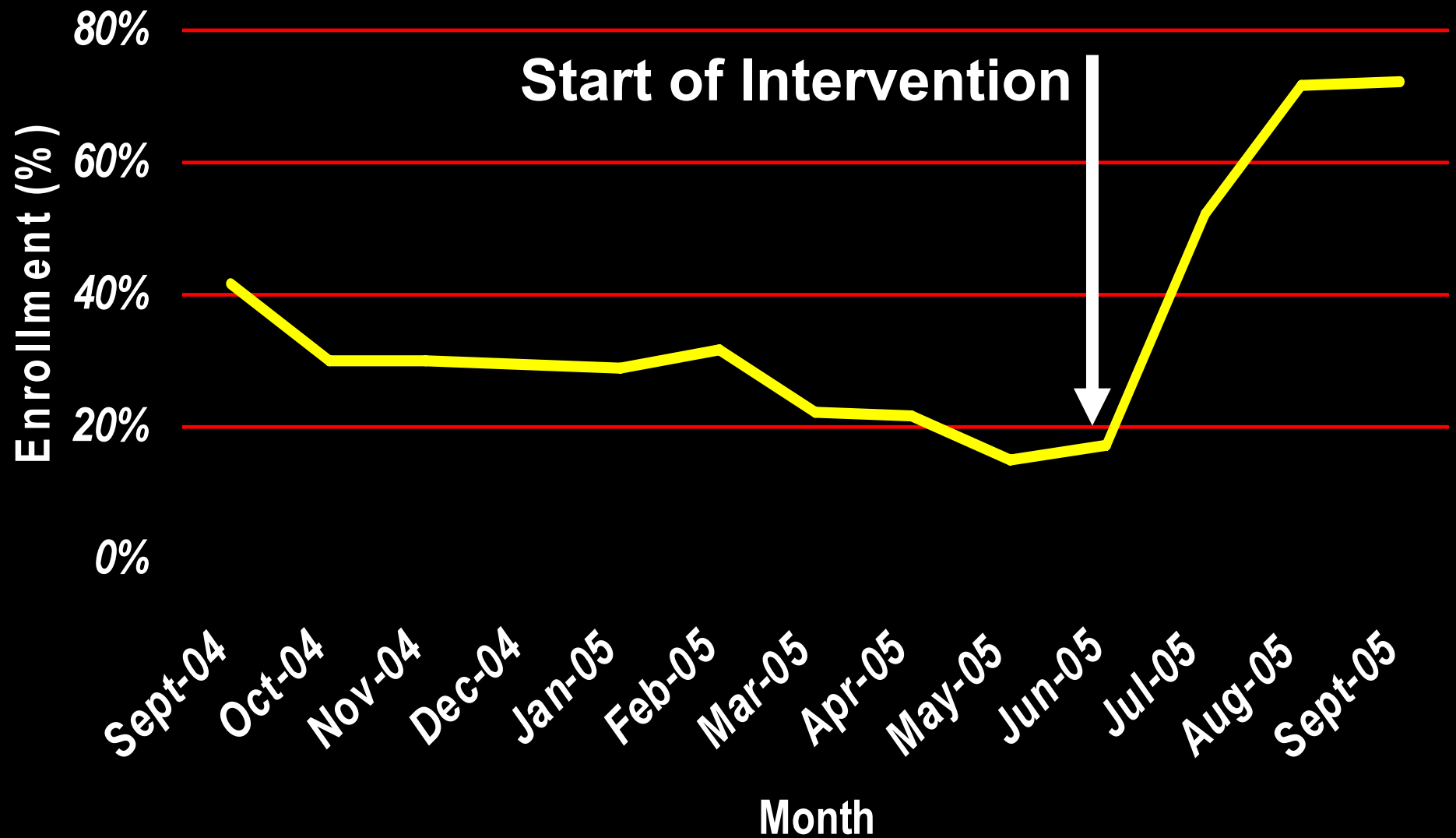
Characteristics for the 297 Enrolled Trauma Victims

	Before Phase (N=49)	After Phase (N=248)
Age, mean (years)	38	43
Male	53%	52%
Mechanism of injury		
Motor vehicle collision	53%	53%
Fall from \geq 3 feet	13%	8%
Motorcycle collision	13%	5%
Bicycle collision	9%	12%
Pedestrian struck	6%	5%

