

# Empowering front line providers to use clinical pathways and data to drive Quality Improvement

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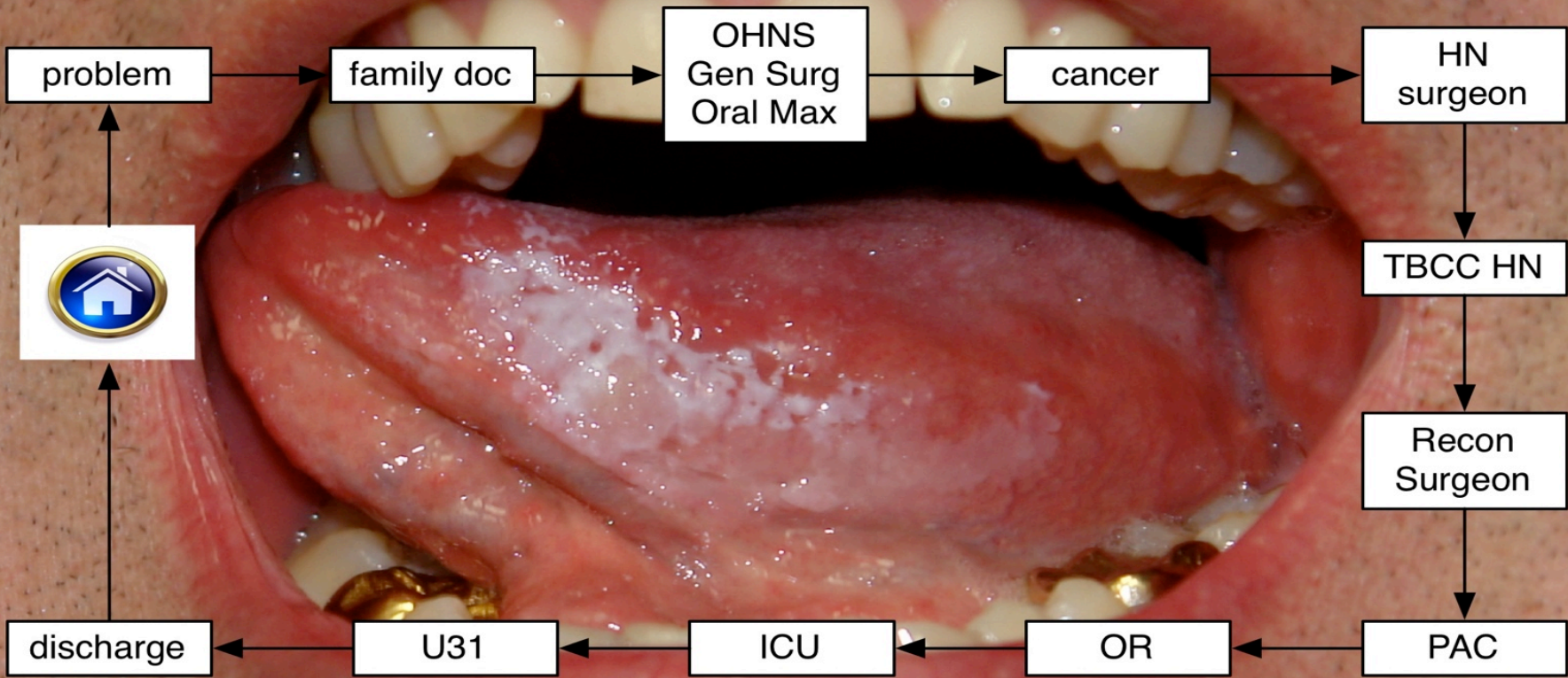
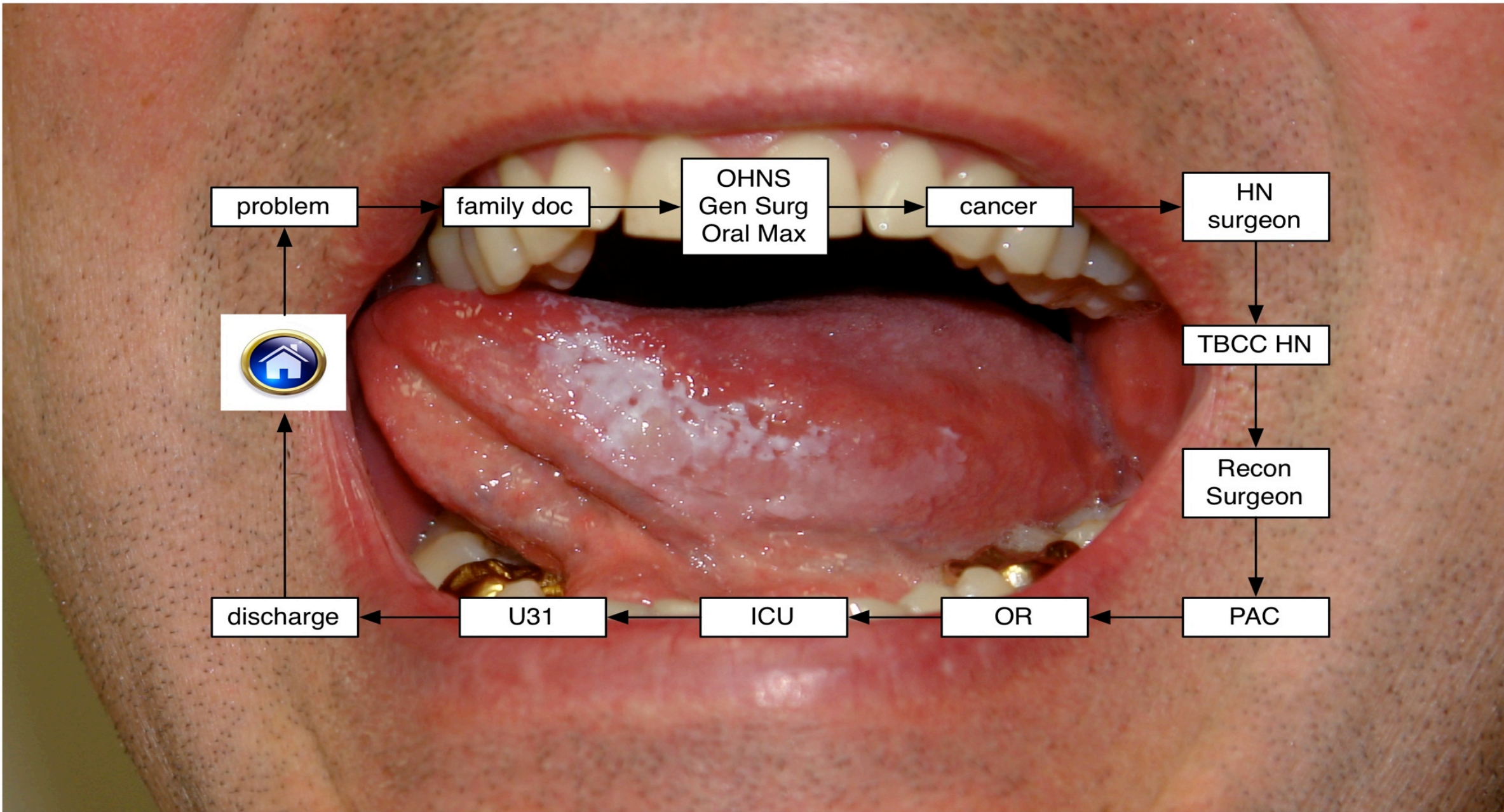
WELCOME



