

Emergency Department Visits

Identification process and strategies to reallocate demand to primary care

AFHTO October 26, 2011

Goals for today

 Show how our current Emergency Department (ED) visit reporting to Family Physicians can be enhanced with better data collection and presentation

Highlight some of the challenges to reallocating
 ED visits to a Family Health Team Practice



Community Triage and Acuity Scale (CTAS) Project Overview

FHT patients are going to the ED department for non acute care problems.

Proposition:

If we know more about ED visits we can recommend solutions to reduce them.

Goal:

WWLHIN goal of a 10% reduction in CTAS 4 & 5 visits.



What is CTAS?

CANADIAN TRIAGE AND ACUITY SCALE (CTAS) NATIONAL GUIDELINES

CTAS Level 1 - Patients need to be seen by a physician immediately 98% of the time.

CTAS Level 2 - Patients need to be seen by a physician within 15 minutes 95% of the time.

CTAS Level 3 - Patients need to be seen by a physician within 30 minutes 90% of the time.

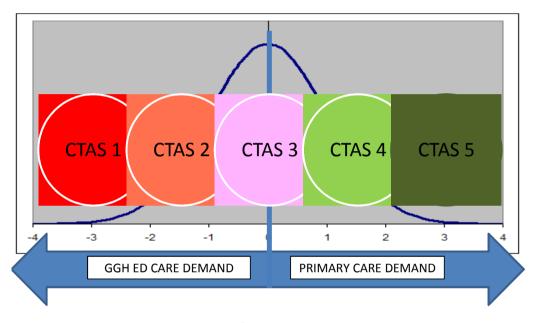
CTAS Level 4 - Patients need to be seen by a physician within 60 minutes 85% of the time.

CTAS Level 5 - Patients need to be seen by a physician within 120 minutes 80 % of the time.

The current average patient time in Guelph General Hospital (GGH) ED is 240 minutes



ED Visits: A Supply/Demand Allocation?



There is strong agreement some of an ED demand does not require the resources of an acute care system.

However the alternatives are not a well-defined.

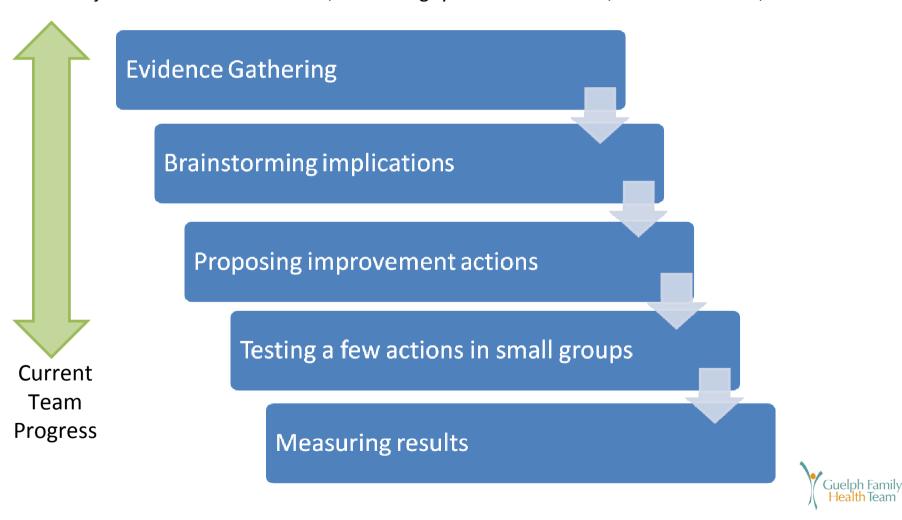
Allocating or reducing some of the current demand will require testing suggestions.

