The receipt of information about emergency room care by family physicians in the community.

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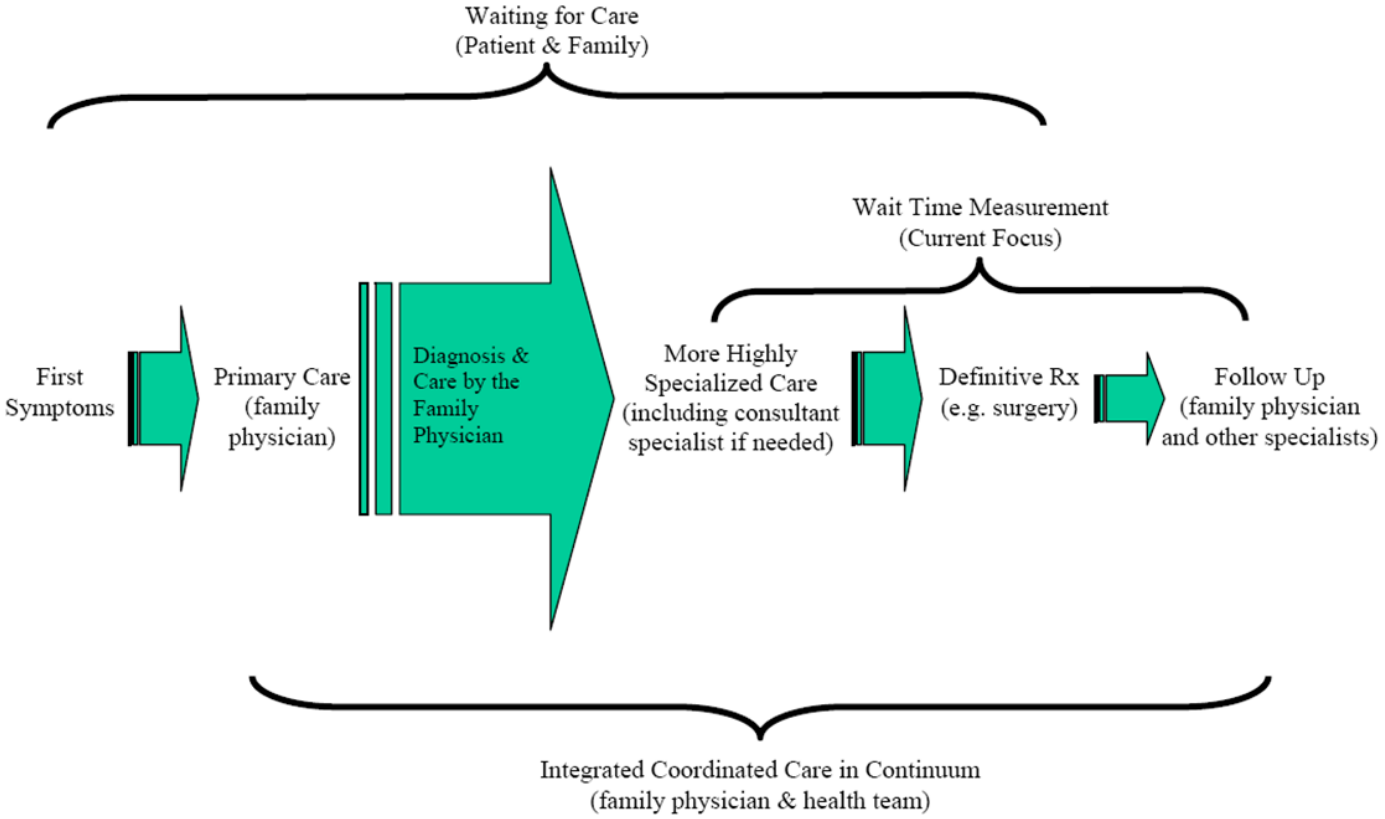
Background

- Canadians are known to be the most frequent users of emergency room (ER) care amongst all the Commonwealth nations.

- An indicator for lack of access to after hours primary care, poor chronic disease management and poor palliative care

- Also concerning for being not cost-effective care.

Wait Times in Primary Care



(from "... and Still Waiting. Exploring Primary Care Wait Times in Canada.
The Primary Care Wait Time Partnership. College of Family Physicians of Canada, Discussion Paper")

Background

- Increasingly in many provinces in Canada, the completion of a discharge note/summary within 48 hours of a patient leaving the hospital is a quality of care measure.

- Strong evidence in the literature that having a note from the hospital decreases prescribing errors and may improve chronic disease management.

