

Quality Improvement in Kansas CAHs

Quality Improvement Project Evaluation

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Background

- Quality Assurance
- Quality Improvement
- Performance Improvement



Quality Improvement Project

- The Kansas Rural Health Options Project (KRHOP) supports, informs, and provides funding to CAHs.
- As part of this mission, KRHOP contracted with a consultant to begin implementing quality improvement
 - NW Kansas – 2001
 - All Kansas CAHs – 2004

Quality Improvement Project

- QI Program Implementation –
 - Expert consultation from Darlene Bainbridge and Associates
 - Consultation includes:
 - Site visit
 - Staff meetings
 - Site assessment
 - QI program
 - Ongoing technical support

Quality Improvement Project

- Program hospitals were classified into stages:
 - Stage I – those that came onboard in 2008 (n=16)
 - Stage II – 2007 (n=14)
 - Stage III – 2006 (n=21)
 - Stage IV – 2005 or before (n=24)

Purpose

Project

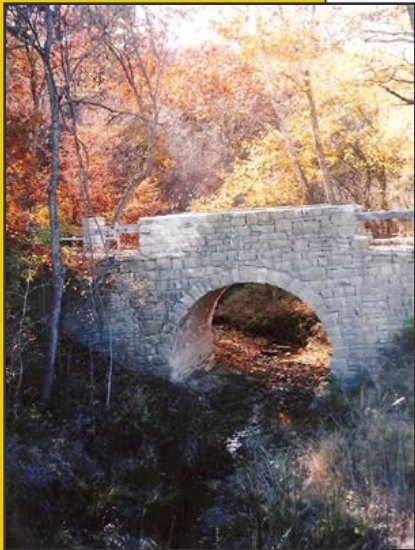
- **Project Purpose:**
To gauge the impact of participating in the QI program on individual hospitals.
- **Project Deliverable:**
To produce a comprehensive chronicle of the QI program and its impact on Kansas CAHs.



Evaluation Strategy

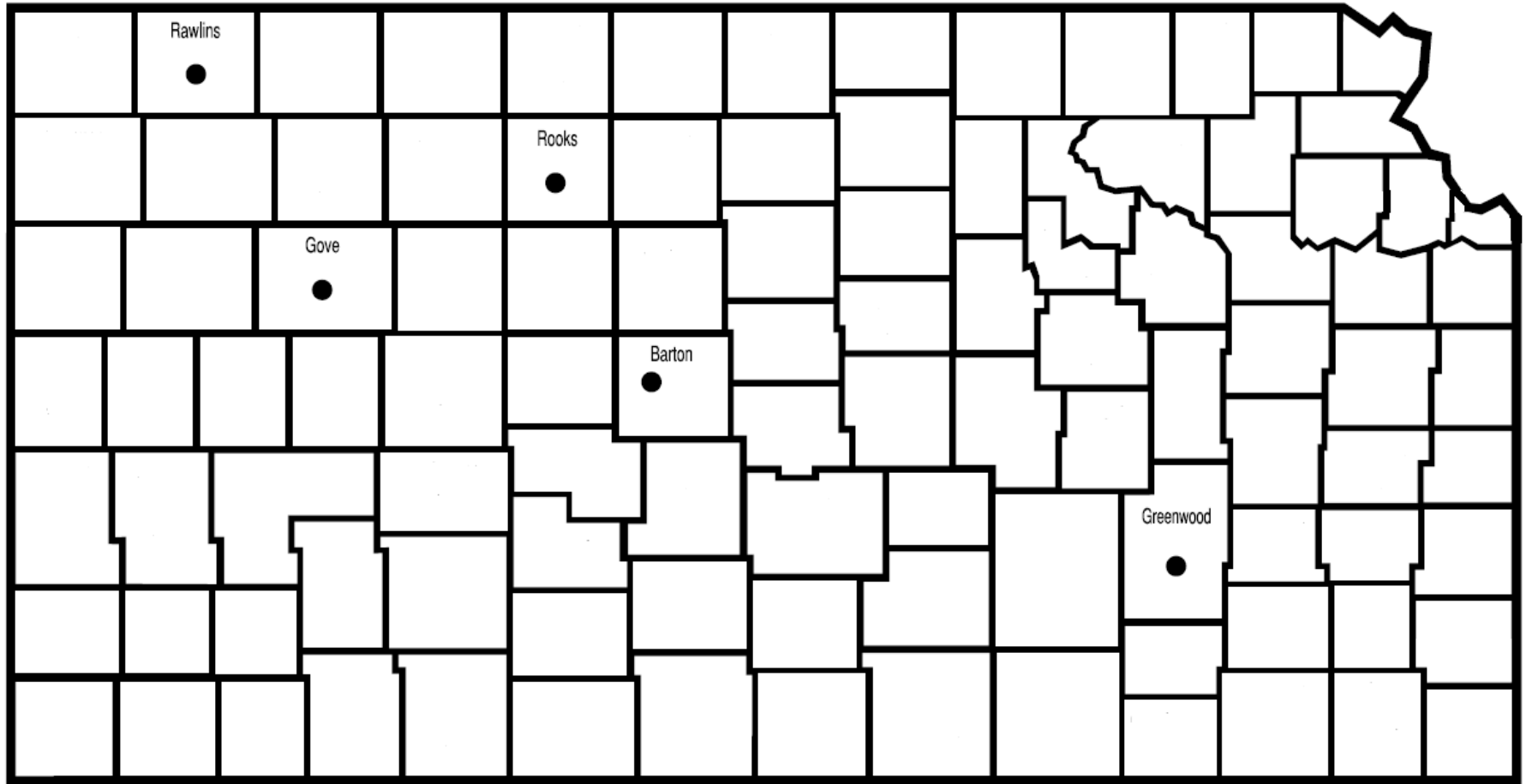


- **Qualitative Evaluation**
 - Focus groups at 5 hospitals
 - Geographically diverse sample
 - 3 groups per hospital
- **Quantitative Evaluation**
 - Financial indicators
 - Quality Health Indicators (QHI)
 - Hospital Leadership and Quality Assessment Tool (HLQAT)



QUALITATIVE EVALUATION

CAH Focus Groups



Focus Groups

Focus groups with 3 groups at each hospital:

1. Administration
2. Middle management
3. Frontline employees

Focus Groups

Focus group participants were asked to:

- Describe conditions in the hospital before, during, and after QI program implementation.
- Discuss changes in the hospital directly attributable to the QI program.
- Discuss challenges in implementing the program.
- Determine if hospital ultimately benefited from participation.

Focus Group Demos

- 97 individuals from 5 hospitals participated:
 - 23% were administrative staff;
 - 19% were nurses
 - No physicians or hospital board members participated in focus groups.
 - 2/3 of participants had 5 or more years of experience; 1/3 had 10 or more years.

