DRAFT

Building a healthier future for all Arkansans

Briefing on episode thresholds

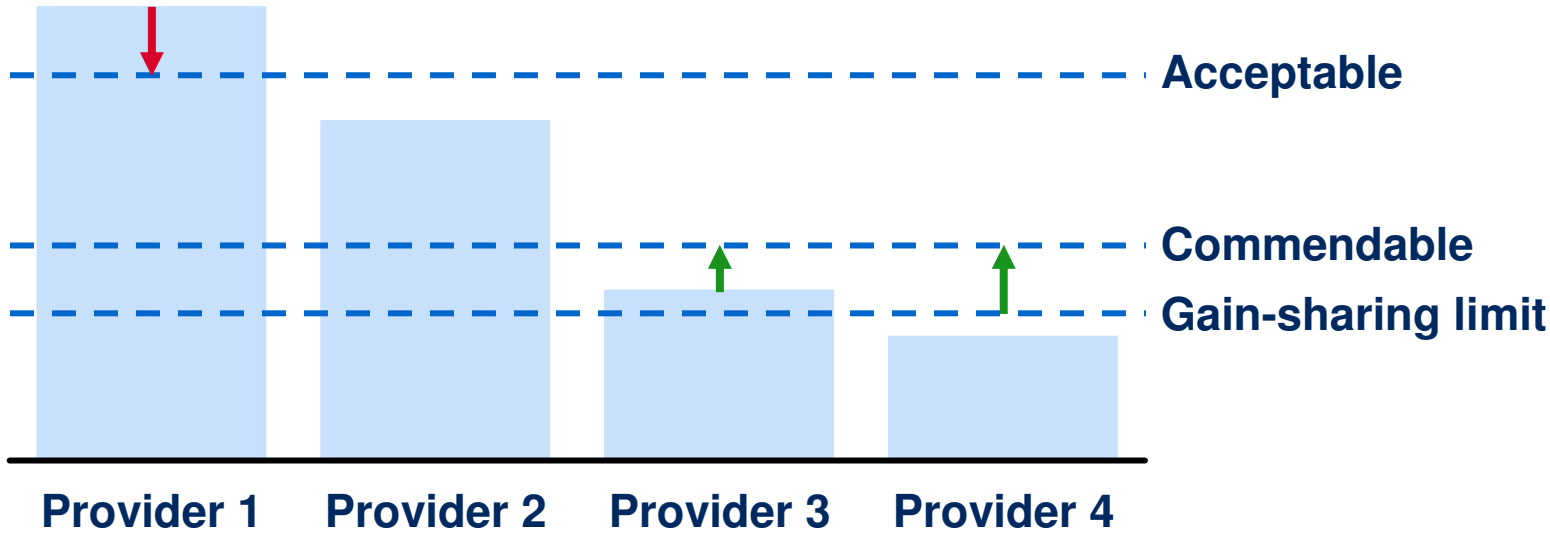
June 13th, 2012

PRELIMINARY WORKING DRAFT, SUBJECT TO CHANGE

Aim for today: describe draft Medicaid episode thresholds for the first wave of the Payment Improvement Initiative

Average adjusted cost for an episode, for four Principal Accountable Providers

ILLUSTRATIVE



By design, episode-based payment rewards high quality care

Example for a CHF[1] patient admitted to the hospital

Episode-based payment rewards providers for reducing readmissions and therefore:

- Motivates the hospital to stabilize the patient quickly and effectively (fluid levels, medication titration)
- Rewards the hospital for providing effective patient education at discharge
- Rewards the outpatient physician and hospital for working together to ensure an effective handoff, e.g.,
  - Follow-up visit within 48 hours of discharge
  - Medication reconciliation
- Rewards effective coordination of care (home health, case management, other follow up)

Episodic payment inherently rewards quality care by holding providers accountable for downstream outcomes and costs

1 Congestive Heart Failure

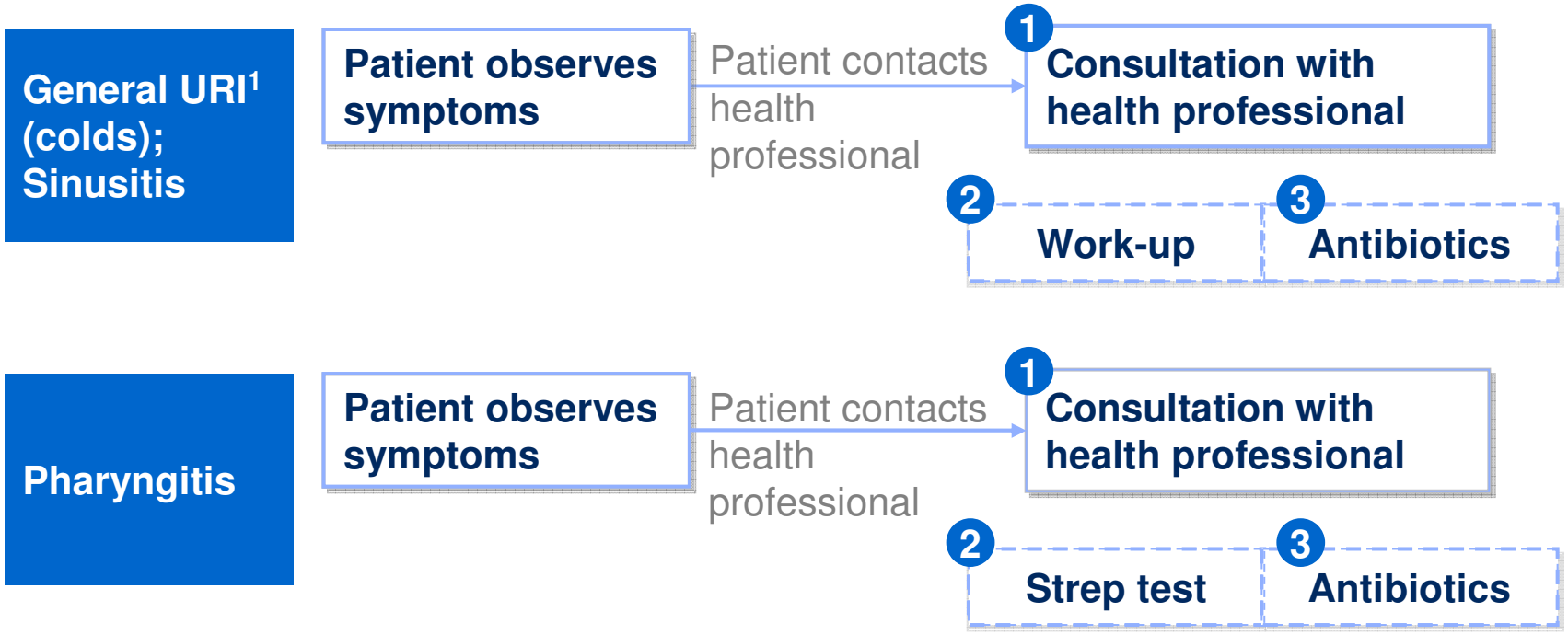
Guiding principles that Medicaid uses to set cost thresholds