# Workshop Objectives

- To highlight two successful initiatives that demonstrate:
  - How frontline providers can use data to improve patient care
  - How best practice guidelines can be adapted locally by teams
  - An effective “bottom up” versus “top down” change management strategy

# HEAD AND NECK PATHWAY



# 2009

- 53% atelectasis
- 30% pneumonia
- 100% < daily chest physio (despite consult)
- 34% volume overload
- 70% not mobilized to chair prior to POD 2
- Avg LOS 3 weeks

# Confusion



What would you do?

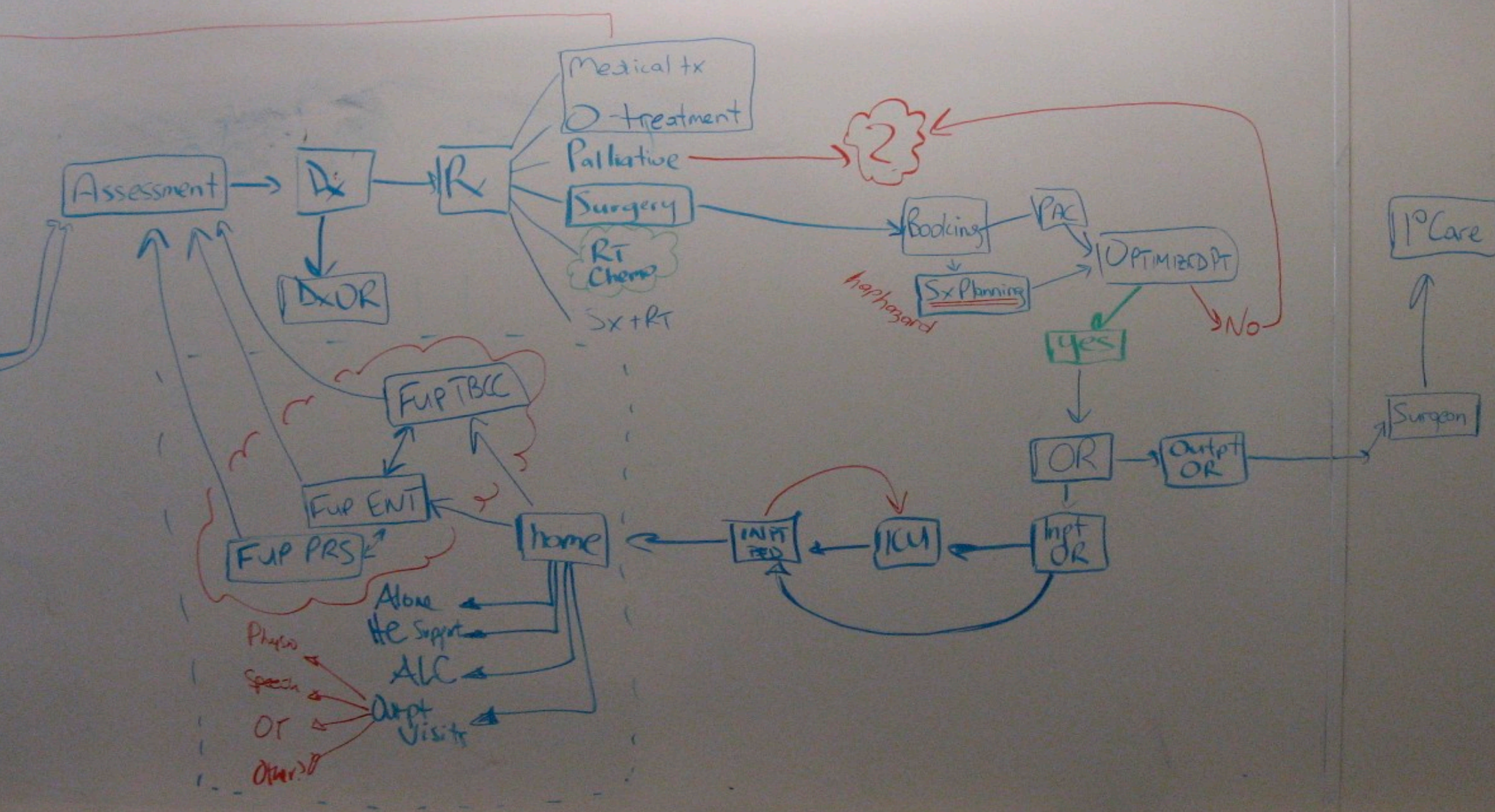


# Small group discussion

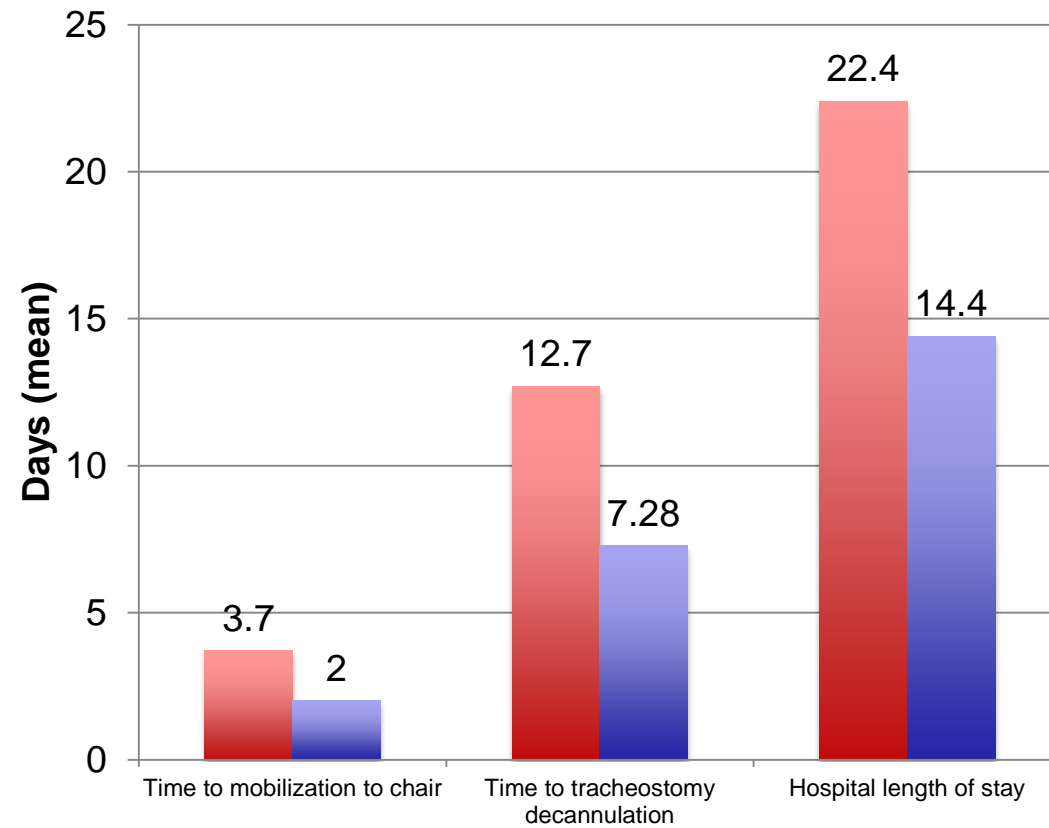
## What would you do?

