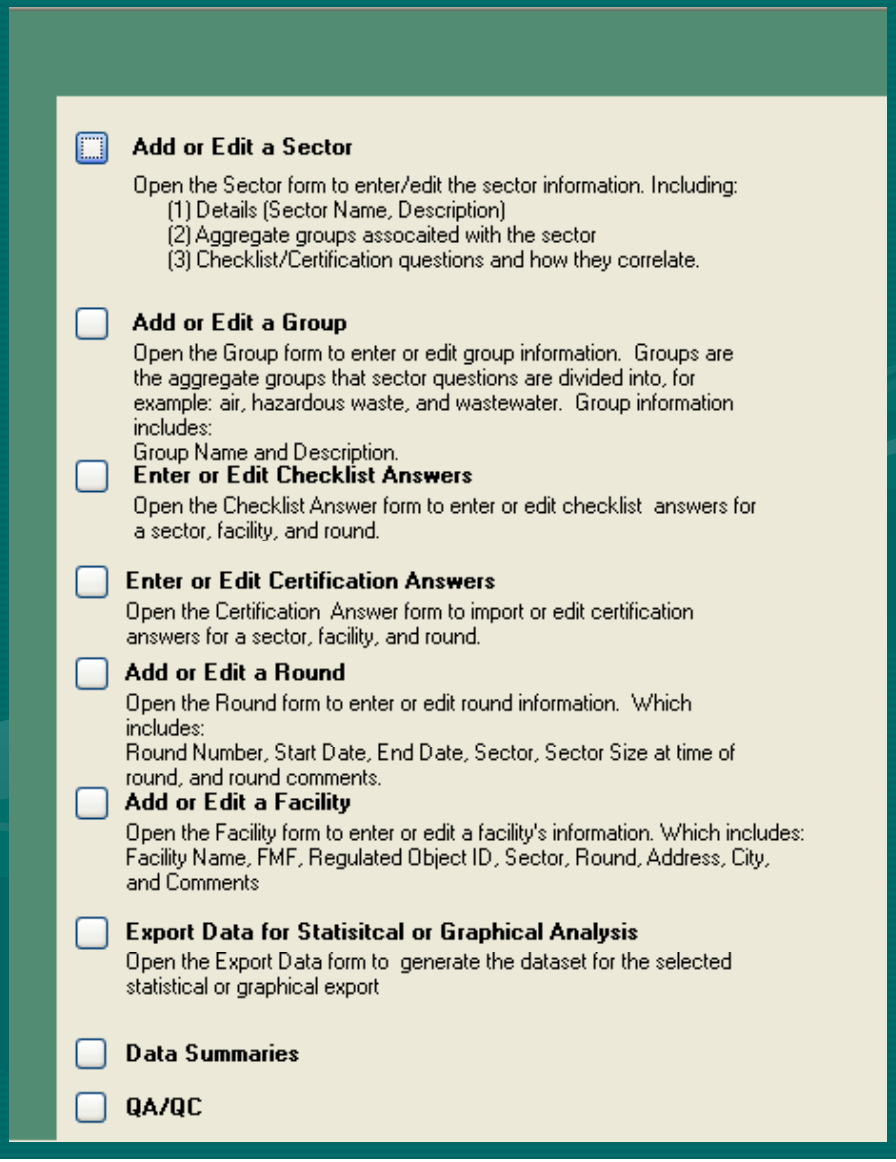
ERP Performance Analyzer

Graphical and Statistical Analysis

MP1

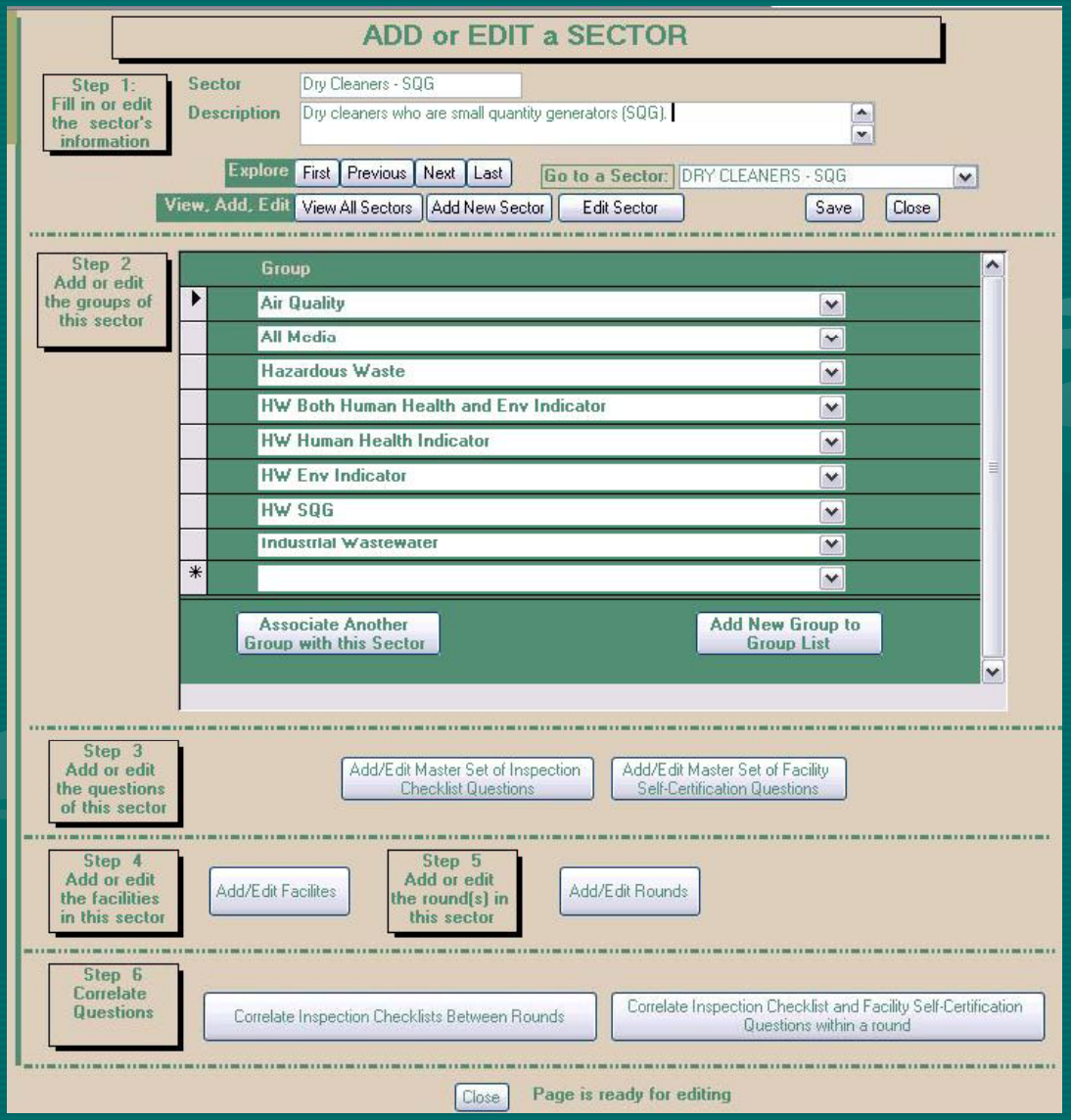
Main Input Screen



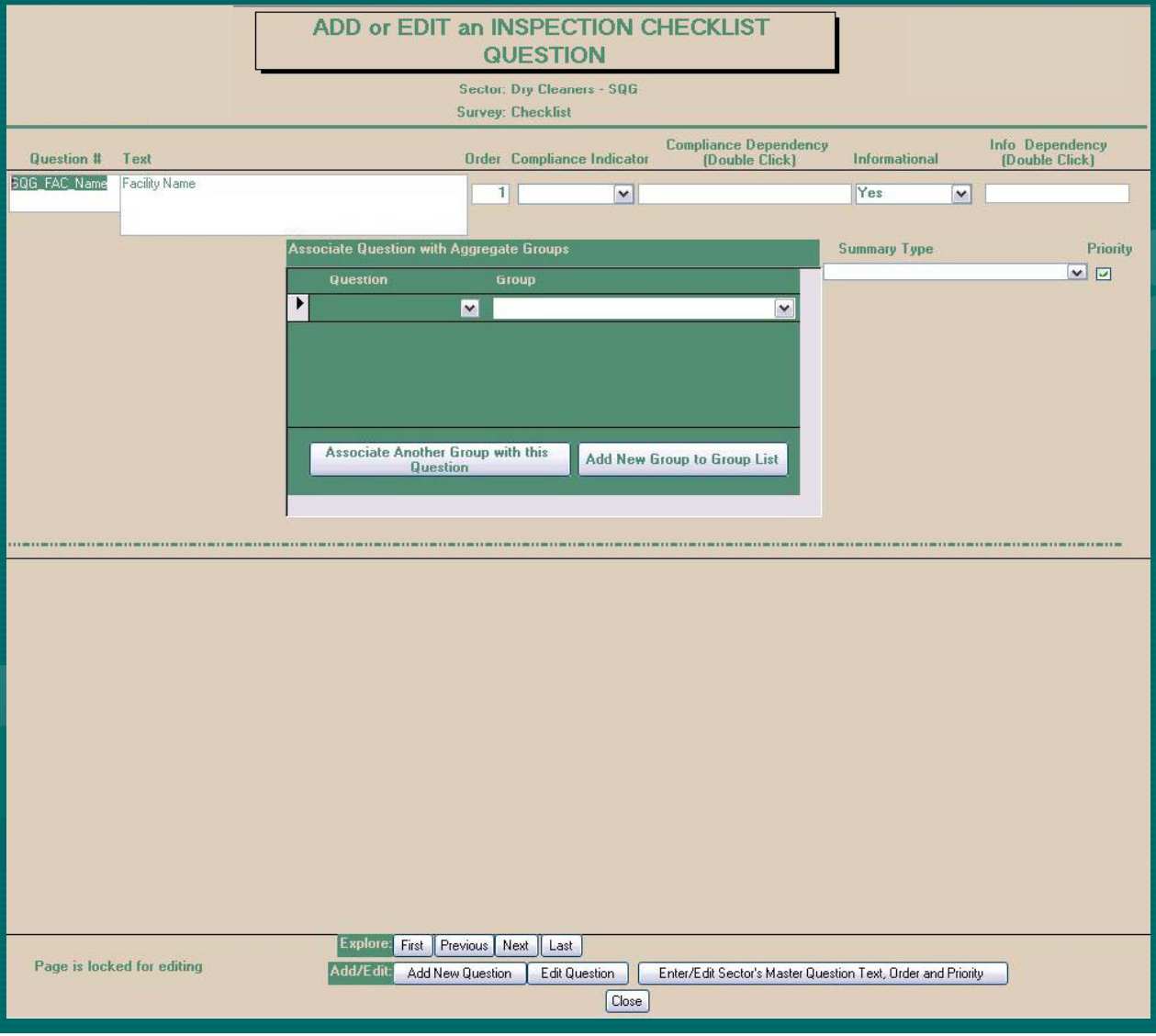
Slide 2

MP1 Caitlin - you can probably come up with better verbage than me for how to describe what a sector is and what the groups are
Marna Parslow, 9/7/2008

