Measuring the Impact of Policy and Practice Reform

National Continuous Quality Improvement Seminar

Part 1: April 26, 2012

Part 2: May 10, 2012

Agenda

Day 1 – April 26, 2012

- **Overview of concepts**
- **Diagnosing permanency outcomes that need improvement**
- **Identifying where and how to intervene**
- **Establishing an analytic infrastructure for determining whether intervention has its intended effect**
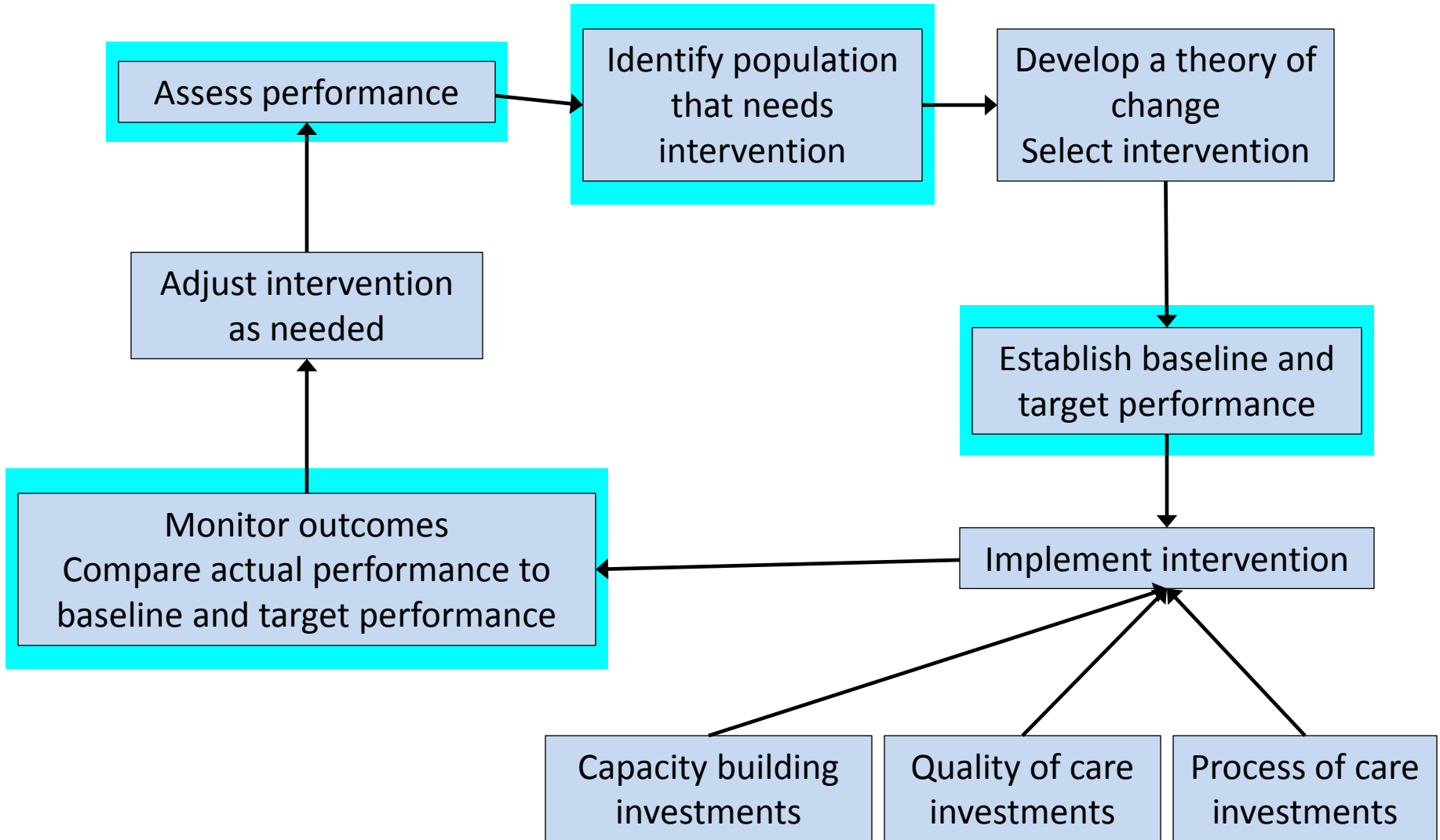- **Homework: Due by COB May 3, 2012**

