

Using Data to Manage Risks: Recent Efforts in California

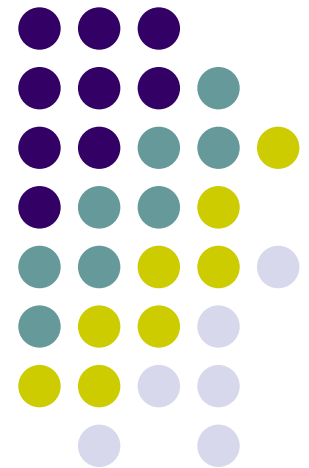
Margaret Anderson

California Department of Developmental Services

Ursula Bischoff, Jonathan Wilwerding

Acumen, LLC

March, 2007





Outline

- Introduction
- Benchmarking Performance
 - Case-Mix Adjusted Incident Rates
 - Case-Mix Adjusted Trend—i.e. Moving Average
 - Thresholds
 - The Ratio: Local Incident Rate/State Incident Rate
- Taking Action



Introduction

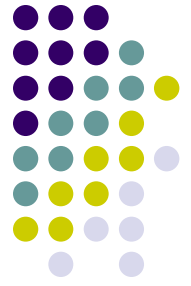
- The CA Department of Developmental Services (DDS) is responsible for programs serving individuals with developmental disabilities.
- DDS delivers services through 21 *regional centers*, whose primary function is case management.
- DDS has retained Acumen LLC to help manage risks to DDS' client population.

DDS employs three strategies.



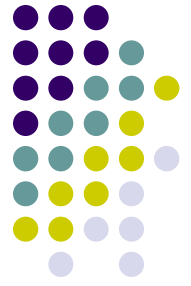
- Maximize the use of person-level data about consumers and incidents
- Provide training and technical assistance to regional centers
- Develop risk-prevention resources for consumers, their supports, and the general public

We focus here on maximizing use of data.



- DDS maintains three key data resources:
 - Client Master File (CMF)
 - Client Development Evaluation Report (CDER)
 - The Special Incident Report (SIR) data base
- Acumen links these into a single, by person by month data set.

Data on outcomes come chiefly from special incident reports.



- Vendors must report adverse events, or *special incidents*, to regional centers.
 - Missing
 - Suspected abuse and suspected neglect
 - Serious injury and accident
 - Unplanned hospitalization
 - Victim of crime
 - Death
- Regional centers report these incidents to DDS.



Outline

- Introduction
- Benchmarking Performance
 - Case-Mix Adjusted Incident Rates
 - Case-Mix Adjusted Trend—i.e. Moving Average
 - Thresholds
 - The Ratio: RC Incident Rate/State Incident Rate
- Taking Action

We want to use data on incidents to know:



- When a regional center is facing an issue that requires follow up
- When regional center programs have succeeded in limiting risks to consumers
- In general, when to act.

To do this, we graph monthly incident rates.



