Chronic Care Roundtable

Prevention, Screening, Diagnosis, and Treatment:
Combating Clinical Inertia in CKD and Other Cardiometabolic Conditions

November 9, 2021

AMGA Foundation

AMGA

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Welcome, Icebreaker, & Introductions

John W. Kennedy, M.D.
President, AMGA Foundation
Chief Medical Officer, AMGA

2021 Chronic Care Roundtable Corporate Sponsors

Chronic Care Roundtable Theme

Evaluating the impact of the COVID-19 pandemic on primary care models that advance the prevention, screening, diagnosis, and treatment of cardiometabolic diseases and complications.

Chronic Care Roundtable Agenda

8:00 - 9:00 a.m.	Networking Breakfast
9:00 - 9:45 a.m.	Welcome, Icebreaker, and Introductions by John W. Kennedy, M.D., President, AMGA Foundation, and Chief Medical Officer, AMGA
9:45 – 10:30 a.m. **Keynote**	CKD Population Health: Challenges and Opportunities by Joseph Vassalotti, M.D., Chief Medical Officer, National Kidney Foundation
10:30 - 10:45 a.m.	Keynote Q&A
10:45 – 11:00 a.m.	Break
11:00 - 11:30 a.m.	Data Presentation by Nikita Stempniewicz, Director, Research and Analytics, AMGA
11:30 – 11:40 a.m.	Moderated Q&A
11:40 a.m. - Noon	Influenza Vaccination Impacts on Cardiovascular Outcomes by John W. Kennedy, M.D., President, AMGA Foundation, and Chief Medical Officer, AMGA
Noon - 1:00 p.m.	Lunch

Chronic Care Roundtable Agenda

1:00 – 2:15 p.m. **Panel Session**	Panel Session moderated by Francis Colangelo M.D., M.S.-HQS, FACP, Chief Quality Officer, Premier Medical Associates, with panelists: - Suelyn Boucree, M.D., M.B.A., FACP, Medical Director, Quality, Hackensack Meridian Health - Trung "Andy" Dang, M.D., Medical Director, Quality and Population Health, Sharp Rees-Stealy Medical Group, Inc. - Barbara Hodne, D.O., Chief Quality Officer, The Iowa Clinic
2:15 - 3:30 p.m.	Rotating Breakout Groups
3:30 - 4:00 p.m.	Break
4:00 – 4:15 p.m.	Report Out and Discussion
4:15 - 4:30 p.m.	Insight Showcase by Christina Taylor, M.D., Chair, AMGA Foundation, and Chief Medical Officer, McFarland Clinic
4:30 - 4:40 p.m.	Closing Remarks
6:00 – 6:45 p.m.	Cocktail Reception: Juniper Restaurant (outdoor patio located on the main level of the hotel)
6:45 – 8:30 p.m.	Joint Dinner: Juniper Restaurant (indoors)

Icebreaker

AMGA Foundation

CKD Population Health: Challenges and Opportunities

Joseph A. Vassalotti, M.D.
Chief Medical Officer
National Kidney Foundation
Clinical Professor
Icahn School of Medicine at Mount Sinai

Kidney Health Promise from Pandemic to Potential

September 2019
Canagliflozin (Invokana ©) is FDA approved for kidney indication in adults with type-2 diabetes and CKD.

January 1, 2021
Medicare ESKD beneficiaries become eligible for Medicare Advantage.

July 2021
Finerenone (Kerendia ©) is FDA approved for kidney indication in adults with type-2 diabetes and CKD.

July 2019
The Advancing American Kidney Health initiative
Reduce the incidence of kidney failure by 25 percent by 2030.

November 2019 Awareness Campaign

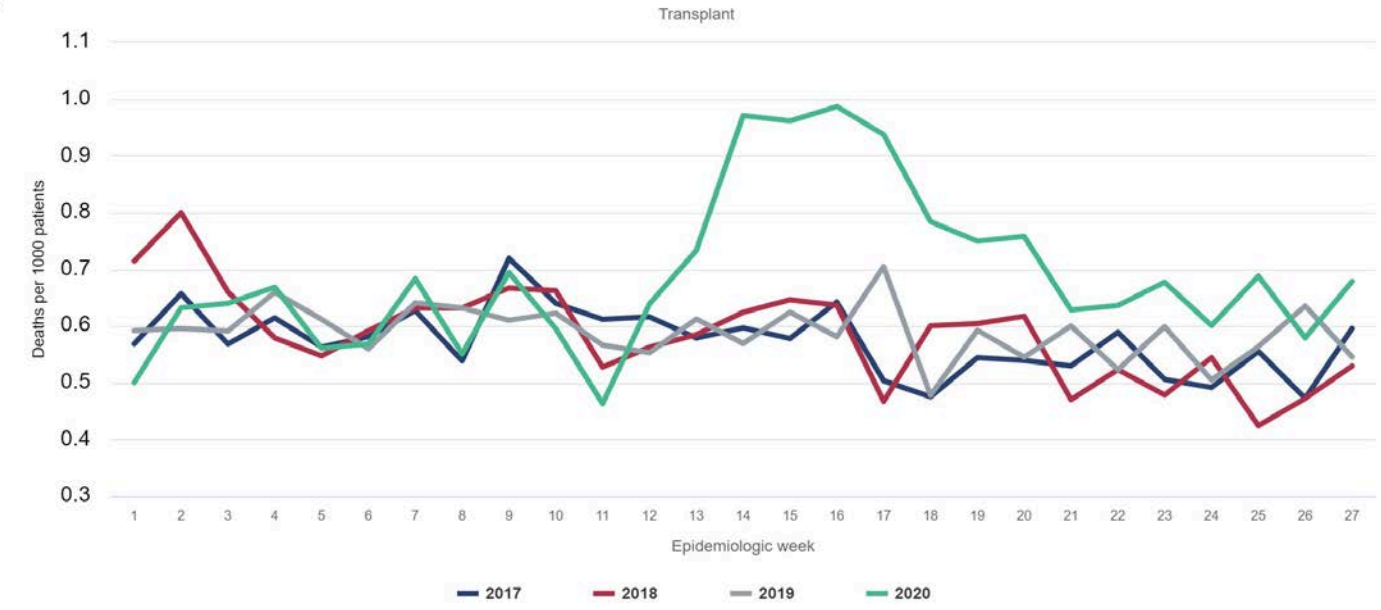
April 2021
Dapagliflozin (Farxiga ©) is FDA approved by for kidney indication in adults with CKD with and without type-2 diabetes.

COVID-19 Pandemic Impact on Kidney Disease

- Direct Effects
  - COVID-19 associated Acute Kidney Injury
  - More Severe COVID-19
    - Increased hospitalization
    - Increased mortality
    - Health inequities
- Indirect Effects
  - Gaps in Care
  - Pauses in Innovation

Kidney Patients are at High Risk for COVID-19 Mortality

Figure 13.3 All-cause mortality during epidemiologic weeks 1 to 27, 2017-2020, among all prevalent patients undergoing dialysis or with a functioning transplant



Data Source: 2020 United States Renal Data System Annual Data Report

COVID-19 Supplement
National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2020.

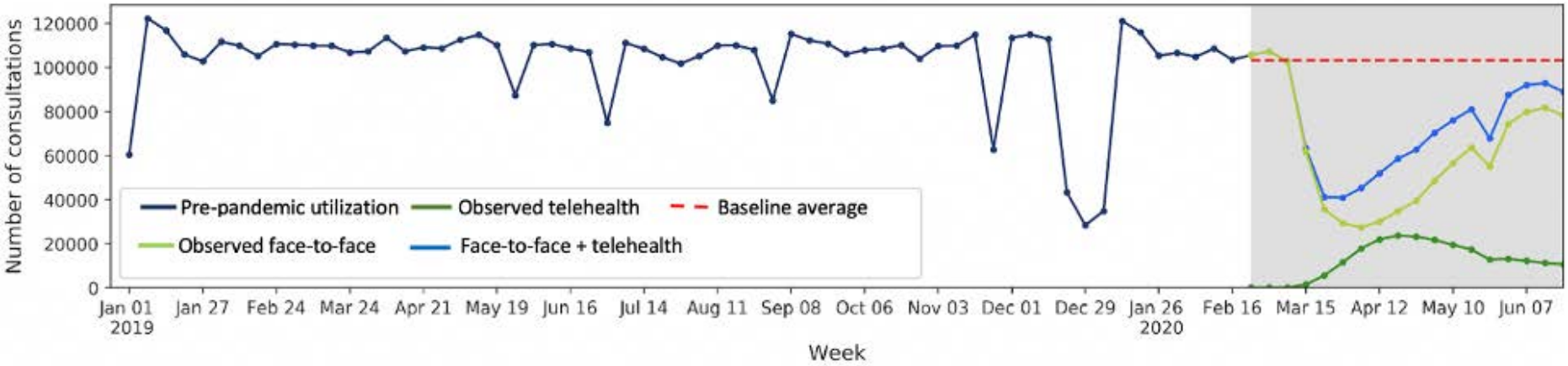
Epidemiologic Week
Sunday to Saturday
2020 epidemiologic Week 1 began on December 29, 2019.
2020 epidemiologic week 27 ended on July 4, 2020.

