



CKD Intercept (CKDI) Model

A patient-centered physician-led APM to improve identification and care of beneficiaries with Chronic Kidney Disease

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Current Medicare payment approach is misaligned with delivering optimal CKD care

- For patients with CKD not on dialysis, Medicare pays nephrologists max \$148 per E&M office visit (usually 3-4 visits per year).
 - For patients with on dialysis, Medicare pays nephrologists a capitated payment ranging from \$188-\$388 per month
 - This approach creates an incentive for nephrologists to recommend starting dialysis early, even when it might not be necessary or in patients' best interests.
 - This approach limits providers' ability to invest in the infrastructure necessary to take excellent care of patients with advanced CKD, which is often as or more difficult and time-consuming than taking care of patients once they have started dialysis
- **The CKDI Model changes these incentives to reward optimal CKD care and reduce unnecessary dialysis and dialysis complication-related costs**
- Every patient-month of delayed or avoided dialysis could save Medicare close to \$5,000 per patient per month or \$60,000 per year

Achieving the Ideal Spectrum of Care

Comprehensive Chronic Kidney Disease (CKD) Care Strategy		
Primary Care	Nephrology Care	ESRD Care
<ul style="list-style-type: none"> • Assessment of at-risk individuals • Monitoring of CKD progression • Treatment of stage 3a/b patients • Education on self-management • Patient Awareness/Activation • Medicare Nutritional Therapy • Referral/co-management of more complex patients 	<ul style="list-style-type: none"> • Treatment CKD 4/5 or high risk 3b • CKD Medicare Education Benefit • Patient informed decision making/selection of modality • Placement of access if dialysis selected • Assessment and management or care coordination for comorbidities • Co-management or coordination with PCP • Support transition to preferred modality 	<ul style="list-style-type: none"> • Dialysis facility • Transplant Center • Nephrologist • Primary Care • On going support of conservative and palliative Care • Referral hospice

Need new models to fuel more wide spread improvements

Existing care models may provide opportunities here: ESCOs, SNPs

The CKDI Model is a physician-focused APM for nephrologists and primary care providers to collaborate in the care of patients with moderate to severe CKD

- The goal of the model is to improve identification of beneficiaries with CKD and to reduce program expenditures while improving their quality of care
- In this model, nephrology providers and primary care providers will form CKDI organizations (CKDI-Os) to take accountability for care of patients with CKD
 - Inclusion of primary care providers enhances identification of CKD, allows for care to be delivered in the “right setting,” and leverages longitudinal relationship along spectrum of CKD

Attribution

- CKDI-O comprised of primary care and nephrology NPIs
- Prospective assignment of beneficiaries based on plurality of primary care or nephrology claims to providers in CKDI-O
- Initial year will use ICD-10 codes for CKD stages 3, 4, and 5 in conjunction G codes distinguishing 3a and 3b and indicating albuminuria
 - Subsequent years will use new ICD-10 codes that incorporate albuminuria
- Option for voluntary alignment through PCP or nephrology provider

Payment methodology: 2 components

- CKDI payment (PBPM care management fee)
 - To support practice transformation and population health activities (i.e, care coordination, e-consults, virtual visits, remote monitoring, nutrition)
 - Amount tiered based on CKD stage—average \$120 (range \$80-\$160)
 - Performance-based incentive payment (PBIP)
 - To incentivize efficient, high-quality care and reduce unnecessary CKD-related utilization
 - Calculated retrospectively based on quality measure performance and CKD-related expenditures for attributed beneficiaries
- Similar approach to Oncology Care Model

PBIP: risk corridors and benchmarking

- Benchmark constructed from risk-adjusted historic performance and peer/national performance
 - CMS Discount
- CKDI-O performance based on CKD-related expenditures in prior performance period and quality measure performance
- Risk corridor (stop-gain and stop-loss) tiered based on CKD stage
 - No downside in first year
 - Second year: 5%
 - Subsequent years: stay at 5% or increase to 10% or 20%*

* NKF will reconvene our workgroup to determine how much risk is appropriate from a physician perspective