EMERGENT THEMES

Emergent Themes

1) Single Individuals in Multiple Roles

- *“Time is always the big issue, because you wear a lot of hats when you are a small facility.”*

Emergent Themes

2) Quality Assurance vs. Quality Improvement

- *“The program before was just quality assurance.”*
- *“The QA that we did back then was a joke.... You reported it, and nothing was done.”*
- *“[QA] was a dog and pony show – we got nothing out of it.”*

Emergent Themes

3) Hospitals Like the Resources Available

- *“This one had it all lined out for you . . . before we always kind of had to think about what we were going to come up with or a problem we had, and now it is just all right there. It’s simpler.”*
- *“I think she had a basic model for us to follow and it was up to us to take components of it out of that that we felt would most closely correlate with us.”*

Emergent Themes

4) Though Worthwhile and Beneficial, QI Can Be a Burden

- *“We like the improvements we are seeing, but it is one more thing.”*
- *“I have heard that from like nursing, nurse aides- when they see how much paperwork is put into QI, they about croak.”*
- QI vs. IV

Emergent Themes

5) Hospitals Benefited from Participation in the Program

- *“I think everybody should be involved in the QI.”*
- *“I don’t think you would have this [new] hospital if it wasn’t for [QI].”*
- Cultural change

Emergent Themes

6) Hospitals were Happy with Their Progress, and Still Sought Additional Improvements

- *“If it took 20% of our energy to get where we’re at to get 80% of the problem resolved, it’s going to take 80% of energy to get the last 20% resolved and I don’t think people are looking at that.”*
- *“We’ve moved to QI, but we’re not to PI, and that is what we need to do.”*

LESSONS LEARNED

Lessons Learned

- 1) Change is hard. → Pushback
- 2) Change occurs once the benefits are evident. “*Better for patients*”
- 3) Other than senior administration, there is limited engagement in QI.

Lessons Learned

- 4) QI needs a 'champion' to succeed, but it can't be a one-person show.

- 5) A need exists for networking, information sharing.

QUANTITATIVE EVALUATION

Quantitative Evaluation

- Designed to assess some long-term impact on the hospitals that implement QI
 - 19 Financial Indicators
 - 8 Quality Health Indicators (QHI)
 - 3 Hospital Leadership and Quality Assessment Tool (HLQAT) Data

Quantitative Evaluation

- Designed to assess some long-term impact on the hospitals that implement QI
 - Financial Indicators
 - QHI
 - HLQAT Data

Financial Indicators

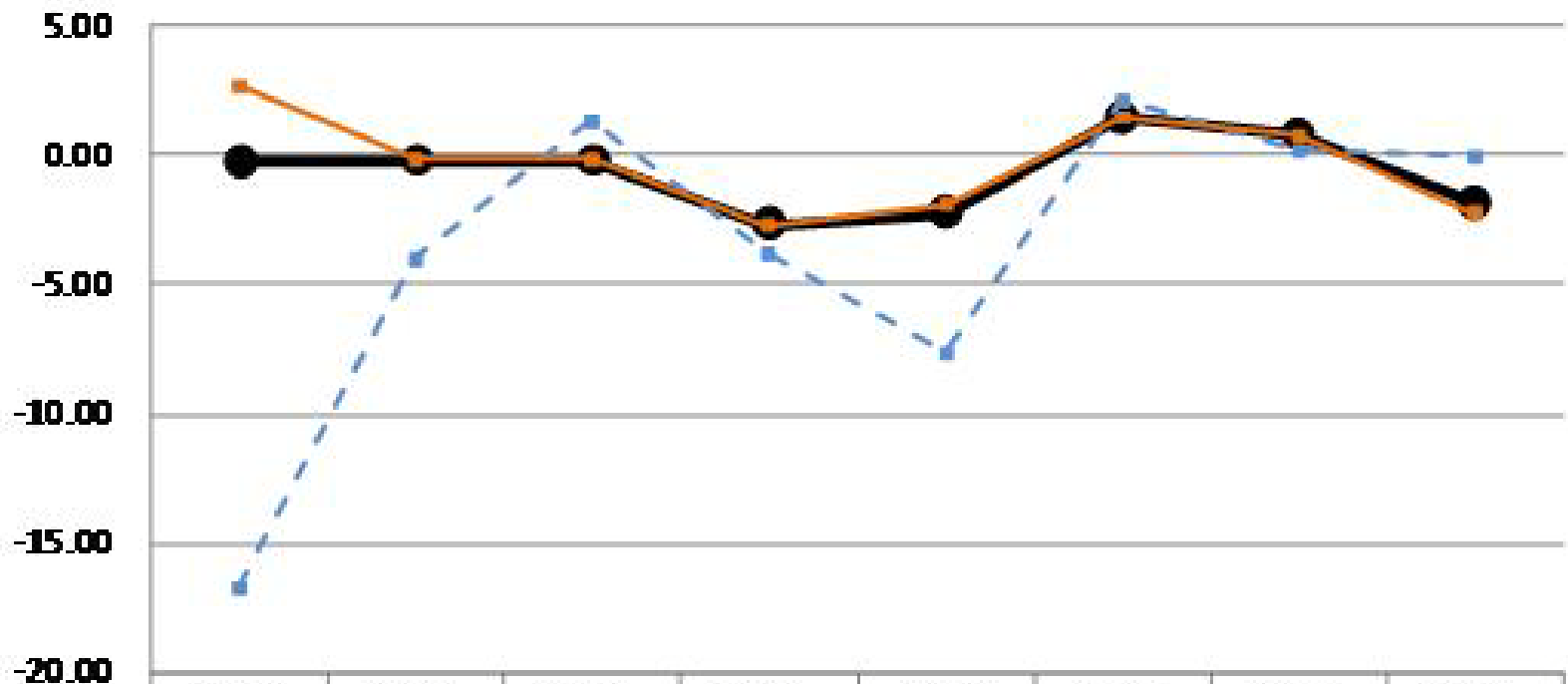
- Data were available for 2001-2008; not all hospitals provided data each year.
- Hospitals grouped by:
 1. Participation/non-participation in QI program
 2. Length of time in the program

Financial Indicators

- All CAHs
- CAHs who took part in the QI program any point time.
- CAHs who took part in the QI program during a given year.

