



Ontario Community Paramedicine Secretariat



Darren Sandbeck ACP, MA, CHE
Chief Paramedic
Alberta Health Services
Feb 27, 2020



**Alberta Health
Services**



Today's Conversations



EMS is Healthcare – The Journey into Health

The Journey into Mobile Integrated Healthcare

We Are EMS



Facts about AHS EMS



Transition to Health Care Governance:

May 29, 2008: Announcement of transition of EMS from municipal to health governance.

April 1, 2009: Governance and Funding of EMS transitioned to Alberta Health Services

10 Years Later:

- AHS: Canada's first & largest province-wide, fully integrated health system.
- Delivering health services to + 4 million people: Alberta, Saskatchewan, B.C. & Northwest Territories.
- AHS is the 2nd largest employer in Canada after the Canadian Armed Forces.

EMS Services Provided:

- 229 Stations:
 - 133 Direct Delivery
 - 96 Contract Delivery
- 34 Contracted ground providers.
- Over 200 registered Medical First Responder agencies.



10 Years Into Health



2009 – 2010

- Transition to Alberta Health Services.
- New provincial uniform and crest.
- H1N1 Pandemic Influenza.
- Alberta Paramedic Guard of Honour formed.
- Provincial MDT first went live in CCC for IFT.
- Central Comms. Center opens new building.
- V 1.0 Medical Control Protocols.
- First AHS EMS decade ambulance.
- Air ambulance responsibility assigned from Alberta Health to AHS.



10 Years Into Health



2011-2012

- Slave Lake Wildfires – Royal visit from Prince William and Duchess Catherine.
- Formal presentation ceremony for the badge and flag for the Heraldic emblems.
- Transition of ePCR Siren 3.
- Introduction of Provincial Telestaff.
- First paramedic adjunct University appointment in Alberta to conduct research.
- CHAPS launched provincially.
- Edmonton simulation truck arrives.
- **Community Paramedic program starts Calgary (2012) / Edmonton (2014).**
- Presumptive PTSD Legislation for Paramedics.



10 Years Into Health



2013-2014

- Southern Alberta Floods.
- V 2.0 Medical Control Protocols.
- North Zone simulation truck arrives.
- Canadian EMS Research Network formed.
- Southgate Station opened in Calgary.
- Ferno Proflexx 35X Stretcher.
- Start of the fentanyl crisis.
- Began building the Provincial CISM program.
- Formalization of the EMS quality and safety management approach.
- AHS President's Excellence Award for Outstanding Achievements in Workplace Health & Safety for Fleet Design.



10 Years Into Health



2015-2016



- Specialized Treatment Protocols initiated.
- Annual Provincial Education Symposiums initiated.
- EMS Health, Wellness & Culture bureau created
- EMS Dashboard was released publicly.
- Northern Comms Centre opens their new building.
- Fort McMurray Wildfires.
- AHS joins CanROC Research Consortium.
- Paramedic Regulation is included in the Health Professions Act.
- Launch of Palliative End of Life Care Assess Treat and Refer program.
- Road to Mental Readiness training began.
- V 3.0 Medical Control Protocols.
- V 1.0 Critical Care Paramedics training to support higher level of care in the air ambulance program.
- HALO Reporting / self-care clinical audit.

10 Years Into Health



2017-2019

- Southern Comms Centre opens their new building.
- AHS President's Excellence Award for Psychological Health and Safety Committee.
- Paramedic Chiefs of Canada Award for Excellence for contribution to Innovative Technology.
- Launch of Stroke Ambulance in Edmonton.
- V.4 provincial ePCR Siren 4 goes live.
- Kenow Mountain Wildfires (Waterton).
- Awarded Dispatch Services Accreditation.
- Stryker Power Cot and Power Load System provincial rollout.
- Inaugural EMS and Paramedic Research Day.
- Non-Violent Crisis Intervention training (NCI).
- Movement to Air Operations Centre at EIA.
- **Expansion of MIH provincially.**
- Stone Gate and Northwest headquarters open.
- Air Ambulance Simulator.
- High Level and area wildfires.
- Launch of PAWS.
- EMS Office of Respectful Workplace created



The Journey into MIH



Mobile Integrated Health Care (MIH)

Mission: Improve access and provide innovative approaches to mobile medicine for health care that traditionally requires EMS, emergency departments or hospital admissions.



