



## **Continuous Transdermal Alcohol Monitoring: An Agency Administrator's Guide**



# Continuous Transdermal Alcohol Monitoring:

## An Agency Administrator's Guide

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### The Traffic Injury Research Foundation

The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries. TIRF is an independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in identifying the causes of road crashes and developing programs and policies to address them effectively.

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## Prologue

Continuous alcohol monitoring (CAM) is a technology that can facilitate the identification and monitoring of drinking behavior among offenders. This technology is designed to test insensible perspiration (vaporous sweat) excreted through the skin for the presence of alcohol. More recently, the technology has evolved into a non-invasive bracelet that monitors alcohol consumption 24/7 from any location. Since 2003, over 40 American states have implemented the Secure Continuous Remote Alcohol Monitor (SCRAM®) and more than 60,000 offenders have been monitored to date. When properly implemented, this technology can enhance the supervision of alcohol-abusing offenders and improve the efficiency of monitoring.

This document is the third in a three-part series. The first report, entitled “Continuous Transdermal Alcohol Monitoring: A Primer for Criminal Justice Professionals” was released in November 2006 (referred to as the Primer). It was designed to provide practitioners with an overview of the research, technology, and program approaches. The second report, entitled “Continuous Transdermal Alcohol Monitoring: A Practitioner’s Guide”, was released in September 2007. It was designed to assist practitioners with incorporating continuous alcohol monitoring technologies into existing supervision practices and protocols (referred to as the Practitioner’s Guide)<sup>1</sup>.

This third and final report in the series has been developed for agency administrators who are implementing CAM in their agency to supervise offenders. It seeks to address their concerns regarding the implementation of new supervision strategies in general, and continuous alcohol monitoring technology in particular. It provides guidance on a variety of issues including cultivating leadership, fostering agency and stakeholder partnerships, organizing community support, developing a supervision strategy, creating and maintaining training opportunities, generating funding, and designing an evaluation.



<sup>1</sup> Both the Primer and the Practitioner’s Guide can be downloaded from the “Publications” section of the TIRF website under “Drinking and Driving” at <http://www.tirf.ca/publications/publications.cfm>.

Prior to reviewing this document, readers should familiarize themselves with continuous alcohol monitoring technology. More precisely, it warrants mentioning that a good understanding of the following three issues is crucial:

- What does the research on continuous transdermal alcohol monitoring conclude?
- How does the technology work?
- Where does technology fit within supervision strategies that are part of court-based probation or treatment programs?

More information about the science regarding continuous transdermal alcohol monitoring and the importance of research can be found in the Primer. In addition, this report also contains information on the technology and its applications. The Practitioner's Guide further details the critical components related to implementation.

In summary, after more than 70 years of – primarily laboratory – research into the science underpinning this technology, it has been clearly established that ingested alcohol can be validly measured in perspiration through the process of transdermal alcohol testing. However, only a few small-scale studies have focused on the functioning of the technology in the field and its influence on attitudes and behavior of field officers and offenders. Accordingly, there is a need for large-scale, quantitative surveys and case-control studies to corroborate the initial findings coming from these small-scale, albeit promising studies. Accordingly, the importance of evaluation is discussed in this document.



## Introduction

This document has been written for agency administrators who are implementing CAM in their agency to supervise offenders. It is important that administrators gain familiarity with the research on continuous alcohol monitoring, the technology, and its applications prior to reviewing this document. Once administrators have developed sufficient background knowledge, this handbook can guide decision making during the implementation process and assist in the development of multi-tiered agency and community support for the application of this technology to offenders who abuse alcohol.

The sections included in this handbook are ordered to reflect the gradual and continuous development of agency, staff, and community support during the implementation of the technology, beginning from the initial decision to move forward with implementation and ending with the evaluation of a mature application.

The first section in this handbook (Getting Started) focuses on cultivating leadership and fostering agency and stakeholder partnerships to promote support for the implementation of the technology. Once buy-in has been established among relevant parties and stakeholders, the purpose and goals of using the technology can be determined and agreed upon using a roundtable approach, and an action plan can be developed. This process can ensure that the technology meets the goals and expectations of practitioners. When an action plan has been developed and agreed to by all parties and stakeholders, application development can occur using a field study to identify the most practical and efficient strategies.

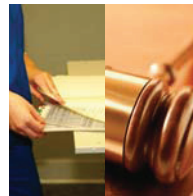
The second section (Application Development) deals with the organization of such a preparatory field study. The importance and relevance of both a “dry run” using the technology and a field study involving test subjects are discussed. Working with the media is also discussed in this section, as it is possible that the media will become interested in the purpose and results of the field study.

The results of a field study can provide useful information to guide administrators through the implementation of a full-scale application. However, prior to full-scale implementation, it is critical that on-going training to support the use of the technology and to defend it in court as a single source of admissible evidence to support violation proceedings, staffing, and funding issues be addressed. These issues are discussed in the third section of this handbook (Training, Staffing, and Funding).

Finally, in the last section (Evaluation), the importance of and need for a rigorous evaluation of any application that is implemented is discussed. This section contains some insights into the development of both a process and an impact evaluation to determine if, and why, the application is achieving its goals and objectives. As well, it provides some discussion of both a cost-savings analysis and a cost-benefit analysis to allow administrators to determine if the benefits associated with the application outweigh its costs. In this way, they can appreciate the rationale of investing in these types of evaluations and identify ways to facilitate them.

