Community Referrals by EMS

An Extension of Service …

Paramedics…

- Often the first point of contact to the healthcare continuum
- Strong patient advocacy skills
- First hand knowledge of the patient's living conditions
- Continue to support our patients by addressing their needs and concerns

CREMS: Extension of Service

- In situations or circumstance where the patient may benefit from some assistance in their home
- Paramedics make a referral on behalf of the patient to the CCAC
- Connecting the patient to support that improves their quality of life at home

Toronto EMS at a Glance

- Population ~2.5 mil + 1 mil daytime surge
- Area 630 sq km (243 sq mi)
- Culturally diverse (49.9% foreign born)
  - 40 predominant, +100 languages
- 1200 staff including 850 paramedics
- Average peak staffing 100 ambulances / day
- +300,000 calls / year
- 800 calls / day; ~500 transports / day

Historical Overview

- Program developed and implemented in 2006
- Initially started in response to frequent fall calls
- Collaboration of various stakeholders in specific area of city
- Toronto Central CCAC
- Limited implementation in EMS operations

Pilot Statistics

- April 18, 2005 to September 15, 2006
- 81 CREMS
- 77 CREMS sent to CCAC
  - 17 not processed yet
  - 60 processed
  - 26/60 (43%) existing CCAC clients
- 4 CREMS not sent to CCAC

Reasons for CREMS

- 20 Mobility issues (frequent falls or fall safety concern)
- 16 Failure to thrive
- 15 Substance abuse, social or psychiatric issues
- 7 Non-specific details
- 6 Increased dementia or confusion
- 5 Frequent calls to EMS
- 3 Long Term Care placement needed
- 3 Existing CCAC client requires more assistance
- 1 Child social issues
- 1 Non-specific in-home support required

Pilot Outcomes (E.g. # 1)

CREMS made April 27, 2006

- 68 y/o/ male falls often requiring lift assists Paramedics concerned re: home safety and mobility
- Medical History: Hypertension, Diabetes, double amputee

- Previous CCAC client
- **Occupational Therapy added to his care**

- Pre-CREMS 2 Transports, 2 Non-transports
- Post-CREMS 0 Transports, 1 Non-transport

Pilot Outcomes (E.g. # 2)

CREMS made June 13, 2006

- 85 y/o female
  Paramedics concerned, more help required with activities of daily living
- Medical History: Cardiac disease, COPD

- Previous CCAC client
- **Increased PSW hours**

- Pre-CREMS 1 Transports, 0 Non-transports
- Post-CREMS 0 Transports, 0 Non-transports

Pilot Outcomes (E.g. # 3)

CREMS made August 10, 2006

- 71 y/o male, multiple falls
- Medical History: Hypertension, Diabetes, Osteoporosis, Dementia, recent arm fracture

- Not a CCAC client
- **New CCAC services OT, PT, PSW**

- Pre-CREMS 2 Transports, 1 Non-transports
- Post-CREMS 0 Transports, 0 Non-transports

Community Care Access Centre

- 5 CCACs within Toronto
- Specific service delivery model
- All referrals are warehoused by Toronto Central and then forwarded to the appropriate CCAC for the patient
  - Based on patient residence
  - Hospital patient transported to

