

# **Elements of a Model Ignition Interlock Program**

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**Report to MADD Canada**

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## 1.0 Introduction

MADD Canada retained Synectics Transportation Consultants to identify the elements of a model ignition interlock program in Canada based on best practice. Materials were provided to the author by MADD Canada and Professor Robert Solomon (University of Western Ontario). In addition, a scan of research on the internet and various transportation search engines were used to supplement the materials.

The elements of a model ignition interlock program will be used as a basis for evaluating individual ignition interlock programs in each province and territory. This will involve:

- Developing a model program based on the best recent available data;
- Developing a Rating Scoresheet based on the model to be used to evaluate current ignition interlock programs in each province and territory;
- Researching the current practice in each of the provinces and territories and developing Fact Sheets describing each program;
- Evaluating the current provincial and territorial ignition interlock programs using the Rating Scoresheet together with the Fact Sheets; and
- Summarizing the findings in a report – identifying both areas of strength and opportunities for improvement in each province and territory.

Ignition interlocks are devices similar to a breathalyzer and are installed in a vehicle's dashboard. The purpose of an ignition interlock is to prevent a driver with a blood-alcohol concentration (BAC) exceeding a set threshold from operating the vehicle. Manufacturers of ignition interlock include LifeSafer Interlock, Guardian Interlock, and Smart Start. A proposed draft of standards for ignition interlock has recently been completed for Transport Canada (Patten, 2007). Discussion regarding standards for ignition interlock devices is not included in this report.

Since their inception in Alberta in 1990, ignition interlocks have gained popular support among road authorities in Canada. Ignition interlock programs have been widely seen as being an effective tool for reducing impaired driving offences among *Criminal Code of Canada* (CCC) offenders. Ignition interlocks were given

implicit federal approval in 1999. At that time, the CCC was amended to allow the sentencing judge to reduce the mandatory period of the driving prohibition for a first impaired driving offence from one year to three months provided the offender participates in an ignition interlock program for the remainder of the one-year period. Multiple offenders were later given the opportunity to reduce their mandatory driving prohibition by participating in an ignition interlock program (again at the sentencing judge's discretion). All impaired driving offenders are subject to a minimum driving prohibition term during which they are not permitted to drive at all (referred to here as a 'hard licence suspension').

At the time of this report, nine provinces and territories had an ignition interlock program in operation while another two have approved their use in legislation. Each of the ignition interlock programs have a provincial/territorial body that serve as the administrative authority. The administrative authority has the authority to establish the broad conditions for the ignition interlock program (e.g. who is eligible for participation in the program, the duration of participation, the conditions of participation and when an individual can be released from the program). However, initial eligibility for the reduced federal driving prohibition is at the discretion of the court and the individual. Even if an offender serves the entire federal driving prohibition, the province or territory can make the use of an ignition interlock a condition for licence reinstatement.

## **1.1 Aim of an Ignition Interlock Program**

The aim of an ignition interlock program is not to punish the offender but rather to prevent him or her from engaging in dangerous behaviour, by making it virtually impossible for the offender to drive without first demonstrating that he or she is not impaired by alcohol. In other words, it is a form of incapacitation. It allows the offender to operate a vehicle legally, under a monitoring regime, and with insurance.

In contrast to a hard licence suspension which is designed to prohibit driving – ignition interlock programs permit driving under a specified set of conditions. An ignition interlock program should be seen as an interim step between the hard licence suspension and the restoration of full licence privileges. The ultimate aim of the program is to reduce alcohol-impaired driving and alcohol-related road crashes.

## 1.2 The Need for Ignition Interlock Programs

Each Canadian province and territory should establish a comprehensive ignition interlock program. Research clearly demonstrates that ignition interlock programs are an effective tool in reducing impaired driving rates. A review of eight studies across United States and Canada suggested a 50 – 90 percent drop in alcohol-related driving convictions while the ignition interlock order is in effect relative to impaired driving rates of matched groups of offenders who were simply suspended and should not be operating a vehicle at all (see Voas and Marques 2003). The body of research clearly suggests that a significant number of drivers with a suspended licence continue to drive while unlicensed (Malenfant, Van Houten and Jonah, 2002; McCartt, Geary and Nissen, 2002; and Suggett, 2006)

Research also demonstrates a significant number of drivers continue to drive while suspended and have a significant crash involvement. When compared to overall crash trends, crashes involving drivers convicted of an impaired driving offence are more likely to result in a fatality and the drivers themselves are more likely to be at-fault in the crash and more likely to have been drinking/impaired at the time of the crash (DeYoung, Peck, and Helander, 1997; Griffin and DeLaZerda, 2000; and Suggett, 2007)

Therefore, the control of offenders by means of ignition interlock programs will significantly improve safety for all road users.