- Almost 80% of Family Physicians in Ontario, Canada are using Electronic Medical Records.

Objectives

1. To determine whether information from a patient's emergency room visit is received by their Family Physician.

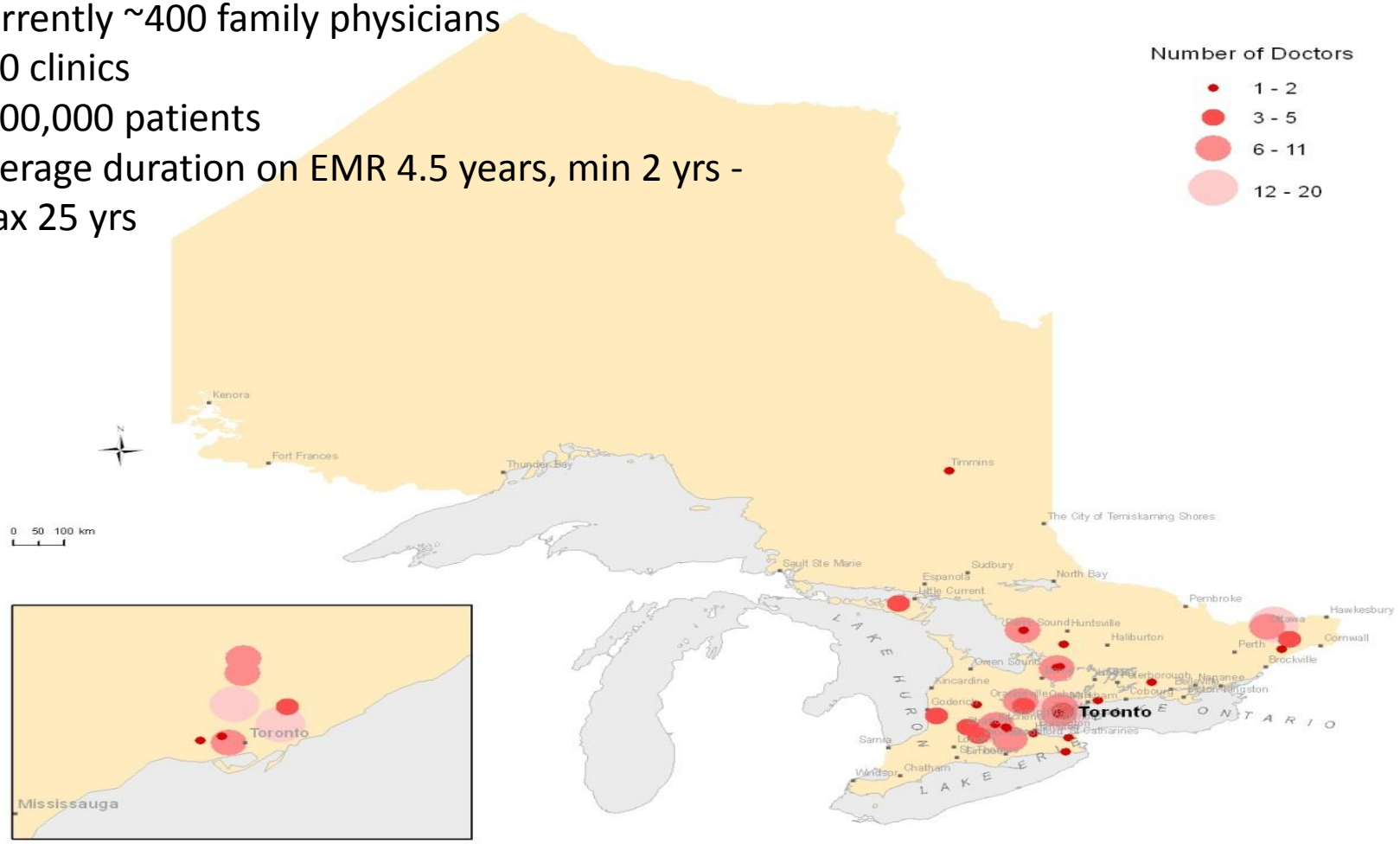
2. To examine patient and provider factors related to the receipt of this information.

