



Manitoulin-Sudbury DSB EMS Department

Presentation to:

The Township of Chapleau

May 26, 2014

Manitoulin-Sudbury DSB EMS Department

- ▶ Thank you for this opportunity to present on topics surrounding EMS services in your area
- ▶ Topics of discussion
 1. Introduction to Manitoulin-Sudbury DSB EMS
 2. Services delivered by the EMS Department
 3. EMS Challenges
 4. Deployment changes of June 2013
 5. Matters relating to Chapleau
 6. Questions?

Key EMS Responsibilities

- ▶ Provide a service that includes all aspects of land ambulance operations including:
 - Personnel, vehicles, and equipment
 - Type of service (on-site versus on-call)
 - Quantity and level of service
- ▶ Responsible for all costs associated with the provision of these services:
 - 50/50 cost share with province on “Approved Costs”
- ▶ Ensure compliance with all governing legislation including numerous standards and regulations which cross through different realms of provincial ministries.

DSB Coverage Area

- Encompasses the Districts of Manitoulin and Sudbury (excluding the City of Greater Sudbury).
- An area of over 45,000 sq. km
- Larger than 115 Countries in the World
- Larger than 9 U.S. States
- 12 EMS Stations
- 3 of which are located in Sudbury North



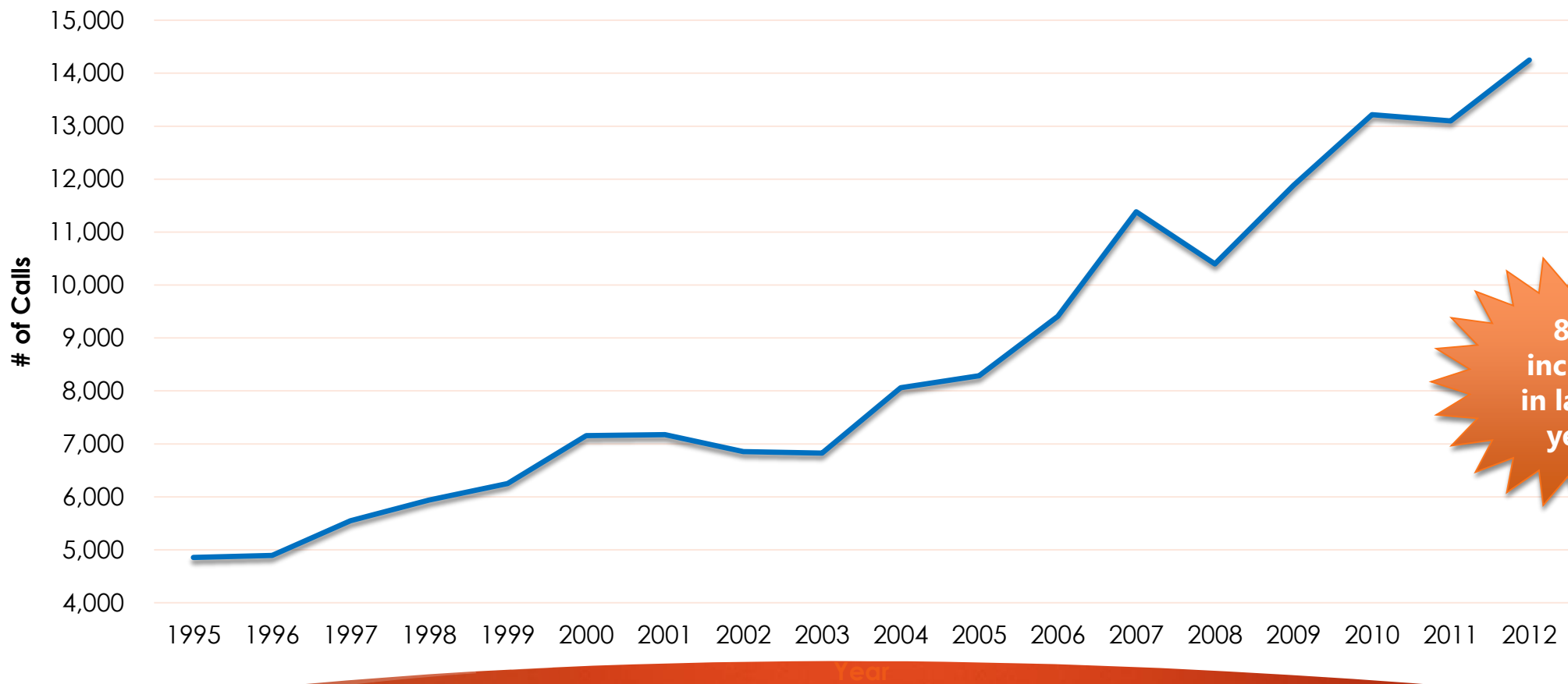
Supportive Systems

- ▶ 4 volunteer Emergency First Response Teams
 - ▶ Cartier, Cockburn Island, French River Delta, & Tehkummah
- ▶ 13 tiered response agreements (including Chapleau) mostly with Municipal based Fire Services but also with certain Police forces.
- ▶ Maintenance agreements with Municipalities and community organizations to oversee 139 Automatic External Defibrillators throughout our districts

Primary Care Paramedic

- ▶ Manitoulin-Sudbury DSB employs over 125 Primary Care Paramedics
- ▶ A graduate of a community college program consisting of 1,090 hours of combined theory and clinical practice (2 years of college).
- ▶ Hold an MOHLTC EMCA/AEMCA certificate
- ▶ Certified by a Base Hospital to:
 - ▶ administer Glucagon, Gravol, Benedryl, & Epinephrine via injection,
 - ▶ administer Glucose & ASA orally,
 - ▶ administer Nitroglycerin sublingually, and
 - ▶ administer Salbutamol via inhalation.
- ▶ Additionally certified by a Base Hospital Physician to perform semi-automatic external cardiac defibrillation.





Call Volumes
Consistently on the Rise

EMS Challenge – Non-Urgent Patient Transportation

- ▶ Under Ontario's regionalized system of healthcare, patients often require diagnostics, treatment, or specialist care not available within the rural hospital setting
- ▶ In the absence of an alternative means of transport Ambulance are utilized taking them outside their communities for lengthy periods of time