Sample Results

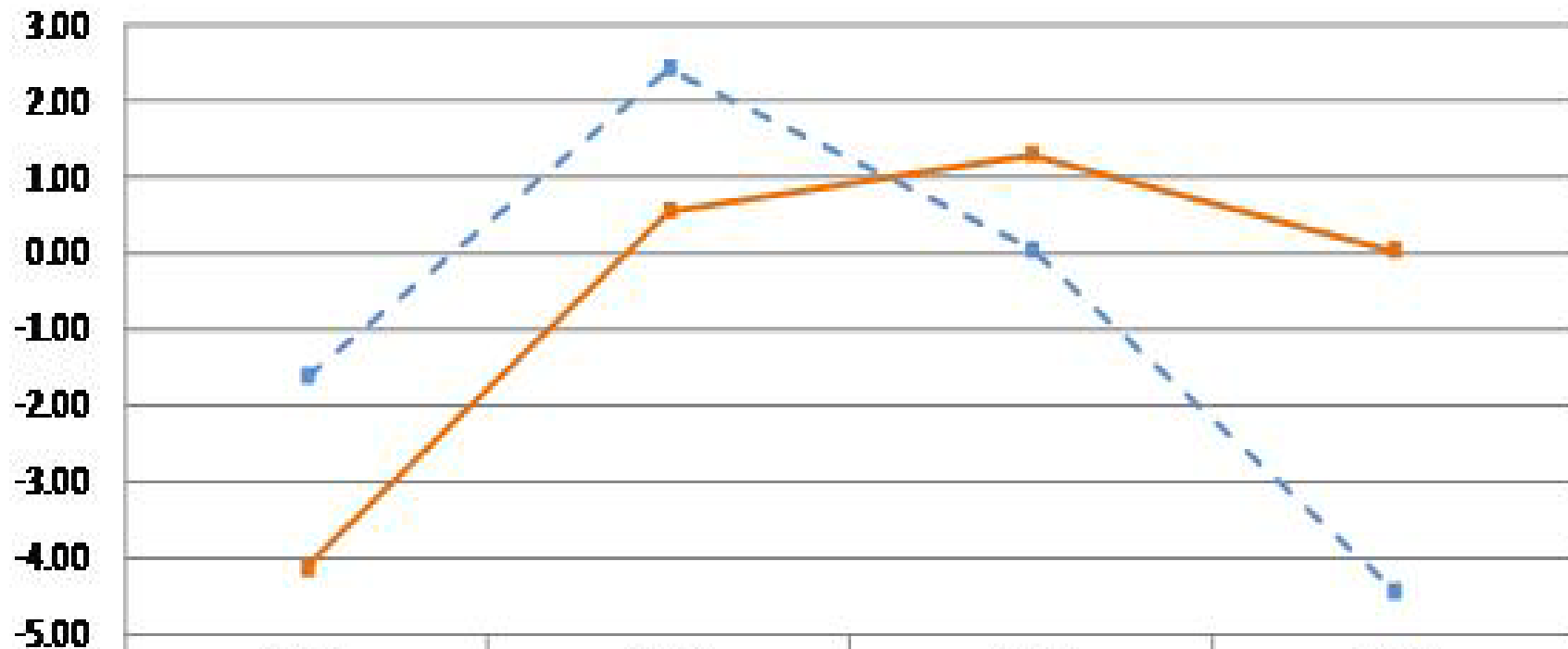
Mean Total Margins: QI/PI participating hospitals and QI/PI non-participating hospitals, 2001-2008



● All CAHs	-0.30	-0.28	-0.27	-2.72	-2.28	1.39	0.74	-1.89
- Non QI/PI CAHs	-16.73	-4.04	1.34	-3.78	-7.70	2.10	0.21	-0.06
— QI/PI Hospitals	2.66	-0.20	-0.20	-2.72	-1.92	1.45	0.73	-2.22

Sample Results

Mean Total Margins: Program and non-Program Hospitals, 2005-2008.



- - Non PHs

— PHs

2005

2006

2007

2008

-1.62

2.42

0.05

-4.42

-4.13

0.57

1.30

0.05

Financial Indicators

- **Measured hospitals on:**
 - **Profitability** – total margin and cash flow
 - **Liquidity** – days cash on hand, cash in acct rec
 - **Capital Structure** – debt service, debt-to-capitalization
 - **Revenue** – patient deduction, Medicare payer mix
 - **Cost** – salaries, age of plant
 - **Utilizations** – average daily census for acute and swing

Financial Results

- General trends across all 19 indicators:
 - Major changes or bumps in financial indicators are not present when moving from 2001-2004 (pre-program) to 2005-2008.
 - Major changes or bumps in financial indicators not present the year a hospital joins the QI program.

Financial Results

- General trends across all 19 indicators:
 - By 2008, non-program hospitals appeared to score 'better' on the majority of the indicators.
 - Non-program hospitals showed more financial improvement from 2005 to 2008 than program hospitals.
 - Financial impact on hospitals participating in QI appears to be limited.

Financial Results

- Results were largely inconclusive:
 - Finances are indirectly related to QI
 - Causality
 - Unequal group sizes
 - Recession
- Change is cultural