CKD-related expenditures included in PBIP reconciliation

- Hospitalizations and ER visits for AKI, electrolyte abnormalities, volume overload, AMI, CVA, CHF, diabetes (principal diagnosis)
- Dialysis and dialysis-related claims
 - Inclusive of CKD-ESRD costs in a 12 month period
 - Exclude transplant surgery
 - Exclude fistula placement surgery to negate incentive for catheters (which are less expensive)
- Dialysis access-related complications
 - Carved-out: transplant, EPO, dialysis access placement

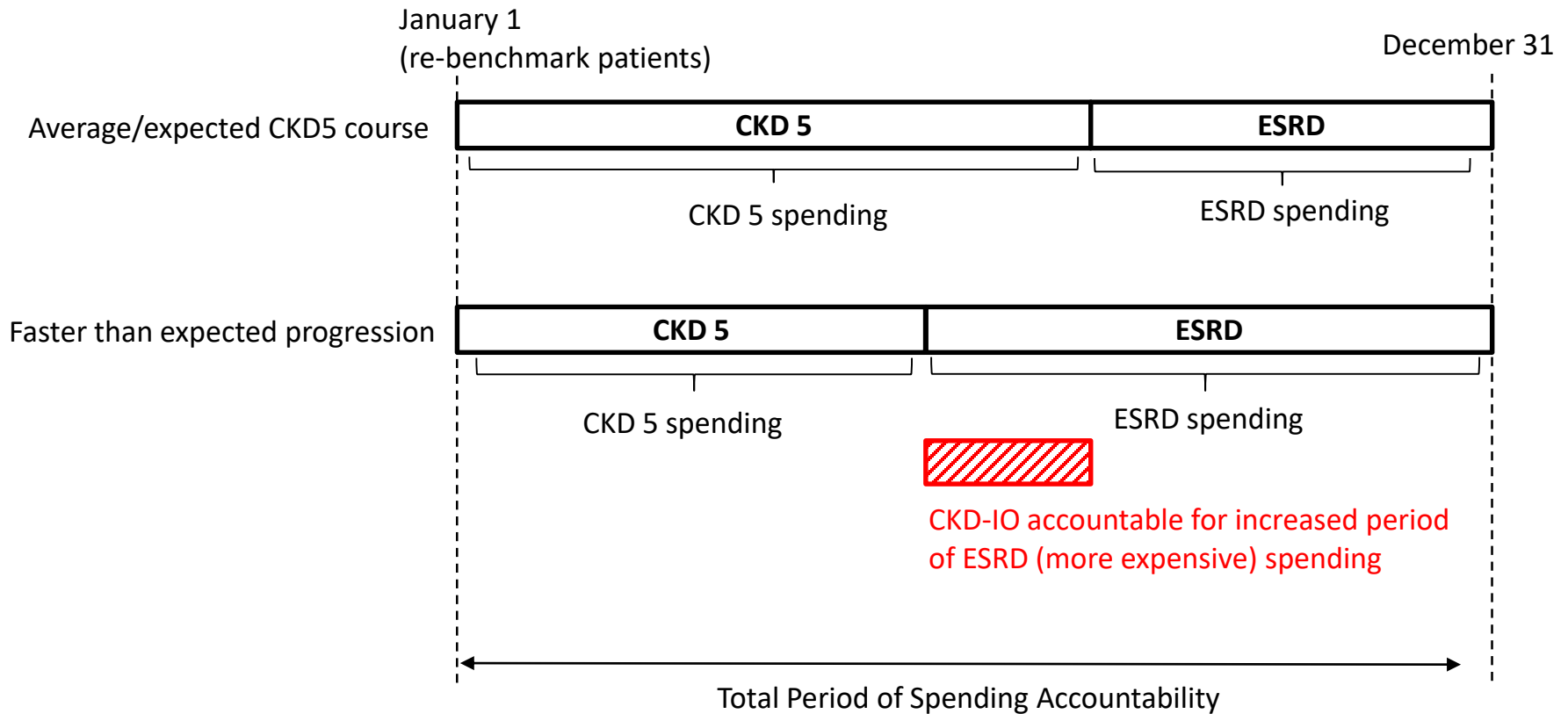
Quality performance adjustment

- Minimum threshold required before any PBIP can be paid
- PBIP adjusted based on performance on the following quality measures