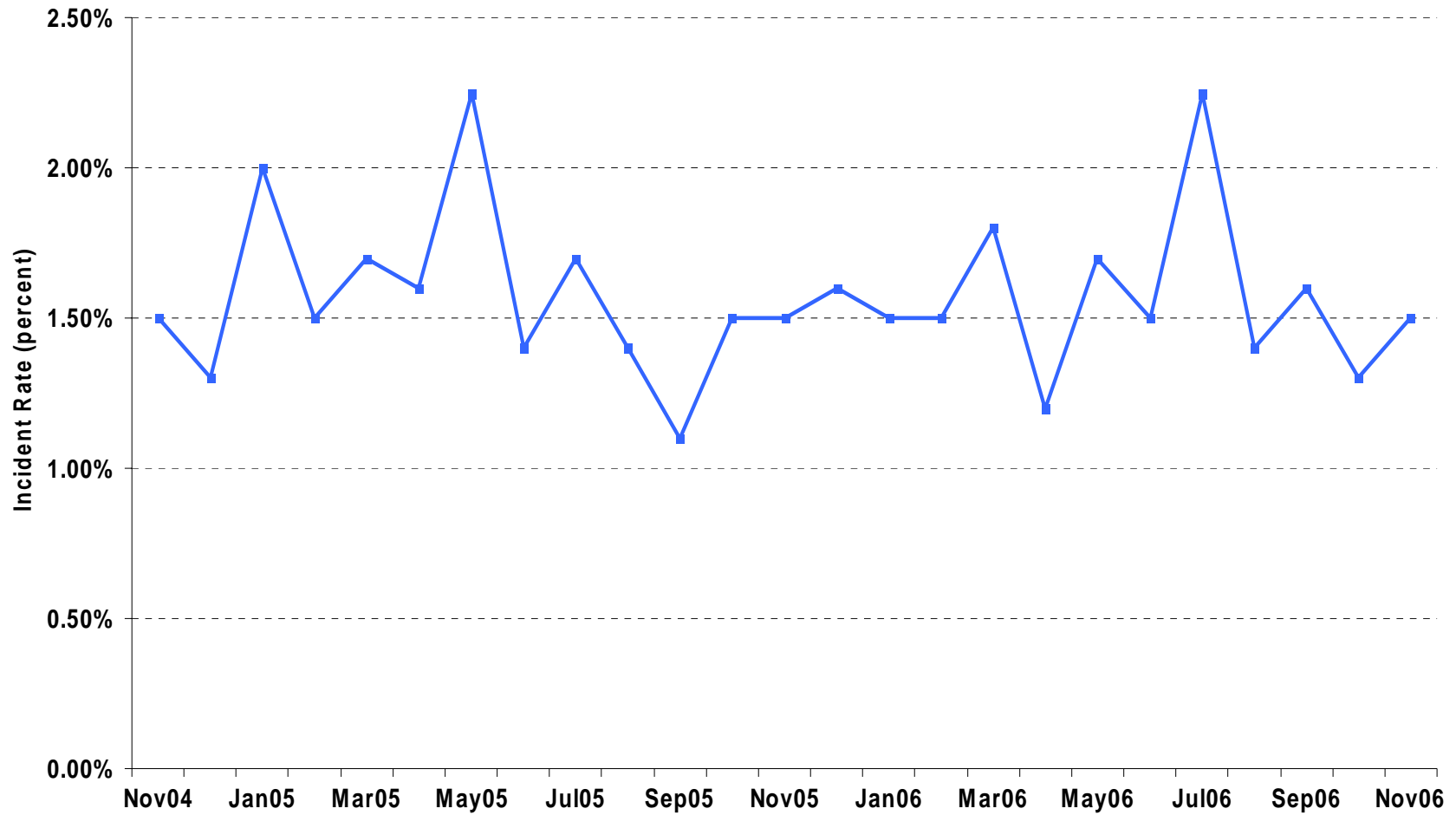
- The incident rate for a given type of adverse event in a given month, is:
 - The share of consumers that experience one or more incidents of that type in that month.
- We can think of this as :
 - The (estimated) chance that an average consumer would experience one or more incidents in that month.



We graph *case-mix adjusted* incident rates.

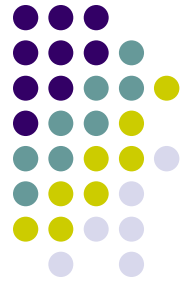
- Incident rates vary from month to month.
- Adjusting for case-mix limits variation due to change in a regional center's client population.
- (Ideally) what remains is variation due to:
 - Practice—i.e. practice in the sense of risk management and other RC's practices
 - Random events—e.g. local outbreaks of illness.

All Non-Mortality Incidents - Out-of-Home Consumers
Case-Mix Adjusted Monthly Incident Rates Since November 2004



Case-Mix Adjusted Rate for RC

How can we use this graph?



