

# Needs and Expectations of the UK Department of Surgery

- Quality & Patient Safety
  - Mortality
  - Core measures
  - CLI & VAP
  - Surgical Complications (return to OR, SSI, DVTs, etc.)
- Build Surgical Volumes
- Manage the Capacity
  - Throughput
  - Use of GSH
  - Reduce idle days awaiting OR, extended care, etc.
- Develop Efficient Peri-operative Services
- Manage Supply Costs
  - Standardization
  - Manage our limited capital (read value analysis)
- Appropriate Utilization
  - Guidelines
  - Pharmacy costs
  - Lab and diagnostic studies

# Mortality

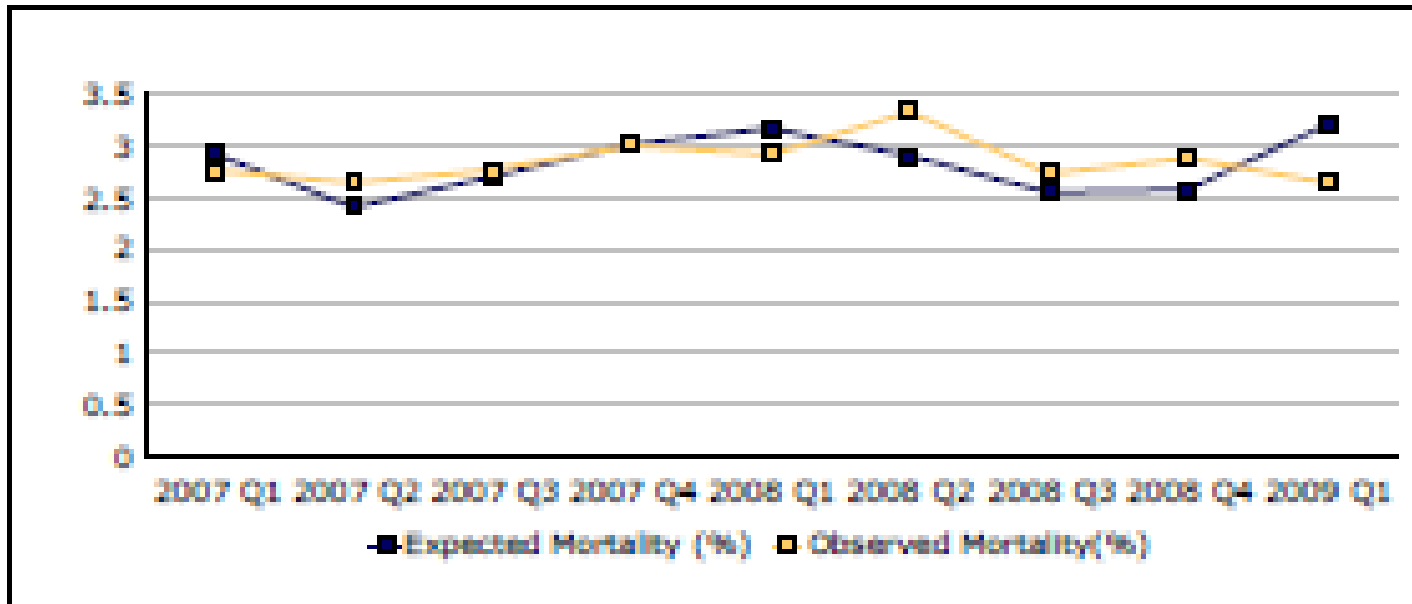
## 100% Peer Review & Appropriate Coding

University of Kentucky Hospital

Jan - Mar 2009 (Q1)

Post-Surgical Mortality (Excluding Trauma/Burn)

	Relative Performance	Observed	Target	UHC Median	Rank
Current Quarter		0.83	0.74	0.84	50/101
Recent Year		1.03	0.77	0.85	83/102



# CHANDLER HOSPITAL CORE MEASURES REPORT August 27, 2009

nation  
al  
results  
Q2 2008

## Q4 CY 2008

FINAL

Met	Total	Rate	Variance from nat'l rate
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## Q1 CY 2009

FINAL

Met	Total	Rate	Variance from nat'l rate
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## Q2 CY 2009

CURRENT DATA ABSTRACTION  
Due to CMS November 13, 2009

Met	Total	Rate	Variance from nat'l
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## Q3 CY 2009