Proposing useful suggestions requires detailed evidence of ED visits



Guelph FHT CTAS team & tasks

Project Team: Dr. Aaron Smith, Dr. Ian Digby Dr. David Schieck, Ross Kirkconnell, Kirk Miller



Project Clinical Participants

Dawson Road Family Medical Clinic



Stone Road Family Medical Clinic



Guelph General Hospital





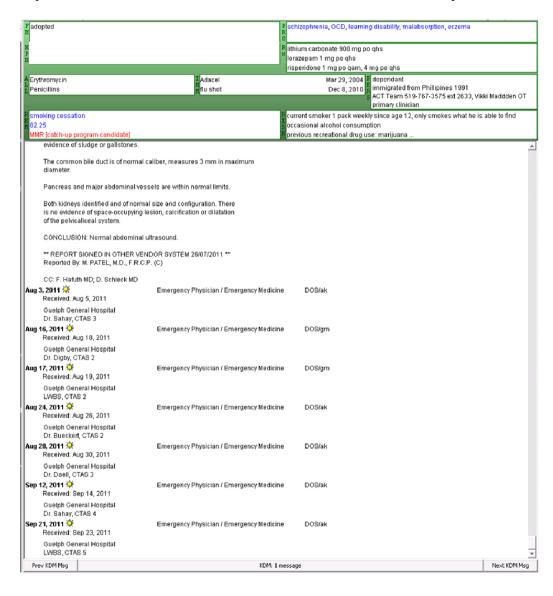
EMR ED DATA

Primary care EMRs and ED information

- ED discharge or visit information is sent to each chart
- Capability to mine and aggregate this data is very low for most EMRs



How Hospital ED visits are recorded today in an EMR





Reviewable reports in the EMR provide FP with capability to assist

patient Adult Emergency Triage Record **EUELPH** Immunizations HTD II Outdated | EMS CTAS Code 1 2 3 4 5 □ C-collar □backboard □ splint Method of arrival ☐ Ambular or D Police D Wheelchair Pre-hospital Care: Accompanied by: Insommia sleep all Jak tille mode DUNNES are making The body at work today and said he conduct think possessy that he makes at the conduct the possessy that the conduct of the co Level of Consciousness Within normal limits D Alert and oriented Agitated Un-cooperative [] Combative ☐ Mucus membranes moist ☐ dry Hallucinating D LOC x Pain Scale 0 1 2 3 4 5 6 7 8 9 10 Mental health risk assessment completed Li Peripheral | Central | Acute | Chronic D NA D Patient doesn't understand P/S DV Screening Negative | Positive Past Medical History | None | Unknown Dote/route Proquency last dose Drug O HTN U Diabetes O Smoker #/day schizo ofestive disorder. Triage Interventions D Tylenol Signature of tr Triage Reassessment O2 sat%

GUELPH GENERAL INCOPITAL	Emergene	cy Physician Recor	d ·	
hopens				
Rm#	Assessment time: Z1	Td DT	D □ outdated	Wukg
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	JUI! His v	ochiolkit.	□ Lytes	D D-dimer
	disender	Lillerd	-El- Glucose	п ск
	by A-7 X	Loan mede	□ BUN □ Creat	Urine dip
	bure	01.	☐ Creat ☐ Amylase	Urine HCG Urine R &M
	to And	4 1 04	□ LFT's	☐ Urine C&S
	2 4 1 41	47	□ ETOH	Drug screen
	Own Fles	my sagry	☐ ASA ☐ Tylenol	☐ Serum HCG ☐ Group/screen
	- dung gley;	tencerical	□ Osmolality	☐ X match
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module.		- 4137	☐ Other Hospit	al OSDS
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		1 -	- inposition rais	



How is this information used in FP clinic?

- Immediate FP follow-ups
- Adjustment of medications
- Referrals to other FHT IHPs
- Referrals to Specialists or other HC agencies

Very effective for individual care but data cannot be easily aggregated for population or practice statistics



Digital Data Reports

c	alph Canaval Haspital					
	Guelph General Hospital					
Gue	uelph FHT Patient Documentation Access					
List	of Available reports					
	Andical Transcription Donorts					
1. //	Medical Transcription Reports					
1	CLINIC NOTE					
2	CONSULTATION					
3	DELIVERY NOTE					
4	DISCHARGE SUMMARY					
5	EXERCISE STRESS TEST					
6	ORTHOPEDIC CLINIC					
7	HISTORY & PHYSICAL					
8	LETTER					
9	PEDIATRIC MENTAL HEALTH CN					
10	MINISTRY OF HEALTH					
11	ONCOLOGY NOTE					
12	OPERATIVE NOTE PACEMAKER CLINIC					
13 14						
15	PROGRESS NOTE					
16	PREOPERATIVE REPORT					
17						
18	MINISTRY OF TRANSPORT LETTER					
2. F	Radiology text reports					
1	MRI					
2	CT					
3	X-ray					
4	Mammo					
5	BMD					
6	Echocardiography					
7	Nuclear Medicine					
8	Ultrasound					
9	DI Endovascular					
10	Vascular Laboratory					
3. l	_aboratory Reports					
1	Chemistry					
2	Hematology					
3	Bloodbank					
4	Microbiology					
5	Pathology.					