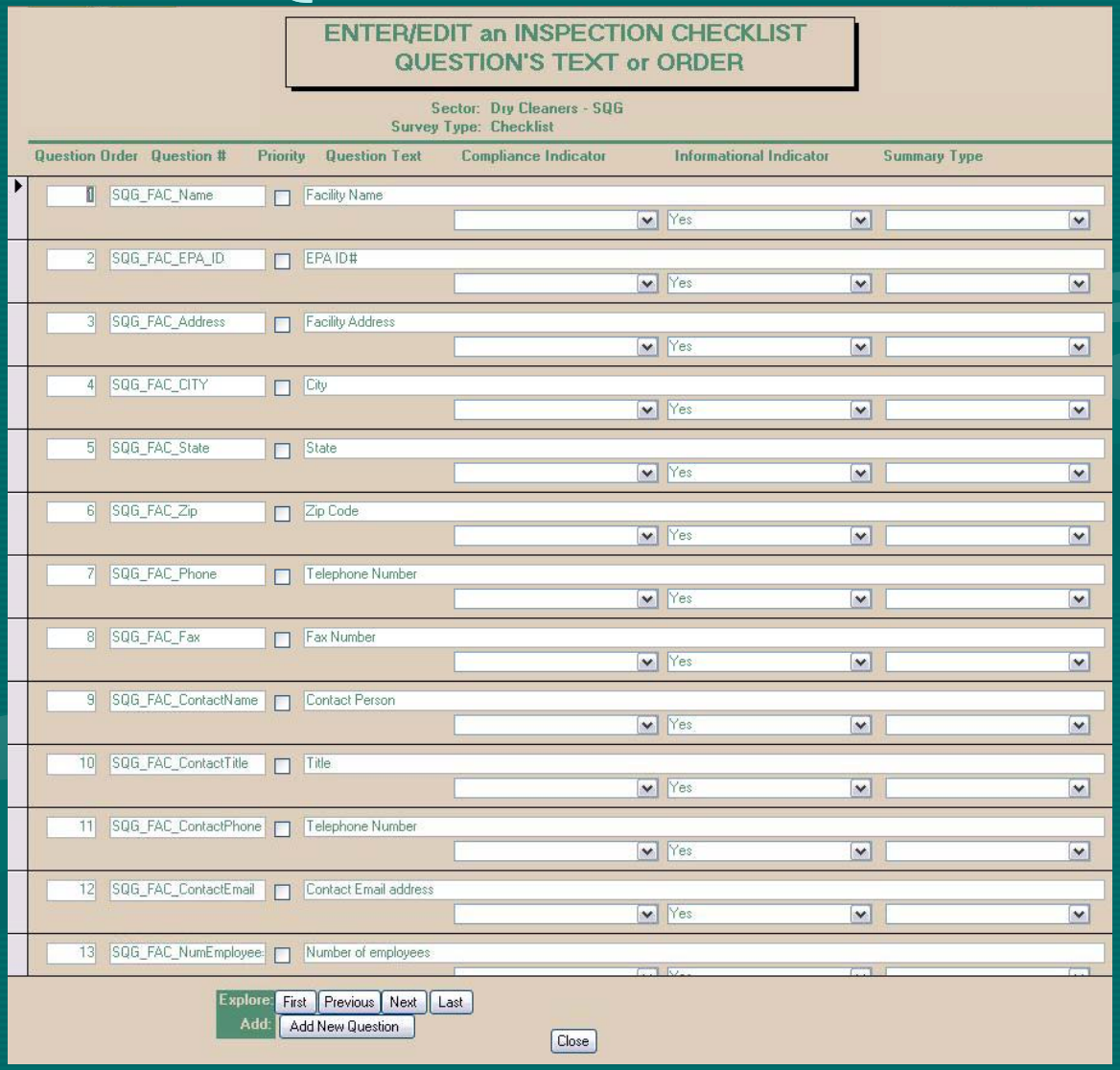
Add or Edit a Sector



Add or Edit Inspection Checklist Question

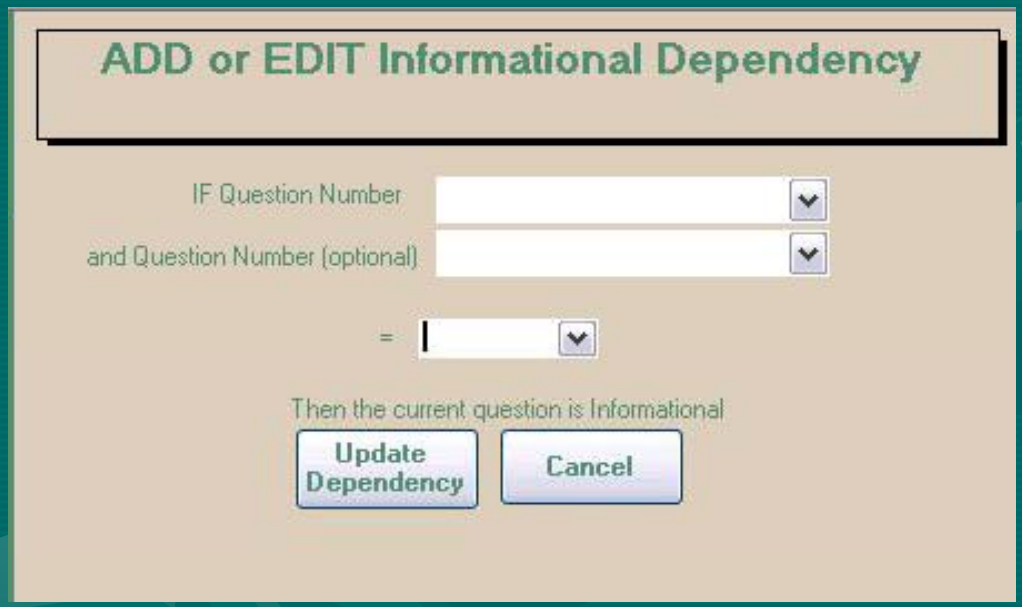


Enter or Edit Checklist Question Order

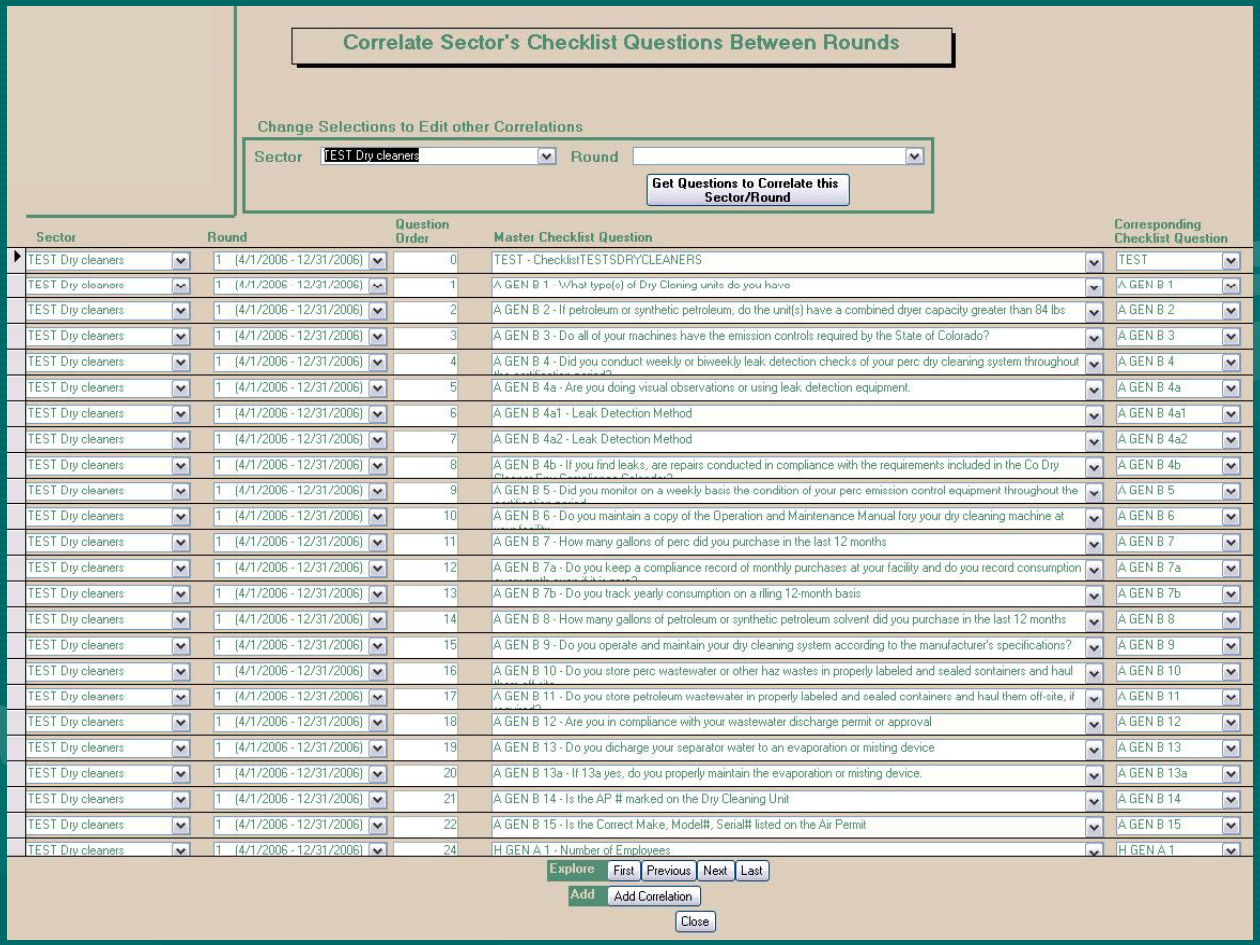


Add or Edit Compliance Dependency

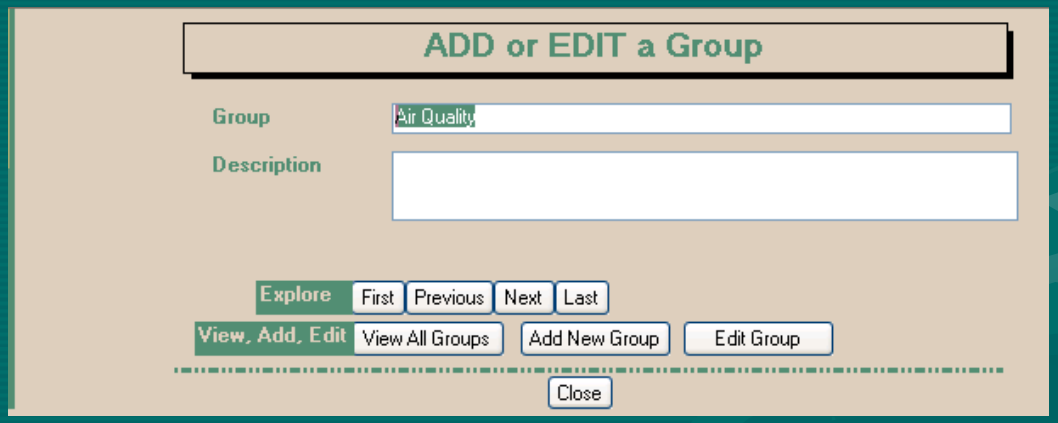
Add or Edit Informational Dependency



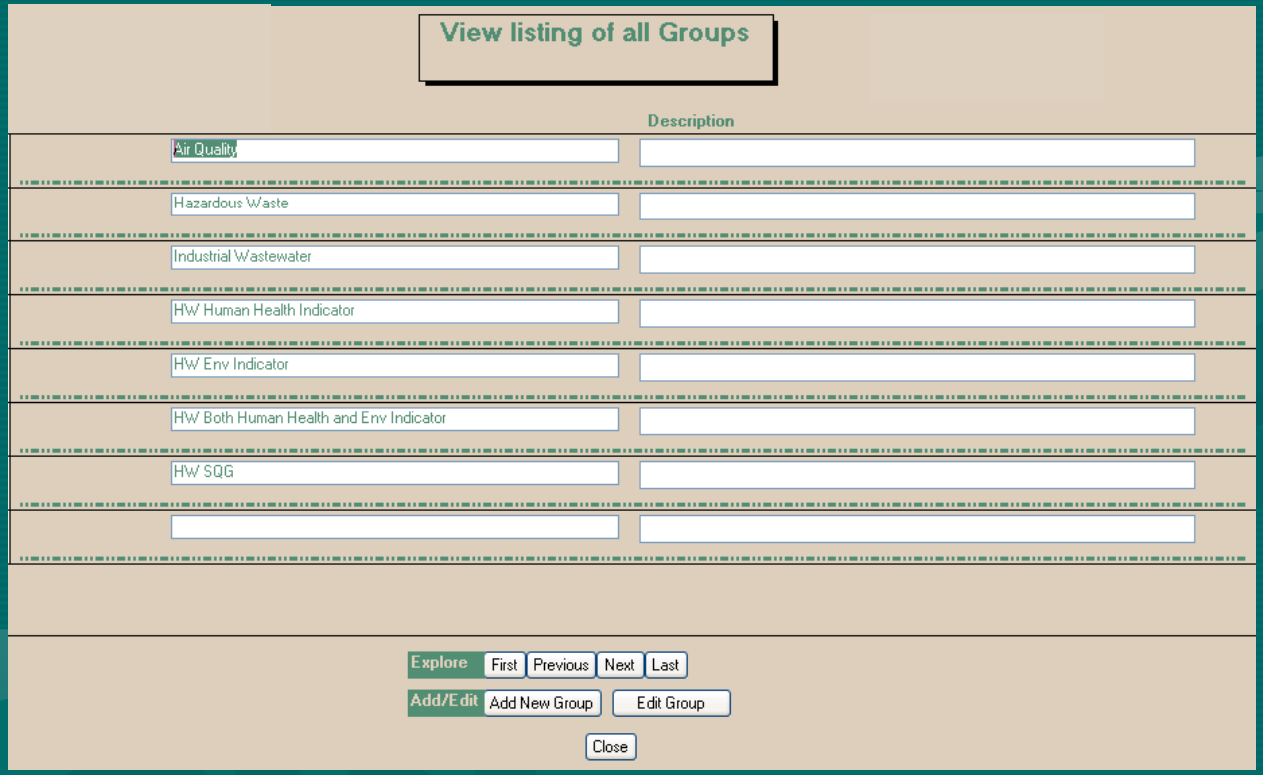
Correlate Checklists Between Rounds



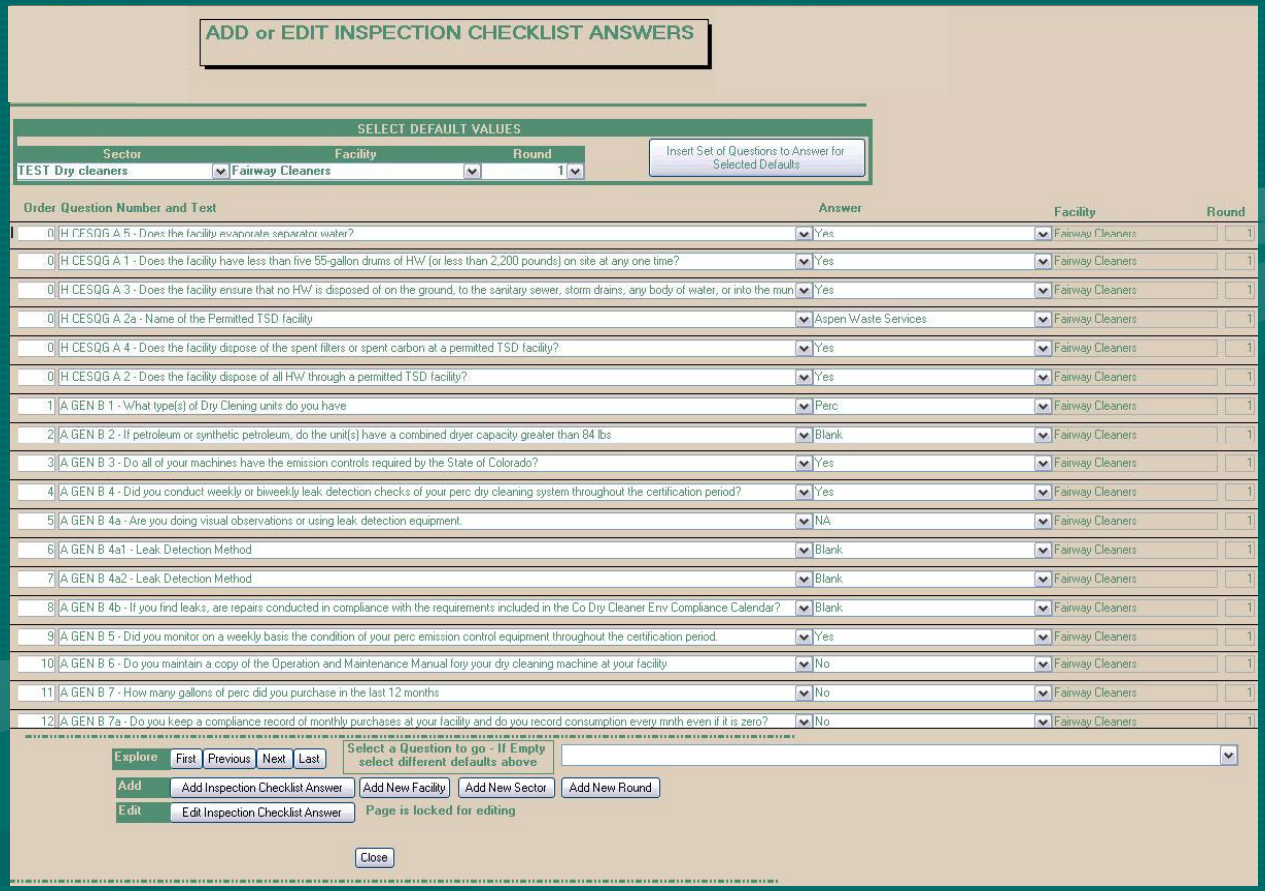
Add or Edit a Group



View Groups


View listing of all Groups
Description
Air Quality
Hazardous Waste
Industrial Wastewater
HW Human Health Indicator
HW Env Indicator
HW Both Human Health and Env Indicator
HW SQG
Explore
First
Previous
Next
Last
Add/Edit
Add New Group
Edit Group
Close

Add or Edit Checklist or Certification Answers



ADD or EDIT INSPECTION CHECKLIST ANSWERS

SELECT DEFAULT VALUES

Sector: TEST Dry cleaners | Facility: Fairway Cleaners | Round: 1

Insert Set of Questions to Answer for Selected Defaults

Order	Question Number and Text	Answer	Facility	Round
0	H CESQG A 5 - Does the facility evaporate separator water?	Yes	Fairway Cleaners	1
0	H CESQG A 1 - Does the facility have less than five 55-gallon drums of HW (or less than 2,200 pounds) on site at any one time?	Yes	Fairway Cleaners	1
0	H CESQG A 3 - Does the facility ensure that no HW is disposed of on the ground, to the sanitary sewer, storm drains, any body of water, or into the mun	Yes	Fairway Cleaners	1
0	H CESQG A 2a - Name of the Permitted TSD facility	Aspen Waste Services	Fairway Cleaners	1
0	H CESQG A 4 - Does the facility dispose of the spent filters or spent carbon at a permitted TSD facility?	Yes	Fairway Cleaners	1
0	H CESQG A 2 - Does the facility dispose of all HW through a permitted TSD facility?	Yes	Fairway Cleaners	1