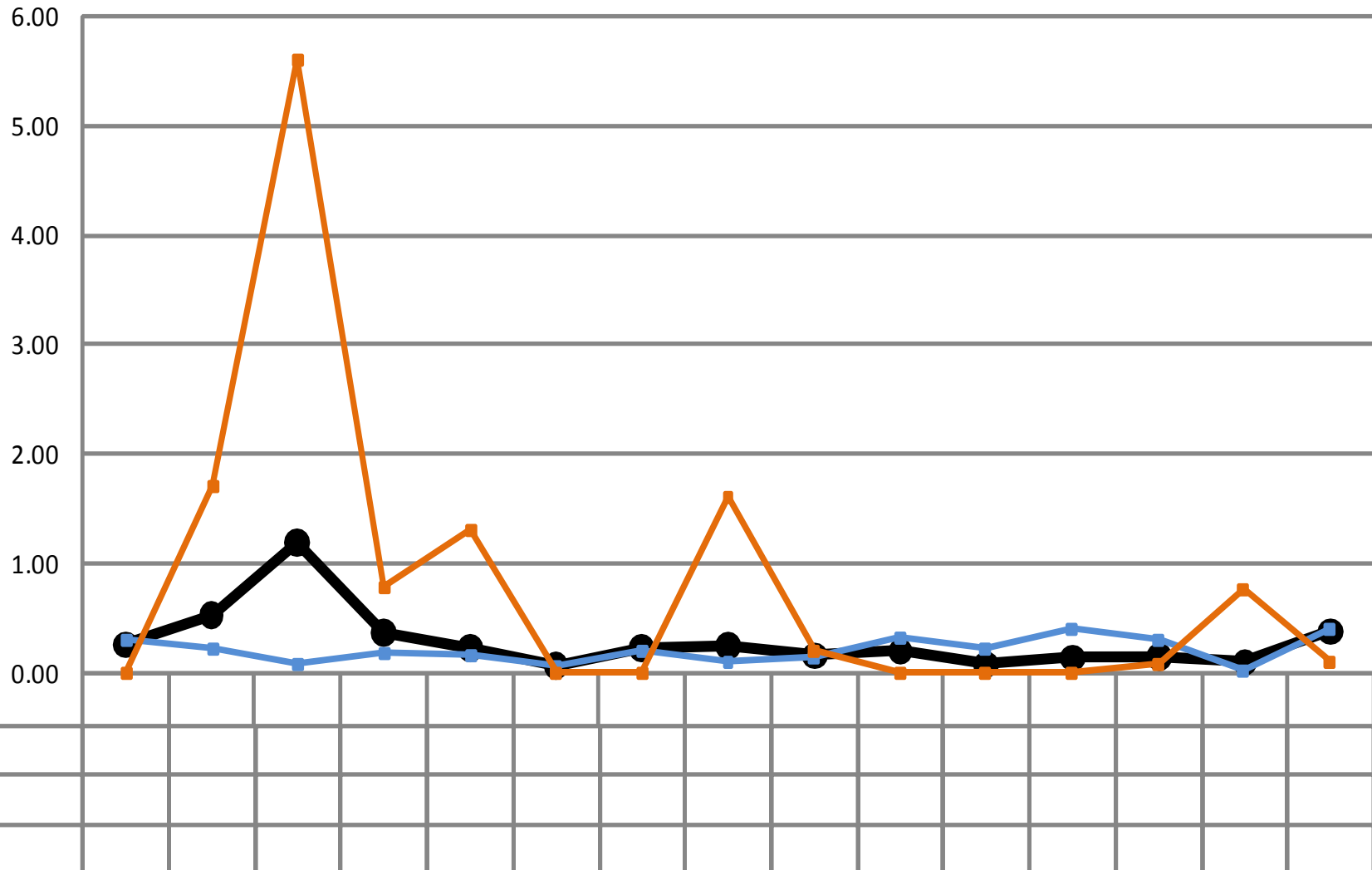
Quantitative Evaluation

- Designed to assess some long-term impact on the hospitals that implement QI
 - Financial Indicators
 - QHI
 - HLQAT Data

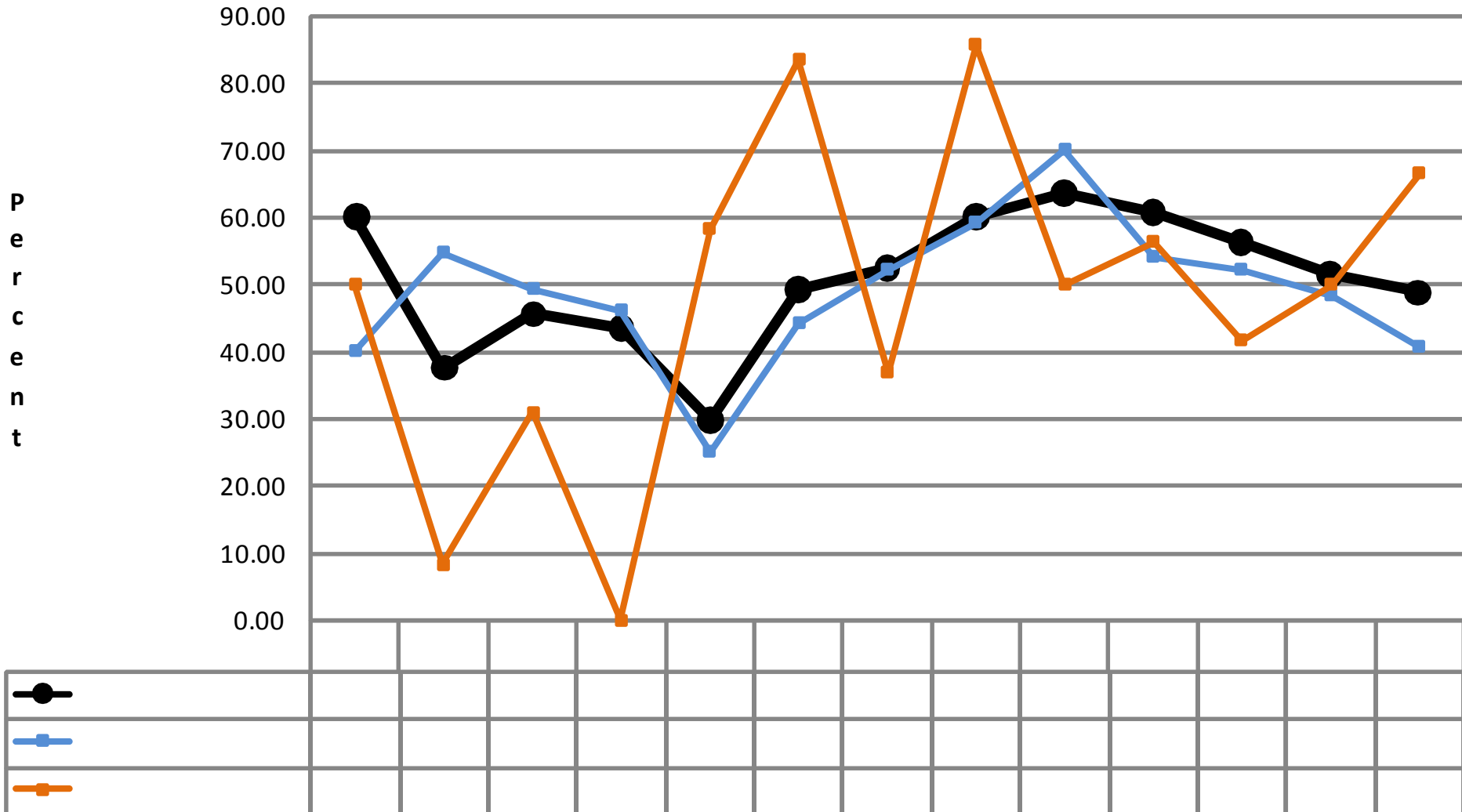
Quality Health Indicators

- Monthly data were available beginning in 2006 for anywhere from 40 to 50 hospitals for each indicator:
 - 8 indicators
 - Not all hospitals participated.
 - Not all reported data each month.
 - Data began in 2006.