# What we did:

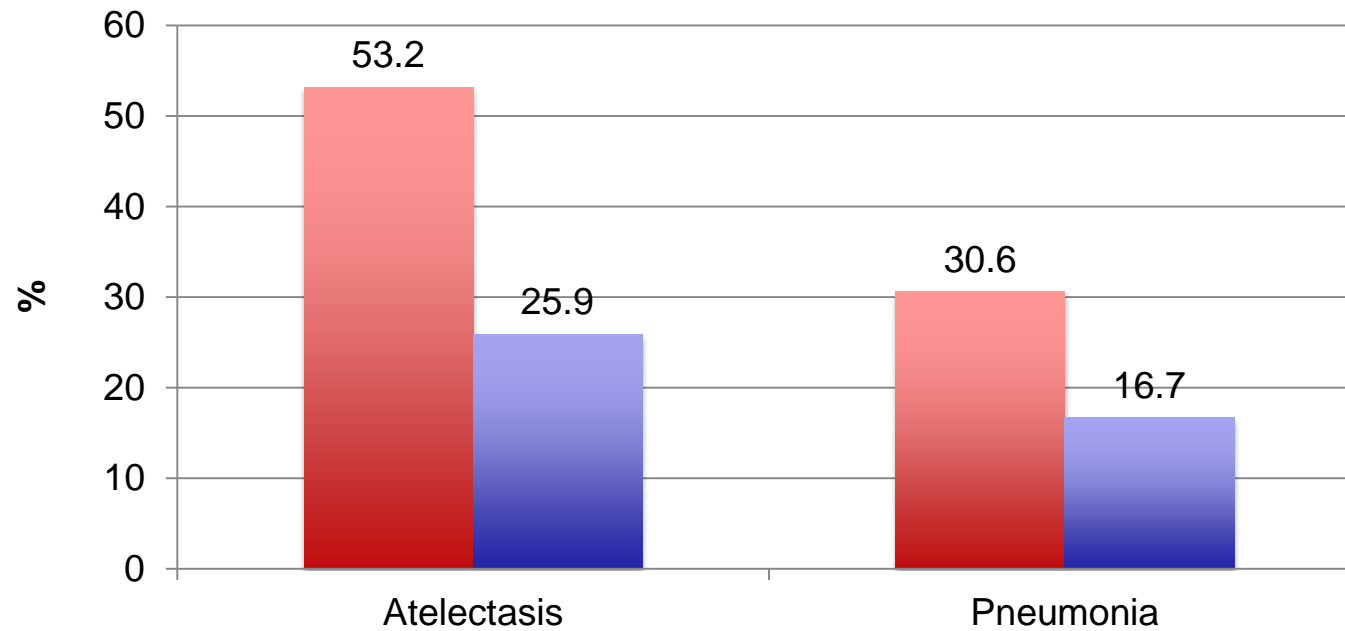
- Identified problem
- Defined processes of care and best practice
- Described key performance measures
- Developed data collection strategy and ongoing monitoring



# Results



# Results



Laryngoscope 2013, PRS 2014

# Inpatient Costs

	<b>Control (CAD)</b>	<b>Pathway (CAD)</b>	<b>Incremental Cost (CAD)</b>	<b>Cost Reduction</b>
Mean inpatient ward cost	\$15,975	\$10,756	- \$5219	32.7 %
Mean return to OR cost	\$883	\$310	- \$573	64.9 %
Mean ICU costs	\$5,875	\$5,498	- \$377	6.4 %
<b>Mean total post-operative inpatient cost</b>	\$22,733	\$16,564	<b>- \$6,169</b>	<b>27.1 %</b>

