

# Implementing EDIS: A Tale of Two Hospitals

Cindy Bolton, Senior Project Manager  
Kingston General Hospital  
e Health Conference 2015  
Toronto, ON

# HDH & KGH



Urgent Care Centre (12 hrs/day)  
43,000 visits per year  
CTAS 3, 4, & 5



24/7 Regional Trauma & Stroke Centre  
45,000 visits per year  
CTAS 2, 3, 4s

Shared ER physicians, residents, med students and patients

# EDIS Timeline

## March 2011

- Tracking
- Result
- Triage & E Rx

## June 2012

- Nursing & Allied charting

## June 2013

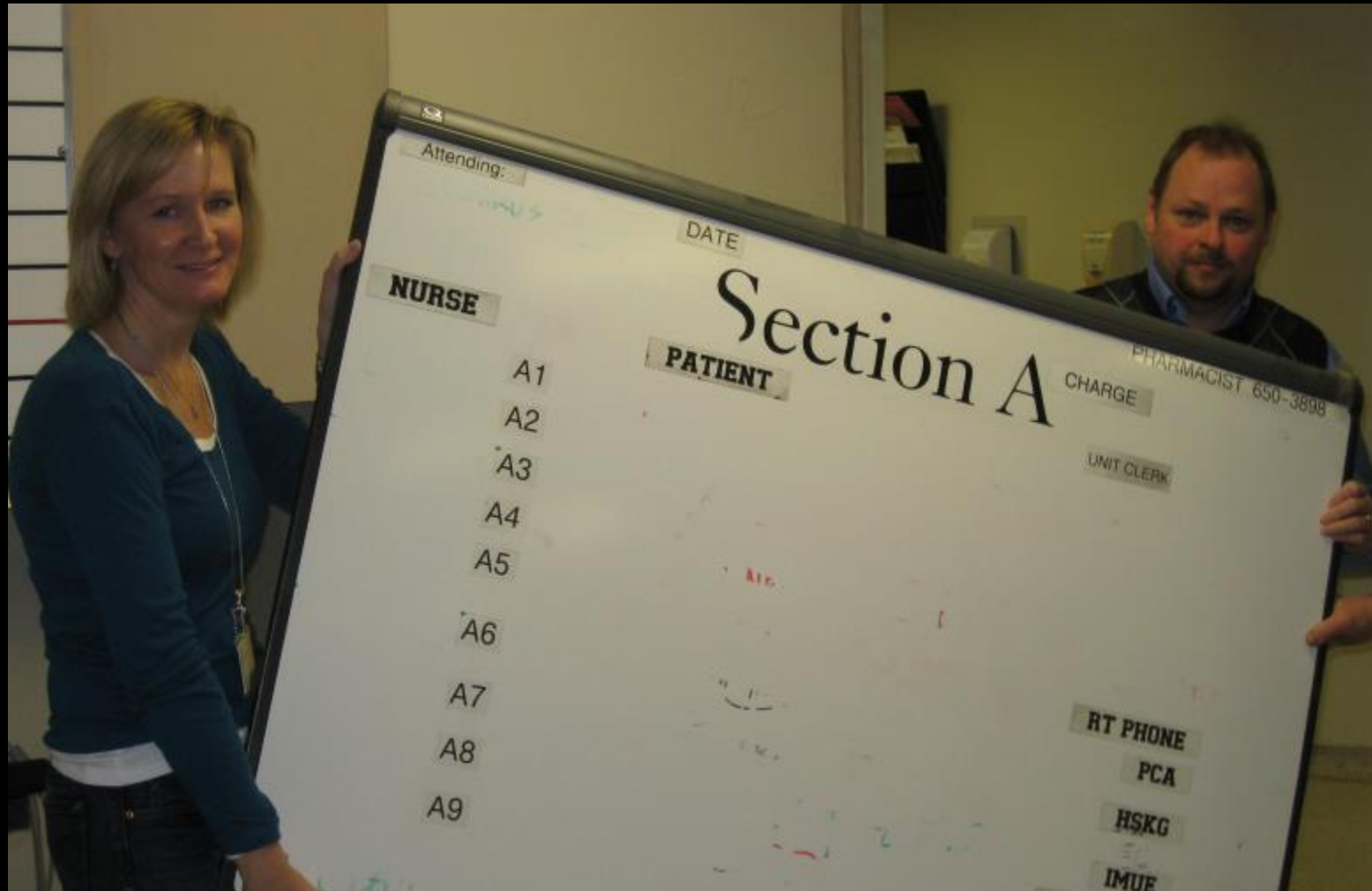
- Physician documentation
- MDM interface
- Billing Capture
- Deficiency & Delinquency
- Primary Care e Summary

