We’re taking a virtual role call today for those on the WebEx. If you’re viewing this in a group, please use the “Chat” window on the right to enter your: Name, Agency Name, and # of people joining from your location. Please send chat messages to “All Panelists”

This session will be recorded, and a link sent out to attendees.

In association with
Facilitators:

Kyle Sereda
Chief
Moose Jaw & District EMS
ksereda@moosejawems.ca

Todd Stout
President, FirstWatch
tstout@firstwatch.net
Cell: 858–395–1728
Please mute your phone

• All attendees are automatically muted by WebEx, but we recommend muting your phone on your end, as sometimes we unmute everyone on the WebEx side to anyone who wants to speak, and if you have background noise it will limit everyone’s ability to share.

Thank You!
Asking Questions

Click the hand icon to virtually “raise” your hand and ask a question.

You can also use the chat box to send your questions to any of the groups provided in the dropdown list.

Questions/Comments?
Speakers:

Dr. Ian Blanchard
Scientist for the Alberta Health Services (AHS) EMS
ian.blanchard@albertahealthservices.ca

Nicola Cavanagh
Senior Project Manager, Alberta Health Services EMS
nicola.cavanagh@ahs.ca
Speakers:

Dr. Walter Tavares
Scientist for the University of Toronto
walter.tavares@utoronto.ca

Dale Weiss
Executive Director of EMS Alberta Health Services
Dale.Weiss@albertahealthservices.ca
Principles Guiding the Future of Paramedicine in Canada
Principal Investigator: Walter Tavares, PhD  
Co-Investigator: Ian Blanchard, PhD  
Co-Investigator: Nicola Cavanagh, MSc  
Project Lead / Paramedic Chief of Canada Liaison: Dale Weiss

Research Ethics Board: University of Toronto

Steering Committee Members and Collaborators:  
Angela Graham, Charles Dallaire, Jeremy Measham, Neil McDonald, Renee Boulay

This project is commissioned and funded by: The Paramedic Chiefs of Canada  
Supported by:
Background

Shifts.....

• Healthcare challenges / trends
• Broadening use by the public
• Broadening concept of “paramedicine”
• Different views on current and future states / directions
Main Claims

Shifts…..

• Paramedicine under significant and variable transitions
• Existing or historical ways of thinking about or guiding paramedicine in Canada are inadequate
• Changes in how professions are organizing and evolving
AIMS

Explore emerging and future states of paramedicine in Canada

Guiding Principles: What might be necessary to achieve them
Approach

1. Explore current and emerging states
2. How should paramedicine be conceptualized....what might be necessary to achieve it?
3. Reflective of current practice but also visionary
4. Present a position, but promote discussion and debate
Audience

1. Paramedic community

2. To stimulate activity (e.g., policy shifts, external strategies, scholarly and operational pursuits, funding structure, accreditation, oversight, partnerships etc.)
Narrative Review of Literature – What’s been said

Level of Inferences / Interpretation

Interview Based Study – What to say
One on One In-depth Semi-structured Interviews
Providing an evidence base on which to generate a **White Paper**
"What topics researchers address, the language being used, as well as the questions being asked provides important insights into the perception of and confidence in paramedicine, and what kind of potential exists for evolution of the profession."
Literature (peer reviewed / grey literature)

**Narrative Review of Literature – What’s been said**

1. Systematic search since 2006
   1. Peer (academic), grey (trade)
   2. Using top journals
      1. Highest impact; paramedic specific
      2. Broad keyword search
   3. Cluster sampling
   4. Qualitative content analysis to describe data (storyline and timeline)

2. Narrative synthesis to refine contribution
Sequential Mixed Methods

Literature (peer reviewed / grey literature)

**Narrative Review of Literature – Results**

- Total citations returned in broad search: 99,124
- After duplicates removed: 54,638
- Relevant citations in all journals: 50,446
- Relevant citations in top 8 journals:
  - 7084
  - Academic Journals: 2158
  - Trade Journals: 4926
- Sample from top 8 journals: 265
- Included in review: 241
- Removed, unable to access: 24
The top 10 topics:

1. Operations
2. Resuscitation
3. Airway Management
4. Medication Administration
5. Trauma Care
6. Clinical Skills
7. Education / Simulation
8. Practitioner Health and Wellness
9. Transport Destination
10. Myocardial Infarction

Narrative Review of Literature – Results

2,209 Articles

Operations

Research

Clinical Skills

Medication Administration

Technologies

Community Care

Pediatrics

ETCO₂

Social Determinants

Older Adults

Sepsis

Seizure

Head/Brain Injury

Pain
*2019 was not a complete year, but comprised up to and including April

### Narrative Review of Literature – Results

#### Table 1: Frequency and proportion of categories by year for the full database (n=2,158).

<table>
<thead>
<tr>
<th></th>
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<tr>
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<td>14</td>
<td>11</td>
<td>13</td>
<td>24</td>
<td>33</td>
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<td>14</td>
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<td>7</td>
<td>4</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>14</td>
<td>14</td>
<td>21</td>
<td>23</td>
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<td>Trauma Care</td>
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<td>3</td>
<td>7</td>
<td>12</td>
<td>10</td>
<td>14</td>
<td>7</td>
<td>16</td>
<td>15</td>
<td>12</td>
<td>19</td>
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<tr>
<td>Clinical Skills</td>
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<td>6</td>
<td>12</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td>18</td>
<td>15</td>
<td>17</td>
<td>15</td>
<td>16</td>
<td>8</td>
<td>2</td>
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<tr>
<td>Education/Simulation</td>
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<td>13</td>
<td>5</td>
<td>14</td>
<td>9</td>
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<td>9</td>
<td>9</td>
<td>7</td>
<td>2</td>
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<tr>
<td>Practitioner Health/Wellness</td>
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<td>4</td>
<td>5</td>
<td>13</td>
<td>6</td>
<td>7</td>
<td>18</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>3</td>
<td>111</td>
<td>5.14%</td>
</tr>
<tr>
<td>Transport/ Destination</td>
<td>14</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>4</td>
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<td>8</td>
<td>12</td>
<td>17</td>
<td>15</td>
<td>1</td>
<td>96</td>
<td>4.45%</td>
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<tr>
<td>MI</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>6</td>
<td>9</td>
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<td>12</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>95</td>
<td>4.40%</td>
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### Narrative Review of Literature – Results

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Observational</td>
<td>96 (40%)</td>
</tr>
<tr>
<td>Editorial/Commentary</td>
<td>68 (28%)</td>
</tr>
<tr>
<td>Knowledge Synthesis</td>
<td>27 (11%)</td>
</tr>
<tr>
<td>Survey Study</td>
<td>15 (6%)</td>
</tr>
<tr>
<td>Intervention</td>
<td>13 (5%)</td>
</tr>
<tr>
<td>Qualitative Research</td>
<td>12 (5%)</td>
</tr>
<tr>
<td>Randomized Controlled Trial</td>
<td>7 (3%)</td>
</tr>
<tr>
<td>Conference Proceedings</td>
<td>2 (&lt;1%)</td>
</tr>
<tr>
<td>Mixed Methods</td>
<td>1 (&lt;1%)</td>
</tr>
</tbody>
</table>
Sequential Mixed Methods

Literature (peer reviewed / trade literature)

Narrative Review of Literature – Results

Interim Discussion and Conclusions:

- Broad list of topics, limited depth and a clustering
- Observational and commentaries as most frequent method / writing
- Heterogeneity of confidence in paramedicine
- The importance of research in evolving paramedicine, and the important role all paramedics have in research
Narrative Review of Literature – What’s been said

Interim Level of Inferences / Interpretation

Sequential Mixed Methods

Literature (peer reviewed / grey literature)
Narrative Review of Literature – What’s been said

Interview Based Study – What to say

One on One In-depth Semi-structured Interviews

Literature (peer reviewed / grey literature)

Sequential Mixed Methods

Level of Inferences / Interpretation
Interview Based Study
One on One In-depth Semi-structured Interviews

