

Primer on Effective Strategies to Influence Travel Behaviour

Introduction

Significant shifts in individual travel behaviour are needed to address growing concerns about urban traffic congestion, climate change, air pollution, infrastructure deficits and economic competitiveness. With this in mind, governments across Canada are investing in walkable streets, cycling facilities and rapid transit infrastructure. However, transportation demand management (TDM) tools are used less widely.

This primer reviews how federal, provincial, territorial, regional and local governments and their partners can identify the TDM tools most likely to be appropriate and effective in their jurisdictional, community and strategic contexts. It is based on Canadian research and experience, and covers material addressed in greater detail in the TAC publication *Effective Strategies to Influence Travel Behaviour: Practical Guide*.

Travel behaviour change and TDM

Social marketing uses commercial marketing techniques to support societal objectives such as injury or disease prevention, energy conservation and waste reduction. It works by helping people perceive new behaviours as more *advantageous, practical, popular* and/or *congruent* than current behaviours¹. Social marketers consider the upstream determinants of consumer wants and needs, they acknowledge that individuals are influenced by preconceptions and biases, and they seek to understand key motivators and barriers.

TDM is a form of social marketing. It motivates individuals to change modes, choose different travel times or routes, or travel less. There are four types of TDM measures: *incentives and disincentives* such as fees, discounts or prizes; *marketing communications* that improve people's understanding of their options or their environment; *behavioural infrastructure* that improves facilities, services or affordability; and *legislation and enforcement* that penalize particular behaviours or change their social meaning.

Governments have three main levers to influence behaviour and create more sustainable transportation systems: one is TDM, and the others are changes to land

¹ Congruent behaviour reflects a person's actual or desired self-image.

use and transportation supply. **Figure 1** illustrates the effects of these levers from a social marketing perspective, showing that TDM has the potential to broadly address the characteristics, needs and desires of individual travellers.

About TDM tools

To use TDM tools effectively, agencies must understand the tools available—how they work, their strengths and weaknesses, stakeholders and partners to involve, resource needs and other implementation issues. **Figure 2** identifies 35 TDM tools in six groups, and **Figure 3** provides a sample of helpful information on just one of those tools.

Figure 1 – Tools to Influence Travel Behaviour

CHARACTERISTIC OF BEHAVIOUR ADDRESSED BY TOOL	LAND USE TOOLS	TRANSPORTATION SUPPLY TOOLS	TDM TOOLS
Advantageous		☐	☐
Practical	☐	☐	☐
Popular		☐	☐
Congruent			☐

Figure 2 – TDM Tools

TOOLS TO ENGAGE AND ENABLE INDIVIDUALS	TOOLS TO SHIFT COSTS	TOOLS TO ENHANCE THE BUILT ENVIRONMENT
Branding, messaging and positioning Special events Individualized marketing Real-time transit customer information Real-time driver information Route maps and trip planning Centralized travel information Ridematching Cycling skills training Driver education	Vehicle ownership pricing Pay-as-you-drive insurance Road pricing Fuel pricing Parking pricing Taxation of employer-provided transportation benefits Transit fare incentives Vehicle scrappage incentives	Integration of cycling and transit Wayfinding for walking and cycling Bicycle parking Shower, change and locker facilities Park-and-ride arrangements Carpool parking arrangements Carsharing service support
TOOLS TO INFLUENCE COMMUTER TRAVEL	TOOLS TO INFLUENCE SCHOOL TRAVEL	TOOLS TO INFLUENCE OTHER TRAVEL
Employer engagement Workplace travel planning support Employer transit pass Post-secondary universal transit pass Emergency ride home	School engagement School travel planning support Road safety services around schools	Destination travel planning support Community transportation service partnerships

Figure 3 – Information on Employer Transit Passes

(SOURCE: EFFECTIVE STRATEGIES TO INFLUENCE TRAVEL BEHAVIOUR: PRACTICAL GUIDE)

2.4.3 Employer Transit Pass

Description. Many Canadian transit systems sell discounted transit passes to commuters through their workplaces. One example is payroll-deduction transit pass programs that offer a discount in return for a minimum one-year commitment by participants as well as a minimum number of participants per workplace. Programs can also require additional employer subsidies, or encourage employer subsidies by escalating the transit operator’s discount.