1. **Reward high quality, efficient** delivery of clinical care
2. **Promote fairness** by considering patient access, provider economics, and changes required for improvement
3. **Acknowledge that poor performance is a reality and should not be rewarded**
4. **Set thresholds to improve the status quo** and protect Arkansas from alternatives such as intrusive, managed care
5. **Protect quality and access by setting a gain sharing limit** at a reasonable level

Wave one episodes

- **Ambulatory Upper Respiratory Infection (URI)**
- Perinatal
- Attention deficit/hyperactivity disorder (ADHD)

Patient care journey for ambulatory Upper Respiratory Infection (URI)



Opportunities

1. Cost-effective utilization of care settings and providers
2. Appropriate use of diagnostics
3. Appropriate use of prescriptions

1 Non-specific URIs

Overview of acute ambulatory upper respiratory infection (URI) episode

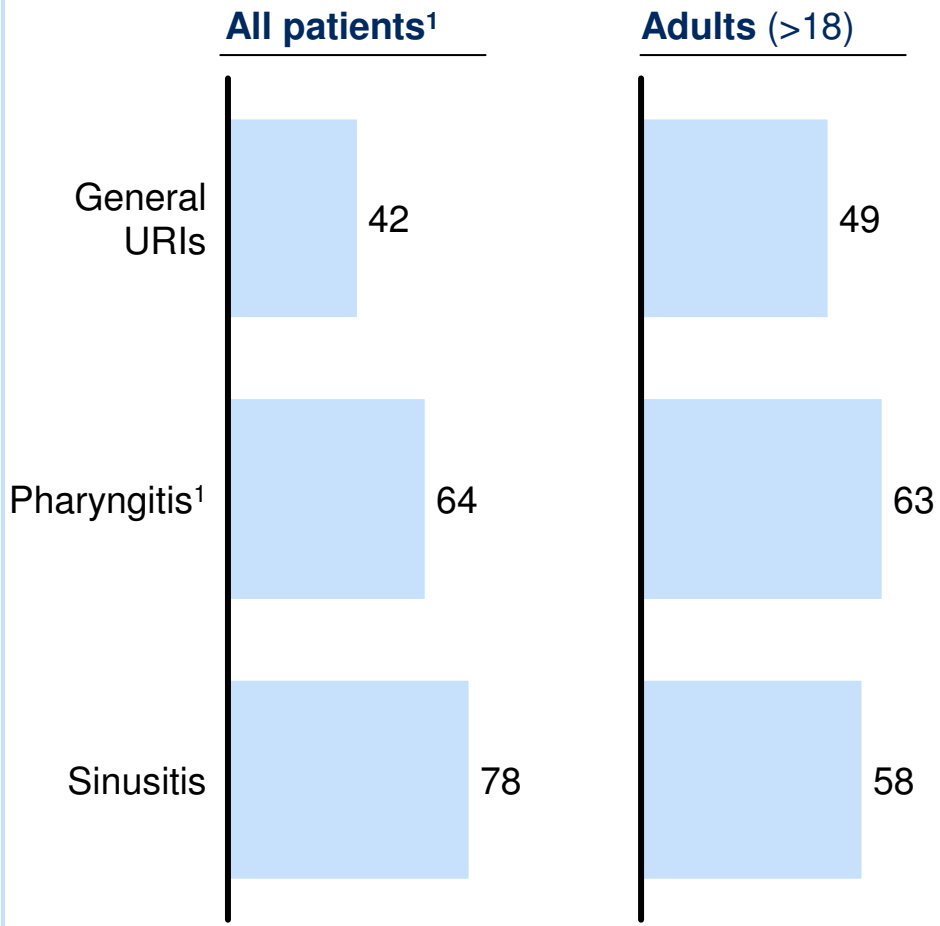
Episode definition and scope of services	▪ Episode begins with patient's initial in-person visit and includes all in-person visits, labs, imaging, and antibiotics, antivirals, and corticosteroids commonly prescribed for URIs ▪ All episodes have a duration of 21 days ▪ The episode is divided into three subtypes: general (non-specific) URI, acute pharyngitis, and acute sinusitis
Principal Accountable Provider(s)	▪ PAP is first provider to diagnose a beneficiary with an acute ambulatory URI during an in-person visit
Adjustments and Exclusions	▪ Patients considered high risk are excluded – Patients younger than one year of age – Patients with select comorbidities (e.g. COPD[1], asthma) – Patients with inpatient stays or surgical procedures ▪ Episode incorporates adjustments to the cost of individual episodes based upon the age of the patient ▪ For all patients, cost of initial visit is adjusted to ensure equivalency across all settings of care

1 Chronic obstructive pulmonary disease (e.g. chronic bronchitis)

Antibiotic prescription rates in SFY2010

Antibiotic prescription rate, Mediciad, SFY2010

% of episodes resulting in filled antibiotic prescription



Example national guidelines for antibiotics use (adults)[2]

- "Antibiotics should not be used to treat **nonspecific upper respiratory tract infections** in adults, since antibiotics do not improve illness resolution"
- "For **acute pharyngitis,** antibiotic use should be limited to patients who are most likely to have group a β-hemolytic streptococcus"
- "For **acute sinusitis,** narrow-spectrum antibiotics should be given only to patients with persistent purulent nasal discharge and facial pain or tenderness who have not improved after 7 days or those with severe symptoms."