Sampling
1. identify those recognized by the community to be most suited to speak on its behalf
2. ensure broad representation in geography and profession breadth
3. target provincial regulators whose portfolios include but are not limited to paramedicine in Canada
Interview Based Study

One on One In-depth Semi-structured Interviews

Interview Guide

1. Problems paramedicine may be a solution for
2. Redesigned model
3. Barriers to overcome
4. Guiding principles
5. What we should let go of
Table 1: A list of categorizations of potential stakeholders we will attempt to include in our sampling strategy.

| Agency Type (e.g., ground, air, military, paramedic service – private, public, provincial, municipal, educational institutions, regulators, base hospitals, professional associations, research network) |
| Operational Roles (e.g., paramedic, paramedic-non-clinical, administrator, paramedic field supervisor, educator) |
| Practice Setting: (e.g., land, air, rural, specialty (e.g., CBRN), military, community paramedic, international paramedic, emergency department) |
| Practitioner Group: (e.g., PCP, ACP, CCP, EMD, Physician, Nurse, Other) |
| Stakeholder Group (e.g., directors, chiefs, administrators, regulator, CQI/Standards, paramedic researcher, patient advocate, medical director, unions, professional associations) |
| Geography (.e., national representation, urban / rural communities) |

**Interview Based Study**

Sampling...thought leaders and representativeness
Interview Data Analysis

Inductive Thematic Analysis | Borrows Methods From Constructivist Grounded Theory

Interview Based Study

One on One In-depth Semi-structured Interviews
Narrative Review of Literature – What’s been said

Interview Based Study – What to say

One on One In-depth Semi-structured Interviews

PRINCIPLES AND ENABLING FACTORS

Over recommendations
Interview Results

One on One In-depth Semi-structured Interviews

- 168 nominations
Interview Results

One on One In-depth Semi-structured Interviews

- National = 1
- International = 1
- Directors/chiefs = 8
- Management = 10
- Medical Director = 4
- CQI/Standards = 2
- Regulator = 2
- Educator = 3
- Researcher = 6
- Frontline = 2
- Professional Assoc. = 1
- Etc.
Table 1: A list of categorizations of potential stakeholders we will attempt to include in our sampling strategy.

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Type</td>
<td>(e.g., ground, air, military, paramedic service – private, public, provincial, municipal,</td>
</tr>
<tr>
<td></td>
<td>educational institutions, regulators, base hospitals, professional associations, research</td>
</tr>
<tr>
<td></td>
<td>network)</td>
</tr>
<tr>
<td>Operational Roles</td>
<td>(e.g., paramedic, paramedic-non-clinical, administrator, paramedic field supervisor, educator</td>
</tr>
<tr>
<td>Practice Setting</td>
<td>(e.g., land, air, rural, specialty (e.g., CBRN), military, community paramedic, international</td>
</tr>
<tr>
<td></td>
<td>paramedic, emergency department)</td>
</tr>
<tr>
<td>Practitioner Group</td>
<td>(e.g., PCP, ACP, CCP, EMD, Physician, Nurse, Other)</td>
</tr>
<tr>
<td>Stakeholder Group</td>
<td>(e.g., directors, chiefs, administrators, regulator, CQI/Standards, paramedic researcher,</td>
</tr>
<tr>
<td></td>
<td>patient advocate, medical director, unions, professional associations)</td>
</tr>
<tr>
<td>Geography</td>
<td>(e.g., national representation, urban/rural communities)</td>
</tr>
</tbody>
</table>

**Interview Based Study**

Sampling...thought leaders and representativeness
Table 1: A list of categorizations of potential stakeholders we will attempt to include in our sampling strategy.

<table>
<thead>
<tr>
<th>Agency Type (e.g., ground, air, military, paramedic service – private, public, provincial, municipal, educational institutions, regulators, base hospitals, professional associations, research network)</th>
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<tbody>
<tr>
<td>Operational Roles (e.g., paramedic, paramedic-non-clinical, administrator, paramedic field supervisor, educator)</td>
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</tr>
<tr>
<td>Geography (.e., national representation, urban/rural communities)</td>
</tr>
</tbody>
</table>

**Interview Based Study**

Sampling...thought leaders and representativeness
White Paper…what does it need to do?

