MMA §623(e) ESRD Bundled Payment Demonstration

Presented to the CMS/Forum of End Stage Renal Disease Networks 2006 Annual Meeting

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Agenda / Roadmap

- Legislative Background
- What *is* the problem?
- Goals of bundled payment
- What's in a bundle?
- Predicting resource use
- Bundled payment and P4P
- Summing up

Legislative Background

- Reports / background
  - OIG / MedPAC/ GAO reports
    - "Overpayment" for separately billed services
    - "Underpayment" for composite rate services
  - CMS Phase 1 report on case mix adjustment
    - Feasibility of analysis
    - Direction for future reform / research efforts
- Statutory charge
  - "demonstrate the use of a fully case mix adjusted payment system for an expanded bundle of … drugs (including erythropoietin) … and related laboratory tests"

What *is* the problem?

- Absence of incentives / reward for efficiency
- Possible over use of services
- Underpayment for patients with greatest needs
- Fragmentation and duplication of care
- Complex / burdensome administrative requirements
- Lack of incentives / reward for quality
- Inequitable treatment of modalities
- Mis-alignment of incentives across providers
- Lack of a defined updating method / formula

Goals of bundled payment

- Efficiency, flexibility, simplicity
  - Incentives/reward for efficiently meeting needs
  - Flexibility as to how needs are met
  - Avoid complex administrative requirements
- Adequacy, risk, and equity
  - Aggregate payment sufficient for needed care
  - Reasonable relationship to resource needs
  - Incentives to treat most difficult patients
- The quality chasm, P4P, and a new paradigm
  - Traditional focus: what is done to patients
  - Emerging focus: what is done for patients
  - Alignment of incentives / efforts across providers

Fundamental Issues / Questions

- What's in a bundle?
- Predicting resource use
- Role of pay-for-performance

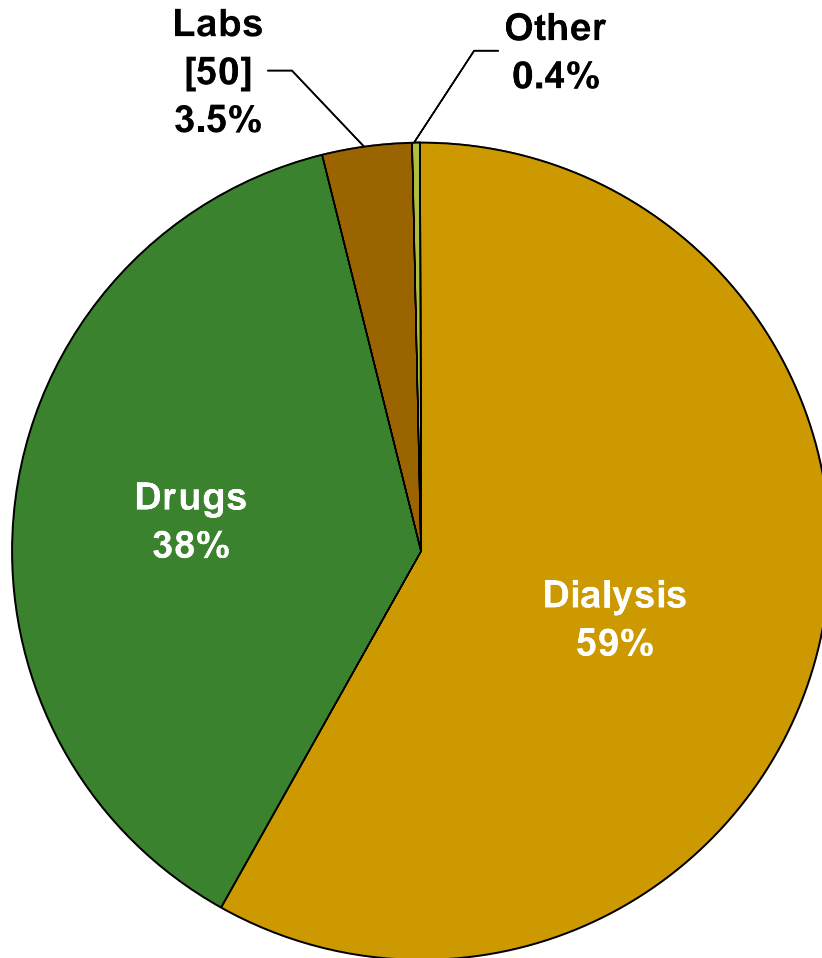
What’s in a bundle?

