

### Collaboration between health plan & hospital

Case study

Srikanth Parameswaran Architect

#### **Business** driver

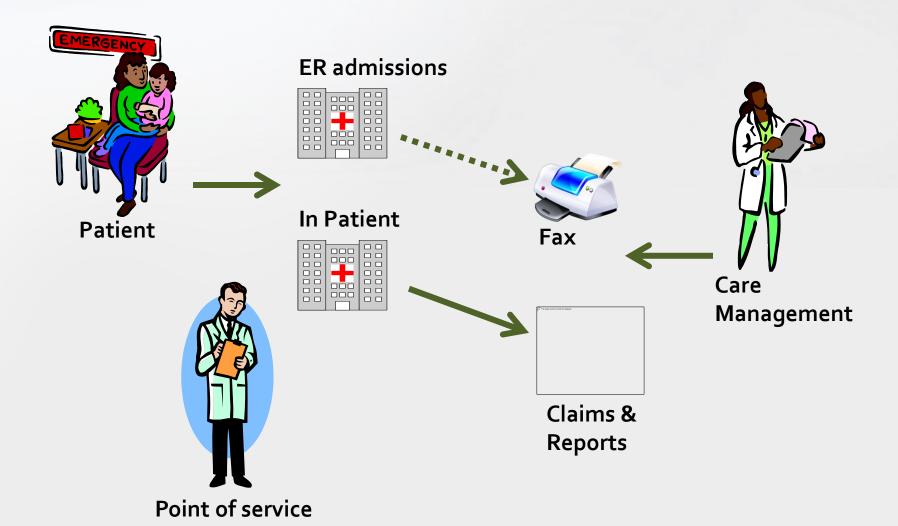


"While providing the best care, achieve operational and cost efficiency by working across the spectrum of care"

- Focus on preventable re-admissions
- Information at point of service
- Improve operational efficiency