Day 2 – May 10, 2012

- Review homework
- Fiscal application
- Case study—Performance-based contracting in Tennessee

Cycle of CQI

- **Three presumptions:**
  - There is a gap between current performance (baseline) and what's possible (the goal).
  - Both the baseline and the goal may differ by subpopulations.
  - Given that there is a gap, it will take time for that gap to close. Innovation can only influence that which has yet to happen.

- Innovation unfolds during the performance **window**—the amount of time between the initial implementation of the innovation and the point at which we expect to see its effects.

Cycle of CQI

```
Assess performance  →  Identify population     →  Develop a theory of
                        that needs                 change
                        intervention               Select intervention
      ↑                                                    │
      │                                                    ↓
Adjust intervention                            Establish baseline and
as needed                                      target performance
      ↑                                                    │
      │                                                    ↓
Monitor outcomes           ←                   Implement intervention
Compare actual performance to                         ↑  ↑  ↑
baseline and target performance
```

Capacity building investments   Quality of care investments   Process of care investments

Where administrative data come in…

- How do I use administrative data throughout the CQI process to improve the lives of children and families? Use data to:

  - Diagnose what outcomes need improvement.
  - Identify where to intervene to maximize the return on investment/bring about the greatest impact.
  - Set baseline and target performance.
  - Measure actual performance against baseline and target performance.

Diagnostic analysis

- **Question 1: Who is in my system in the first place?**

- Why stratify?
  - Different groups of children experience foster care in different ways—particularly *age groups.*
  - Stratification accounts for *case mix*—the proportions in which those groups are represented.
  - Stratification enables us to target subpopulations and tailor *developmentally relevant* interventions.

Who are the children entering care?

- **Web tool → Profile Report Table 7:** First entries into foster care stratified by predominant placement type.

- **Predominant placement type:** The type of placement in which the child spent more than 50% of his/her spell.

Which children are using the most resources?

- Now that we know the most widely used placement type…

- **Question 2: Which groups are using the most foster care? (Which groups have the longest length of stay?)**

- **Web tool → All Spells page:** Length of stay
  - Median length of stay
  - Survival analysis of length of stay

Demographic analysis

- Now that we know that the largest placement group also uses the most foster care…

- **Question 3: Are there child or case-related characteristics that might account for long lengths of stay?**

- **Web tool → Demographic comparison**

Digging deeper

- Now that we know some basic demographic and case-related characteristics for these groups of children…

- **Question 4: What's true about current casework with these groups that can inform my understanding of what kind of intervention is needed and for whom?**

- **Web tool → List Records**

Selecting an intervention

- Now that we've
  - identified which group should be targeted to bring about the greatest improvement in permanency;
  - learned more about the problems of that group; and
  - researched evidence based practices that have been shown to improve outcomes for that group…

- **Question 5: What intervention should I apply?**

Selecting an intervention

- An "intervention" can be a change in:
  - Practice
  - Policy
  - Agency management/oversight
  - Fiscal planning/structure

- Whatever the intervention, it begins on a certain start date. Performance at the start date is the **baseline performance.**

Establish baseline performance

- **Web tool → Baseline Exits and Care Day Summary**

- Whenever you implement an intervention, you need to consider two groups of children who will be exposed:
  - Children already in care at the start of the reform period
  - Children who will enter care during the reform period

Set target performance

- Now that we know how our jurisdiction has performed historically…

- **Question 6: How much more do we expect to improve as a result of implementing our intervention? (OR: How will we know if the intervention worked?)**
    - Increased permanent exits
    - Decreased care day use

- At the end of the performance period, compare actual performance to:
    - Baseline (Did the jurisdiction improve?)
    - Targets (Did the jurisdiction reach the programmatic goal?)