- ▶ Southern Ontario has alternative, for profit Medical Transportation Services
- ▶ We have been fortunate over the last year to be participating in a NE-LHIN sponsored pilot project. In conjunction with our local hospital partners, we have been operating a non-ambulance transportation system for patients requiring transportation between medical facilities in the LaCloche-Manitoulin area
- ▶ Our pilot project is helping to inform a broader consultants report dealing with the issue throughout North Eastern Ontario and the results should be available before summer

EMS Challenge – New Ambulance Response Time Performance Plan

- ▶ 2013 a new response time plan was enacted
- ▶ The plan is an improvement from the archaic former system of measuring against 1996 response times
- ▶ It does now deal with patient acuity as opposed to strict call type as dispatched however it is highly aggressive and more tuned to an urban model of response
- ▶ There are 6 separate criteria under review this new plan but the first 2 deal with the most critical patient
- ▶ The MOH has set the time benchmark (based upon medical knowledge) and DSB is required to set the % of time they will achieve this benchmark

EMS Challenge – New Ambulance Response Time Performance Plan continued...

▶ **Designated Delivery Agent (DDA) - SUDDEN CARDIAC ARREST**

15% of the time, within 6 minutes from the time ambulance dispatch conveys the call information to the paramedic, **Manitoulin-Sudbury DSB** will endeavour to have a responder equipped and ready to use an AED at the location of a patient determined to be in sudden cardiac arrest.

▶ **EMS Designated Delivery Agent - CTAS 1**

25% of the time, within 8 minutes from the time ambulance dispatch conveys the call information to the paramedic, **Manitoulin-Sudbury DSB** will endeavour to have a PARAMEDIC as defined by the Ambulance Act and duly equipped at the location of a patient determined to be CTAS 1.

Deployment Changes

- ▶ It is important to understand that we provide the ambulances and staff for the Central Ambulance Communications Centres (CACCC's) to deploy
- ▶ The only control we have over our resources is within our Deployment Plan
- ▶ In the fall of 2012 EMS Administration began to look into the concept of "Balanced Emergency Coverage"
- ▶ Historically, every time one ambulance received a call, another ambulance would move to a half-way point to balance the coverage for both communities
- ▶ Doing so aided the community who lost its resource with a shortened response time, but the community who had a resource lost it to a half-way point thus increasing their response time
- ▶ What was the impact of the half-way standby?

Deployment Changes continued...