- What are we paying for?
- What is the facility responsible for?
- A question of organization

Profile of bundled services

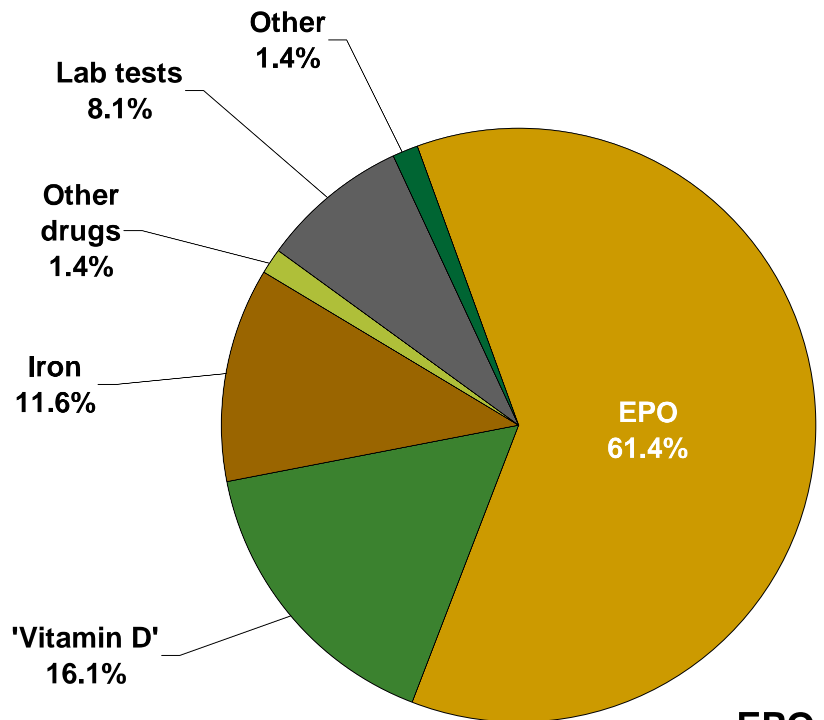
- Composite rate services
- Separately billed services
  - Drugs
  - Laboratory tests
  - Blood & blood products
  - Medical / surgical supplies
- Excluded from bundle
  - Physician payments (MCP)
  - Payment related to vascular access

What Medicare pays for: 2003



- Payments include:
  - Facility payments
  - Payments for laboratory services
- Payments do not include:
  - Non-facility payments other than lab tests
    - Surgical services
    - Imaging
    - etc.
  - Inpatient services
  - Physician / professional services

