

## **Online Appendix**

### **NICHE Educational Intervention:**

In addition to the surveillance feedback reports, staff of participating units were provided with a 25-minute videotaped educational presentation (via DVD or web link). Together, these made up the study intervention. The content of the presentation included the impact of CAUTI, the pathogenesis of CAUTI and best practices for CAUTI prevention via reduction of IUC utilization. At the conclusion of the presentation, definitions of the relevant performance metrics were provided and the unit-specific feedback reports were appended. The presentation is available from the authors upon request. The intended audience was staff nurses on participating hospital study units. Site coordinators were provided with an educator's manual and toolkit. They were instructed to schedule at least three viewings of the presentation for unit staff and to reach nurses from night and weekend shifts. Several sites also posted the presentation on internal e-learning networks. Site coordinators obtained staff attendance rosters and forwarded to the CU project team, along with evaluation forms. CE credit was provided for attendees from the NYU College of Nursing.

### **Sample feedback reports (below)**



**Indwelling Urinary Catheter (Foley) Utilization Report  
June 2012 – November 2012  
Hospital A –Medical Unit**

**Summary Statistics, June 2012 – November 2012**

**Total discharges: 991  
Patients with catheters: 86 (9% of discharges)  
Total catheter-days: 264**

**For patients catheterized while on the Medical Unit (n=86):**

**Mean Catheter Duration (in days):**

**3.05**

**Catheter duration < 3 Days:**

**49%**

For many of these patients, the catheter is inserted or removed on other inpatient units.

For the entire hospitalization:

Mean catheter duration (in days):

**5.38**

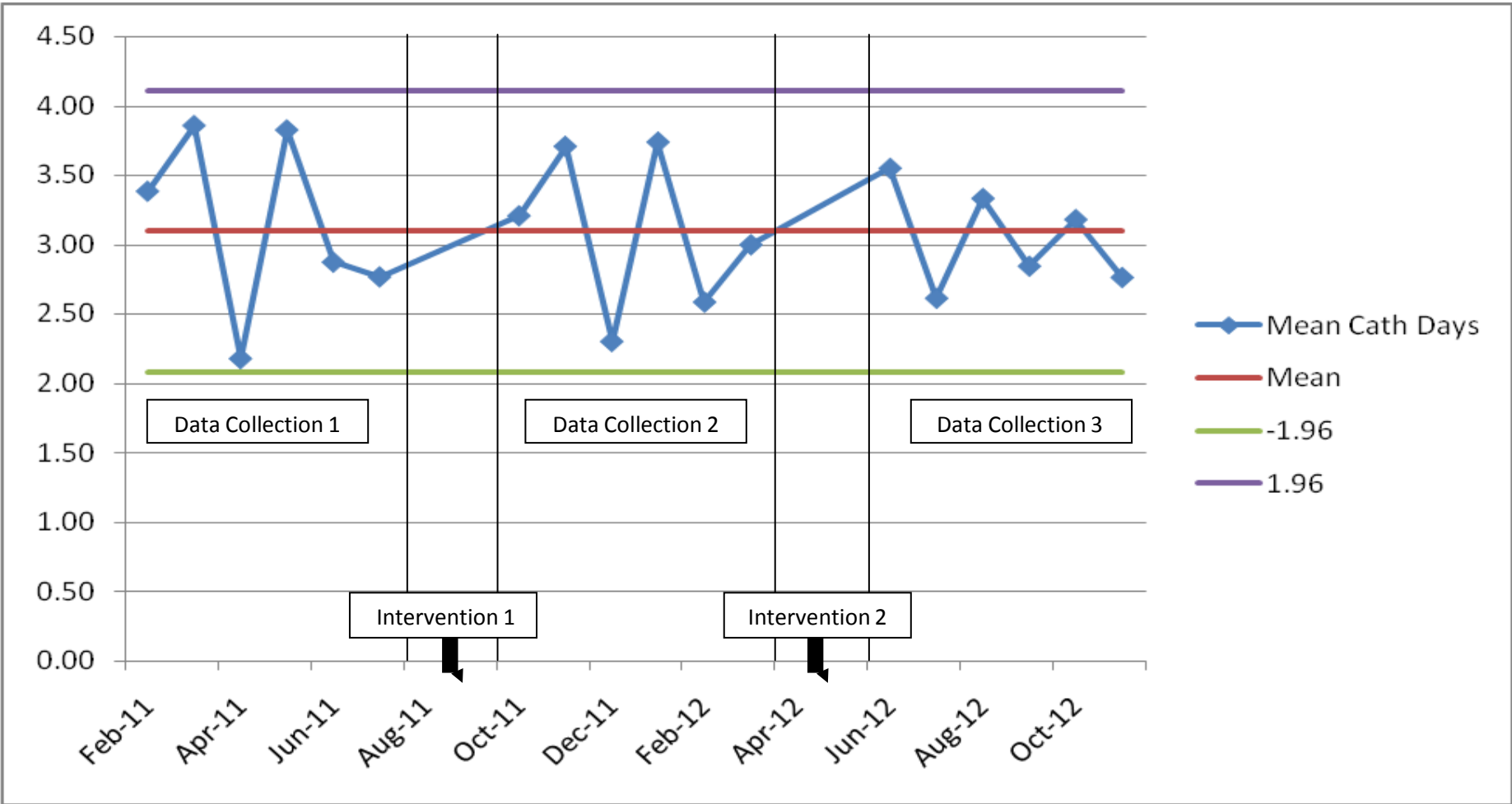
Catheter duration < 3 days:

**35%**



### Indwelling Urinary Catheter (Foley) Utilization Report June 2012 – November 2012 Hospital A –Medical Unit

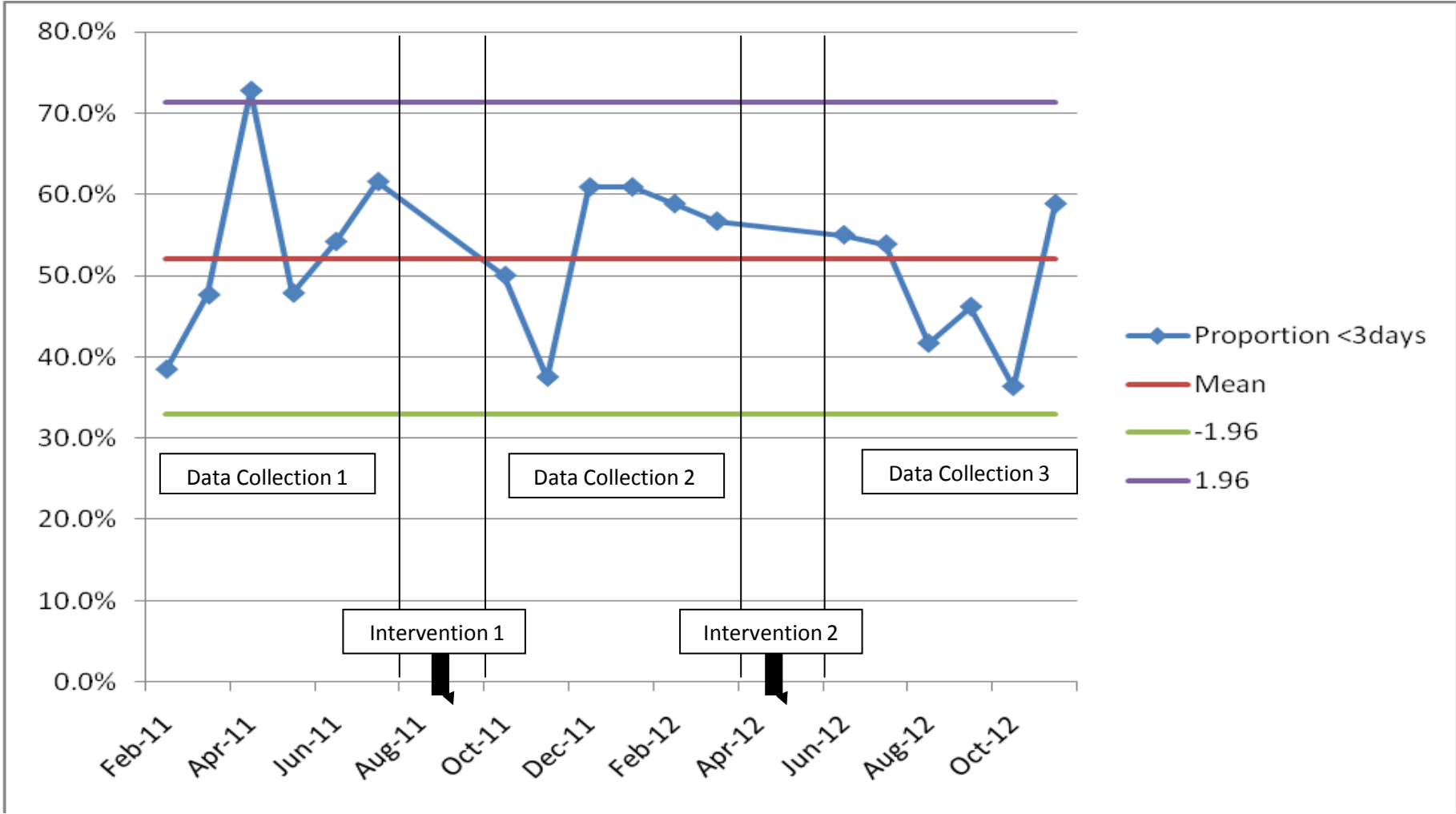
Figure 1: Mean Catheter Duration in Days for Medical Unit Patients