Homework

- To be completed in groups.

- Email completed assignment to lalpert@chapinhall.org by **COB on May 3, 2012.**

- Be sure to fill in your state and all your team members' names at the top of the homework sheet.

- Answer sheet to follow.

Welcome back

Day 1 – April 26, 2012

- Overview of concepts
- Diagnosing permanency outcomes that need improvement
- Identifying where and how to intervene
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- **Homework: Due by COB May 3, 2012**

Day 2 – May 10, 2012

- **Review homework**
- **Fiscal application**
- **Case study—Performance-based contracting in Tennessee**

Recap

- How do I use administrative data throughout the CQI process to improve the lives of children and families? Use data to:

  - Diagnose what outcomes need improvement.
  - Identify where and how to intervene to maximize the return on investment/bring about the greatest impact.
  - Set baseline and target performance.
  - Measure actual performance against baseline and target performance.

Homework review

1. In 2011, which was the largest age group of children entering foster care?

2. Proportionally speaking, over the past eight years, has that age group been growing, shrinking, or remaining about the same?

| Entry year	Number of first entries	Number by age at spell start				Perecnt of first entries	Percent by age at spell start			
		<1	1 to 5	6 to 12	13+		<1	1 to 5	6 to 12	13+
2004	324	73	81	86	84	100%	23%	25%	27%	26%
2005	310	73	96	74	67	100%	24%	31%	24%	22%
2006	310	73	92	73	72	100%	24%	30%	24%	23%
2007	342	66	100	90	86	100%	19%	29%	26%	25%
2008	319	72	84	79	84	100%	23%	26%	25%	26%
2009	288	70	80	72	66	100%	23%	28%	25%	23%
2010	359	86	115	87	71	100%	23%	32%	24%	20%
2011	407	89	150	85	83	100%	23%	37%	21%	20%

Homework review

Total Spells (<1): 86
Total Spells (1-5): 115
Total Spells (6-12): 87
Total Spells (13+): 71

3. Which age group of children had the longest length of stay?

Days Passed Before Percentage of Selected Spells Are Completed				
	<1	1-5	6-12	13+
25%	96	217	115	60
50%	316	392	358	120
75%	518	N/A	670	318
100%	N/A	N/A	N/A	N/A

4. Given the information presented, describe **two** pieces of evidence that tell you that this group had the longest length of stay.