What we know about the bundled services

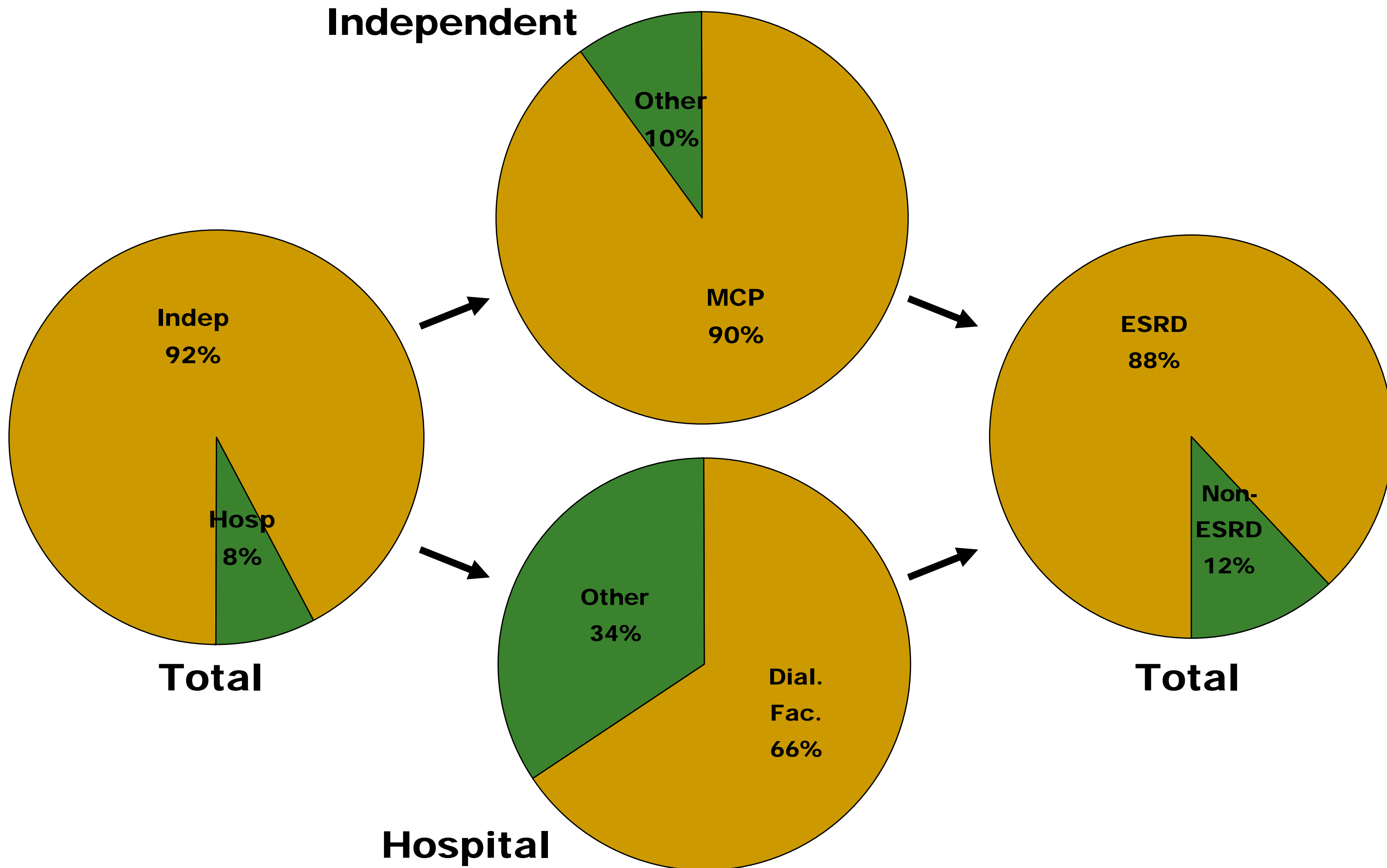


EPO, Iron and 'Vitamin D' together account for nearly 90% of payments for separately-billed items and services.

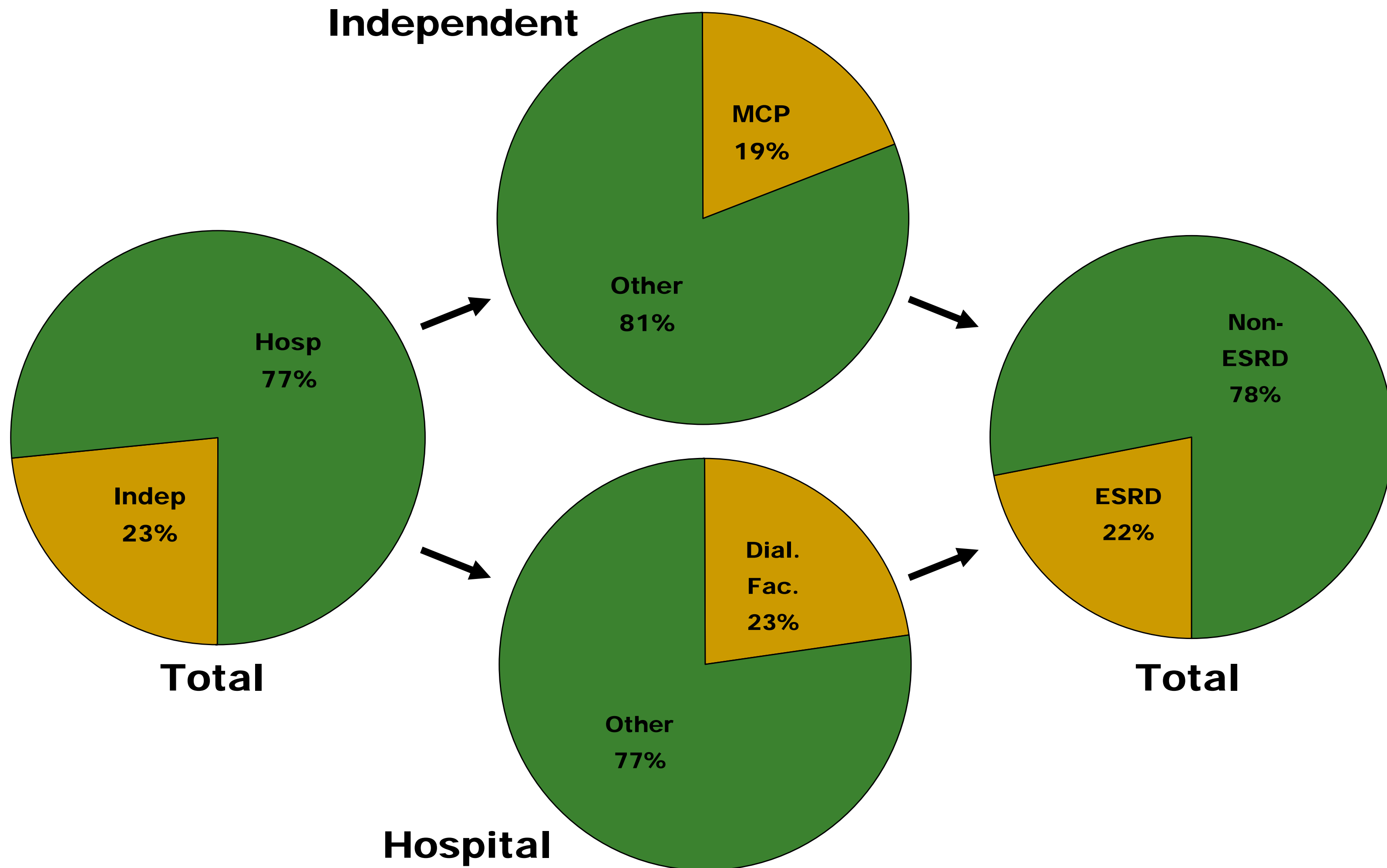
- Anemia drugs (more specifically EPO) dominate separately-billed services
- Clinical research shows large variation in dose of EPO needed to achieve target hematocrit
- Practice guidelines rely on titration to identify minimum required EPO dose
- Some variation in EPO probably does reflect practice patterns (e.g., management of iron)
- Laboratory tests initiated in dialysis facilities include many tests also commonly ordered elsewhere
- Encouraging collection of laboratory specimens in facilities could improve quality of care and lower costs