The Journey into MIH



Purpose To serve as a single point of contact for care providers needing to refer vulnerable patients for short-term intervention based medical support in the community.

Goal Improve healthcare system capacity by reducing reliance on EMS, the emergency department and hospitals for urgent low-acuity illnesses.

Model Provide medical assessments, diagnostics and treatments using mobile Community Paramedic resources, in coordination with existing healthcare services through the MIH Assess Treat and Refer program.

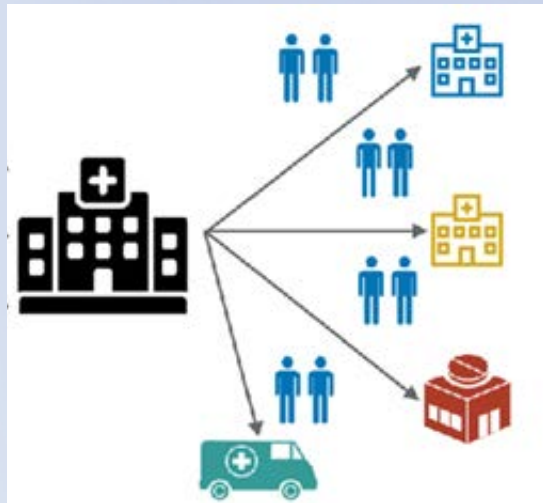
The Journey into MIH



EMS and Paramedic Opportunity

Anywhere, Anytime, Access

to non-emergent hospital level medical care



- ✓ Moving patient care outside of the hospital
- ✓ Using the success and proven ability of EMS to provide mobile medical treatment
- ✓ Re-frame the Paramedic scope of practice
Community Paramedics are provided with additional training and clinical rotations

The Journey into MIH



The First Steps – 2012 - 2014

Reach out directly from Minister of Health

- \$2M investment in Calgary Zone Community Paramedics
- 90 Day development timeframe
- Original team – Manager, 10 Community Paramedics (CPs), Clinical Educator, QA Strategist, On-Line Medical Control Physician group.

Three initial program objectives:

- I. Improve access to care in place for seniors in continuing care
- II. Demonstrate application of clinical skills by CPs
- III. Reduce ED transports and hospital admission

The Journey into MIH



The First Steps – 2012 - 2014

Expansion into Edmonton Zone in 2014

- Restructured EMS funding to support a Community Care Program
- Design included a Nurse Practitioner and Paramedic model
- Original team – Manager, 5 Paramedics, 5 Nurse Practitioners, Clinical Educator
- Focused on supporting seniors in continuing care to reduce ED transports and hospital admissions

The Journey into MIH



Provincial Turning Point - 2017

As part of a larger Enhancing Care in the Community initiative - Government of Alberta committed \$11.4M in budget 17/18 to expand Community Paramedics provincially:

- Shift to **Mobile Integrated Healthcare** nomenclature
- Expand to all 5 Zones
- Develop EMS Assess, Treat and Refer Centers

The Journey into MIH



2012

- Calgary Zone 8 units

2014

- Edmonton Zone 7 units

2018

- Central Zone (Red Deer & Camrose) 5 units
- North Zone (Grande Prairie Peace River) - 4 units
- South Zone (Medicine Hat and Lethbridge) 6 units
- Calgary and Edmonton – ATR Coordination Centres
 - Includes smaller communities within a 50km geographical distance
 - 150 Community Paramedics across Alberta



The Journey into MIH



Mobile Integrated Healthcare Teams

- 1) **Community Response Team (CRT)** - staffed by a single Community Paramedic in SUV. Primary resource in MIH, focused on urgent low-acuity conditions.
- 2) **The City Centre Team (CCT)** - staffed by 2 Community Paramedics in van. Focus on Mental Health & Addiction with homeless or vulnerable populations.
- 3) **Crisis Response and EMS (CREMS)** – staffed by a Community Paramedic & Mental Health Therapist. Focused on mental health and adult populations.