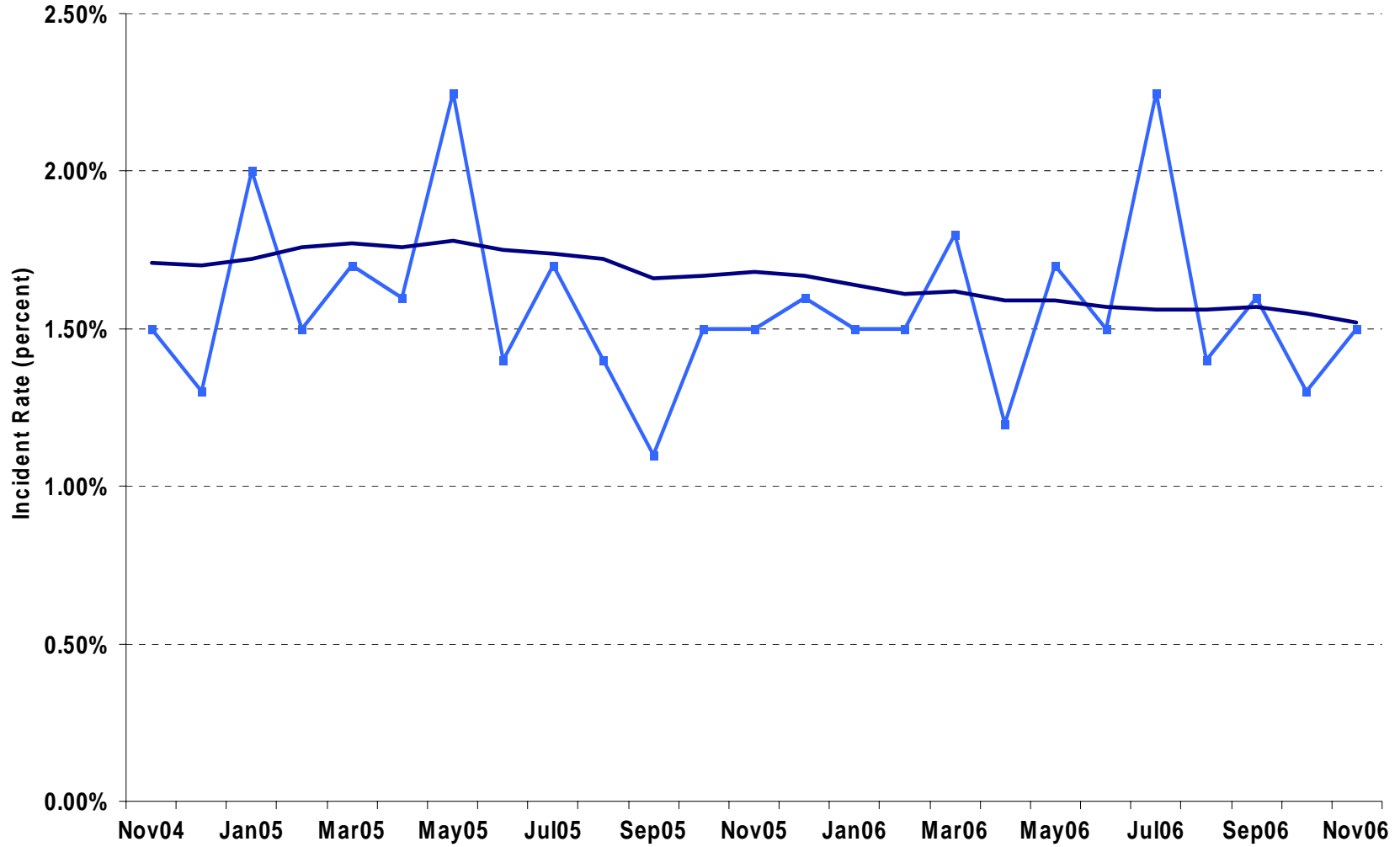
- Regional centers should address risks when monthly rates spike upward beyond what is likely to occur by chance.
- We need to identify variation of this kind.
- Note: Regional centers also address ongoing risk issues.