## May 2015

### CPOE

- Meds
- Labs
- Imaging
- Clinic & Outpatient Referrals

# Before EDIS



~88,000 visits tracked on grease boards

# After EDIS

KGH Patient Charts																				View: Patient Track		Filter: All Patients		Link:
Rm	R	Patient	P	CR	Reason fo	Age/D	G	C	Arriva	Status	ET S	MSG/Inf	MD Atten	M	Res/NP	R	RN	R	Service	Call	Nurs	Rslt	L	
....		XXXXXXXXXXXXXXXX		XXXX			M		22:07	Enrt/EMS	22:07	Perth - criti												
....	QF	XXXXXXXXXXXXXXXX		065		32yr	F		0:16	Triage	0:16													
....	QF	XXXXXXXXXXXXXXXX		080	XXXXXXXXXXXXXXXX	73yr	M		0:08	Triage	0:08													
A01	FF	XXXXXXXXXXXXXXXX		051	XXXXXXXXXXXXXXXX	73yr	M	2	1:01	Care/InProg	0:53		Landine, Jan		Stuart, Kathe		Wendy S					0:18	0:2	
A02	FF	XXXXXXXXXXXXXXXX		053	XXXXXXXXXXXXXXXX	63yr	M	2	1:28	Care/InProg	1:17	n	Landine, Jan		Stuart, Kathe		Wendy S					0:18	0:7	
A03	FF	XXXXXXXXXXXXXXXX		014	XXXXXXXXXXXXXXXX	69yr	M	2	0:42	MD/evl	0:21						Louise Sr							
A04	FF	XXXXXXXXXXXXXXXX		049	XXXXXXXXXXXXXXXX	53yr	M	2	3:27	Care/InProg	3:16		Landine, Jan				Louise Sr					2:29	2:2	
A08	FF	XXXXXXXXXXXXXXXX		005	XXX	80yr	M	2	10:24	Consult	6:20	icu	Rang, Louis	L			Allison M	Otolaryngology	2:44		8:54	8:8		
A09	FF	XXXXXXXXXXXXXXXX		053	XXXXXXXXXXXXXXXX	79yr	F	3	15:46	Consult	6:49	icu	Brooks, Stev	S			David Co	Otolaryngology	2:31		11:04	12:2		
Ah-1	FF	XXXXXXXXXXXXXXXX		037	XXXXXXXXXXXXXXXX	44yr	F	3	12:21	Care/InProg	12:16	d/c....HDH	Direct Servic	X			Allison M	Cardiology	12:01		1:20	1:2		
B01	Ac	XXXXXXXXXXXXXXXX		061	XXXXXXXXXXXXXXXX	30yr	M	3	7:39	Admit	2:57	FORM1	Rang, Louis	L	Lui, Andre, M	Al	Marla Ch	MH	4:46		3:25	3:2		
B02	FF	XXXXXXXXXXXXXXXX		115	XXXXXXXXXXXXXXXX	61yr	M	5	0:59	Dsch/Rapid	0:11		Landine, Jan	Ja			Marla Ch							
B03	FF	XXXXXXXXXXXX							0:24			ems												
B03	FF	XXXXXXXXXXXXXXXX		012	XXXXXXXXXXXXXXXX	66yr	M	3	0:16	Care/InProg	0:04		Landine, Jan											
B06	FF	XXXXXXXXXXXXXXXX		050	XXXXXXXXXXXX	43yr	M	3	1:59	Care/InProg	1:25	labs pendir	Landine, Jan				Marla Ch					0:42	0:4	
B07	FF	XXXXXXXXXXXXXXXX		030	XXXXXXXXXXXXXXXX	30yr	M	3	4:08	Care/InProg	3:44	CT@0800	Landine, Jan		Lui, Andre, M	Al	Emily Cle					3:12	3:7	
C01	Ac	XXXXXXXXXXXXXXXX		008	XXXXXXXXXXXXXXXX	48yr	M	3	12:53	Admit	2:58	ct-done/ecf	Brooks, Stev	S			Jocelin H	IMUA	4:46		0:04	2:0		
C02	Ac	XXXXXXXXXXXXXXXX		070	XXXXXXXXXXXXXXXX	81yr	F	3	18:06	Admit	9:15		Brooks, Stev	S			Jocelin H	IMUC	9:15		0:25	9:2		
C03	Ac	XXXXXXXXXXXXXXXX		009	XXXXXXXXXXXXXXXX	79yr	F	2	21:36	Admit	9:51	TELE,ccac	Crawford, Fr	Fi	Talikowska-S	E	Jocelin H	IMUA	17:08		2:34	0:0		
C04	FF	XXXXXXXXXXXXXXXX		088	XXXXXXXXXXXXXXXX	78yr	M	3	8:00	Consult	3:31		Rang, Louis	L	Lui, Andre, M	Al	Jocelin H	Urology	3:31		0:18	0:7		
C05	Ac	XXXXXXXXXXXXXXXX		033	XXXXXXXXXXXXXXXX	28yr	F	2	27:04	Admit/Ready	0:09	C375, MS	Crawford, Fr	Fi			Jocelin H	IMUE	18:04		1:39	13:3		
C06	FF	XXXXXXXXXXXXXXXX		057	XXXXXXXXXXXX	83yr	M	4	17:42	Care/InProg	8:08	CCAC -M	Landine, Jan	R			Emily Cle	MH	10:46		0:31	11:3		