Early research suggests that once the ignition interlock is removed, offenders largely revert back to their original impaired driving patterns prior to the installation of the ignition interlock. The reduction in impaired driving has not reached beyond the end of the program suggesting that the driver's behaviour was not impacted by the ignition interlock order<sup>1</sup>. This highlights the need for the ignition interlock order being part of a comprehensive program that includes

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<sup>1</sup> Some of the later research has shown an impact on impaired driving beyond the restoration of full licence privileges, see Dussault and Gendreau (2000).

greater police enforcement, vehicle related sanctions and a remedial measures program.<sup>2</sup>

### 1.3 Scope of Review

Scientific research on the specific components of ignition interlock programs and their impact on recidivism is limited (Beirness and Simpson 2003 and Beirness, 2007). As an interim measure, the international ignition interlock community has produced a number of position papers that state its views on what constitutes good practice in terms of an effective ignition interlock program. This report draws upon these position papers in addition to previous materials developed by R. Solomon and E. Chamberlain, authors of the *MADD Canada Model 2006*. A complete bibliography of the materials reviewed is provided in **Section 3.0**.

In addition, the model ignition interlock program discussed in this report is intended for use by impaired driving offenders convicted under the CCC. While not within the scope of this report, ignition interlocks can also play an important role in reducing impaired driving among drivers who have multiple administrative suspensions<sup>3</sup> and drivers identified as being unfit to drive because of their drinking problems.

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<sup>2</sup> See page 1, Robertson, R, Vanlaar, W, and Simpson, H. "A Criminal Justice Perspective on Ignition Interlock", *Proceedings of the 3<sup>rd</sup> Annual Meeting of the Working Group on DWI System Improvements, 2007*

<sup>3</sup> For example, the 90-day licence suspension under provincial law for a BAC over .08%.

## 2.0 Best Practices

The following are believed to be the essential elements of a model ignition interlock program. These should ensure a high degree of participation and a significant reduction in impaired driving offences among participants.

### 2.1 Device Settings

Only those ignition interlock devices approved for use in Canada according to the latest technical standards should be permitted as part of the ignition interlock program (see Patton, 2007). Elements of an effective ignition interlock device include<sup>4</sup>:

- The ignition is locked out when a specified level of alcohol is detected by the ignition interlock device sensor;
- The ignition interlock device includes safeguards to prevent another individual from starting the vehicle on behalf of the driver, such as:
  - Detection of a unique driver breath signature;
  - Sealed tamper-proof wiring;
  - The device requires the driver to carry out a specific sequence of breath delivery (e.g., a hum code);
  - Random retesting of the driver's breath one or more times while the vehicle is running (otherwise known as rolling retests); and
- An event log or recording system that tracks all failed attempts to start the vehicle due to alcohol readings exceeding the limits or an incorrect breath delivery, and all attempts to tamper with the device.

The ignition interlock should be set to prevent the vehicle from being started or put in motion if the driver's BAC exceeding 0.025 percent<sup>5</sup>. This level reinforces

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<sup>4</sup> The ignition interlock community is in agreement on the above stated elements. For example, see discussion on Necessary Features in the Alcohol Ignition Interlock Devices I: Position Paper, 2001.

<sup>5</sup> The draft technical standard for ignition interlock devices developed by Patton (2007) does not specify a threshold for the BAC level. The National Highway Traffic Safety Administration recommends a threshold of 0.025 percent (see National Highway Traffic Safety Administration, *Model specifications for breath alcohol ignition interlock devices (BAIIDS)*. *Federal Register* 57: 11772-11787

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the importance of separating drinking and driving but also prevents ‘false positives’. Setting the BAC level at a higher threshold may be interpreted as approval of driving after drinking.

## 2.2 Participation and Eligibility

Two interrelated issues are key to the success of an ignition interlock program and its widespread use among offenders. First, a high participation rate needs to be achieved. Second, all individuals at a risk of committing another impaired driving offence should be eligible for the program. The higher the participation rate and the broader the eligibility criteria, the greater the number of offenders for which drinking and driving are kept as separate activities, in turn improving safety for all road users. Both of these are discussed below.