✓ *Supported with direct physician consultation*



***“Urgent Health Centre on Wheels”
90 Minute Benchmark Response***

The Journey into MIH



Assess Treat and Refer (ATR) Program

- ✓ First point of contact for care providers
- ✓ Provide EMS and Community Health staff with real-time solutions for non-emergent patients
- ✓ Opportunity to connect patients with community health services when they choose not to be transported
- ✓ Coordination centres – Edmonton (North Sector) and Calgary (South Sector)
- ✓ Provincial Coverage
- ✓ Staffed by Community Paramedics called Patient Coordinators
- ✓ Interface with existing dispatch services



The Journey into MIH



Medical Direction

1. Most Responsible Healthcare Provider – Family Physician, Specialist, On-Call Facility Physician
2. MIH On-Line Medical Control (OLMC) Physician



First
Pathway



Second
Pathway



The Journey into MIH



Community Paramedic Education

- Once hired, Advanced Care Paramedics are placed into orientation and training to address the AHS/EMS Community Paramedic Competency Profile
- 5 weeks of didactic classroom training specific to the CP role
- 4 weeks of clinical rotations that includes an ED, Community Paramedic and Hospital practicum
- New Community Paramedic program established at the Mount Royal University
- Work is currently underway to establish a Community Paramedic Educational Framework to provide standardized proficiency across the province.

The framework will include entrustable professional activities (EPAs) and milestones. The EPAs and milestones will be used as a clear learning path for Community Paramedics and to provide clear teaching and assessment goals for educators.

The Journey into MIH



Clinical Services / Interventions

- CVC & IV rehydration
- IV, SQ, IM, PO, PORT & PICC medication administration including IV antibiotics
- Specimen collection (blood, urine, wound, NP)
- Blood transfusions
- Medication dispensing
- Opioid Dependency Treatment – Suboxone
- Extensive medication formulary available (60 + stocked)
- Urinary catheterization
- Wound closure & care (tissue adhesive, sutures, dressings, staples)
- Prescription facilitation
- Facilitated DI transports



The Journey into MIH



Accessing MIH Services

Access Point 1 – Community healthcare staff directly request Community Paramedic services via phone

Access Point 2 – Physician or clinics request services via referral form

Access Point 3 – EMS crew referral via phone

300
Partners
Across
the
Province



1

2

3



Assess Treat and Refer
Coordination Centre



The Journey into MIH



Common Patient Care Presentations

Top 3 Clinical Presentations:

1. Respiratory (dyspnea, cough, pneumonia, COPD exacerbation)
2. Cardiovascular (hypertension, CHF exacerbation)
3. GU / GI (nausea / vomiting, UTI, dehydration)

Other Common Clinical Presentations:

4. Behavioural (delirium, confusion)
5. Neurological (headache, vertigo, weakness, chronic pain)
6. Musculoskeletal (pain, swelling)
7. Skin / wound care (lacerations, rash, infections)

The Journey into MIH



Health Outcomes or 7 Day Admission Rate

Each patient was assessed to determine if there was an EMS event within 7 days of being seen by a community paramedic



Zone	7 Day Admission Rate
North	6%
Edmonton	5%
Central	11%
Calgary	7%
South	9%
Provincial	7.6%

The Journey into MIH



Patient Events - 2019

Location	Patient Events
North Zone	1480
Edmonton	4581
Central Zone	2358
Calgary Zone	9889
South Zone	3447
Total	21755



The Journey into MIH



Emergency Department and Hospital Avoidance

Avoidance rates are based on the following measures:

- Administration of specific medications and blood analysis
- Urinary catheterization
- EMS to CRT referrals
- CTAS score 1, 2 and 3
- Acute wound treatment

Rates vary between 60-75% per zone based on program growth and staff experience

Location	Patient Events
North Zone	888
Edmonton	3435
Central Zone	1179
Calgary Zone	7416
South Zone	2068
Total	14986

The Journey into MIH



Program Outcomes

Health Outcomes - Patients remained in the community 92.4% of the time following treatment.

Patient Experience - 92% of respondents satisfied or very satisfied with results of the Community Paramedic visit.

ED Avoidance - 75% of MIH events estimated to have 1:1 ED avoidance based on treatments provided and accompanying CTAS score in community.