- ▶ A review of 21 months worth of data was performed
- ▶ General Findings
 - ▶ 11,186 times an ambulance went to a half-way point for balanced coverage
 - ▶ 921 times they received a call while performing balanced coverage
 - ▶ 529 times resulted in a favourable response time
 - ▶ 392 times resulted in an unfavourable response time
- ▶ In summary,
 - ▶ 91.8% of the time balanced emergency coverage was inefficient
 - ▶ 3.5% of the time balanced emergency coverage was detrimental

Deployment Changes continued...

**Faced with a 95.3% inefficiency,
a change had to be considered.**

Deployment Changes continued...

- ▶ Information was brought to the DSB Board through a report.
- ▶ Understanding that the balanced coverage approach was inefficient, we looked to ensure that we had resources in areas where the greater call volumes exist
- ▶ Our Northern Area making up just under 8% of our overall service call volume showed the most ineffective use of balanced coverage.
- ▶ For the 21 month period of study there were a total of 131 standbys for balanced coverage with only 4 calls arising out of those standbys (3% of the time).
- ▶ In each of those 4 occurrences the ambulance crew responded back to the community that they came from.
- ▶ From the information it was determined that we will eliminate the concept of balanced emergency coverage for the North.

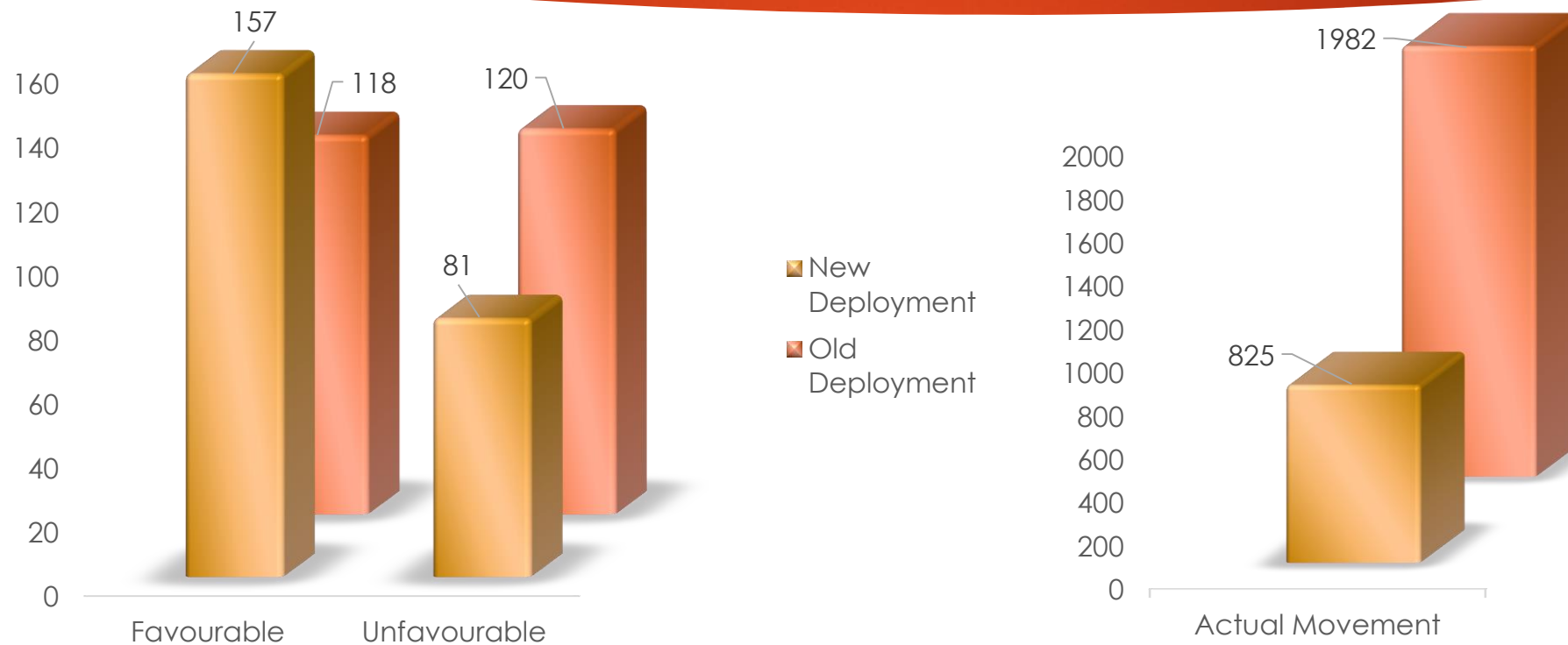
Deployment Changes continued...

