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## Family Medicine

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## Integrated Knowledge Translation with a Health System Partner

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# Outline

1. Context: Fellowship Program & KT
2. First project as a fellow
3. Application of Integrated KT
4. Final thoughts

# Health System Impact Fellowship

- CIHR Institute of Health Services & Policy Research
- PhD students and postdoctoral fellows
- Embedded scientist in a health system organization (1 or 2 years)
- Training program
- Funded, plus research allowance

# Health System Impact Fellowship

- Embedded with Niagara Emergency Medical Services, Sep 2021 to Aug 2023
- Health System Co-Supervisor: Chief Richard Ferron
- Academic Co-Supervisor: Dr Gina Agarwal

# Health System Impact Fellowship

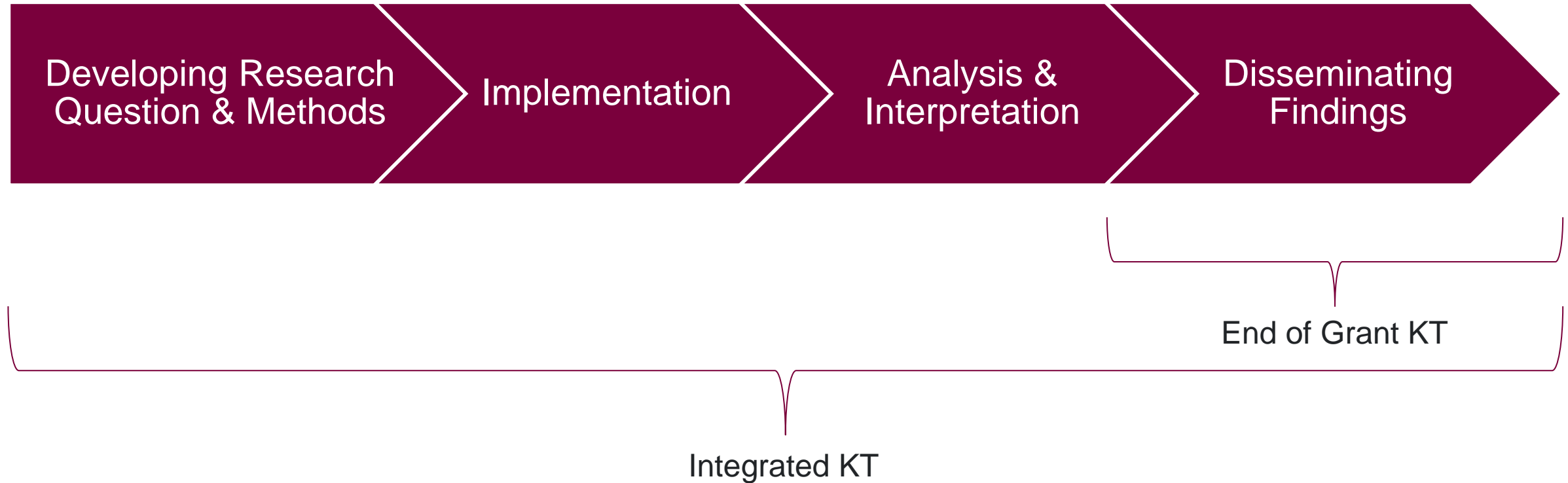
- **Goals:**

- Support emerging leaders to develop their embedded research experience, **professional competencies**, and potential for impact
- Grow a strong cadre of embedded researchers positioned to play a key role in **evidence-informed health system improvement** that advances the Quadruple Aim and health equity
- Develop embedded **research capacity within health system organizations** and catalyze collaborations between academic and health system organizations to contribute to advancing learning health systems across Canada  
**Integrated Knowledge Translation!**
- Support diverse and impact-oriented **career pathways** for health system embedded researchers

# Integrated Knowledge Translation

- CIHR Guide to KT Planning:  
<https://cihr-irsc.gc.ca/e/45321.html>
- DFM TRAction Toolkit, Knowledge Translation Section:  
<https://traction.fammedmcmaster.ca/traction/knowledge-translation/>