### Indwelling Urinary Catheter (Foley) Utilization Report June 2012 – November 2012 Hospital A –Medical Unit

#### Figure 2: Proportion of Medical Unit Patients with Catheter Duration < 3 Days





**Indwelling Urinary Catheter (Foley) Utilization Report**  
**June 2012 – November 2012**  
**Hospital A –Medical Unit**

Table: Metrics by the month

Measures	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Totals
<b><i>Unit Measures</i></b>							
<b>Discharges (# patients)</b>	157	167	184	167	153	163	<b>991</b>
<b>Patients with catheters (# patients)</b>	20	13	12	13	11	17	<b>86</b>
<b>Percentage of discharges catheterized while on the unit</b>	12.7%	7.8%	6.5%	7.8%	7.2%	10.4%	<b>8.7%</b>
<b>Total catheter days on the unit</b>	71	34	40	37	35	47	<b>264</b>
<b>Mean catheter days/patient while on the unit (Figure 1)</b>	3.55	2.62	3.33	2.85	3.18	2.76	<b>3.05</b>
<b>Percent of catheterizations &lt; 3 days duration (Figure 2)</b>	55.0%	53.8%	41.7%	46.2%	36.4%	58.8%	<b>48.6%</b>
<b><i>Hospitalization Measures</i></b>							
<b>Mean catheter days/patient for entire hospitalization</b>	6.35	3.92	5.67	4.23	7.73	4.41	<b>5.38</b>
<b>Percent IUCs with duration &lt; 3 days for entire hospitalization</b>	40.0%	46.2%	25.0%	30.8%	27.3%	41.2%	<b>35.1%</b>



**Indwelling Urinary Catheter (Foley) Utilization Report**  
**June 2012 – November 2012**  
**Hospital A –Medical Unit**

Measures	Data Collection 1	Data Collection 2	Data Collection 3
<i>Unit Measures</i>			
Mean catheter duration on the unit	3.13	3.09	3.05
Mean percentage of catheter duration < 3 days on the unit	52%	54%	49%
Mean percentage of discharges catheterized while on the unit	11%	14%	8.7%
Mean catheter days on the unit	60	73	44
<i>Hospitalization Measures</i>			
Mean catheter duration for entire hospitalization	5.43	5.28	5.38
Mean percent catheter duration < 3 day for entire hospitalization	40%	28%	35%



**Indwelling Urinary Catheter (Foley) Utilization Report  
June 2012 – November 2012  
Hospital A –Medical Unit**

**What this report indicates:**

*Over the course of the study there has been a marked reduction in the proportion of the unit's patients with any indwelling urinary catheter use while on the unit. Of those with catheters, mean duration has been fairly stable.*

Because the unit is closely associated with other units (such as the ICU), this report contains supplemental data about catheter episodes for the unit's catheterized patients even if a significant portion of the catheterization occurred off of the unit. These data suggest that some of the variation in total catheter duration for these patients comes from other units and may reflect patient acuity at a higher level of care.



Catheter-Associated Urinary Tract Infection Report  
June 2012 – November 2012  
Hospital A – Medical Unit