Community Care Access Centre

Core Services

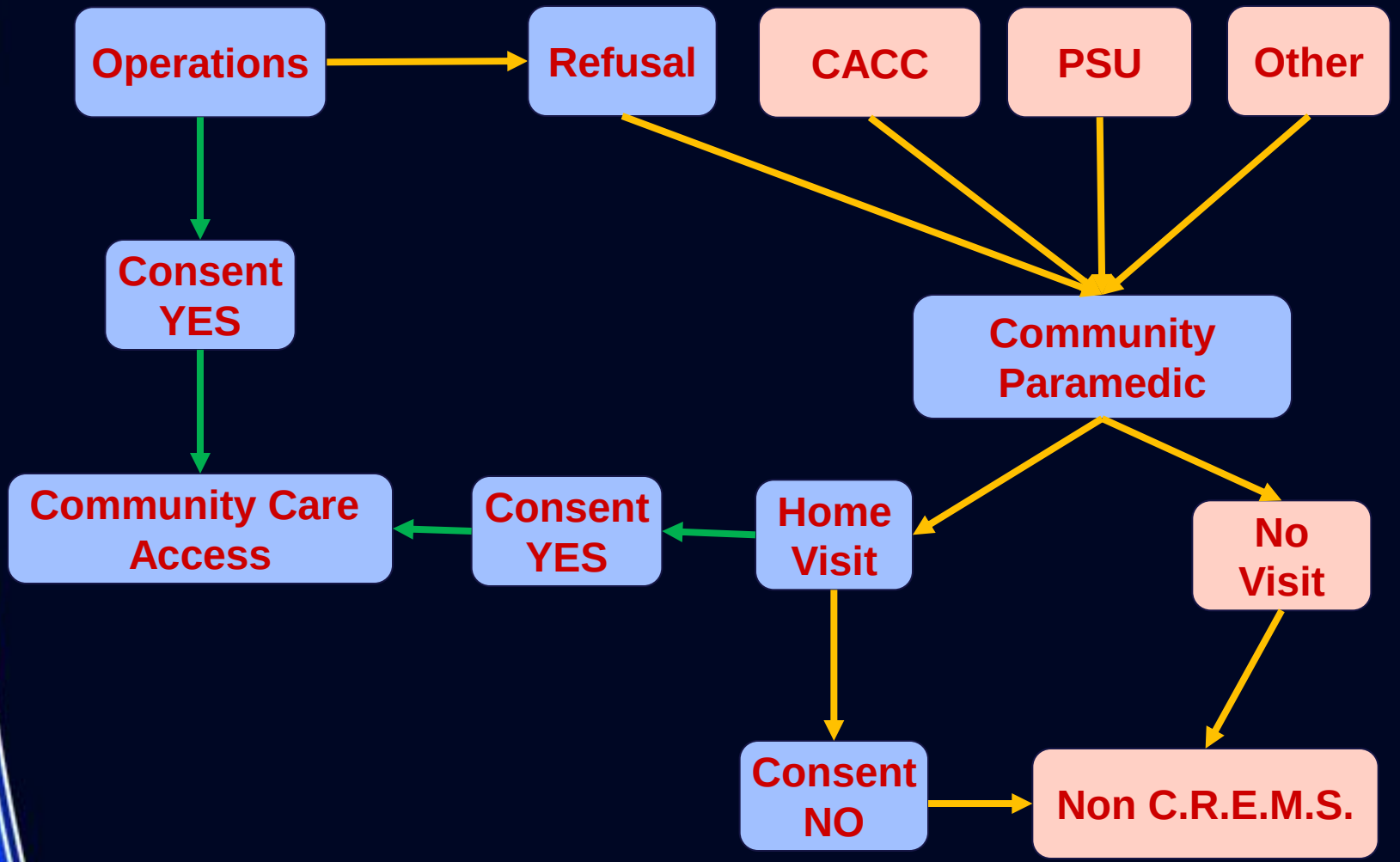
- Nursing
- Personal Support
- Physiotherapy
- Occupational Therapy
- Speech Language Therapy

- Extreme Cleaning

Secondary Services

- Social Work
- Nutritional Counselling
- Medical Supplies / Equipment
- Health Care Connect
- Long Term Care Placement

CREMS Overview



CREMS YES

- Consent obtained
- Call the CREMS Yes line
- Referral call is logged and forwarded
  - CCAC Customer Service Representative
  - After Hours Answering Service
- Received by Toronto Central CCAC
- Forwarded to appropriate CCAC