1 All patients prior to exclusions; with all exclusions, General URIs = 42%, Pharyngitis = 73%, Sinusitis = 89%
2 From CDC, summarized in Gill et. al., "Use of Antibiotics for Adult Upper Respiratory Infections in Outpatient Settings: A National Ambulatory Network Study" (2006) (internal citations removed)
SOURCE: Medicaid claims SFY2010; CDC

Estimation of URI episode cost

Service type	Unit cost for AR Medicaid	Fact-based estimate of provision rate	Implied cost	Rationale
Office visit	$36.30 (Level III visit)	100%	$36.30	▪ Level III visit most common in Medicaid today[1]
Pharmacy	$22.90[2]	20%	$4.58	▪ Literature suggests limited evidence for antibiotic use ▪ Allowance provided for patient mix and proportion of cases with evidence-based need
Follow-up visit	$36.30	10%	$3.63	▪ Evidence suggests follow-up visits are very rarely required ▪ Allowance provided for patient-driven nature of follow-up visits
Labs & imaging	$52.98[3]	10%	$5.29	▪ Clinical evidence suggests labs & imaging are required in only a small percentage of cases
Total cost			**$49.80**	

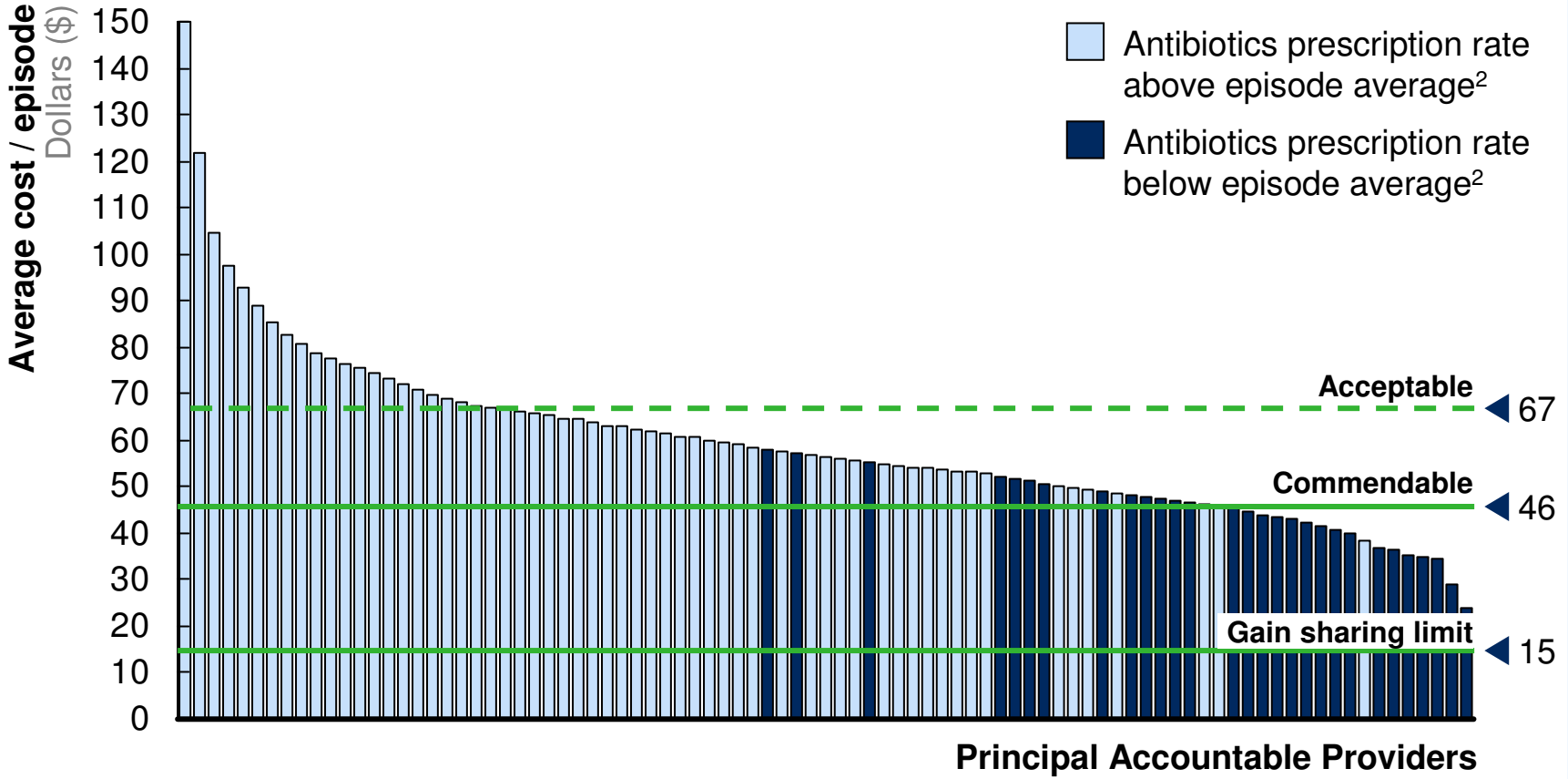
1 Visits are scaled 1 through 5. Current average level of office visit is 3.06 out of 5.
2 Current average antibiotic cost, when used, is $22.90 across all URI sub-episodes. Uses gross cost of medication.
3 Current average lab and imaging cost, when utilized, is $52.98 across all URI sub-episodes.

