

Overview of the Canada NDS and the Canada Truck NDS

Canadian Council of Deputy Ministers
Responsible for Transportation and Highway
Safety, University of Saskatchewan,
Virginia Tech Transportation Institute

VTTI

Driving Transportation with Technology



Two Naturalistic Driving Studies in One

- Canada NDS
 - 125 Light vehicles
 - Data collection site is Saskatoon, Saskatchewan
 - Sister study to US SHRP 2 NDS
- Canada Truck Naturalistic Driving Study
 - 30 heavy long-haul trucks
 - Two trucking companies in Saskatoon, Saskatchewan
 - Driving primarily across Western Canada (Saskatchewan, Alberta, British Columbia)

Canada Naturalistic Driving Study

- The data configuration mirrors shrp2 NDS.
- Should be able to be combined with shrp2 data or analyzed separately depending on the research question.
- Camera Views the only substantial change in data

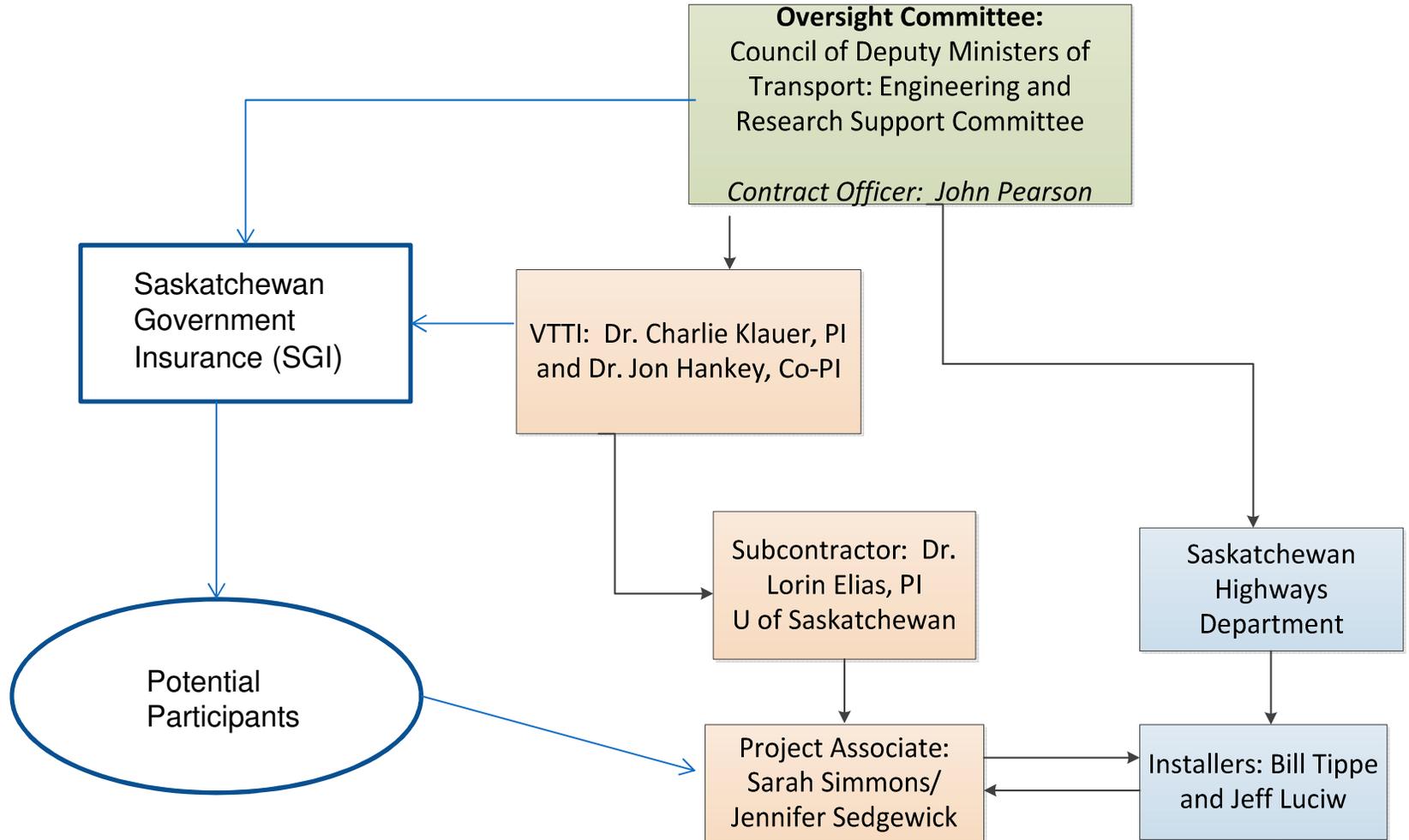
SHRP2 Camera Views



CNDS Camera Views



Project Structure



Data collection: Recruitment Procedures

- Saskatchewan Government Insurance (SGI) sent recruitment letters for study.
- We specify:
 - Postal code
 - Driver age
 - Vehicle year/make/model
- We have requested a total of 4 rounds of letters ranging from May 2013 to May 2014.
- Also recruited using University of Saskatchewan campus newsletters/fliers and fliers in senior centers.

CNDS Study Update: Data collection

- 124/125 light vehicles instrumented and on the road (99% complete)
 - Last install scheduled for first week of Sept.
- Started installs on June 18th, 2013
 - 99% complete by end of July, 2014.
- Complete recruitment/installation by Summer 2014
- Deinstallation begins first quarter 2015
- Deinstallation/data collection on-going through Fall 2015

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Snowy roadways in Saskatoon

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Snow roadways in Saskatoon, example 2

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Run-off Road Crash

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Data collection: Recruitment

Target Participant Numbers						
	Age 18-25		Age 26-65		Age 66+	
	Male	Female	Male	Female	Male	Female
Number of participants	16-19	15-19	24-31	24-31	16-19	15-19

Current Installed + Scheduled Participant Numbers						
	Age 18-25		Age 26-65		Age 66+	
	Male	Female	Male	Female	Male	Female
Number of participants	22	22	28	28	16	9

General Study Stats: Data collection

- Have ingested over 150 hard drives to-date
- 123,753 trips residing at VTTI
- Over 695,000 VMT
- QA/QC on-going

General Study Stats

- 4 crashes are known
 - 1 left turn across path – driving straight with green light and vehicle turning left t-boned
 - Vehicle totaled
 - Will replace this driver
 - Participant had a concussion
 - 1 deer strike –
 - Vehicle not totaled
 - 1 run-off road (collision with telephone pole)
 - Snowy road conditions, 4:00AM
 - Vehicle totaled
 - Will replace this driver
 - 1 straight-crossing path
 - Daylight, clear conditions
 - Other driver failed to yield
 - Vehicle totaled, will reinstrument

Truck Study Project Status

- Obtained VT IRB approval/U of S REB reviewed at board meeting in July.
 - Minor changes to obtain REB approval
- Met with 2 trucking companies April, 2014
 - Both companies have long-haul and short-haul operations.
 - Plan to recruit 30 drivers from these 2 companies Fall 2014.

Summary

- Light Vehicle Installation 99% complete
- Data very similar to SHRP2 and designed to be able to be analyzed with shpr2 or by itself
- Data collection complete last quarter 2015
- Truck installations will start this fall and collection will be complete in the spring 2016

Questions?