CONCURRENT DATA

Met	Total	Rate	Variance from nat'l
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		Q4 CY 2008				Q1 CY 2009				Q2 CY 2009				Q3 CY 2009			
		Met	Total	Rate	Variance from nat'l rate	Met	Total	Rate	Variance from nat'l rate	Met	Total	Rate	Variance from nat'l	Met	Total	Rate	Variance from nat'l
<b>ACUTE MI</b>																	
Aspirin within 24 hours of arrival	97.6%	25 / 27	92.6%	-5.0%	23 / 24	95.8%	-1.8%	37 / 37	100%	2.4%	19 / 19	100%	2.4%				
Aspirin prescribed at discharge	97.4%	63 / 66	95.5%	-1.9%	54 / 55	98.2%	0.8%	77 / 77	100%	2.6%	49 / 49	100%	2.6%				
ACEI or ARB for LVSD	93.6%	23 / 23	100%	6.4%	11 / 12	91.7%	-1.9%	43 / 43	100%	6.4%	26 / 26	100%	6.4%				
Smoking cessation counseling	98.8%	34 / 40	85.0%	-13.8%	35 / 35	100%	1.2%	44 / 44	100%	1.2%	32 / 32	100%	1.2%				
Beta blocker prescribed at discharge	97.5%	68 / 70	97.1%	-0.4%	63 / 65	96.9%	-0.6%	73 / 74	98.6%	1.1%	49 / 49	100%	2.5%				
Beta blocker within 24 hours of arrival	94.7%	21 / 22	95.5%	0.8%	21 / 22	95.5%	0.8%										
PCI within 90 minutes of arrival	81.3%	3 / 4	75.0%	-6.3%	1 / 3	33.3%	-48.0%	5 / 6	83.3%	2.0%	3 / 3	100%	18.7%				
Inpatient mortality	5.5%	0 / 28	0.0%	-5.5%	0 / 27	0%	-5.5%	8 / 91	8.8%	3.3%	3 / 57	5.3%	-0.2%				
<b>HEART FAILURE</b>																	
All discharge instructions given	81.6%	30 / 47	40.0%	-41.6%	38 / 58	65.5%	-16.1%	46 / 58	79.3%	-2.3%	27 / 30	90.0%	8.4%				
LVF assessment	95.8%	56 / 56	100%	4.2%	65 / 65	100%	4.2%	65 / 66	98.5%	2.7%	37 / 37	100%	4.2%				
ACEI or ARB for LVSD	91.9%	30 / 33	90.9%	-1.0%	34 / 35	97.1%	5.2%	44 / 44	100%	8.1%	21 / 21	100%	8.1%				
Smoking cessation counseling	96.6%	16 / 17	94.1%	-2.5%	24 / 25	96.0%	-0.6%	37 / 37	100%	3.4%	18 / 18	100%	3.4%				
<b>PNEUMONIA</b>																	
Oxygenation assessment	99.6%	22 / 22	100%	0.4%	14 / 14	100%	0.4%										
Pneumococcal vaccination screening	87.0%	8 / 12	66.7%	-20.3%	7 / 8	87.5%	0.5%	13 / 17	76.5%	-10.5%	5 / 5	100%	13.0%				
Blood cultures done before antibiotics given	92.9%	5 / 5	100%	7.1%	16 / 17	94.1%	1.2%	35 / 36	97.2%	4.3%	9 / 9	100%	7.1%				
Smoking cessation counseling	94.6%	21 / 25	84.0%	-10.6%	12 / 17	70.6%	-24.0%	30 / 31	96.8%	2.2%	15 / 15	100%	5.4%				
Antibiotics given within 6 hours of arrival	93.7%	8 / 14	57.1%	-36.6%	13 / 15	86.7%	-7.0%	34 / 36	94.4%	0.7%	13 / 13	100%	6.3%				
Appropriate antibiotic selection	89.0%	2 / 3	66.7%	-22.3%	4 / 5	80.0%	-9.0%	8 / 8	100%	11.0%	7 / 7	100%	11.0%				
<b>SURGICAL CARE</b>																	
Antibiotics within 1 hour of incision	92.7%	55 / 61	90.2%	-2.5%	53 / 58	91.4%	-1.3%	97 / 104	93.3%	0.6%	83 / 86	96.5%	3.8%				
Appropriate antibiotic selection	96.4%	63 / 64	98.4%	2.0%	58 / 59	98.3%	1.9%	93 / 95	97.9%	1.5%	80 / 87	92.0%	-4.4%				
Antibiotics discontinued within 24 hrs	89.4%	47 / 55	85.5%	-3.9%	47 / 54	87.0%	-2.4%	52 / 56	92.9%	3.5%	39 / 43	90.7%	1.3%				
The numerator is the number of measures meeting the goal at this time; The denominator is the total number of goals.			7	14		7	16		8	18		8	19				
			8	21		8	21		8	19		8	19				
			87.5%	66.7%		87.5%	76.2%		100%	94.7%		100%	100%				

### Clinically significant indicators

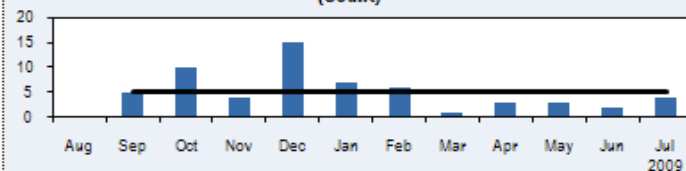
AMI-6 (Beta Blocker within 24 hours of arrival) and PN-1 (Oxygenation assessment) were deleted from the CMS requirements for discharges on or after April 1, 2009.

equal to or better than national rate  
within 5% of national rate  
not within 5% of national rate

**Infection Control**

**Central Line-Associated Bloodstream Infections**

(Count)



YTD - 60

Peer-

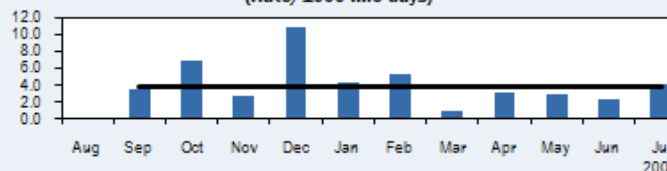
Goal

<5/Mnth



**Central Line-Associated Bloodstream Infections**

(Rate/1000 line days)



