
Applying Funding Agency Lessons Learned to Enhance Motor Vehicle Injury Prevention in American Indian/Alaska Native Communities

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Background/Purpose

Public health interventions including injury prevention (IP) programs in American Indian/Alaska Native (AI/AN) communities must consider a community's unique cultural, political, and historical factors (e.g., tribal sovereignty) and the use of effective strategies based on sound data and community identified concerns.¹ Also important to establishing effective tribal IP programs is the provision of tailored technical assistance² and the emphasis on continuity, commitment, and contributions when developing and nurturing IP partnerships.³ Successful motor vehicle IP program efforts describe adapting educational, enforcement, and evaluation activities to address local conditions^{4,5} and the need for law enforcement-based interventions to be combined with public education or mass media and policy change interventions.^{6,7} This article summarizes how a federal agency is building on lessons learned about program administration, partnerships/collaboration, tailoring evidenced-based strategies, and data collection and evaluation to ensure that elements critical to program success are present for eight tribes/tribal organizations currently receiving four-year motor vehicle IP funding.

The Centers for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control awarded four AI tribes approximately \$75,000 per year from 2004 - 2009 to plan, implement, and evaluate tribal motor vehicle injury prevention programs (TMVIPP). The CDC encouraged funded tribes to use "best practices" for three traffic safety issues: 1) increasing seatbelt use; 2) increasing child safety seat (CSS) use; and/or 3) reducing driving under the influence (DUI). The CDC referred tribes to the *Guide to Community*

*Preventive Services*⁸ as a resource to identify interventions. In addition, the CDC required each TMVIPP to devote approximately 15% of annual program budgets to hire external evaluators to provide program planning and evaluation assistance.

The four pilot TMVIPP projects achieved varying types of success. One tribe passed a tribal primary enforcement seatbelt law and increased seatbelt use from 47 to 62 percent from 2005 to 2008.⁹ Another tribe saw driver seat belt use increase 38 percent, passenger seat belt use increase 94 percent, and child safety seat use increase from a baseline of 26 percent to 76 percent between 2005 and 2009.⁴ In 2008 alone, another tribe conducted 24 sobriety checkpoints and stopped 13,408 vehicles.⁹ Compared with data from 2001 - 2004, another tribe saw a 17 percent decrease in motor vehicle crashes (MVCs) and 4.3 and 8.5 percent reductions in fatal MVCs and total MVCs with injuries, respectively, during the 2004 - 2009 funding period.¹⁰

To increase effectiveness of the TMVIPP, at the end of the pilot funding cycle the lead authors reviewed the implementation process for the 2004 - 2009 cycle.¹¹ This article summarizes selected results from the review, emphasizing successes, challenges, and recommendations related to program administration, partnerships and collaboration, tailoring effective strategies, and data collection and evaluation.

Methods

To complete the review of the TMVIPP implementation process, primary data sources included: 1) project funding applications (submitted annually); 2) TMVIPP workshops and evaluation summaries (conducted annually in Years I - IV); 3) discussions with CDC staff and TMVIPP Coordinators (completed during annual site visits and regular conference calls); 4) project progress reports (submitted three times annually); and 5) multi-year data collection summaries. Data reviewed from these sources were combined with in-depth discussions with project coordinators and team members during the final year of the pilot cycle (2008 - 2009).

Review of data sources enabled the authors to identify factors contributing to project success and challenges. Success factors were identified when present for at least two funded

tribes. Limitation factors were noted when relevant for at least one funded tribe. The lead authors identified recommendations from a synthesis of available data sources, careful study of the success and limitation factors, and prior experience working with the TMVIPP and other IP funded programs in AI/AN communities.

Results

We identified project success factors (n = 17) and project limitation factors (n = 15) organized by four components associated with TMVIPP project implementation and evaluation: 1) *Program Administration*; 2) *Partnerships/Collaboration*; 3) *Tailoring Effective Strategies within American Indian Communities*; and 4) *Data Collection and Evaluation*. Nearly all of the success factors were present for all four tribes. There was greater variation in the number of limitations relevant across tribes (8 - 15 per tribe), with a greater number of limitations present for two tribes (13 or more).

