Issues in Ignition Interlock for Alcohol and Drug Offenders

Debra Coffey
Background

- Interlock has been around since the 80’s
- Research has proven interlocks effective in reducing DWI recidivism 50% – 90%
- Ignition interlock programs currently in use in 50 states in the U.S.
- 289,000 interlocks in use today; 1.4 million DWI’s in U.S. (18% penetration)
- 9,878 people were killed by a drunk driver in the U.S. last year – One every 53 minutes.
- 13 U.S. Interlock Manufacturers
  - 10 in Texas
The Lone Star State

- Texas
  - 145,000 arrested DWI’s a year
  - 19,136 defendants on community supervision for felony DWI.
  - 38,071 defendants on community supervision for misdemeanor DWI.

1,213 people were killed by a drunk driver in Texas last year.

Highest in the Nation
The Facts

• Interlocks are more effective than license suspension
• Arizona, Oregon, New Mexico and Louisiana have cut deaths 30% - 46%
• 18 states, plus California have a .08 First offender laws; 16 states First offender -.15
• Research indicates first offenders have driven drunk 80 times before being arrested.
• To get to .08 BAC, a 160 lb. male, must drink 4 drinks in an hour
Research Summary

Are interlocks effective with 1st and repeat offenders?

**YES.** Research demonstrates interlocks are effective with both 1st and repeat offenders in reducing DWI recidivism. New Mexico, W. Virginia, Maryland, Washington State, New Mexico, Oregon and Arizona - significant crash reduction

- 15 Peer reviewed studies

- The **Center for Disease Control** (CDC) recommends Interlocks for all convicted DUI offenders and considers drunk driving a National Health issue

- The **Insurance Institute for Highway Safety** recommends Interlocks for all convicted drunk drivers. Study – WA State – confirms IID saves lives and reduces recidivism

Can interlocks indicate the likelihood of future offenses?

**YES.** The data logger provides information on # of starts, date and time of starts and BAC reading

Studies: Alberta and Texas
Research Summary

NHTSA – National Highway Traffic Safety Administration
  • www.NHTSA.gov

• Case Studies of Ignition Interlock Programs
• Key Features for Ignition Interlock Programs
• Evaluation of the New Mexico Ignition Interlock Program
• Alcohol Interlock Curriculum for Practitioners
• Ignition Interlock – What you Need to Know: A Toolkit for Policymakers, Highway Safety Professionals and Advocates
• The Use of Alcohol Ignition Interlocks for Reducing Impaired Driving Recidivism
Research Summary

TIRF - Traffic Injury Research Foundation

www.tirf.ca

• Since 2000, TIRF has published 35 Case Studies, Primers, Practitioners Guides and Conference Proceedings
  • Alcohol Interlock Programs – Vendor Oversight
  • The Implementation of Alcohol Interlocks for Offenders – A Roadmap
  • Understanding behavioural patterns of interlocked offenders to inform the efficient and effective implementation of interlock programs
  • The Implementation of Alcohol Interlocks for First Offenders – A Case Study
• Developed an Alcohol Interlock Curriculum for Practitioners – includes a teaching guide
• Host to the International Ignition Interlock Symposium, 12th year
• NHTSA grant to provide technical assistance to States on Implementation and Penetration of Ignition Interlock programs
Research Summary

PIRE – Pacific Institute for Research and Evaluation

www.PIRE.org

• Behavioral Measures of Drinking Patterns in the Interlock Record

• Evaluation of a Program to Motivate Impaired Driving Offenders to Install Ignition Interlocks

• Evaluation of Ignition Interlock Programs

• International Ignition Interlock Work group - Transportation Safety Research Board—Dr. Paul Marques, Chair
Texas Law

Bond

- Subsequent Offender
- Intox. Assault and Intox. Manslaughter

(CCp 17.441)

Probation

- 1st Offender with BrAC .15 or greater
- 1st Offenders under 21
- All Subsequent Offenders

(CCp 42.12 § 13, TRC 521.342 (b))
Texas Law

Occupational

• Subsequent Offender granted an occupational license

• CSCD supervises person issued ODL
  Assess fee $25-$60 for supervision paid by offender
  CSCD can require offenders on ODL submit to drug/alcohol testing

TRC 521.246, 521.2462
Federal Law

- MAP 21
- State incentive grants
  $20 million
- NO Hard License suspension
What is an Interlock?

• An electronic device wired into the ignition system of a vehicle which requires the user to pass a breath alcohol test in order to start the vehicle.