Length Of Stay

- <1
- 1-5
- 6-12
- 13+

5. Explain what N/A means in the context of the table on Tab 2 ("Length of stay by age group").


Percent Still In Care

Days Passed
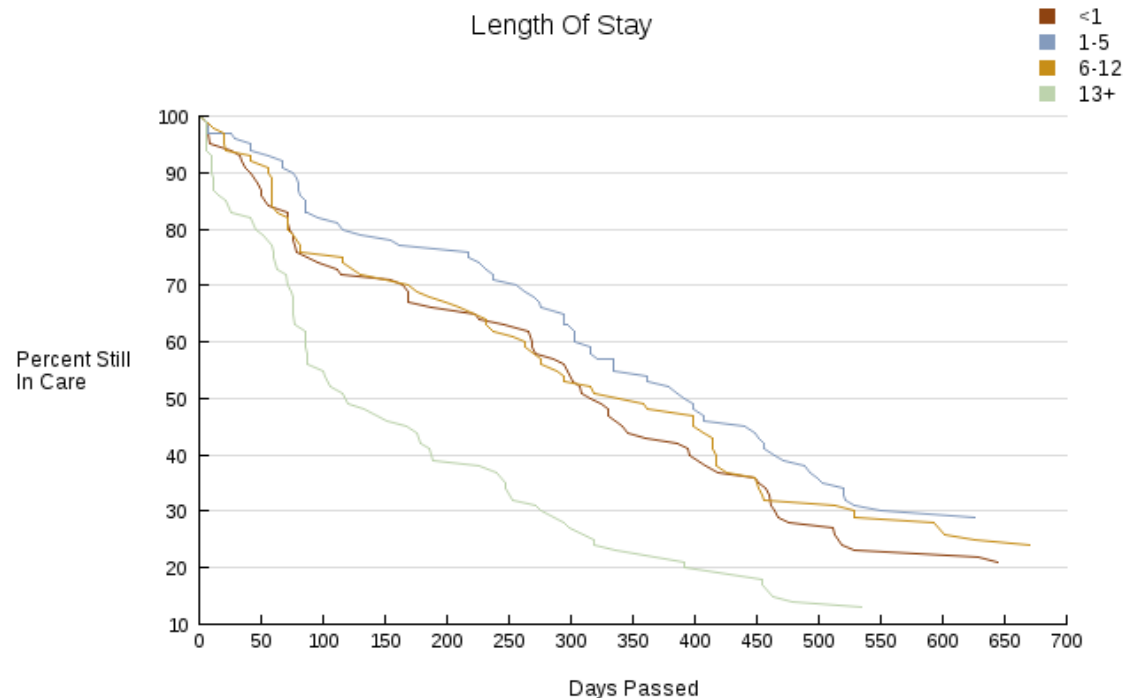
Homework review

6. On Tab 3 ("Demographic comparison"), scroll to the section of the table labeled "Length of Stay." Why is "0" or "0%" filled in for the rows labeled "2 to 5 years" and "More than 5 years?"

Length of stay	Number				Percent			
	<1	1 to 5	6 to 12	13+	<1	1 to 5	6 to 12	13+
Less than 90 Days	21	20	21	31	24%	17%	24%	44%
3 to 6 months	7	7	6	10	8%	6%	7%	14%
6 to 12 months	21	27	18	14	24%	23%	21%	20%
1 to 2 years	19	28	21	7	22%	24%	24%	10%
2 to 5 years	0	0	0	0	0%	0%	0%	0%
More than 5 years	0	0	0	0	0%	0%	0%	0%
Still in Care	18	33	21	9	21%	29%	24%	13%
Total	86	115	87	71	100%	100%	100%	100%

- As of 12/31/2011, the **longest** a 2010 entrant could be in foster care is 2 years.