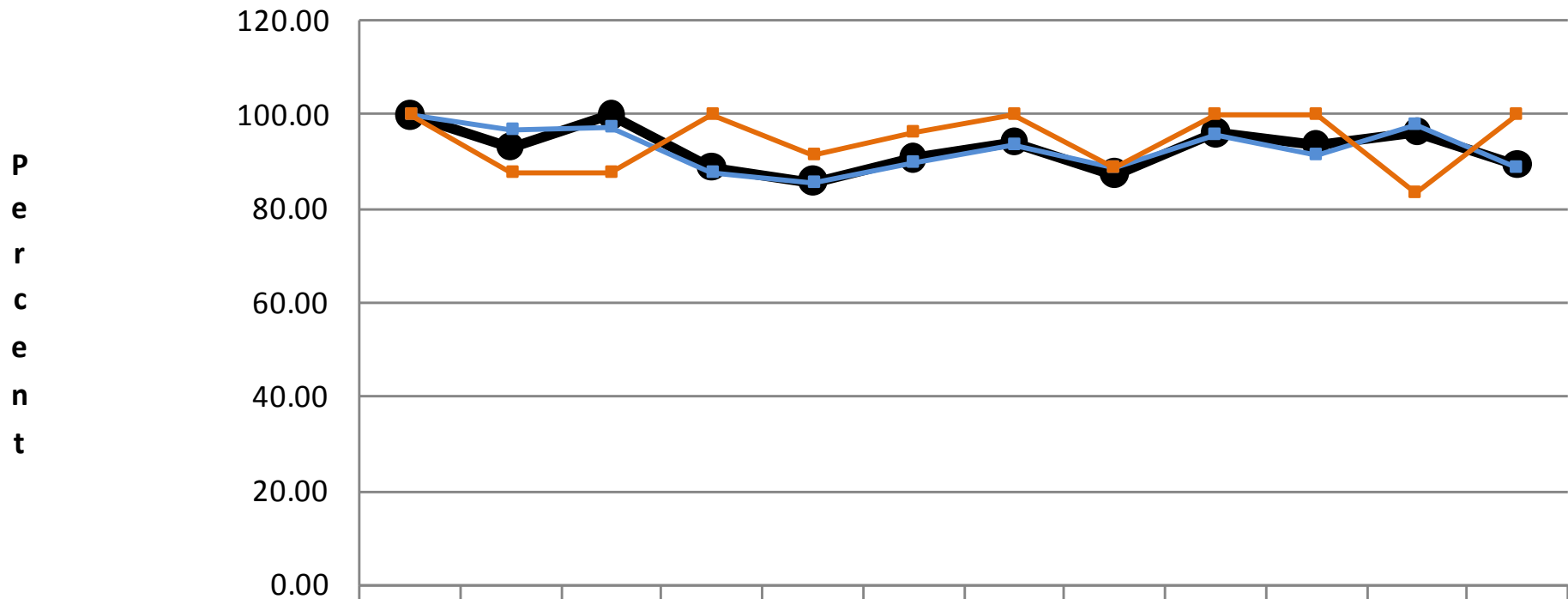
Quality Health Indicators



Quality Health Indicators

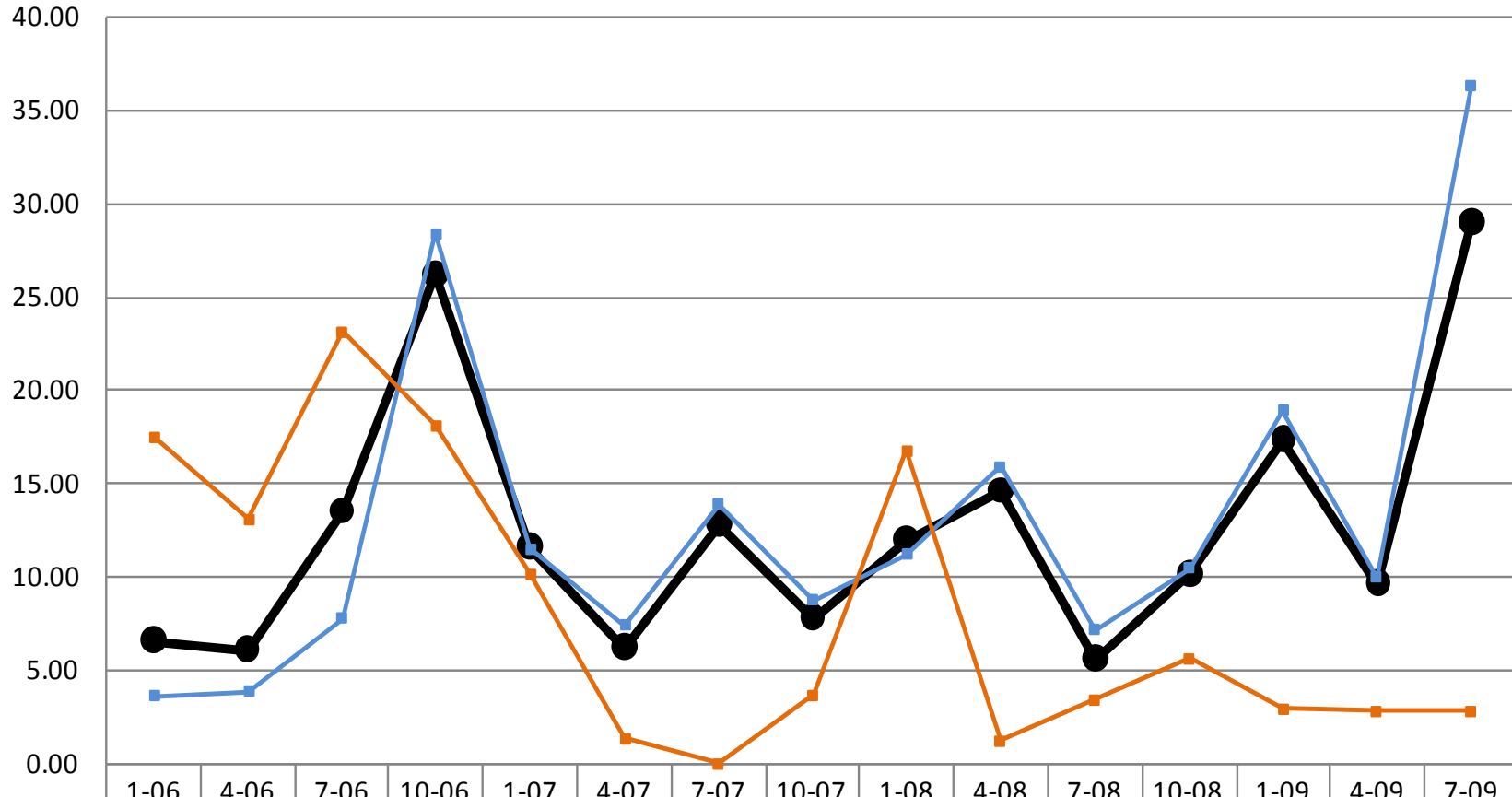


Pneumonia Patients Given Antibiotics within 4 hours



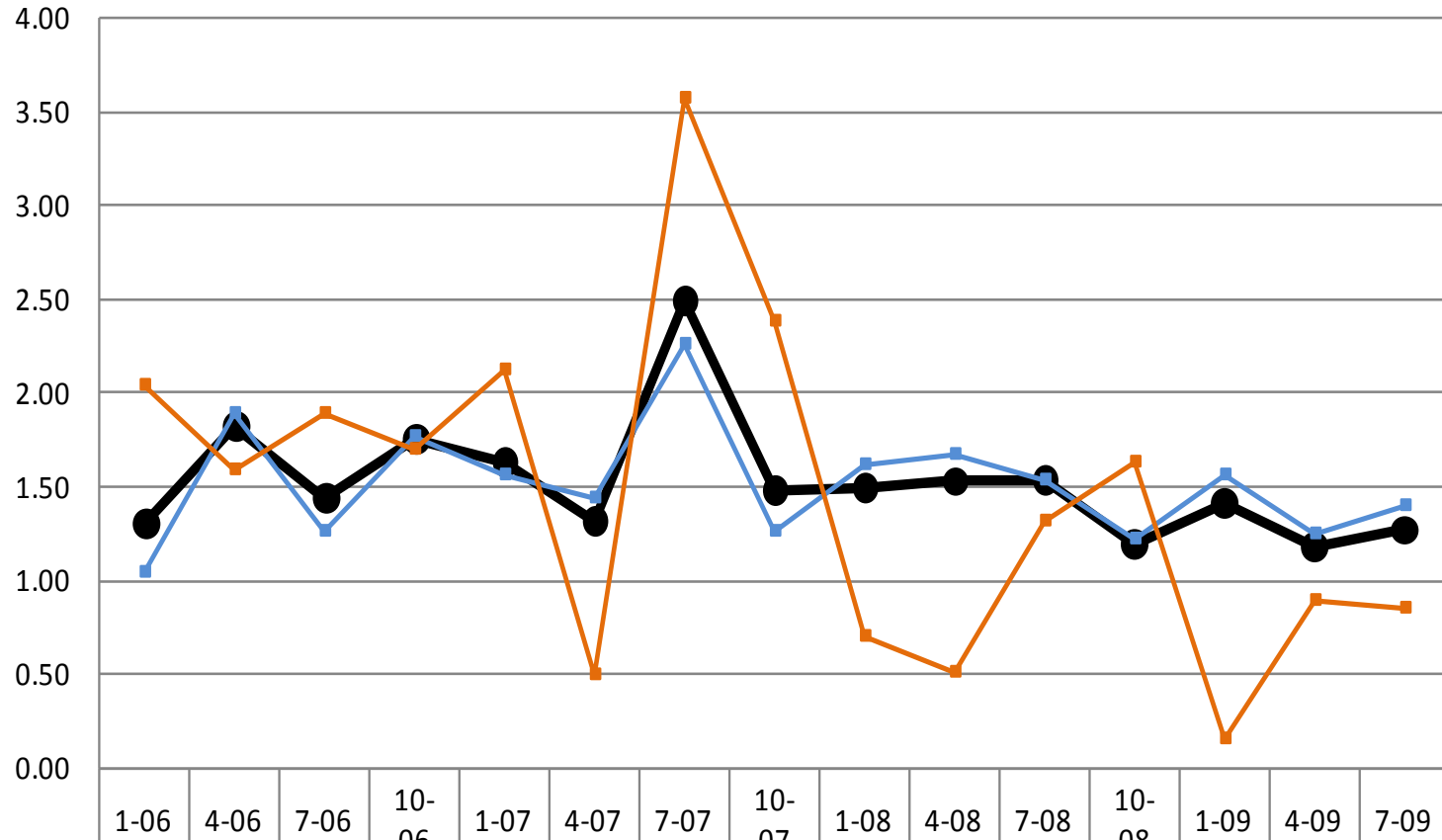
● All CAHs	100.00	93.23	100.00	88.89	85.71	90.80	94.17	87.48	96.05	93.65	96.27	89.29
■ QI/PI CAHs	100.00	96.97	97.22	87.72	85.71	89.77	93.52	88.80	95.83	91.67	97.84	88.80
■ Non QI/PI Hospitals	100.00	87.50	87.50	100.00	91.65	96.43	100.00	88.90	100.00	100.00	83.33	100.00

Unassisted Patient Falls



● All CAHs	6.54	6.10	13.48	26.18	11.60	6.22	12.80	7.78	11.96	14.59	5.56	10.15	17.33	9.63	29.01
■ QI/PI CAHs	3.57	3.78	7.74	28.35	11.48	7.41	13.82	8.69	11.16	15.89	7.09	10.43	18.87	9.89	36.32
■ Non QI/PI Hospitals	17.43	13.05	23.08	18.01	10.10	1.38	0.00	3.72	16.68	1.26	3.44	5.66	2.94	2.83	2.78