YTD - 4.5

Peer (NHSN)-3.5

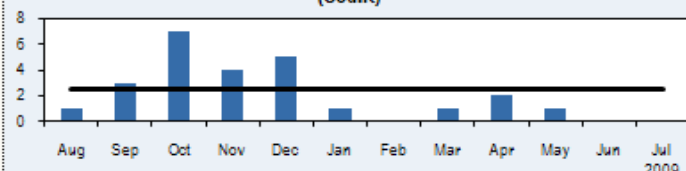
Goal

<=3.74



**Ventilator-Associated Pneumonia (Adult Pulmonary Vented Only)**

(Count)



YTD - 25

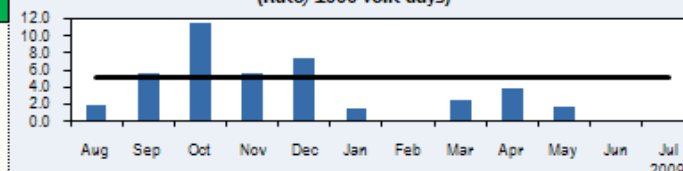
Peer-

<2-3/Mnth



**Ventilator-Associated Pneumonia (Adult Pulmonary Vented Only)**

(Rate/1000 vent days)



YTD - 3.8

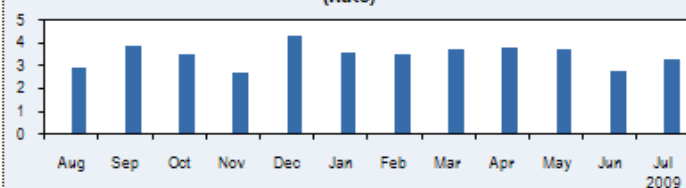
Peer (NHSN)-3.6

<=5.2



**Resistant Organisms**

(Rate)

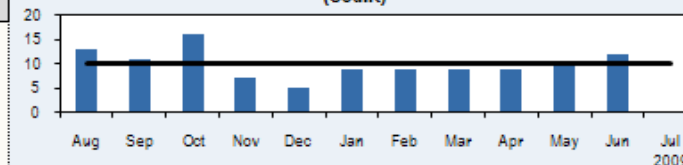


YTD -

Peer -

**UHC Surgical Complication-Wound Infection (Surgery RiskPools)**

(Count)



YTD - 110

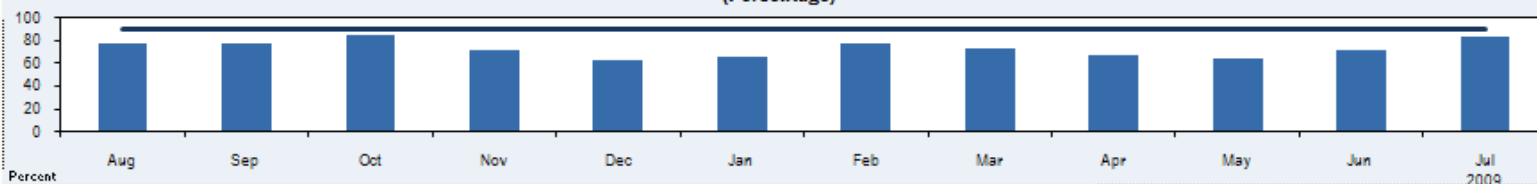
Peer (UHC AAMC) - 109

10/Mnth



**Hand Hygiene**

(Percentage)



YTD - 74%

90%



# UK HEALTHCARE-CHANDLER HOSPITAL QUALITY DASHBOARD

Published August 2009

<b>Inpatient Discharges</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
Actual	2134	2023	2039	1947	2028	1865	1852	1950	1940	2033	2005	2156
Budget	2052	2234	2126	2167	2189	2125	2011	2131	2034	2199	2166	2249
<b>Case Mix Index (MS-DRG - all)</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
Actual	1.8366	1.8874	1.8602	1.9159	1.8952	1.8899	1.9017	1.9181	1.9062	1.8979	1.8432	1.8752
Budget (Not Available w/MSDRG pre July)												1.6641
<b>Hospital LOS</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
Actual	5.96	6.08	5.96	6.24	6.34	6.65	6.05	6.44	6.17	6.16	5.91	5.79
Budget	5.97	6.05	6.05	5.93	5.49	6.06	5.92	5.85	6.02	5.88	6.24	5.29
<b>Case Mix Adjusted LOS</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
Actual	3.32	3.33	3.30	3.34	3.41	3.67	3.29	3.52	3.34	3.39	3.30	3.09
Budget	3.42	3.38	3.50	3.27	3.20	3.43	3.37	3.46	3.38	3.35	3.43	3.18
<b>7 Day Readmits</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
	4.67%	3.34%	4.44%	4.87%	3.51%	4.63%	4.73%	3.73%	4.72%	3.92%		
<b>30 Day Readmits</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
	11.11%	9.72%	10.30%	11.59%	11.09%	11.07%	11.23%	10.36%	12.09%	10.13%		
<b>Mortality Rate</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
	3.09%	3.11%	2.70%	3.29%	3.06%	3.70%	3.78%	2.97%	3.35%	3.20%	2.94%	4.08%
<b>UHC Mortality Index</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
	1.17	1.22	1.1	1.07	1.02	0.98	1.12	0.81	0.99	0.94	0.8	
<b>UHC Hospital LOS Index</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
	1	1.06	1.02	1.05	1.06	1.03	1.1	1.00	1.06	1.05	0.93	
<b>Adult ICU LOS</b>	<b>Aug-08</b>	<b>Sep-08</b>	<b>Oct-08</b>	<b>Nov-08</b>	<b>Dec-08</b>	<b>Jan-09</b>	<b>Feb-09</b>	<b>Mar-09</b>	<b>Apr-09</b>	<b>May-09</b>	<b>Jun-09</b>	<b>Jul-09</b>
	7.01	6.78	6.68	7.44	7.43	6.25	6.7	6.12	6.35	6.46	5.12	4.86