- In other words, as of 12/31/2011, no child who entered care in 2010 had yet had the chance to exit care within 2 years, because no child who entered in 2010 had the chance to **BE** in foster care for 2 years.
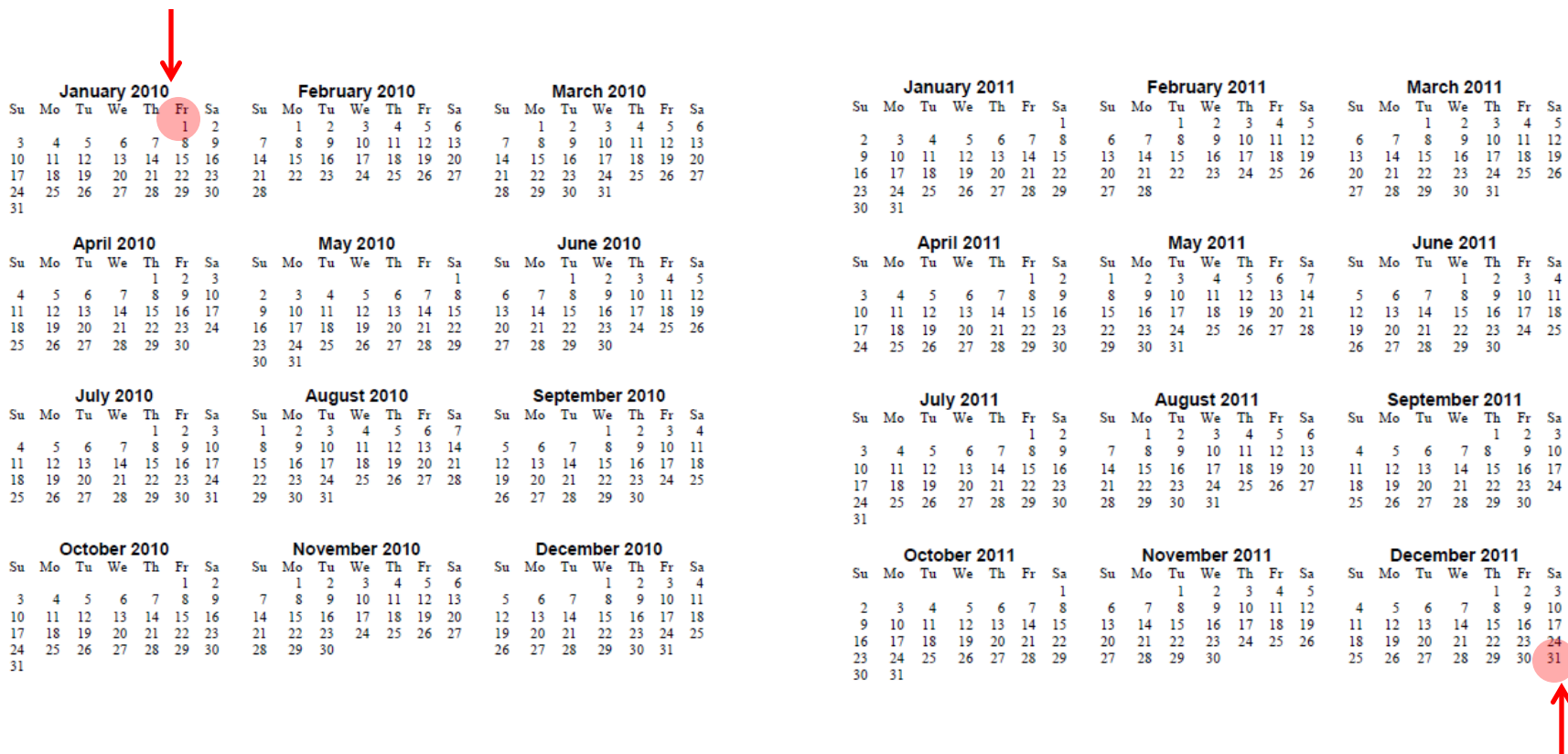
Homework review

7. Using the information on Tab 3, describe **three** ways in which children who entered care between 1-5 years old were different from children in the other age groups. **(Think particularly about characteristics that might influence their length of stay in care.)**

	Number				Percent			
	<1	1 to 5	6 to 12	13+	<1	1 to 5	6 to 12	13+
First placement type								
Congregate Care	0	0	2	28	0%	0%	2%	39%
Foster Care	18	25	23	9	21%	22%	26%	13%
Kinship Care	49	88	62	31	57%	77%	71%	44%
Other Type	19	2	0	3	22%	2%	0%	4%
Total	86	115	87	71	100%	100%	100%	100%
Predominant placement type								
Congregate Care	0	0	3	31	0%	0%	3%	44%
Foster Care	23	28	30	8	27%	24%	34%	11%
Kinship Care	61	87	54	31	71%	76%	62%	44%
Other Placement	2	0	0	0	2%	0%	0%	0%
Mixed	0	0	0	1	0%	0%	0%	1%
Total	86	115	87	71	100%	100%	100%	100%
Last placement type								
Congregate Care	0	0	4	31	0%	0%	5%	44%
Foster Care	24	30	30	10	28%	26%	34%	14%
Kinship Care	62	85	53	30	72%	74%	61%	42%
Other Type	0	0	0	0	0%	0%	0%	0%
Total	86	115	87	71	100%	100%	100%	100%