SOURCE: Arkansas Medicaid claims paid, SFY10

Draft thresholds for General URIs

Provider average costs for General URI episodes

Adjusted average episode cost per principal accountable provider[1]

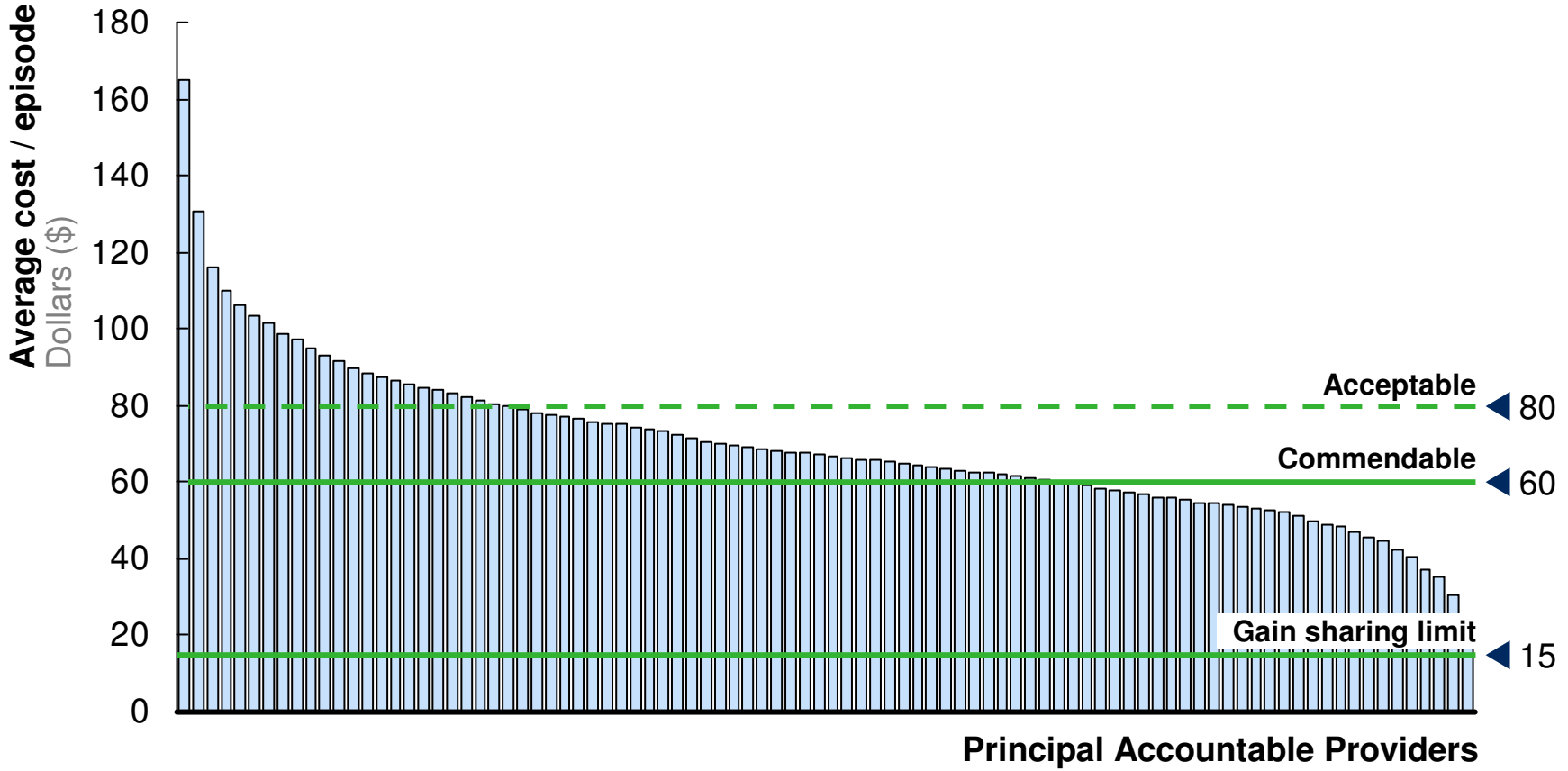


1 Each vertical bar represents the average cost and prescription rate for a group of 10 providers, sorted from highest to lowest average cost
2 Episode average antibiotic rate = 41.9%
SOURCE: Arkansas Medicaid claims paid, SFY10

Draft thresholds for Pharyngitis

Provider cost distribution for pharyngitis

Average episode cost per provider[1]