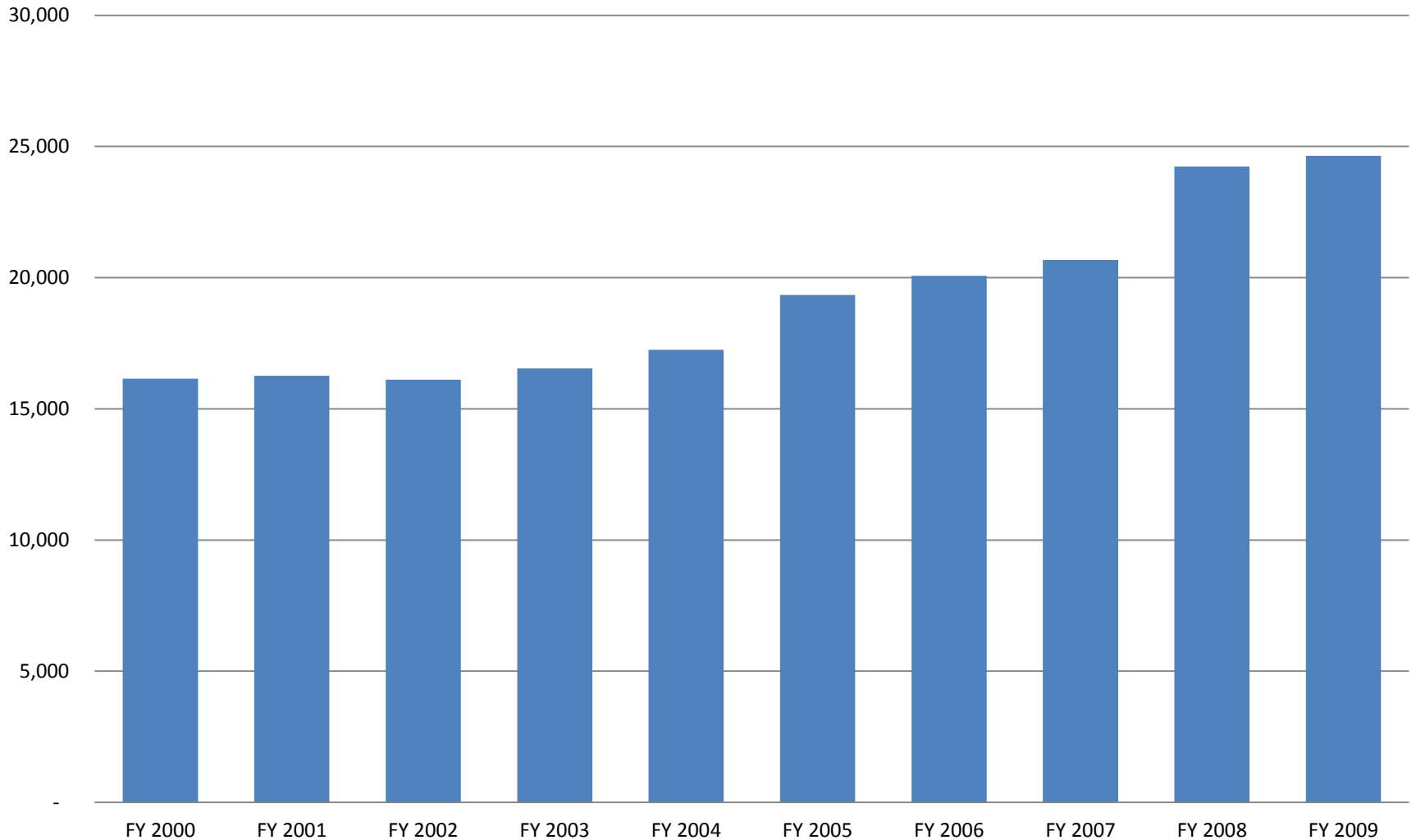
Reporting Period-August 2008 - July 2009



