

**Does an Ignition Interlock
License Restriction Absent
Interlock Reduce Recidivism? A
Subgroup Analysis**

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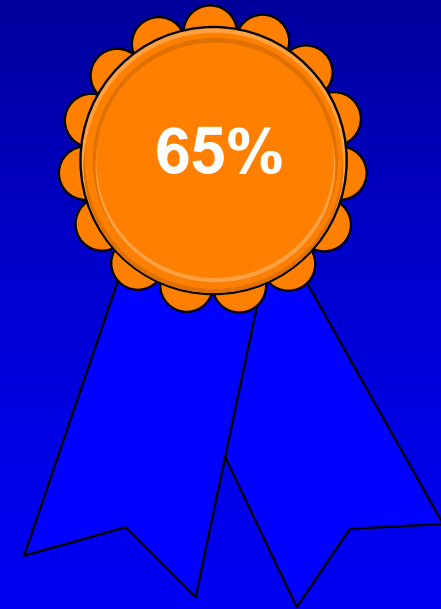
Vail, Colorado

October 22-24, 2006



Maryland Randomized Trial

- ◆ Participants in Ignition Interlock License Restriction Program had 65% Lower Risk of Alcohol-Related Traffic Recidivism During One-Year Program
- ◆ No Statistically Significant Difference 1-10 Years Post-Intervention





Analysis

- ◆ Ignition Interlock *License Restriction* “**Program Effectiveness**” Evaluation”
 - Randomized Design
 - Intent-To-Treat Analysis
- ◆ Why Not Limit Evaluation to Those Installing Interlock; Complying with Normal & Customary Sanctions?



Traffic Injury Prevention

- ◆ Referring to Randomized Ignition Interlock License Restriction Trial in Maryland ...
- ◆ “... its randomness was compromised by the failure of one-half of the interlock group to install the devices. It is likely that only the most motivated drivers used the interlock”
- ◆ ...analysis should have been limited to those who installed the interlock...



Program Effectiveness

$$\text{Program Effectiveness} = \frac{\text{Impact}}{\text{Assigned to Intervention}}$$



Program Efficacy

$$\text{Program Efficacy} = \frac{\text{Impact}}{\text{Received Intervention}}$$



Efficacy vs. Effectiveness

EXAMPLE:

1,000 Offenders Eligible for Interlock Program

50 Offenders Install Interlock

30 Offenders Successfully Complete Program

$$\text{Efficacy} = 30 / 50 = 60\%$$

$$\text{Effectiveness} = 30 / 1,000 = 3\%$$





120E855

MARYLAND

EXPIRES

02-02-03

DRIVER'S LICENSE

CLASS ENDORS. IDENTIFICATION NO.
C D-000-429-000-088

BIRTH DATE SP.CODE ISSUE DATE
02-02-70 02-25-98

RESTR. HEIGHT WEIGHT SEX TYPE DONOR
J 5-09 168 M NG

John Doe



JOHN DOE
2 ANYWHERE AVENUE
BALTIMORE

MD 21126

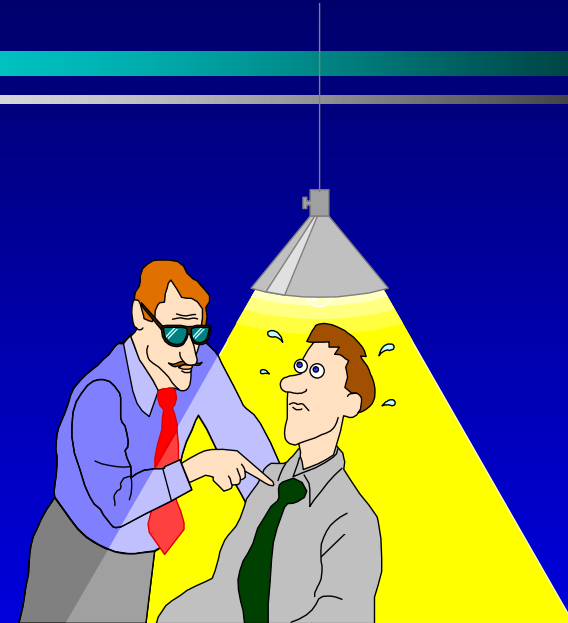


INTERLOCK DEVICE



Close Monitoring

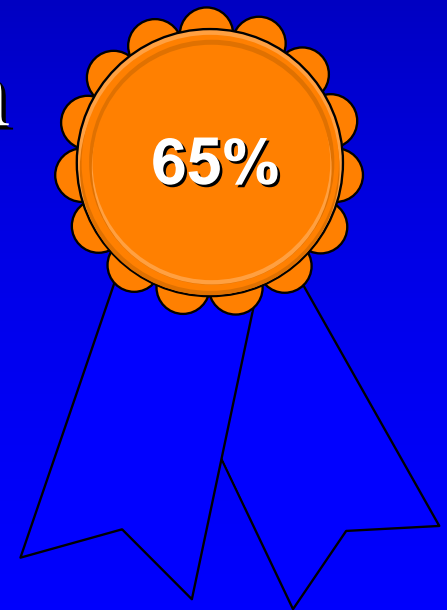
- ◆ Emergency Suspension
 - Failure to Comply
 - Tampering/Removal
- ◆ Telephone “Counseling”
- ◆ Medical Advisory Board Review
- ◆ Interlocks Had More Ways of Failing to Comply than Controls





Factors Contributing To Program Effectiveness

- ◆ Ignition Interlock Device
- ◆ Interlock License Restriction
- ◆ Close Monitoring





Subgroup Analysis

- ◆ Randomized Design
 - Case - Control Study
 - Intent-to-Treat Analysis
- ◆ Cases
 - Installed Interlock
 - Waived
 - Waived \Rightarrow Installed Interlock
 - Failed to Comply




Installed Interlock

- ◆ Year 1
 - 64% Reduction in Recidivism
 - Statistically Significant ($p < .01$)
- ◆ Year 2
 - No Statistically Significant Difference ($p = .27$)



Waiver

- ◆ Year 1
 - 80% Reduction in Recidivism
 - Statistically Significant ($p < .01$)
- ◆ Year 2
 - No Statistically Significant Difference ($p = .97$)