• AKA: Breathalyzer, Interlock, BAIID, IID

• Requires a breath sample, fail level determined by state, typically .030 (BrAC) breath alcohol content to pass.
Purpose of Interlock

- Alternative to jail
- Keeps offender licensed and insured
- Allows offender to work, support family, pay court fees, attorney
- Participate in treatment
- Remain productive member of community and family
- *Separates drinking from driving*
How are Interlocks Used

- Probation
- Parole
- Bond
- License reinstatement and licensing Repeat offenders
- Deferred Prosecution
- 1\textsuperscript{st} offenders
- 1\textsuperscript{st} offenders with High BAC (.15 or higher)
- Repeat offenders
- Family Violence (alcohol a factor)
- Court Visitation – Domestic courts (alcohol factor)
- Voluntary
Benefits of Interlock

- Monitoring Tool
  - Reporting and Supervision
- Prevent Repeat Behavior
- Form of Incapacitation
  - Bridge license suspension to full reinstatement
- Provide public safety
- Research supports reduction recidivism among 1st and Repeat offenders – 15 Peer reviewed studies
Interlock Technical Standards

• NHTSA, Released May 8, 2013
  Device specifications – 1992
  Final May 8, 2014

• TDPS State oversight
  Texas Administrative Code, Ch. 19 Breath Alcohol Testing Regulations
  ✓ Device certification
  ✓ Device programming and specifications
  ✓ Inspection of vendor facilities
An ignition interlock combines breath alcohol sensing and micro-computer technology in a device that is designed to stop drunk driving.
• The interlock device is installed in a vehicle

• Linked to the ignition system
In order to start an interlock-equipped vehicle the driver must first supply a breath sample.

- The sample is analyzed for alcohol.
- If the alcohol level is above the fail set point, the vehicle cannot be started.
- If the level is below the pre-set limit, the vehicle can be started and operated normally.
Events relating to the use of the interlock device and the vehicle are recorded on a memory chip for retrieval during servicing, at which time data is uploaded to a central server.

Reports forwarded to the Probation officer or Court authority.
The Technology

• Fuel Cell – Specific to Alcohol
  • Sensor Cell – older less reliable – 14 states still allow

• Anti-circumvention features

• Programmable features

• Running Re-test / Rolling Re-test

• Data recorder
  • Reports to authorities

• Restricted Drive Times - Curfew
Device Features

• Language and visual display
• BRAC threshold .030
• Lock-out time – 15 min. temp lockout
• Stall protection – 3min in traffic
• Pull over notice – 6 min. to take the test
• Recall notice – 72 hours
• Violations – combination of 5
• Photo ID – identify user
• Wireless/Cellular/ GPS/ Facial Detection
Camera – Photo

Answers the Question Who Took the Test?

- Mandatory in Hawaii, TN, IL, WA, NY,
- MO, Vermont – Repeat offenders
- DWI Courts MI and by court order in Texas

Presented by Debra Coffey
Cellular

- Daily downloads
- Authority determines what they receive and how reported
- Violations reporting
- Picture downloads
- Client convenience
  - Time between service visits
  - Instant equipment error reporting
E-911

- Schedule daily monitoring
- Based on pre-defined reporting criteria
- Event notification
- Validated by live operator
- Operator can verify with GPS capability
- Contact authority per procedure they prescribe
GPS

- Real time mapping capability
- Determine patterns of where offenders go
- Set inclusion or exclusion zones
- Alert monitors when offender has entered exclusion zone
- Alert offender when they have entered an exclusion zone.
- Vehicle tracking when needed, i.e., Violations are occurring
Anti-circumvention systems

- Temperature and pressure gauges
- Sealed wiring
- Voice pattern, tone, detection system
  Prevents balloons, altered air
- User Identification – Camera
- Facial proximity
- Data logger information
  Time and date stamps all events, attempted events
Installation and Costs

• 273 interlock service points in Texas
• Installation takes approx. 1 hour
• Return every 30 days
• Install - $50.00
• Monthly - $2.30 a day or $69.00 mo.
• Reports sent to authorities via email
  • Texas – reports sent next business day
• Authorities access to client information through Web
Service

- Client training – written, hands on – SSI AP
- Service provider to conduct physical tamper inspections
  - If tamper found report to monitoring authority
- Emergency 24 hour toll free number
- Emergency assistance within 48 hours
- Provide required testimony in proceedings
Texas Offender interlock programs are administered either by courts as a condition of bond, probation, occupational license, parole condition.
Monitoring/Reporting