Enhances an individual’s perception of public transit as:	
advantageous	<ul style="list-style-type: none"> ■ Provides a financial incentive for individual commuters to take transit ■ Provides an incentive for commuters to purchase a transit pass rather than use tickets or cash fares
practical	<ul style="list-style-type: none"> ■ Makes transit passes more convenient to buy (i.e. no need for a monthly errand to buy one) and more inconvenient to stop purchasing regularly
popular	<ul style="list-style-type: none"> ■ Improves visibility of transit messaging by using workplace communications to reach commuters
congruent	<ul style="list-style-type: none"> ■ Reinforces the social value of transit ridership by leveraging the credibility of employers

Roles and responsibilities

- Transit operators can develop and offer employer transit pass programs.
- Employers can either act as a reseller, or as a financial intermediary that forwards payroll deductions to the transit operator.
- Intermediaries (e.g. municipalities or transportation management associations) can promote or administer the programs.

Implementation

- Viability increases with transit service quality.
- Programs are typically revenue-neutral for transit operators; monthly discounts are offset by requirement to purchase 12 passes each year (vs. average of 10 or 11).
- Involves extra administration by transit operator, employer and/or intermediary. Transit operator’s administration costs can be low for small programs delivered manually, but can be more substantial for large programs that require customized computer-based administration systems.
- Performance measurement is simplified by asking new registrants if they are frequent, occasional or new transit riders.

Strengths and weaknesses

- Builds and rewards customer loyalty. May initially attract few new riders, but can help retain existing riders and gain ridership among new hires.
- Transit systems may see a risk in potential loss of revenue. Payback may not warrant extra administrative costs to transit system, especially at small workplaces.
- Customers may resist the typical requirement for 12-month minimum commitment, particularly summer cyclists who take transit in the winter.
- Employers may resist subsidizing employees due to taxable status of employer-provided transit benefits.
- Smartcard-based fare systems enable similar programs with less administration.

For more information

TransLink Employer Pass Program (www.translink.ca/en/Fares-and-Passes/Employer-Pass.aspx)

Grand River Transit Corporate Pass (www.grt.ca/en/riderprograms/corporatepass.asp)

“EcoPass: Employer-Sponsored Transit Passes,” Transport Canada (www.tc.gc.ca/eng/programs/environment-utsp-ecopass-844.htm)

Effective TDM strategies for different contexts

A strategic thought process involving *lenses*, *directions* and *tools* makes it easier to identify the TDM strategies that are best for any given situation (see **Figure 4**):

- *Lenses* are important objectives or features of organizations and the communities where they are located.
- *Directions* are strategic goals that respond to challenges or opportunities, and reflect factors such as jurisdictional responsibilities.
- *Tools* include primary TDM tools (those most likely to be appropriate and effective for any direction), secondary TDM tools (those suggested with reservations or qualifications), and complementary measures that support TDM tools (by addressing land use or transportation supply).

Figure 4 – Relationship of Lenses, Directions and Tools



Figure 5. Lenses and Directions for Choosing TDM Strategies

(SOURCE: EFFECTIVE STRATEGIES TO INFLUENCE TRAVEL BEHAVIOUR: PRACTICAL GUIDE)