To identify rates that are not likely to occur by chance, we:

- Graph regional centers' average case-mix adjusted incident rates for the most recent 12 months
 - This is a *Case-Mix Adjusted Trend*
- Compare the incident rate in any given month to the case-mix adjusted trend
 - --i.e. We treat a regional center's trend as its benchmark.

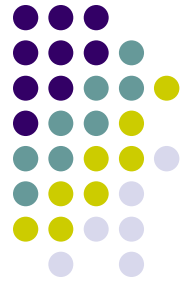
All Non-Mortality Incidents - Out-of-Home Consumers
Case-Mix Adjusted Monthly Incident Rates and Trend Since November 2004



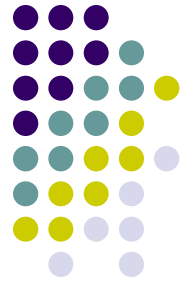
Case-Mix Adjusted Rate for RC

Case-Mix Adjusted Trend for RC

To determine whether a rate is likely to occur by chance:



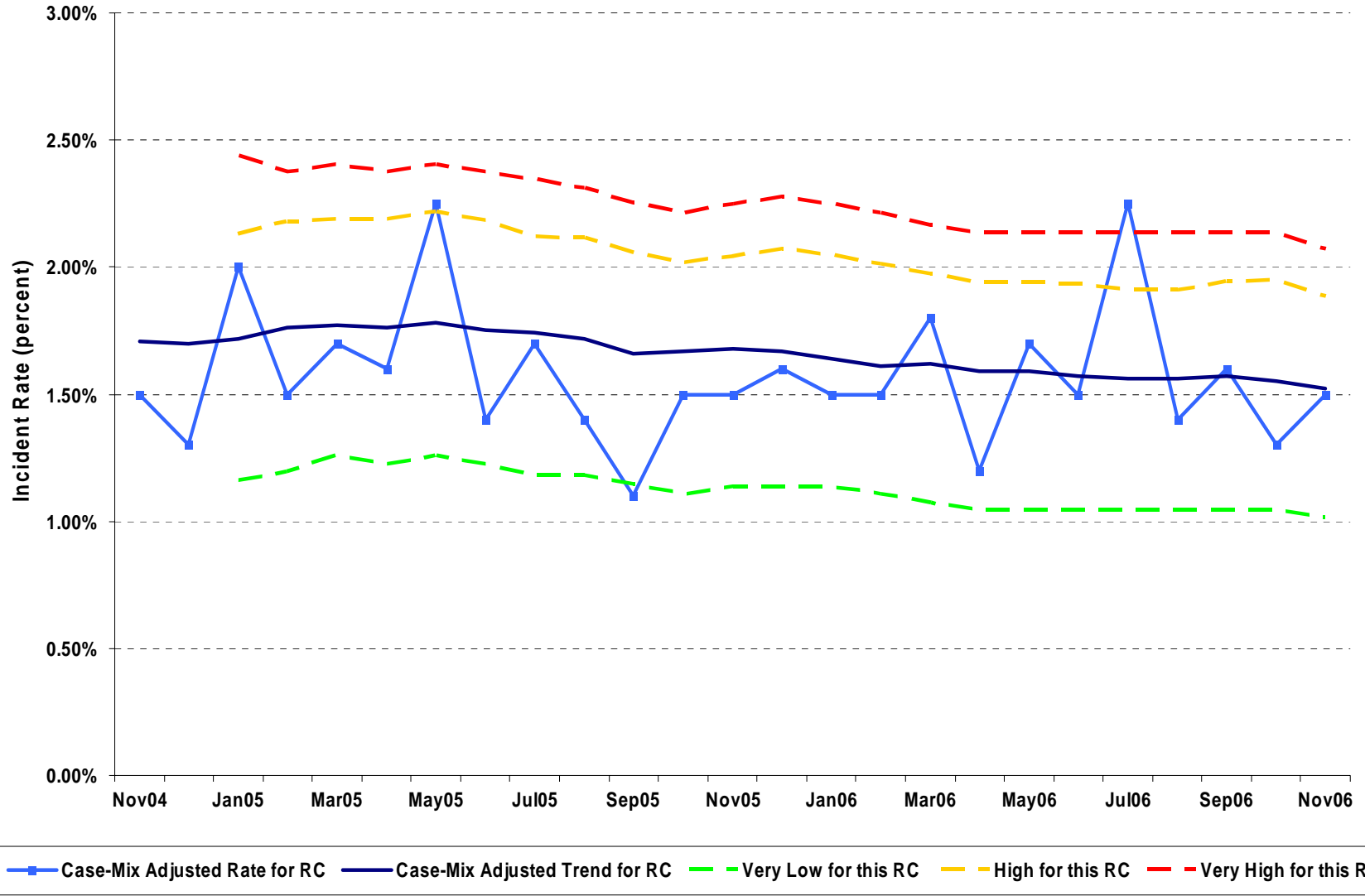
- We calculate thresholds.
- Rates that lie above the high thresholds are unlikely, given the regional center's trend.
- Rates that lie below the low thresholds are also unlikely, given the regional center's trend.