CCAC Follow Up

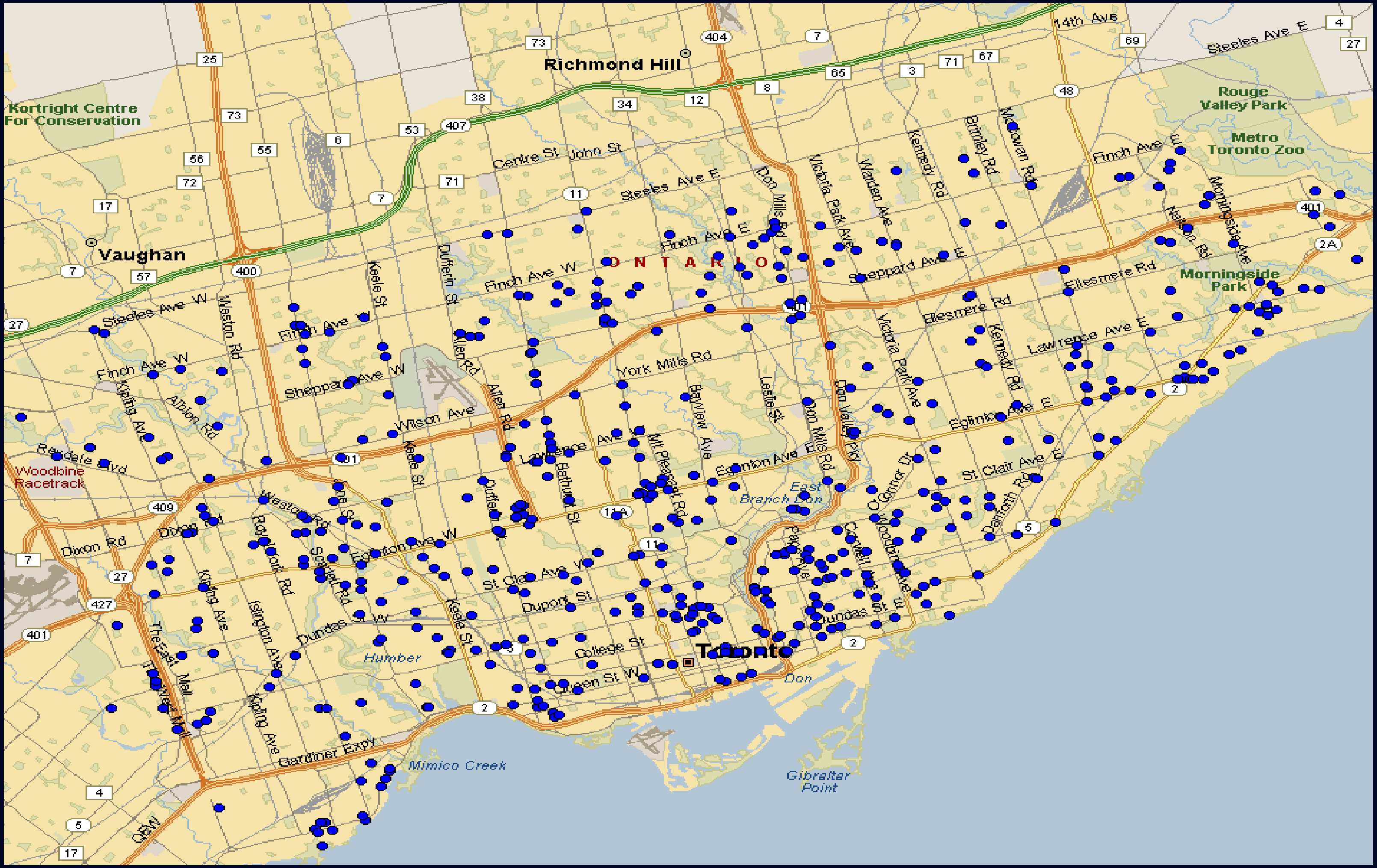
- Phone follow up within 36 hours
- Case Coordinator assessment within 1 week
- Implementation of services within 2 weeks
  - Some services may not be implemented immediately due to individual CCAC delivery models or waiting lists for specific services

Refusal / CNO / Notification

- Patient refuses or is unable to give consent
- Notification from 3rd party (dispatch, EMS Superintendent)
- Submit details to CPP staff directly or voice mail
- Include same information as for CREMS Yes along with details of refusal / notification