Homework review

	Number				Percent			
	<1	1 to 5	6 to 12	13+	<1	1 to 5	6 to 12	13+
Placement Stability (# of movements within spell)								
No movement	51	72	50	40	59%	63%	57%	56%
One movement	23	31	19	9	27%	27%	22%	13%
2 to 3 movements	12	12	15	13	14%	10%	17%	18%
4 to 10 movements	0	0	3	9	0%	0%	3%	13%
More than 10 movements	0	0	0	0	0%	0%	0%	0%
Total	86	115	87	71	100%	100%	100%	100%
Re-entry (destination)								
Number admitted (Admission Cohort)	86	115	87	71	100%	100%	100%	100%
Number discharged	68	82	66	62	79%	71%	76%	87%
Re-entered within 90 days	5	9	5	14	7%	11%	8%	23%
Re-entered within 3 to 6 months	5	1	4	3	7%	1%	6%	5%
Re-entered within 6 to 12 months	2	2	4	0	3%	2%	6%	0%
Re-entered within 1 to 2 years	0	0	0	1	0%	0%	0%	2%
Total re-entered within 2 years (as percentage of total discharged)	12	12	13	18	17%	14%	20%	30%

Homework review

8. Given what you know about the children who entered care between 1-5 years old, imagine an intervention that might expedite permanency for this group. Answer the following:

   a. Generally speaking, what is the goal of the intervention?
      - Target the unique needs of the children in this sub-population.
      - Consulting the program evaluation literature is critical at this step to ensure that the intervention you select is based on previous success with the target group.
      - The nature of the goals must match the theory behind what the intervention is intended to do.

   b. How will you know if the intervention worked?
      - It is important to set measureable target outcomes for your intervention that are realistic given the goal of the intervention, the group for whom it is intended, and the timeframe during which you expect to see improvements.

Homework review

9. Look at Tab 4 ("Baseline care days and exits").

Baseline Exit Percentages -- In Care Population as of January 1, 2010

In Care Population as of January 1, 2010	Starting Population	Baseline Expected Status As of Dec. 31, 2011			Permanent Exits Breakdown			Number (Average) of Foster Care Days
		Percent Permanent Exits	Percent Other Exits	Percent Still In Care	Percent Reunification	Percent Relatives	Percent Adoption	
Child began spell in progress on Jan. 1 when child was…								
<1 year old	63	89%	0%	10%	17%	8%	64%	19971 (317)
1-5 years old	121	80%	1%	20%	31%	7%	42%	53240 (440)
6-12 years old	134	70%	11%	19%	10%	12%	48%	52126 (389)
13 years old or older	95	47%	43%	9%	28%	9%	10%	14345 (151)
All children in care on January 1, 2010	413	73%	11%	16%	25%	8%	40%	139682 (338)

Baseline Exit Percentages -- Admissions between January 1, 2010 and December 31, 2010

Admissions between Jan. 1 and Dec. 31, 2010	Starting Population	Baseline Expected Status As of Dec. 31, 2011			Permanent Exits Breakdown			Number (Average) of Foster Care Days
		Percent Permanent Exits	Percent Other Exits	Percent Still In Care	Percent Reunification	Percent Relatives	Percent Adoption	
<1 year old	86	83%	0%	18%	39%	15%	29%	28380 (330)
1-5 years old	115	67%	0%	33%	44%	12%	11%	46115 (401)
6-12 years old	87	51%	36%	13%	44%	5%	2%	32190 (370)
13 years old or older	71	48%	40%	12%	24%	12%	12%	9443 (133)
All admitted between Jan. 1, 2010 and Dec. 31, 2010	359	66%	9%	25%	43%	11%	12%	116128 (332)

Homework review

a. Use the ***in-care*** portion of the sheet to answer the following:

In Care Population as of January 1, 2010	Starting Population	Baseline Expected Status As of Dec. 31, 2011			Permanent Exits Breakdown			Number (Average) of Foster Care Days
		Percent Permanent Exits	Percent Other Exits	Percent Still In Care	Percent Reunification	Percent Relatives	Percent Adoption	
Child began spell in progress on Jan. 1 when child was…								
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All children in care on January 1, 2010	413	73%	11%	16%	25%	8%	40%	139682 (338)

- If, after the next two-year period, the in-care population achieves the baseline number of permanent exits, how many children in the in-care population will exit to permanency?