<p><u>Optimal End Stage Renal Disease Starts</u> (credit for transplant, home dialysis, or permanent access starts)</p>	<p><u>Adult Major Depressive Disorder (MDD): Coordination of Care of Patients with Specific Comorbid Conditions*</u></p>
<p><u>Documentation of Current Medications in the Medical Record</u></p>	<p>Develop patient shared-decision making measure</p>
<p><u>Medication Reconciliation Post-Discharge</u></p>	<p>NSAID avoidance measure</p>
<p><u>Care Plan (patients with an advanced care plan in place)</u></p>	
<p><u>Advanced Chronic Kidney Disease with proteinuria: percent of patients on angiotensin-converting enzyme (ACE) inhibitors or angiotensin II receptor blockers (ARBs)</u></p>	

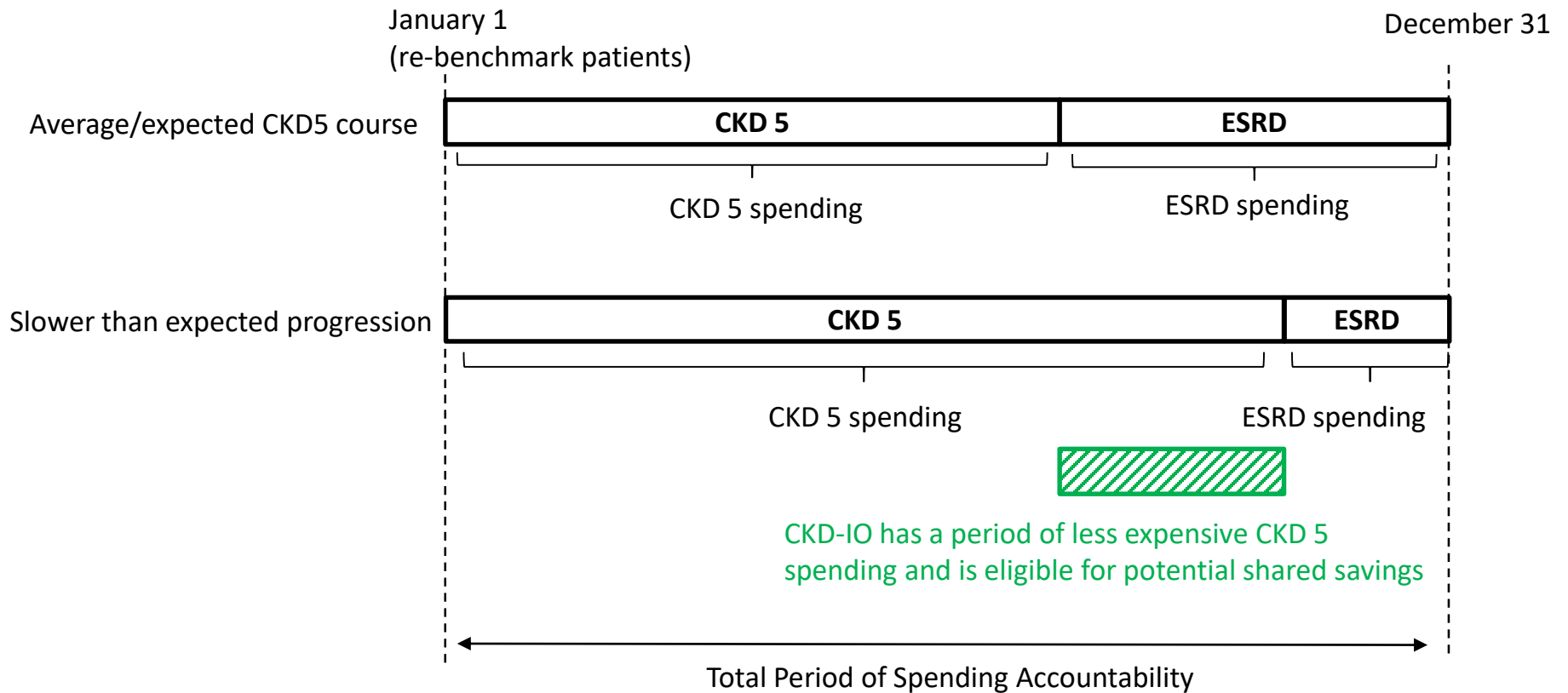
Hypothetical scenario of downside penalty for early dialysis