The Impact of the COVID-19 Pandemic on Outpatient Visits: How can you address care gaps?

Source: Ateev Mehrotra et al. The Impact of the COVID-19 Pandemic on Outpatient Visits: Changing Patterns of Care in the Newest COVID-19 Hot Spots (Commonwealth Fund, Aug.13, 2020). https://doi.org/10.26099/yaqe-q550

COVID-19 Pandemic Gaps in Clinician Encounters

Telehealth use only partially compensated for missing clinician visits

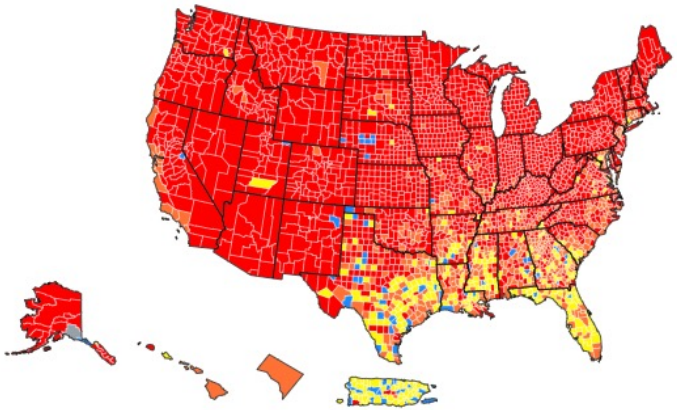


> 10 million healthcare encounters from the United Health Group Medicare Advantage population Care for CKD stages G3-4 in 2018 during the pre-pandemic period (Jan 1, 2019 to Feb 29, 2020) versusthe pandemic period (March 1 to June 30, 2020).

Diamantidis C, Cook D, Westman J et al.
Missing Care: The Impact of the COVID-19 Pandemic on CKD Care Delivery.
National Kidney Foundation. Abstract Spring Clinical Meeting 2021.

COVID-19 Pandemic Public Perception Versus the Data

Level of Community Transmission of All Counties in US



Community Transmission in US by County

	Total	Percent	% Change
High	2283	70.86%	-4.03%
Substantial	545	16.91%	1.15%
Moderate	309	9.59%	2.36%
Low	82	2.55%	0.68%

How is community transmission calculated?

High Substantial Moderate Low No Data

https://covid.cdc.gov/covid-data-tracker/#county-view - accessed 11/06/2021

Expand the Evidence-based Vaccinations for CKD

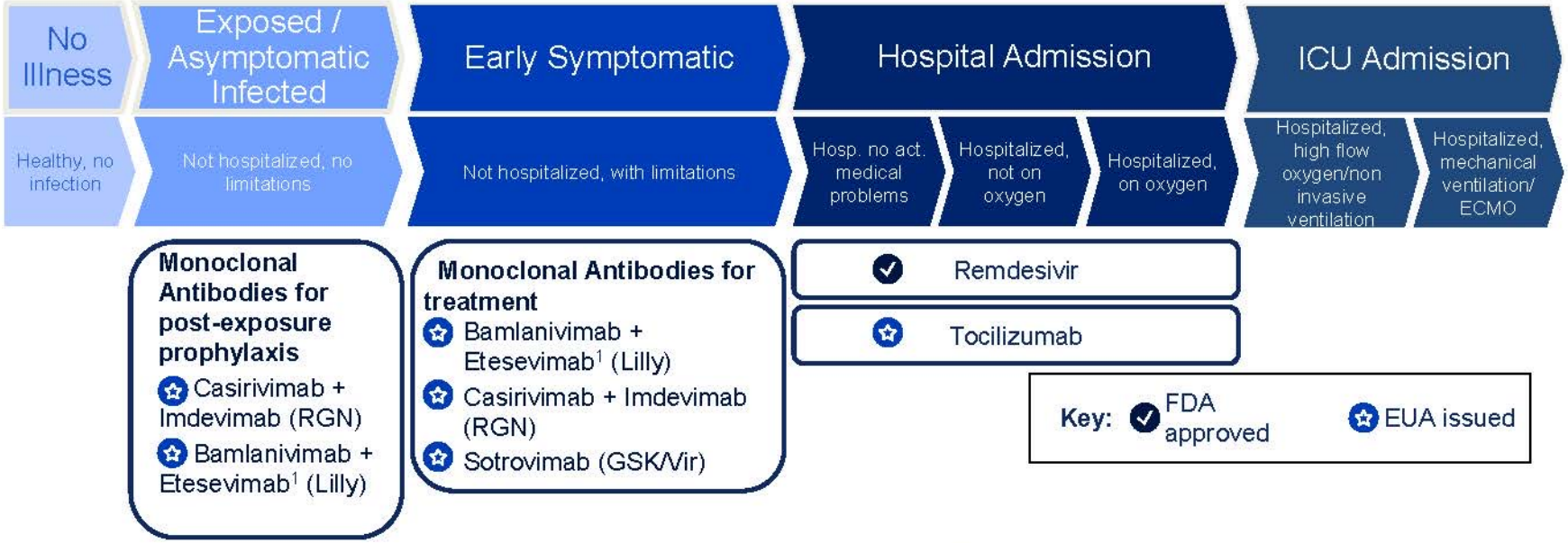
Annual Influenza
- Regular Dose
- High Dose (65 years and older)

Pneumococcal
- Conjugate Vaccine (PCV) 13 or 15 or 20
- Polysaccharide Vaccine (PPSV) 23

COVID-19

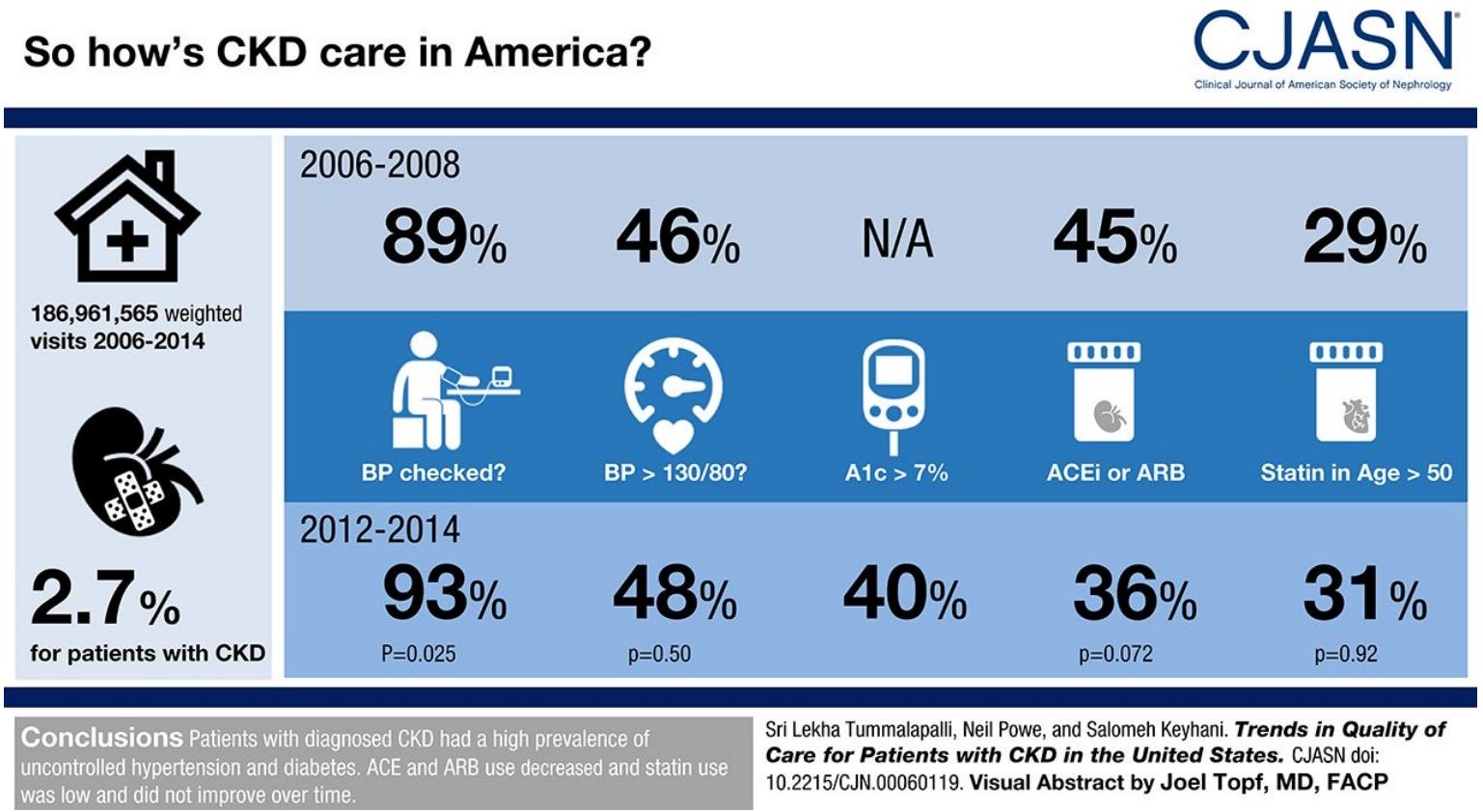
Others

Summary of COVID-19 Therapeutics

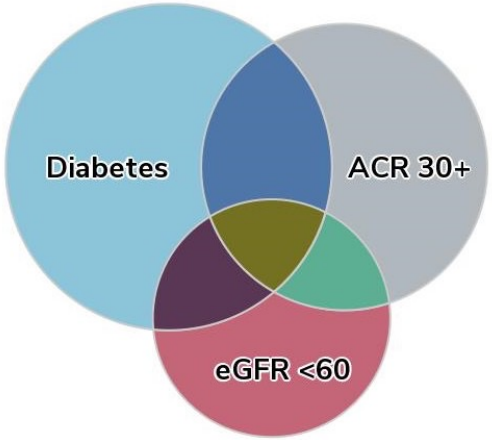


[1]Use and distribution of Bamlanivimab / Etesevimab has resumed nationally as of 09/02/2021, see phe.gov