JOHNS 2013

# Post-discharge Utilization

	Control (n=60)	Pathway (n=54)	Ratio of Mean Counts (Pathway/Control)	p value
<b>ER visits</b>	20	27		
<i>Mean per patient</i>	0.33	0.5	1.52	0.171
<b>Outpatient visits</b>	443	248		
<i>Mean per patient</i>	7.4	4.6	0.62	<0.0001
<b>Inpatient admissions</b>	15	8		
<i>Mean per patient</i>	0.25	0.15	0.59	0.236
<b>Physician claims</b>	838	599		
<i>Mean per patient</i>	14	11.1	0.79	<0.0001
<b>Overall Encounters</b>	1316	882		
<i>Mean per patient</i>	22	16	0.67	<0.0001

Head & Neck (*in press*)





# What we learned:

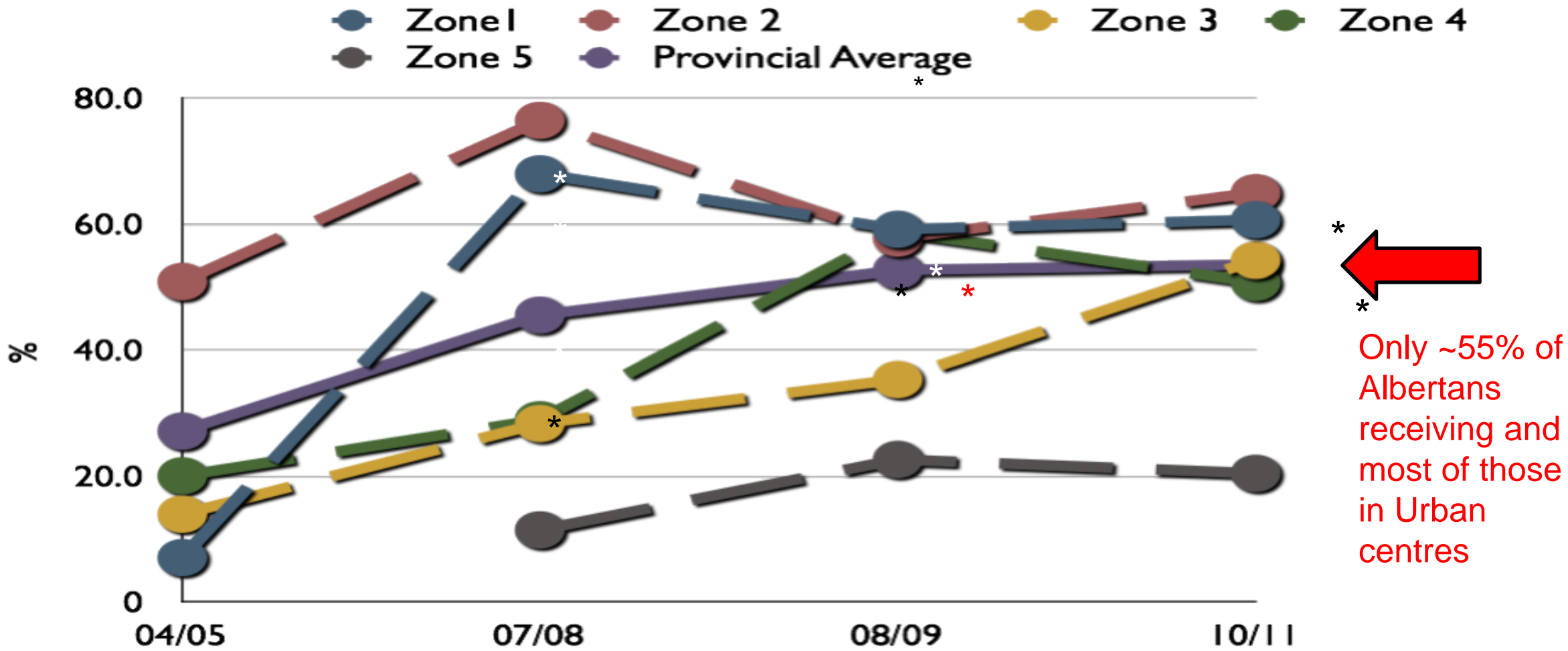
- Goal is to be **better**... If you do enough “betters” you become the BEST
- Manage what you **measure**
- If you focus on quality, **savings** will follow
- High performing organizations use data to drive quality and innovation
- Empowering frontline providers data to identify variations in care

# STROKE ACTION PLAN (SAP)

# What is a “stroke unit” and why is it important?

- Multidisciplinary, specialized model of inpatient care for stroke
  - Associated with a 15% relative reduction in death
  - 5% relative reduction in disability for patients with stroke from multinational randomized trials
  - 20% reduction in length of stay

Figure 4.9. Patients Receiving Care in a ‘Stroke Unit’ (or in designated stroke beds)