Baseline permanent exits = .73 x 413 = 301 children

- If my intervention leads to a 10% increase in the number of children in the in-care population discharged to permanent exits, how many children in the in-care population will exit to permanency?

10% increase over baseline = 1.10 x 301 = 332 children

- If this increase is achieved, what percent of the in-care population will exit to permanency?

332 is what percent of 413? 332 ÷ 413 = .80 → 80%

Homework review

b. Use the ***admissions*** portion of the sheet to answer the following:

Admissions between Jan. 1 and Dec. 31, 2010	Starting Population	Baseline Expected Status As of Dec. 31, 2011			Permanent Exits Breakdown			Number (Average) of Foster Care Days
		Percent Permanent Exits	Percent Other Exits	Percent Still In Care	Percent Reunification	Percent Relatives	Percent Adoption	
<1 year old	86	83%	0%	18%	39%	15%	29%	28380 (330)
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All admitted between Jan. 1, 2010 and Dec. 31, 2010	359	66%	9%	25%	43%	11%	12%	116128 (332)

- If, after the next two-year period, the admissions population uses the baseline number of care days, how many total care days will they use? How many care days will the admissions population use on average?

Baseline care days (total) = **116,128 care days**

Baseline care days (average) = 116,128 care days ÷ 359 children = **323 care days**

- If my intervention leads to a 5% decrease in the number of care days used by the admissions population, how many total care days will they use? If this decrease is achieved, how many care days will the admissions population use on average?

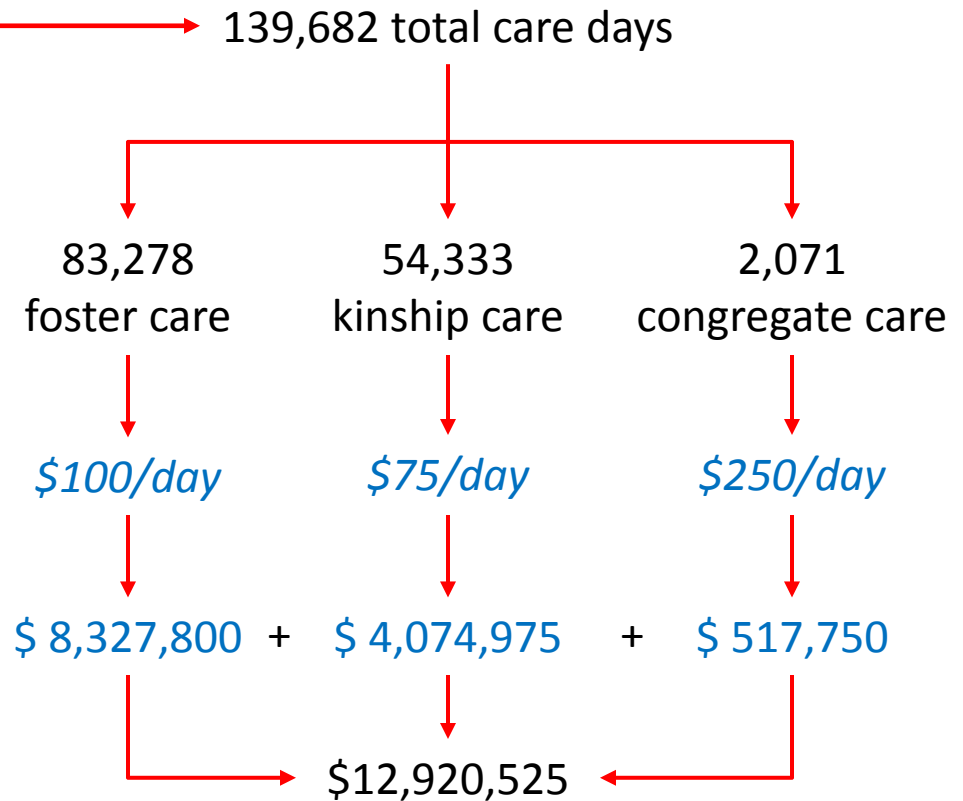5% fewer total care days than baseline = .95 x 116,128 = **110,322 care days**

Average care day use after a 5% decrease in total care days = 110,322 care days ÷ 359 children = **307 care days**

Homework review

BONUS QUESTION: How would you use this chart as a tool for projecting cost savings over the next two year period? Would you have to introduce any additional information?