It is important to recognize that, depending on available resources, it may not be feasible to adhere to every phase outlined in this handbook. For example, for some agencies it may not be realistic to organize a formal field study, while for others it may be impossible to carry out a cost-benefit analysis. As such, this handbook should be used as a guide that contains several relevant pieces of information. This information is organized logically in different sections and some of these sections may have greater relevance depending on the application that is being considered for implementation and available resources.

In instances where agencies are not able to complete various steps that are suggested in this guidebook, it may be useful to contact other agencies already using CAM for guidance and insight into some of these important issues.



## Development of the Guide

The contents of this agency administrator's guide are derived from a series of in-depth telephone interviews with a small sample of field practitioners possessing considerable experience using technologies in general, as well as practical experience using SCRAM, the only commercially-available continuous transdermal alcohol monitoring technology to date.

TIRF researchers requested Alcohol Monitoring Systems, Inc. (AMS) to provide a sample of 40 practitioners representing prosecutors, court professionals, probation officers, and treatment and service providers. Criteria for selection included those representing a range of professions and agency types, years of experience in the justice system, experience using SCRAM and other technologies, size of program, program maturity, and jurisdiction. Researchers then independently selected 10 individuals for interview representing courts, probation, treatment, and service providers; a total of nine interviews were completed. Jurisdictions represented included Arizona, California, Colorado, Indiana, North Carolina, Oklahoma, Ohio, and Texas.

Researchers were seeking a sample of participants who had gained considerable experience in the field using a variety of technologies, and who had operationally strong programs that incorporated SCRAM. The goal of interviewing these participants was to identify the elements and processes that work best with this type of technology, discuss any obstacles to implementation, and describe ways that obstacles were overcome. The purpose was to identify how continuous transdermal alcohol monitoring technology can best be implemented and share these insights with other agencies across the country considering using this technology to aid supervision and increase compliance.

A brief description of the research initiative, including a list of subject areas to be discussed, was sent to the nine key practitioners who agreed to be interviewed to help them prepare. These advance materials were developed through a brief review of existing literature pertaining to electronic monitoring technologies and designed to ensure all topics relevant to implementation were covered without confining the respondents to a strict scheme. The materials also provided participants with an opportunity to consider the various aspects of their respective programs and their experiences prior to the discussion.

The interviews were conducted by telephone in the Fall of 2006 over a three-week period in October - November. The length of the interviews ranged from 40 minutes to an hour and 15 minutes. Several participants also provided the researchers with supplemental documentation used by their respective agencies following the interviews.

The individuals interviewed were:

- 1 Rodney Knotts, Senior Court Officer, Criminal District Court #1, Tarrant County Adult Probation, Fort Worth, Texas
- 2 Zach Dal Pra, Deputy Chief, Maricopa County Adult Probation, Phoenix, Arizona
- 3 Brian Hendrix, Director, Payne County Drug Court, Stillwater, Oklahoma
- 4 Brian Barton, Executive Director, Marion County Community Corrections, Marion County, Indianapolis, Indiana
- 5 Deana Brutto, Program Administrator, Home Incarceration Program, Oriana House, Akron, Ohio
- 6 Marilyn Rosenberg, Director, Electronic Monitoring Department, Denver City and County, Denver, Colorado
- 7 Larry Vanderwoude, President and CEO, Recovery Health Care Corporation, Dallas, Texas
- 8 Pat Verweil, President and CEO, Diversified Monitoring Systems, Orange County, California
- 9 Bruce Roberts, President and CEO, Rehabilitation Support Services LLC, Mecklenburg County, North Carolina



As stated previously, this agency administrator's guide was based in large measure on the results of expert interviews. However, it was also reviewed prior to publication by a range of experienced administrators representing probation agencies. Reviewers are listed in the acknowledgements at the front of the document. As such, this document is useful to agencies considering using or already using continuous transdermal alcohol monitoring technology. It warrants mentioning that the rationale and broad strokes of this document are also generally applicable to other alcohol monitoring technologies.

## Getting Started

### Cultivating leadership

Decision making is a complex process governed by the dynamics of relationships between key players. As supervision agencies seek to gain the greatest benefit for their limited dollars, it is likely that the use of electronic monitoring in the form of continuous alcohol monitoring will be scrutinized more and more by practitioners, supervisors, and administrators within courts, probation, and treatment agencies. If a decision is made to embrace this system and funding/resources are secured, a lead agency should be identified to take responsibility for implementation and, more importantly, a project coordinator should be appointed. The role of project coordinator may or may not be identified as a formal position depending on available resources. This role may be well suited to either a supervisor or a member of line staff who has the support and guidance of a supervisor. For some agencies, a full-time coordinator may be feasible whereas for others this role may be considered part-time and completed in addition to regular duties.

All agencies that will be involved in the project should acknowledge and support the project coordinator and clearly understand his/her responsibilities. This individual will serve as a coordinator of all activities related to the implementation process and as a nexus for all communications and activities between and across agencies participating in the implementation. Such a coordinator will prove useful as a point person to whom others can turn to address practical issues and/or ensure these issues are being satisfactorily resolved. A coordinator will also be responsible for tracking and recording decisions related to the implementation, and has the ability to intervene when/where necessary.