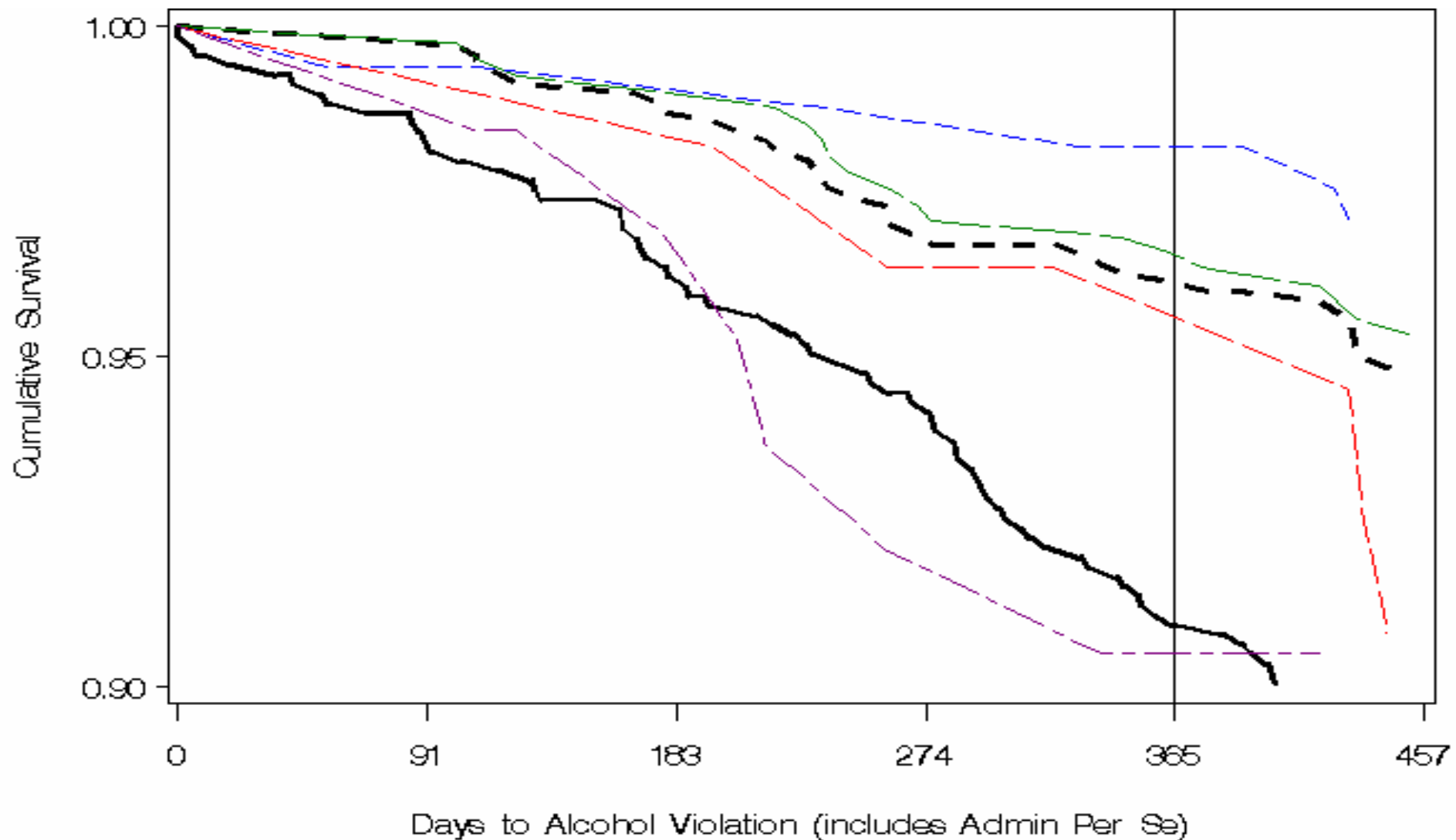
Waiver - Installed

- ◆ Year 1
 - 58% Reduction in Recidivism
 - No Statistically Significant Difference ($p = .22$)
- ◆ Year 2
 - No Statistically Significant Difference ($p = .84$)



Failed To Comply

- ◆ Year 1
 - 5% Increase in Recidivism
 - No Statistically Significant Difference ($p = .92$)
- ◆ Year 2
 - No Statistically Significant Difference ($p = .10$)




- Category
- 1. Control
 - - - 2. Interlock
 - · - 3. Installed
 - - - 4. Waiver
 - · - 5. Waiver - Installed
 - · - 6. Failed to Comply - Suspended



Demographics



- ◆ 1,385 Offenders
- ◆ White (84%)
- ◆ Male (90%)
- ◆ Young (Median Age = 33)
- ◆ High School or Less (81%)
- ◆ Income < \$15,000 / Year (50%)
- ◆ Single / Separated / Divorced (71%)
- ◆ Prior Alcohol Traffic Convictions (Average: 3.57; Range: 2 to 11)



Waiver - Installed

- ◆ Race
 - More Blacks Waive
- ◆ Gender
 - More Females Waive
- ◆ Age, Education, Marital Status
 - No Statistically Significant Difference
- ◆ Yearly Income
 - < \$7,500 Waive



Waiver/Installed - Installed

- ◆ Gender, Age, Education, Marital Status, Race
 - ◆ No Statistically Significant Difference
- ◆ Yearly Income
 - ◆ < \$7,500 Waive/Install



Failed To Comply - Installed

- ◆ Gender, Age, Education, Marital Status, Race, Yearly Income
 - ◆ No Statistically Significant Difference


Did Offenders Accept the Program?



- ◆ Initially Accepted Conditions of Relicensure
 - 85% - Interlock Cases
 - 88% - Controls
 - No Statistically Significant Differences
- ◆ Licensed
 - 81% - Interlock Cases
 - 87% - Controls
 - No Statistically Significant Differences



Conclusions

- ◆ 3 Factors Contribute to Successful Program
 - Interlock Device Itself
 - ✓ Confounded with Monitoring
 - Interlock License Restriction 
 - ✓ In Absence of Interlock
 - ✓ In Presence of Interlock
 - Close Monitoring



Contact Information

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