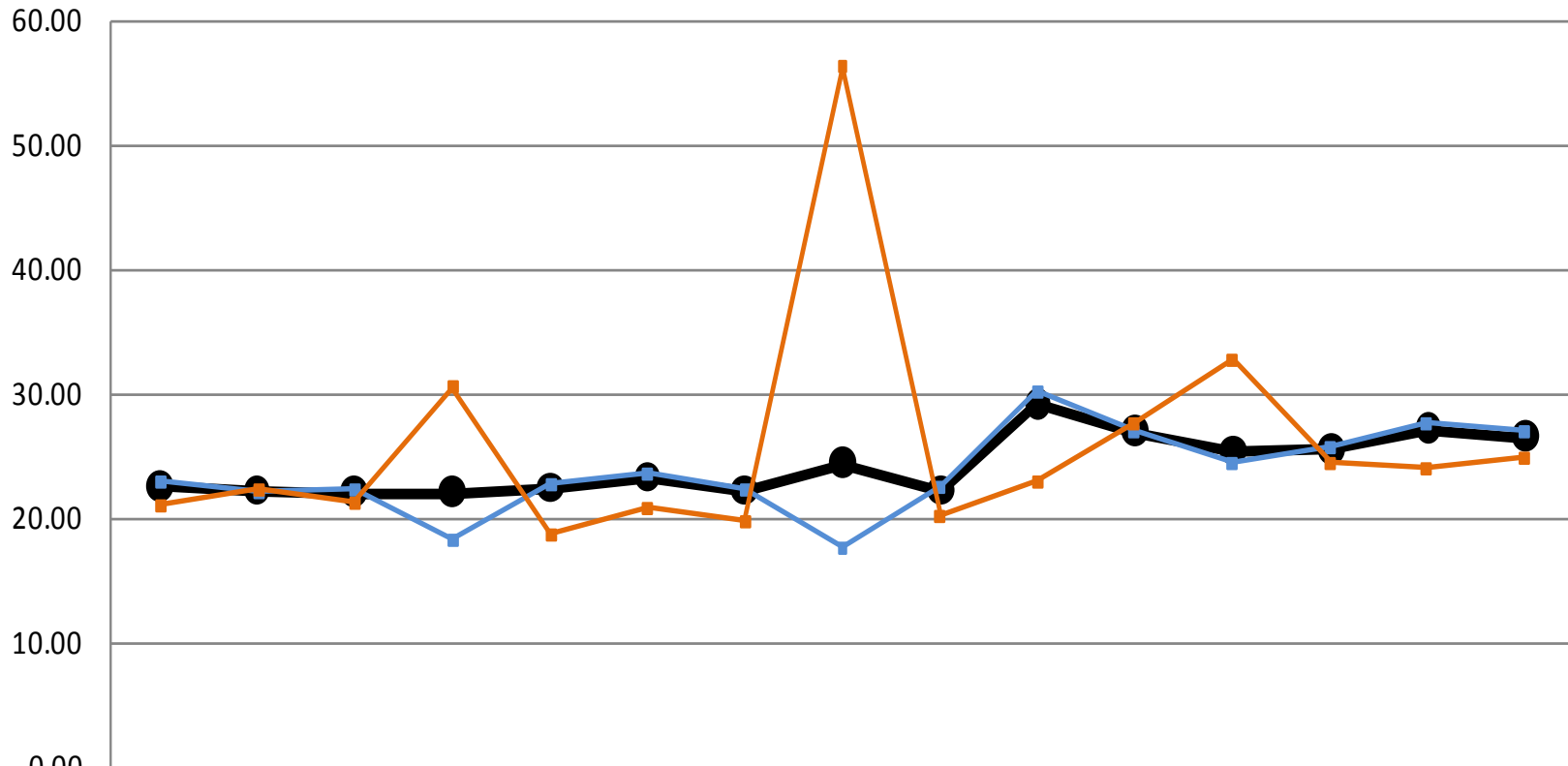
Staff Turnover



● All CAHs	1.30	1.81	1.44	1.75	1.62	1.31	2.49	1.48	1.49	1.53	1.53	1.19	1.41	1.17	1.27
■ QI/PI CAHs	1.05	1.90	1.26	1.77	1.57	1.45	2.26	1.27	1.62	1.67	1.54	1.23	1.57	1.25	1.40
■ Non QI/PI Hospitals	2.05	1.60	1.90	1.70	2.13	0.50	3.58	2.38	0.70	0.52	1.32	1.64	0.16	0.90	0.85

Quality Health Indicators

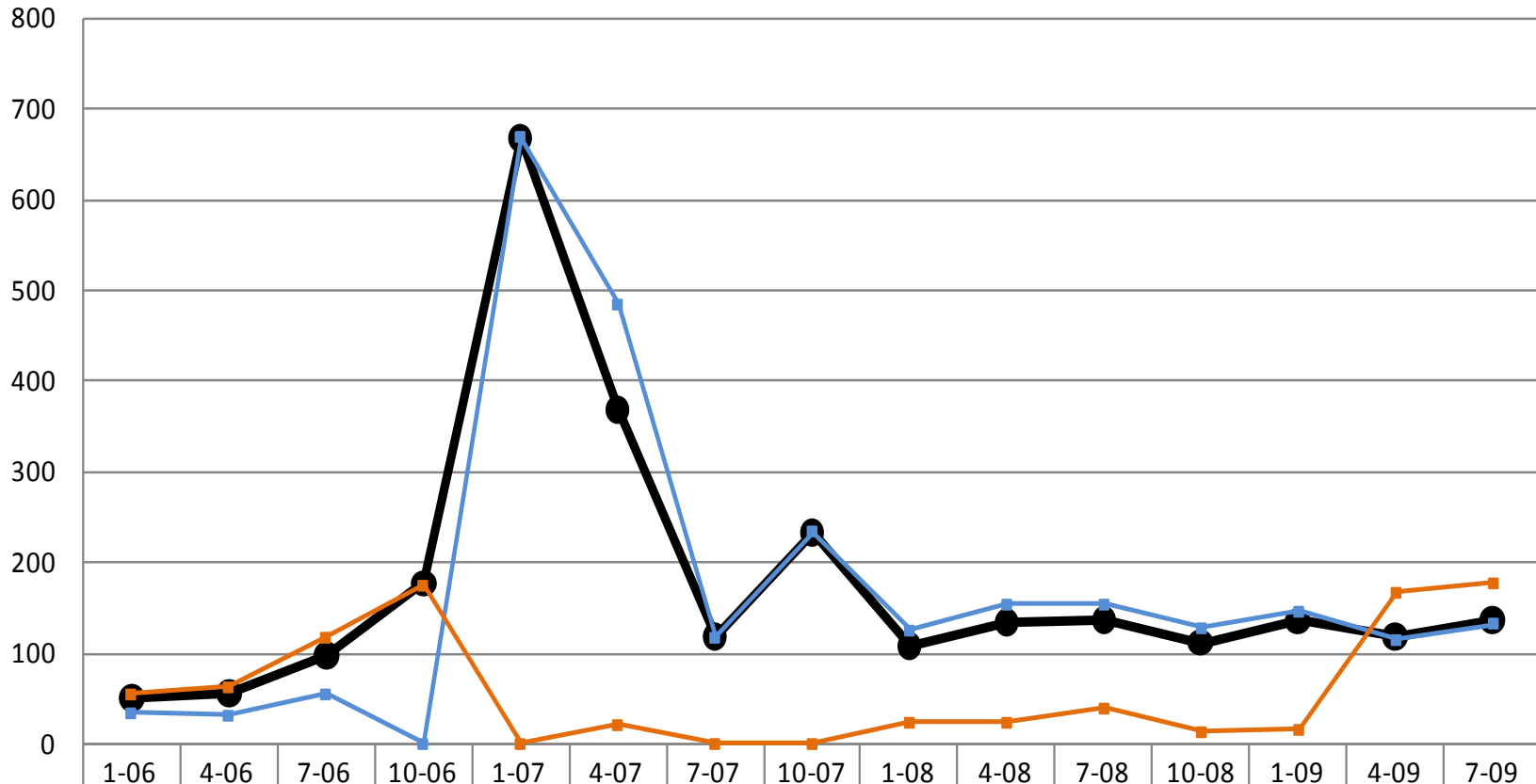
Benefits to Salary Ratio



	1-06	4-06	7-06	10-06	1-07	4-07	7-07	10-07	1-08	4-08	7-08	10-08	1-09	4-09	7-09
● All CAHs	22.58	22.23	22.04	22.09	22.43	23.31	22.25	24.47	22.18	29.26	27.03	25.39	25.59	27.23	26.60
■ QI/PI CAHs	23.07	22.20	22.29	18.41	22.87	23.64	22.44	17.67	22.53	30.23	26.95	24.51	25.71	27.64	27.00
■ Non QI/PI Hospitals	21.10	22.30	21.20	30.51	18.73	20.88	19.88	56.20	20.28	22.92	27.65	32.70	24.50	23.95	24.83