More precisely, the coordinator's responsibilities include:

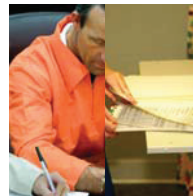
- cultivating support among agencies and staff;
- ensuring accountability of agencies and staff;
- gathering and sharing relevant information;
- communicating with manufacturers and service providers;
- networking with other practitioners already using the technology;
- developing a project timeline with milestones and deliverables;
- facilitating jobs of other involved staff to ensure successful implementation;

- providing feedback to staff about progress made;
- following up with all involved stakeholders on progress;
- serving as a spokesperson for the project, e.g., when the media becomes involved;
- providing budget oversight; and,
- coordinating the development of budgets.

In taking on such a lead role, the coordinator agrees to be accountable, which is a crucial ingredient for success. As such, decision making must be transparent.

## Fostering agency and stakeholder partnerships

It is crucial that the implementation of a continuous alcohol monitoring application not be carried out in isolation. Early on during the implementation process, all relevant parties should be involved, even if it is anticipated that some of them will only participate actively in a later stage. Involving partners according to a chronological scheme, in accordance with the start date of their participation, often turns out to be a flawed approach because decisions will be made in their absence that may affect them or make it difficult for them to become involved at a later date. Therefore, it is recommended that a roundtable be organized at the outset of any continuous alcohol monitoring project.



Relevant partners may include:

- senior management and staff of the agency that is implementing the technology;
- probation officers;
- court administrators and judges;
- prosecutors;
- defense counsel (private and public);
- treatment professionals;
- service providers; and,
- law enforcement.

Involved parties need not meet very often during the implementation process, but meeting at key moments is crucial. Practitioners have suggested it is useful to meet two times during an implementation process of about two to six months before graduating to a full-scale implementation: once at the outset to discuss the functioning of the technology and the different roles and responsibilities of key players, and once prior to full implementation to evaluate the meaning and relevance of information gathered during this time and review the results of any field study that may have been conducted and strategies being considered. In addition to such meetings, regular communications with the project partners should be facilitated by the coordinator.

Participating agencies should take responsibility for disseminating information and decisions to their respective staff.

Beyond the practical implications and relevance of such an approach, a roundtable will also create consensus and buy-in among the different parties and stakeholders involved in the project.

## Establishing purpose and goals of the technology

The importance of establishing the purpose and goals of the technology cannot be emphasized enough. This issue was discussed as the first step of the implementation process in the Practitioner’s Guide. According to the American Probation and Parole Association’s guide on Offender Supervision with Electronic Technology (Crowe et al. 2002), the goal of electronic supervision applications is often intertwined with eligibility criteria; or, “Deciding which offenders are eligible for electronic supervision in the community must be guided by the purpose for which the technology is being used.” (Practitioner’s Guide, p.6). More detailed information regarding potential goals and objectives is available in the Practitioner’s Guide.

Goals supported by continuous transdermal alcohol monitoring technology include, but are not limited to:

- increasing public safety;
- increasing victim safety;
- risk assessment;
- promoting behavior change in combination with treatment; and,
- reducing jail/prison populations.

At this time, it is appropriate to reiterate the relevance of a roundtable, as recommended in the previous section. Such a platform will facilitate a fruitful discussion with field officers/stakeholders about this issue, enabling them to inject their thoughts, experiences, and concerns in the decision-making process.

It is recommended that a more general discussion about purpose and goals of the technology within the agency take place at the roundtable. Once the broad strokes have become clear, field officers within the agency will have to elaborate on this at a more practical level under the leadership of the coordinator. The information provided in the Practitioner's Guide on this issue will prove useful to this end.

## Forming an action plan

One of the chief outcomes of the first roundtable is an action plan. The purpose of this plan is to confirm the decisions that were made during the roundtable meeting in a written document. This will aid with the streamlined implementation of the technology and lead to accountability among partners and stakeholders; it will also prove useful to the coordinator when taking on his/her role as a leader. The plan need not be elaborate.

An action plan typically contains the following:

- a statement regarding the purpose and goals of using the technology as a supervision strategy within the agency;
- a list of involved parties and stakeholders, including a brief indication of their role and contact information;
- a detailed description of the responsibilities of the coordinator including his/her name and contact information;
- a time frame with an indication of deliverables and milestones;
- a list of actions, including the name(s) of the person(s)/agency(s) responsible for each action and a deadline; and,
- a date and place for the next roundtable and a preliminary agenda.

An action plan can facilitate the successful implementation of the technology in the agency. It can help the coordinator ensure relevant tasks are completed in a strategic and timely fashion. As the project progresses, unforeseen obstacles may result in modifications to the plan which should be updated accordingly and the revised document shared with other agencies involved in

the project. At a more detailed level, the coordinator may want to set out intermediate deliverables and milestones such that the day-to-day management becomes more transparent.

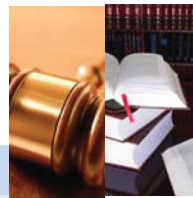
## Application Development

Getting started on something new is always challenging. As many practitioners are unfamiliar with using a continuous alcohol monitoring technology, a field study that provides administrators and line staff with an opportunity for them to examine and experience the technology may be beneficial in gaining an understanding of, and confidence in, such novel technologies as SCRAM. A field study designed to inform project development can be considered a scaled-down version of the full project that provides an opportunity for testing out practices and procedures, thereby identifying and rectifying problems.