We identified a total of 24 recommendations, with four to eight per component. The majority of recommendations for 1) *Program Administration* were derived from a mixture of success and limitations, whereas recommendations for 2) *Partnerships and Collaboration* and 3) *Tailoring Effective Strategies* were derived primarily from success factors, with the majority of recommendations for 4) *Data Collection and Evaluation* being derived from limitation factors.

For 1) *Program Administration*, success factors included low coordinator turnover during the cycle; annual site visits from CDC and evaluators; coordinator experience in IP or working with law enforcement; and staff training obtained by coordinators prior to or during the cycle. Limitation factors included inadequate infrastructure to manage a cooperative agreement; staffing requirements that did not mandate a full-time TMVIPP coordinator; miscommunication among team members about TMVIPP project goals, objectives, and roles and responsibilities; inconsistent progress reporting quality; challenging tribal accounting approval processes; and administrative burdens of tribal sub-contracting. Recommendations for *Program Administration*, based on a combination of success and limitation factors identified in the pilot cycle, included:

1. Ensure commitment from tribe to provide the TMVIPP coordinator access to an adequate office, computer, e-mail, Internet, phone, and administrative support for accounting and travel.
2. Require projects to have one full-time staff person in the TMVIPP coordinator position.
3. Continue annual site visits by CDC staff and external evaluator.
4. Require attendance at annual in-person coordinator meetings.
5. Encourage or require coordinators to attend and/or

submit presentation abstracts to national conferences and to obtain additional training.

6. Provide consistent external evaluation and technical assistance for tribes by contracting with one organization/entity.
7. Provide enhanced progress reporting templates and increased oversight by providing specific feedback on reports.
8. Develop a TMVIPP manual that outlines a) project staff roles and responsibilities; b) agency and partner roles and responsibilities and contact information; c) reporting requirements and tips for writing effective progress reports; d) summary of evidence-based implementation strategies for traffic safety; and e) summary of traffic safety policy change strategies.

For 2) *Partnerships and Collaboration*, success factors included integration within the tribe's police department (PD); in-kind, paid, and incentive-based police department contributions; coordinator involvement with a coalition; support of tribal leaders; teamwork with tribal and non-tribal staff; cross-tribal resource exchange; and assistance from IHS staff. One limitation factor included limited project integration within the tribe's PD. Recommendations for *Partnerships and Collaboration*, based primarily on success factors identified in the pilot cycle, included:

1. Ensure that TMVIPP Coordinators understand how to integrate program implementation and evaluation activities with local law enforcement entities (e.g., tribal, municipal).
2. Allow TMVIPP project funds to support in-kind, paid, and incentive-based contributions of PD personnel.
3. Encourage and provide training and technical assistance to support coalition building (to foster tribal and non-tribal partnerships).
4. Foster partnerships among TMVIPP Coordinators and with local IHS IP staff.

For 3) *Tailoring Effective Strategies in American Indian Communities*, success factors included use of Native language in educational and media activities; project access to free and paid media; and tribal passage of enhanced traffic safety laws or policies. Limitation factors included competing priorities and politics affecting the ability of law enforcement to fully implement enforcement activities; chronic PD understaffing; turnover in PD or tribal leadership; and over-emphasis on education-only activities. Recommendations for *Tailoring Effective Strategies*, based primarily on success factors identified in the pilot cycle, included:

1. Provide suggestions for tailoring effective strategies using Native language and brands (e.g., logos).
2. Continue to encourage the use of paid and/or free media (e.g., radio, newspapers) by providing tips and guidance for how to develop and report reach of press

releases, public service announcements, and advertisements.

3. Emphasize the importance of learning and understanding tribal policies and procedures to pass new or enhanced traffic safety laws or policies and encourage sites to develop multi-year action plans that include traffic safety policy change activities.
4. Encourage TMVIPP sites to describe project accomplishments to tribal councils so that traffic safety remains a high priority among tribal leaders.
5. Provide advice to TMVIPP coordinators on how to handle staff turnover, understaffing, and politics.