# Integrated KT vs End of Grant KT



# VIP Research Lab

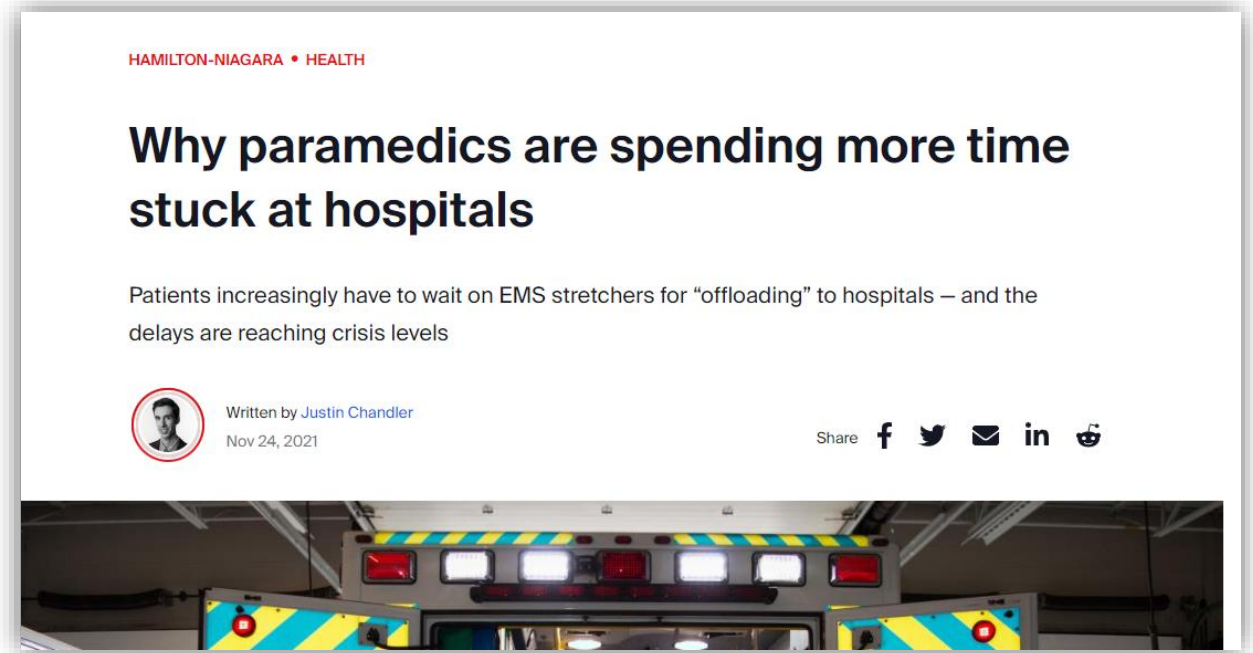
- Dr Agarwal
- Heavily uses Integrated KT
  - Executive committee
  - Advisory committee
  - Team members with lived experience
- Very fortunate!