Pre-pandemic CKD Care Gaps



CKD Definition and Risk Stratification
C G A Classification: Cause - GFR - Albuminuria



NHANES 2013-2018
13.1% of adults had Diabetes
27.5% with Diabetes had uACR > 30
17.3% with Diabetes had eGFR < 60

Prognosis of CKD by GFR and albuminuria categories: KDIGO 2012

GFR categories (mL/min/1.73 m²) Description and range				Persistent albuminuria categories Description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g <3 mg/mmol	30–300 mg/g 3–30 mg/mmol	>300 mg/g >30 mg/mmol
	G1	Normal or high	≥90			
	G2	Mildly decreased	60–89			
	G3a	Mildly to moderately decreased	45–59			
	G3b	Moderately to severely decreased	30–44			
	G4	Severely decreased	15–29			
	G5	Kidney failure	<15			

Green, low risk (if no other markers of kidney disease, no CKD); Yellow: moderately increased risk; Orange: high risk; Red: very high risk.

Diabetes Management in Chronic Kidney Disease: Synopsis of the 2020 KDIGO Clinical Practice Guideline. Ann Intern Med. 2021 Mar;174(3):385-394.
United States Renal Data System www.usrds.org

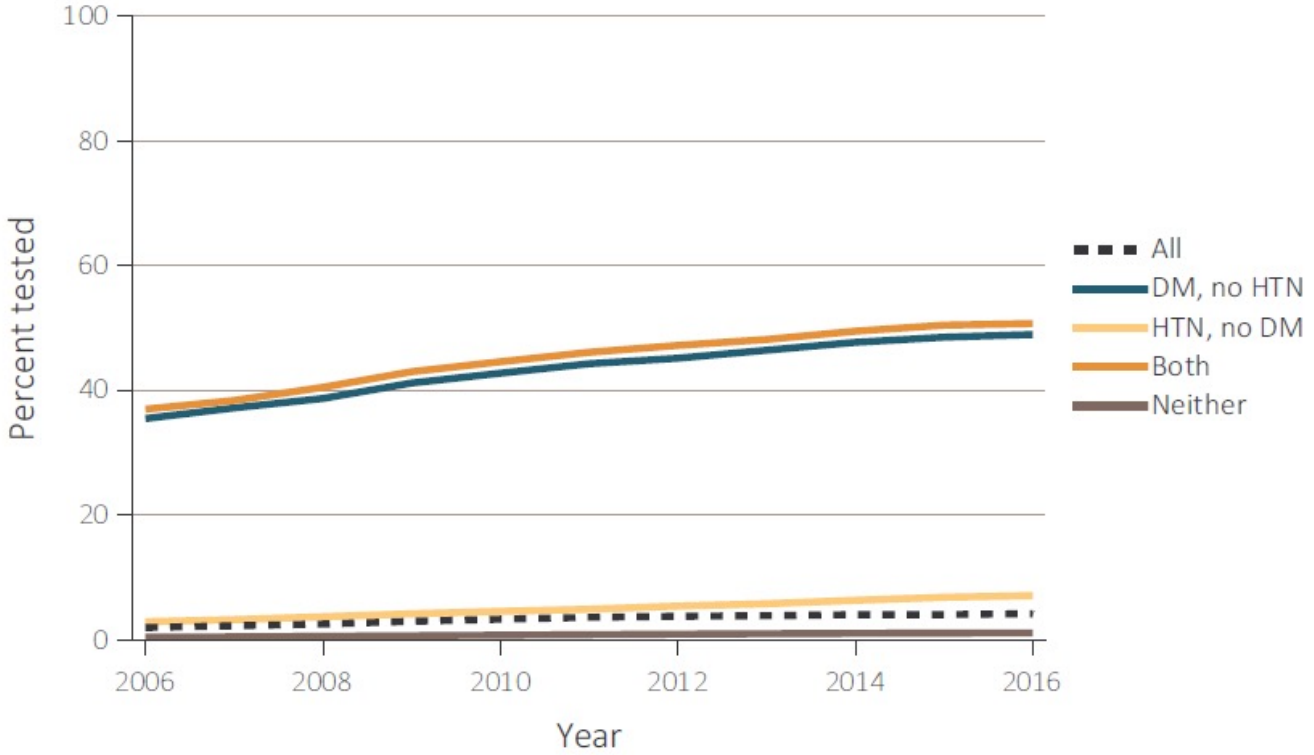
Albuminuria Or Proteinuria Description+	Albuinuria Or Proteinuria CKD A Stage	Dipstick Proteinuria	Albumin mg/24-hour urine+	uACR+ mg/g	uPCR* mg/g
Normal to mildly increased	A1	Negative to trace	< 30	< 30	< 150*
Moderately increased	A2	Trace to +1	30 to 300	30 to 300	150 to 650*
Severely Increased	A3	+2 or greater	> 300	> 300	> 650*
Nephrotic Range	A3 Nephrotic Range	+2 or greater	>2000*	>2,000*	>3,500+ (by definition)

+These categories are adapted from KDIGO; Kidney Disease Improving Global Outcomes.

*These categories are from a meta-analysis of uPCR to uACR approximate conversion. Ann Intern Med. 2020;173(6):426-435

*This website offers a calculator based on the meta-analysis cited above. https://ckdpcrisk.org/pcr2acr/

Low Albuminuria Testing in Americans With Diabetes

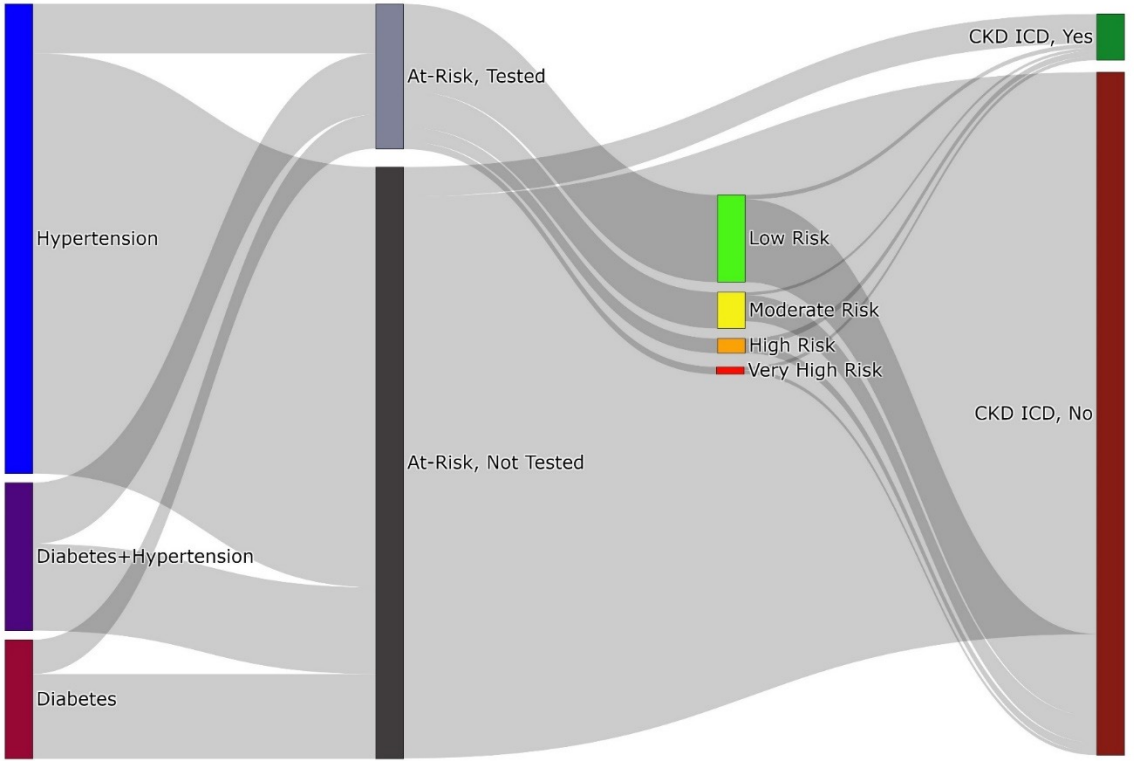


Data Source: Special analyses Optum Clinformatics™ patients aged 22-64 years. Tests tracked during each year from 2006 to 2016.
Abbreviations: CKD, chronic kidney disease; DM, diabetes mellitus; HTN, hypertension. United States Renal Data System Annual Data Report 2018