- Accelerated CKD progression leads to potential shared losses



Hypothetical scenario of upside bonus for delayed progression

- Slowed CKD progression leads to potential shared savings



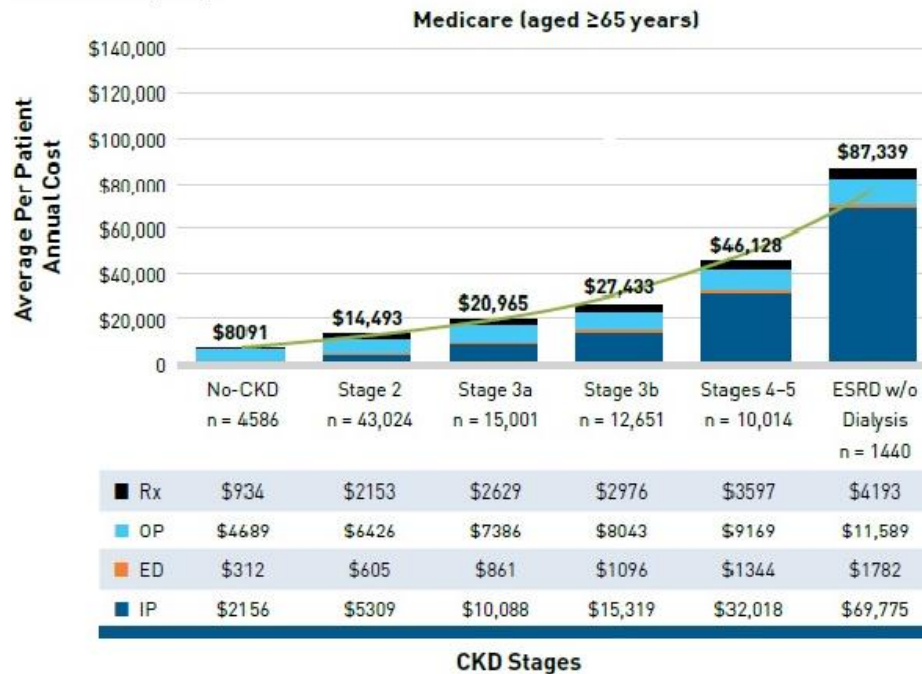
Practice transformation activities

- CKDI-Os/practices will be required to report annually on the following practice transformation activities:
 - Integrated mental health
 - Nutrition counseling
 - Advanced care planning
 - Patient and Family Advisory Councils
 - Shared decision-making tools
- CKDI-O providers must use CEHRT

Savings estimates

- NKF-sponsored simulation analysis of improved CKD care showed Medicare savings of \$38 billion over 10 years, with savings by Year 2
- Similar program run by CareFirst produced \$54.61 PMPM savings, but the program included all Stages of CKD. Savings were even higher in CKD Stages 3, 4, and 5—the focus of the CKDI Model.

B. Medicare group.



- A retrospective analysis of EHR data looked at the costs of CKD by stage across commercial and Medicare payers*
- The article concludes that opportunities to reduce costs include hospital readmissions, and management of comorbidities such as heart failure and diabetes

CKD indicates chronic kidney disease; ED, emergency department; ESRD, end-stage renal disease; IP, inpatient; OP, outpatient; Rx, prescription.
All Comparisons $P < .0001$. Total Costs and costs by service category have been rounded to the nearest dollar.

Source: Golestaneh, Ladan All-Cause Costs Increase Exponentially with Increased Chronic Kidney Disease Stage, *AJMC*, Vol. 23; No. 10, Sup. June 2017.
*A retrospective analysis identified patients with a renin-angiotensin-aldosterone system inhibitor (RAASi) prescription from an electronic medical record (EMR) database (Humedica); those with =90 days in =1 CKD stage were selected based on estimated glomerular filtration rate or diagnosis code, and a cohort on RAASi medications without CKD was selected. Costs for specific services obtained from OptumInsight were applied to services in EMR data of patients aged <65 years (commercial) and =65 years (Medicare). Dialysis costs were excluded.

