



Economic Value of Community Paramedic Programs

CHIEF DOUG SOCHA

HASTINGS-QUINTE PARAMEDIC SERVICES

INTERNATIONAL ROUND TABLE COMMUNITY PARAMEDICINE

LAS VEGAS OCTOBER 15, 2017

Economic Value of Community Paramedic Programs

Kathryn A. Wood, BA (Hons), BSc. (Hons)
Dr Christopher Ashton, B.Eng., MD, MBA (Finance), MACP
Denise Duffie-Ashton, BBA, MBA

on behalf of the Paramedic Services of Hastings-Quinte and County of
Renfrew

Contractor's Address:
The Corporation of the County of Hastings
235 Pinnacle Street, Belleville, ON K8N 3A9

PWGSC Contract Number: W7714-155971
CSSP-2014-CP-2017 Technical Authority: Doug Socha, MA, BSc., ICP
Contractor's Publication Date: February 2017

Contract Report
DRDC-RDDC-2017-C086
March 2017

Background

Hastings County / Renfrew County

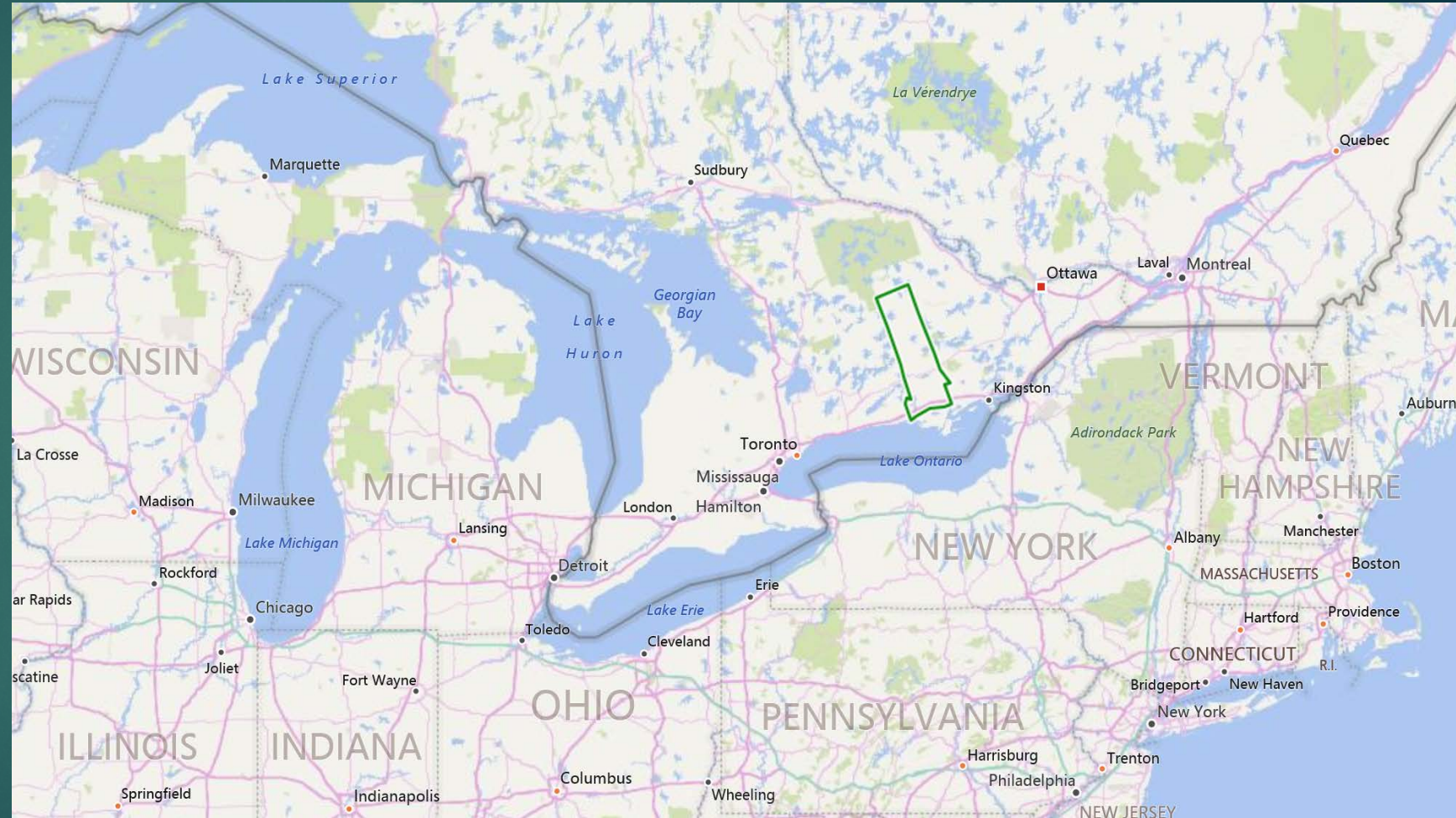
2nd Largest Upper Tier in Ontario

Combination of 14 Lower Tier Municipalities

2 separated Cities (Belleville and Quinte West)

Geographic area
5,291.05 km² (2,042.89 sq mi)

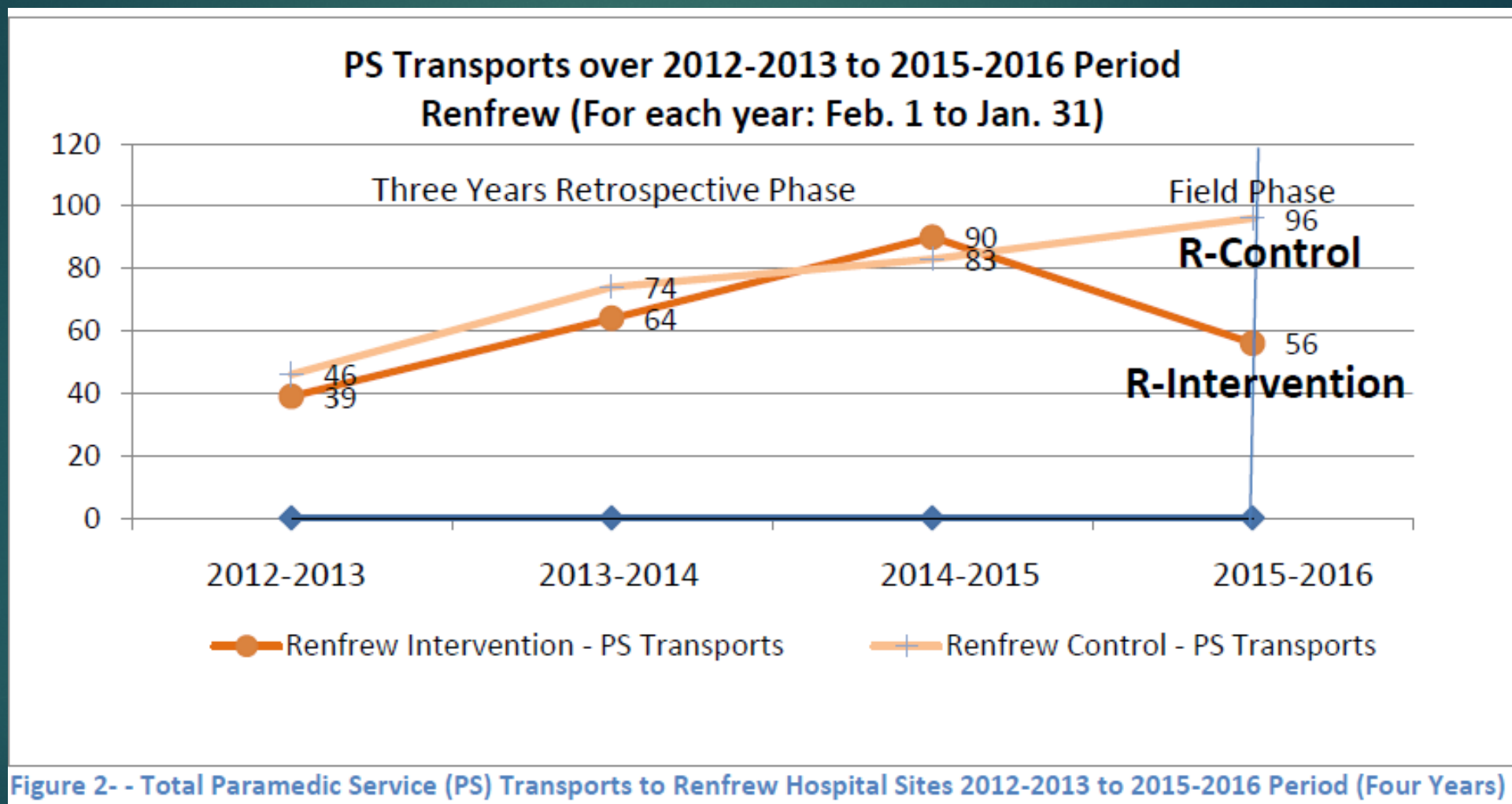
Population of 140,000.