\* represents a statistically significant change from 04/05 at  $p < 0.05$

# What is ESD?

## Early Supported Discharge (ESD)

- Patients leave hospital earlier to delivers rehab services in their own homes
  - 26% reduction in length of stay
  - 10% reduction in mortality
  - 16% reduction in the need for nursing home care
- Involves a multidisciplinary team
- The potential to avoid the need for admission to a rehab facility

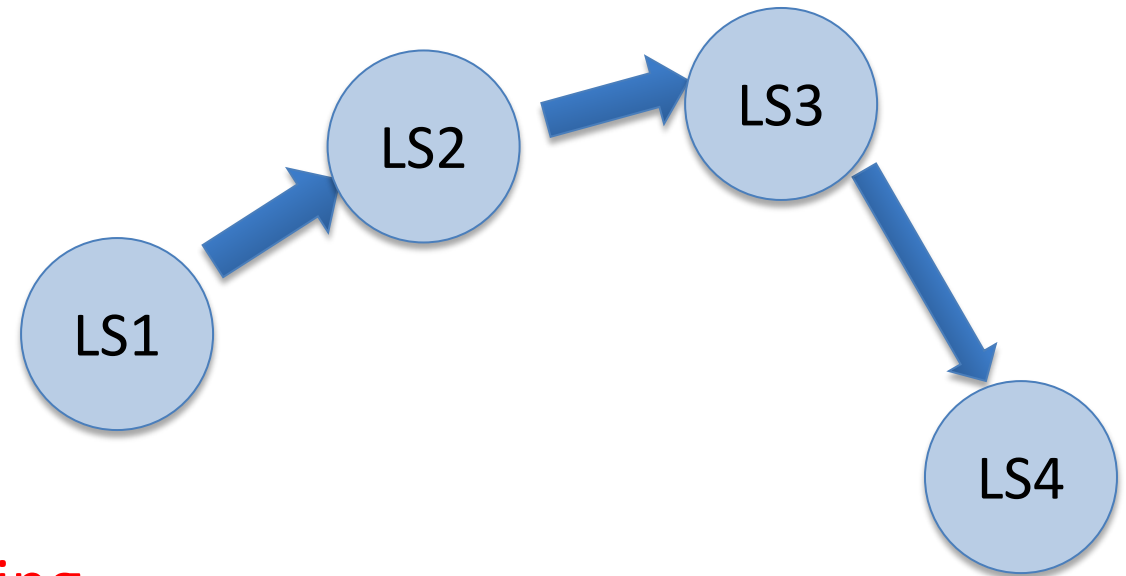
# What is The Stroke Action Plan?

Neither of these models of care are available in rural or small urban areas!

- Early Supported Discharge (ESD)
  - 5 small urban centres
- Stroke Unit Equivalent Care (SUEC)
  - 14 rural centres
- Utilizing a learning collaborative model
  - Data and scorecarding

# IHI Learning Collaborative Model

- Driven by **front line staff, clinicians, and administration**
- Didactic Learning
  - What is an Improvement Collaborative?
  - Stroke best practices – indicators & implementation
  - Various Educational sessions
- Group learning
  - Curb-side consultations
  - Small group discussions
  - Report outs
- Planning improvement
  - Site-specific action plans
  - **Data collection and scorecarding**



# Balanced Scorecard Methodology

QUALITY DIMENSIONS:	ACCESSIBLE	APPROPRIATE	EFFICIENT	SAFETY	ACCEPTABLE	ACCEPTABLE	SAFETY	SAFETY	
SELECTED MEASURE:	Median wait from hospital to specialty intake	% patients for whom order sets/protocols were implemented on admission	Reduction acute care length of stay	% of Caregivers who feel that the stroke survivor is safe in their home.	% of stroke patients who feel they participated in the decision making about their treatment	% of acute stroke patients who were provided with written stroke information	% of stroke patients who are screened for depression	% of stroke patients receiving swallowing screen	
PERFORMANCE LEVEL	Mandatory Metrics			Optional metrics					
10 (Targeted Ideal)	2 days	100%	9.8/8.3	<b>ACHIEVED! TEAM TO CELEBRATE SUCCESS</b>					10
9	2.1	92%	9.8/8.3	77	95	95	90	80	9
8	2.2	87%	10.0/8.5	73	90	90	80	70	8
7	2.3	72%	10.3/8.8	70	85	85	70	60	7
6	2.45	57%	10.5/9.0	65	80	80	60	50	6
5	2.6	42%	11/9.5	60	75	75	40	40	5
4	2.75	28%	11.5/9.6	55	70	70% (71.4%)	20 (11.1%)	30	4
3 ("AS IS" at Start)	3	27.3%	11.9/10	50%	60%	60%	0%	%	3
2	3.5	9 (7.4%)	4.0	40	50	50	0		2
1	4	4	2.5	30	40	40	0		1
WEIGHTING (%)	10%	10%	10%	10%	10%	10%	10%		= 100 (%)