# Niagara EMS – orientation

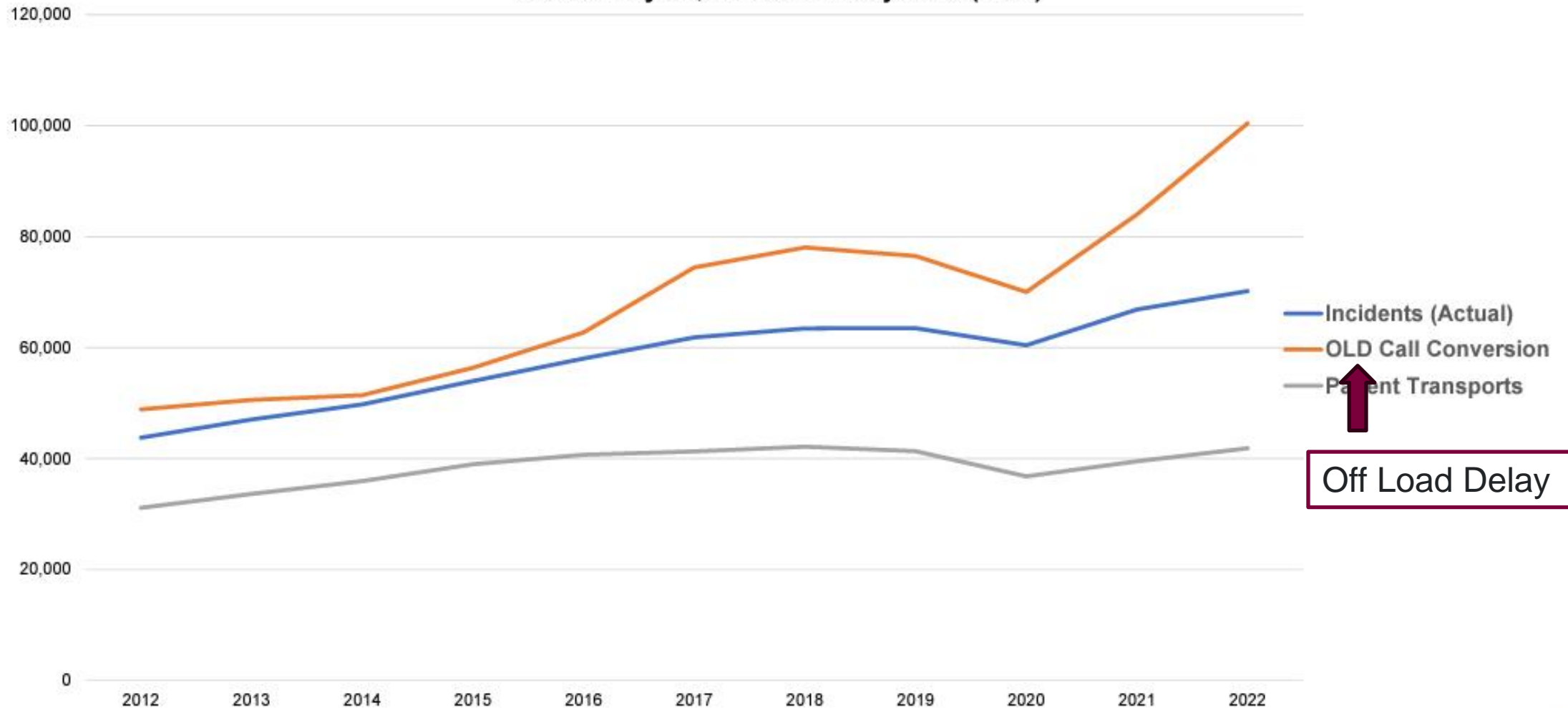
- Needed to present to council
- Major offload delays
- Metrics
  - Time?
  - Costs?



911 calls for EMS

## Incidents per Year, Actual and Adjusted (OLD)

Incidents/year, Actual and Adjusted (OLD)



Off Load Delay

# Staff Impact

- Forced end-of-shift overtime
  - 2847 incidences representing 1133 hours in 2021
  - 3205 incidences representing 1202 hours in 2022
- Missed meal breaks
  - 3.6% representing 1102 missed meal breaks in 2021
  - 5.8% representing 1679 missed meal breaks in 2022

# **The 'Toll-free Phone Number' Project**



# Background

Niagara EMS received funding from provincial ministry for 'Community Paramedicine for Long-Term Care' (CPLTC)