DIFFERENT TYPES OF ORGANIZATION	
<p>Lens: FEDERAL GOVERNMENT</p> <ul style="list-style-type: none"> • Build capacity among other orders of government and non-governmental organizations • Encourage workplace-based TDM measures 	<p>Lens: PROVINCIAL OR TERRITORIAL GOVERNMENTS</p> <ul style="list-style-type: none"> • Build capacity among other orders of government and non-governmental organizations • Encourage workplace-based TDM measures • Encourage responsible driving behaviour • <i>Many other directions in this figure are also applicable</i>
<p>Lens: REGIONAL AUTHORITIES</p> <ul style="list-style-type: none"> • Develop or coordinate a regional approach to TDM tool delivery 	<p>Lens: MUNICIPAL GOVERNMENTS</p> <ul style="list-style-type: none"> • <i>Most directions in this figure are applicable</i>
<p>Lens: ROAD AUTHORITIES</p> <ul style="list-style-type: none"> • Encourage responsible, efficient driving behaviour • Make ridesharing more advantageous and practical 	<p>Lens: TRANSIT AUTHORITIES</p> <ul style="list-style-type: none"> • Make transit more practical and accessible • Remove barriers related to transit understanding and information • Provide financial incentives and remove financial barriers to transit use • Support perception of transit as popular and congruent
<p>Lens: PARKING AUTHORITIES</p> <ul style="list-style-type: none"> • Make sustainable travel options more advantageous • Make cycling more advantageous and practical • Make ridesharing more advantageous and practical • Make alternatives to car ownership more advantageous and practical 	<p>Lens: NON-GOVERNMENTAL ORGANIZATIONS</p> <ul style="list-style-type: none"> • Deliver initiatives to key audiences
DIFFERENT TYPES OF COMMUNITY	
<p>Lens: COMMUNITIES WITH LESS TDM EXPERIENCE</p> <ul style="list-style-type: none"> • Create a strong TDM program foundation • Implement “quick win” tools to improve travel options and build support 	<p>Lens: COMMUNITIES WITH MORE TDM EXPERIENCE</p> <ul style="list-style-type: none"> • Implement more complex tools that build on strong foundations
<p>Lens: LARGE COMMUNITIES</p> <ul style="list-style-type: none"> • Support more complex travel decisions • Improve travel options for long trips 	<p>Lens: SMALL COMMUNITIES</p> <ul style="list-style-type: none"> • Make active transportation more advantageous and practical • Make ridesharing more advantageous and practical
<p>Lens: RURAL COMMUNITIES</p> <ul style="list-style-type: none"> • Make ridesharing more advantageous and practical • Improve public transportation options • Encourage responsible driving behaviour 	<p>Lens: URBAN CORES</p> <ul style="list-style-type: none"> • Make alternatives to car ownership more advantageous and practical • Encourage sustainable travel by commuters • Encourage sustainable travel by non-commuters
<p>Lens: SUBURBAN AREAS</p> <ul style="list-style-type: none"> • Support perception of sustainable travel options as practical and congruent 	<p>Lens: COMMUNITIES WITH LIMITED RESOURCES</p> <ul style="list-style-type: none"> • Implement low-cost tools • Implement tools that can recover costs or leverage partner resources