**Summary Statistics, June 2012 – November 2012**

**Total discharges: 991**

**Patients with catheters: 86 (9% of discharges)**

**Total catheter-days: 264**

**For patients catheterized while on the Medical Unit (n=86):**

**CAUTIs  
(Number)**

**1**

**Rate of CAUTIS  
(Number/1000 catheter-days)**

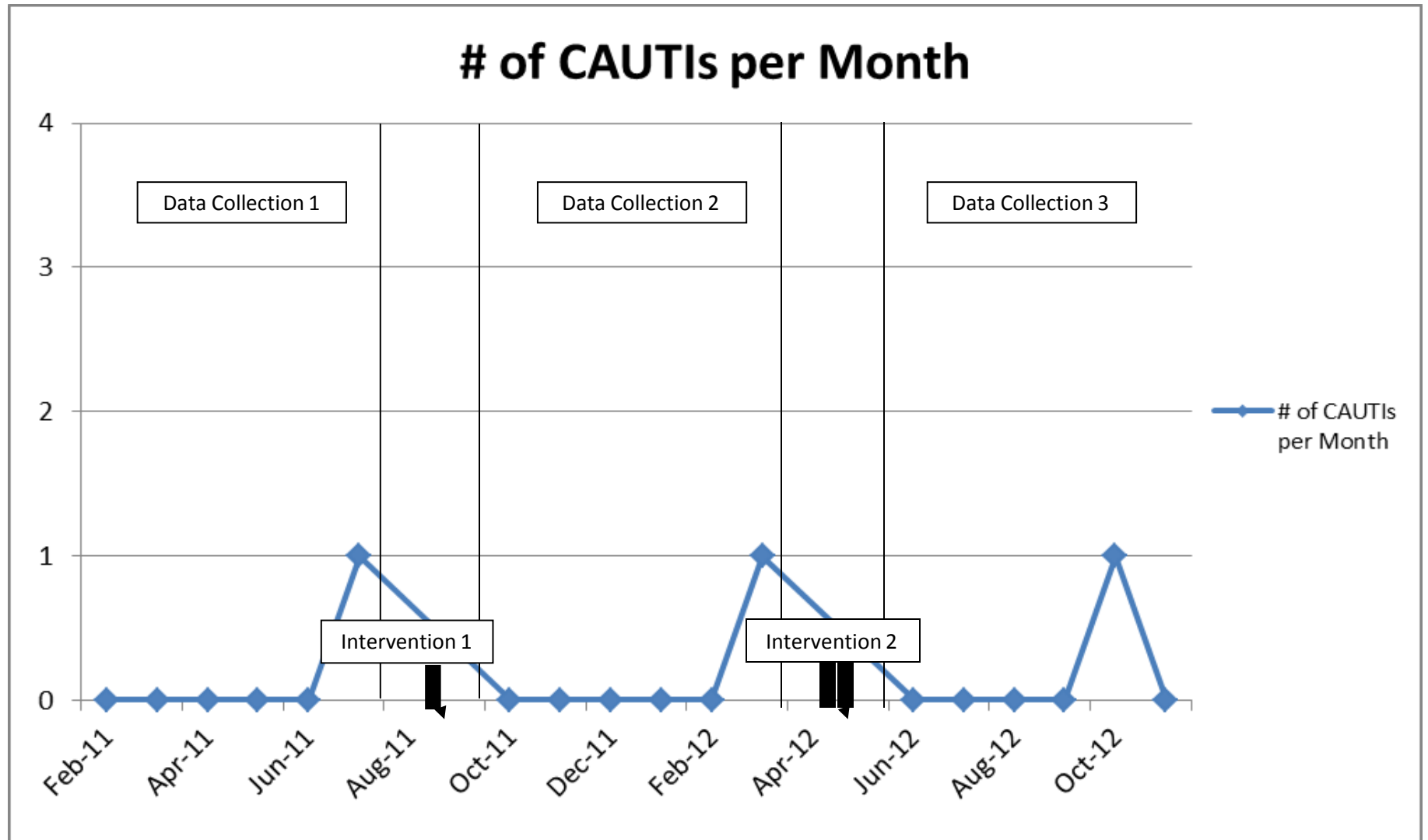
**3.79**

**There were 0 catheter-associated “asymptomatic”\* bacteriurias on the unit** (\* no temperature >38°C noted and/or negative blood cultures; this report methodology does not determine the presence of urinary tract symptoms (such as dysuria or flank pain) and therefore may overreport “asymptomatic” bacteriaurias and underreport CAUTIs)



**Catheter-Associated Urinary Tract Infection Report**  
**June 2012 – November 2012**  
**Hospital A – Medical Unit**

Figure: CAUTIs on Medical Unit





**Catheter-Associated Urinary Tract Infection Report**  
**June 2012 – November 2012**  
**Hospital A – Medical Unit**

**CAUTI Metrics by the month**

Measures	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Totals
<b>Discharges (# patients)</b>	157	167	184	167	153	163	<b>991</b>
<b>Total catheter days on the unit</b>	71	34	40	37	35	47	<b>264</b>
<b>CAUTIs</b>	0	0	0	0	1	0	<b>1</b>
<b>“Asymptomatic” bacterias**</b>	0	0	0	0	0	0	<b>0</b>

**What this report indicates:**

*The Medical Unit had 1 attributable CAUTIs for this period.*

This report uses laboratory-based surveillance which is based on the methods of the Centers for Disease Control and Prevention (CDC). However, this method is limited to objective data in the patient’s record – it is not identical to that used by infection control practitioners who use a larger data set (including subjective report of symptoms to include and exclude cases). The results from Hospital A’s infection control program may differ.