Data Sources

- EMRALD (Electronic Medical Record Administrative data Linked Database)
    - Practice Solutions® EMR in Ontario
- Canadian Institute for Health Information NACRS
- Ontario Health Insurance Plan (OHIP) claims
- CPDB (Corporate Physician Database) and ICES physician database
- CAPE database of rostered primary care patients
- Statistics Canada postal code conversion file and census data for socioeconomic status

EMRALD Geographic Distribution

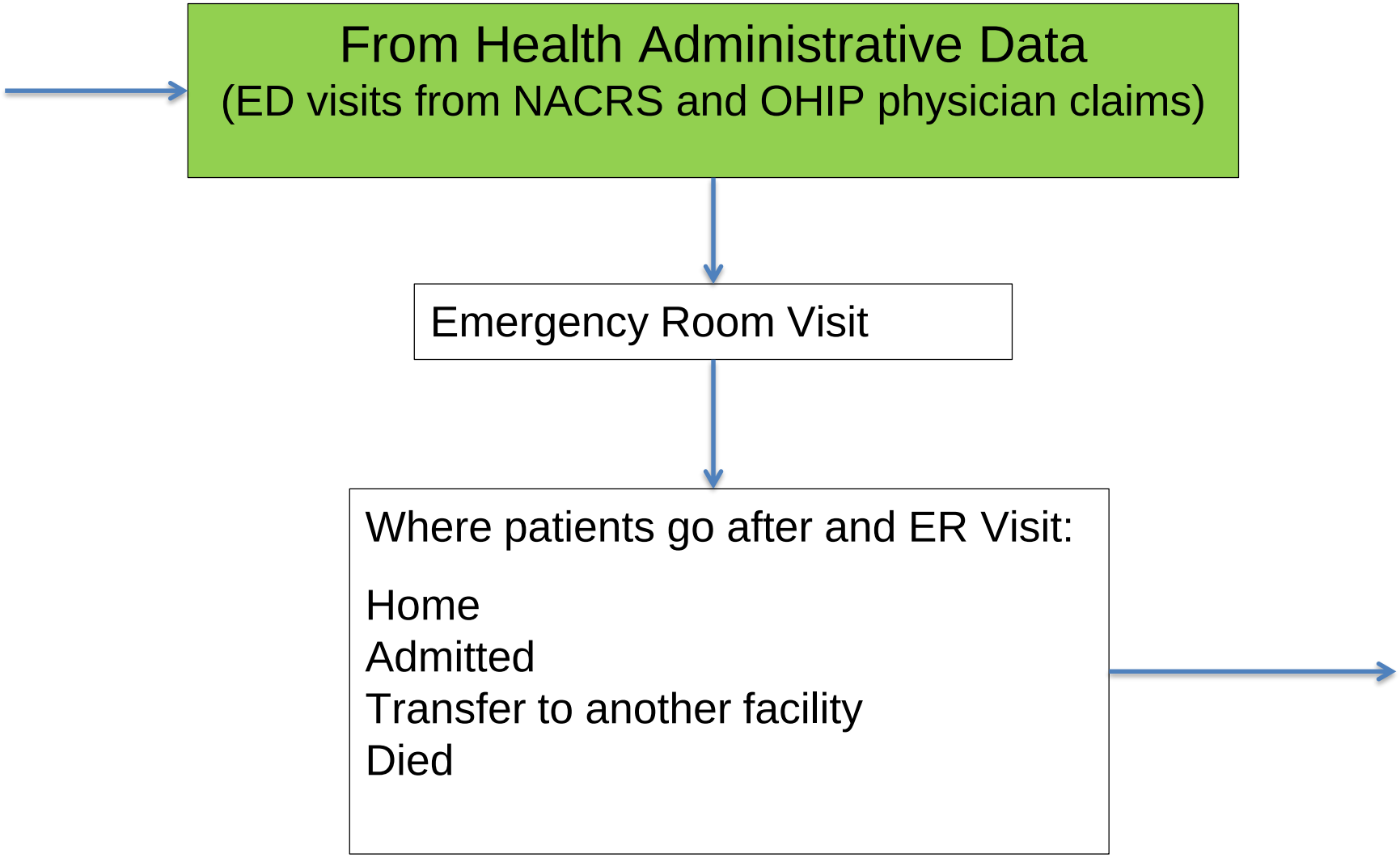
Currently ~400 family physicians
~50 clinics
>500,000 patients
Average duration on EMR 4.5 years, min 2 yrs - max 25 yrs