## The importance of a field study

Technology represents a new way of doing business. It is unlikely that a technology can be fully implemented in a complex environment, such as a court or probation agency, without encountering some obstacles and challenges. Conducting a small-scale field study can facilitate and streamline the implementation process by providing front-line staff with an opportunity to work with and experience the technology directly, and to develop and modify a set of operating procedures that fits within existing supervision practices. Such a field study will give staff the ability to identify and overcome obstacles and challenges in a controlled environment with minimal consequences. It will also enable them to become comfortable with and develop confidence in using the technology, thereby building acceptance and support within the agency. A field study is the first step towards the development of a comprehensive supervision system. Moreover, a field study will ensure that the technology maximizes its potential to streamline agency operations and improve outcomes.

Practitioners that have participated in the implementation of new technologies in an agency environment, including SCRAM and ignition interlock devices, point out the benefits of conducting such a study. This experience allows agencies to anticipate important and less significant – but nonetheless influential – problems



that may otherwise be difficult or impossible to predict because such problems may only emerge in a certain context or under a certain set of conditions.

Some problems may be nominal and easily rectified; others can jeopardize the implementation if not addressed quickly. Moreover, not all agencies will experience the same type of problems or to the same extent. Different technologies and different service providers can create a variety of issues. Regardless, agencies should be prepared to encounter some challenges, and their method of resolving such issues will largely be a function of their own unique environment.

Ideally, a field study to inform project development should consist of at least two different stages:

1. a 'dry run' that allows front-line staff to 'experiment' with the technology; and,
2. a small-scale field study that involves using the technology on real test subjects, i.e., offenders.

Conducting a dry run that is followed by a study with real test subjects prior to a full-scale implementation provides agencies with an opportunity to gradually and systematically increase the complexity and dynamics of possible scenarios to eventually mimic real-life circumstances, and to do so in a controlled setting. Such a gradual increase allows for a trial and error process with errors that are kept within reasonable margins, preventing failure on a larger scale.

**Dry run.** The purpose of a dry run is to allow front-line staff, which may include judges, probation officers, treatment providers, and attorneys to directly experience the technology as test subjects to help them gain an understanding and appreciation of its functioning at the most basic level. A manual that describes a technology will provide an understanding of how it practically works, but it can never fully convey the experience of being subjected to the technology, which is ultimately what judges and probation officers will be managing. While participants in the dry run should be encouraged to "test" the various features of the device, it is important that this be completed with due consideration of potential liability issues and agency policies. Also, communication with the service provider and/or



manufacturer throughout this stage is crucial to ensure correct usage of, and reasonable expectations towards, the technology.

A dry run involving staff using the technology themselves will allow them to fully grasp the effect of this technology on offenders and enable officers to prepare themselves to manage offenders to whom the technology is applied. Not surprisingly, intimate knowledge of and experience with the technology is required in light of the inventive nature of offenders to circumvent the working of the technology. A dry run will permit officers and others to anticipate the likely reactions of offenders, and prepare themselves to manage situations involving challenges and conflict. It will also allow them to develop confidence in dealing with basic practical issues, such as completing any maintenance that may be required (e.g., changing batteries).

It should be noted that implementing a new technology may initially be labor intensive, as it will require more effort for officers to develop new habits and become familiar with new protocols. However, once the technology has become fully integrated into an agency, efficiency will increase and officers will become habituated to new procedures and modes of operation.

A select number of front-line staff, including both those who are eager to try the technology as well as those who are resistant to it, should be engaged in the dry run. It is recommended that at least one supervisor or administrator also be involved in this initiative to provide an administrative perspective on the technology. This dry run involving selected individuals should take approximately one to two weeks (or as long as is feasible). Participants should also be strongly encouraged to challenge and test the technology in a full range of settings, as this is likely how offenders will first react to the technology.

Participants should receive a brief list of instructions outlining the general purpose or goal of the dry run, and identifying the variety of settings under which this technology should be tested (e.g., work, home, leisure, treatment). Participants should also be encouraged to track their experiences and thoughts during this period. This information will provide useful insight, which can subsequently form the basis for developing a comprehensive supervision system that is devoid of loopholes.

At the conclusion of the dry run, a meeting of all individuals who will be involved in either managing or using the technology, including the service provider, should be organized to allow supervisors and staff to openly discuss the experiences of those who participated in the dry run, talk about what has been learned, identify obstacles and ways they can be overcome, and highlight benefits of the technology. Often anecdotes are shared during such meetings. This knowledge can be used to develop and improve upon a framework for a field study involving offenders.

**Field study involving offenders.** Offenders differ significantly from officers who are monitoring them along at least one dimension, namely their offending behavior. Generally, offenders will tend to be more persistent in their offending behavior. They are often more resistant to monitoring, and less likely to demonstrate full compliance with imposed conditions of supervision (e.g., refraining from drinking). This illustrates the need to test the technology under real-life conditions with real test subjects in a controlled setting, and justifies organizing a field study involving offenders.