# UKHealthCare

# Building the Surgical Volumes

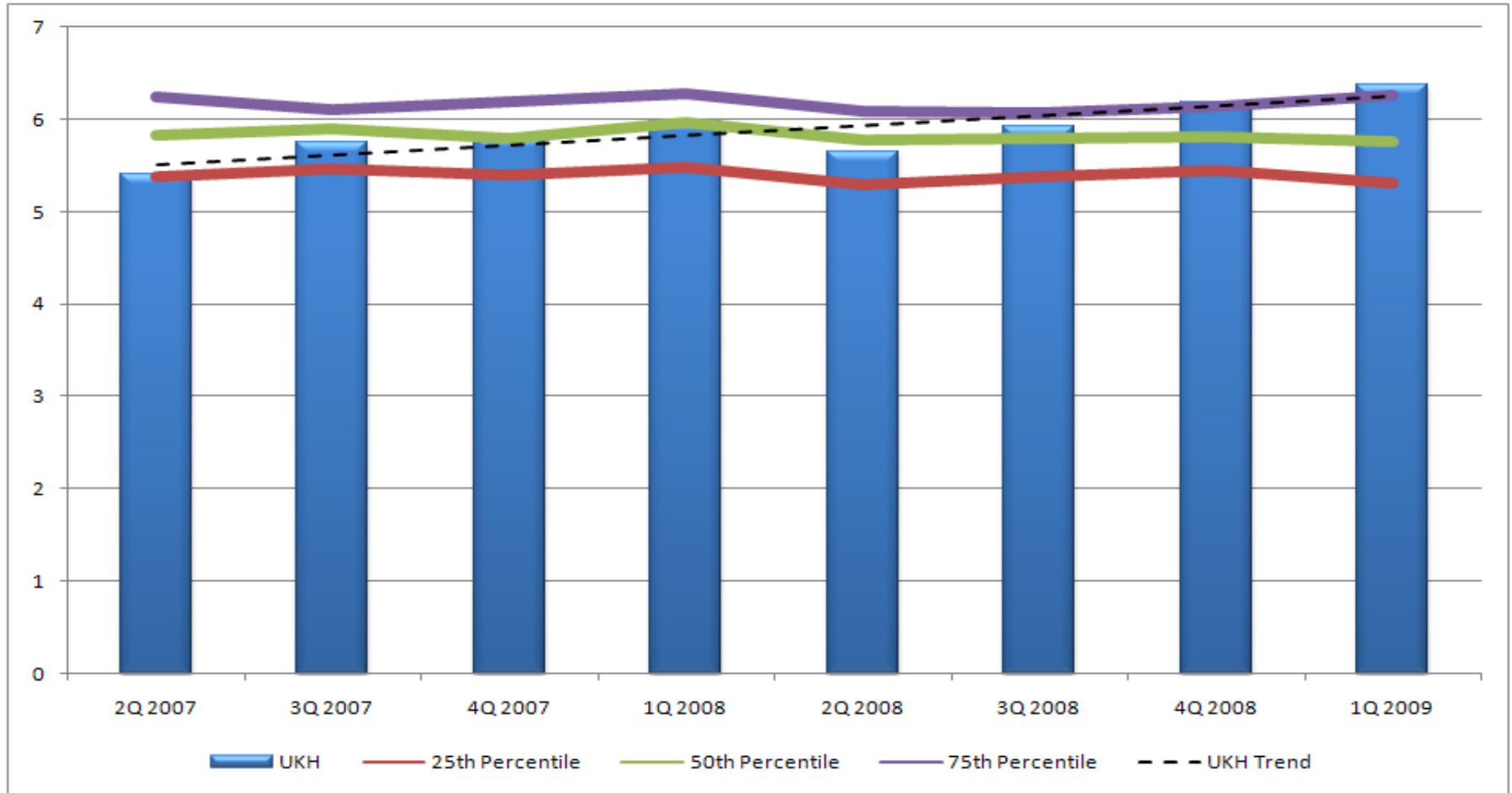
## UK HealthCare System - Total OR Cases