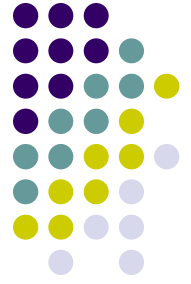


We calculate three thresholds:

- *High for this RC*—less than a 5% chance of occurring by chance alone
- *Very high for this RC*-- less than a 1% chance of occurring by chance alone
- *Very Low for this RC*—less than a 1% chance of occurring by chance alone.

All Non-Mortality Incidents - Out-of-Home Consumers
Case-Mix Adjusted Monthly Incident Rates and Trend Since November 2004





Spikes in local incident rates may reflect statewide events.

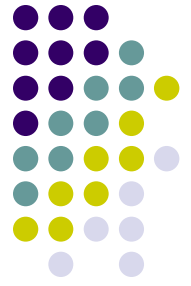
- To check this, we graph the ratio:

RC Case-Mix Adjusted Incident Rate

State Case-Mix Adjusted Incident Rate

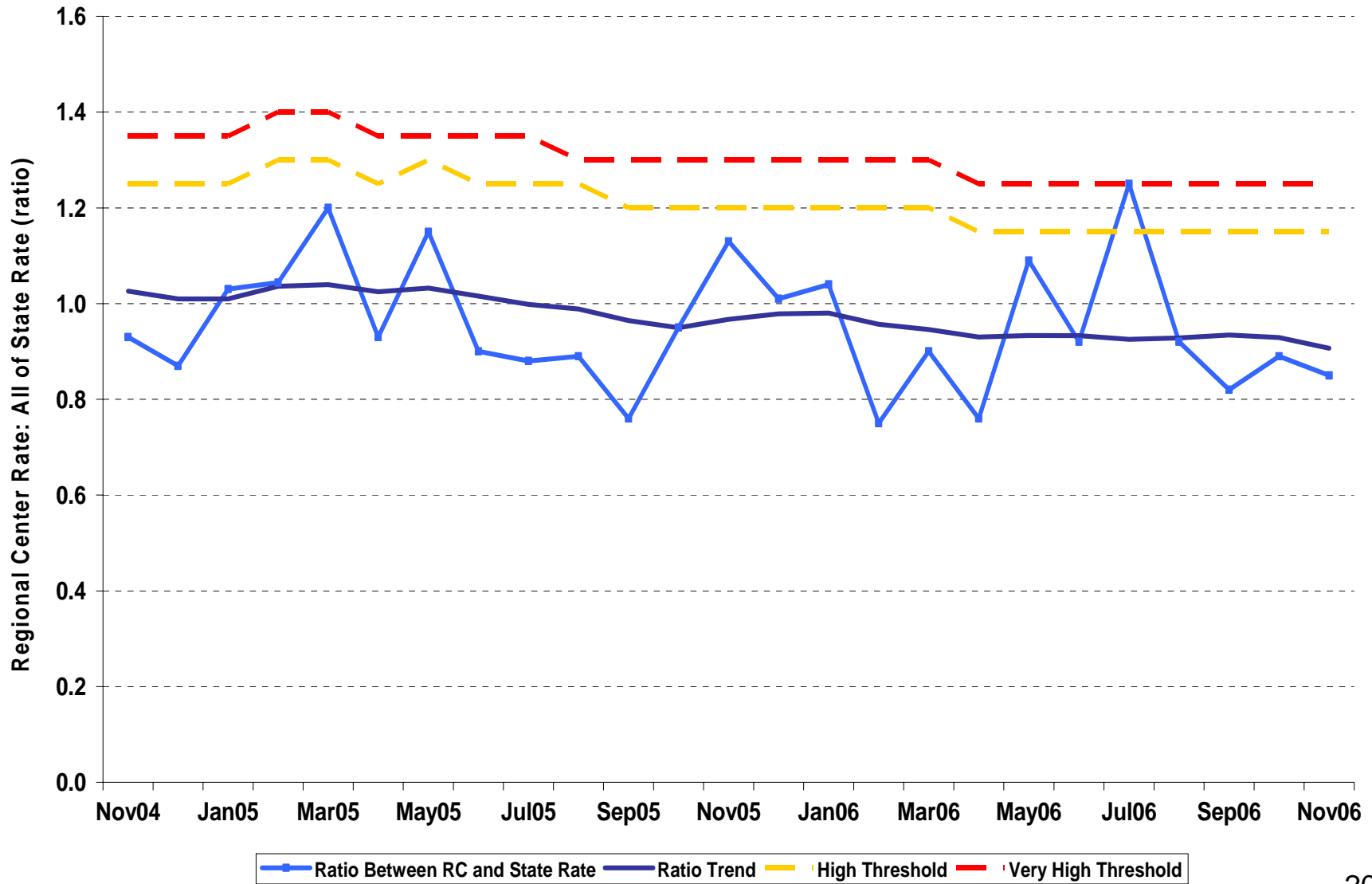
- The graph includes:
 - The 12-month Moving Average or Trend *in the ratio*
 - *High* and *Very High* thresholds for the ratio given its trend.

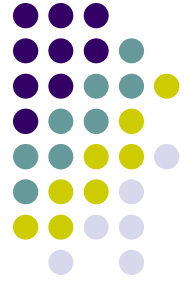
A spike may reflect statewide events if:



- A regional center's monthly rate is unexpectedly high, given its trend, *but*
- The *ratio* of the RC rate to the state rate is consistent with its own ongoing trend.

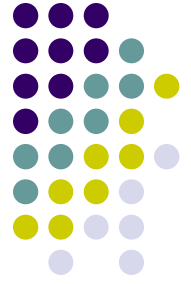
All Non-Mortality Incidents - Out-of-Home Consumers
 Ratio of RC to State Incident Rate and Trend in Ratio Since November 2004





Outline

- Introduction
- Benchmarking Performance
 - Case-Mix Adjusted Incident Rates
 - Case-Mix Adjusted Trend—i.e. Moving Average
 - Thresholds
 - The Ratio: Local Incident Rate/State Incident Rate
- Taking Action



These data are used to inform:

- Follow up by regional centers
 - State-wide summary reporting
- Training and TA
 - Web-based instruction in use of reports
 - TA to help regional centers take action
 - Regional center pilot projects
- Prevention Resources
 - Tools for Consumer Advisory Committee
 - DDSSafety.net resources for consumers, supports, public.