# EDIS Timeline

Physicians were frustrated and reluctant to move forward

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## May 2015

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- Meds
- Labs
- Imaging
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# Face to Face Interviews

1. Top issues/frustrations with EDIS
2. What do you suggest to address these issues?
3. Expectations of electronic documentation?
4. Concerns about electronic documentation?
5. Would you be willing to be involved?
6. What are the best ways to communicate?

# Expectations

- Fast
- Capture billing
- Fit in workflow
- Quality documentation
- Capture the “story”
- Communication to primary care
- Common templates e.g., croup
- Links to evidence e.g., Ottawa Ankle Rules



# What we heard

A word cloud of healthcare IT terms. The words are arranged in a roughly triangular shape, with the largest words at the top and smaller words at the bottom. The words are: passwords, sign on, user issues, ergonomics, more computers, hybrid world, PACs/PCS/EDIS, education, discharge list, HDH flow, triage story, and physician only computers.

passwords  
sign on  
user issues  
ergonomics  
more computers hybrid world  
PACs/PCS/EDIS education  
discharge list HDH flow  
triage story  
physician only computers

# Expectations of CPOE

- Bring together hybrid workflow
- Replace paper imaging requisition process
- Integrate clinical referrals & OP diagnostics
- Fast and easy to use
- Protocols and Panels

# Challenges with CPOE

- Complex interfaces to downstream systems
- Addressing CPOE build issues for the first time
- KGH nurses living in 3 environments
- Consulted & admitted patients
- Intermittent access to clinical nurses, pharmacists and physicians
- Managing operational requirements and “pet” projects
- Organizations had other priorities