Book of Business (Excluding CKD Pilot Program)										
CKD Risk Score	# Members (% of Total)	Average Age	Total PMPM	Medical PMPM	Institutional PMPM	Professional PMPM	Pharmacy PMPM	ER Visits /1000	Admits /1000	Readmits /1000
Not Stratified	20,451 (9.2%)	55.2	\$ 867.78	\$ 649.68	\$ 343.75	\$ 305.93	\$ 483.72	291.0	82.4	13.0
Needs Screening	105,102 (47.0%)	54.5	\$ 666.77	\$ 572.66	\$ 326.02	\$ 246.64	\$ 238.48	283.1	97.8	21.5
1	75,938 (34.0%)	54.3	\$ 845.93	\$ 663.11	\$ 337.38	\$ 325.74	\$ 342.54	284.9	99.4	17.9
2	10,192 (4.6%)	57.7	\$ 1,191.64	\$ 950.96	\$ 535.72	\$ 415.24	\$ 527.47	345.8	159.9	40.8
3	7,895 (3.5%)	60.0	\$ 1,733.26	\$ 1,478.04	\$ 947.44	\$ 530.61	\$ 618.54	414.3	323.0	102.3
4	1,743 (0.8%)	59.7	\$ 2,014.94	\$ 1,713.09	\$ 1,125.28	\$ 587.81	\$ 726.27	474.5	417.7	139.4
5	2,177 (1.0%)	54.5	\$ 7,956.24	\$ 7,515.65	\$ 6,449.99	\$ 1,065.67	\$ 937.21	794.7	936.2	342.7
Total	223,498	54.9	\$ 889.16	\$ 736.20	\$ 428.90	\$ 307.30	\$ 338.89	298.4	118.4	27.3

CKD Pilot Program										
CKD Risk Score	# Members (% of Total)	Average Age	Total PMPM	Medical PMPM	Institutional PMPM	Professional PMPM	Pharmacy PMPM	ER Visits /1000	Admits /1000	Readmits /1000
Not Stratified	1,948 (8.2%)	56.2	\$ 809.98	\$ 619.24	\$ 310.22	\$ 309.02	\$ 515.58	285.4	72.4	9.8
Needs Screening	10,627 (44.8%)	55.4	\$ 584.94	\$ 519.04	\$ 271.91	\$ 247.14	\$ 207.21	275.7	87.4	19.3
1	8,563 (36.1%)	54.6	\$ 797.62	\$ 640.41	\$ 319.67	\$ 320.74	\$ 317.45	268.8	99.7	19.6
2	1,208 (5.1%)	58.3	\$ 1,219.50	\$ 988.83	\$ 545.58	\$ 443.25	\$ 545.59	348.5	166.4	38.9
3	905 (3.8%)	60.0	\$ 1,687.96	\$ 1,492.10	\$ 917.15	\$ 574.95	\$ 560.32	424.3	356.9	140.3
4	235 (1.0%)	60.2	\$ 2,161.31	\$ 1,879.29	\$ 1,169.79	\$ 709.50	\$ 744.68	553.2	536.2	204.3
5	222 (0.9%)	55.7	\$ 7,444.50	\$ 7,099.92	\$ 5,945.98	\$ 1,153.94	\$ 875.09	1009.0	982.0	306.3
Total	23,708	55.6	\$ 834.55	\$ 707.30	\$ 392.91	\$ 314.39	\$ 322.83	293.0	117.8	28.8

- The CKD pilot program has a total **PMPM \$54.61 less than** the book of business excluding CKD pilot program
- Attributes to a \$35.99 difference in Institutional PMPM and a \$16.06 difference in Pharmacy PMPM

Interaction with other APMs

- CPC+
 - PCPs can participate in CKDI and CPC+
 - CPC+ care management fees will be recouped from the primary care practice for beneficiaries in both models
- ACOs
 - PCPs and nephrologists may also participate in Medicare ACO
 - CKDI payments and PBIPs will be factored into ACO savings calculations if beneficiaries are attributed both to a CKD-I

Fraud and abuse prevention

- Beneficiary notification
- Monitoring of rates of ICD-10 codes for CKD “unspecified stage” that might suggest risk-avoidance
- Practice site visits
- Monitoring of shifting of patients to non-participating nephrology practices that might suggest risk-avoidance
- Monitoring of rates of dialysis initiation to identify aberrancies that might suggest stinting



Waivers

- If necessary, CMS/OIG will explore any waivers necessary to facilitate effective clinical collaboration between primary care and nephrology practices
- Will also consider waiver of beneficiary inducement prohibitions to facilitate patient engagement



Evaluation

- Matched comparison groups to identify changes in utilization, costs, and quality
- Claims data, beneficiary surveys, site visits/focus groups