Available & Accessible 24/7 for rostered clients

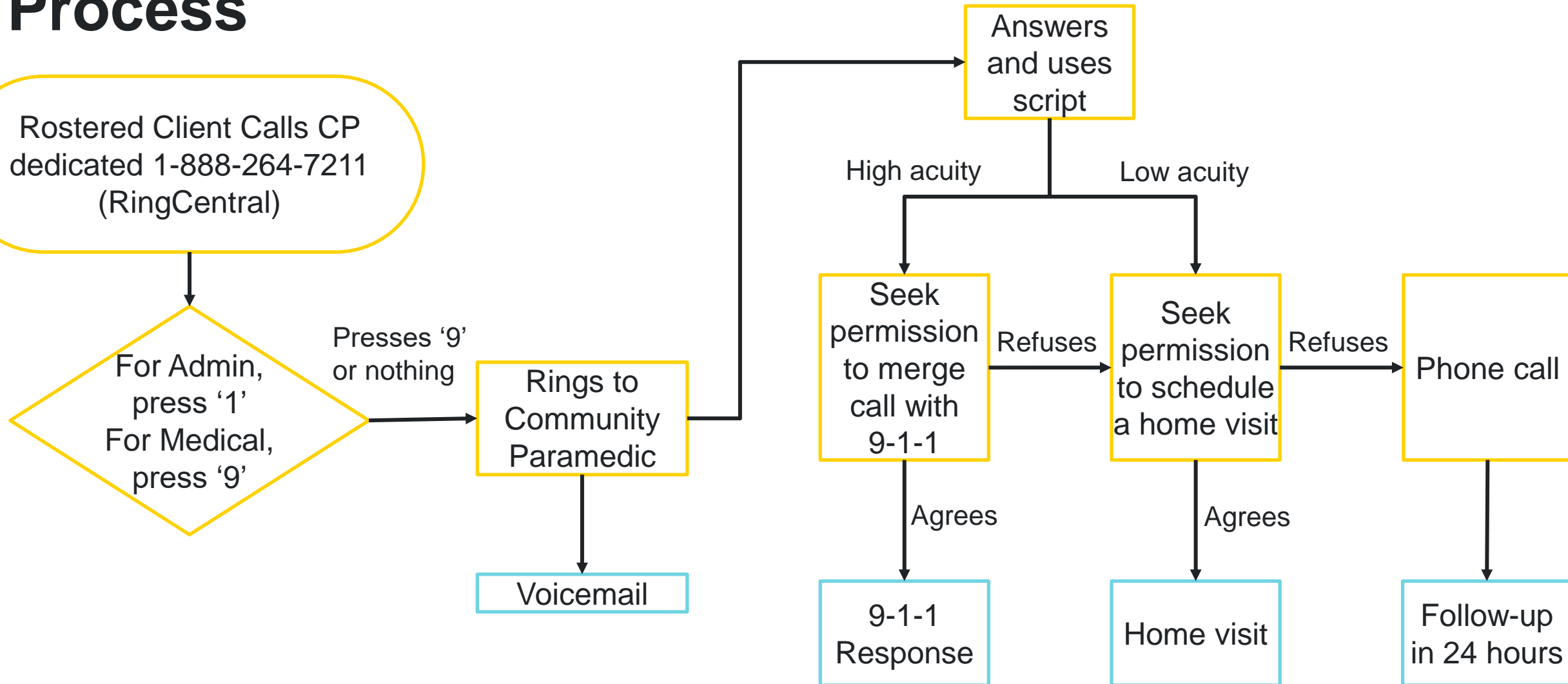


Toll-free number for CPLTC & two other MIH programs



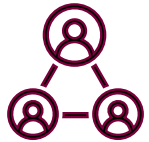
Community Paramedics (CPs) answering the phone

# Process



# Background

## Emergency Communication Nurses (ECNs)



a highly-qualified resource in dispatch centre



use validated script ('LowCode') for triaging low acuity calls

ECNs may be a more appropriate resource for the incoming calls from CP clients, but many unknowns

# Integrated KT

1. Right questions
2. Right measures
3. Right interpretation
4. Right recommendations
5. Right communication strategy



# Integrated KT

1. Right questions
2. Right measures
3. Right interpretation
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Consider:

- Who is at the table?
- What is the gap? What do they need to know to make the decision? This can change!
- What is highest priority?

# 1. Right Questions

Who	Highest Priority	Need to know
Organizational - Chief		
Operational - Superintendent - Supervisors		

# 1. Right Questions

Who	Highest Priority	Need to know
Organizational - Chief	- Liability	- Nature of the calls
Operational - Superintendent - Supervisors		

# 1. Right Questions

Who	Highest Priority	Need to know
Organizational - Chief	- Liability	- Nature of the calls
Operational - Superintendent - Supervisors	- Operational planning	- How many calls? - What time of day? - How long are the calls?

