

# The Value of Community Paramedicine: Patient, Paramedic & Physician Perspectives on E.P.I.C.

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# Background

- Evidence for Chronic Care Models (CCM)
- Ontario's 2010 *Excellent Care for All Act* and *Action Plan for Health Care*
  - “Right care, right place, right time”
  - “More efficient care for the 1% of the population that use 35% of the resources”
- Expanding Paramedicine in the Community - a.k.a the E.P.I.C program



**Imagine if we could leverage  
existing infrastructure to  
enhance how we better  
manage and support patients  
with chronic disease in the  
community?**

# The E.P.I.C. Model



- ACPs selected
- 6 week intensive training in chronic disease management
  - Program developed by Centennial College
- CHF, COPD, Diabetic patients from Family Health Team rosters identified as high risk
- Work under approved medical directives with PC physicians & community agencies

# The E.P.I.C. Model cont'd

- Visits scheduled every 3 months
  - Follow-up Visits
  - Exacerbation visits
  - On-call 24-7
- iSTAT onsite blood testing
- Direct phone communication with MD
- Fully integrated data collection in the Primary Care EMR – CRUCIAL



# Quantitative Outcomes

- Primary Outcome = hospital admissions per patient
- Secondary Outcomes (over 2 years) =
  - Calls to 911 (regardless of transport)
  - ED/FHT/other clinic visits
  - Length of stay in hospital
  - Measures of intervention compliance & safety
  - Cost effectiveness
- Measured over 2 years pre & post intervention

# RCT Progress: 2013-present

- 467 patients enrolled & randomized
- 2000+ in-home visits conducted
- 172 exacerbation calls attended
- 911 activated by EPIC paramedics
  - During exacerbation visits = 23 (13%)
  - During scheduled visits = 34 times (2%)





**Community Paramedicine  
is about people.**

# Qualitative Study

- Grounded theory methodology
- Key stakeholder interviews & direct observation
  - Patients & Families
  - Community paramedics
  - Physicians
  - System decision-makers

# Qualitative Results

- Interviewed
  - 41 patients (from across both counties)
  - 12 community paramedics (100%)
  - 10 physicians
- Directly observed 35 E.P.I.C. visits

# Qualitative Results cont'd

## **PATIENTS & FAMILIES**

Confidence  
Continuous Education  
Linkage with PC

## **COMMUNITY PARAMEDICS**

Different job  
satisfaction  
Emotional Aspect of  
Work

## **PRIMARY CARE PHYSICIANS**

Integrated care  
system  
Value-add of  
perspective  
Communication

# Confidence

- *“I think EPIC has helped – I think it’s actually helped keep me alive [with COPD]. I’m definitely a lot more secure than I have been in the past. Knowing they are there, it gives you a great feeling of if anything goes wrong, they are my safety net, I can call them and they will be here.” [Patient 7]*

# Education

- *“He [the CP] tells me things about diabetes that I had never learned anywhere else, you know. They talk to you about having your blood sugar taken, but nobody has ever told me that your blood reading is going to be the highest two hours after eating...and he personalizes it so it's meaningful to me. You can read a lot of medical stuff and it's just gibberish going over your head. But when he says this causes that and you should do this, it makes it so much better.” [Patient 6]*

# Different Job Satisfaction

- *“the skills we have obtained through this course have made my job a completely different job on the...it's just given me a whole different approach on how the body systems are, how people present day-to-day once they've got complex conditions and comorbidities....I'm a better all around medic now” [CP 3]*

# Emotional Aspect of the Work

- *“We get to know people, we know their backstory, we know where they came from, the struggles they’ve had, the jobs they’ve gone through, the losses they’ve had, with daughters, spouses, family dynamics. And now, with our last patient that was in hospital, like it hurt. And it hurts in a different place than seeing the horrific stuff. It’s almost like you’re feeling like you’re caring for a family member now, and I don’t know how to turn that part off....” [CP 6]*



# Value-added Perspective

- *“...the laying of eyes on the home situation is a very valuable perspective, that I wouldn't have otherwise”*
- *“Oh don't forget, there's two people at home, so EPIC might be officially seeing one, but indirectly they are seeing the other, who doesn't really qualify, but it's part of the life situation....”*

# Communication (Providers)

- *“And one of the things I've always said all the way along ...was the fact that the paramedics worked within the Family Health Team in the sense that we communicate through the same electronic medical records. That's almost unheard of in community-based interventions and is without exception it's I think the biggest secret to success of the program.”*

# Communication (Patients)

- *“A clear strength (of the program) is the fact that the paramedics are in constant touch with our family physician. There is a great sense of security knowing that the paramedics are aware of our health concerns and that the information is shared. We sincerely believe that being a part of the EPIC program has been a major factor in keeping [XXX] out of the hospital.”*