Note: These data reflect 2003 experience. More recent experience will be used to establish payment rates and adjustments and may differ due to changes in policy and practice.

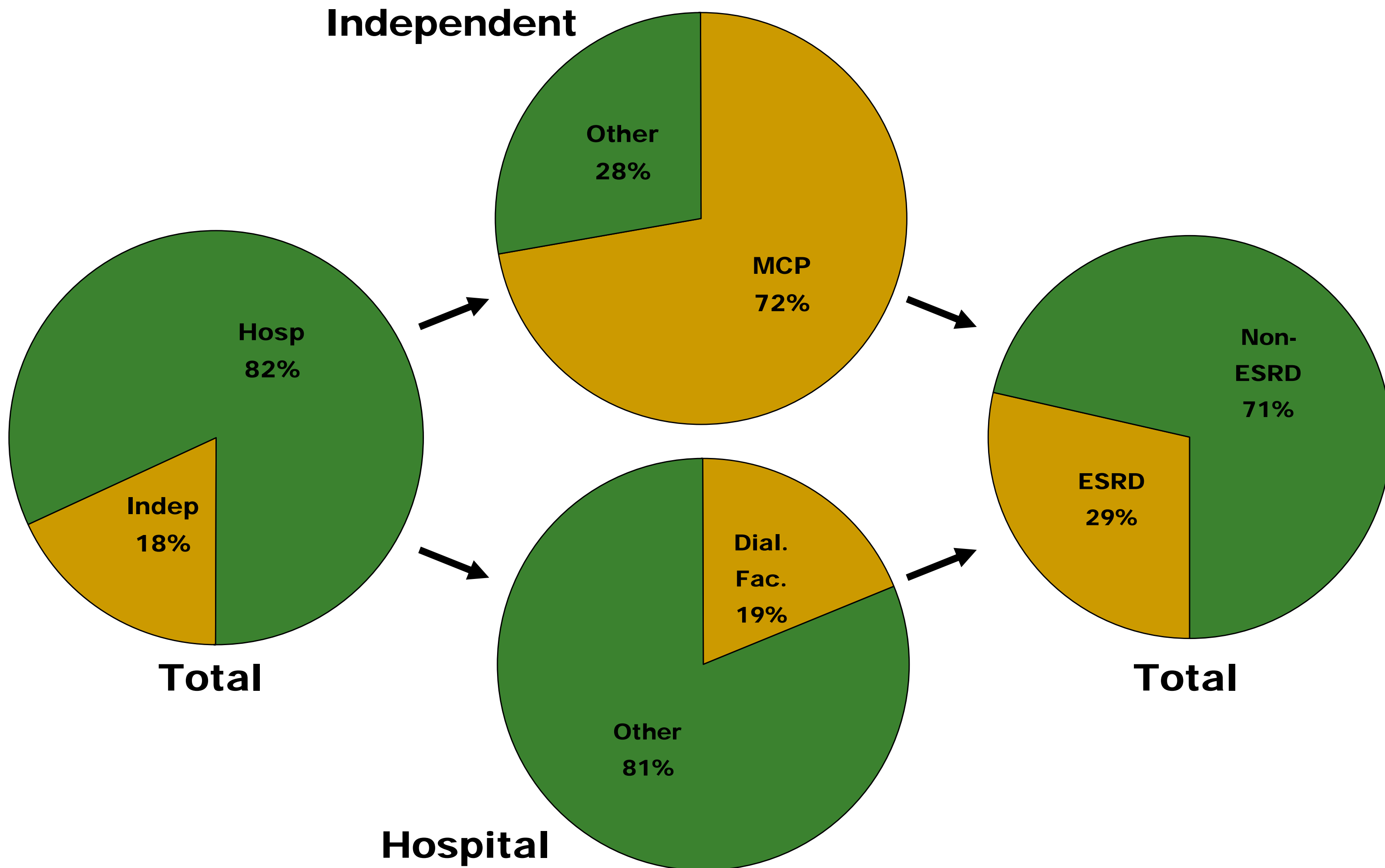
Laboratory Billing: 'Anemia' tests



Laboratory Billing: 'Other' tests



Laboratory Billing: Hb / Hct tests



Conclusion on the bundle

- Most services provided by dialysis facilities
  - Services related to dialysis (covered by CR)
  - Drugs administered in dialysis facility
    - Question concerning drugs used in cancer treatment
    - Question concerning other rarely used / high cost drugs
  - Laboratory tests related to treatment in facility
    - Exception for tests ‘arranged by facility’ for others
    - Guided by considerations of safety & convenience
  - Medical / surgical supplies
  - Most blood & blood products
  - Excluding imaging and surgical procedures
  - Hold open question of additional exceptions

Predicting resource use

- What factors affect resource use?
- How good are our predictions?
- How good do predictions need to be?

Predicting use of resources

- Fundamental distinction
  - Dialysis procedure / composite rate
  - Separately billed services
- Limitations of historical / empirical data
  - Impact of / changes in patterns of practice
  - Impact of changes in policy
  - Identification of co-morbid conditions
- Why focus on separately billed services?
  - Direct measurement of variation at patient level
  - Assessment of potential selection and risk

Predictors of resource use

- Demographic characteristics
- Length of time since the start of dialysis
- Body size
- Behavioral characteristics
- Co-morbid conditions
- Hematocrit
- Prior use of health services

Other influences on resource use

- "Practices" often thought to influence use
  - Route of administration
  - Management of iron
  - Appropriate transfusion
  - Vascular access
  - Anemia management targets
- Case mix and practice patterns
  - Impact on average level of resource use
  - Impact on variation in resource use

Highlights of analytic findings • 1

- Conventional models have limited power
  - Explain ~10% (or less) of patient level variation
  - Predictions consistently high or low
  - Symptomatic of an “omitted variables” problem
- Possible explanations
  - Limitations of available data
  - Narrow range of inputs/resources
  - Intrinsic variation in response to treatment
  - Variation in practice
- Bottom-line: difficult — not necessarily impossible

Highlights of analytic findings • 2

- All results sensitive to model specification
- Hematocrit: inverse association
- Hospitalization: increases resource use
- Time on dialysis: higher use in initial months
- Demographics
  - Lower use by very young and very old
  - Higher use by women
- Ethnicity / race
  - Higher use by African-American
  - Lower use by Native American / Hispanic / Pacific Islander
- Body size: larger patients use more resources