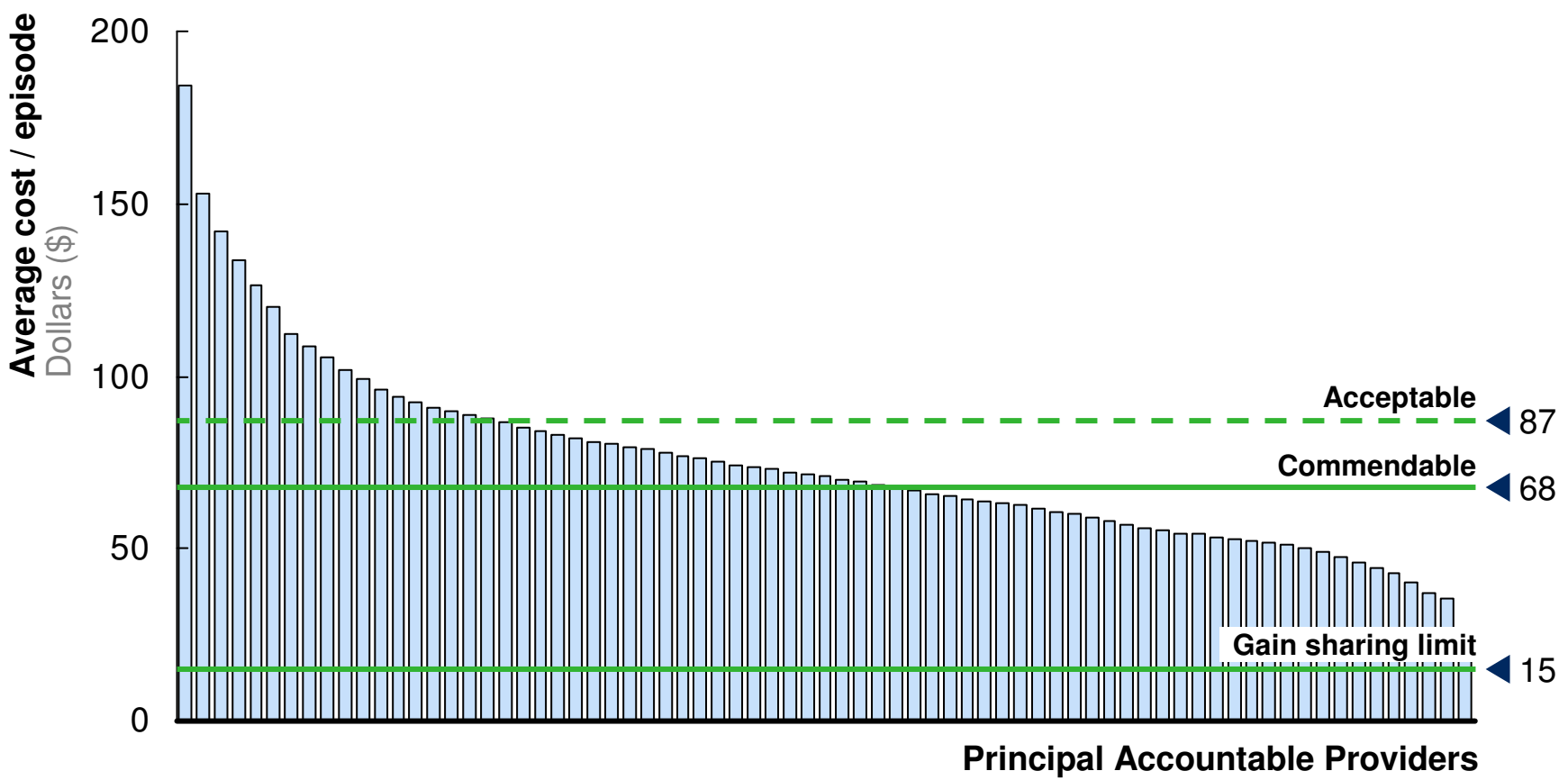
1 Each vertical bar represents the average cost and prescription rate for a group of 10 providers, sorted from highest to lowest average cost
2 Episode average antibiotic rate = 72.8%

SOURCE: Arkansas Medicaid claims paid, SFY10

Draft thresholds for Sinusitis

Provider cost distribution for sinusitis

Average episode cost per provider[1]



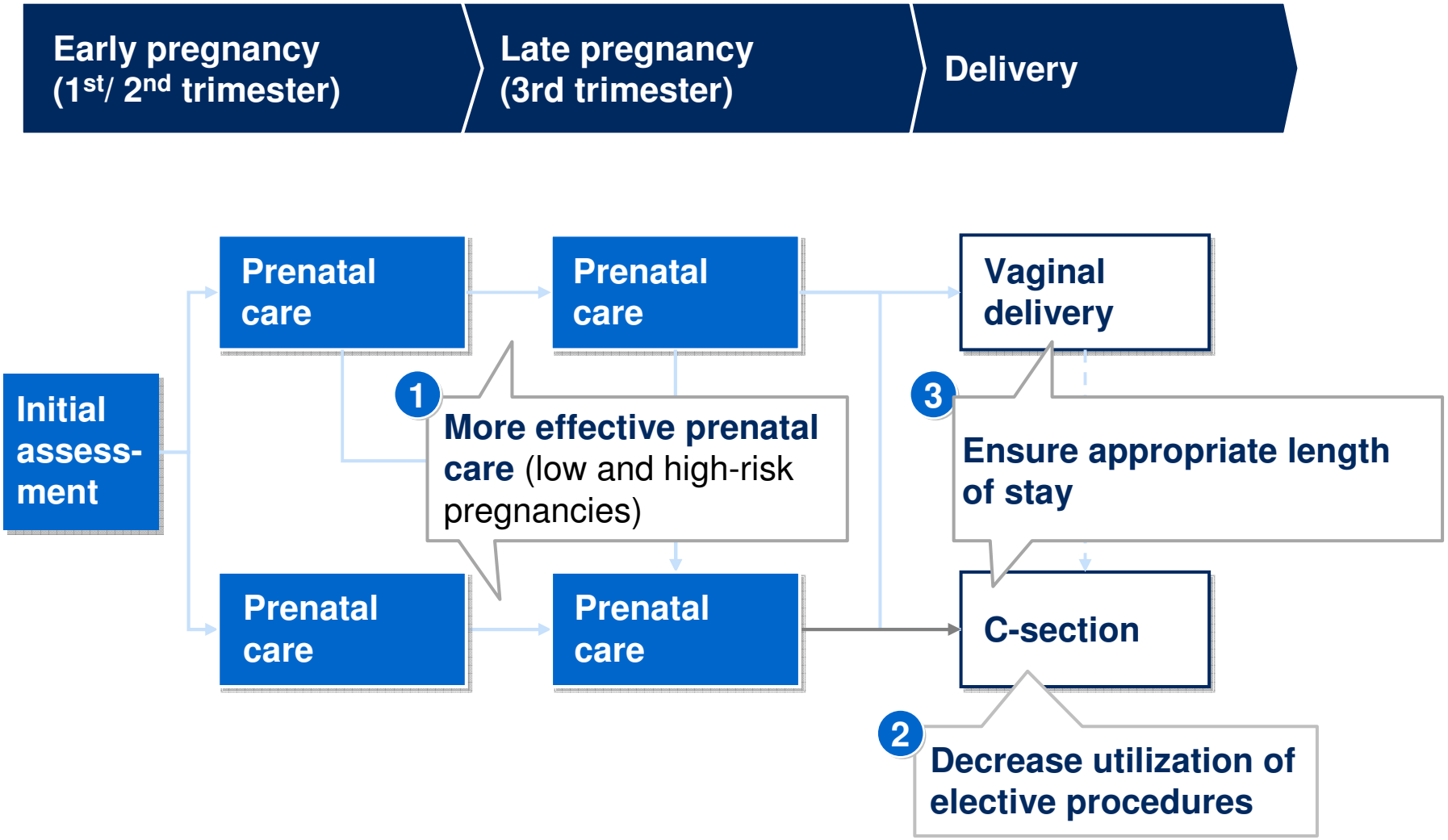
1 Each vertical bar represents the average cost and prescription rate for a group of 10 providers, sorted from highest to lowest average cost
2 Episode average antibiotic rate = 88.7%