Characteristics for the 297 Enrolled Trauma Victims

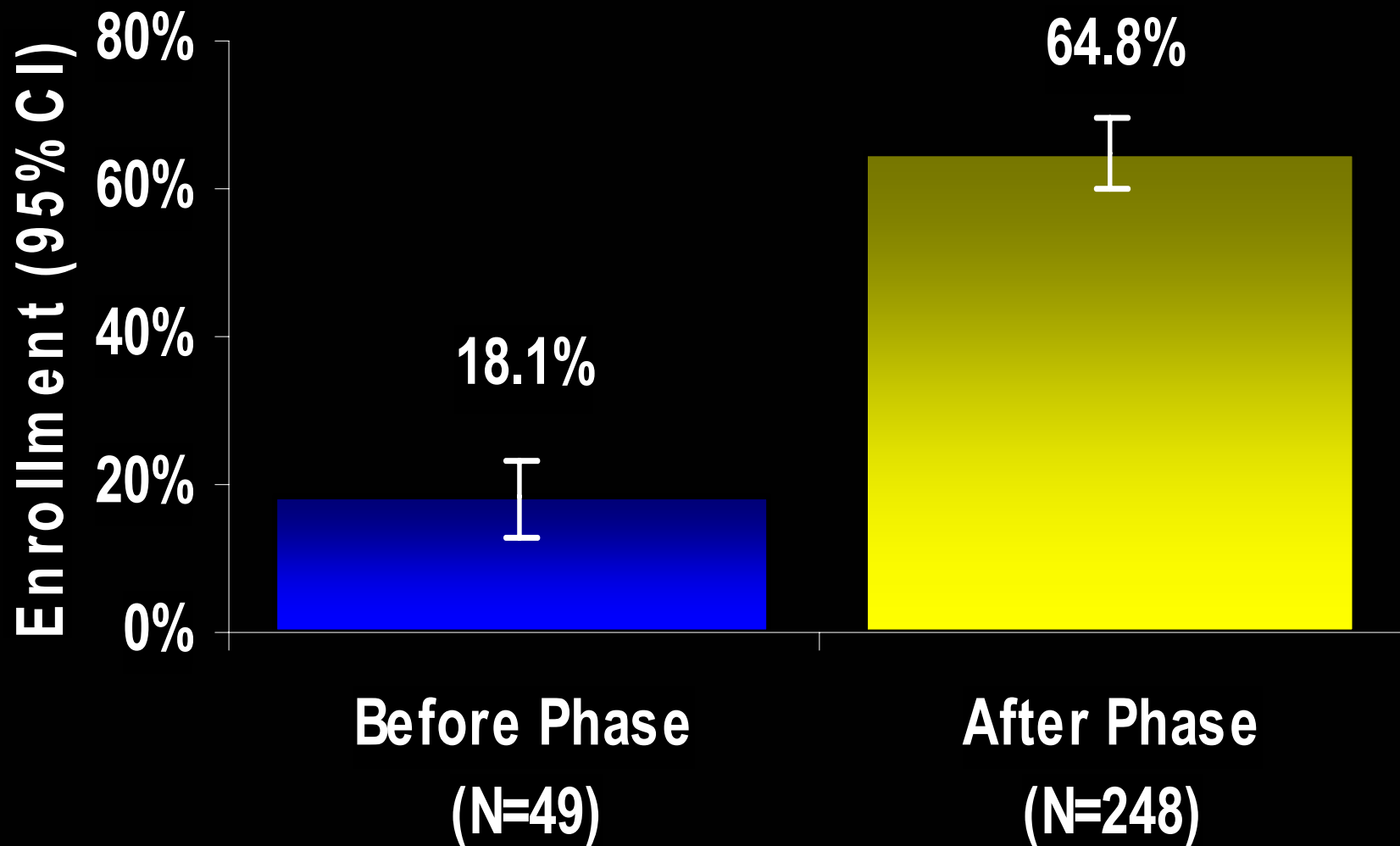
	Before Phase (N=49)	After Phase (N=248)
Admitted	10%	13%
ALS medic at the scene	94%	78%
Very comfortable with CCR	81%	74%
# of cervical spine injuries	1	3
Injuries missed by CCR	none	none

Percentage of Eligible Trauma Victims Enrolled per Month Over a One Year Period (N=1,236)



Enrolment Rates Before and After the Study Intervention

AR 46.7% $p < 0.0001$



Discussion

- **We have repeated the experience with similar success in Windsor since the publication of these results**
- **Monthly educational incentives remained unchanged in Windsor, hence could not have explained the improvement in enrolment rate**

Conclusion

- Enrollment in the *CCR Prehospital Validation Study* significantly increased after we hired a peer-paramedic research assistant
- EMS researchers should consider doing the same when designing prehospital research protocols



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