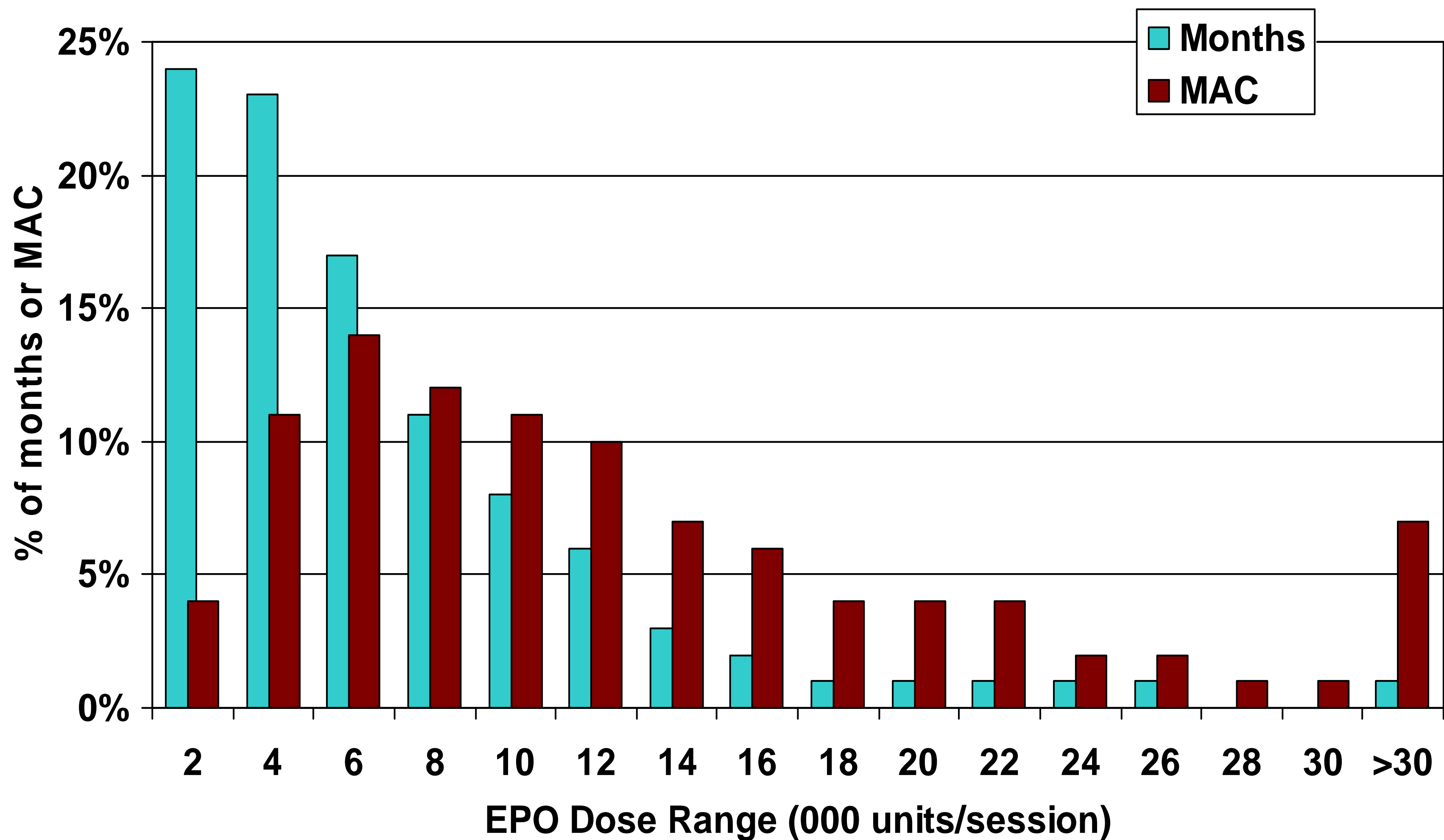
Highlights of analytic findings • 3

- Co-morbid conditions
  - Identification: search claims history file
  - Categorization: 36 broad categories / 5 super cats
  - General pattern
    - Commonly occurring conditions / small impact on use
    - Rare conditions / large impact on use
    - Exception: infection
  - Interpretation / significance
    - Do co-morbid conditions mark acute illness?
    - Chronic conditions affect average resource use
    - Less helpful in explaining “normal” variation
    - Need better information on conditions