*“Everything looks like a failure when  
you are in the middle”*

**team fatigue**  
**nursing turnover**  
**Retirements**  
**Gridlock**  
**Competing priorities**  
**operational challenges**

# Change Management

- Physicians really wanted it
- Trusted and respected team
- Listened to the cynics
- Engaged physicians and nurses early
- Used formal clinical meetings across sites
- DI challenges late in the game

# Go Live “a non event”



# Why it Worked

- One phase at a time
- Same core team during project
- Solution – easy & intuitive
- Understanding of the clinical work flows
- Rigorous testing
- Technical go live in advance
- Built on what we had learned
- Continued support and optimization

# Education

- 1:1 sessions for attending MDs
- ER Physician taught residents
- Nurses trained their peers
- Hands on training
- E Learning
- Future – training videos



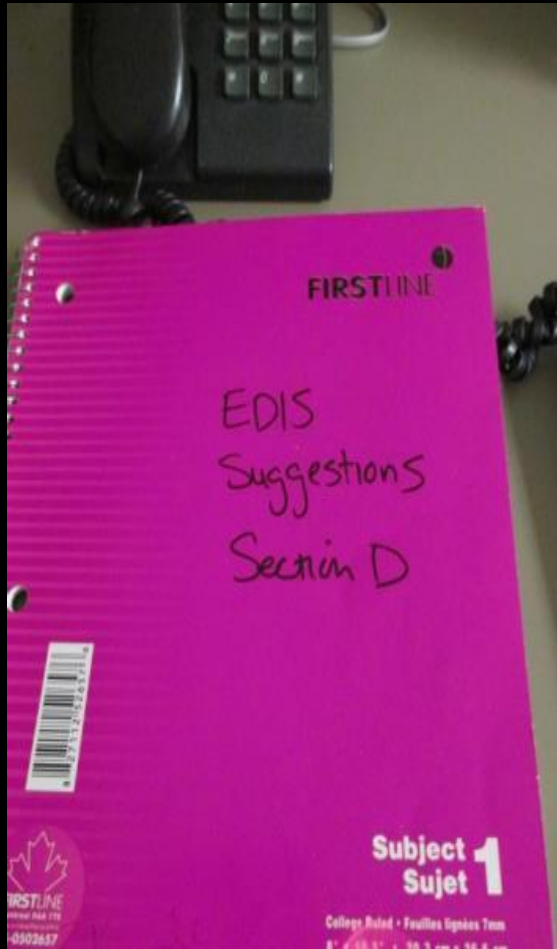


# Expert Users



Trainers became expert users

# Post Go Live Issue Resolution



MAY 14

I NOTICED A COUPLE OF TIMES YESTERDAY & THIS AM, WHEN PEOPLE ARE TRYING TO POSTPONE ORDERS, THEY ARE LEAVING THE CURSOR ON THE LINE BELOW I.E. CLICK ON TROP/CK & HIT ENTER, THEN HIT POSTPONE,  $\therefore$  THE CLOCK STARTS TO COUNT DOWN ON A BLANK ORDER. THEN WE HAVE TO CANCEL & RE ORDER.

DID WE ADD CHNIPPAQUE? — added 14/05  
JC — see FAQ " "

IS URINALYSIS GOING TO BE ADDED TO "RENAL COLIC" PANEL?

WE CANT PROCESS ORDERS IN THE ORDERS IF SOMEONE IS IN THE CARE NOTES, EE ELE, OR IF INFECTION CONTROL HAS A CHART.