CREMS 2006-2007

CREMS 2008



Richmond Hill
Vaughan
Kortright Centre For Conservation
Rouge Valley Park
Metro Toronto Zoo
Morningside Park
Woodbine Racetrack
ONTARIO
Toronto
Steeles Ave W
Finch Ave W
Sheppard Ave W
Wilson Ave
Lawrence Ave
Eglinton Ave W
St Clair Ave W
Dupont St
College St
Queen St W
Dundas St W
Gardiner Expy
York Mills Rd
Ellesmere Rd
Sheppard Ave E
Finch Ave E
Steeles Ave E
Lawrence Ave E
Eglinton Ave E
St Clair Ave E
Danforth Rd
Humber
Mimico Creek
Gibraltar Point
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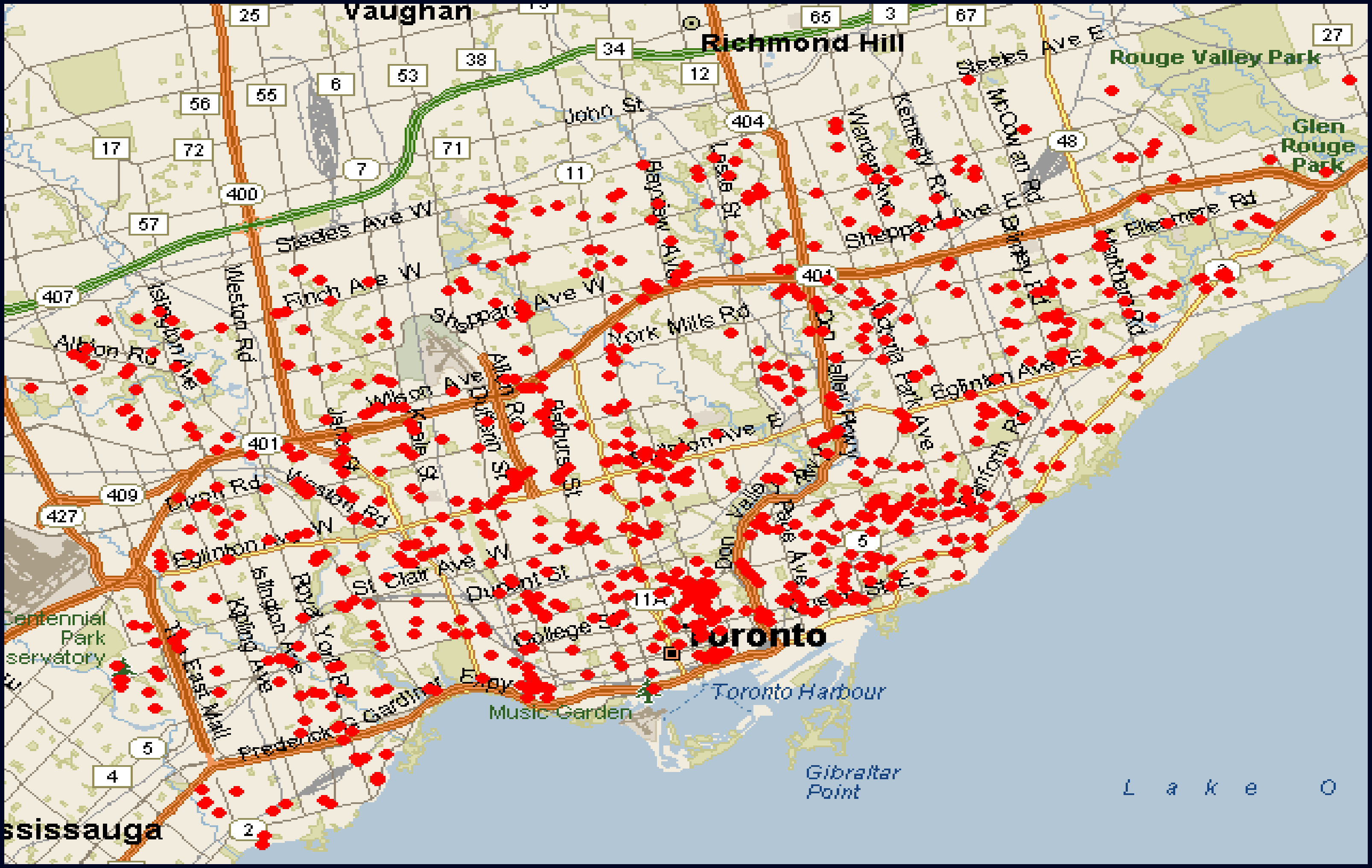
CREMS 2009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Richmond Hill
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St Clair Ave W
Dupont St
College St
Albion Rd
Dixon Rd
Weston Rd
Bayview Ave
Don Valley Pkwy
Victoria Park Ave
Kennedy Rd
Warden Ave
McCowan Rd
Markham Rd
Bathurst St
Dufferin St
Allen Rd
Keele St
Islington Ave
Kipling Ave
Royal York Rd
The East Mall
Gardiner Expy
Toronto
Toronto Harbour
Music Garden
Gibraltar Point
Centennial Park
Lake O
ssissauga

2006-2007 Pilot

Successes:

- Patient benefit (new or increased client services)
- Streamlined approach for assistance (CREMS)
- Multiple EMS roles (Paramedic, EMD, etc.)
- CCAC role
- System benefit