- ▶ The relevance of the new Response Time Performance Plan cannot be understated on this matter

Former Standby Deployment	Chances of Success		New Non-Standby Deployment	Chances of Success	
	Community sending Ambulance on Standby	Community receiving Ambulance on Standby		Community keeping Ambulance at Station	Community receiving No Standby
SCA > 6 minutes	Never	Never	SCA > 6 minutes	Possible	Never
CTAS 1 > 8 minutes	Never	Never	CTAS 1 > 8 minutes	Most Likely	Never
CTAS 2, 3, 4, 5 > 25 minutes	Possible	Possible	CTAS 2, 3, 4, 5 > 25 minutes	Definite	Never

Station	Total Code 8's	Favourable	Unfavourable	Total Calls on Stby	Plus Minus	% Call on Stby	% Favourable Stby	% Unfavourable Stby
Chapleau	2	0	0	0	0	0.0%	0.0%	0.0%
Foleyet	4	0	0	0	0	0.0%	0.0%	0.0%
Gogama	4	0	0	0	0	0.0%	0.0%	0.0%
Killarney	11	0	0	0	0	0.0%	0.0%	0.0%
Noëlville	167	13	3	16	10	9.6%	7.8%	1.8%
Hagar	236	11	10	21	1	8.9%	4.7%	4.2%
Espanola	213	28	10	38	18	17.8%	13.1%	4.7%
Massey	302	15	15	30	0	9.9%	5.0%	5.0%
Gore Bay	228	18	8	26	10	11.4%	7.9%	3.5%
Mindemoya	377	40	7	47	33	12.5%	10.6%	1.9%
Little Current	439	29	26	55	3	12.5%	6.6%	5.9%
Wikwemikong	20	3	2	5	1	25.0%	15.0%	10.0%
6 Month Total	2003	157	81	238	76	11.9%	7.8%	4.0%
21 Month Total						8.2%	4.7%	3.5%

Deployment Changes continued...