CAN WE ADD SAUVE LOCK AS WELL AS "SL"

• "REASON FOR EXAM" BOX

- GETTING COMMENTS THAT THERE IS NO

# Leadership Commitment

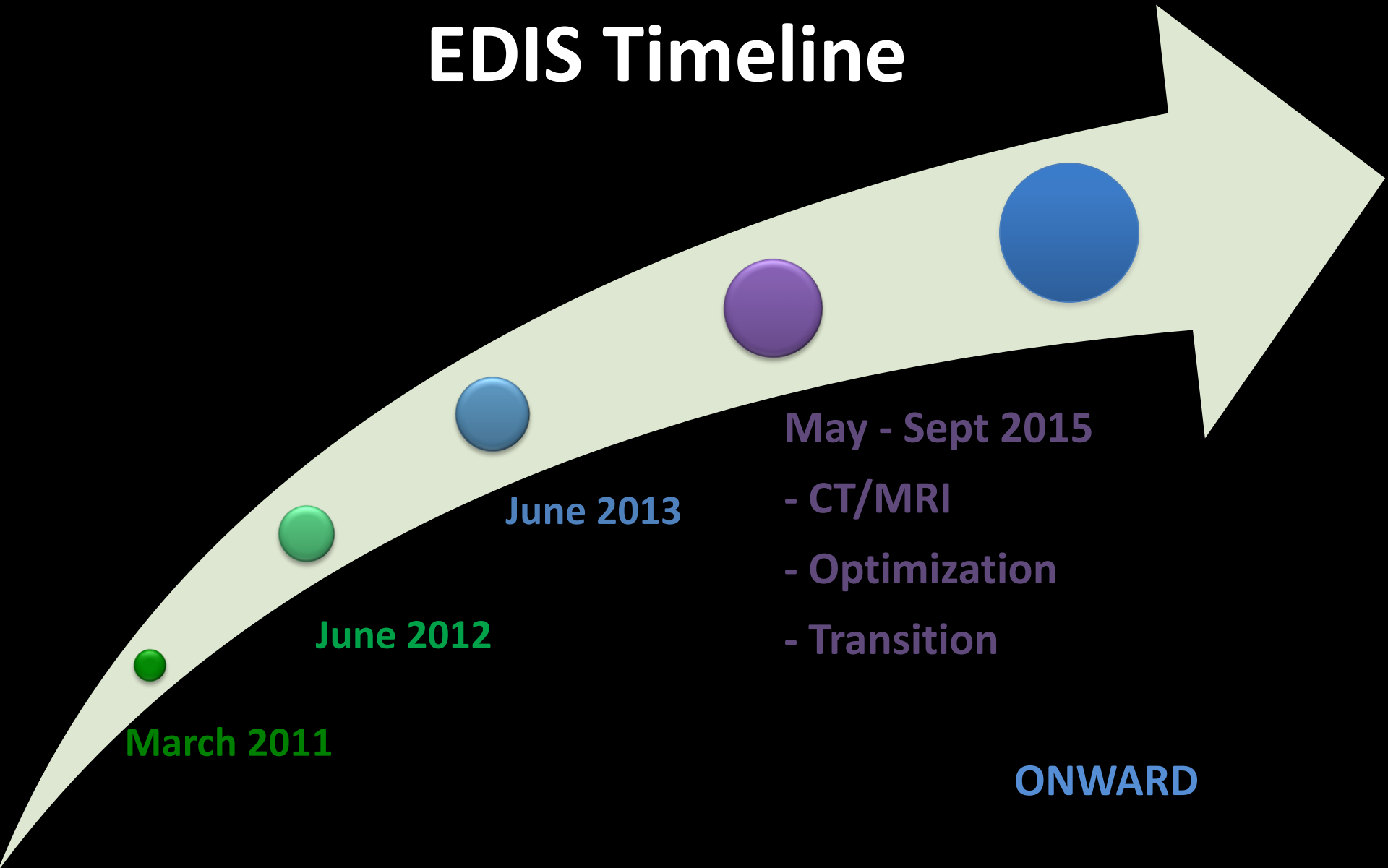


# Team



Sue Lynch, Ken Edwards, Joey Newbigging, Sharon Gourcier & Paul Dungey

# EDIS Timeline



March 2011

June 2012

June 2013

May - Sept 2015

- CT/MRI

- Optimization

- Transition

ONWARD