1	A GEN B 1 - What type(s) of Dry Cleaning units do you have	Perc	Fairway Cleaners	1
2	A GEN B 2 - If petroleum or synthetic petroleum, do the unit(s) have a combined dryer capacity greater than 84 lbs	Blank	Fairway Cleaners	1
3	A GEN B 3 - Do all of your machines have the emission controls required by the State of Colorado?	Yes	Fairway Cleaners	1
4	A GEN B 4 - Did you conduct weekly or biweekly leak detection checks of your perc dry cleaning system throughout the certification period?	Yes	Fairway Cleaners	1
5	A GEN B 4a - Are you doing visual observations or using leak detection equipment.	NA	Fairway Cleaners	1
6	A GEN B 4a1 - Leak Detection Method	Blank	Fairway Cleaners	1
7	A GEN B 4a2 - Leak Detection Method	Blank	Fairway Cleaners	1
8	A GEN B 4b - If you find leaks, are repairs conducted in compliance with the requirements included in the Co Dry Cleaner Env Compliance Calendar?	Blank	Fairway Cleaners	1
9	A GEN B 5 - Did you monitor on a weekly basis the condition of your perc emission control equipment throughout the certification period.	Yes	Fairway Cleaners	1
10	A GEN B 6 - Do you maintain a copy of the Operation and Maintenance Manual fory your dry cleaning machine at your facility	No	Fairway Cleaners	1
11	A GEN B 7 - How many gallons of perc did you purchase in the last 12 months	No	Fairway Cleaners	1
12	A GEN B 7a - Do you keep a compliance record of monthly purchases at your facility and do you record consumption every mnth even if it is zero?	No	Fairway Cleaners	1

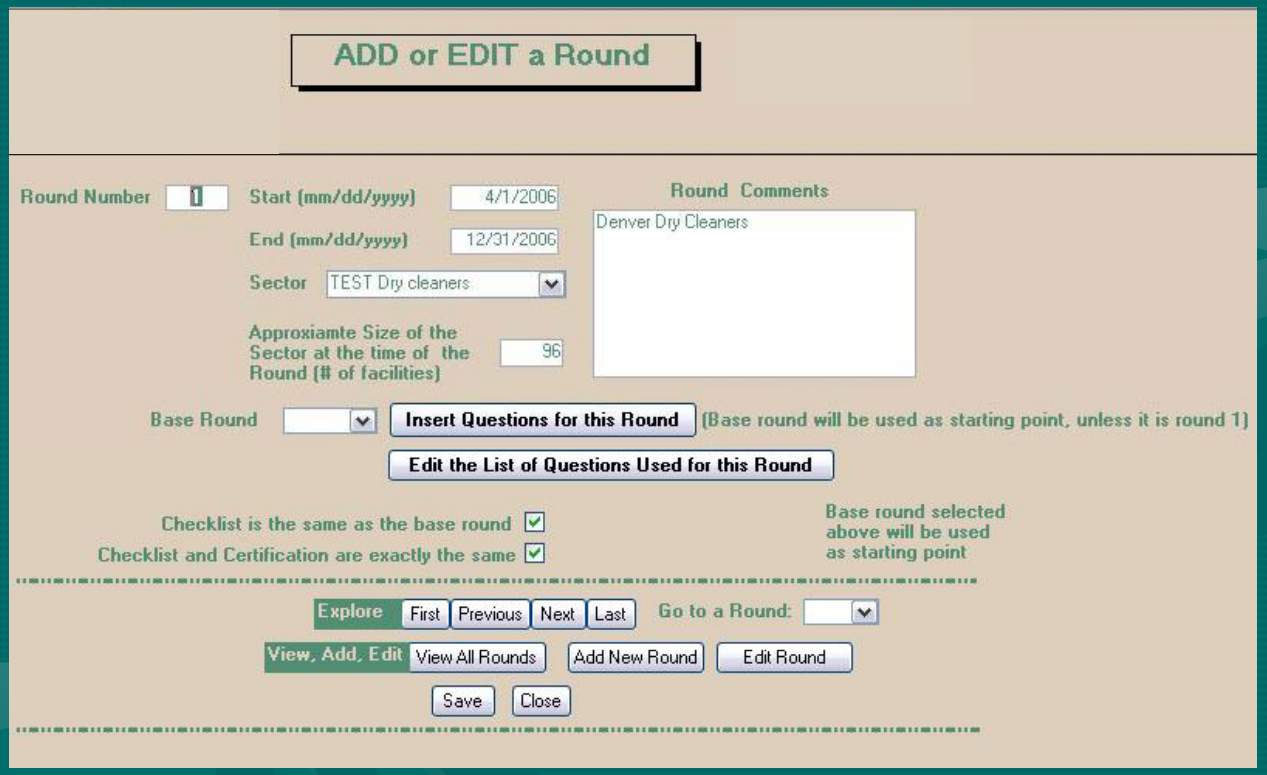
Explore: First | Previous | Next | Last — Select a Question to go - If Empty select different defaults above

Add: Add Inspection Checklist Answer | Add New Facility | Add New Sector | Add New Round