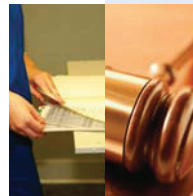
Furthermore, staff may be able to anticipate certain effects or outcomes of using the technology with offenders. However, it is unlikely, due to unexpected problems and practicalities, that professionals will be able to anticipate a full range of scenarios and their impact. Officers should expect to encounter some technical difficulties using the devices, and these should be addressed in the project development phase before moving forward with a full implementation. As such, a small-scale study with real test subjects constitutes a logical extension of the dry run and is a precursor to a full-scale implementation. The purpose of such a field study is to refine operational procedures and ensure staff are comfortable with the day-to-day management.

The field study should involve a small and select group of offenders (e.g., 10-25 depending on available resources) representing those types who would likely be subject to the technology during the full implementation. It may also be necessary to get court approval to involve offenders in a field study, since it may be more restrictive than general supervision. Recognizing that the resources available to agencies to conduct such a study may vary substantially, it is important to keep in mind that testing the technology with only a very few offenders (e.g., five) is still more beneficial than not testing the technology with offenders at all.

Front-line professionals should have the opportunity to select offenders from their respective caseloads who are appropriate to participate in the field study. The dry run should have provided some insight into the possibilities and limitations of the technology, and guide the selection of offenders who are most suitable for participation and present an appropriate level of risk.

Certain criteria should guide the selection process, including:

- age;
- gender;
- level of education;
- level of risk;
- offense type;
- number of prior arrests or convictions;
- employment history; and,
- drinking history and success in treatment.



Although it will likely be necessary that offenders 'volunteer' to participate in the study, those who are ultimately included should represent a range of offender characteristics and attitudes (both positive and negative) to the extent possible to allow agencies to prepare for a range of reactions and adjust procedures accordingly. Agencies should identify these offenders in advance to ensure that all of the purchased devices will be used. This is important, as there will be agency costs associated with purchasing or leasing the technology depending on the service delivery model. Consequently, agencies must be able to put these devices into service immediately to recoup funds. It may also be helpful to develop some incentive for those offenders who participate in the field study (e.g., reduction in community service work).

The length of the field study will vary according to the resources of the agency undertaking the initiative. While a longer period of perhaps two to four months can provide considerable information and several opportunities to refine procedures, not all agencies will be able to accommodate such a trial period. As such, it is still beneficial to implement a short field study involving offenders for even a week or two to provide some basic information to guide decisions regarding the full implementation.

At the conclusion of the field study involving offenders, the outcomes of both the dry run and the study should be shared with all staff and stakeholders that will experience the impact of the implementation of the technology, including the service provider and/or manufacturer (cf. the importance of a roundtable). This information should be collectively discussed from a practical, administrative, and legal point of view to fully explore any intended or unintended consequences the agency may experience as a result of implementing the technology. Such discussions will foster decision making and guide the development of a set of operating procedures that staff can adhere to ensuring consistent application and use of the technology during a full-scale implementation. Such a session will also create buy-in among front-line officers and ensure their support of the technology.

Although conducting both a dry run and a field study with real test subjects may appear tedious and elaborate at the outset, in practice it is likely that the full implementation of the technology will closely resemble the parameters and practices established during these initial phases. Implementing a new technology is a gradual process, and it takes time before procedures are refined, a project reaches full capacity in which more offenders are managed using the technology, and reliance on traditional methods is reduced or phased out. The time it takes to develop acceptable procedures and grow to a reasonably productive level can be considered a small-scale field study with real test subjects.

This is not to say that distinguishing formally between a small-scale field study with real test subjects – even when it is a small one – and a full-scale project is not useful. Such a distinction is important in ensuring that any unintended negative consequences occur on a small scale and in a controlled setting, especially when jurisdictions are unique and will likely encounter some challenges specific to their jurisdiction. Being able to contain and solve problems within a controlled setting without interference, for example from the media, will also ensure that the public’s opinion will not be negatively influenced at a point when the agency and officers have not yet had the opportunity to fully implement the technology and become experienced with it, as this could detract from the public’s confidence in and support for the technology. This also gives key stakeholders (e.g., judges, prosecutors and defense counsel) more opportunities to become comfortable with the use of the technology.



The field study also presents an opportunity for agencies to become accustomed to working with service providers and establish “ground rules.” Officers can gauge their level of satisfaction with the service provider, and develop a sense of how they “do business.” During the study, officers will be able to determine how responsive the service provider is to problems that arise and how they interact with offenders. This will give them insight into how the relationship is going to develop and the level of support that can be expected as the application expands.

To ensure that the quality of service remains consistent once a service provider has been chosen, expectations should be formalized in a contract (a list of the service provider’s duties can be found in the Practitioner’s Guide). Such a contract should also contain default clauses describing a decertifying procedure, as well as conditions that can lead to decertifying or discontinuing the use of a hired service provider or vendor.

It is important that agencies develop confidence and trust in the service provider at the outset to ensure that the technology will be properly utilized to fulfill the expectations of the agency. Officers should work with providers during the field study to identify the most effective ways to report data and to receive data in a timely and meaningful fashion. It is important to note that service providers should meet the needs of agencies with regard to data collection and reporting. Service providers should be made aware of and agree to ways in which the data will be handled and reported, and should not be in a position to impose their methods on the officers. Inconsistency in reporting practices across multiple providers will create confusion and increase the workload of officers monitoring the technology.