GGH Digital Data



Guelph FHT

ED VISIT REPORT

Days in this report	182.00			
Start Date	Monday, March 07, 2011			
Finish date	Sunday, September 04, 2011			

Physicians		_	TAS COUN Visits in 18	TOTAL VISITS	ED Visits adjusted # per month per 1000	Active Panel Size		
	1.00	2.00	3.00	4.00	5.00		Rostered Patients	
Physician 1	1.00	40.00	67.00	67.00	5.00	180.00	24.60	1206.00
Physician 2		24.00	74.00	42.00	1.00	141.00	24.49	949.00
Physician 3		46.00	136.00	89.00	2.00	273.00	20.54	2191.00
Physician 4		36.00	99.00	82.00	6.00	223.00	17.01	2161.00
Physician 5	1.00	34.00	99.00	65.00	6.00	205.00	18.96	1782.00
Totals	2.00	180.00	475.00	345.00	20.00	1022.00	20.32	8289.00



CTAS Summary information

CTAS	1.00	2.00	3.00	4.00	5.00	Grand Total
Total VISITS	2.00	180.00	475.00	345.00	20.00	1022.00
% of Total	0%	18%	46%	34%	2%	100%
ED Visits per month per 1000 Rostered Patients	0.04	3.58	9.45	6.86	0.40	20.32
Predicted Monthly GGH ED VISITS for all GFHT	GGH ED VISITS 4		945	686	40	2,032
Predicted Annual GGH ED VISITS for all GFHT	47.73	4,295	11,335	8,233	477	24,388



Putting the data to work

Information for decision support needs a presentation that FP and IHP can use to understand trends and opportunities to redirect patient ED demand