DIFFERENT COMMUNITY OBJECTIVES	
<p style="text-align: center;">Lens: INCREASE WALKING</p> <ul style="list-style-type: none"> • Make walking more advantageous and practical • Support perception of walking as popular and congruent 	<p style="text-align: center;">Lens: INCREASE CYCLING</p> <ul style="list-style-type: none"> • Make cycling more advantageous and practical • Support perception of cycling as popular and congruent
<p style="text-align: center;">Lens: INCREASE PUBLIC TRANSIT USE</p> <ul style="list-style-type: none"> • Make transit more advantageous and practical • Support perception of transit as popular and congruent 	<p style="text-align: center;">Lens: INCREASE RIDESHARING</p> <ul style="list-style-type: none"> • Make ridesharing more advantageous and practical • Support perception of ridesharing as popular and congruent
<p style="text-align: center;">Lens: SUPPORT DEVELOPMENT INTENSIFICATION</p> <ul style="list-style-type: none"> • Reduce parking demands in new commercial developments • Reduce parking demands in new residential developments 	<p style="text-align: center;">Lens: IMPROVE PUBLIC HEALTH</p> <ul style="list-style-type: none"> • Reduce air emissions from transportation • Encourage physical activity
<p style="text-align: center;">Lens: IMPROVE COMMUNITY COMPETITIVENESS</p> <ul style="list-style-type: none"> • Improve civic self-image • Make the community more attractive to employers 	<p style="text-align: center;">Lens: IMPROVE OPPORTUNITY AND INDEPENDENCE FOR YOUTH</p> <ul style="list-style-type: none"> • Make cycling and transit more advantageous and practical
<p style="text-align: center;">Lens: IMPROVE OPPORTUNITY AND EQUITY FOR LOW-INCOME RESIDENTS</p> <ul style="list-style-type: none"> • Make cycling, transit and ridesharing more advantageous and practical 	<p style="text-align: center;">Lens: COMBAT AREA-SPECIFIC TRAFFIC OR PARKING ISSUES</p> <ul style="list-style-type: none"> • Address traffic or parking issues in employment areas • Address traffic or parking issues at post secondary institutions • Address traffic or parking issues around schools • Address other traffic or parking issues in the community

Figure 6. – Possible Directions and Tools for Transit Authorities

(SOURCE: EFFECTIVE STRATEGIES TO INFLUENCE TRAVEL BEHAVIOUR: PRACTICAL GUIDE)

LENS	TRANSIT AUTHORITIES			
	?	?	?	?
DIRECTIONS	<p>Make transit more practical and accessible</p>	<p>Remove barriers related to transit understanding and information</p>	<p>Provide financial incentives and remove financial barriers to transit use</p>	<p>Support perception of transit as popular and congruent</p>
PRIMARY TDM TOOLS	<p>Integration of cycling and transit</p>	<p>Real-time transit customer information</p> <p>Route maps and trip planning</p>	<p>Employer transit pass</p> <p>Post-secondary universal transit pass</p> <p>Transit fare incentives</p>	<p>Branding, messaging and positioning</p>
SECONDARY TDM TOOLS	<p>Park-and-ride arrangements</p>	<p>Individualized marketing</p>		<p>Special events</p>
COMPLEMENTARY MEASURES	<p>Increased transit route coverage, service hours and frequencies</p> <p>Improved planning and design of new development</p> <p>Increased amenities in customer waiting areas</p>		<p>Smartcard-based transit fare system</p> <p>Integrated cross-boundary fares</p>	

Conclusion

Effective TDM strategies require organizational alignment, enduring partnerships, a multi-pronged approach, persistence, and a willingness to innovate and learn from experience. These keys to success are embodied in the following guiding principles for action:

- Use local research to reveal the needs, expectations, desires, interests, abilities and constraints of key market segments.
- Align goals, policies and programs, both within and between organizations, to ensure coordination and consistency.
- Consider individuals' attitudes and perceptions, not just their objective circumstances.
- Apply packages of measures, because no single measure can effectively address the full range of personal perspectives and circumstances.
- Work with partners, because no organization can shape travel behaviour by itself. Governments need private sector and non-governmental partners to enhance their resources, audiences and credibility.
- Be persistent, because many behaviours take time to change and cultural shifts will not take place overnight.
- Measure results and learn from experience so that TDM strategies grow more effective with time. Pilot projects are a good way to test new ideas and build momentum.

More Information

This primer is based on the Transportation Association of Canada publication *Effective Strategies to Influence Travel Behaviour: Practical Guide*, which readers can purchase from TAC's online bookstore at www.tac-atc.ca.

Disclaimer

Every effort has been made to ensure that this primer is accurate and up-to-date. The Transportation Association of Canada assumes no responsibility for errors or omissions. The primer does not reflect a technical or policy position of TAC.

Transportation Association of Canada
2323 St. Laurent Blvd., Ottawa, ON K1G 4J8
Tel. (513) 736-1350 ~ Fax (613) 736-1395
www.tac-atc.ca