Challenges

- Data collection, documentation
- Information exchange

Next steps

- Improved referral process
- Expansion city-wide
- Comprehensive review

2008 System Wide

- Streamlined referral process
  - Centralized phone number through call logger
  - All referrals received and forwarded by TC CCAC
- Database for tracking referrals
  - Updated 2009
- Education piece delivered to paramedics through CME
- Prompt cards for paramedics

2009 Enhanced

Successes:

- 967 CREMS submitted!
- CREMS disposition and follow up
- Streamline referral process (after hours)
- Community Paramedic
- Improved rapport with CCAC

Challenges

- Documentation (refusals, notifications, home visits)
- Limited patient services

Next steps

- Platform rebuild
- Explore partnerships
- Formalize Community Paramedic

Community Paramedic

- Introduction March 2009
- Primary role: CREMS follow up
- 299 home visits (March 2009-Jan 2010)
  - 55 follow up referrals to CCAC
  - 26 CREMS refusals converted to consents
  - 7 interventions (lift assist, clinical assessment)
- Define limits of current process

CPP Follow Up

- Community Paramedic will research call including EMS history and patient details
- Community Paramedic will follow up with a home visit to the patient
  - Explain CCAC services & attempt to obtain consent
  - Approximately 50% conversion of refusals
- Notify hospital CCAC or social work of paramedic concerns for patient

Criteria for Home Visits

- Patients who refused CREMS
- Multiple CREMS
- Notifications (3rd party referrals)
- Unique circumstances
- Impact review
  (increases in EMS calls post CREMS)
- Disposition follow up
  (not on service, no change in service)

Individual Successes

- 86 yo M fall
- Patient refused transport/CREMS
- EMS called in refusal
- CP follow up 3 d later
- Pt collapsed / trapped in apartment x 3 days
- Transported to hospital
- Long term care placement

Individual Successes

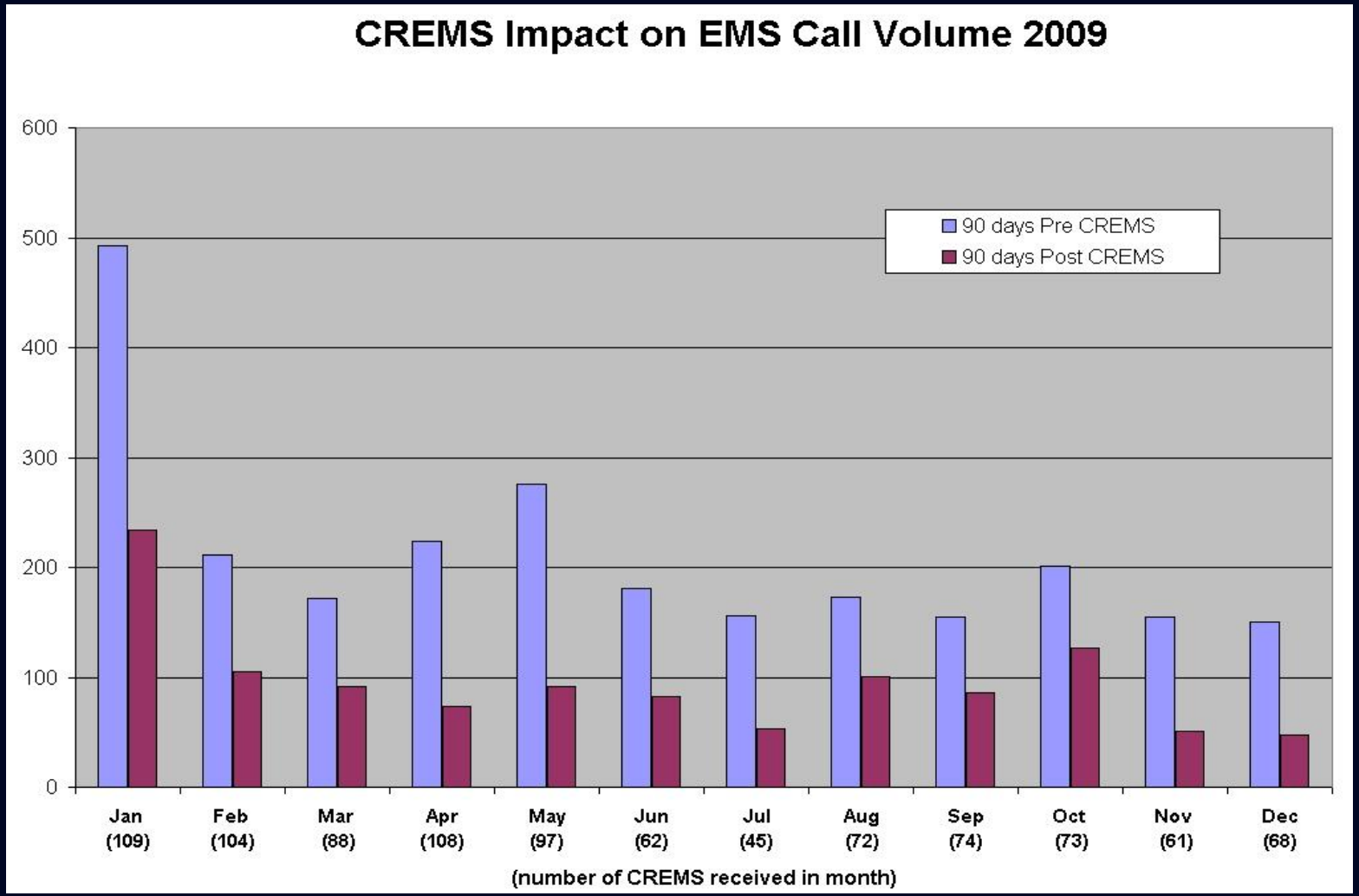
- Notified by citizen, concerns for 90 yo F
- Pt had fall on street; taxi home
- Immobile x 6 days, relying on friends
- Reluctant to call ambulance
- CP home visit
  - Hip fracture
  - Convinced patient of transport
  - CCAC referral
  - Consult with SW at convalescent facility