- DPS - Standardize reports so all vendors are using same report format.
- Specify authority responsible for monitoring and sanctions for violators.
- 30 day monitoring – Wireless provides daily
  - Violation download – return to service center
  - Reports sent in next day
- Data a predictor of recidivism – PIRE Research
- Information is useful in planning treatment – IID part of DWI court treatment plan
- Data useful in determining program duration
  - Earn their way off program / Exit strategies (WA, MD and CO)
  - Reward offenders doing well with early termination/ longer time between service visits – 60 - 90 days
Smart Start Ignition Interlock Report

Client Information:
- Case #: [Blank]
- SPN/CID/BOT #: [Blank]
- County: Llano
- Installation Date: 5/19/2011
- Removal Date: [Blank]
- Name: [Blank]
- DOB: [Blank]
- Address: [Blank]
- DL #: [Blank]
- Phone #: [Blank]

Vehicle Information:
- Make and Model: [Blank]
- Plate #: [Blank]
- Color: [Blank]
- VIN: [Blank]

Summary of Events:
- Illegal Starts: 0
- Warning (0.020): 0
- High BrAC (0.050): 1
- Rolling Reset Refusal: 0
- Rolling Reset Failed: 0
- Engine Starts: 28
- Engine Stops: 20
- Power Offs: 0
- Power Ons: 0
- Handset Disconnects: 0
- Handset Connects: 27
- Authorized Starts: NA
- Aborts: 4
- Violation Lookouts: 0
- Handset #: EGDAD23063
- Relay #: EGHE008213
- Camera Unit: Yes
- Calibration Confirmation: 0.032

Monitor Information:
- Name: Poc. Linde
- Address: 801 Ford St., Rm. 111
  Llano, TX 78643
- Phone #: 325-247-7736
- Fax #: 325-247-7737
- E-Mail: [Blank]
- Condition: Bond

Judge Information:
- Name: Manon, Era
- Address: P.O Box 1631
  Kingsland, TX 78639
- Phone #: 325-300-6215
- Fax #: 325-300-0011
- E-Mail: [Blank]
Detailed Events

Friday, January 6, 2012

8:50:34 PM  Ignition On
8:50:34 PM  Engine Start
8:50:40 PM  Connected Head
8:50:54 PM  Picture Requested
8:51:11 PM  Initial Test-Violation
8:51:31 PM  Ignition Off
8:51:31 PM  Engine Stop

Smart Start's official interpretation of this client's data is as follows:

CAUTION: There were 28 engine starts during the reporting period which is lower than average. This means the vehicle is not being driven on a regular basis and MAY indicate another non-interlock equipped vehicle is being used.
Smart Start Ignition Interlock Report

Presented by Debra Coffey

Smart Start: TXIrving
Device/Model: SSI 20/20
Address: 4848 Plaza Drive
Irving, TX 75063

Phone #: 800-880-3394
Fax #: 972-929-8638
Vendor Representative: Rangel, Steven
Date of Service: 04/28/2009
Report Generation: 04/28/2009

Client Information:
Case #:
SPN/CID/BOT #:
County: Tarrant
Installation Date: 4/22/2009
Removal Date: 5/15/2009
Name: Bridges, Sally
DOB: 12/31/2009
Address: 4850 plaza dr
Irving, TX 75063

DL #: 44666445
Phone #: 800-880-3394

Vehicle Information:
Mileage: 125
Make and Model: 2002 Toyota 4 runner
Plate #: 5454
Color: silver
VIN: 64564F565F4D

Summary of Events:
Illegal Starts: 22
Warnings (0.020): 0
High BrAC (0.030): 5
Rolling Retest Refused: 2
Rolling Retest Failed: 0
Engine Starts: 43
Engine Stops: 43
Power Offs: 0
Power Ons: 0
Handset Disconnects: 19
Handset Connects: 26
Authorized Starts: NA
Aborts: 39
Violation Lockouts: 0
Handset #: EEDA004568
Relay #: EDEB000290
Camera Unit: Yes
Calibration Confirmation: 0.030

Monitor Information:
Name: 
Address: 

Phone #: 
Fax #: 
E-Mail: 
Condition: Bond

Judge Information:
Name: Palacios, Lourdes
Address: 4850 Plaza Dr
Irving, TX 75063

Phone #: 972-621-0252
Fax #: 
E-Mail: lpalacios@smartstartinc.com
## Detailed Events