SOURCE: Arkansas Medicaid claims paid, SFY10

Wave one episodes

- Ambulatory Upper Respiratory Infection (URI)
- **Perinatal**
- Attention deficit/hyperactivity disorder (ADHD)

Patient journey for the perinatal episode



Overview of perinatal episode

Episode definition and scope of services	▪ Episode is triggered by a live birth ▪ Includes all pregnancy-related care provided during the course of a pregnancy – Includes care delivered from 40 weeks before delivery through 60 days post-delivery ▪ The episode excludes all services related to neonatal care
Principal Accountable Provider(s)	▪ PAP is the provider or provider group that performs the delivery
Adjustments and Exclusions	▪ Episodes will be adjusted to reflect risk factors that have historically been associated with significant variations in the cost of perinatal care, as determined by statistical regression. ▪ Episodes are excluded if they meet one or more of the following: – Less than 2 months of prenatal care prior to delivery – Delivery provider did not provide any prenatal services – Certain pregnancy-related conditions (e.g. placenta previa) – Specific comorbidities in the mother (e.g. cystic fibrosis)

Estimation of pregnancy episode cost for a standard, vaginal delivery with no risk factors

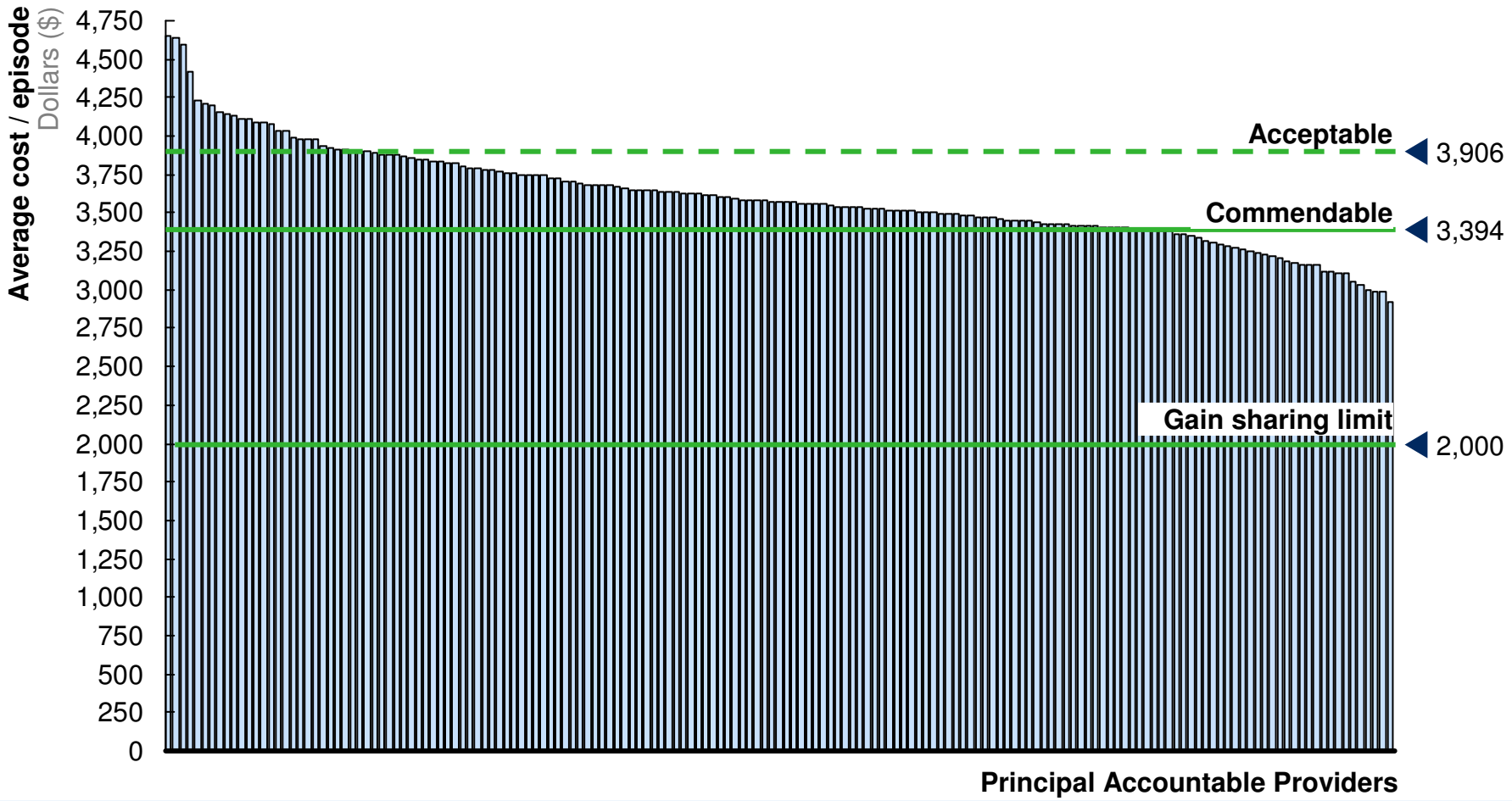
Service description	Implied cost
Global OB bundle	$1,300
Inpatient stay	$1,700[1]
Prescription medication	$100[2]
Labs, Imaging, & other	$450[3]
Total cost	**$3,750**