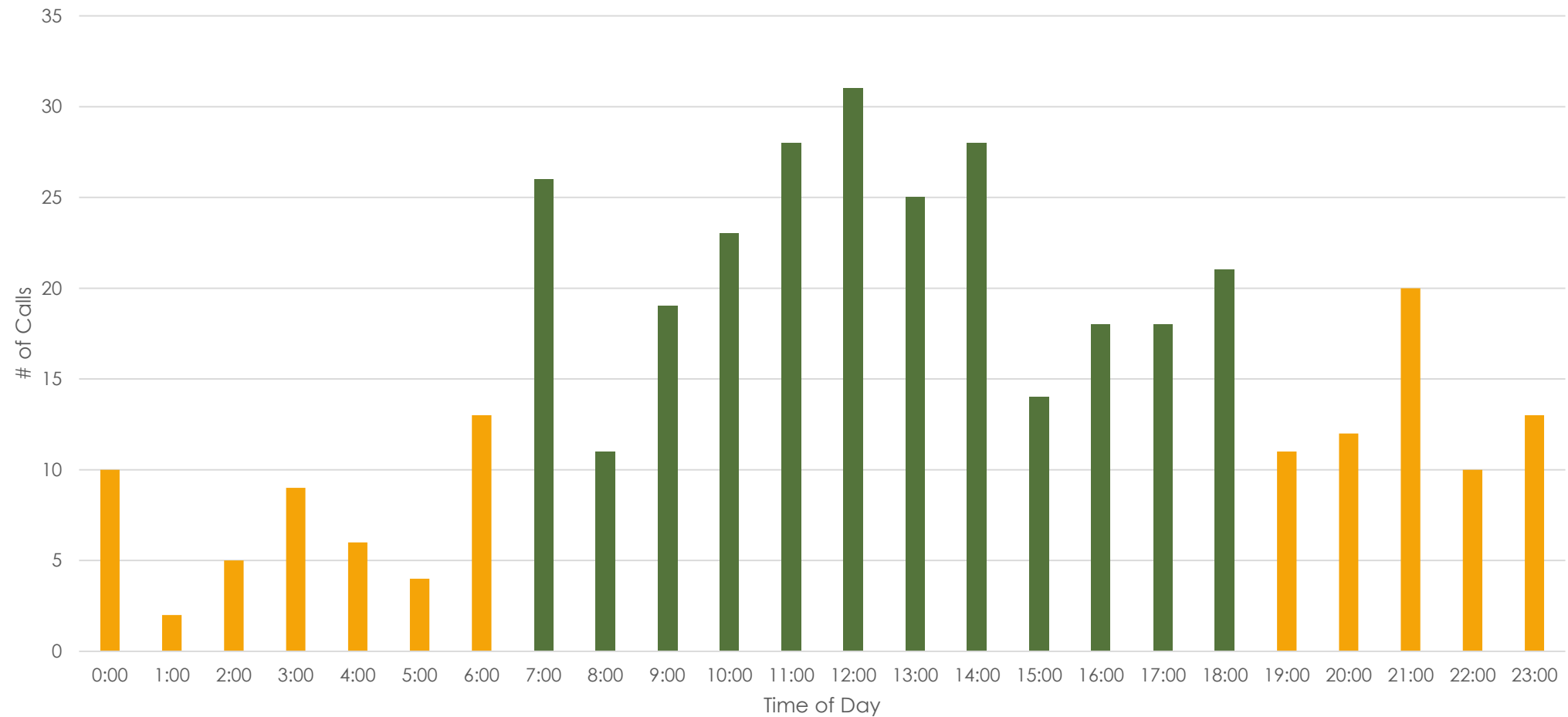


	New Deployment			Old Deployment		
	Favourable	Unfavourable	Actual Movement	Favourable	Unfavourable	Actual Movement
3 month	86	44	375	63	67	1091
6 month	157	81	825	118	120	1982

Chapleau Concern # 1

- ▶ Received a letter from the Township of Chapleau containing a Council Resolution as follows:
 - ▶ ***That Council direct Mayor Byham to write to the Manitoulin-Sudbury District Services Board to clearly illustrate Council's wishes for 24 hour per day immediate response ambulance service and to cc Mr. Mike Mantha.***

Chapleau Calls by Time of Day



Chapleau 24 hour coverage

- ▶ Chapleau staffing currently consists of 12 hours of on-site coverage with 12 hours of on-call coverage 7 days a week.
- ▶ Currently capturing 69% of the call volume during the on-site hours.
- ▶ Average response time from time the crew is notified by CACC and they arrive at the scene of a call during **on-site** hours is 10 minutes 16 seconds
- ▶ Average response time from time the crew is notified by CACC and they arrive at the scene of a call during **on-call** hours is 11 minutes 52 seconds
- ▶ The cost benefit of enhancing a staffing from an on-site/on-call mix to full on-site 24/7 may be prohibitive
- ▶ The cost to turn Chapleau on-site 24/7 in 2015 would be \$421,356 in straight salaries and benefits

Chapleau Concern #2

- ▶ We received a letter from the *Services de santé de Chapleau Health Services* concerned over the present delivery model of EMS
 - ▶ ***With the change in EMS services, the community of Chapleau is left without coverage for up to 6 hours when a patient is transported to Timmins and District Hospital. Given Chapleau is the only community of the three with a hospital, patient transfers are frequent and this leaves the community of Chapleau without access to assessment and treatment from qualified paramedical.***
- ▶ Asked about what alternatives are available when Chapleau is without service.
- ▶ Concern about what is being communicated by the dispatch service to the patient on the line

Inter-facility Patient Transfers 2013

Patient Pick-up Facility

Location	# of Times
Chapleau Airport	39
SSCHS	120
Relay with Other Ambulance	22
Timmins District Hospital	15
TOTAL	196

Patient Destination Facility

Location	# of Times
Chapleau Airport	52
SSCHS	78
Relay with Other Ambulance	25
Timmins District Hospital	31
TOTAL	186

Options Regarding Transfers

- ▶ There are some options to consider regarding inter-facility patient transportation
 1. Drop & run
 2. Increase number of relays
 3. Minimize the number of transfers performed
 4. Seek alternative transportation models