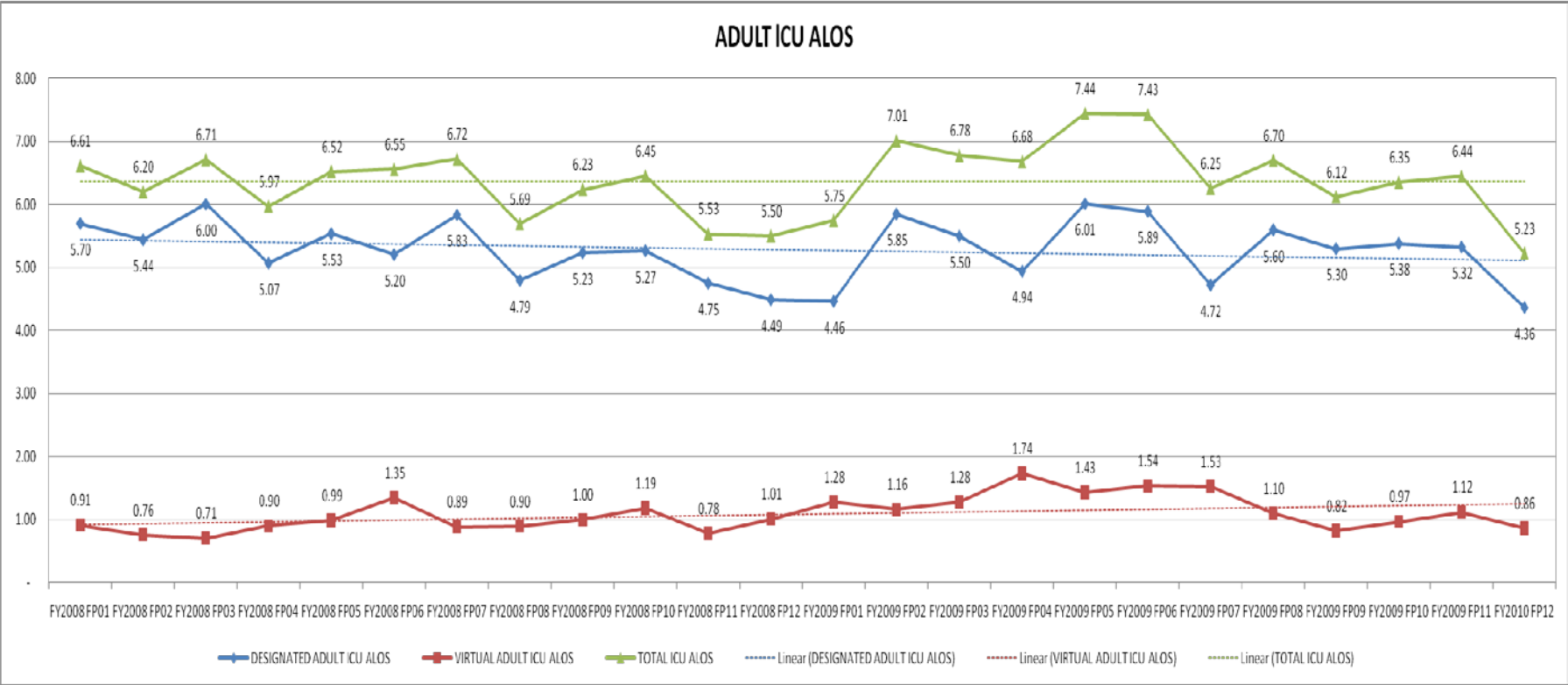
Good Samaritan added in FY 2008

# Managing the Capacity

## Average Length of Stay



# Managing the Capacity - ICU Length of Stay





# OR Demand Projections FY09-FY12 by Location

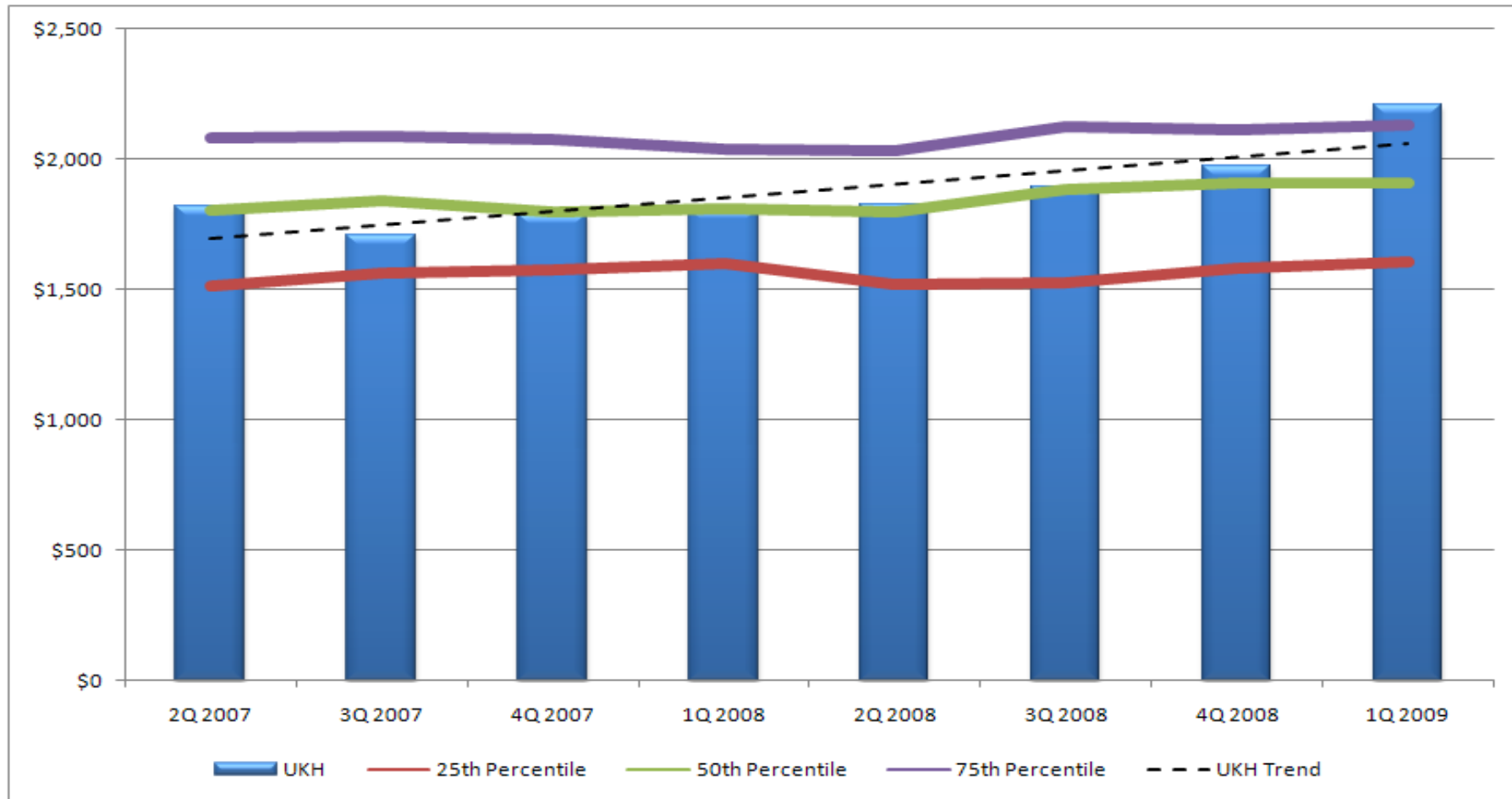
OR Hours Scenarios					
	FY09 A	FY10 Bud	2.5% Inc	5.0% Inc	7.5% Inc
MOR	47,937	49,711	50,925	52,139	53,354
CAS	12,192	12,671	12,947	13,223	13,498
GS UK MDs	5,596	5,422	5,558	5,693	5,829
GS Non-UK Mds	5,997	5,997	5,997	5,997	5,997
<b>GRAND TOTAL</b>	<b>71,721</b>	<b>73,801</b>	<b>75,426</b>	<b>77,052</b>	<b>78,678</b>