Currently, ignition interlock programs have been implemented across Canada in almost all of the provinces and territories. Despite this, participation rates in ignition interlock programs among offenders are relatively low. Latest estimates indicate a participation rate of around 15 percent. This is a glaring weakness in ignition interlock programs in general (Beirness 2007). The main reasons for the low participation rates are that the road authorities have not provided sufficient incentives to motivate an offender to participate in the program and also it is likely that many offenders choose hard licence suspension because they can continue to drive unlicensed without being apprehended<sup>6</sup>. The alternative to driving unlicensed is the associated costs of the ignition interlock (typically an installation cost and monthly fee), increased insurance rates, and the social stigma of using the device in front of others. Therefore the perceived risk of being caught (and the associated consequences) does not outweigh the inconvenience and costs associated with operating a vehicle with an ignition interlock. This belief has broad support in the ignition interlock community.<sup>7</sup>

For the above reasons, the use of interlocks should be a mandatory condition of licence reinstatement for all impaired driving offenders. This would ensure a greater participation rate in the program. After serving the required minimum term

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<sup>6</sup> This clearly supports the need for strengthening police enforcement initiatives as discussed further in this report.

<sup>7</sup> For example, see the discussion of participation rates in Beirness, D. *Best Practices for Alcohol Interlock Programs*, 2001

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of the driving prohibition prescribed by the CCC, drivers should, subject to the provincial revocation period, be required to participate in the ignition interlock program.<sup>8</sup> Legislation should include an incentive such that offenders may choose to have an ignition interlock placed in their vehicle in exchange for receiving a shorter hard licence suspension. This would reduce the amount of time the driver is serving a hard licence suspension (during which they could continue to drive unlicensed and intoxicated) and increase the amount of time during which they have an ignition interlock installed in their vehicle. This approach is widely advocated among researchers.<sup>9</sup>

It should be stressed again that those offenders choosing not to participate in the ignition interlock would still be required to have the device installed prior to licence restatement. In effect, this is a hybrid approach that combines a voluntary interlock program (which provides an incentive to participate at an early stage) and a mandatory interlock program in which the use of an interlock is a condition of licence reinstatement. The mandatory interlock program would ensure that drivers do not have their licence privileges restored without the administrative authority having had an opportunity to observe whether or not they are handling driving responsibly. This view has been advocated by many researchers as being an effective means of maximizing participation<sup>10</sup>.

Similarly, all offenders should be eligible for an ignition interlock rather than only first offenders. In some jurisdictions, multiple offenders are not eligible yet they represent the highest risk group in terms of the likelihood of driving while impaired. In addition, it has been shown that those offenders who reoffend during the period of their hard licence suspension and were rendered ineligible for a ignition interlock order committed further impaired driving offences at a higher rate (cited in Beirness and Simpson, 2003). Similarly, in some jurisdictions,

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<sup>8</sup> As indicated, the mandatory federal driving prohibitions of one, two and three years for first, second and subsequent convictions are reduced to three, six and twelve months, respectively, if the offender participates in a provincial interlock program. *Criminal Code, supra* note 2, s. 259 (1.2)

<sup>9</sup> For example, see the discussion on voluntary versus mandatory participation in Beirness, D. *Best Practices for Alcohol Interlock Programs*, 2001 and Beirness, D; and Simpson, H. *Alcohol interlocks as a condition of licence reinstatement*, Traffic Injury Research Foundation, 2003

<sup>10</sup> See for example Beirness, D. *Ignition Interlock Program Standards for Canada*, 2007

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offenders convicted of impaired driving causing bodily harm or death are excluded from the program.

### **2.3 Program Structure**

Participation in an ignition interlock program should be coordinated with participation in an appropriate alcohol rehabilitation or treatment program (remedial measures). Recent research suggests that the effectiveness of ignition interlocks can be enhanced when combined with some form of treatment (Baker et al, 2002; Marques et al 2003a, 2003b).

Upon conviction for a CCC alcohol related offence, the driver should be required to surrender their driver's licence. As an immediate follow up to the conviction, the driver should be sent a letter by the administrative authority clearly detailing the terms of their hard licence suspension, the option for early reinstatement by having an ignition interlock order placed on their vehicle, and the requirement to participate in a remedial measures program. Consequences for violating the driving prohibition or suspension should be clearly spelled out.