Introduction to the Study

- ▶ 200 patients included in the study (120 Hastings, 80 Renfrew)
- ▶ Inclusion criteria was > 3 visits to the ER, COPD, CHF, Diabetes, Stroke.
- ▶ Exclusion criteria was a long term care home/facility.
- ▶ Comparison involved Urban (Hastings County), Rural (Renfrew County).
- ▶ Start with a quality of life indicator score.
- ▶ Visit them in their home for a year.
- ▶ Calculate the costs pre/post intervention, including a final quality score.

Results: Rural Area



Urban Area

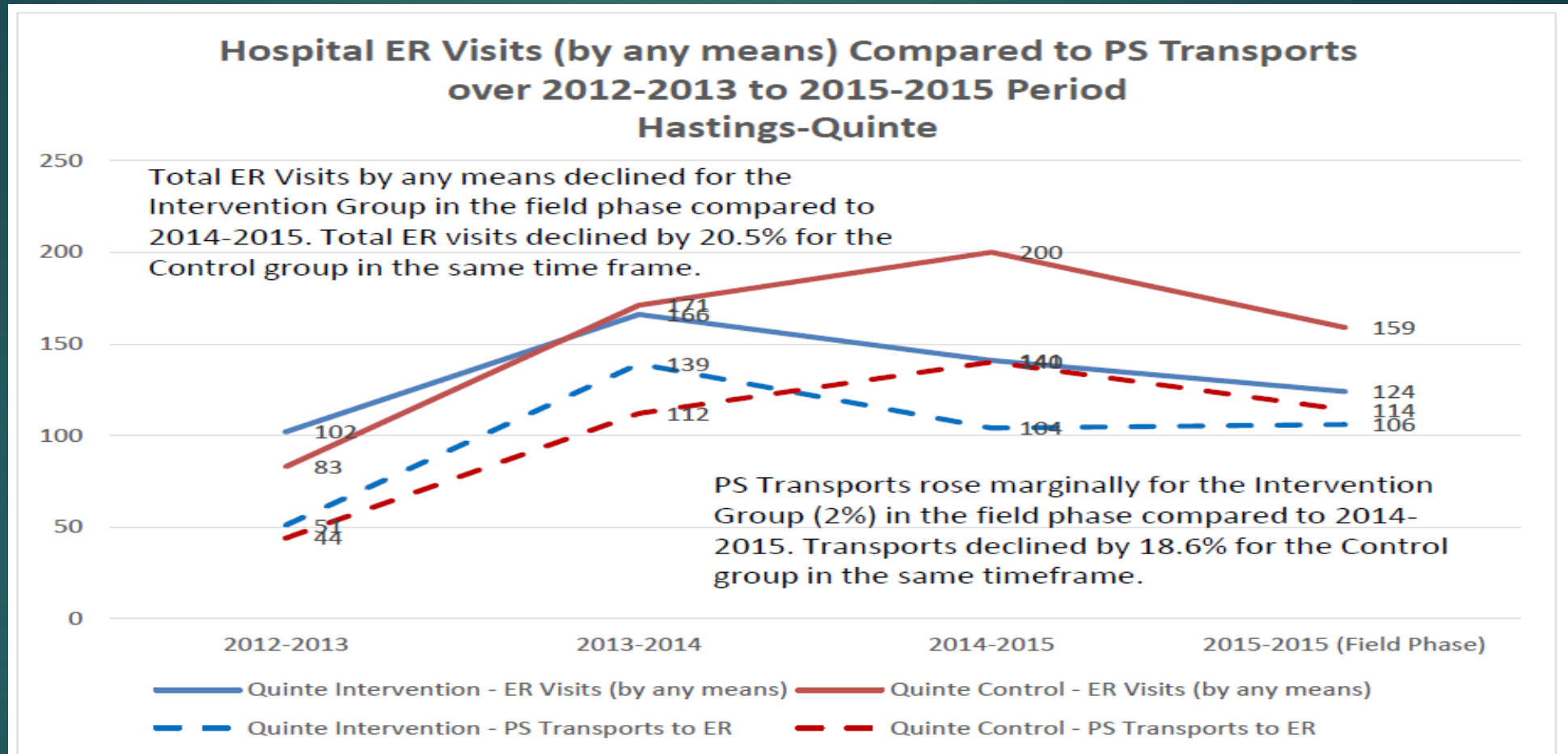


Figure 1 – Total Emergency Room visits and Paramedic Service Transports - Hastings-Quinte: 2012-2013 to 2015-2016 Period

EuroQol Results

- ▶ The EQ-5D-3L (EuroQol five dimensions, three levels) is a (client) self-reported outcome measure that captures five dimensions of health-related quality of life: mobility, self-care, usual activities, pain/discomfort and anxiety/depression.
- ▶ Rate their state of health on a “temperature” scale of 0 to 100 with 0 representing being dead and 100 representing perfect health.
- ▶ The EuroQol algorithm uses an incremental cost-effectiveness ratio (ICER), an equation commonly used in health economics (typically in cost-effectiveness analysis) to make decisions regarding health interventions.
- ▶ While a positive EQ outcome was shown and is clinically significant, it comes at high cost based on total health care costs.

Survey Results from Patients

Survey Respondents (%)	Renfrew County	Hastings-Quinte