# Objectives

- 1) To track the **number of calls** received daily from rostered clients and **duration** of those calls.
- 2) To track the **nature of calls** from rostered clients and **types of responses**.
- 3) To determine the **most appropriate staff** to answer incoming phone calls from rostered clients.

# Things can change...

- Missed calls
  - Paramedic log: answered live & voicemail
  - Missed calls w/ no voicemail = undocumented
  - Extent had been unknown until looking at Ring Central
- Took back to stakeholders to determine the role this should play

# 1. Right Questions

Who	Highest Priority	Need to know
Organizational - Chief	- Liability	- Nature of the calls - Missed phone calls
Operational - Superintendent - Supervisors	- Operational planning	- How many calls? - What time of day? - How long are the calls?

# Integrated KT

1. Right questions
2. Right measures
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## Consider:

- What data is already available?
- Who can access that data and for what purposes?
- Can this data answer the questions?
  - If other data is needed, can it be seamlessly integrated?
  - If applicable, is this something that will continue being available?



# Data Sources

- 1) Ring Central – frequency, duration, time of day
- 2) Paramedic documentation – nature of the call & outcome
- 3) Patient charts - Reason for calling = not feasible!

# Integrated KT

1. Right questions
2. Right measures
3. Right interpretation 
4. Right recommendations
5. Right communication strategy

## Consider:

- NOT: What do you want this data to say?
- INSTEAD:
  - This finding was unusual/unexpected, is there any context I may be missing?
  - What divisions or categories are meaningful?