Edit: Edit Inspection Checklist Answer — Page is locked for editing

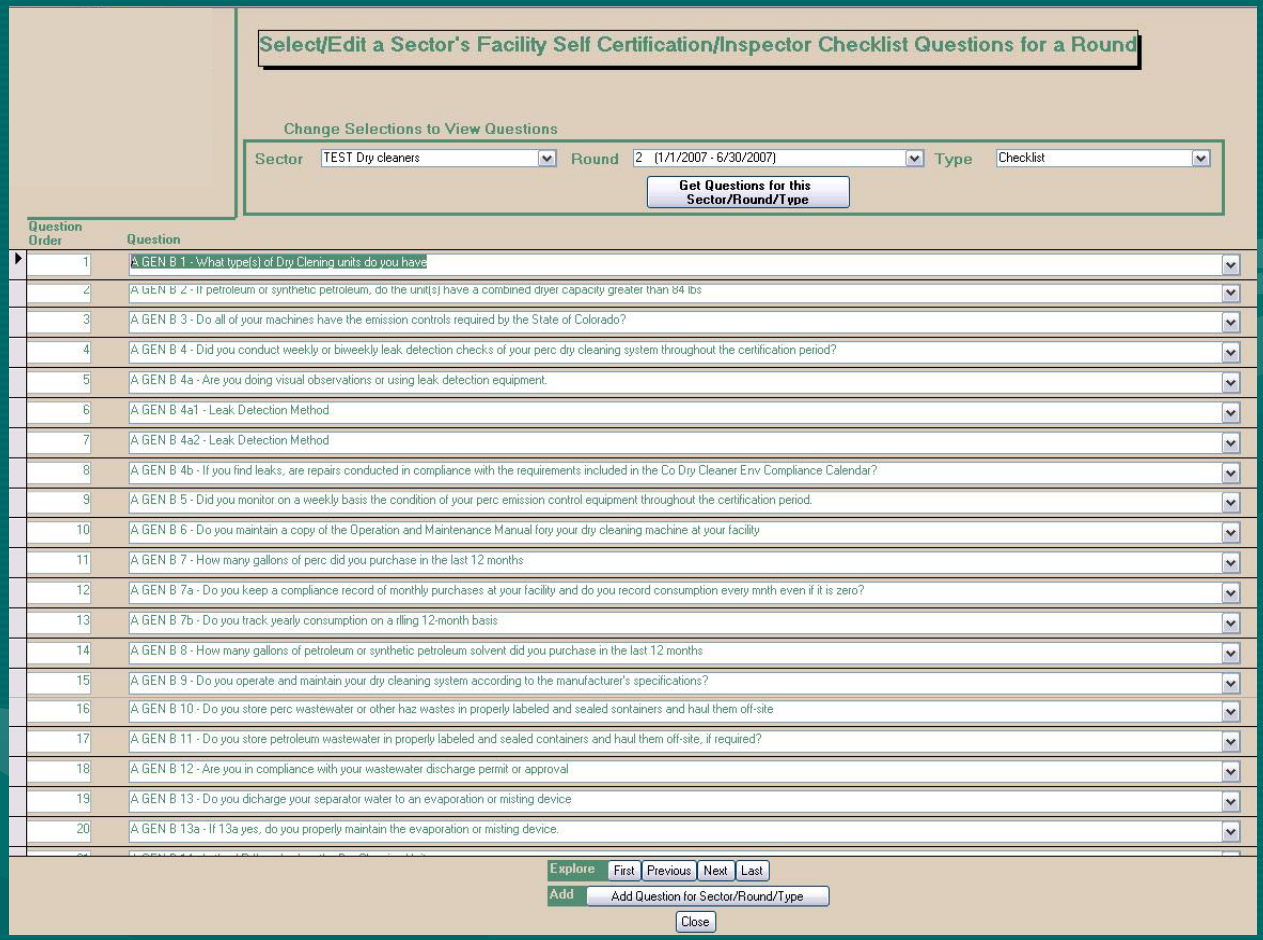
Close

Add or Edit a Round

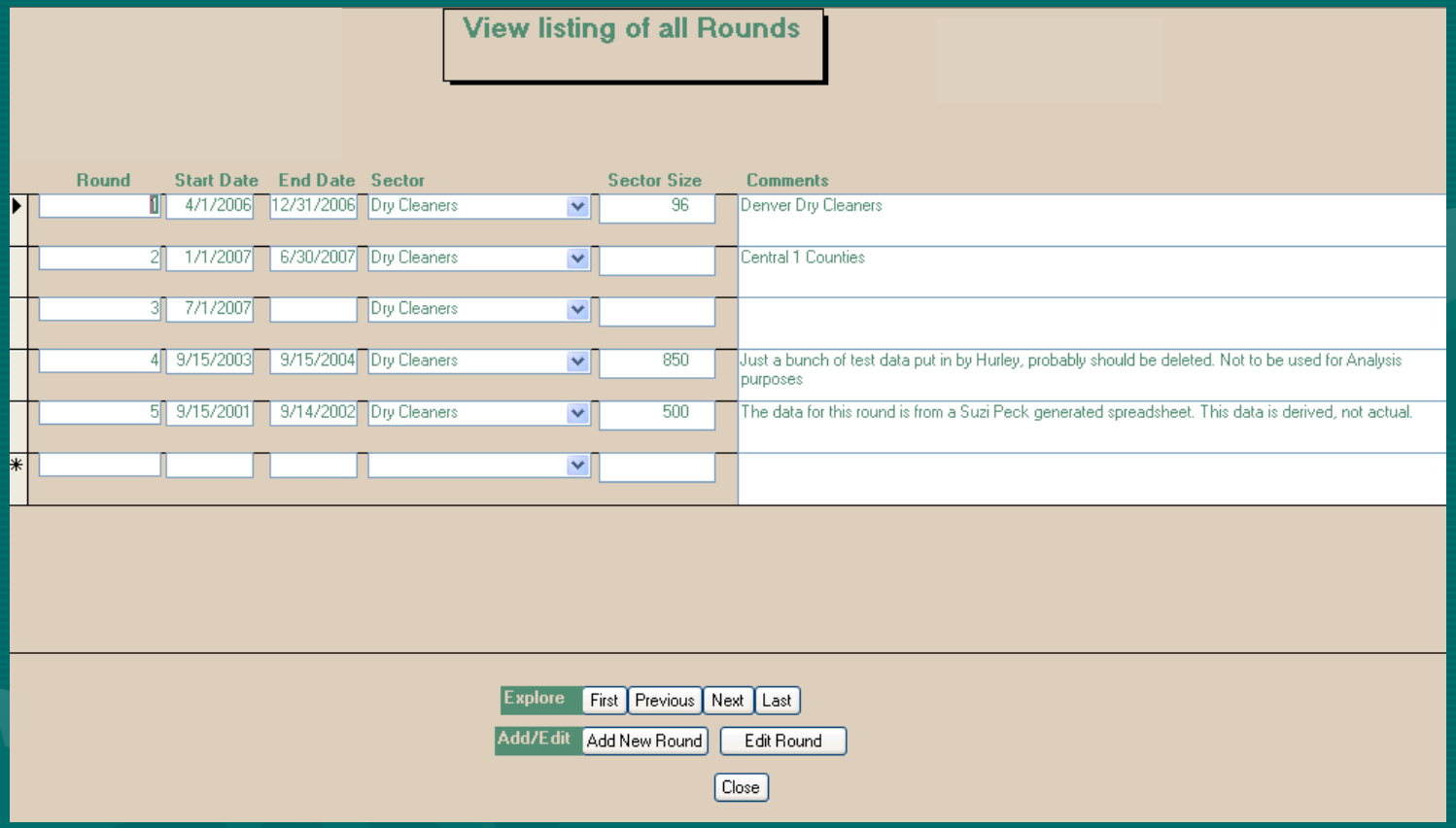


Add or Edit a Round Screen Alternate Correlation

View Questions in Round

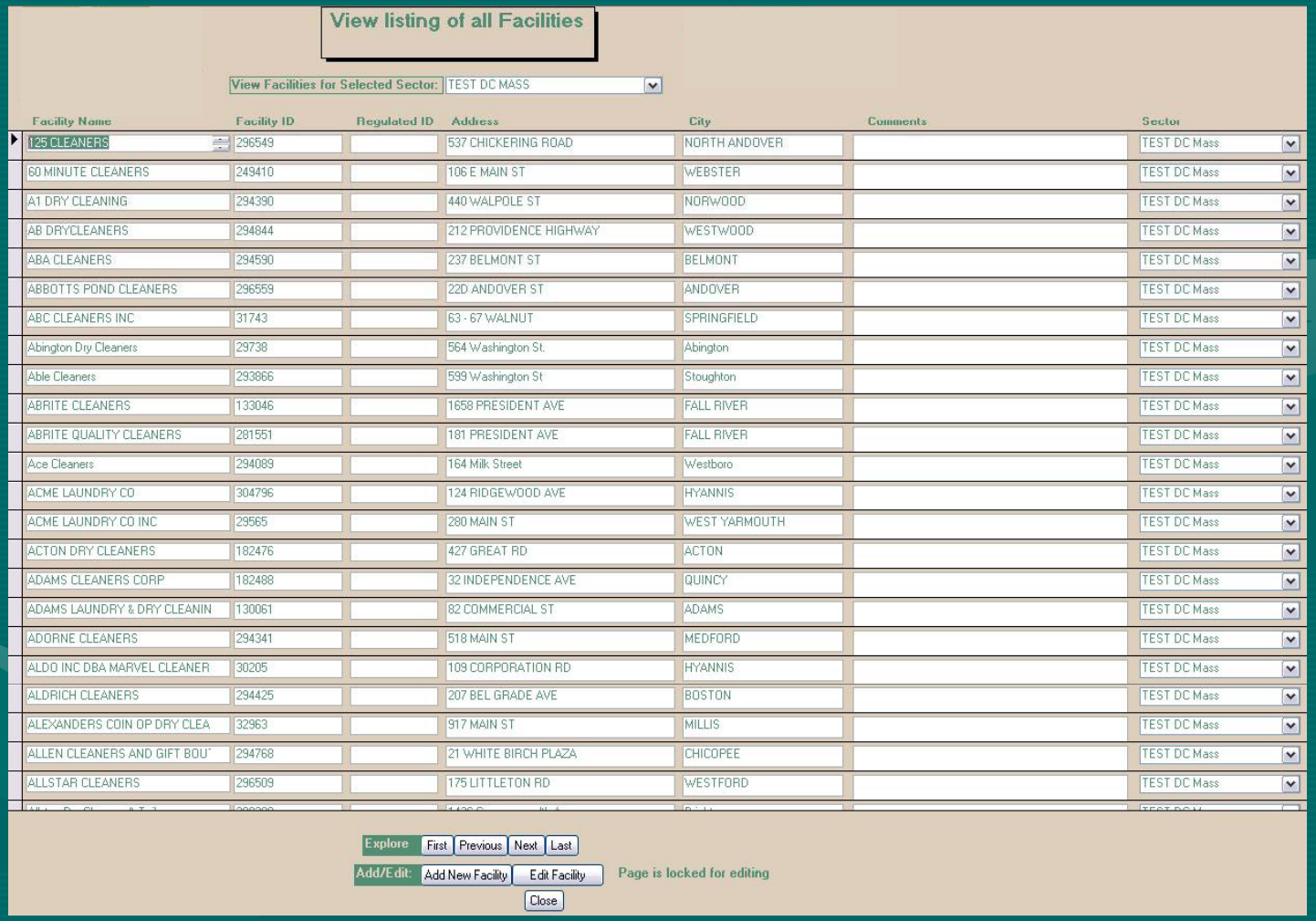


View all Rounds



Add or Edit a Facility

View all Facilities



View listing of all Facilities

View Facilities for Selected Sector: TEST DC MASS

Facility Name	Facility ID	Regulated ID	Address	City	Comments	Sector
125 CLEANERS	296549		537 CHICKERING ROAD	NORTH ANDOVER		TEST DC Mass
60 MINUTE CLEANERS	249410		106 E MAIN ST	WEBSTER		TEST DC Mass
A1 DRY CLEANING	294390		440 WALPOLE ST	NORWOOD		TEST DC Mass
AB DRYCLEANERS	294844		212 PROVIDENCE HIGHWAY	WESTWOOD		TEST DC Mass
ABA CLEANERS	294590		237 BELMONT ST	BELMONT		TEST DC Mass
ABBOTTS POND CLEANERS	296559		22D ANDOVER ST	ANDOVER		TEST DC Mass
ABC CLEANERS INC	31743		63 - 67 WALNUT	SPRINGFIELD		TEST DC Mass
Abington Dry Cleaners	29738		564 Washington St.	Abington		TEST DC Mass
Able Cleaners	293866		599 Washington St	Stoughton		TEST DC Mass
ABRITE CLEANERS	133046		1658 PRESIDENT AVE	FALL RIVER		TEST DC Mass
ABRITE QUALITY CLEANERS	281551		181 PRESIDENT AVE	FALL RIVER		TEST DC Mass
Ace Cleaners	294089		164 Milk Street	Westboro		TEST DC Mass
ACME LAUNDRY CO	304796		124 RIDGEWOOD AVE	HYANNIS		TEST DC Mass
ACME LAUNDRY CO INC	29565		280 MAIN ST	WEST YARMOUTH		TEST DC Mass
ACTON DRY CLEANERS	182476		427 GREAT RD	ACTON		TEST DC Mass
ADAMS CLEANERS CORP	182488		32 INDEPENDENCE AVE	QUINCY		TEST DC Mass
ADAMS LAUNDRY & DRY CLEANIN	130061		82 COMMERCIAL ST	ADAMS		TEST DC Mass
ADORNE CLEANERS	294341		518 MAIN ST	MEDFORD		TEST DC Mass
ALDO INC DBA MARVEL CLEANER	30205		109 CORPORATION RD	HYANNIS		TEST DC Mass
ALDRICH CLEANERS	294425		207 BEL GRADE AVE	BOSTON		TEST DC Mass
ALEXANDERS COIN OP DRY CLEA	32963		917 MAIN ST	MILLIS		TEST DC Mass
ALLEN CLEANERS AND GIFT BOU	294768		21 WHITE BIRCH PLAZA	CHICOPEE		TEST DC Mass
ALLSTAR CLEANERS	296509		175 LITTLETON RD	WESTFORD		TEST DC Mass