Better but not best...yet

Guelph FHT GGH ED VISIT REPORT

REDUCTION TARGET	1.19	Patients per
REBOOTION TARGET	1.10	Month

Physician 1

	Total VISITS					
CTAS	1.00	2.00	3.00	4.00	5.00	
VISITS	1.00	40.00	67.00	67.00	5.00	180
%	0.6%	22.2%	37.2%	37.2%	2.8%	

A		OUTSIDE CLINIC HOURS	93			
В		REGULAR CLINIC HOURS	66			
С		AFTER HOURS CLINIC	21			
Total	Total ALL					

From	То
3/7/2011	9/4/2011
Days in this report	182.00

4.00	3.00	1.0	0	2.0	0												
CTAS	Clinic Option	Multiple	PSS Family Doctor	Patient Name	Patient HCN	Patient HCN Province	Age	Sex	Source	Arrival Date	Arrival Time	CTAS	Reason for Visit	Arrived From	Ambulance ?	² Complaint	Disposition
5.00	С	2.00	Physician 1	Miller , Kirk	123456789	ON	18.00	М	HOM E- SELF, FAMILY, GUAR DI AN	20110627	1825	5.00	UEP	WALK-IN	N	Upper Extremity Pain	ER PT DISCHARGED
5.00	С	1.00	Physician 1	Miller , Peter	123456789	ON	23.00	М	HOME- SELF, FAMILY, GUAR DI AN	20110328	1933	5.00	MED RX	WALK-IN	N	Rx/Med Request	ER PT LEFT WITHOUT BEING SEEN
5.00		1.00	Physician 1	Miller , Mary	123456789	ON	38.00	F	HOME- SELF, FAMILY, GUAR DI AN	20110823	1645	5.00	MINOR COMPLAINTS	WALK-IN	N	Minor Complaint NOS	ER PT DISCHARGED
5.00		2.00	Physician 1	Miller , Joan	123456789	ON	18.00	F	HOME- SELF, FAMILY, GUAR DI AN	20110802	1146	5.00	MINOR COMPLAINTS UNSPECIFIED	WALK-IN	N	Minor Complaint NOS	ER PT DISCHARGED
5.00	А	1.00	Physician 1	Miller , Craig	123456789	ON	32.00	М	HOME- SELF, FAMILY, GUAR DI AN	20110627	47	5.00	ALLERGIC REACTION	WALK-IN	N	Allergic Reaction	ER PT LEFT WITHOUT BEING SEEN
4.00	С	1.00	Physician 1	Miller , Frank	123456789	ON	26.00	F	HOME- SEIF, FAMILY, GUAR DI AN	20110420	2027	4.00	DIRECT CONSULT	WALK-IN	N	OB-GYN-Direct Referral	ER PT DISCHARGED
4.00	С	1.00	Physician 1	Miller , Zoe	123456789	ON	39.00	м	HOM E- SEIF, FAMILY, GUAR DI AN	20110504	1920	4.00	HEAD INJURY	AMBULANCE	Y	Head Injury	ER PT DISCHARGED
4.00	С	1.00	Physician 1	Miller , Janet	123456789	ON	60.00	М	HOME- SEIF, FAMILY, GUAR DI AN	20110715	1822	4.00	LACERATION	WALK-IN	N	Laceration/Puncture	ER PT DISCHARGED
4.00	С	1.00	Physician 1	Miller , Kirk	123456789	ON	16.00	F	HOM E	20110323	1912	4.00	VAG BLEEDING	WALK-IN	N	Vaginal Bleeding	ER PT DISCHARGED
4.00	С	1.00	Physician 1	Miller , George	123456789	ON	33.00	М	HOME- SEIF, FAMILY, GUAR DI AN	20110824	1726	4.00	LOCALIZED REDNESS/SWELLING	WALK-IN	N	Local Swelling/Redness	ER PT DISCHARGED
4.00	С	1.00	Physician 1	Miller , David	123456789	ON	41.00	F	HOME- SELF, FAMILY, GUAR DI AN	20110603	1840	4.00	LOWER EXTREMITY INJURY	WALK-IN	N	Lower Extremity Injury	ER PT DISCHARGED
4.00	С	3.00	Physician 1	Miller , Jock	123456789	ON	22.00	F	HOME- SELF, FAMILY, GUAR DI AN	20110424	1230	4.00	LOWER EXT INJ	WALK-IN	N	Lower Extremity Injury	ER PT DISCHARGED
4.00	В	1.00	Physician 1	Miller , James	123456789	ON	18.00	М	HOME- SELF, FAMILY, GUAR DI AN	20110413	1142	4.00	UPPER EXTREMITY INJURY	WALK-IN	N	Upper Extremity Injury	ER PT DISCHARGED



What if I gave you this list...

Guelph FHT GGH ED VISIT REPORT TOP 20

Prospects for CTAS 4 & 5 reduction

MONTHLY PATIENT VISIT REDUCTION TARGET 1.19

CTAS	Clinic Option	Multiple Count	PSS Family Doctor	Patient Name	Arrival Date	Complaint	REVIEW NOTES
5.00	С	2.00	Physician 1	Miller , Kirk	20110627	Upper Extremity Pain	
5.00	В	2.00	Physician 1	Miller , Peter	20110802	Minor Complaint NOS	
5.00	С	1.00	Physician 1	Miller , Mary	20110328	Rx/Med Request	
5.00	В	1.00	Physician 1	Miller , Joan	20110823	Minor Complaint NOS	***************************************
5.00	Α	1.00	Physician 1	Miller , Craig	20110627	Allergic Reaction	
4.00	Α	5.00	Physician 1	Miller , Frank	20110804	CP (non cardiac features)	
4.00	Α	5.00	Physician 1	Miller , Zoe	20110618	Imaging Test-US Results	
4.00	Α	5.00	Physician 1	Miller , Janet	20110808	Back Pain	
4.00	Α	4.00	Physician 1	Miller , Kirk	20110626	Anxiety/Situational Crisis	
4.00	С	3.00	Physician 1	Miller , George	20110424	Lower Extremity Injury	
4.00	В	3.00	Physician 1	Miller , David	20110727	Nasal Congestion/Hay Fever	
4.00	Α	3.00	Physician 1	Miller , Jock	20110731	Shortness of Breath	



What if I looked up the ED patients' EMRs...