Q5. How much, if at all, have the Community Paramedicine services provided to you helped you manage your overall health and well-being? (For caregivers: "overall health and well-being of the person you care for")		
Hasn't Helped at All	0.0	2.3
Helped a Little	16.7	4.6
Helped Somewhat	22.2	9.0
Helped a Lot	61.0	84.0
TOTAL	99.9	99.9
<i>n=</i>	18	44

Survey Results from Patients

Survey Respondents (%)	Renfrew County	Hastings-Quinte
Q15. Overall, how satisfied were you with the services and care provided by the Community Paramedic(s) that visited you personally? (For caregiver: "... that visited the person you care for"?)		
Very Satisfied	77.8	95.6
Satisfied	22.2	2.2
Dissatisfied	0.0	2.2
Very Dissatisfied	0.0	0.0
TOTAL	100.0	100.0
	<i>n</i> = 18	45

Key Stakeholders



Lessons Learned

- ▶ Patient Selection
 - ▶ 718 potential participants
 - ▶ 485 in the urban areas of Hastings County
 - ▶ 233 in the rural/small town areas of the County of Renfrew
- ▶ Relationships
 - ▶ Federal to Municipal.
 - ▶ Municipal to Municipal.
 - ▶ Internal Municipal.
 - ▶ Hospital Closures
 - ▶ Sustainability
 - ▶ Competing Priorities

Advice. What we learned if we were to do this again.

- ▶ 13 different organizations involved.
- ▶ Define a common understanding “Community Paramedicine”.
- ▶ Determine early how you are going to select patients.
- ▶ Determine early relationships and reporting structure.
- ▶ How the results are going to be presented.
- ▶ Methods, methods, methods. Stick to them.
- ▶ Celebrate the successes.

Thank you

Chief Doug Socha
111 Millennium Parkway
Belleville Ontario
K8N 1Z4
sochad@hastingscounty.com
Twitter @sochad