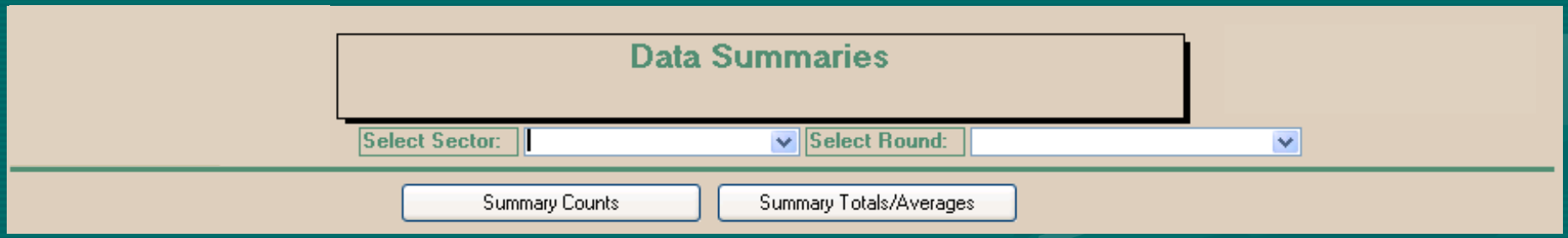
Explore: First | Previous | Next | Last

Add/Edit: Add New Facility | Edit Facility

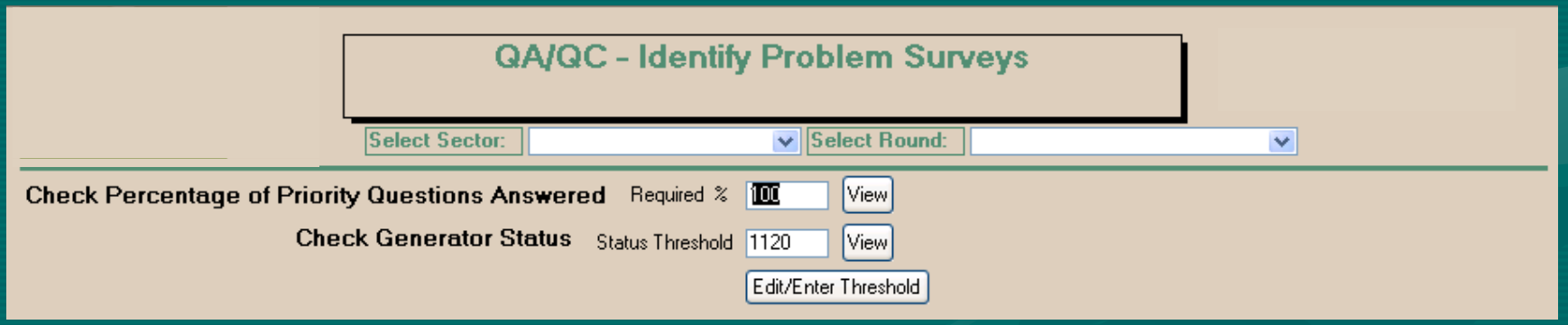
Page is locked for editing

Close

Counts and Averages

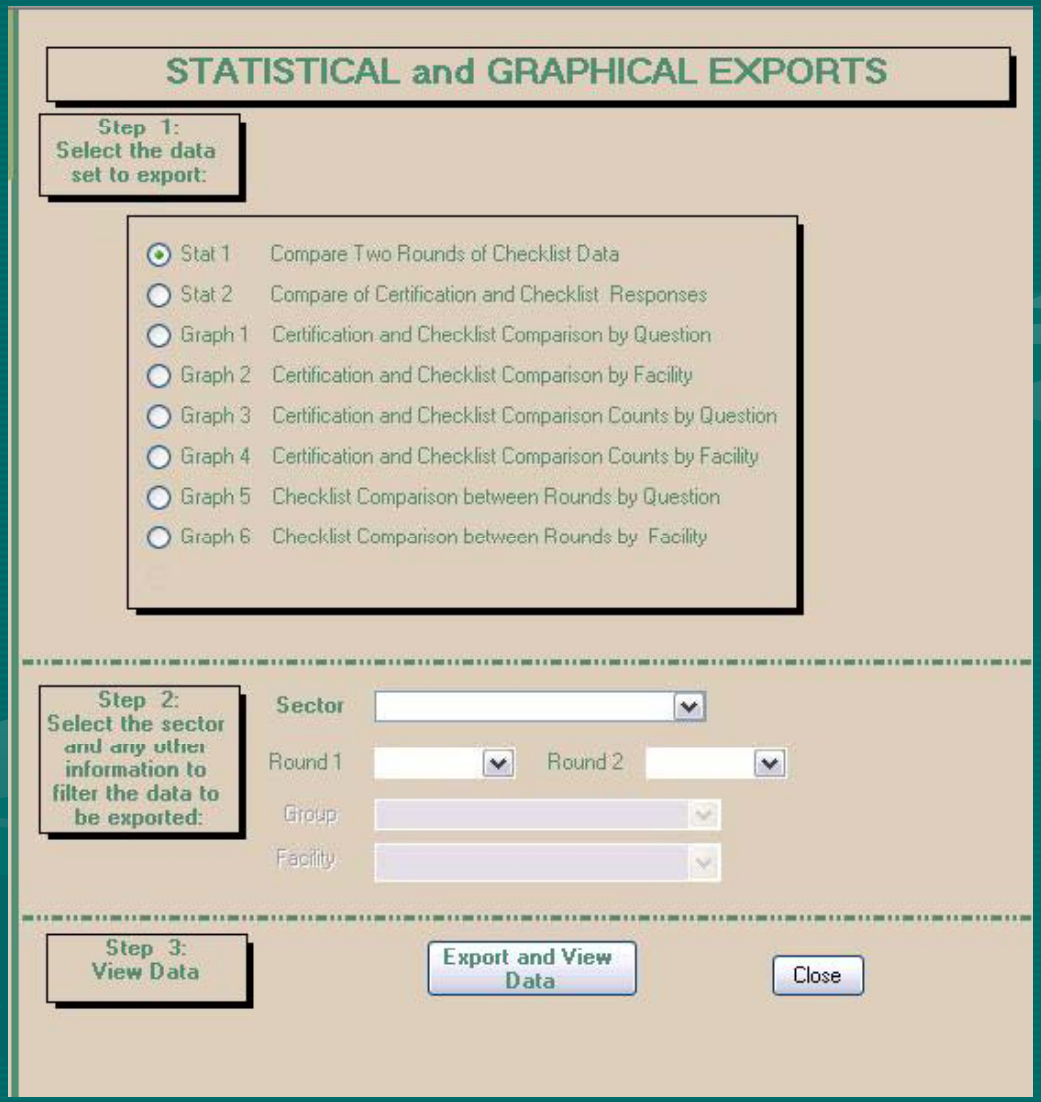


QA/QC


QA/QC - Identify Problem Surveys
Select Sector:
Select Round:
Check Percentage of Priority Questions Answered
Required %
100
View
Check Generator Status
Status Threshold
1120
View
Edit/Enter Threshold

Assign Generator Status

Export


STATISTICAL and GRAPHICAL EXPORTS
Step 1: Select the data set to export:
Stat 1 Compare Two Rounds of Checklist Data
Stat 2 Compare of Certification and Checklist Responses
Graph 1 Certification and Checklist Comparison by Question
Graph 2 Certification and Checklist Comparison by Facility
Graph 3 Certification and Checklist Comparison Counts by Question
Graph 4 Certification and Checklist Comparison Counts by Facility
Graph 5 Checklist Comparison between Rounds by Question
Graph 6 Checklist Comparison between Rounds by Facility
Step 2: Select the sector and any other information to filter the data to be exported:
Sector
Round 1
Round 2
Group
Facility
Step 3: View Data
Export and View Data
Close

Statistical Analysis

Types of Statistical Analyses

- Module A – Single-Group Summaries
- Module B1 – Within-Year Comparisons
- Module B2 – Comparisons Between Years or States

Statistical analysis requires SAS JMP Version 7.0

Example Output for Statistical Analysis

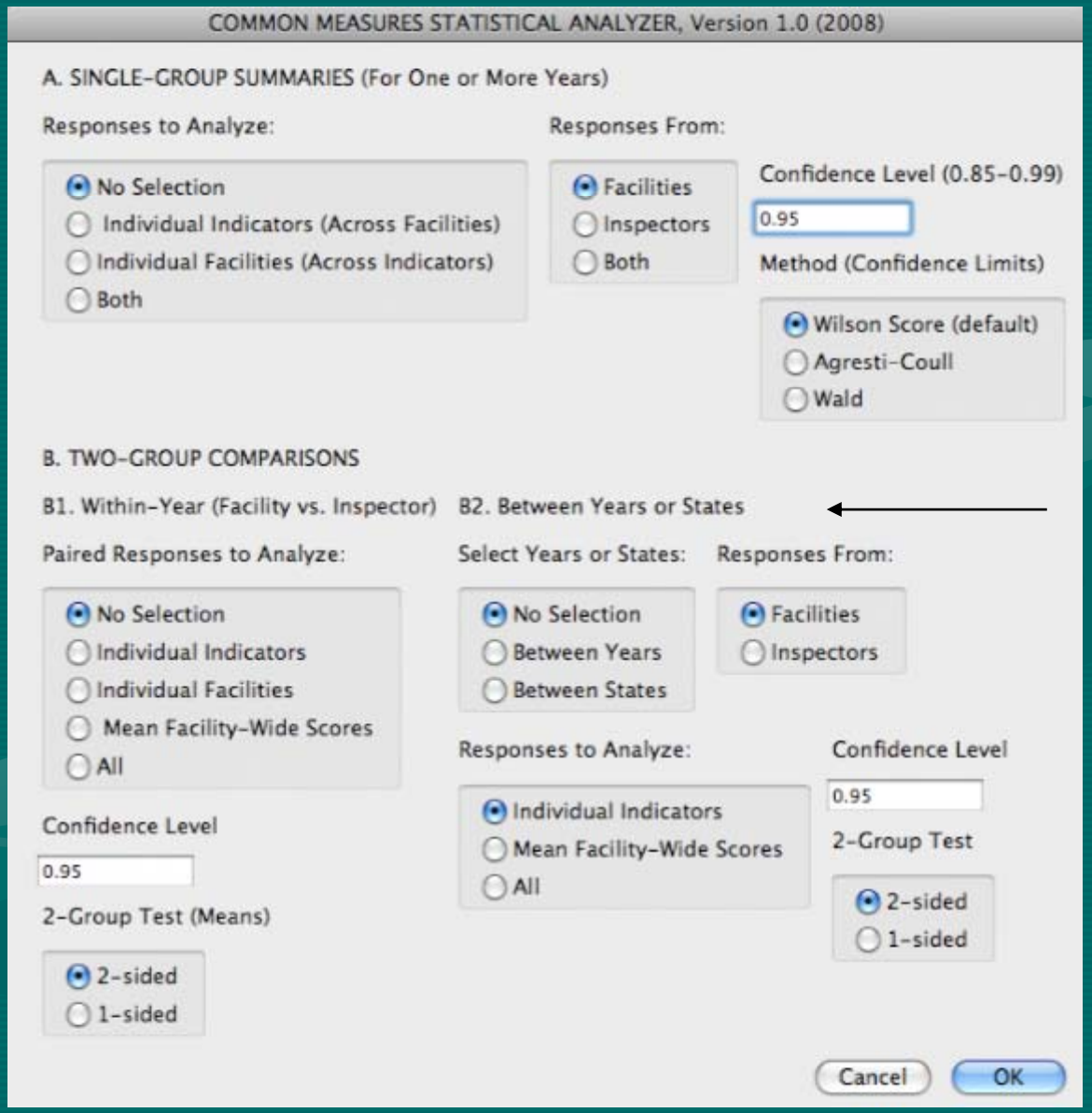
Group	Year	State	Category	Facility	AG_Group	Indicator	Y	N
A	YR1		Facility	130371	All	1	1	0
A	YR1		Facility	130371	All	10	1	0
A	YR1		Facility	130371	All	10a	1	0
A	YR1		Facility	130371	All	10b	1	0
A	YR1		Facility	130371	All	11	1	0
A	YR1		Facility	130371	All	11a	0	1
A	YR1		Facility	130371	All	12	0	1
A	YR1		Facility	130371	All	13	1	0
A	YR1		Facility	130371	All	13a	1	0
A	YR1		Facility	130371	All	13b	1	0
A	YR1		Facility	130371	All	14	1	0

Statistical Analysis Input Screen

Module A →

Module B1 →

← Module B2



Example Statistical Output

Tab8 (CL= 0.95)

Columns (13/0)
- AG_Group
- Indicator
- YR1n
- YR1Y
- YR1P
- YR2n
- YR2Y
- YR2P
- YR2P minus YR1P
- LCL
- UCL
- p
- Conclusion

Rows

All Rows	33
Selected	0
Excluded	0
Hidden	0
Labelled	0

	AG_Group	Indicator	YR1n	YR1Y	YR1P	YR2n	YR2Y	YR2P	YR2P minus YR1P	LCL	UCL	p	Conclusion
1	All	11d	51	33	0.647	57	7	0.123	-0.524	-0.681	-0.368	0.000	YR2 != YR1
2	All	10	51	38	0.745	57	35	0.614	-0.131	-0.305	0.043	0.157	YR2 = YR1
3	All	11a	51	24	0.471	57	16	0.281	-0.190	-0.370	-0.010	0.107	YR2 = YR1
4	All	11b	51	26	0.510	57	12	0.211	-0.299	-0.473	-0.126	0.004	YR2 != YR1
5	All	11c	51	16	0.314	57	8	0.140	-0.173	-0.329	-0.017	0.063	YR2 = YR1
6	All	3	51	42	0.824	57	42	0.737	-0.087	-0.242	0.068	0.464	YR2 = YR1
7	All	4	51	38	0.745	57	42	0.737	-0.008	-0.174	0.157	1.000	YR2 = YR1
8	All	5	51	49	0.961	57	55	0.965	0.004	-0.067	0.076	0.476	YR2 = YR1
9	All	6	51	0	0.000	57	57	1.000	1.000	1.000	1.000	1.000	YR2 = YR1
10	All	7	51	41	0.804	57	55	0.965	0.161	0.042	0.280	0.238	YR2 = YR1
11	All	8	51	51	1.000	57	57	1.000	0.000	0.000	0.000	1.000	YR2 = YR1
12	All	9	51	48	0.941	57	51	0.895	-0.046	-0.149	0.056	0.495	YR2 = YR1
13	Beyond Co	11d	51	33	0.647	57	7	0.123	-0.524	-0.681	-0.368	0.000	YR2 != YR1
14	Beyond Co	11a	51	24	0.471	57	16	0.281	-0.190	-0.370	-0.010	0.107	YR2 = YR1
15	Beyond Co	11b	51	26	0.510	57	12	0.211	-0.299	-0.473	-0.126	0.004	YR2 != YR1
16	Beyond Co	11c	51	16	0.314	57	8	0.140	-0.173	-0.329	-0.017	0.063	YR2 = YR1
17	EBPIs	10	51	38	0.745	57	35	0.614	-0.131	-0.305	0.043	0.157	YR2 = YR1
18	EBPIs	11	51	40	0.784	57	22	0.386	-0.398	-0.568	-0.229	0.000	YR2 != YR1
19	EBPIs	3	51	42	0.824	57	42	0.737	-0.087	-0.242	0.068	0.464	YR2 = YR1
20	EBPIs	4	51	38	0.745	57	42	0.737	-0.008	-0.174	0.157	1.000	YR2 = YR1
21	EBPIs	5	51	49	0.961	57	55	0.965	0.004	-0.067	0.076	0.476	YR2 = YR1
22	EBPIs	6	51	0	0.000	57	57	1.000	1.000	1.000	1.000	1.000	YR2 = YR1
23	EBPIs	7	51	41	0.804	57	55	0.965	0.161	0.042	0.280	0.238	YR2 = YR1
24	EBPIs	8	51	51	1.000	57	57	1.000	0.000	0.000	0.000	1.000	YR2 = YR1
25	EBPIs	9	51	48	0.941	57	51	0.895	-0.046	-0.149	0.056	0.495	YR2 = YR1
26	Regulatory I	10	51	38	0.745	57	35	0.614	-0.131	-0.305	0.043	0.157	YR2 = YR1
27	Regulatory I	3	51	42	0.824	57	42	0.737	-0.087	-0.242	0.068	0.464	YR2 = YR1
28	Regulatory I	4	51	38	0.745	57	42	0.737	-0.008	-0.174	0.157	1.000	YR2 = YR1
29	Regulatory I	5	51	49	0.961	57	55	0.965	0.004	-0.067	0.076	0.476	YR2 = YR1
30	Regulatory I	6	51	0	0.000	57	57	1.000	1.000	1.000	1.000	1.000	YR2 = YR1
31	Regulatory I	7	51	41	0.804	57	55	0.965	0.161	0.042	0.280	0.238	YR2 = YR1