1. Be bold…not safe
2. Inform government (not just branches)
3. Provide a common framework and road map
4. Be a stimulus for legislative changes
5. Shift and shape identify; be a change agent (e.g., conveyance, KPI)
6. Catalytic / educational effect
7. Accountabilities built in

Interview Results
One on One In-depth Semi-structured Interviews
Ten Principles for Paramedicine in Canada

1. Patients and Their Communities First
2. Healthcare Along a Health and Social Continuum
3. Integrated Healthcare Framework: Partnering Across Sectors
4. Social Responsiveness
5. Professional Autonomy
6. Healthy Professionals
7. Quality Based Framework
8. Intelligent Access to and Distribution of Services
9. Continuous Learning Environment
10. Evidence Informed Practice and Systems
Interview Results
One on One In-depth Semi-structured Interviews

Enablers

- Advanced education
- Advocacy and Lobbying Groups
- Shaping accreditation / certification
- Research capacity
- Culture change
- Leadership
- National identity
- Transparent and shared data
- Legislative and organizational shifts
1. Looking forward….literature review suggests an evidence/knowledge base is lacking
2. Novel structure when compared to other “reports” guiding frameworks
3. Intended to be enacted variably
4. Enablers require attention
5. Provides a coordinated direction, agenda and policy framework
6. Supported by a national experts……
Dr. Ron Bowles (BC)  
Dr. Peter O'Meara (AUS)  
Dr. Mike Austin (ON)  
Dr. Becky Donelon (AB)  
Dr. Kerry Keluski (ON)  
Amir Allana (ON)  
Dr. Joe Acker (BC)  
Dr. Nick Zonneveld (NE)  
Don Ford (ON)  
Dr. Paul Wankah Niji, PhD (c) (QU)  
Dr. Carolyn Steele-Gray (ON)  
Jennifer Rose (NS)  
Dr. Gina Agarwal (ON)  
Dr. Matt Leyenaar (PEI)  
Krista Cockrell (AUS)  
Brent McLeod (ON)  
Mark Walker (NS)  
Dr. Sandy MacQuire (AUS)  
Tania Johnston (BC)  
Scott McLeod (ON)  
Madison Brydges, PhD (c) (ON)  
Dr. Judah Goldsetin (NS)  
Dr. Paula Rowland (ON)  
Steen Pederson (AB)  
Elan Graves, (OT)  
Jessica Jaiven (BC)  
Jim Garland (AB)  
Eddy Afram (QU)  
Graham Vanderwater (AB)  
Lucas Hawkes Frost (BC)  
Joe Pedulla (ON)  
Laura Hirello (NS)  
Dr. Renee McPhee (ON)  
Dr. Nicholas Carleton (SK)  
Marsha McCall (BC)  
Dr. Polly Ford (ON)  
Dr. Andrew Costa (ON)  
Ryan Strum, PhD (c) (ON)  
Dr. Luc de Montigny (QU)  
Rick Ferron (ON)  
Terry Abrams (AB)  
Jacquie Messer-Lepage (SK)  
Michel Ruest (ON)  
Dr. Mark MacKenzie (AB)  
Rob Theriault (ON)  
Alan Batt PhD (c) (ON)  
Dr. Elizabeth Donnelly (ON)  
Shane Know (IR)  
Tim Makrides (BC)  
Terry Abrams, (AB)
Principles for Paramedicine in Canada
Ten Principles for Paramedicine in Canada

1. Patients and Their Communities First
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4. Social Responsiveness
5. Professional Autonomy
6. Healthy Professionals
7. Quality Based Framework
8. Intelligent Access to and Distribution of Services
9. Continuous Learning Environment
10. Evidence Informed Practice and Systems
Q&A and Thank You

Kyle Sereda – ksereda@moosejawems.ca
Todd Stout – tstout@firstwatch.net

In association with
Health Intelligence Resource
www.firstwatch.net/hi