Impacts: EMS Operations

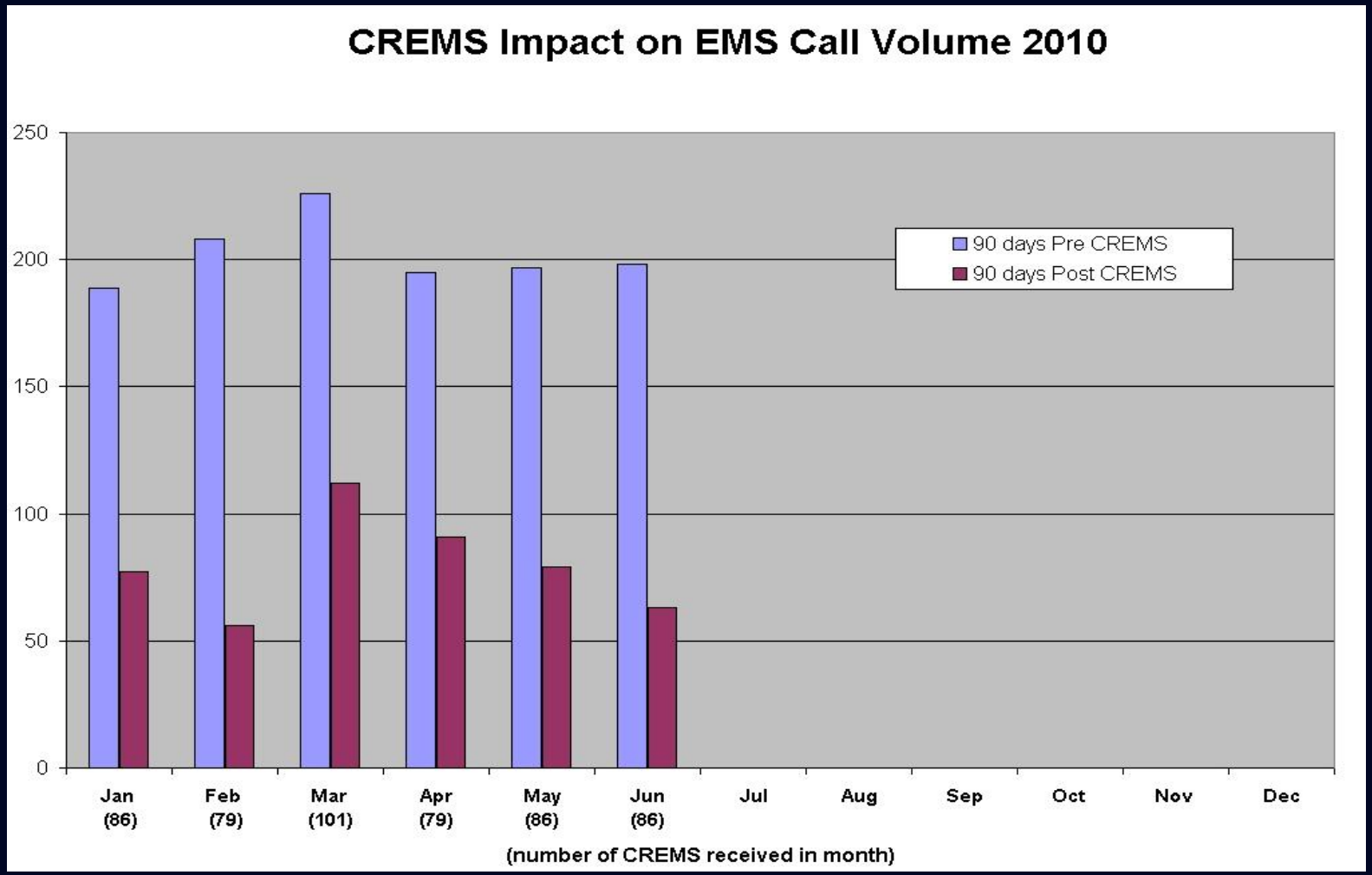
Does connecting a patient with support services in their home reduce their demand/use of EMS?