1 Includes two inpatient hospital days at normalized cost / day of $850.
2 Average historical prescription medication cost for low risk patients and vaginal delivery = $100. Uses gross cost of medication.
3 Average historical labs and imaging cost for low risk patients and vaginal delivery = $443

SOURCE: Episodes ending January 1, 2009 – January 1, 2010; data includes Arkansas Medicaid claims paid SFY09 - SFY10

Draft thresholds for perinatal

Perinatal provider cost distribution
Risk-adjusted average episode cost per provider



SOURCE: Episodes with live births May 1, 2009 – April 30, 2010; data includes Arkansas Medicaid claims paid SFY09 - SFY10

Wave one episodes

- Ambulatory Upper Respiratory Infection (URI)
- Perinatal
- **Attention deficit/hyperactivity disorder (ADHD**

Clinical foundation for the ADHD episode

	Treatment recommended in AAP/AACAP[1] guidelines	Not indicated by evidence-based guidelines
I **ADHD with no other conditions and positive response to medication**	▪ 4 - 6 physician visits / year ▪ Medication management ▪ Parent / Teacher administered behavioral support[2]	▪ Psychosocial therapy – In-office psychotherapy – Group psychotherapy
II **ADHD with no other conditions, but sub-optimal response to medication**	▪ 6 physician visits / year ▪ Medication management ▪ Parent / Teacher administered behavioral support[1] ▪ Psychosocial therapy, if needed	
III **ADHD with other Behavioral Health condition(s)**	▪ Varies by other condition(s) ▪ Significant psychiatric involvement necessary	

Included in ADHD episode

1 American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry
2 Defined as education via books, videos, or a one-time series of in-person training sessions

SOURCE: American Academy of Child and Adolescent Psychiatry, 2007; American Academy of Pediatrics, 2011; Scottish Intercollegiate Guidelines Network, 2009; Canadian ADHD Resource Alliance Guidelines, 2011; interviews with clinical experts, including pediatricians, child psychiatrists, and child psychologists

Overview of ADHD episode

Episode definition and scope of services	▪ Episode includes all ADHD-related services and medications used to treat ADHD, with exception of initial assessment ▪ Two levels (corresponding to types on previous page) ▪ Episode duration is 12 months ▪ If patient continues treatment after end of initial twelve months, a new episode is triggered
Principal Accountable Provider(s)	▪ The Principal Accountable Provider is the provider that delivers the majority of care – determined by number of visits in an episode ▪ Only physicians and RSPMI provider organizations are eligible to serve as the sole PAP[1] – Licensed clinical psychologists in private practice would require a co-PAP with the ability to write scripts
Adjustments and Exclusions	▪ All patients with other behavioral health conditions are excluded ▪ All patients younger than 6 or 18 and older are excluded

1 RSPMI = Rehabilitative Services for Persons with Mental Illness

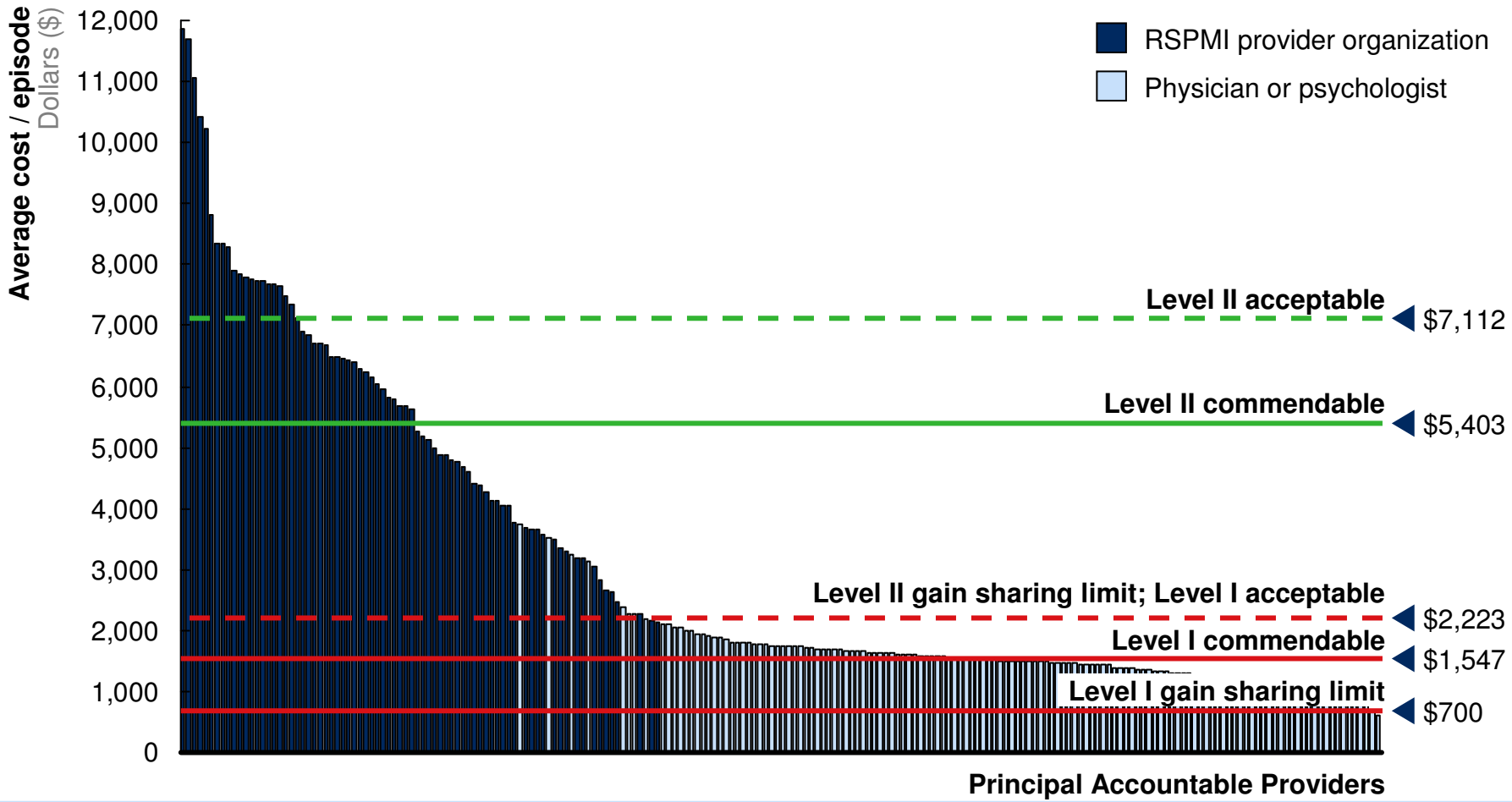
Estimation of clinically recommended services described by guidelines and Arkansas provider workgroups