Study Cycle ED Frequent Users

All CTAS VISITS	Major Medical History
20.00	23 M schizophrenia,OCD,learning disability
8.00	81 F Chronic abdominal pain Chronic anxiety depression Mild COPD multiple co morbdities
8.00	20 F no DX hisory of various ailments paticularily headaches
6.00	51 Y Female Mood Disorder Psoriasis Tye 2 Diabetes CAD Sleep Apnea Bladder inbstability Asthma
5.00	17 F ADD, Depression, Seeking Percocet Physchiatric referral
5.00	32 F Chronic pain asthma depression
5.00	42 M Substance Abuse, Diabetes Alcoholic Hepatitis, Anxiety attacks, depression
5.00	16 F Smoker Muscular Dystophy Vaginal Bleed
5.00	28 M Chronic back pain ocycocet injury
5.00	Misscariage investigation
5.00	28 M Chroninc back and shoulder pain
5.00	13 F foot injury worms in stool
5.00	22 F Depression abdominal pain
5.00	61 M Hypercholesterolemia BPH COPD Urinary infection, enlarged prostate, catheter
4.00	23 F Migraine Bi polar, Substance abuse oxycontin, methoadone clinic,RAD, declined trellis services

The process to combine the story of the patient history to ED real time data is unique

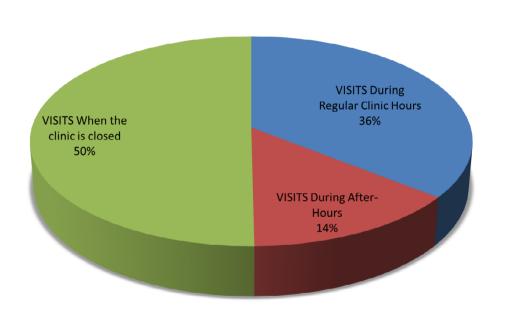


Future Work

Patient Motivation

CTAS VISITS
March to October 2011





Half the Patients could have come to the clinic but choose not to

How could patient education improve these statistics?



ED Frequent Users

CTAS	Top 46 %	All Visits %
CIAS	by CTAS	by CTAS
1.00	0.00%	0.20%
2.00	23.65%	17.61%
3.00	49.26%	46.48%
4.00	26.60%	33.76%
5.00	0.49%	1.96%
Grand Total	100.00%	100.00%

15.1 % of all CTAS 4 & 5 Visits were made by 46 patients (6.3%)

Do frequent use present an opportunity to do more with less?



System Communications



JUL 1 3 2011

Community Physician Emergency Referral Form For All Patients Referred for ED Medical Assessment

Please complete this form and fax with any pertinent test results.

ECGs and consult notes to: 519.837.6460

Today's Date:currentDate.long	Time:currentTime
Patient Last Name: patSurname	First Name: patFirstName
Gender	Age in years:patAge
Referral to Doctor or Special	ialist (name):
Patient is coming by	cle
Reason for Referral (please be specific):	
Current Medications	
pat.Patient_Profile.Rx/MEDS/Treatments.current_meds	
Referring Physician (please print):	e currMdSurname
OHIP Billing #currMdPhysNum	Contact Tel: currMdPhone.default

To speak with an Emergency Department physician, call 519-837-6440 x 2210.

Will improved communications raise confidence and process change towards real shared care?

Next Generation: Online FHTSTATS





Home My Practice My Stats Manage

WELCOME TO GUELPH FHT'S INFORMATION MANAGEMENT SYSTEM!

CURRENT EVENTS

04/25/2011 - Welcome to the new IMS! We've made changes to make the site look better and run faster. Please send any feedback to jason.taylor@guelphfht.com.

UPDATED CONTACT INFORMATION

Please email jason.taylor@guelphfht.com with any IMS related issues.