Quality Health Indicators

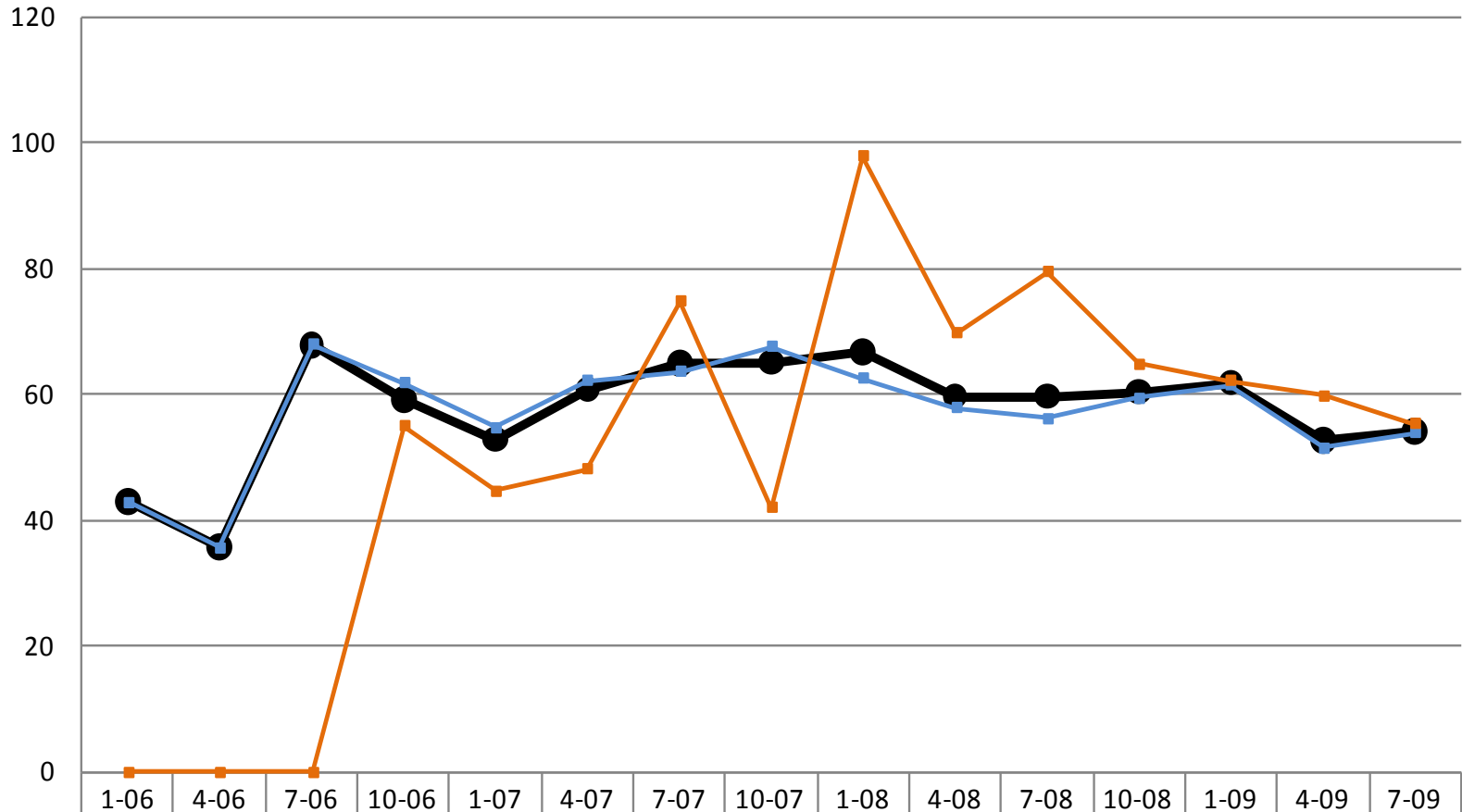
Days Cash on Hand



● All CAHs	49.53	54.65	97.30	176.10	667.75	367.95	117.65	232.67	107.03	132.78	136.69	110.79	134.68	117.35	136.35
■ QI/PI CAHs	34.50	32.20	54.70	0.00	667.75	483.93	117.65	232.67	123.98	154.48	152.97	126.98	145.61	114.48	131.50
■ Non QI/PI Hospitals	54.53	62.13	118.60	176.10	0.00	20.00	0.00	0.00	22.30	24.30	39.00	13.60	14.50	166.55	177.95

Quality Health Indicators

Gross Days in AR



● All CAHs	42.90	35.60	67.90	59.16	52.84	60.74	64.98	65.12	66.70	59.66	59.70	60.45	61.83	52.55	54.00
■ QI/PI CAHs	42.90	35.60	67.90	61.68	54.67	62.16	63.60	67.45	62.49	57.68	56.13	59.44	61.41	51.45	53.76
■ Non-QI/PI Hospitals	0.00	0.00	0.00	54.97	44.60	48.00	74.60	41.90	97.73	69.58	79.38	64.75	62.18	59.77	55.27

Quality Health Indicators

- Implications
 - Results are inconclusive – we are comparing different size groups, so it is impossible to account for large spikes in some of the indicators.
 - However, the general trend is for improvement overall – hospitals have more cash on hand, and employees receive more benefits relative to their salary.

Quantitative Evaluation

- Designed to assess some long-term measurable impact on the hospitals that implement QI
 - Financial Indicators
 - QHI
 - HLQAT Data

HLQAT

- Hospitals that have engaged in specific projects that have been evaluated by CMS
- Number of individual contacts by hospitals to QIO
- Participation in QI program training

- Of the 77 CAH hospitals that participated in the QI program:
 - 26 (34%) have engaged in CMS selected projects with evaluated outcomes and goals.
 - 23 (30%), 27 (35%), 22 (28%) hospitals took part in QI basic training during 2007, 2008, and 2009 respectively.
 - An average of 8 non-routine contacts with the Quality Improvement Organizations in 2008 and 11 in 2009.

Recommendations

Recommendations

- 1) Ongoing support is essential.
- 2) Information sharing between hospitals is needed.

Recommendations

- 3) Communication throughout all levels of the hospital regarding quality improvement needs to be improved.

- 4) Establish a dedicated risk management person to be shared by hospitals on a rotating basis could be beneficial.

Recommendations

5) Expand the program to more hospitals.

6) Integrate evaluation measurements that are specific to quality improvement efforts.

Questions?

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