For 4) *Data Collection and Evaluation*, success factors included requirement to budget for program evaluation services to collect, interpret, and summarize data; and access to secondary data sources. Limitation factors included inconsistent collection or summary of primary and secondary data; limited summarization of paid enforcement-based activities; and judicial system functioning that limited tracking of traffic safety violation or arrest prosecutions. Recommendations for Data Collection and Evaluation, based primarily on limitation factors identified in the pilot cycle, included:

1. Specify required evidence-based strategies and appropriate evaluation measures to be included in tribal workplans.
2. Emphasize and provide technical assistance and training for conducting evaluation.
3. Provide early guidance to identify tribal-specific data collection sources, methodologies, and summary templates.
4. Require TMVIPP sites to document formative, process, impact, and outcome evaluation in a timely and consistent manner.
5. Provide guidance, tools, and strategies for how to summarize on-going enforcement of traffic safety laws.
6. Assist coordinators in meeting requirements of tribe-specific Institutional Review Board policies.
7. Outline the following in a TMVIPP manual: a) data collection methods for evidence-based effective strategies for traffic safety; b) data collection

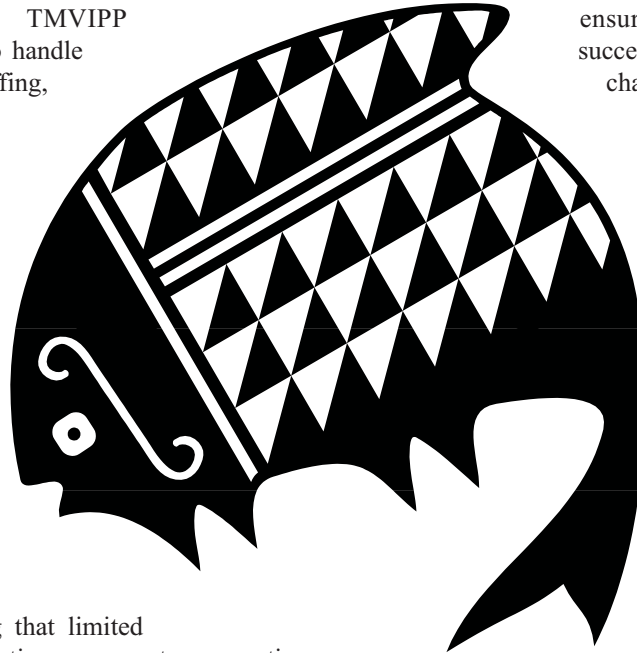
instruments (e.g., observational surveys, checkpoint summaries); c) data entry/summary tools (e.g., templates for summarizing data); and d) tips for summarizing project success (e.g., writing success stories, submitting abstracts for presentations at conferences, promoting successes).

Discussion/Conclusions

The review of the 2004 - 2009 TMVIPP was conducted, primarily, to ensure elements critical to program success and lessons learned from program challenges would be addressed to better support tribes/tribal organizations participating in the 2010 - 2014 TMVIPP. By building on project successes, and seeking to address project limitations, all but one of the recommendations provided (a requirement for a full-time TMVIPP Coordinator) are being applied during the current CDC TMVIPP funding cycle. While tribes have been encouraged to have a full-time coordinator, the funding amount (\$70,000 annually) may limit the ability of tribes located in some geographic areas (e.g., with higher salary/benefit requirements or indirect costs rates) to provide

adequate funds for both personnel and non-salary project expenses. At the start of the current TMVIPP cycle, the CDC developed and distributed a comprehensive *TMVIPP Administration, Implementation, and Evaluation Manual* designed to enhance the ability of funded tribes to administer, plan/implement, and evaluate project activities.¹² Program administration tools in the manual include information from CDC's Procurement and Grants Office (PGO), such as a TMVIPP roles and responsibilities summary; key staff contact information; a summary of important PGO-related events/due dates; and progress reporting requirements, tips, and templates. Program planning and implementation tools include detailed summary of motor vehicle injury prevention evidenced-based interventions, strategies, and activities; guidelines and tools for building and maintaining coalitions; a summary of how to work with media (including project branding examples); and description of steps needed and resources available to use policy change as a public health strategy.