Choose your indicator

Determine Target

Current status

Baseline

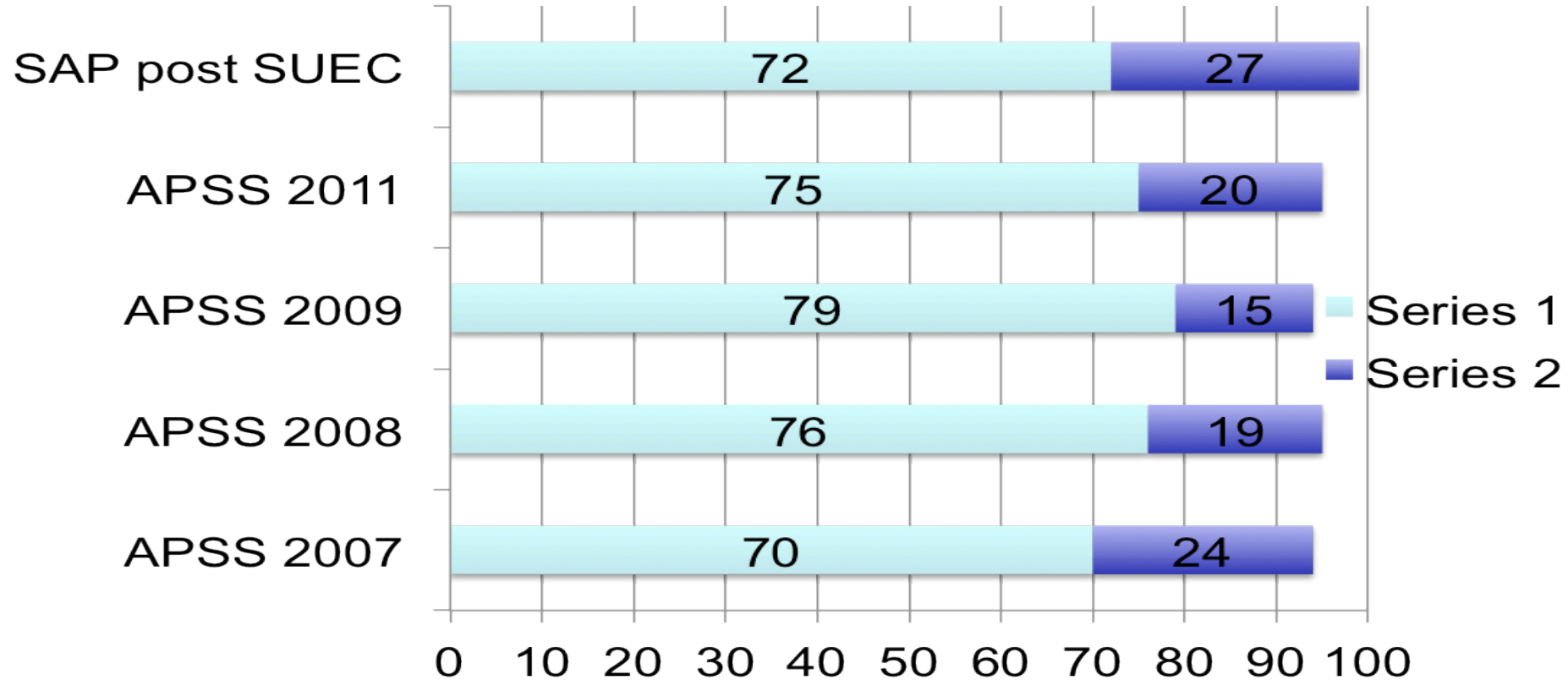
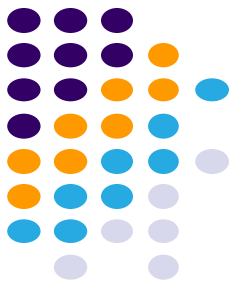
**= Real time feedback for front-line staff on quality improvement**



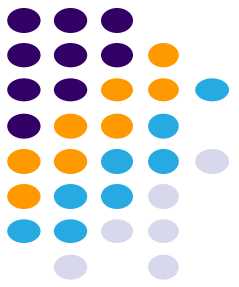
# SAP - Data

- Standardized orderset use 48% to 77%
- Rehab assessment within 48 hours – 74% to 88%
- Median LOS 6 days to 5 days
- Swallowing screens before first oral intake – 28% to 68%
- ESD patients per year -- 0 to 161
- SUEC patients per year – 0 to 850 across all sites