**Apr 22, 2009 Wed**

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<thead>
<tr>
<th>Time</th>
<th>Description</th>
<th>Event</th>
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<td>2:26:08 PM</td>
<td>Initial Test-Pass</td>
<td>0.000</td>
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<tr>
<td>2:26:13 PM</td>
<td>Engine Start</td>
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</tr>
<tr>
<td>2:28:11 PM</td>
<td>Rolling Retest Requested</td>
<td>Test Started</td>
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<tr>
<td>2:28:33 PM</td>
<td>Picture Requested</td>
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</tr>
<tr>
<td>2:28:41 PM</td>
<td>Rolling Retest-Pass</td>
<td>0.000</td>
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<tr>
<td>2:37:55 PM</td>
<td>Engine Stop</td>
<td></td>
</tr>
<tr>
<td>2:49:03 PM</td>
<td>Engine Start</td>
<td></td>
</tr>
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</table>

**Apr 23, 2009 Thu**

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<th>Description</th>
<th>Event</th>
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<tr>
<td>9:36:34 AM</td>
<td>Initial Test-Pass</td>
<td>0.000</td>
</tr>
<tr>
<td>9:36:41 AM</td>
<td>Engine Start</td>
<td></td>
</tr>
<tr>
<td>9:36:46 AM</td>
<td>Connected Head</td>
<td></td>
</tr>
<tr>
<td>9:37:03 AM</td>
<td>Picture Requested</td>
<td>Test Started</td>
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<tr>
<td>9:37:19 AM</td>
<td>Initial Test-Violation</td>
<td>0.300</td>
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<tr>
<td>9:39:39 AM</td>
<td>Picture Requested</td>
<td>Test Started</td>
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<td>9:39:54 AM</td>
<td>Initial Test-Violation</td>
<td>0.042</td>
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<tr>
<td>9:42:34 AM</td>
<td>Picture Requested</td>
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<td>9:42:48 AM</td>
<td>Initial Test-Pass</td>
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<td>9:44:53 AM</td>
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<td>9:45:11 AM</td>
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<td>0.006</td>
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<tr>
<td>10:17:45 AM</td>
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**Apr 24, 2009 Fri**

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<td>7:45:21 PM</td>
<td>Abort - Blow Pressure</td>
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<td>7:45:38 PM</td>
<td>Abort - Blow Pressure</td>
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<td>7:45:54 PM</td>
<td>Picture Requested</td>
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<tr>
<td>7:45:56 PM</td>
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<td>7:46:02 PM</td>
<td>Engine Stop</td>
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<tr>
<td>8:36:58 PM</td>
<td>Initial Test-Violation</td>
<td>0.039</td>
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<td>8:39:05 PM</td>
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<td>8:39:20 PM</td>
<td>Initial Test-Violation</td>
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<td>Initial Test-Violation</td>
<td>0.037</td>
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<td>8:41:47 PM</td>
<td>Temporary Lockout</td>
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<tr>
<td>8:56:46 PM</td>
<td>Temporary Lockout Ended</td>
<td></td>
</tr>
</tbody>
</table>
Truths and Myths

- Car stops in middle of road
- Gas fumes and Perfume
- Battery drain
- Cigarette smoke
- Cinnamon rolls and donuts
- Pool chlorine
- Spicy foods
- Windshield washer fluid
- Teeth whitener
Interlock Concerns

• Mouth Alcohol Contaminants
• Temperature and Altitude
  -40 to + 185 degrees F; 11,482 ft. elevation
• Running re-tests
  15-45 min. random
• Family member inconvenience
• Costs
• Anyone can take the test
  -40 Yr. Old Virgin
  -ABC – What would you do?
Court/ Prosecution Concerns

• Reliability of device
• Access to supporting documents and reports
• Testimony to corroborate test results and reports
• Breath Volume
  Requires device knowledge
• Who took the test
  Features – eliminate bystander myth
  Positive ID technology
Top 4 ways offenders will try to keep from having the IID requirement

1. **Offenders claim they do not need an Interlock because they do not intend to drive:** This is usually false. Up to 75% of drivers will drive with a suspended license.

2. **Offenders claim they do not own a vehicle.** While offenders may not own a vehicle they frequently have access to and drive a vehicle. The law does not require the offender own the vehicle, they only need access to one.

3. **Offenders fail to install the interlock once an order is made:** This is true and an important issue for the judiciary. One study showed that as few as 22% of those offenders ordered to install an Interlock actually complied, so follow-up is critical.