Low Albuminuria Testing in Americans With Diabetes

National clinical laboratory 2013-2019 data

- 28,295,982 at-risk patients
  - 16.2% diabetes (DM)
  - 63.8 % hypertension (HTN)
  - 20.1% DM and HTN
- Annual assessment of eGFR and uACR
  - 10.5% HTN only population
  - **28.7% DM only population**
  - **41.4% DM and HTN population**

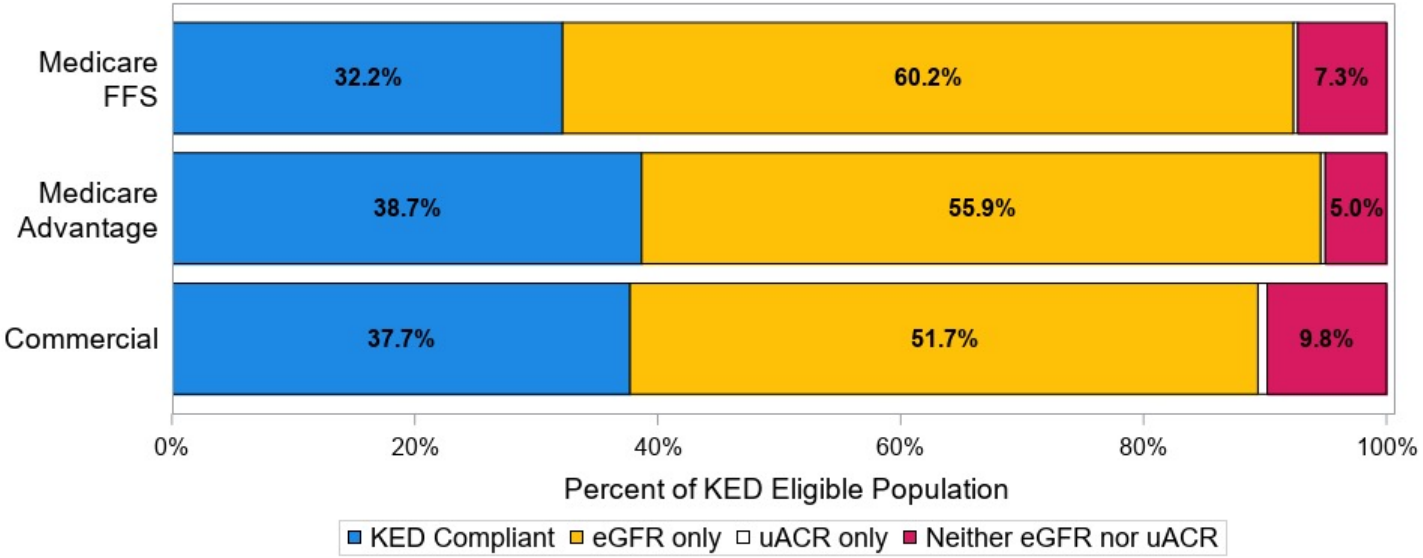


Sankey Diagram: flow diagram of CKD testing defined by eGFR and uACR in a given year during the study period. Diabetes Care 2021;44:1-8.

Kidney Health Evaluation for Patients with Diabetes

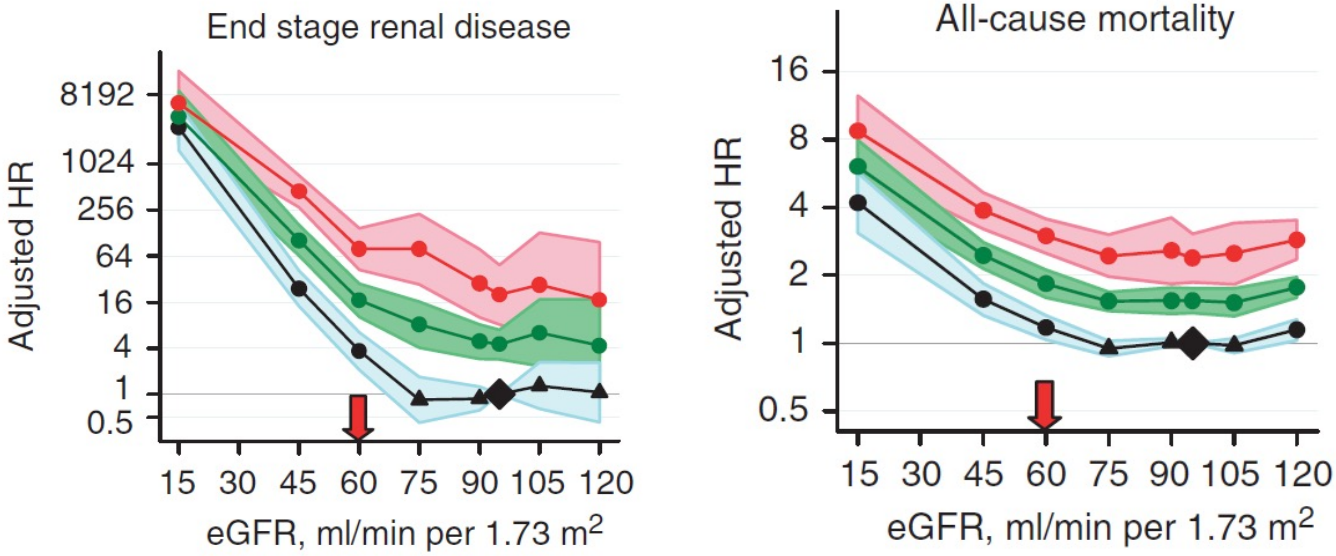
- Primary data sources
  - Medical and pharmacy claims
  - Electronic health records

- Secondary data source
  - Claims-based laboratory test results (Medicare Advantage and Commercial)



AARP Quality Measures Innovation Grant with Data Source: OptumLabs Data Warehouse (OLDW)

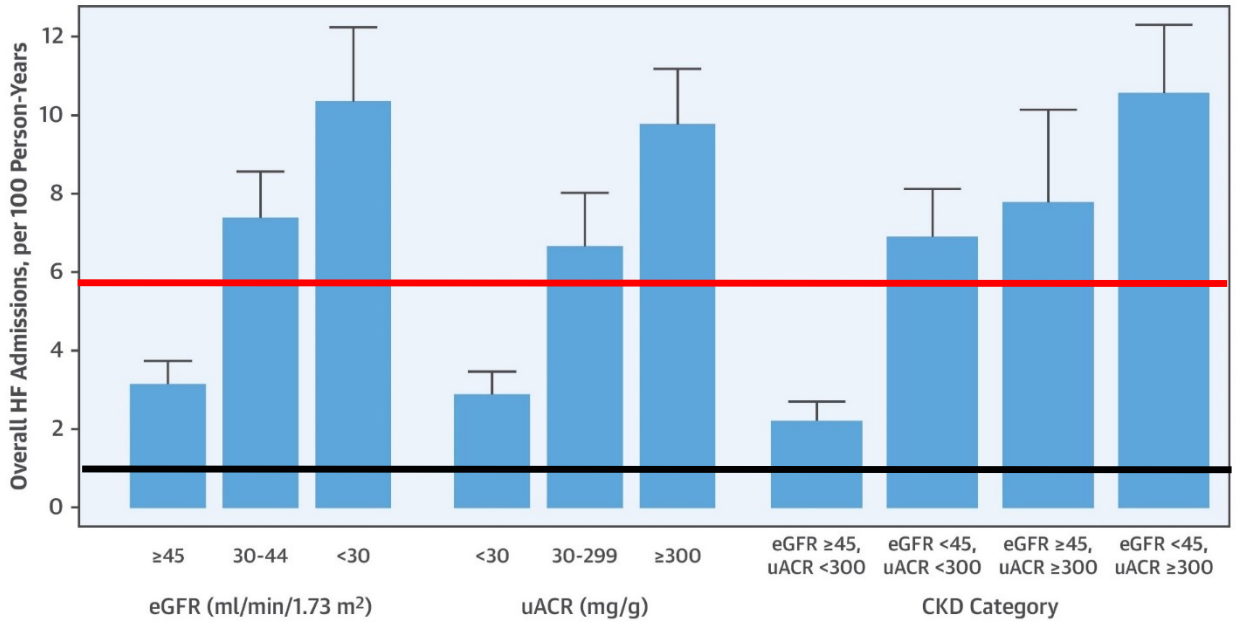
Low eGFR and Albuminuria Predict Kidney Failure and Mortality



Kidney Int. Suppl. 2013; 3: 1-150.