Program evaluation tools and resources in the manual include overview of the four stages of evaluation (i.e.,



formative, process, impact, and outcome); summary of the data collection measures needed to assess effectiveness of motor vehicle IP programs; and list of the ways in which program success can be shared publically (e.g., in progress reports, at presentations to tribal council, or at conferences). To standardized data collection procedures, several sample data collection tools are in the manual, including community member knowledge, attitude, skill survey examples; observational survey protocols and guidelines to assess occupant restraint use; program implementation summary tools to document restraint use and DUI enforcement and child safety seat activities; and secondary data abstraction forms to summarize law enforcement citation/arrest and motor vehicle crash, crash injury, and crash fatality data. Future additions to the manual's resources will include site-specific data entry files (so tribes can consistently communicate evaluation results to tribal leaders, program partners, and community members), answers to frequently asked questions, and additional PGO information.

The TMVIPP has contracted with one organization for the 2010 - 2014 funding cycle to provide external technical consultation for program implementation and evaluation to CDC staff and funded tribes. Technical assistance activities include workplan development, progress report review, conference calls, site visits, annual workshop, and on-going technical assistance. Several funded sites were required to revise workplans based on weaknesses identified by the proposal review panel.

Through the use of a cooperative agreement funding mechanism, the provision of a comprehensive *TMVIPP Manual*, and simultaneous provision of on-going technical assistance from a single external group, the CDC is seeking to ensure that the elements critical to AI/AN motor vehicle injury prevention – administration, partnerships and collaboration, tailoring effective strategies, and data collection and evaluation – will be realized in the 2010 - 2014 TMVIPP cycle. Recommendations provided for the latter three categories are consistent with critical elements identified by other IP practitioners working in AI/AN communities.^{1,3,5-6} More resources are available to tribes to assist with developing partnerships and collaboration and tailoring effective strategies, compared to those available for data collection and evaluation. Given that the majority of limitations associated with data collection and evaluation were relevant for all four tribes, the need for enhanced technical assistance to collect and summarize data warrants further development. Tools and methods to increase tribal data collection and evaluation capacity are emphasized in several of the recommendations for the 2009 - 2014 TMVIPP funding cycle.

The recommendations provided for program administration are based primarily on the authors' expert opinion obtained from prior experiences working in AI/AN communities² and in-depth discussions with TMVIPP staff in the final year of funding. The lead authors were involved with

the TMVIPP throughout the pilot-cycle, serving initially as external consultant for one funded tribe and ending the cycle serving all four tribes. As part of this work, they conducted annual site visits, regular conference calls, and worked with CDC staff to facilitate four annual workshops at which training and technical assistance was provided to TMVIPP Coordinators.

Recommendations provided to CDC for the 2010 - 2014 TMVIPP are being reviewed by additional experts, agency administrators, and tribal program staff brought together as part of a CDC-led effort to confirm a set of 'critical factors' needed in tribal motor vehicle injury prevention programs. This effort is occurring concurrently with administrators from multiple federal agencies, including the CDC, IHS, National Highway Traffic Safety Administration, and Bureau of Indian Affairs, who are working together to identify opportunities to streamline and coordinate federal programs that support traffic safety for tribes and tribal organizations across the country (e.g., funding, technical assistance).

Based on the experiences from the prior TMVIPP funding cycle, those to be identified during the current cycle, and as part of inter-agency collaborative efforts also underway, the CDC plans to develop a comprehensive "Best Practices Manual" to enable additional AI/AN tribes and tribal organizations to effectively address the disproportionate burden of motor vehicle crash injuries and fatalities faced in their communities.

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