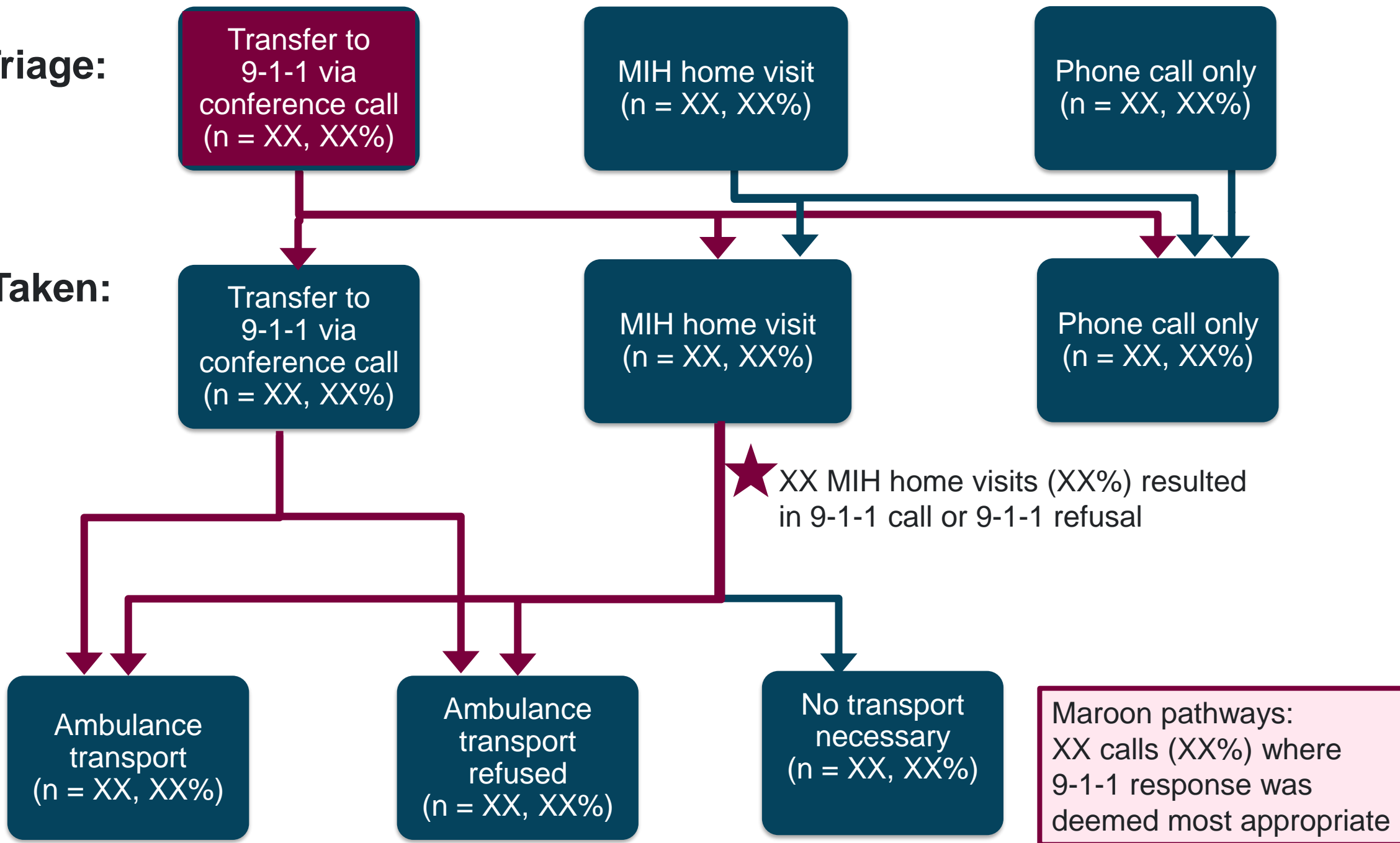
# Data Cleaning/Analysis Decisions

- Very short calls
  - Connection was unclear and so they hung-up and called right back
  - Don't want to double-count!
- Collapsing time periods
  - Too many, what are meaningful divisions?
  - ECNs work two shifts: 7am – 3pm, 3pm – 11pm

**Script Triage:**

**Action Taken:**

**Result:**



# Integrated KT

1. Right questions
2. Right measures
3. Right interpretation
4. Right recommendations
5. Right communication strategy



## Consider:

- What was the decision to be made?
- Stay within reality, be pragmatic

# Recommendations

- Needed to consider:
  - Union job descriptions
  - Training
  - Equipment or Software
- Ideal vs feasible
  - Dispatch nurse on 24/7 and always answering calls
  - Dispatch nurse answering calls during current shifts (7am to 11pm) and it switches back to paramedics at night - don't have scheduled home visits

# Integrated KT

1. Right questions
2. Right measures
3. Right interpretation
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5. Right communication strategy



## Consider:

- Communicate about communication
  - What is needed? [Content]
  - How do they need it? [Format]
  - **Who should know and when?**

# Outputs

- Little value in a fully written report – *for this project!*
- PowerPoint presentation
  - Already in bite-sized pieces!
  - Can grab pieces for other reports
  - Can present a few slides within other presentations
- Poster for sharing at professional conferences



# Dissemination (who & when)

- Four presentations!
  - Chief Richard Ferron
    - Is this on target?
  - CPLTC program supervisors
    - Am I missing anything that you would want communicated?
    - Is anything being misrepresented?
  - \*\*\*\* Critical Issues Team (senior decision makers) \*\*\*\*
  - Staff (with Chief & supervisors)
- Slight variations in content, but without changing the research

# Final Thoughts

- Common desire to have “impact” and see change within the health system
- DFM has an advantage!
- Integrated KT strategies still tend to be researcher focused
  - e.g., “feasibility” is whether the partner can follow through with the researcher’s project
  - Sustainability science is trying to fix this

# Final Thoughts

- Being very deliberate in that engagement, especially with external partners can lead to:
  - More efficient use of research resources
  - Increased participation and active interest in the study
  - Reduced research fatigue
  - Greater impact
  - End users were more confident in the findings

# Acknowledgements

- Mobile Integrated Health Team at Niagara EMS:
  - Community Paramedics
  - Program Specialists
  - Supervisors
  - Commander
- Supervisors:
  - Dr. Gina Agarwal
  - Chief Richard Ferron



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# Thank you!

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