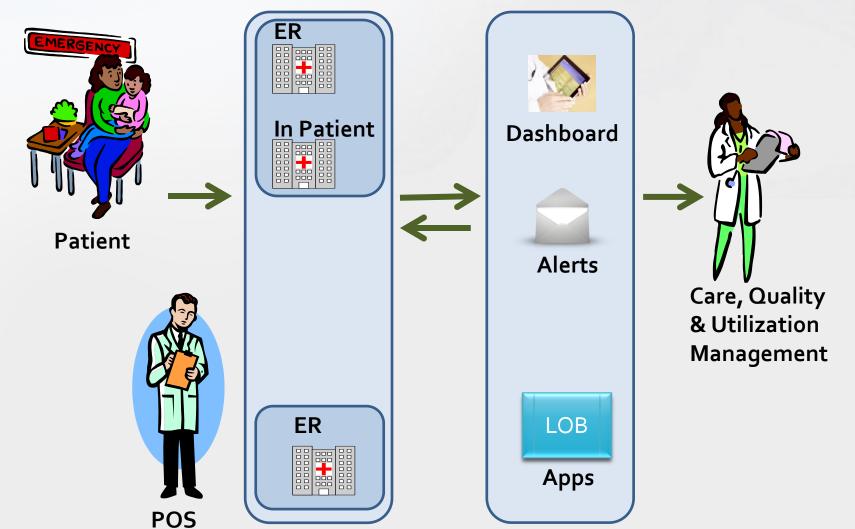






# After – connected no latency





# Value for the plan



Understand and adjust to member behavior in real time

Digital clinical profile with measurable goals

Opportunity to intervene and respond early

Visibility into opportunities and challenges





Info at the point of service

Visibility into operations

Aspects of ACO



# Real time push to browser

Real Time Clinical Insight											
2/22/2011 1:00:38 PM	Dots Off Today ▼	Any FCHP plan ▼		Admit / Discharge Activ	ity 🔻	ER I J	Inpatient				
Patient	Plan and Subscriber ID	Туре	Admitted On ▼	Reason	Notes	Discharged On	Facility				
	SUMMIT ELDERCARE[ MASSHEALTH[]	ER	2/22/2011 12:45:00 PM	EKG CHANGES							
	FALLON SELECT[	ER	2/22/2011 12:13:00 PM	FALL			C				
,	FALLON SELECT[	ER	2/22/2011 11:52:00 AM	CHEST PAIN	<u>1</u>						
	FALLON DIRECT[	ER	2/22/2011 11:37:00 AM	ABD PAIN							
· · · · · · · · · · · · · · · · · · ·	FALLON SELECT[	ER	2/22/2011 10:39:00 AM	HA							
, , , , , , , , , , , , , , , , , , , ,	FALLON SELECT[	ER	2/22/2011 10:36:00 AM	STAPLES REMOVED FROM		2/22/2011 10:55:00 AM					
	FALLON SR PLAN HMO[	ER	2/22/2011 9:09:00 AM	VOMITING COUGHING BL	9						
F	FALLON SELECT[ MASSHEALTH[ MASSHEALTH[ MASSHEALTH]	ER	2/22/2011 8:14:00 AM	VOMITING	14		-				
	FALLON MANAGED CARE OPTION[;	ER	2/22/2011 7:40:00 AM	RESPIRATORY DISTRESS							
L	FALLON SR PLAN HMO[	ER	2/22/2011 3:46:00 AM	ABDOMINAL PAIN							
,	FALLON SELECT[	ER	2/22/2011 2:24:00 AM	FB IN R EYE		2/22/2011 3:20:00 AM					
	FALLON MANAGED CARE OPTION[:	ER	2/22/2011 2:06:00 AM	SHORTNESS OF BREATH		2/22/2011 3:40:00 AM					
	FALLON SELECT[	ER	2/22/2011 12:40:00 AM	FEVER NECK PAIN	9	2/22/2011 3:00:00 AM					
	FALLON DIRECT[	IN	2/22/2011 12:27:00 AM	LAPAROTOMY	2						
	FALLON SELECT[	IN	2/22/2011 12:26:00 AM	TAOTAL ABDOMINAL HYS	2						
	FALLON MANAGED CARE OPTION[:	ER	2/21/2011 11:58:00 PM	ABDOMINAL PAIN		2/22/2011 3:10:00 AM					
	FALLON SELECT[	ER	2/21/2011 10:46:00 PM	FEVER	1	2/22/2011 1:55:00 AM					





- Admit Letter
- Consultation
- Progress Note
- Transfer Summary
- Operative Report
- History and Physical
- Interim Hospital Summary
- Rehabilitation Services
- Discharge Summary
- Over 80 lab reports

Admit H&P Lab Consult Operative Progress Transfer Discharge

## Ease of use



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ent	Plan and Subscriber ID	Type ER	Admitted On ▼	Reason VOMITING COUGHING BL	Notes						charged On	Facility			
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		ER	2/21/2011 9:08:00 PM	COPD EXACERBATION ABD PAIN	21					•					
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				ABD PAIN	_					0.00	0/2011 9:54:00 PM				
		ER	2/20/2011 3:23:00 PM								0/2011 9:54:00 PM				
		ER ER	2/20/2011 2:11:00 PM	DIZZY	<u>39</u>					<ul><li>2/2</li></ul>	0/2011 6:25:00 PM				
			2/20/2011 10:52:00 AM		12										
		ER	2/19/2011 11:22:00 PM							2/2	0/2011 6:45:00 AM				
		ER	2/19/2011 1:14:00 PM	DEHYDRATION	<u>61</u>	•		•	4	_					
		ER	2/19/2011 9:34:00 AM	HIP PAIN							9/2011 2:55:00 PM				
		ER	2/19/2011 5:27:00 AM	INSOMNIA/PALPITATION:						2/1	9/2011 9:30:00 AM				
		ER	2/18/2011 4:49:00 PM	UTI			•	•	•	•					
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		ER	2/17/2011 3:15:00 AM	FEVER		•		•			8/2011 8:04:00 AM				
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		ER	2/16/2011 12:27:00 PM	HYPERGLYCEMIA		•	•	•		0 2/1	8/2011 5:46:00 PM				
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		ER	2/14/2011 5:14:00 PM	CARDIAC ARREST	1					•					
		ER	2/14/2011 9:38:00 AM	BACK PAIN						2/1	4/2011 11:20:00 AI	ч			
		ER	2/13/2011 8:23:00 PM	CHEST PAIN		•	•			<ul><li>2/1</li></ul>	4/2011 3:27:00 PM				
		ER	2/13/2011 6:19:00 PM	INCREASED BLOOD PRES	<u>18</u>	•			•	•					
		ER	2/13/2011 2:05:00 PM	CHEST PAIN		•				2/1	3/2011 11:00:00 Pf	4			
		FR	2/13/2011 9:15:00 AM	RT LEG VASCULAR STUDY						2/1	3/2011 12:00:00 Pf	4 6		1	