Example Statistical Table

TABLE X11

COMPARISON OF MEAN FACILITY-WIDE COMPLIANCE SCORES FOR ALL INDICATORS AND INDIVIUDAL AGGREGATE GROUPS BASED ON INSPECTOR RESPONSES IN ROUND 1 (NH) AND ROUND 2 (CO)

All Indicators or Aggregate Group	ROUND 1 SCORES (NH)				ROUND 2 SCORES (CO)				Difference (CO-NH)			Student's *t*-Test	Conclusion[6]
	Number of Facilities[1]	Mean Score[2]	Confidence Limits[3]		Number of Facilities[1]	Mean Score[2]	Confidence Limits[3]		Difference[4]	Confidence Limits[3]			
			Lower	Upper			Lower	Upper		Lower	Upper	p value (x-sided)[5]	
Regulatory Indicators	51	7.66	7.11	8.17	57	9.17	8.81	9.47	0.44	0.16	0.87	0.00	R2 != R1
Beyond Compliance	51	4.64	3.33	5.98	57	0.94	0.34	1.81	1.79	-3.40	0.62	0.00	R2 != R1

Graphical Analysis

Graphing in Excel

Core Measure 1

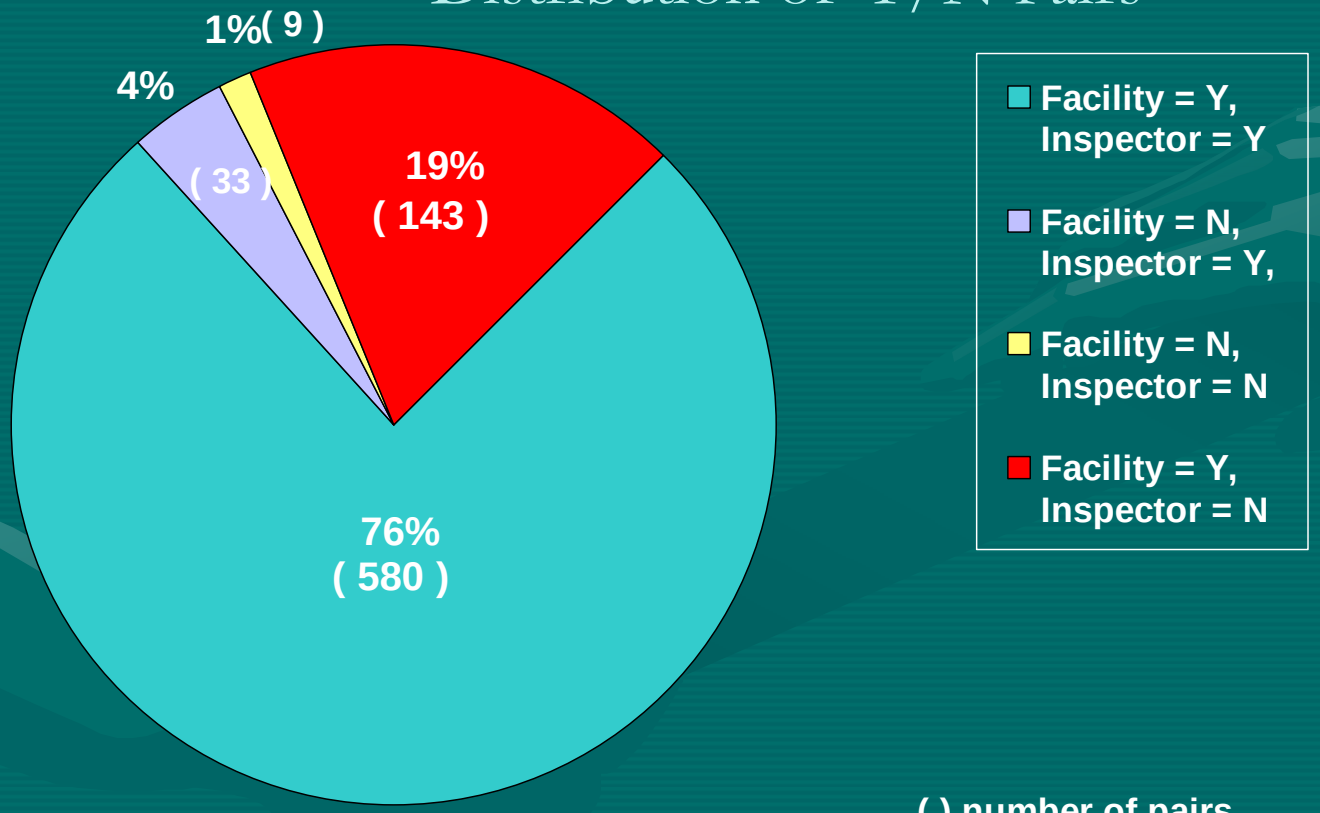
Final certification rate

Tool does not currently output this data. You could make it output the data or small amount of programming could provide it.

Core Measure 2

Rate of "high-concern" discrepancies with regard to facility certifications on EBPIs

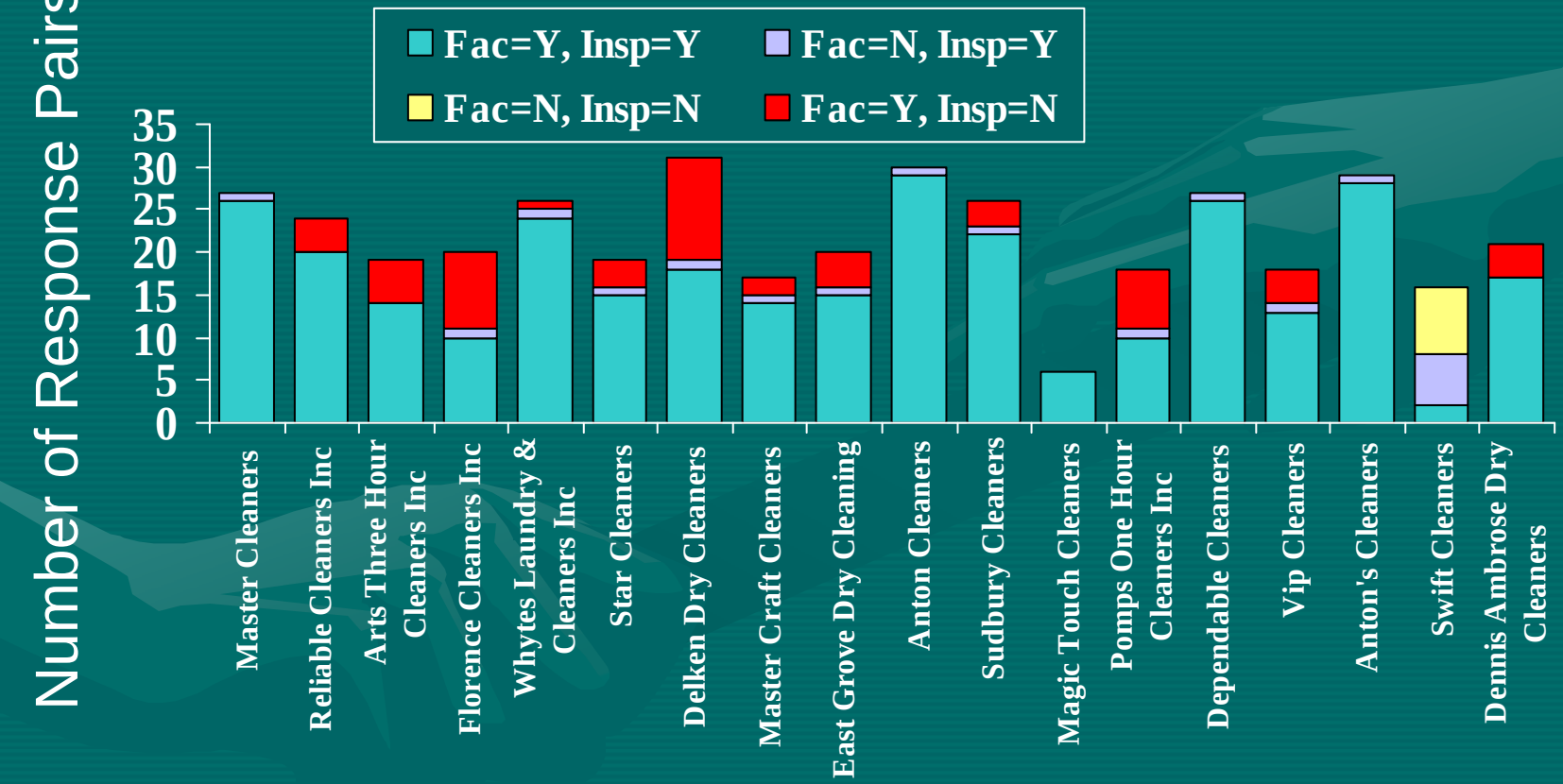
Dry Cleaners: Self-Certification Distribution of Y/N Pairs



( ) number of pairs

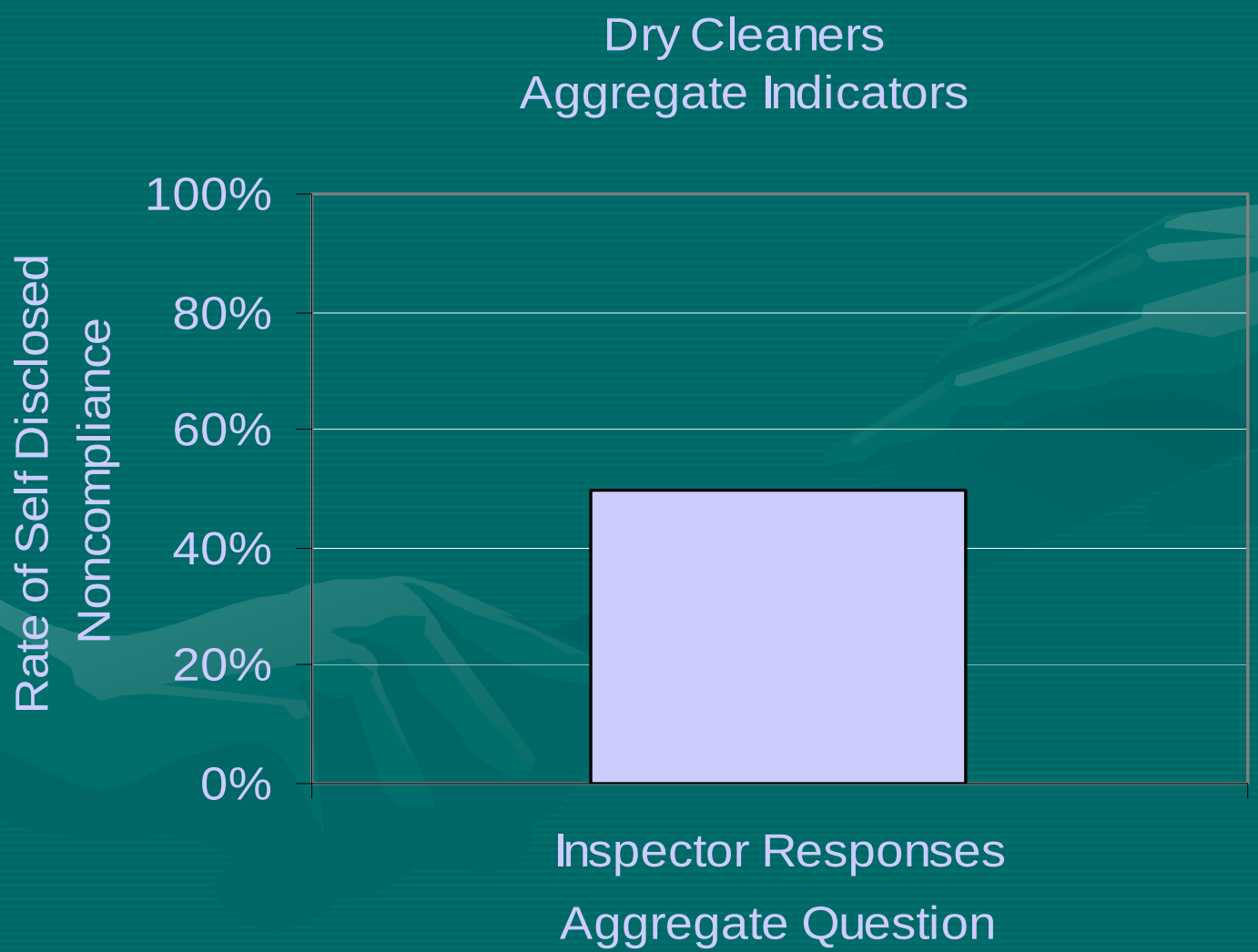
Digging a Little Deeper than Core Measure 2