	Level I			Level II		
	Unit cost for AR Medicaid	**Fact-based estimate of provision rate**	**Implied cost**	**Unit cost for AR Medicaid**	**Fact-based estimate of provision rate**	**Implied cost**
Physician visits	$182[1]	100%	$182	$218[2]	100%	$218
Rx medication	$1,750[3]	100%	$1,750	$2,500[4]	100%	$2,500
Parent / teacher training	$250	100%	$250	$300	100%	$300
Psychosocial therapy				$3,800[5]	100%	$3,800
Total cost			**$2,182**			**$6,818**

1 Estimation includes 5 Level III office visits
2 Estimation includes 6 Level III office visits.
3 Estimation includes 12 30-day prescriptions of a preferred long-acting psychostimulant ($140 / 30 days x 12 months) and a short-acting generic psychostimulant ($8 / 30 pills x 12 months). Uses gross cost of medication.
4 Estimation includes level I plus provision for further titration and utilization of a non-stimulant (incremental increase of $30 per month).
5 Estimation price includes 25 hours of psychosocial therapy with a mental health professional and 15.3 hours of services provided by a paraprofessional.

Draft thresholds for ADHD

ADHD provider cost distribution
Average episode cost per provider[1]



1 Each vertical bar represents the average cost and prescription rate for a group of 3 providers, sorted from highest to lowest average cost

SOURCE: Episodes ending in SFY10, data includes Arkansas Medicaid claims paid SFY09 - SFY10

APPENDIX

Rationale for draft URI thresholds

	Approach	Rationale
Commendable	▪ Commendable threshold was established at the historical median episode cost for each sub-episode ▪ The commendable threshold will remain constant for year 1 and year 2	1 Median episode cost is consistent with a clinically reasonable 'bottom-up' estimation of the cost of evidence-based care 2 Median episode cost is a feasible target for providers 3 Commendable threshold should be consistent over some years to give a meaningful incentive to providers to improve performance; over a longer time period, adjustments may need to be made to reflect inflation and/or practice changes
Acceptable	▪ Acceptable threshold was established using historical *provider average cost* quartiles for each sub-episode – For year 1, acceptable threshold was set at 75th percentile of provider average costs – For year 2, acceptable threshold was set at the median of provider average costs	1 In URI, practice pattern changes required to achieve acceptable average costs are within the sphere of control of the PAP 2 First year threshold attempts to identify practices with substantial variation from typical Arkansas performance 3 Second year threshold may also acknowledge system-wide variance from accepted clinical requirements for antibiotic utilization
Gain sharing limit	▪ Gain sharing limit was established as the cost of a level I office visit	1 Intended to represent the minimum level of clinically justifiable care in an episode 2 Baseline level of care in URI episode is one visit with no prescription, test or follow-up in-person visit

Rationale for draft perinatal thresholds

Rationale

- **Risk-adjustment reduces but does not eliminate all variation in provider average cost per episode**
- **Establishing a wide band between thresholds acknowledges many providers are currently performing acceptably**
- **Thresholds are consistent with a clinically reasonable 'bottom-up' estimation of cost for a standard vaginal delivery**

Initial approach

- **All thresholds were established using *provider historical average cost* percentiles**
- **Commendable threshold is set at the historical 20th percentile of providers, ensuring that the most cost-effective performers are rewarded through gain sharing**
- **Acceptable threshold is set at the historical 85th percentile of providers, ensuring that only the least cost-effective providers (on average across their cases and after risk adjustments) are at risk**

Rationale for draft ADHD thresholds

Rationale

- **Assume a patient mix distribution among providers**
  - Current physician patients are assumed to be level I
  - Current RSPMI patients are assumed to be level II
- **Set Level I and Level II acceptable consistent with a 'bottom-up' estimation of costs**
- **Set Level I commendable threshold based on historical performance, working on the basis that current standard of care is appropriate**
- **Acknowledge limited information regarding level II care by employing a larger absolute $ gap between commendable and acceptable for first version of episode**

Initial approach

- **All thresholds were established in relation to *provider historical average cost***
- **Level I thresholds**
  - Commendable threshold set at 50th percentile of physician average costs
  - Acceptable threshold set at 95th percentile of physician average costs
  - Gain sharing limit set using minimum care standards[1]
- **Level II thresholds**
  - Commendable threshold set at 50th percentile of RSPMI average costs
  - Acceptable threshold set at 75th percentile of RSPMI average costs
  - Gain sharing limit set as the Level I acceptable threshold
- **ADHD thresholds will be reviewed as soon as complete provider-submitted severity data is available (e.g. in one year)**

1 Minimum care defined as four level III office visits, parent / teacher training, and 12 months of short-acting medication.