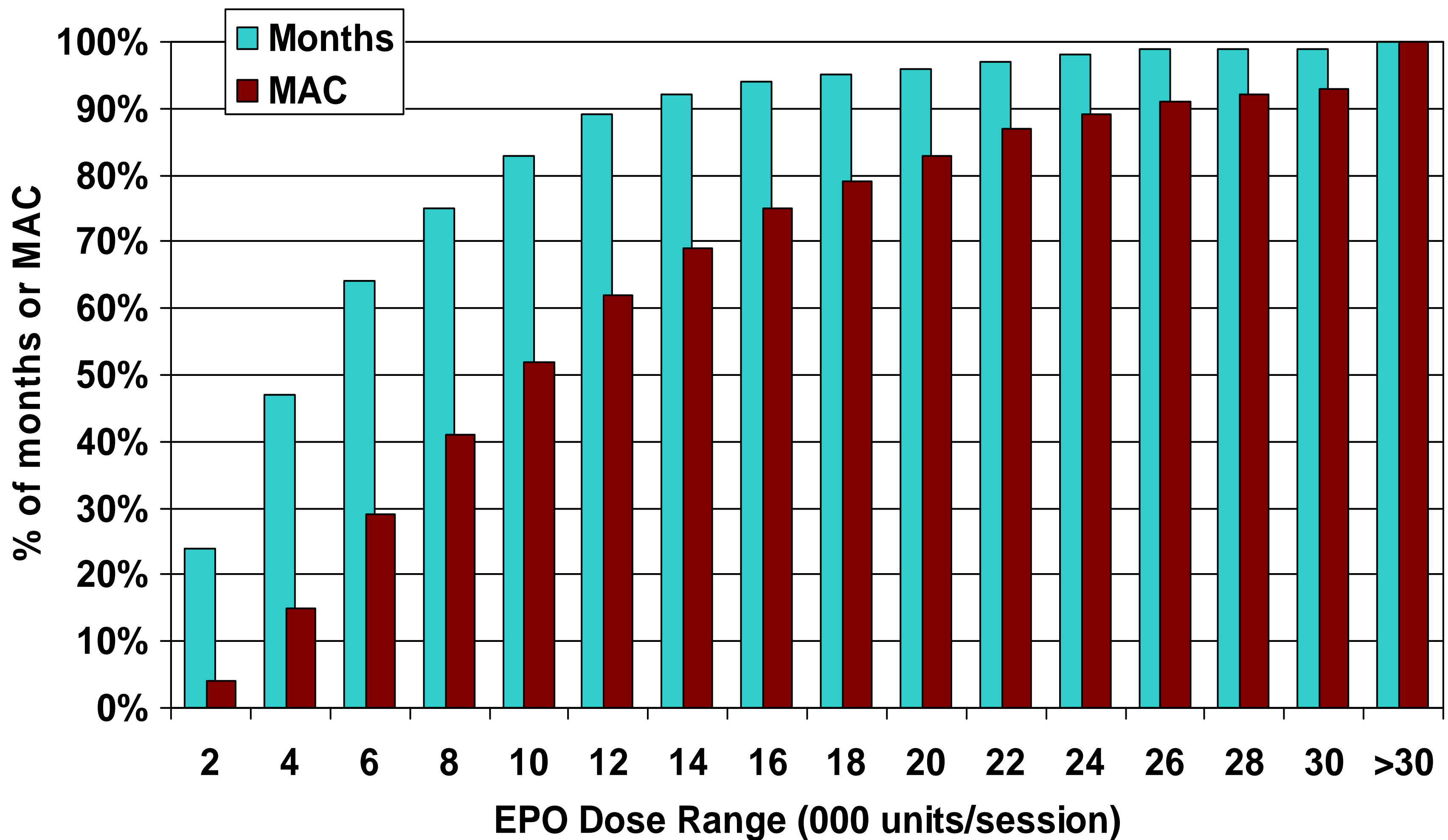
Highlights of analytic findings • 4

- Use of prior dose / response as predictor
  - Definition: EPO dose in prior period ÷ hematocrit
  - Marked increase in predictive power
    - R^2 increases to ~0.45
    - Sensitive to lag — more distant period less predictive
    - Reduces correlation of prediction errors
  - Significant & material impact on other predictors
  - Interpretation: “the future resembles the past”
  - Implications
    - Effectively “un-bundles” erythropoietin
    - Causes payment to rise as hemoglobin falls

Distribution of patients by EPO use



Distribution of patients by EPO use



Implications for demonstration

- Create incentives / rewards
  - Efficient use of resources to provide care
  - Efficient / effective management of condition
- What do we need to predict / explain?
  - Appropriate "high use" of services?
  - Sizeable variation closer to the mean?
- Implications of small facility size

Pay-for-performance

- P4P as a complement to PPS
- Alternative approaches

P4P: Purposes / goals

- Encourage / reward improved quality
  - Specifically focusing on anemia management
  - But not limited to anemia management
- Encourage appropriate resource use
  - Move away from payment based on services provided
  - Toward payment based on results achieved
- Align incentives across facilities and physicians

P4P: Two track design

- Bundled Payment P4P
  - “Quality Corridor” Approach
  - Narrowly focused on bundle
  - Substantial percent of payment at risk for performance
  - Measures related to dialysis and anemia management
- ESRD Management P4P
  - “Shared Savings” Approach
  - Broadly focused on total resource use
  - Contingent on demonstration of savings
  - Measures related to vascular access, modality, etc.