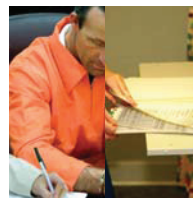
## Working with the media

While the media does not have to be involved as a partner or observer in each step toward implementation, it is important to consider informing them to some degree at some point during the implementation process. If the media understands how continuous alcohol monitoring can improve public safety while simultaneously helping offenders overcome their addiction, they may generate public support, which may serve as leverage toward successful implementation.

Furthermore, providing the media with credible information may take the wind out of the sails of offenders or offender advocates seeking support from the media in an attempt to detract from the credibility of continuous alcohol monitoring in general, or a certain technology such as SCRAM.

The first step to handling the media properly is being well informed. Therefore, ideally, media should only be involved once spokespersons have had sufficient time to familiarize themselves with the technology and underlying science, e.g., after a field study has partially or entirely been completed. At that time, spokespersons will have read about the technology and gained experience using it. This can allow them to provide media with relevant and accurate information, and ensure they are able to address any myths or misconceptions associated with the technology.

Throughout the entire life of the project, it will be necessary to respect the privacy of offenders when the media is involved. Even when an offender generates the interest of the media, this does not necessarily mean that other offenders will appreciate being involved in the resulting media rush. It is, therefore, imperative to ensure that offenders' privacy be respected.



training initiatives target a range of knowledge levels and give officers the opportunity to work with new devices in order to build confidence. The bottom line is that if officers do not feel comfortable using the technology, they will not use it or they will not use it effectively. Of some importance, agency supervisors, prosecutors, defense bar, and judges should also participate in a training exercise to ensure they have working knowledge of the device and how it will be applied to offenders (cf. dry run). Moreover, officers should be prepared to defend the use of this technology in court as a single source of admissible evidence to support violation proceedings and testify to the accuracy and reliability of information reported by the technology.

Training will often be delivered by the service provider and can take place individually or in group settings, depending on the number of officers that will be using the device. A training session can be easily accomplished in three to four hours. Prior to any training exercise, officers should indicate to the provider what issues they are most interested in to ensure that the training is relevant and addresses their needs. This will also enable the provider to prepare all of the necessary materials that are of interest in advance of the session. It is important that officers receive handout materials during the training exercise that allow them to subsequently review and refer to relevant information at a later time, as needed.

Of some importance, training should be ongoing. Many agencies have found that, due to turnover in staffing or the expansion of existing strategies, continued efforts are needed to ensure officers maintain sufficient working knowledge of the device. Moreover, technology is not static, and will continue to advance and evolve following implementation.

Part of the training exercise should also be delivered by the supervisor who will be responsible for officers using the technology. Information about eligibility, case management, sanctioning for non-compliance, and other issues will be necessary. It may be useful for supervisors to present some hypothetical cases to ensure that officers are equipped with the knowledge to handle a variety of scenarios that may arise. At this time, the supervisor could also review with staff previously developed policies and protocols that may be relevant to – or impact the use of – CAM.

## Training, Staffing, and Funding

### Training

The training of officers in the use of new technologies is critical to the success of any implementation.

The goals of any training exercise are threefold:

- 1) ensure officers are comfortable using this technology;
- 2) ensure that officers are familiar with the established procedures to apply the technology and to defend it as a single source of admissible evidence to support violation proceedings in court; and,
- 3) ensure officers are able to 'trouble-shoot' any problems that may arise.

New technologies can be complex, and the extent to which officers are technologically 'savvy' or sophisticated will vary by agency. It is important that

Finally, the Primer and the Practitioner's Guide are also available for training efforts (see Prologue for information on how to obtain these documents).

## Workload and caseload

Conducting a field study during the application development phase will allow administrators to estimate the workload for each offender that can be anticipated to use continuous alcohol monitoring technology, as well as gauge overall appropriate caseload numbers. It will also be possible to gain insights into whether and how the workload decreases over time as officers become more comfortable with and knowledgeable about the technology, and what efficiencies can be achieved using the technology. In many instances, offenders begin to realize that officers do follow up on attempts to tamper with or bypass the technology, and compliance rates increase (also see section on Graduated Responses in the Practitioner's Guide). Some practitioners with experience using SCRAM estimated that compliance rates can reach 80% as offenders become accustomed to the technology.

It is essential that the workload be quantified and insights into working with this technology be gained, as this information can inform decision making about caseload and the appropriate staff-to-offender ratio on a larger scale. Each field officer should be responsible for a realistic number of cases in their agency. On a practical level, the information gathered by this technology can provide insight to officers regarding how cases should be classified based on risk, as well as allow officers to better manage their workload and allocate time accordingly to specific cases that pose greater/lesser risk or require more/less direct supervision. It is expected that the use of a continuous alcohol monitoring technology will enhance the efficiency of supervision and monitoring over time as officers can better identify the compliant and non-compliant individuals on their caseload and supervise them accordingly. As such, this may allow officers to use their time more efficiently to manage cases, and may permit officers to adjust their caseload accordingly. However, unrealistic expectations regarding caseload will undermine the potential of the technology to improve monitoring practices, thereby jeopardizing its successful implementation.