Heart Failure Hospitalization by eGFR and Albuminuria (uACR)

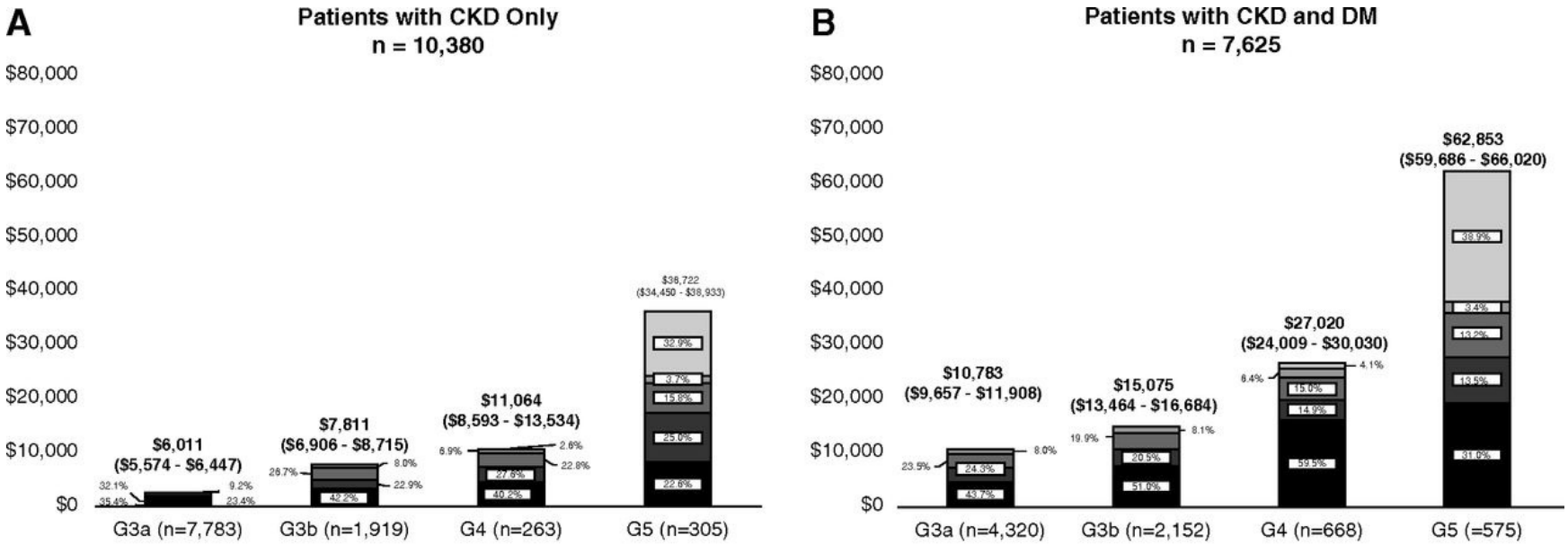
CENTRAL ILLUSTRATION: Heart Failure in Chronic Kidney Disease



Bansal, N. et al. J Am Coll Cardiol. 2019;73(21):2691-700.

CRIC cohort n = 3,791, unadjusted rates shown, & Figure adapted
Crude CRIC (CKD) cohort rate 5.8
Crude general population rate 0.5

As eGFR Falls, Costs Multiply: Population Medical Costs by CKD G stage



Annualized mean medical costs in total (95% CIs) and by resource adjusted for age, sex, and race/ethnicity for patients with CKD and (A) no comorbidities and (B) diabetes dramatically with declining kidney function. Similar patterns for (C) cardiovascular disease and heart failure (D) are not shown. The comorbidity groups are not mutually exclusive.

Gregory A. Nichols et al. JASN 2020;31:1594-1601

What is path forward to health equity?
"In the U.S., Race, Ancestry, Genetics and Medicine are inextricably linked in a complex and fraught history"

Race

Race refers to one's identification with a group or identify ascribed on the basis of physical characteristics and skin color.

Social Construct

Ethnicity

Ethnicity captures the common values, cultural norms, and behaviors of people who are linked by a shared culture and language.

Social Construct

Genetic Ancestry

Genetic Ancestry is the genetic background that estimates the geographic origins of a person's recent ancestors.

Biological Construct

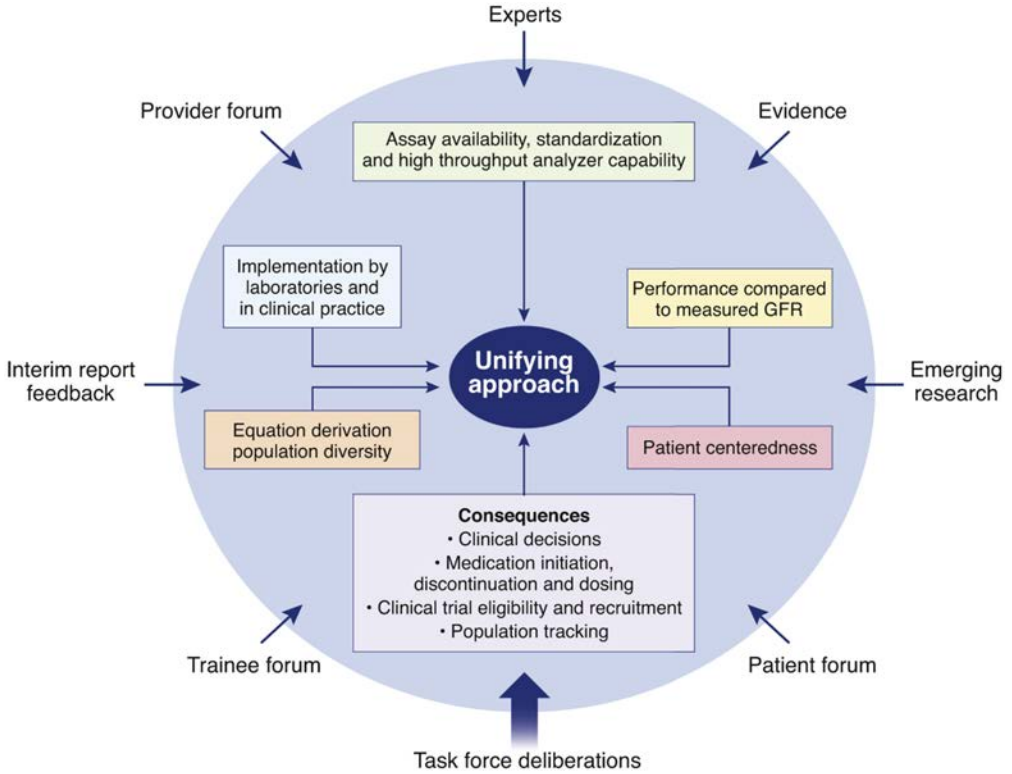
Source of the title quote and definitions in the body of the slide:

Borrell LN, Elhawary JR, Fuentes-Afflick E, et al.
Race and Genetic Ancestry in Medicine - A Time for Reckoning with Racism.
N Engl J Med. 2021;384(5):474-480.

The Process: NKF-ASN Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Diseases

Figure 1 Process and Input to Create a Unifying Approach to eGFR Estimation.

National Kidney Foundation (NKF)
American Society of Nephrology (ASN)
estimated Glomerular Filtration Rate (eGFR)



A Unifying Approach for GFR Estimation: Recommendations of the NKF-ASN Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Disease

Am J Kidney Dis. 2021
doi: 10.1053/j.ajkd.2021.08.003.

https://www.ajkd.org/article/S0272-6386(21)00828-3/fulltext

A Unifying Approach for GFR Estimation: Recommendations of the NKF-ASN Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Disease

Recommend immediate implementation of the *CKD-EPI creatinine equation refit without the race variable* in all laboratories in the U.S.

The equation refit excludes race in the calculation and reporting, includes diversity in its development, is immediately available to all labs in the U.S., and has acceptable performance characteristics and potential consequences that do not disproportionately affect any one group of individuals.