- Review of EMS call volumes 90 days pre & post estimated implementation of services (14 days post referral)

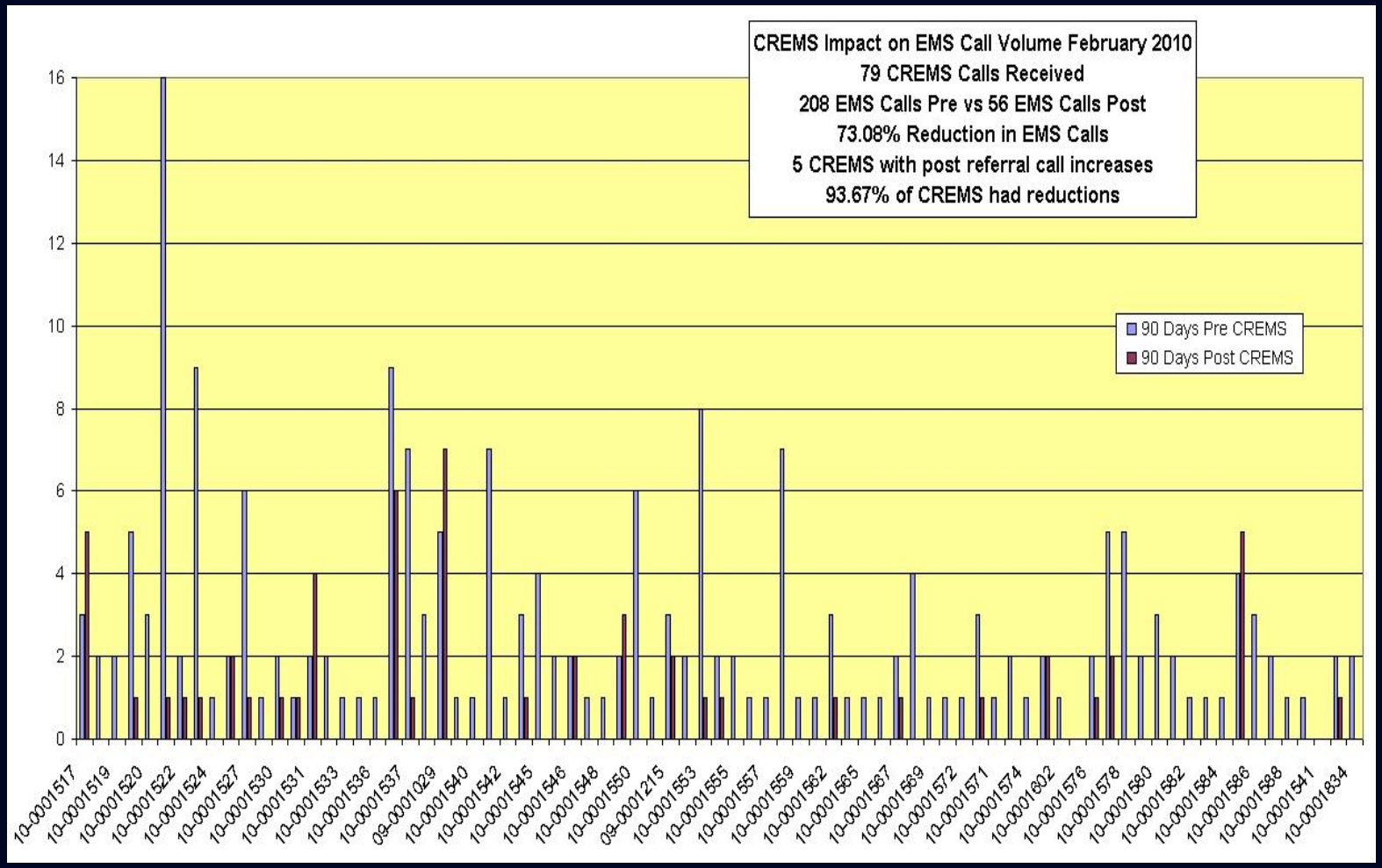
Impacts 2009



Impacts 2010



System Impacts



System Impacts

FEBRUARY 2010

- 79 CREMS received
- 208 vs 56
- 73.08% reduction in EMS calls
- 5 CREMS with post referral increases
- 93.67% of CREMS had reductions

Individual Impacts

- 10-0001525
  Pre CREMS 5 calls (8.25 hr)
  Post CREMS 1 call (1.53 hr)

- New client, Parkinson's

- Receiving OT

Individual Impacts

- 10-0001461
  Pre CREMS 16 calls (24.04 hr)
  Post CREMS 1 call (3.77 hr)

- Central CCAC
  Breathing problems

Individual Impacts

- 10-0001517
  Pre CREMS 3 calls (4.29 hr)
  Post CREMS 5 calls (20.09 hr)
- New Client needs help with shopping and homemaking. Medical issues, diabetes. Not receiving proper care.
- Referred to CNAP hub
- CVA 2 months later

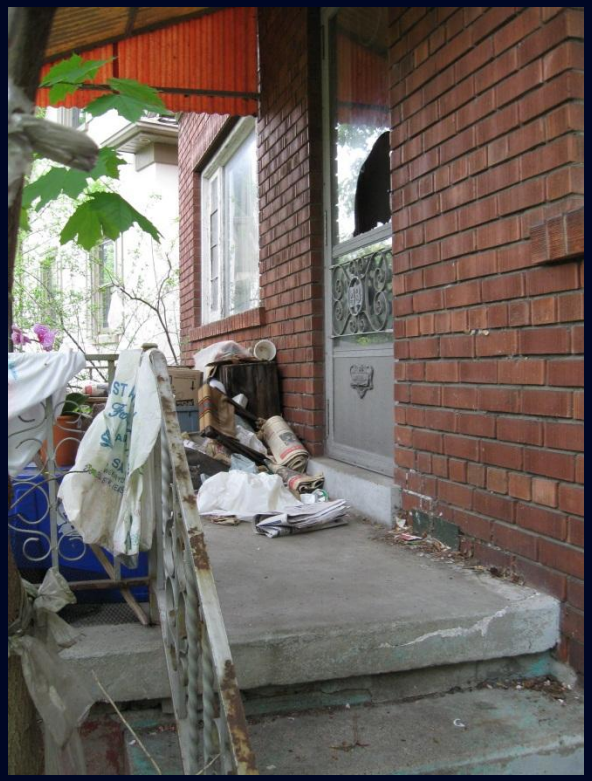
Challenges

- Typically the most vulnerable, marginalized, at risk patients have the greatest challenges in connecting with assistance
  - Not eligible
  - Inappropriate services
  - Patient refusal

Homeless

"No fixed address" …
not eligible for CCAC!

Recluse / Shut Ins



Right to refuse, issues of capacity, by-law

Mental health issues

Hoarding

Right to choose; mental health issues

Marginalized

Impoverished; no social support; isolated

Successes

- Annual number of referrals increasing
  - Aging population
  - Challenged health care system
  - More staff participating in CREMS
- Multifaceted approach to our patients
  - Empowerment/independence
  - Minimize risks to health & wellness
  - Surveillance tool

Program Expansion

- Many marginalized patients unable to receive services or assistance
- Developing partnerships to meet their needs

- Streamlining the referral process
- Improved feedback on referrals
- Role of the Community Paramedic

Community Paramedicine Program

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