Dry Cleaners: Y/N Self-Certification Pairs



Core Measure 3

Rate of self-disclosed noncompliance



Core Measure 4

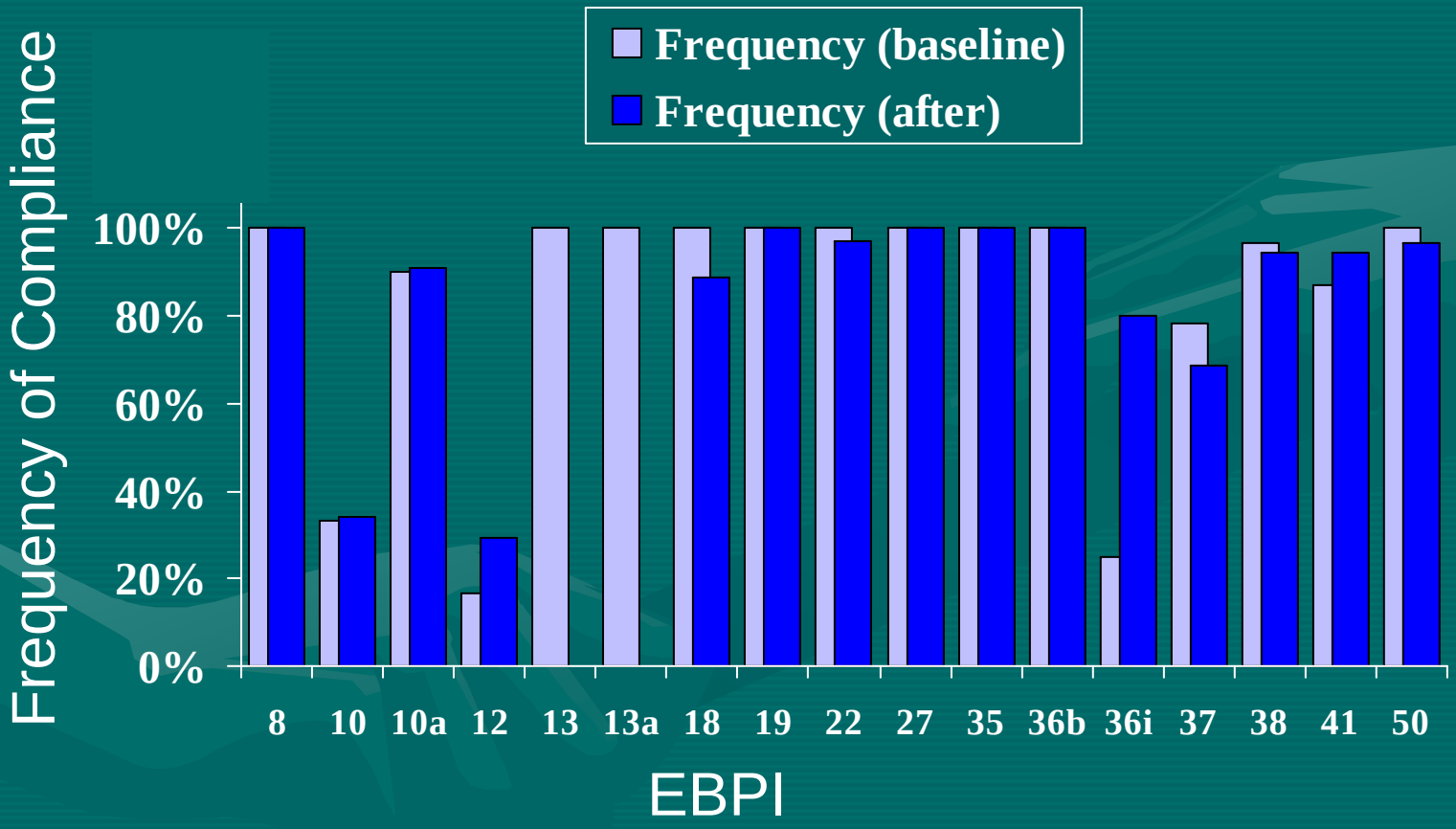
Rate of return-to-compliance plan submission

Tool does not currently output this data. You could make it output the data or an additional database module could accommodate it.

Core Measure 5, Rate of self-disclosing facilities submitting one or more return-to compliance plans, is a Tier III measure. The same database modification as needed for Core Measure 4 could address Core Measure 5.