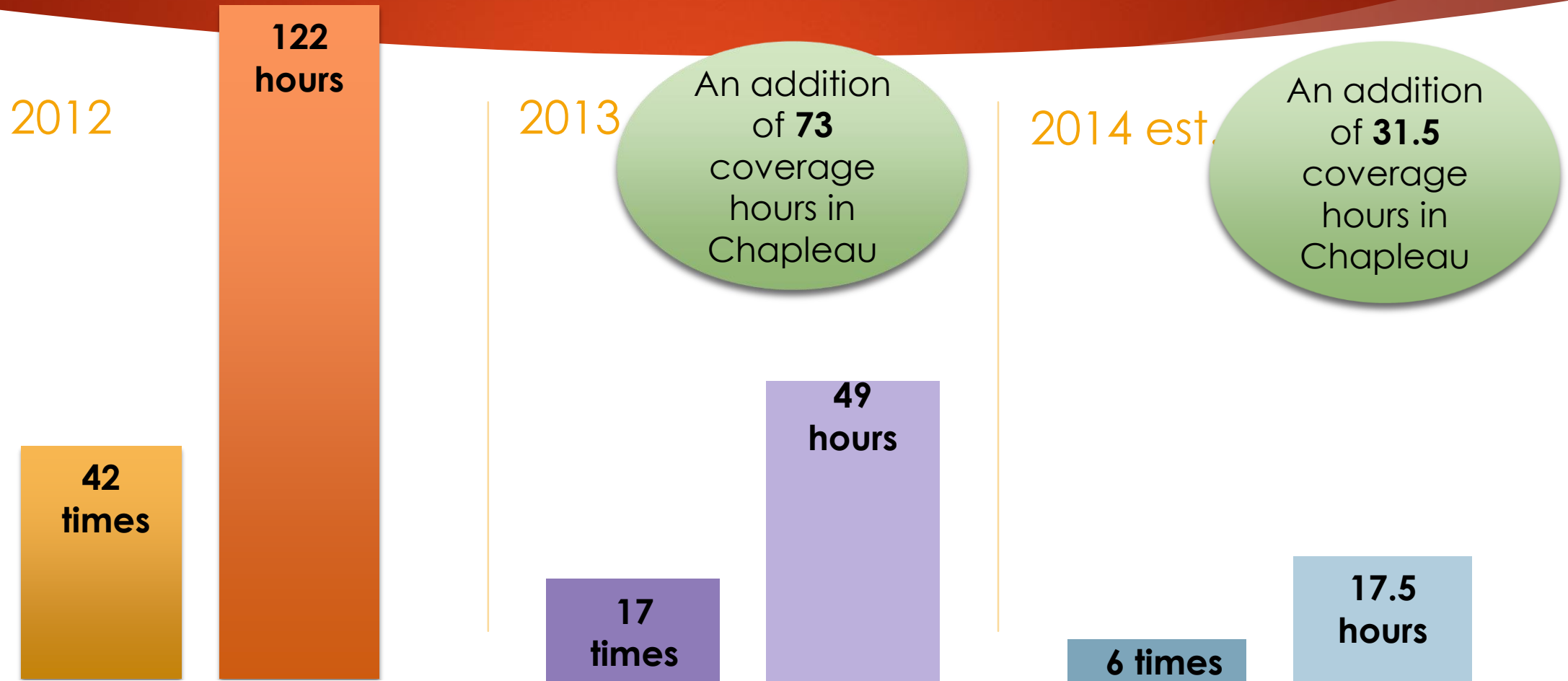
Chapleau Concern #2 continued...

- ▶ Reviewing potential calls on top of calls for Chapleau, we note from the start of the deployment change to December 31, 2013 (7 months) there were no instances where the Chapleau crew was on a call and a second call arose.
- ▶ Stated in the letter was a concern over leaving the community without service for up to 6 hours.
- ▶ The Ambulance system within the province of Ontario operates under a concept known as seamless coverage.
- ▶ The closest, most appropriate ambulance will respond regardless of borders.
- ▶ In the case of Chapleau if a call comes in the next closest ambulance will respond (Foleyet approx. 1 hours away emergency systems activated).

Chapleau Concern #2 continued...

- ▶ It must be understood that Ambulance dispatch is not a responsibility of the DSB but rather that of the MOHLTC.
- ▶ The Chief of EMS for the DSB should not be speaking on behalf of and management and staff of the Central Ambulance Communications Centre (CACCC)
- ▶ However we have come to learn that regarding what is communicated to the caller, CACCC practice is to identify potential service delays to patients regardless of the reason (i.e. Crew is on another call in the community, on a transfer, on call, etc.). So in the case of a crew being gone to Timmins for example, the ACO should be explaining the delay to the caller.

Chapleau Coverage Effect by Year





QUESTIONS?