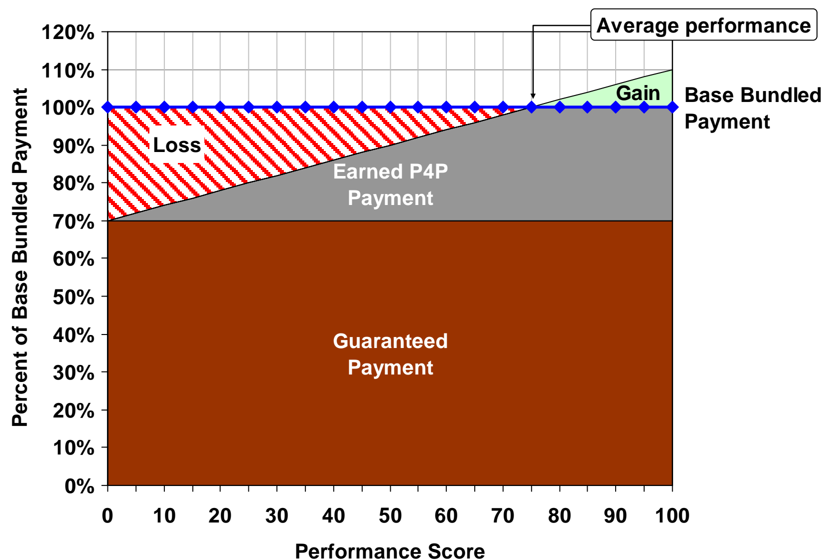
Basic / 'Quality Corridor' P4P • 1

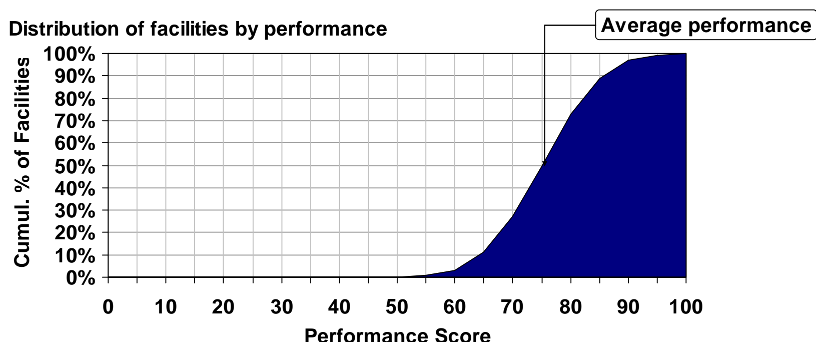
- Conceptual design
  - Similar to any prospective payment system
    - Higher payment for above average performance
    - Lower payment for below average performance
  - Lagged measurement
    - Performance in prior period
    - Determines adjustment in current period
    - Not a withhold
  - Performance determines payment
  - Payment not contingent on savings

Basic / ‘Quality Corridor’ P4P • 2

- Performance measurement
  - Multiple measures
    - Adequacy of dialysis / dose
    - Anemia management
    - Vascular access (?)
    - Other … ?
  - Continuous scoring (not pass/fail)
    - % of benchmark target
    - % of improvement target
  - Weighted overall score

Basic / ‘Quality Corridor’ P4P • 3





- Operation of P4P formula
  - A percent of payment is ‘at risk’
    - Guaranteed payment (70%)
    - Maximum incentive (10%)
    - 40% of payment ‘at risk’
  - ‘Break-even’ performance score
    - Determined by relationship of
      - Guaranteed payment
      - Maximum incentive
    - In this example: 75 percent
    - Reflects average facility performance
- Distribution of incentives
  - Equal likelihood gain/loss
  - Few if any facilities paid only guarantee amount
  - Most facilities fall close to ‘break-even’ score
  - All facilities could operate above ‘break-even’ point

ESRD Management P4P

- Broader focus than bundled services
- 'Shared savings' approach
  - Incentive payment contingent on savings
  - Also contingent on performance
- Measurement of savings
- Measures of performance
- Role of provider consortia

Technical and policy issues

- Agreement on performance measures
  - Choice of measures
  - Establishment of ‘targets’
- Data issues
  - Availability of needed data
  - Auditing of reported information
- Payment formula
  - Minimum or guaranteed payment level
  - Maximum performance bonus
  - Scoring methods

For additional information…

- Advisory Board web page

http://www.cms.hhs.gov/FACA/09_AdvisoryBoardontheDemoofPaymentSystemfor(ESRD)Services.asp

- Open Door Forum briefing

http://www.cms.hhs.gov/DemoProjectsEvalRpts/downloads/MMA623_Open_Door_Briefing.pdf

- MMA 623(e) Demonstration web page

http://www.cms.hhs.gov/DemoProjectsEvalRpts/MD/itemdetail.asp?itemID=CMS042230