*[Patient 12]*

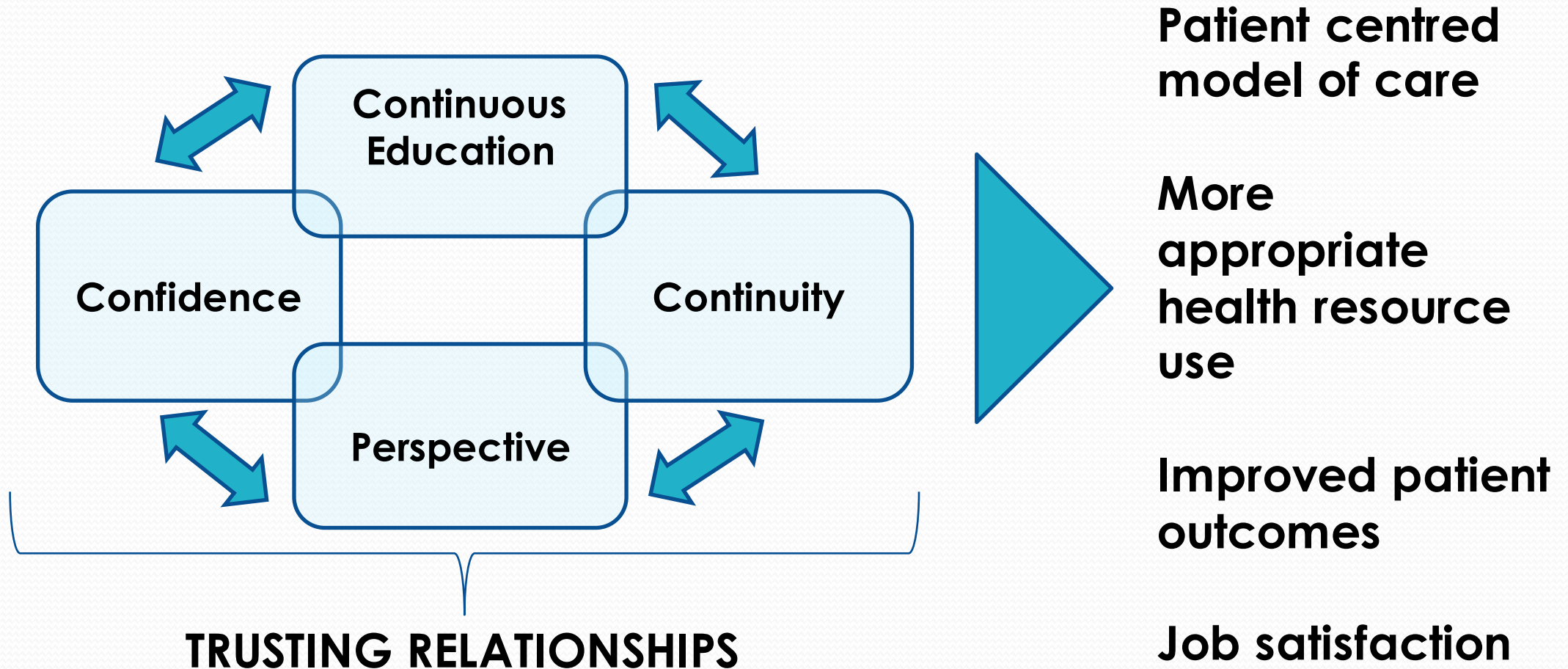
# Key Message: Relationships

- *“You end up with a fairly close relationship with the guys because they come into your house, you tell them about your family, your life and that sort of thing. And they can take that and incorporate it into working with you so they know what you do, what you want and use that as a motivator to get you where you want. These guys are like a touchstone, they're reassuring you that you're doing okay... and they're saving you. I mean, saving you having to get sick.” [Patient 5]*

# Relationships cont'd

- *“I had a patient email me on the weekend I’m off, he emailed my work email, and my wife had to talk me off the ledge, if you will, because I was ready to go put on my uniform and come in to work and find a way to go to his house. It was killing me that he was calling for assistance and I couldn’t help. I think they’re sort of personal, very private, and maybe they don’t want somebody else in the house... I was torn up at the fact that I was at home and I couldn’t do something.”*  
[CP 4]

# Towards a Theory of CP impact...



# Next Steps: Expanding EPIC

- RCT Results published in Sept 2016
- EPIC 2 – longitudinal follow-up
- iEPIC – 23 new services in Ontario
  - Shared outcome measures Canada & USA (and beyond!)

# Thank you!



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