	Number (Average) of Foster Care Days
...cent ...ption	
4%	19971 (317)
2%	53240 (440)
8%	52126 (389)
0%	14345 (151)
0%	139682 (338)

	Number (Average) of Foster Care Days
...cent ...ption	
9%	28380 (330)
1%	46115 (401)
2%	32190 (370)
2%	9443 (133)
2%	116128 (332)

139,682 total care days

83,278 foster care   54,333 kinship care   2,071 congregate care

$100/day   *$75/day*   *$250/day*

$ 8,327,800   + $ 4,074,975   + $ 517,750

$12,920,525

Fiscal application

- Let's review the basic components of out-of-home costs:

1. Number of Admissions (VOLUME)

2. Duration in days (DURATION)

3. Cost per Day (UNIT COST)

Fiscal Schema

		Volume & Duration		Level of Care		
		Number of Units	**X**	**Avg cost per unit**	**=**	**Expenditures ($)**

Fiscal application

- This equation gets you to the money table

- The information we worked with in the homework and showed you last week gets two of the three components of the equation

  1. Number of Admissions (VOLUME)
  2. Duration in days (DURATION)

- Work with your fiscal counterparts to obtain unit costs

Fiscal Schema

	Volume & Duration		Level of Care		
	Number of Units	**X**	**Avg cost per unit**	**=**	**Expenditures ($)**
	139,682	X	$ 92.50	=	$ 12,920,525
	125,714	X	$ 92.50	=	$ 11,628,473
					$ (1,292,053)
			Reinvestment Funds		

Case study: Tennessee PBC

1. Promoted systems reform to improve outcomes for children and families AND strengthen the public-private partnership.
2. Devised a performance-based contract that aligns payment and success.
3. Shifted some risk onto provider network in form of potential penalty.
4. Piloted in FY 2006-2007 with 5 selected pilot providers.
5. Fully implemented with full private network by fall of FY 2009-10.

Case study: Tennessee PBC

- Focus is on more timely permanency.

- Creates a financial incentive to reward that achievement (and payback for below-baseline performance).

- Uses the principles of the cycle of continuous improvement to:

  - Establish provider specific expectations;

  - Use longitudinal database to identify strata;

  - Establish strata-specific baselines;

  - Set overall goals;

  - Monitor performance over the course of the performance year.

Case study: Tennessee PBC

- Develop the BTA – baselines, target, and actual report, which:
- Pulls baselines information into a dynamic workbook the shows predicted, targeted, and actual performance over time, and by strata.
- Provides unit cost information for baseline and actual performance;
- Summarizes performance annually;
- Estimates fiscal benefit (or payback) annually.

Case study: Tennessee PBC Pilot Provider Results

- After three years, the original five providers…
  - Reduced care day utilization by 8 percent – over 100,000 days fewer days were used than projected in the baselines;
  - Increased the number of permanent exits by 6 percent – 167 more children/youth returned to permanency than would have been expected.
  - No notable increase in reentry from reunifications.

Case study: Tennessee PBC Overall Results

Since its inception, the private provider network in Tennessee has:

- Reduced caredays use in the system by 235,000 days;

- Generated $20 million dollars in reinvestment payments to the provider network.

Conclusions

- An effective CQI process can be developed from a strategic use of administrative data
  - To identify distinct strata;
  - To diagnose historical patterns;
  - To identify opportunities for program improvement;
  - To monitor performance over time; and
  - To link directly to system resources.

Contact information

Lily Alpert

lalpert@chapinhall.org

Jennifer Haight

jhaight@chapinhall.org