When the driver becomes eligible, he/she should arrange to have an ignition interlock installed in the vehicle they usually drive and to have their licence returned to them with the ignition interlock order clearly indicated on the face of the licence. This will discourage an offender from driving another vehicle not equipped with an ignition interlock (i.e. a spouse or parent's vehicle). The administrative authority should ensure that there is a network of qualified ignition interlock service providers available within reasonable proximity to all participants in the program.

Prior to when they become eligible for an ignition interlock, offenders should receive an information package that clearly states the terms of the program and consequences of failing to abide by them. Program infractions should be clearly indicated to the offender and should include:

- Failing to report to the ignition interlock service provider within the allocated time;
- Evidence of tampering with or attempting to circumvent the ignition interlock;

- Soliciting or providing a breath sample to assist a driver in starting a vehicle with an ignition interlock; and
- Operating a vehicle without an ignition interlock while under an ignition interlock order.

Drivers eligible for an ignition interlock should bear the cost of installing and maintaining the interlock. Although costs may be prohibitive for some offenders, this can be countered by the argument that the costs of the ignition interlock would, in many cases, be offset by the offender's reduced alcohol consumption. That said, the administrative authority may wish to subsidize offenders who truly cannot afford an ignition interlock. In addition, the province or territory should have legislation in place that would provide insurance fee protection to those participating in an ignition interlock program.<sup>11</sup>

The minimum duration of the ignition interlock requirement should be one year for a first offence, three years for a second offence within a ten-year period, and five years for a third offence within a ten-year period. The administrative authority should have the flexibility to increase the ignition interlock requirement for specific circumstances, even to the point of a lifetime ignition interlock requirement, if warranted.

## 2.4 Program Monitoring and Criteria for Removal

For the program to be effective, offenders, subject to an ignition interlock order should have ongoing supervision and a criterion based approach to the removal of the device<sup>12</sup>. The burden should be on the driver to demonstrate that they have successfully controlled their drinking to such a point that it is not interfering with their driving.

The administrative authority should monitor the offender's performance in the ignition interlock program and participation in the accompanying remedial

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<sup>11</sup> Some insurance companies already offer a 100% waiver of the impaired driving surcharge for those participating in the ignition interlock program.

<sup>12</sup> A criterion based approach is advocated by several researchers, see for example Beirness, D; and Simpson, H. *Alcohol interlocks as a condition of licence reinstatement*, Traffic Injury Research Foundation, 2003 – see discussion on page 21.

measures program. The administrative authority should have access to and should be actively monitoring the ignition interlock participant's:

- Ignition interlock data log;
- Treatment history (including participation in a remedial measures program); and
- Entire driving record.

The administrative authority should review of the offender's ignition interlock data log. The data log should be downloaded and reviewed every 30 to 60 days, and the accuracy of the device should be checked at that time by the ignition interlock service provider. A summary of the data log results should be forwarded to the administrative authority responsible for monitoring the driver's performance. There should be an active system of communication between the interlock service provider and the administrative authority. Program participants failing to report to the ignition interlock service provider (as required) should be followed up with by the administrative authority.

As part of the broader remedial measures program, the result of the data log should be discussed with the participant.<sup>13</sup> This would include a discussion of any observed high BAC levels and attempts to tamper with or circumvent the ignition interlocks. Violations of the ignition interlock order and high BAC levels in the data log (particularly towards the end of the ignition interlock order) should be used to justify its extension.

Research indicates that the data log is a critical tool in identifying individuals who have continuing alcohol problems and are likely to re-offend. For example, an Alberta study found that an offender's overall rate of positive BAC tests on the ignition interlock was a strong indicator of post-interlock recidivism. The recidivism rate was even higher for offenders who had a pattern of positive BAC tests in the morning, which likely indicates very heavy consumption the preceding night (Marques, Tippetts, Voas, and Beirness 2001). Similarly, recidivism is higher among offenders whose rate of attempted starts declines over the period the ignition interlock is on the vehicle. In these cases, offenders may have

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<sup>13</sup> A study by Marques et al (1999) determined that Alberta offenders who met with a case worker to discuss their ignition interlock data log had fewer high BAC fails than a control group.

chosen to drive less frequently or to drive a vehicle that was not equipped with an ignition interlock (Marques, Tippetts, and Voas, 2002).