As explained in the second report in this three-part series, it is particularly important to be sensitive toward workload and caseload issues during the initial few months when the technology is implemented. "Of considerable importance,



efforts are also needed to monitor the caseloads of officers and/or support personnel assigned to the referred offenders to ensure that workloads do not become overwhelming. Officers will require some time to adjust to the demands of supervision using a technology such as SCRAM, and efforts are needed to ensure that officers do not become overwhelmed by the demands of this technology at the outset, which can inhibit acceptance and lead to frustration" (see Practitioner's Guide p. 11). Administrators are encouraged to take the necessary steps to closely monitor the workload and caseload of officers at the outset to ensure a manageable working environment is created for field officers. In this respect, the workload per offender is a function of the type of offender and the level of supervision that the offender requires; the caseload of an officer should reflect this.

As an alternative to hiring additional internal staff, consideration should also be given to hiring a service provider who will take responsibility for certain tasks such as providing training and information about the technology, setting intake and installation procedures, performing device maintenance, and collecting fees (for a more complete list of duties of service providers, see Practitioner's Guide p. 9). Service providers are especially knowledgeable about these tasks that frequently reduce the opportunities for field officers to work with and actively supervise offenders.

While agencies may increase costs by hiring a service provider, they will decrease the workload of their field officers. Overall, it may prove beneficial for an agency to collaborate with a service provider who is specialized in tasks that, strictly speaking, detract from the quality and quantity of supervision and that are not necessarily part of a probation officer's or field officer's responsibilities.

## Indigent funding

The use of continuous alcohol monitoring technology typically relies on an offender-pay arrangement in which offenders bear the costs associated with the use of the technology (see also Primer p. 22). In this regard, it is comparable to payment schemes used with other technologies such as electronic monitoring or breath alcohol ignition interlocks. Some practitioners report that funding sources may be allocated towards supporting indigent offenders participating in the program.

It warrants mentioning, however, that efforts should be made to organize indigent funding arrangements to cover the expenses of offenders who may benefit from participating in a continuous alcohol monitoring application, but lack part or all of the necessary financial resources to pay for their participation. In this regard, “[t]o date, different programs have been very creative in how they obtain additional funding and defer costs to offenders.” (Primer p. 22)

Some examples of indigent funding include:

- Require that each financially capable offender contribute to a dedicated indigent fund by having him/her pay an additional fee of five percent of the daily monitoring rate;
- Reduce or partially vacate fines if offenders accept the continuous alcohol monitoring technology and demonstrate compliance with court orders;
- Divert public funding from the jail system toward a dedicated indigent fund; and/or,
- Negotiate with service providers for a reduced fee for indigent offenders.



## Evaluation

### Process and impact evaluation

Ongoing agency support and funding of a continuous alcohol monitoring application is contingent on the execution of a process and impact evaluation. While an impact evaluation determines whether the implementation of an application led to the desired effects (e.g., reduced recidivism, success in treatment, stability in employment, stable family environment), a process evaluation investigates reasons explaining these effects, or lack thereof (e.g., training was poor, no follow-up on violations, high caseloads). A process evaluation helps to explain why – or why not – particular effects were produced, and leads to the identification of elements in the application that need to be modified to produce desired outcomes (Blalock 1990).

Given their role, process and impact evaluations serve two particular objectives. At a practical level, “Monitoring performance and outcomes in the supervision of DWI offenders is a basic ingredient to agency and project accountability.

While often feared and avoided, evaluation creates a learning environment that allows agencies to improve policy, procedures and practices.” (Dunlap et al. in press).

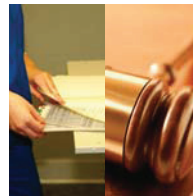
However, beyond this important practical reason to carry out a process and impact evaluation, there is another objective. This second objective pertains to the availability of objective data to increase the scientific understanding of the impact of the technology on attitudes and behaviors of field officers and offenders. As argued in the preface section, there is a need for large-scale quantitative surveys and case-control studies to corroborate the initial findings on transdermal alcohol monitoring bracelets coming from a few small-scale, albeit promising studies that looked into this. At the same time, smaller-scale evaluations should not be discouraged as these studies also add to the scientific literature.

Without the availability of such pertinent data, however, this process of generating knowledge at two distinct levels – i.e., at a practical and at a scientific level – cannot take place. Therefore, it is crucial that some thought be given to evaluation as early as possible in the implementation process of continuous transdermal alcohol monitoring applications. Ways in which data will be collected, and what data will be collected have to be determined from the outset to allow for an accumulation of needed information relevant to a rigorous evaluation.

The following policy and practical considerations (partly adapted from APPA’s guidelines for the community supervision of DWI offenders, Dunlap et al. in press), can help administrators determine how to carry out an evaluation, or at least how to prepare for one, in case necessary resources are not immediately available to evaluate a continuous alcohol monitoring application. If resources are not available today, opportunities in the future may arise.

- “A key to successful evaluation is to have clear, measurable and realistic objectives. If objectives are unrealistically optimistic, an agency may not be able to demonstrate that it has been successful, even if it actually was.” This relates back to the importance of establishing purpose and goals of the technology as discussed in the first section (Getting Started).