Recommend national efforts to facilitate increased, routine, and timely use of cystatin C, especially to confirm eGFR in clinical decision-making

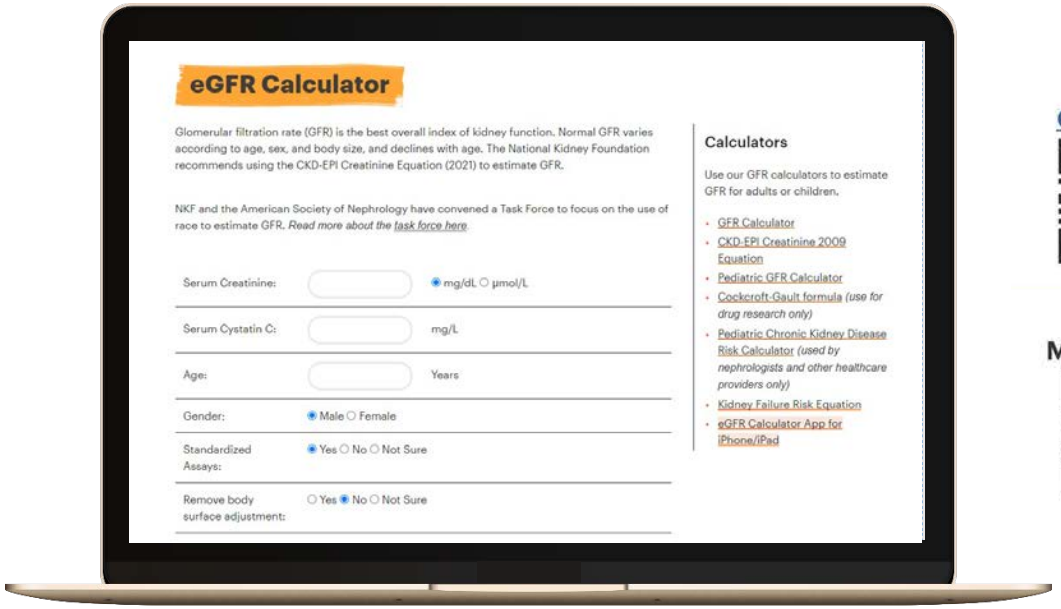
Encourage and fund research on GFR estimation with new endogenous filtration markers and on interventions to eliminate racial and ethnic disparities

The Task Force gathered input from diverse stakeholders and carefully reviewed the evidence to create these recommendations

Cynthia Delgado, Mukta Baweja, Deidra C. Crews, et al. *A Unifying Approach for GFR Estimation: Recommendations of the NKF-ASN Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Disease.* *AJKD DOI:* 10.1053/j.ajkd.2021.08.003, *JASN DOI: 10.1681/ASN.2021070988*

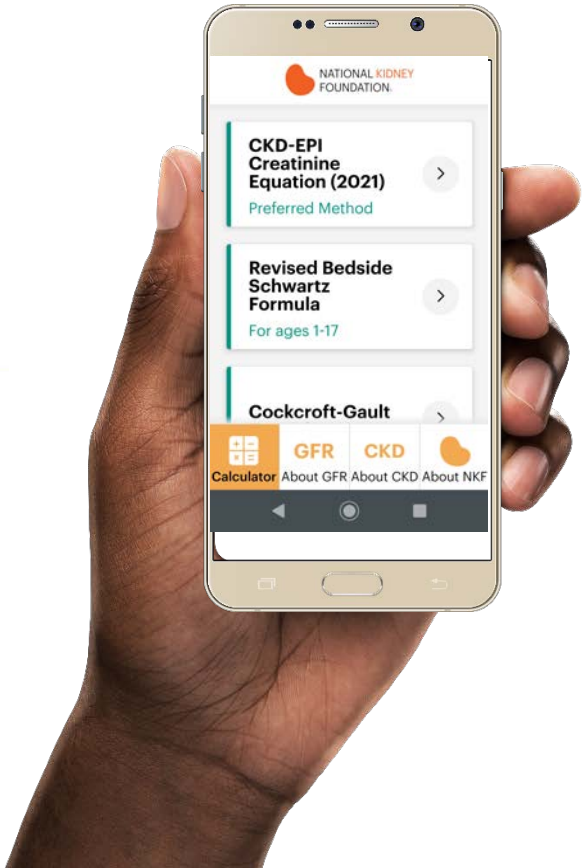
Visual Graphic by Edgar Lerma, MD, FASN

NKF Leadership: eGFR Firsts



ONLINE

MOBILE APP



The eGFR calculator is the most popular webpage on www.kidney.org.

Patient Education: Changing the Discussion of Race and Kidney Disease

Social Determinants of Kidney Disease

There are many environmental, medical, and soci
increased risk of developing kidney disease, also
CKD. These factors include: having more than one
pressure or diabetes), your family's medical histo
where you play, how you are perceived by others,
experienced discrimination.

For many, the risk of developing kidney disease is not because of any one singl reason, but due to a number of physica environmental, and social factors.

Family History and Kidney Diseases

Some diseases are said to *run in the family*, wh
same kind of illness. And it's true, some diseas
anemia, that can affect multiple family membe
known as mutations) and can be inherited (pa

Since kidney disease affects some families mo
that can lead to kidney disease is important so
developing. Also, if you know you are at risk fo
right steps, right away, to slow down or stop th

Inherited vs. family hist

While some types of kidney disease may be in
disease is found in multiple family members, t
genetics. Instead, environmental and social fa
(SDoH), are the trigger that sets off the develo

Genetics and Kidney Disease

Some diseases are said to *run in the family*, when more than one person in a family has the same kind of illness. And it's true, some diseases and conditions, such as sickle cell anemia, that can affect multiple family members, are caused by gene variants (also known as mutations) and can be inherited (passed down from parent to child).

However, there are other diseases and conditions that appear to run in families but are not always caused by the variants in a person's genes. Instead, environmental factors and individual choices such as dietary habits, pollutants, or a combination of genetic and environmental factors can be the reason why a disease develops.

Genetic variants and kidney disease risk

There are some genetic variations in *MYH9* and *APOL1* genes that are linked to an

NATIONAL KIDNEY FOUNDATION®

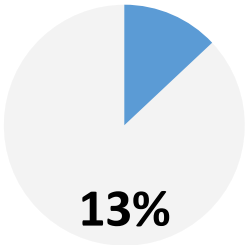
https://www.kidney.org/atoz/content

What is path forward to health equity?

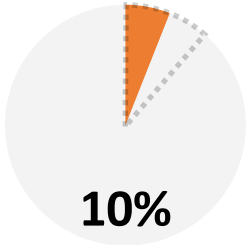
A CALL TO ACTION

CHRONIC KIDNEY DISEASE SURVEILLANCE SYSTEM
TRACKING KIDNEY DISEASE IN THE UNITED STATES

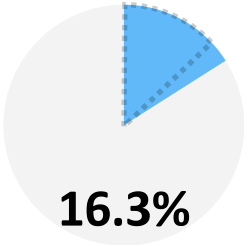
USRDS
UNITED STATES RENAL DATA SYSTEM



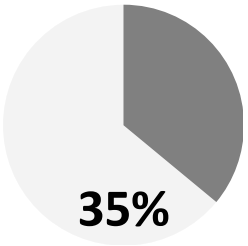
% Black
U.S. population
(2019 U.S. Census)



% Black
CKD G3
(VA 2019)



% Black
CKD G1-4
(NHANES 2015-2018)



% Black
U.S. on dialysis
(USRDS 2018 data)

Slide courtesy of Dinushika Mohottige, MD, MPH

Nephrology Leadership

Hidden in Plain Sight

Reconsidering the Use of Race Correction in Clinical Algorithms

Nephrology, in partnership with patients, is the first medical specialty to address and eliminate a commonly used race-based calculation