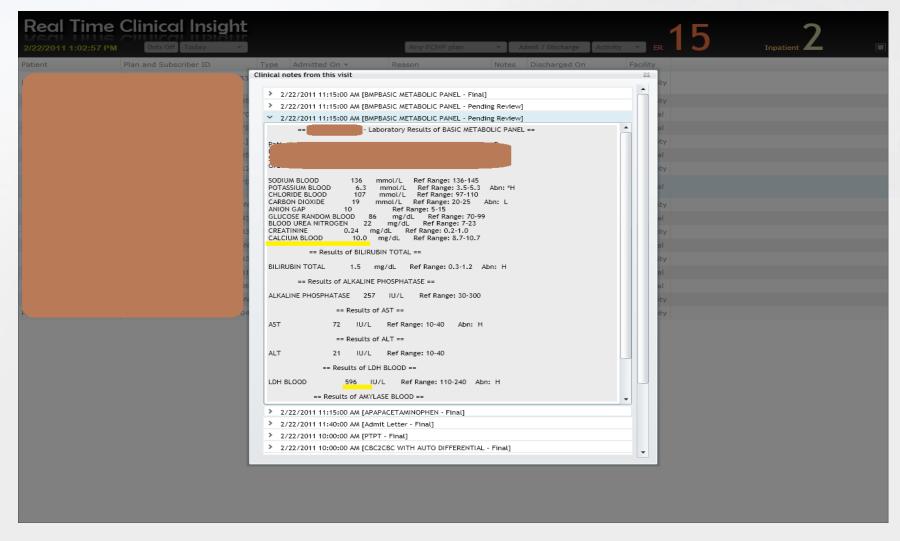












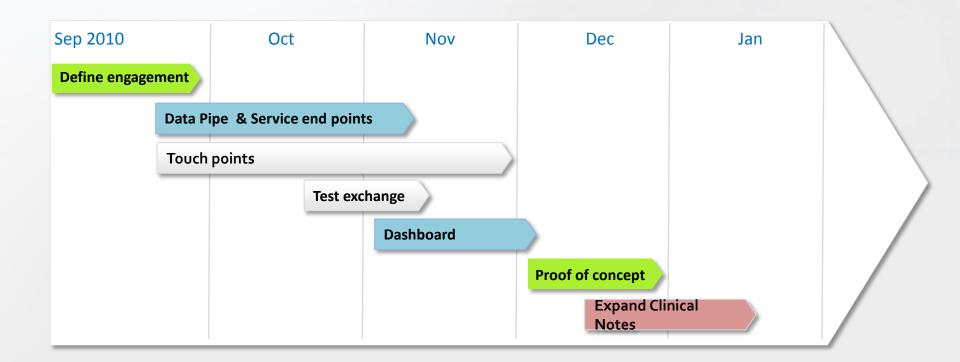
# Analytics





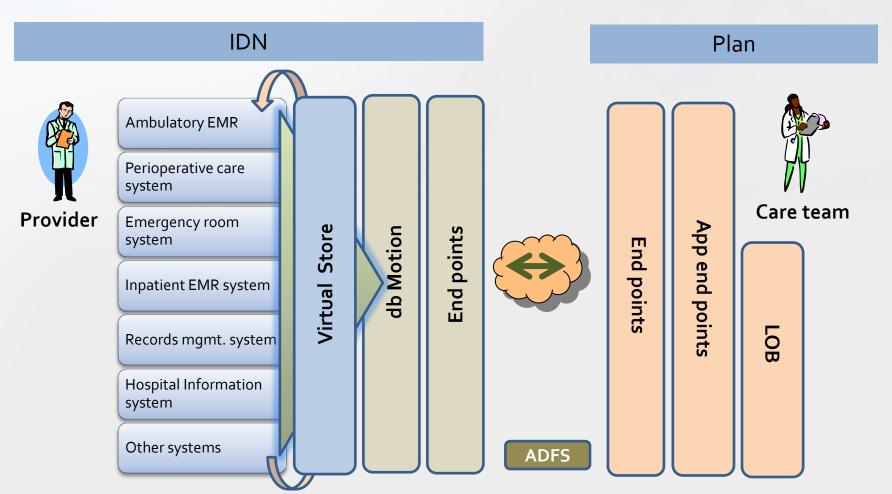






### Infrastructure





### **Building blocks**



- HL7 standards
- REST based service end point(s)
- Data harmonization
- Data quality thresholds
- Resolving Identity across boundaries
- Integration with internal line of business applications and dbMotion
- Presentation aspects like drill downs and slicers
- Federated security model
- Audit

## Real time analytics



- What are most common admissions
- Visits with longer stay
- Facilities and traffic analysis
- Number of ER admissions day over day
- Number of patients in ER at any given time
- Group risk exposure
- Disease management triggers





Working in collaboration, we realized real time data integration using new technologies with limited resources and in a short period of time

### Q&A



#### Thank You

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