4. **Offenders fail to drive the interlock-equipped vehicle:** This happens rarely, but it is important to ensure that offenders actually drive the Interlock-equipped vehicle. This can be accomplished by watching the number of engine starts or miles driven.
Interlock Challenges

• Offenders do not install
• Program Funding/Program costs/Program development
• Lack of information and education on how the Interlock works
• Supporting legislation; conflicts with State & Federal policy and unfunded mandates
• Workload
• Exiting the Interlock program
Public Safety Tool or Aggravation

Offender’s Perception

• A study in New Mexico showed when asked, 87% of offenders felt interlocks reduced drinking and driving.

• 85% thought having the interlock on their car was a fair sanction.
Public Perception

Public Supports Interlocks for 1st time Offenders

• 88% support interlock on all convicted drunk drivers  
  (Center for Excellence in Rural Safety, May 2010)

• 84% support interlocks for convicted drunk drivers  
  (Insurance Institute for Highway Safety, 2009)

• Over 3 of 4 persons support Interlock for first time convicted drivers  
  (AAA, 2011)
Using Technology to Monitor Offenders

• Ensure participants maintain sobriety
• Increase accountability of participants by monitoring sobriety
• Provide alternatives to the court system
• Reduce DWI recidivism by addressing sobriety issues and modifying behavior
• Provide for efficient use of caseload management
• Provide for flexibility in supervision based on offenders compliance i.e., Rewards and Punishment
• Use of technology as important role in long term risk reduction by supporting efforts to address alcohol issues
• Use of sanctions that are cost effective and cost efficient
Interlocks Globally

- Commercial Applications
  - Sweden has 40,000 interlocks
  - 9 million people
    - North Carolina

- Not necessarily an offender market
School Busses in Russia
Transportation: Busses, Trucks, Taxi, Trains, Construction Equipment, Dangerous goods, etc.
• Not limited to transportation, or even things that move

• Industrial machinery, access control—i.e. wide variety of safety sensitive applications
Future Technologies & Applications
DADSS

- Advanced Technologies
  - Interlocks in all Cars
    - Driver Alcohol Detection Safety Systems
  - www.dadss.org
  - Cooperative research with Car Manufacturer’s
  - $10 million dollars
  - Vehicle Proto-Type / Research Vehicle end of 2013
  - Must be Passive, not hassle sober driver, relatively inexpensive
    - Less than 1 second

Presented by Debra Coffey
Driver Alcohol Detection Systems for Auto Safety

Technology Types

1. **Tissue Spectrometry**
   - Estimation of BAC by measuring how much light has been absorbed at particular wavelength from a beam of Near-Infrared (NIR) reflected from the subject skin.
   - Touch-based systems that require skin contact.

2. **Distant Spectrometry**
   - IR or laser light is transmitted to the subject from a source that receives and analyses the reflected and absorbed spectrum, to assess chemical content of tissue or liquid in vapor.
   - No skin contact is required.
Alternative Alcohol Monitoring Technology

• What is Alternative Alcohol Monitoring?
• Types of Alcohol Monitoring
  • IN HOM, SCRAM, TAD, Actsoft, MEMS, Wrist Guard, VI-CAP, Visatel, others
• Background of Development
  • New Mexico legislation – No Car
  • Sobriety monitoring - Judges
Alternative Alcohol Monitoring

- In Home Alcohol Monitoring - Portable
- Continuous Alcohol Monitoring
  - SCRAM, TAD, ActSoft
SMART START IN-HOM™

Presented by Debra Coffey
Account #: 001421090420114804
Start Date: 4/20/09
End Date: 4/24/09

Monday, April 20, 2009 9:24:07 PM Picture Requested - Test Started

Monday, April 20, 2009 9:24:07 PM
Advances in Drug Testing

Intelligent Fingerprint

- 5 panel screen
- Roadside and supervision use
- 6 minute test
- Non invasive Screening device
- Identifies user – Chain of custody

Presented by Debra Coffey
Conclusions

• Technology key component of monitoring and supervision
• People are going to drive
• Technologies are additional Tools
  • Combine with Treatment, Information and Education
• Criminologist agree – Swift and Certain Penalties are more effective
• Insert the “intervention” during the teachable moment
Separating Drinking from Driving®

Since 1994

645 Million Safe starts using Smart Start Interlock

7 million Illegal starts prevented
Friends Don't Let Friends Drive Drunk
Interlocks Saving Lives

The benefits are clear... Everyone benefits from efforts to *Separate Drinking from Driving®*. 
Questions?

Debra Coffey
VP, Government Affairs
Smart Start, Inc.
1-800-880-3394, ext. 225
817-307-4992 – cell
DCoffey@SmartStartInc.com