RECENT FHT ACTIVITY

Profession	Patients Seen		
Aging At Home	120		
Diabetes Care Guelph	645		
Dietitian	467		
Foot Care Specialist	223		
GetFHT	185		
Health Promotion/Kinesiologist	29		
Mental Health Counsellor	876		
Nurse Practitioner	3076		
PCNC	976		
Pharmacist	218		
Psychiatrist	16		



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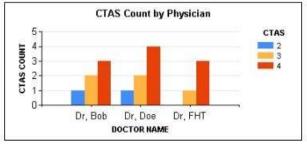


E.R. PRACTICE PROFILE

Report Generated For: Clinic A
Date Generated: October 5, 2011
Roster Size: 2000

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er Size:	2000

Family Doctor	Patient Name	CTAS	Reason for Visit	Visit Timing
Dr, Bob 💠	Gomez, Selena	2	Headache	<u> </u>
Dr, Bob ‡	Mouse, Minnie	3	Pregnancy Issue < 20 weeks	•
Dr, Bob c	Mouse, Minnie	3	Imaging Test-US Results	•
Dr, Bob 💠	A guilera, Christina	4	Burn	0
Dr, Bob 💲	Gaga, Lady	4	Lac eration/P uncture	•
Dr, Bob 💠	Jackson, Michael	4	Cough or congestion	•
Dr, Doe 💠	A babwa, Aladdin	2	Fever	•
Dr, Doe 💠	A babwa, Jasmine	3	Back Pain	•
Dr, Doe 💠	Spears, Britney	3	Abdominal Pain	•
Dr, Doe 😊	Dion, Celine	4	Back Pain	9
Dr, Doe 💠	Fa, Mulan	4	Mouth, Dental/Gum Problems	0
Dr, Doe 💠	Prime, Optimus	4	Back Pain	•
Dr, Doe 💠	Swift, Taylor	*4	Anxiety/Situational Crisis	•
Dr, FHT 💠	Finding, Nemo	3	Upper Extremity Injury	•
Dr, FHT 💠	Duck, Daisy	4	Vaginal Discharge	
Dr, FHT :	Duck, Donald	4	Rash	•
Dr, FHT 3	Finding, Nemo	4	Rx/Med Request	







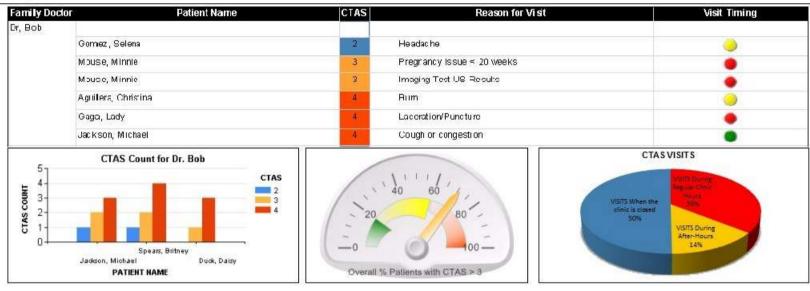
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E.D. PHYSICIAN PROFILE

Report Generated For: Dr. Bob
Date Generated: October 5, 2011

Roster Size: 578



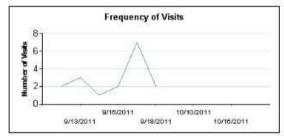
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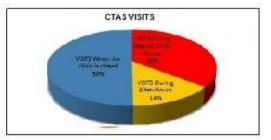
E.D. PATIENT PROFILE

Report Generated For: Selena Gomez
Date Generated: October 5, 2011
Physician: Dr. Bob

Patient Name	CTAS	Reason for Visit	Visit Timing	Arrival Date	Visit Count
Gomez, Selena	2	Headache	③	9/12/2011	1
Gomez, Selena	1.	Headache		9/17/2011	2
Gomez, Selena	2	Headache	•	9/25/2011	3
Gomez, Selena	3	Headache	•	10/10/2011	4
Gomez, Selena	4	Headache		10/15/2011	5
Gomez, Selena	2	Headache	(a)	10/16/2011	.6
Gomez, Selena	3	Headache		10/17/2011	7







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Summary to date

- Created a system to acquire ED Data
- Added a process for IHP to review ED data in an useful format with Family Physicians
- Acquired permission from the Family
 Physicians team to continue development of ED project
- Increased the opportunity to improve communications between ED and Family Physicians



Thank -you