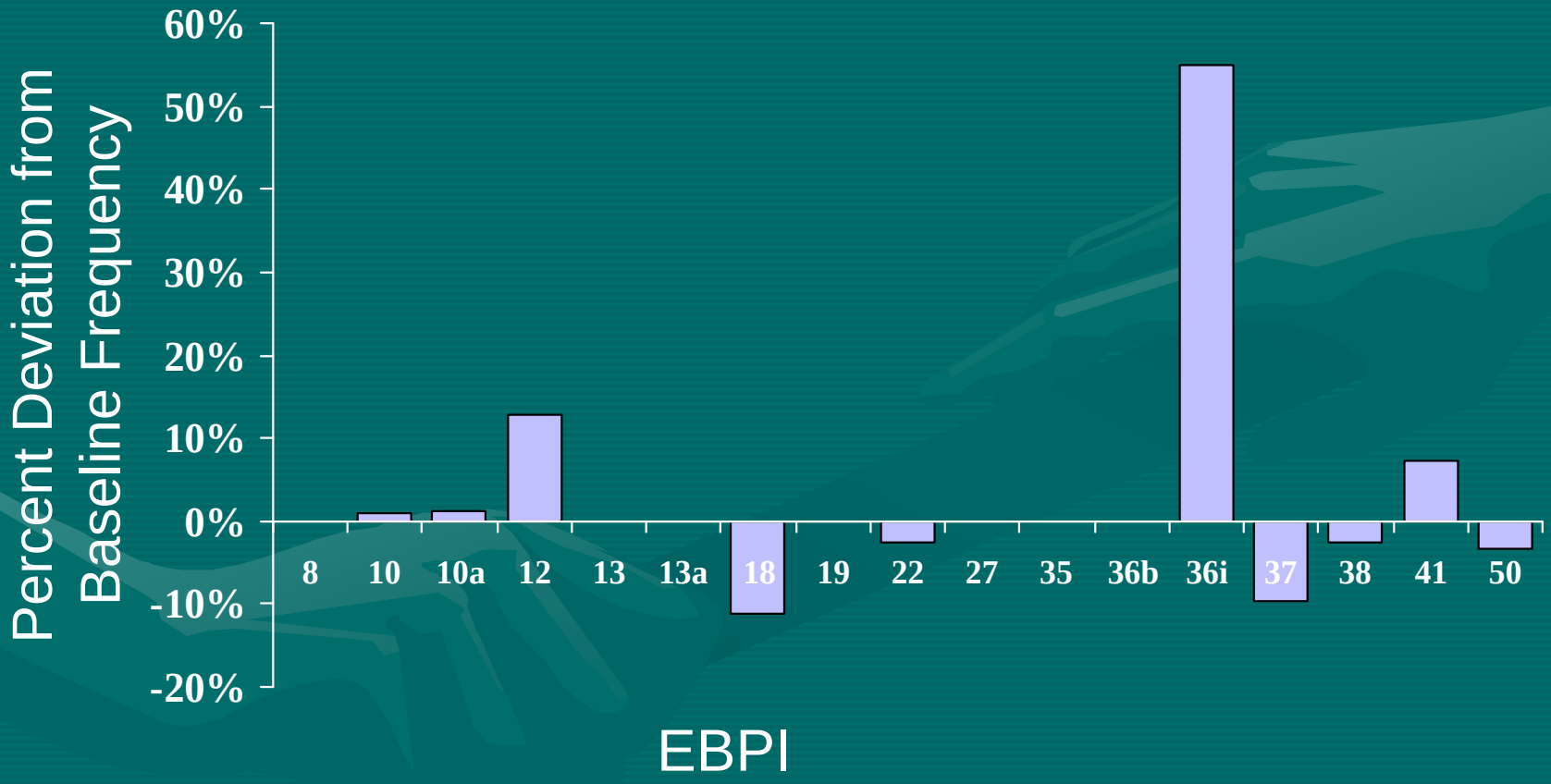
Core Measure 6

Achievement rate for EBPI



Core Measure 7

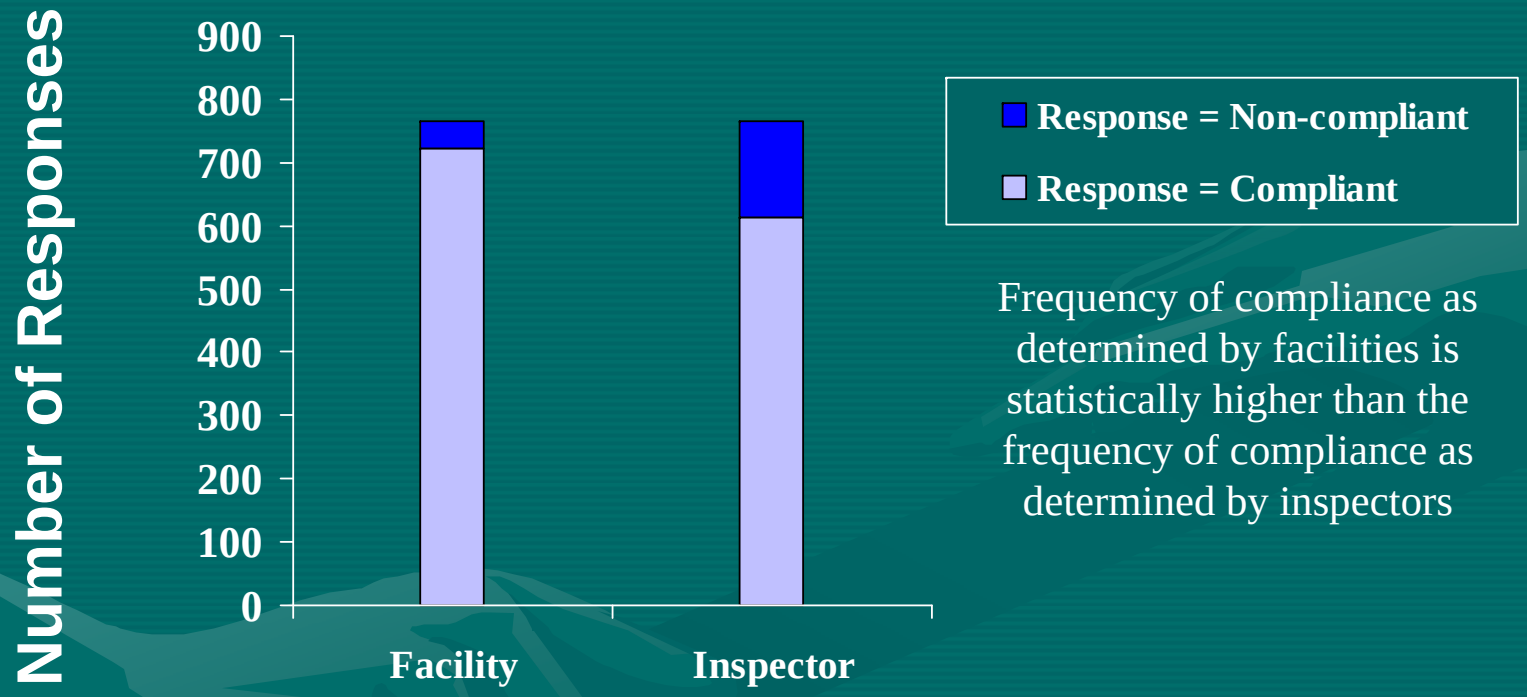
Summary of EBPI performance changes



None showed statistically significant improvement in performance

Core Measure 8

Aggregate achievement rate for all EBPIs



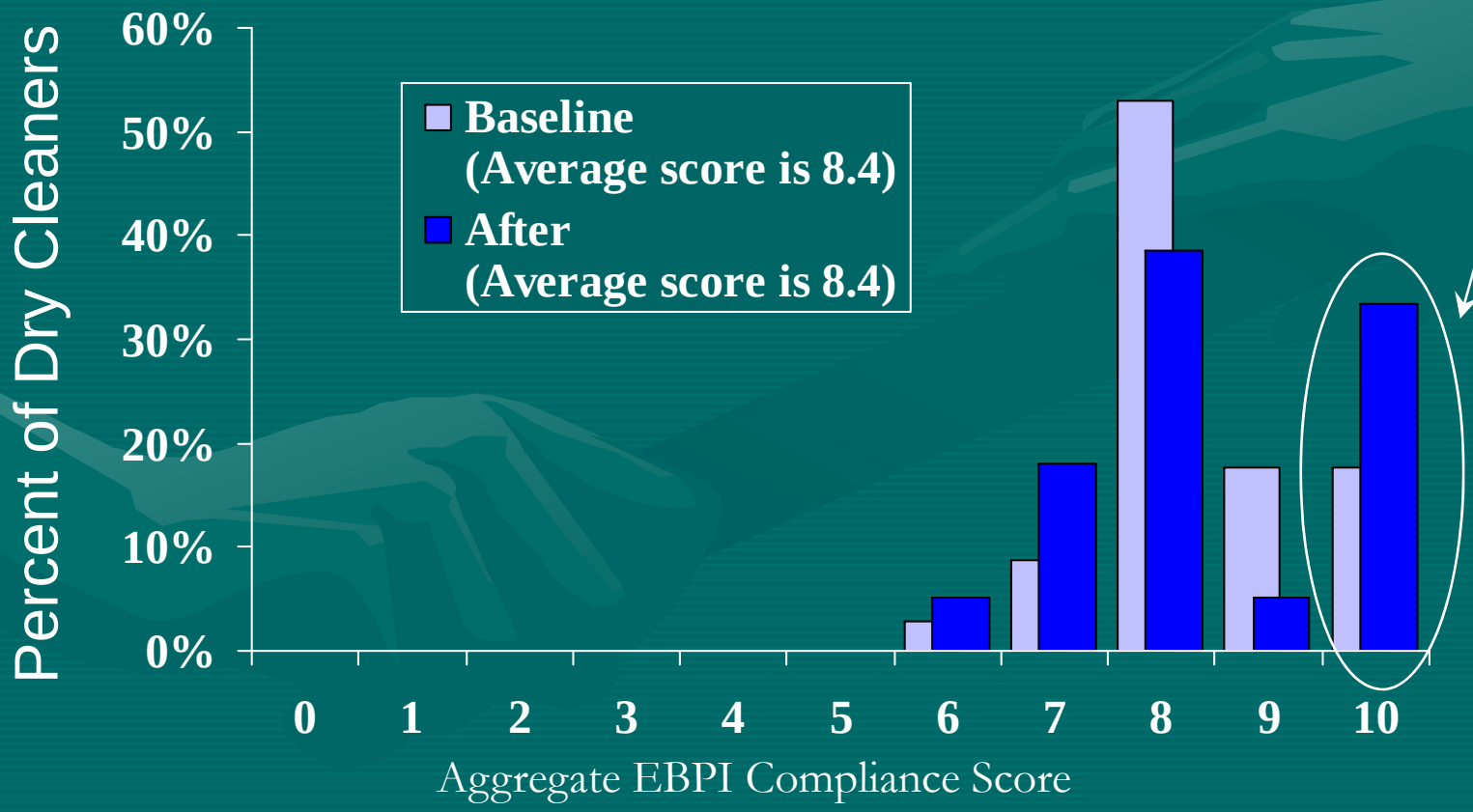
Frequency of compliance as determined by facilities is statistically higher than the frequency of compliance as determined by inspectors

All Indicators

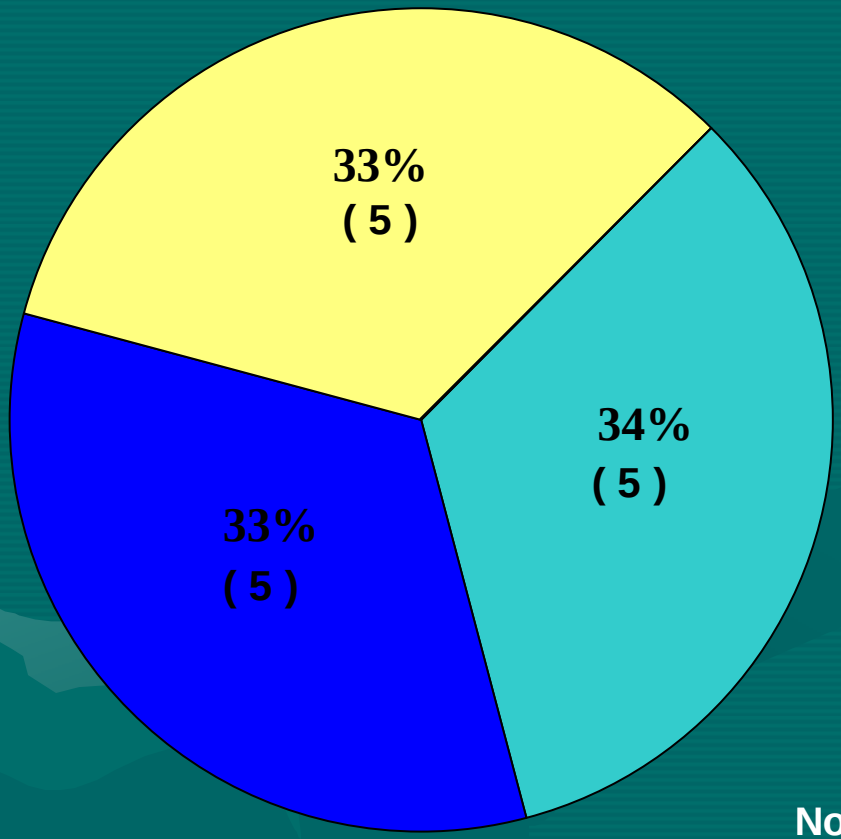
Core Measures 10 - 15 (Tier II) Core Measure 9

Distribution and average facility score for all EBPIs, compliance related EBPIs, and compliance related measures

Achievement rate across all compliance-related measures



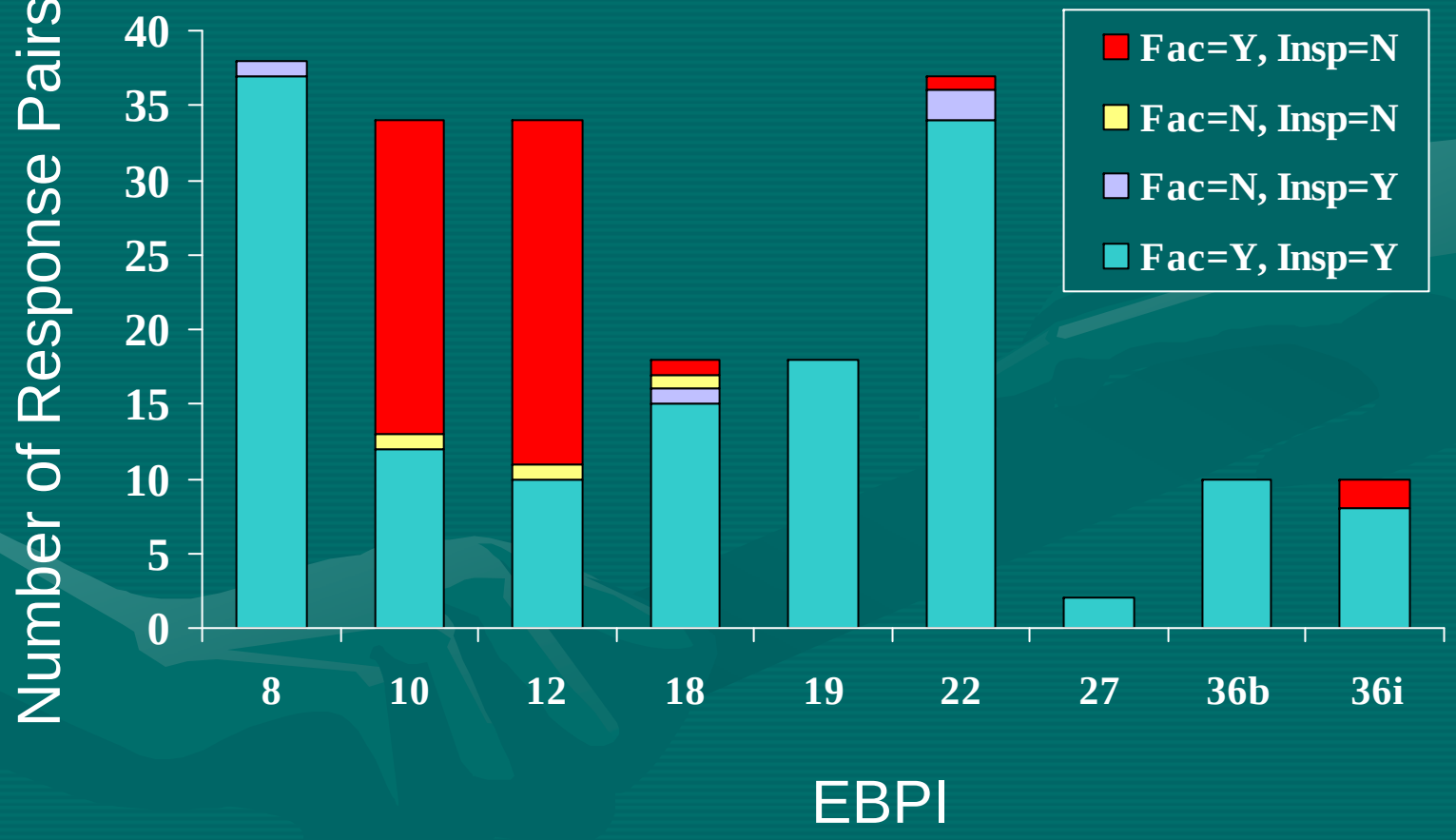
Dry Cleaners: Baseline vs. Round 2 Aggregate Case - EBPI



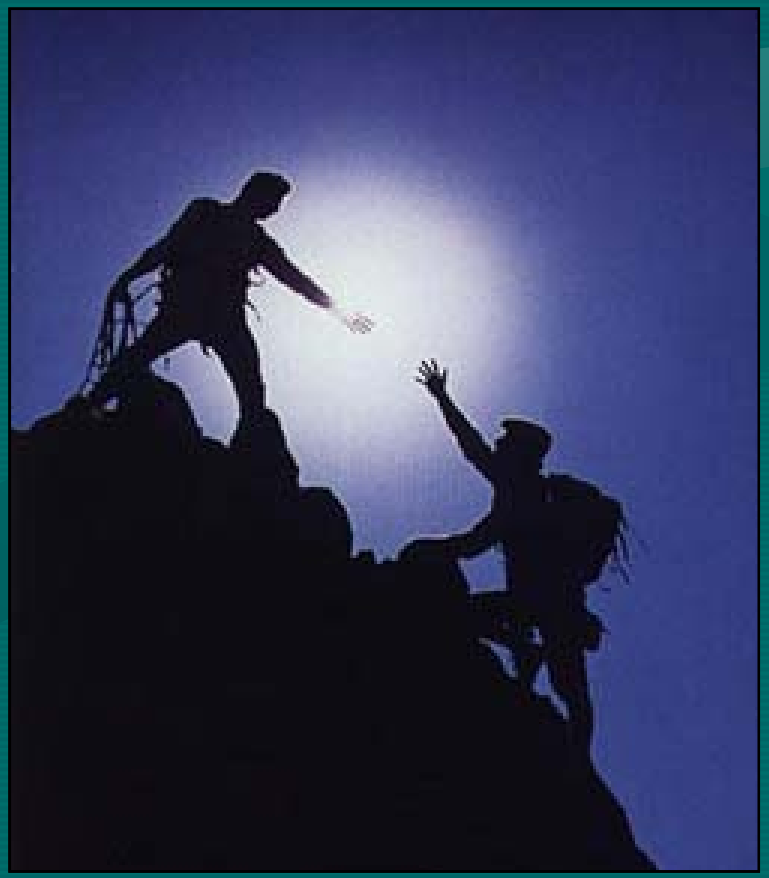
- Increase in Performance
- Decrease in Performance
- No Change in Performance (high initial)
- No Change in Performance (low initial)

( ) number of indicators
No statistically significant increase or decrease in performance

Dry Cleaners: Y/N Self-Certification Pairs *EBPI*



Taking the Performance Analyzer to New Heights



In the Performance Analyzer's Dreams

- Functionality description and flow chart (this is coming!)
- Upload capability
- Output capability to match final Tier I core measures
- SAS JMP availability to States
- Add a beyond compliance module
- Add Tier II core measure module