- “Limit the scope of the evaluation to a few well-defined research questions to ensure the evaluation will be feasible.” At the same time, consider going beyond looking at just one outcome measure, such as recidivism among offenders. A versatile, albeit feasible, evaluation may include outcome measures such as offenders’ quality of life (e.g., employment, number of sick days at work, drinking habits, etc.), optimal caseloads for officers in rural and urban jurisdictions, treatment outcomes of offenders (e.g., completion of treatment, number of relapses, etc.), attitudes of offenders and field officers toward using the technology (e.g., do offenders believe it is a fair and useful sanction, do field officers like to work with the technology or not, etc.), and compliance (e.g., numbers of days of using the technology, numbers of violations, types of violations, etc.).
- With respect to defining the research questions, “Give consideration to how other stakeholders define success.” It goes without saying that organizing a roundtable, as discussed in the first section (Getting Started), will greatly facilitate this.
- “Create a step-by-step work plan for conducting the evaluation. This plan should contain research questions, data elements needed to address the research questions, methods needed to answer the questions, how data will be collected and analyzed, who is responsible for performing specific tasks and deadlines for milestones and deliverables.”
- “Develop case management practices that will make data collection easier. Data collection can be streamlined and simplified if forms and methods of program documentation are designed with evaluation in mind.” This illustrates how important it is to think about evaluation from the very outset, and the usefulness of organizing a roundtable to discuss these issues with involved parties.
- “States may have laws that regulate the collection, maintenance, use, and sharing of data. Research these laws and comply with them.”
- “When possible and resources allow, use an objective evaluator such as local colleges and universities.”
- “Share evaluation results, good or bad, with stakeholders.” Too often only information about project success is shared, while important lessons can also be learned from failures. Sharing results



can be done by e-mail or during a roundtable meeting, when a discussion with stakeholders and partners about the results is more appropriate.

- “Align program evaluation efforts with performance evaluations and ensure staff is aware of what is being measured.” Such a transparent strategy will lead to accountability between partners and stakeholders.

## Cost-savings analysis

An evaluation in term of savings accrued with the use of a continuous alcohol monitoring technology may provide useful information to allow agencies to demonstrate a return on investment and justify a full-fledged implementation and/or an expansion of the use of the technology.

In a cost-savings analysis, both direct costs (e.g., leasing costs of bracelets) and indirect costs (e.g., staffing) incurred with the supervision using a technology such as SCRAM are weighed against comparable costs incurred with using other supervision strategies in the jurisdiction that is being evaluated. A detailed overview of costs, broken down by relevant line items, will allow for a meaningful comparison and illustrate whether and how much savings have accrued.

## Cost-benefit analysis

Finally, it may be worthwhile to also carry out a cost-benefit analysis. A cost-benefit analysis involves converting outcome measures coming from the impact and process evaluation (e.g., improvement of quality of life, number of violations) into monetary terms, so they can be compared to outcome measures coming from the cost-savings analysis. “A cost-benefit analysis sheds light on the efficiency in economic terms of alternative policy options.” (Elvik and Vaa 2005, p. 123)

Although there is some controversy surrounding the technique (Hauer 1994), a cost-benefit analysis is a powerful means for objectively comparing different policy options – including continued reliance on previously established practices and tools – and establishing economies of scale. The danger really lies in applying this method in too mechanical a fashion by disregarding the limitations of assigning monetary values to analysis outcomes. This potential

obstacle can be tackled by using different conversion schemes leading to a range of cost/benefit ratios, and by acknowledging that assigning monetary values to certain “goods” is an artificial undertaking, at least to some degree.

Results from a cost-benefit analysis should be understood within the context in which they were generated. As such, a cost-benefit analysis can illustrate the advantages of using one particular policy option, such as continuous alcohol monitoring, compared to using other options.

## Epilogue

After more than 70 years of – primarily laboratory – research into the science underpinning continuous transdermal alcohol monitoring technology, it has been clearly established that ingested alcohol can be validly measured in perspiration through the process of transdermal alcohol testing. This document – the third in a three-part series – has been written for agency administrators and seeks to address their concerns related to the implementation of this technology as a new supervision strategy. Its objective is to facilitate the implementation of continuous transdermal alcohol monitoring from an administrator’s point of view. As such, this document, developed for agency administrators who are implementing CAM in their agency to supervise offenders, provides guidance on a variety of issues including cultivating leadership and fostering agency and stakeholder partnerships, organizing community support, developing applications, creating and maintaining training opportunities, generating funding, and designing an evaluation.

With respect to evaluation, only a few small-scale studies have focused on the functioning of the technology in the field and its influence on the attitudes and behavior of field officers and offenders. Accordingly, there is a need for large-scale quantitative surveys and case-control studies to corroborate the initial findings coming from these small-scale – albeit promising – studies. In this regard, agency administrators are encouraged to carry out an evaluation of their project or accommodate such an evaluation by incorporating evaluation plans from the outset when the first steps are taken to implement this technology into their agency. The availability of evaluation outcomes will lead to accountability and create learning opportunities at a practical level within an agency; it will also



heighten the scientific understanding of the efficacy of continuous alcohol monitoring. Acquiring knowledge at these two distinctive levels – i.e., at a practical and a scientific level – can benefit supervision of offenders and lead to greater consistency in application development.

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