A pattern of attempts to drive with a prohibited BAC may indicate that the driver requires additional treatment and that the ignition interlock should remain on the vehicle. It should not be seen as a reason for removing the ignition interlock and applying another hard licence suspension.

Examination of the treatment history should include records of their participation and successful completion of a remedial measures program. The ignition interlock should remain in place until the participant has demonstrated that he or she have completed all of the requirements of the remedial measures program.

Examination of the participant's entire driving record should include examination of crashes in which the driver was at fault and/or traffic violations during the ignition interlock period that suggest that the driver is exhibiting poor judgment. If this is occurring, the offender should be required to participate in an additional remedial measures program.

After the minimum prescribed interlock period ends, the interlock order should remain in place until the administrative authority is satisfied that the offender no longer poses a significant risk of reoffending and that any underlying alcohol problem has been successfully addressed. The administrative authority should have a statutory duty not to remove the ignition interlock order unless it reasonably believes that the offender has successfully brought his or her drinking under control.

## **2.5 Police Powers and Sanctions**

The ignition interlock program should also be part of a broader and comprehensive initiative to detect and sanction those:

- Driving while unlicensed (during the hard licence suspension prior to having an ignition interlock installed);
- Failing to abide by the ignition interlock order by driving a vehicle not equipped with an ignition interlock (given the mandatory requirement to have an ignition interlock, some drivers may actively seek to circumvent the device); and

- Reoffending once the ignition interlock is removed (as research suggests that the post-recidivism rate for impaired driving offenders is similar to that prior to the conviction).

Currently, low levels of enforcement and a low perceived risk of being caught contribute to the likelihood that a driver will not comply with the hard licence suspension sanctions and the ignition interlock order.<sup>14</sup> Elements of the program should include the following:

- **Authority to stop vehicles at random and demand documentation -**  
As stated in the MADD Canada Model 2006, there is a need for provincial legislation that would give the police authority to stop any vehicle at random during routine patrol activities. In addition, police should also have statutory authority to demand that drivers identify themselves and present their licences, insurance and ownership documentation. Drivers should have a legal obligation to comply with an officer's request and failure to do so should be a serious provincial offence.
- In addition, police should be authorized to arrest, without a warrant, any driver who refuses to identify him or herself, or is believed, on reasonable grounds, to have provided false information. Drivers with an ignition interlock order should have the order clearly indicated on their licence in such a fashion that the restriction would be evident to a police officer. Police officers should also be able to identify that an ignition interlock is present in a vehicle, recognize an approved device and detect any signs that the device is not properly connected or in good working order<sup>15</sup>. Provincial legislation should exist that states that a driver operating a vehicle not equipped with an ignition interlock should be considered driving while disqualified. Regular roadside checks of driver's licences at randomly selected locations and times should be an integral part of traffic enforcement and included in any ride, seatbelt or spot check initiatives.

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<sup>14</sup> Also advocated by Beirness, D; and Simpson, H. *Alcohol interlocks as a condition of licence reinstatement*, Traffic Injury Research Foundation, 2003 – see discussion on page 22.

<sup>15</sup> For example, see page 3, Robertson, R; Vanlaar, W; and Simpson, H. "A Criminal Justice Perspective on Ignition Interlock", *Proceedings of the 3<sup>rd</sup> Annual Meeting of the Working Group on DWI System Improvements, 2007*

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- **Vehicle impoundment/immobilization** – As indicated in the MADD Canada Model 2006, research clearly shows that impoundment and immobilization programs have a clear deterrent effect for offenders. Police should be required to impound or immobilize any vehicle that they have reasonable grounds to believe is uninsured, or is being driven by an unlicensed, suspended, disqualified or prohibited person. This should include offenders with an ignition interlock order caught driving a vehicle without a properly installed ignition interlock. The impoundment or immobilization period should be 45 days for a first occurrence. A second occurrence within three years involving the same owner or driver should result in a 90-day impoundment or immobilization. Further occurrences should result in vehicle forfeitures, as described in the next section.
- **Vehicle forfeiture** – As indicated in the MADD Canada Model 2006, if a driver is responsible for three or more impoundments or immobilizations within a ten year period, provincial legislation should authorize the forfeiture of his or her vehicle. This would include those caught driving while disqualified (either during a hard licence suspension or driving a vehicle not equipped with an ignition interlock while in the ignition interlock program).

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