OR Capacity in Hours - FY09 HELD CONSTANT					
	FY09 A	FY10 Bud	2.5% Inc	5.0% Inc	7.5% Inc
MOR	54,896	54,896	54,896	54,896	54,896
CAS	16,192	16,192	16,192	16,192	16,192
Good Sam	21,126	21,126	21,126	21,126	21,126
<b>GRAND TOTAL</b>	<b>92,214</b>	<b>92,214</b>	<b>92,214</b>	<b>92,214</b>	<b>92,214</b>

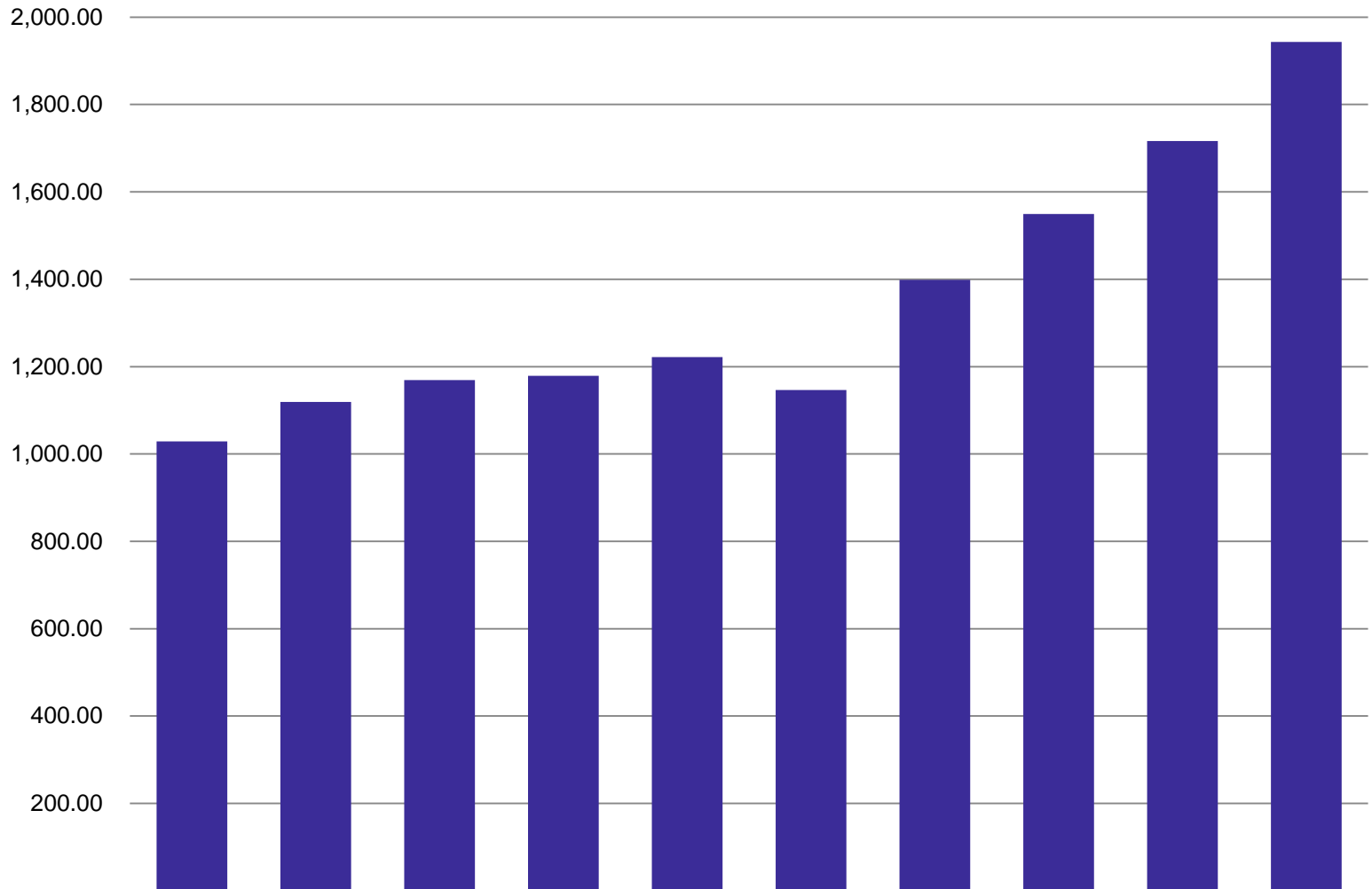
OR Capacity in Percent					
	FY09 A	FY10 Bud	2.5% Inc	5.0% Inc	7.5% Inc
MOR	87%	91%	93%	95%	97%
CAS	75%	78%	80%	82%	83%
Good Sam	55%	54%	55%	55%	60%
<b>GRAND TOTAL</b>	<b>78%</b>	<b>80%</b>	<b>82%</b>	<b>84%</b>	<b>85%</b>

- OR capacity is held constant at FY09A levels going forward for the purposes of this presentation.