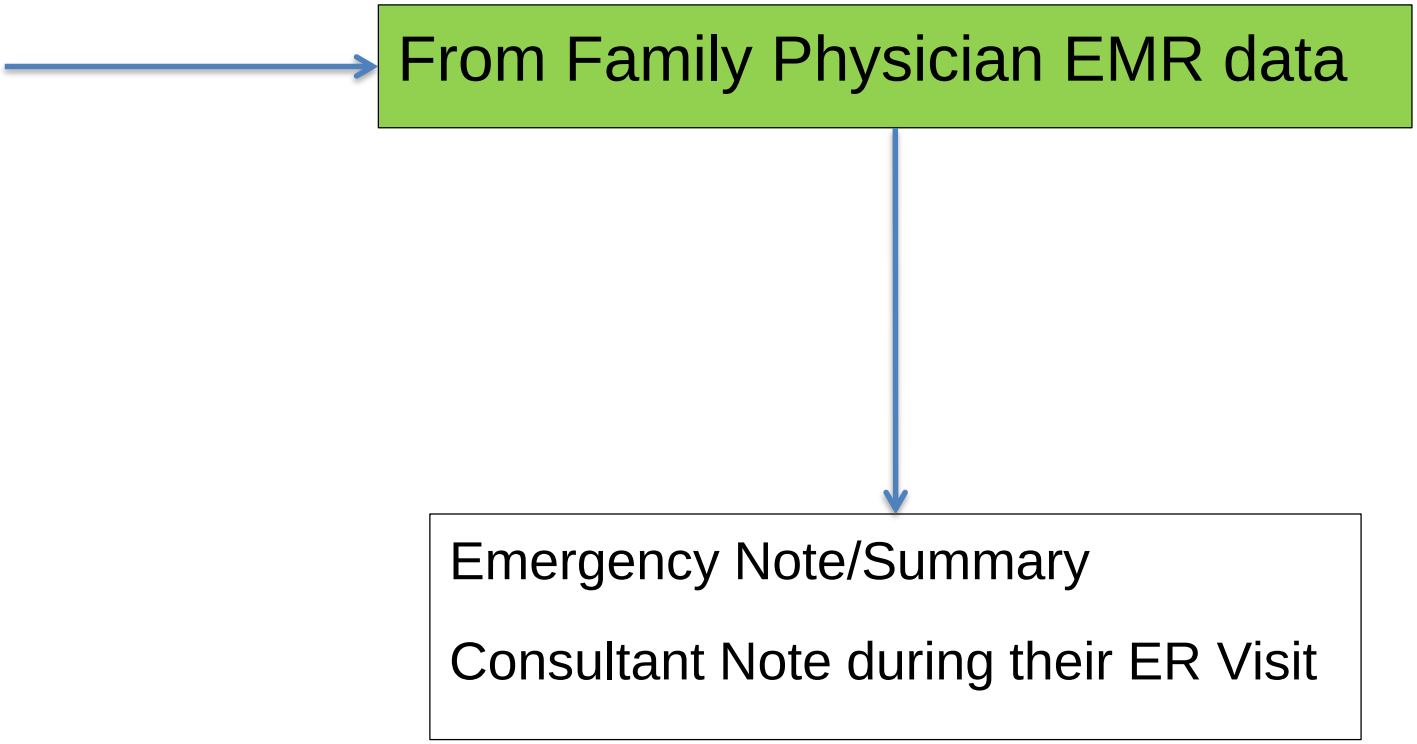


EMRALD Eligible Cohort Selection Criteria:

- Patients
  - Valid health card, valid date of birth, FP belongs to the group practice, patient was still rostered as of the last record load

- Physicians
  - Physician has signed a DSA with ICES, physician is still active, physician is completely utilizing the EMR in their practice


From Health Administrative Data
(ED visits from NACRS and OHIP physician claims)
Emergency Room Visit
Where patients go after and ER Visit:
Home
Admitted
Transfer to another facility
Died


From Family Physician EMR data
Emergency Note/Summary
Consultant Note during their ER Visit

Administrative Data

- Patient Factors
  - Age, Sex, Comorbidity, Socioeconomic Status
- Provider Factors
  - Age, sex, rurality, continuity of care
- Practice Factors
  - Participation in a primary care group

Data Analysis

Proportion of notes received within 30 days, 60 days and 90 days of discharge from the emergency department

Bivariate Analysis

Of the patient and providers factors

Results (N= 301 Family Physicians)

From January 1, 2013 to December 31, 2013

There were 252,932 eligible patients.

These patients had 48,259 emergency department visits.