The Journey into MIH



Program Outcomes

Cost Avoidance -

The cost of a Community Paramedic visit is estimated to be **\$1,041 less** than a EMS/ED admission

- 74% less expensive than transport & treatment to ED for equivalent care

The Journey into MIH



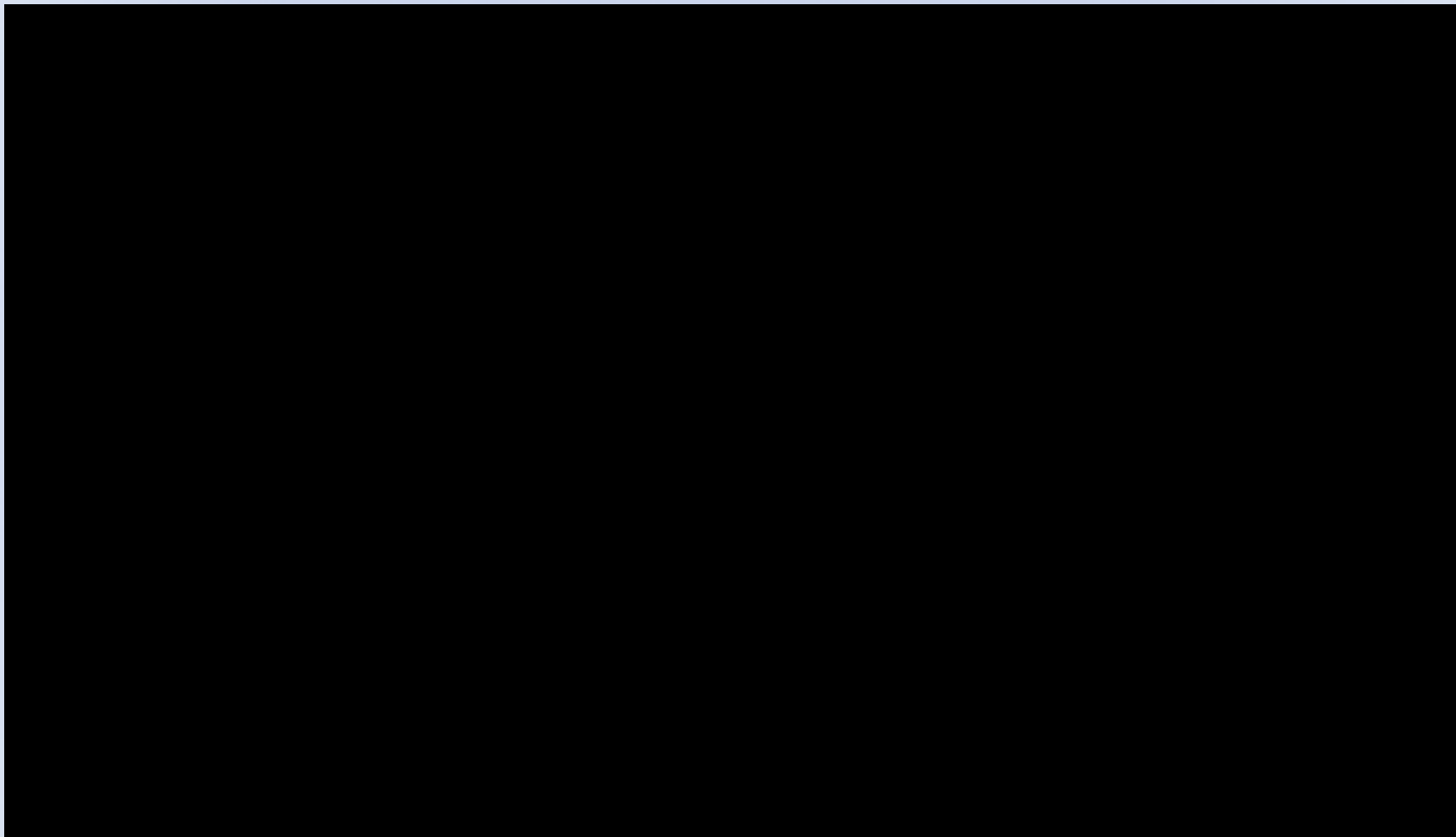
Challenges/Current Work

- Provincial Expansion of Mental Health/Addictions support
- Community Paramedic Education Framework
- Expansion of Primary Care Support
- Program Evaluation post provincial expansion
- Provincial Point of Care Testing implementation
- Expand EMS Referral Pathways

Future State

- Remote Patient Monitoring
- 911 Integration (direct dispatch of MIH resources)
- Rural/Remote expansion

It's All About the Patient!



Questions and Feedback?



Please ask me later about our work on:

- 1) EMS Office of Respectful Workplace
- 2) EMS Health Wellness & Culture
- 3) Violence Toward Paramedics Advisory Council



darren.sandbeck@ahs.ca



@dsandbeck



darrensandbeck



Darren Sandbeck



Darren Sandbeck (Chief Paramedic)