Table 1. Examples of Race Correction in Clinical Medicine.*

Tool and Clinical Utility	Input Variables	Use of Race	Equity Concern
Cardiology			
The American Heart Association's Get with the Guidelines–Heart Failure[8] (https://www.mdcalc.com/gwtg-heart-failure-risk-score) *Predicts in-hospital mortality in patients with acute heart failure. Clinicians are advised to use this risk stratification to guide decisions regarding initiating medical therapy.*	Systolic blood pressure Blood urea nitrogen Sodium Age Heart rate History of COPD Race: black or nonblack	Adds 3 points to the risk score if the patient is identified as nonblack. This addition increases the estimated probability of death (higher scores predict higher mortality).	The original study envisioned using this score to "increase the use of recommended medical therapy in high-risk patients and reduce resource utilization in those at low risk."[8] The race correction regards black patients as lower risk and may raise the threshold for using clinical resources for black patients.
Organ Procurement and Transplantation Network: Kidney Donor Risk Index (KDRI)[12] (https://optn.transplant.hrsa.gov/resources/allocation-calculators/kdpi-calculator/) *Estimates predicted risk of donor kidney graft failure, which is used to predict viability of potential kidney donor.†*	Age Hypertension, diabetes Serum creatinine level Cause of death (e.g., cerebrovascular accident) Donation after cardiac death Hepatitis C Height and weight HLA matching Cold ischemia En bloc transplantation Double kidney transplantation Race: African American	Increases the predicted risk of kidney graft failure if the potential donor is identified as African American (coefficient, 0.179), a risk adjustment intermediate between those for hypertension (0.126) and diabetes (0.130) and that for elevated creatinine (0.209–0.220).	Use of this tool may reduce the pool of African-American kidney donors in the United States. Since African-American patients are more likely to receive kidneys from African-American donors, by reducing the pool of available kidneys, the KDRI could exacerbate this racial inequity in access to kidneys for transplantation.
Obstetrics			
Vaginal Birth after Cesarean (VBAC) Risk Calculator[13,14] (https://mfmunetwork.bsc.gwu.edu/PublicBSC/MFMU/VGBirthCalc/vagbirth.html) *Estimates the probability of successful vaginal birth after prior cesarean section. Clinicians can use this estimate to counsel people who have to decide whether to attempt a trial of labor rather than undergo a repeat cesarean section.*	Age BMI Prior vaginal delivery Prior VBAC Recurring indication for cesarean section African-American race Hispanic ethnicity	The African-American and Hispanic correction factors subtract from the estimated success rate for any person identified as black or Hispanic. The decrement for black (0.671) or Hispanic (0.680) is almost as large as the benefit from prior vaginal delivery (0.888) or prior VBAC (1.003).	The VBAC score predicts a lower chance of success if the person is identified as black or Hispanic. These lower estimates may dissuade clinicians from offering trials of labor to people of color.
Urology			
STONE Score[15,16] *Predicts the risk of a ureteral stone in patients who present with flank pain*	Sex Acute onset of pain Race: black or nonblack Nausea or vomiting Hematuria	Produces a score on a 13-point scale, with a higher score indicating a higher risk of a ureteral stone; 3 points are added for nonblack race. This adjustment is the same magnitude as for hematuria.	By systematically reporting lower risk for black patients than for all nonblack patients, this calculator may steer clinicians away from aggressive evaluations of black patients.
Urinary tract infection (UTI) calculator[17] (https://uticalc.pitt.edu/) *Estimates the risk of UTI in children 2–23 mo of age to guide decisions about when to pursue urine testing for definitive diagnosis*	Age <12 months Maximum temperature >39°C Race: Describes self as black (fully or partially) Female or uncircumcised male Other fever source	Assigns a lower likelihood of UTI if the child is black (i.e., reports a roughly 2.5-times increased risk in patients who do not describe themselves as black).	By systematically reporting lower risk for black children than for all nonblack children, this calculator may deter clinicians from pursuing definitive diagnostic testing for black children presenting with symptoms of UTI.
Oncology			
Rectal Cancer Survival Calculator[18] (http://www3.mdanderson.org/app/medcalc/index.cfm?pagename=rectumcancer) *Estimates conditional survival 1–5 yr after diagnosis with rectal cancer*	Age and sex Race: white, black, other Grade Stage Surgical history	White patients are assigned a regression coefficient of 1, with higher coefficients (depending on stage) assigned to black patients (1.18–1.72).	The calculator predicts that black patients will have shorter cancer-specific survival from rectal cancer than white patients. Clinicians might be more or less likely to offer interventions to patients with lower predicted survival rates.
-316) *Determines whether a woman is at low, moderate, or high risk for low bone density in order to guide decisions about screening with DXA scan*	Estrogen use Weight Race: black or not black		further evaluation (e.g., DXA scan) in black patients, potentially delaying diagnosis and intervention.
Fracture Risk Assessment Tool (FRAX)[21] (https://www.sheffield.ac.uk/FRAX/tool.aspx) *Estimates 10-yr risk of a hip fracture or other major osteoporotic fracture on the basis of patient demographics and risk-factor profile. Calculators are country-specific.‡*	Age and sex Weight and height Previous fracture Parent who had a hip fracture Current smoking Glucocorticoid use Rheumatoid arthritis Secondary osteoporosis Alcohol use, ≥3 drinks per day Femoral neck bone mineral density	The U.S. calculator returns a lower fracture risk if a female patient is identified as black (by a factor of 0.43), Asian (0.50), or Hispanic (0.53). Estimates are not provided for Native American patients or for multiracial patients.	The calculator reports 10-yr risk of major osteoporotic fracture for black women as less than half that for white women with identical risk factors. For Asian and Hispanic women, risk is estimated at about half that for white women. This lower risk reported for nonwhite women may delay intervention with osteoporosis therapy.
Pulmonology			
Pulmonary-function tests[22] *Uses spirometry to measure lung volume and the rate of flow through airways in order to diagnose and monitor pulmonary disease*	Age and sex Height Race/ethnicity	In the U.S., spirometers use correction factors for persons labeled as black (10–15%) or Asian (4–6%).	Inaccurate estimates of lung function may result in the misclassification of disease severity and impairment for racial/ethnic minorities (e.g., in asthma and COPD).[23]

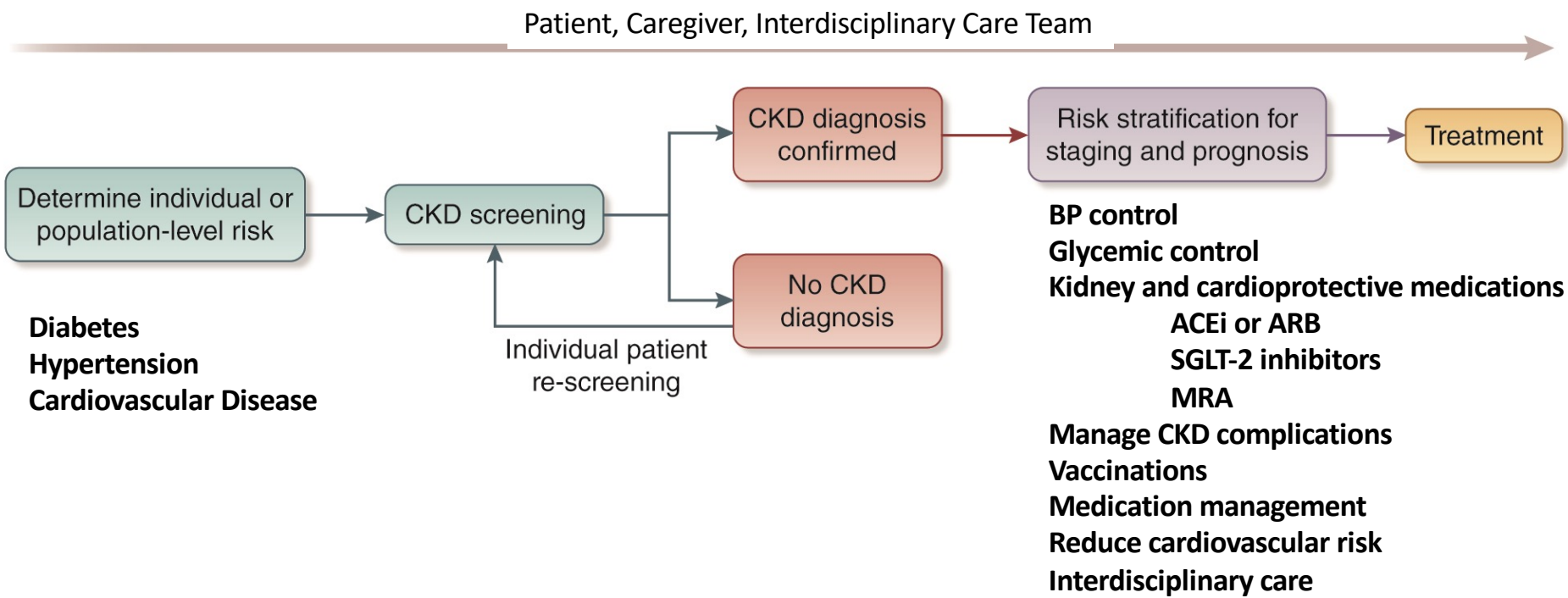
* BIRADS denotes Breast Imaging Reporting and Data System, BMI body-mass index (the weight in kilograms divided by the square of the height in meters), CKD-EPI Chronic Kidney Disease Epidemiology Collaboration, COPD chronic obstructive pulmonary disease, DCIS ductal carcinoma in situ, DXA dual-energy x-ray absorptiometry, LCIS lobular carcinoma in situ, and MDRD Modification of Diet in Renal Disease study.

† The current calculator uses Ethnicity/Race, with the following options: American Indian or Alaska Native, Asian, Black or African American, Hispanic/Latino, Native Hawaiian or Other Pacific Islander, White, and Multiracial.

‡ Three countries' calculators are further subcategorized by race, ethnicity, or location: China (Mainland China, Hong Kong), Singapore (Chinese, Malay, Indian), and the United States (Caucasian, black, Hispanic, Asian).

DA Vyas et al. N Engl J Med 2020;383:874-882

Evaluating Risk of CKD Progression Concept Flow Map



Kidney Int. 2021;99(1):34-47.

Interdisciplinary Kidney Health Care

- Primary Care
- Pharmacist
- Dietitian or Diabetes Educator
- Endocrinologist
- Cardiologist
- Nephrologist

Remote Patient Monitoring (RPM)
Mount Sinai Health Partners Condition Management Program

The Condition Management Program provides pharmacy co-management services across the health system through a virtual department. A core component of the program is **remote patient monitoring**. Clinical pharmacists **enroll, monitor and manage patients** with their collaborating clinician. The hypertension and heart failure program is live through a collaboration with a vendor.

- Bluetooth-enabled devices and cellular data hub
- How it works:
  - Patient plugs in the data hub, keeps the devices within 20 feet
  - Readings transferred from the device to the hub, analyzed in vendor's cloud, and uploaded to EPIC
  - Notifications generated for out-of-range values based on pre-determined thresholds, which can be adjusted at any time by the referring clinician.