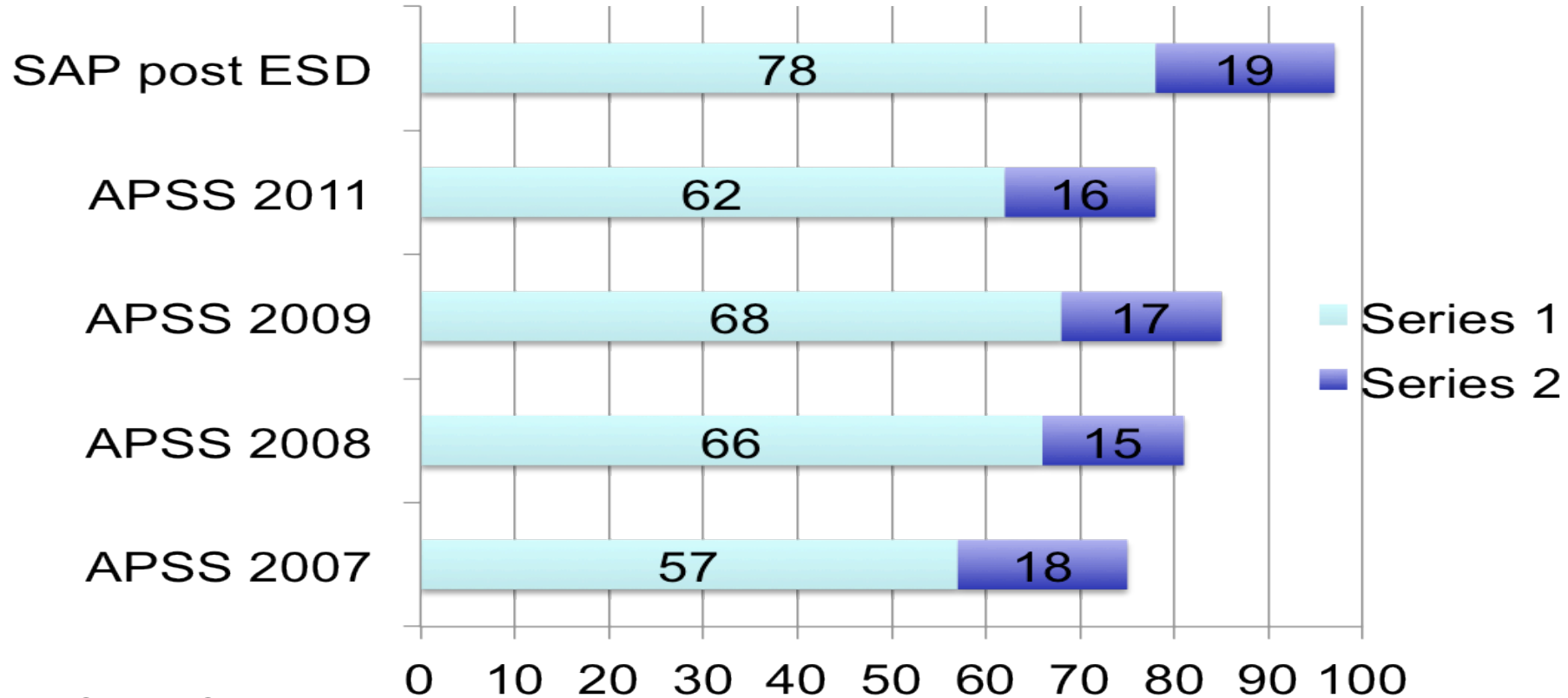
# Improving Patient Satisfaction with Inpatient Care (APSS vs SUEC)\*



SUEC posts impressive satisfaction but only a 10% overall sample (29/300 patients sampled). \*



# Improving Patient Satisfaction with Care after Discharge to the Community (APSS vs SAP ESD)



SAP ESD satisfaction is 97%! Impressive considering this is a more severely affected group than the APSS group on the average. Robust sampling.

# PATIENT AND PROVIDER PERSPECTIVE

# SAP - Summary

- Describe

# Questions

DANKSCHEEN  
 SHUKRIYA  
 TASHAKKUR ATU  
 GRACIAS  
 ARIGATO  
 SHUKURIA  
 GOZAIMASHITA  
 EFCHARISTO  
 JUSPAXAR  
 KOMAPSUMNIDA  
 GRAZIE  
 MEHRBANI  
 PALDIES  
 BOLZIN  
 SUKSAMA  
 EXHMET  
 TASHAKKUR ATU  
 TINGKI  
 BIYAN  
 SHUKRIA  
 THANK  
 YOU  
 MERCY