Study Cohort Demographics

		TOTAL N=48,259
Sex	Female	27,467 (56.9%)
	Male	20,792 (43.1%)
Mean Age		48.89 ± 18.91
Age Group (Years)	18-24	5,378 (11.1%)
	25-44	15,678 (32.5%)
	45-64	16,348 (33.9%)
	65-84	9,194 (19.1%)
	85+	1,661 (3.4%)
Income Quintile		
	1 (Low income)	9,526 (19.7%)
	2	9,692 (20.1%)
	3	9,554 (19.8%)
	4	9,580 (19.9%)
	5 (High income)	9,687 (20.1%)
location	Major urban	25,903 (53.7%)
	Rural	4,728 (9.8%)
	Small urban	17,628 (36.5%)

Study Cohort Demographics-continued

		TOTAL N=48,259
Comorbidity (ACG Groups)		
	1-4	**24,293 (50.3%)**
	5-9	**20,689 (42.9%)**
	High comorbidity (10+)	**3,174 (6.6%)**
Post AMI		**1,055 (2.2%)**
Asthma		**8,565 (17.7%)**
CHF		**1,583 (3.3%)**
COPD		**5,194 (10.8%)**
Diabetes		**6,570 (13.6%)**
Hypertension		**14,384 (29.8%)**
Discharge disposition	**D/C to their home**	**45,971 (95.3%)**
	Left AMA	**1,689 (3.5%)**
	Transfers	**599 (1.2%)**

Receipt of discharge summary/consultation note from an emergency room visit?

Note received within *30* days after discharge date **(6.3%**)

Note received within *60* days after discharge date **(7.3%)**

Note received within *90* days after discharge date (**7.9%**)

89.0% never had any note from the emergency room

Patient factors

		NO ER NOTE N=44,492	*YES ER NOTE* N=3,767	P-VALUE
Patient Sex	Female	56.90%	56.50%	0.605
	Male	43.10%	43.50%	
Age (Mean SD)		48.60 ± 18.84	53.30 ± 19.56	<.001
Age Group	18_24	11.40%	7.20%	<.001
	25_44	32.70%	28.60%	
	45_64	33.90%	33.20%	
	65_84	18.70%	25.20%	
	85+	3.30%	5.80%	
Income Quintile				<.001
	1 (Low)	19.90%	16.90%	
	2	20.10%	19.10%	
	3	19.90%	18.30%	
	4	19.80%	21.20%	
	5 (High)	19.80%	24.00%	
location	Major urban	53.80%	52.30%	<.001
	Rural	10.10%	5.90%	
	Suburban	36.20%	41.80%	

Patient factors

		NO ER NOTE N=44,492	*YES ER NOTE* N=3,767	P-VALUE
Comorbidity (ACG Group)				
	1-4 (Low comorbidity)	51.40%	33.70%	
	5_9	42.20%	53.10%	
	10+ (High Comorbidity)	6.20%	13.20%	
Post AMI		2.10%	3.00%	0.003
Asthma		17.80%	17.20%	0.421
CHF		3.10%	5.70%	<.001
COPD		10.50%	14.50%	<.001
Diabetes		13.30%	18.30%	<.001
Hypertension		29.20%	38.60%	<.001
Discharge disposition	D/C to their home	95.50%	91.00%	<.001
	Left AMA	3.70%	1.10%	
	transfers	0.80%	7.90%	

Provider Factors

		NO ER note	*YES ER NOTE*	
Physician Sex	**Female**	**46%**	**29.10%**	**<0.001**
	Male	**53.40%**	**70.90%**	
Physician Age	**< 35 years**	**23.50%**	**12.40%**	**<0.001**
	35 to 55 Years	**48.70%**	**41.50%**	
	>56 years	**27.80%**	**46.10%**	
Practice Location	**Major Urban**	**21.90%**	**18.80%**	**<0.001**
	Suburban	**42.10%**	**66.10%**	
	Rural	**39.10%**	**10.80%**	
	Capitation	**38.70%**	**34.90%**	**<0.001**
	Enhanced FFS	**54.40%**	**46.90%**	
	Other	**6.90%**	**18.20%**	

So how does this compare to the receipt of other notes?

- 4.7% of hospital discharge notes/notifications are received by a patients FP within 3 days of discharge, 15.0% within 30 days, 17.4% within 60 days and 18.4% within 90 days of discharge from hospital.

- Not quite 50% of consultation notes from surgical and medical consultation visits are received by a patients family doctor within 1 year of a visit with a consultant physician.

Conclusions

- Information from an emergency room visit is **rarely** provided to a patients family physicians.
- Older, sicker and wealthier patients were more likely to have their FP receive a note from an emergency visit.
- Suburban, older, male and physicians in non-capitation-based models were more likely to receive a note from an emergency room visit.

Limitations and Next Steps

- While across Ontario, over represents rural FPs and Canadian trained FPs.
- We did not examine the quality of the information received.
- Examine the receipt of notes in relation to newer programs such as eDischarge.
- Examine the receipt of notes by specific acute and chronic disease conditions and triage scores.

Thank You

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