# Total Medical Supply Expense per CMI Adjusted Discharge



# OR Supply Cost per OR Case



	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total Supply Cost per Case	1,028.79	1,119.32	1,168.92	1,178.92	1,221.98	1,146.23	1,398.48	1,549.51	1,716.39	1,942.96

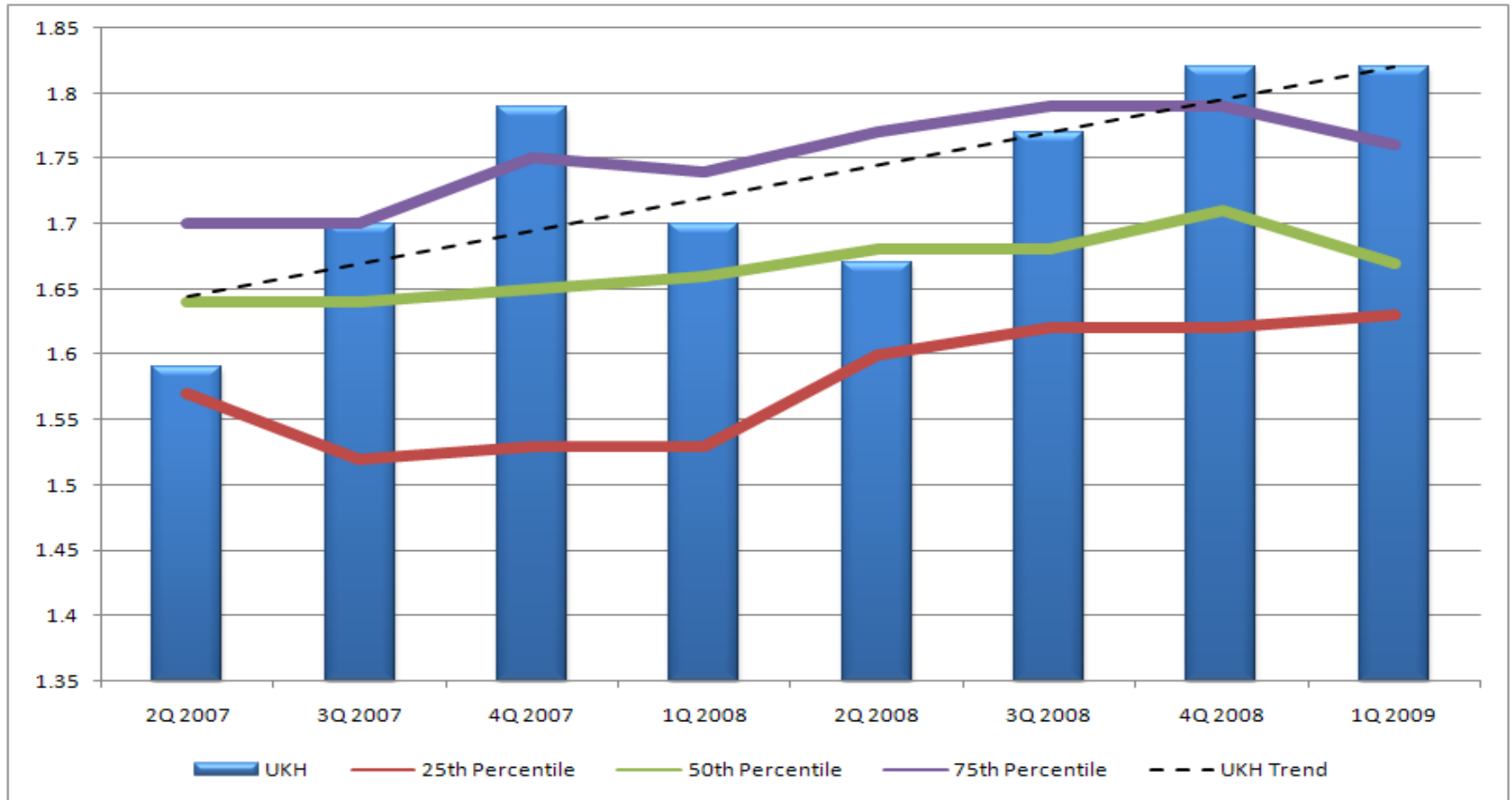
- 1) Good Samaritan added in FY 2008
- 2) Does not include organ procurement and transplant cases

# Utilization

- Laboratory
  - Lab costs/discharge: 15% > UHC mean
  - >\$5M of “send outs” (>1/4 on the inpatient side)
  - >\$3 M “opportunity”
- Pharmacy
  - >\$5M “opportunity” relative to UHC peers
- Emergency Room
  - Cost/discharge: 15% > UHC mean



# Case Mix Index



# Managing the Capacity - Throughput ALOS by Fiscal Year