Slide courtesy of Cathleen Mathew, PharmD, CDE, AE-C
Director, Condition Management, Population Health, Mount Sinai Health Partners Ambulatory Care Clinical Pharmacist

CKD Population Health Impact: Summary

Kidney health evaluation for patients with diabetes (KED)

Testing with kidney function (eGFR) and albuminuria (uACR)

- Diagnosis
- Risk stratification or heat map
- Interventions
- Patient engagement
- Interdisciplinary care
- Reduce transitions between stages and prevent or delay kidney failure
- Reduce cardiovascular complications
- Contain costs
- Repeat testing at least annually

Am J Manag Care. 2019 Nov 1;25(11):e326-e333

Discussion

- Share best practices in overcoming clinical inertia
- Identify areas where health systems are innovating to close gaps in care and COVID-19 exacerbations of health disparities
- Address the role of industry partners

AMGA Foundation

Opportunities for Improved Kidney Care among Patients with T2DM

Nikita Stempniewicz, M.Sc.
Director, Research and Analytics
AMGA

Multiplying ones will always give you palindromic numbers

$$1 \times 1 = 1$$

$$11 \times 11 = 121$$

$$111 \times 111 = 12321$$

$$1111 \times 1111 = 1234321$$

$$11111 \times 11111 = 123454321$$

$$111111 \times 111111 = 12345654321$$

$$1111111 \times 1111111 = 1234567654321$$

$$11111111 \times 11111111 = 123456787654321$$

$$111111111 \times 111111111 = 12345678987654321$$

American Diabetes Association. Diabetes Care

Chronic Kidney Disease Testing Among Primary Care Patients With Type 2 Diabetes Across 24 U.S. Health Care Organizations

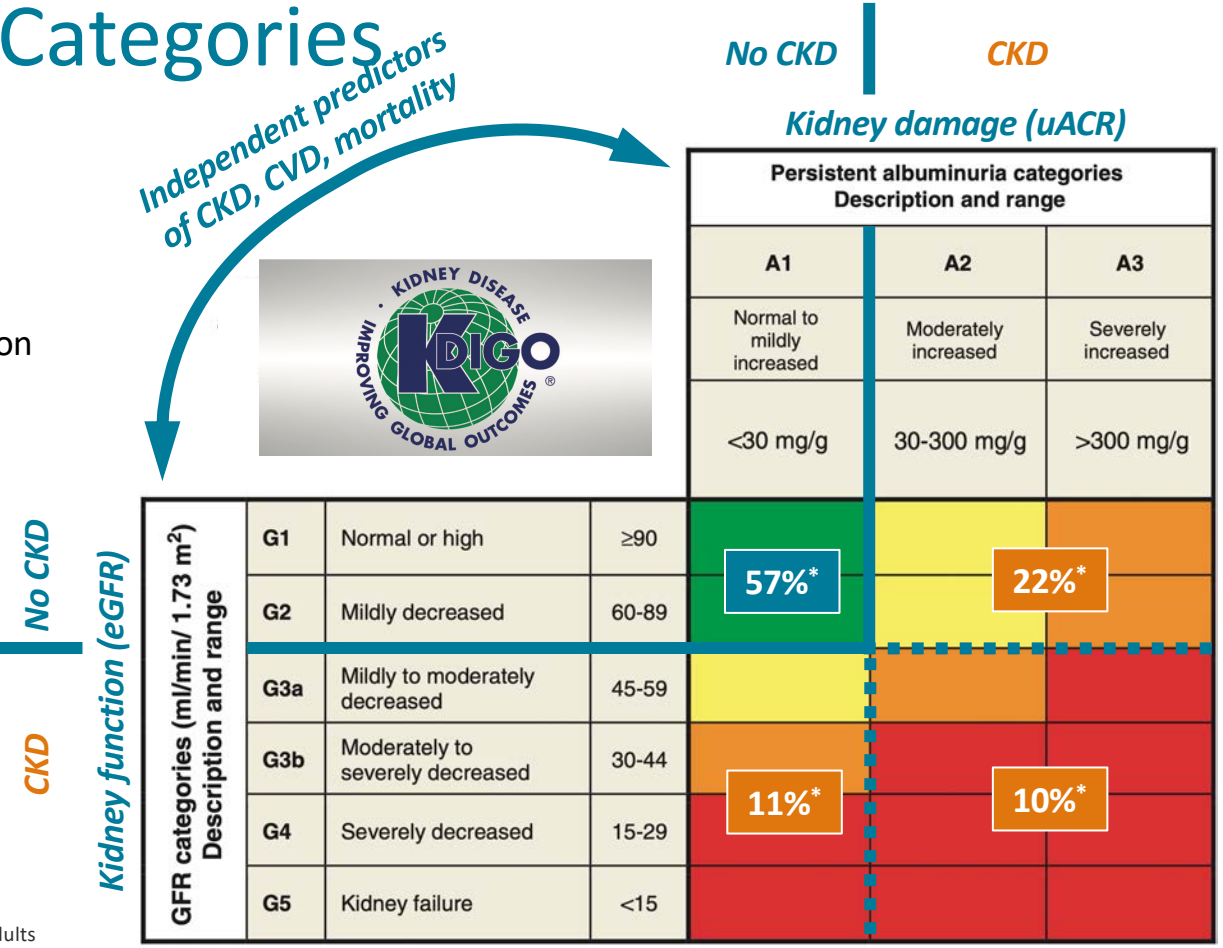
Nikita Stempniewicz,[1] Joseph A. Vassalotti,[2,3] John K. Cuddeback,[1] Elizabeth Ciemins, Amy Storfer-Isser,[4] Yingying Sang,[5] Kunihiro Matsushita,[5] Shoshana H. Ballew,[5] Alex R. Chang,[6] Andrew S. Levey,[7] Robert A. Bailey,[8] Jesse Fishman,[8] and Josef Coresh[5]

Background

- Among people with type 2 diabetes, ~33% also have chronic kidney disease (CKD)
  - Most people with CKD are unaware of it
- For screening and management, American Diabetes Association (ADA) recommends testing at least annually with:
  - Estimated glomerular filtration rate (eGFR), from serum creatinine, ***and***
  - Urinary albumin-creatinine ratio (uACR)
    - Multiple methods of testing for urine protein are used in clinical practice
    - uACR is recommended: standardized, sensitive, and specific
- Specific ADA recommendations for patients with CKD and type 2 diabetes
  - ACE-I or ARB (for patients with hypertension)
  - SGLT2 inhibitors to reduce CKD progression and for CVD benefit, independent of baseline HbA1c
  - GLP-1 RAs also noted to reduce kidney disease end points, primarily albuminuria, progression of albuminuria, and cardiovascular events

eGFR and uACR Categories

- Both tests must be used
  - to identify new or undiagnosed CKD
  - to risk-stratify patients with CKD
- CKD diagnosis: decreased kidney function or increased damage for ≥ 3 months
  - eGFR < 60 ml/min/1.73m^2 **or**
  - uACR ≥ 30 mg/g
- **Half** of patients with CKD had elevated uACR *without* decreased eGFR (=22/43)
  - These patients not identified by eGFR



* Bailey RA, Wang Y, Zhu V, Rupnow MF. Chronic kidney disease in US adults with type 2 diabetes: an updated national estimate of prevalence based on Kidney Disease: Improving Global Outcomes (KDIGO) staging. *BMC Res Notes*. 2014;7:415. Published 2014 Jul 2. doi:10.1186/1756-0500-7-415

eGFR and uACR Categories

- CMS HCC RAF scores
  - CKD Stage 3 (HCC 138, RAF 0.069)
  - CKD Stage 4 (HCC 137, RAF 0.289)
  - CKD Stage 5 (HCC 136, RAF 0.289)
- Predictors of future health care costs and utilization

Class	*PMPM*	*Admission per 1,000*
1	$ 650	95
2	$ 932	165
3	$ 1,306	363
4	$ 1,172	312
5	$ 2,362	591

Vassalotti JA, DeVinney R, Lukasik S, et al. CKD quality improvement intervention with PCMH integration: health plan results. *Am J Manag Care.* 2019;25(11):e326-e333.

Prognosis of CKD by GFR and Albuminuria Categories: KDIGO 2012

Kidney function (eGFR) — GFR categories (ml/min/ 1.73 m²) Description and range				*Kidney damage (uACR)* — Persistent albuminuria categories Description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g	30-300 mg/g	>300 mg/g
	G1	Normal or high	≥90	1	2	3
	G2	Mildly decreased	60-89	1	2	3
	G3a	Mildly to moderately decreased	45-59	2	3	4
	G3b	Moderately to severely decreased	30-44	3	4	4
	G4	Severely decreased	15-29	4	4	5
	G5	Kidney failure	<15	5	5	5

Green: low risk (if no other markers of kidney disease, no CKD); Yellow: moderately increased risk; Orange: high risk; Red, very high risk.

Study Aims

Aim: To evaluate current patterns of CKD testing among people with type 2 diabetes in the US.

- Clinical guideline recommended eGFR and uACR testing
- Variation in testing across and within health care organizations
- Differences in testing by patient and organization characteristics
- Prevalence of detected elevated albuminuria and risk classification of CKD

Study Population:

- Aged 18–85 years
- Diagnosed type 2 diabetes in the past 2 years (10/2017–09/2019)
- ≥1 outpatient visit with a primary care physician in the past year (10/2018–09/2019)
- No hospice care, CKD Stage 5, or end-stage kidney disease in the past 2 years, or pregnancy in the past year

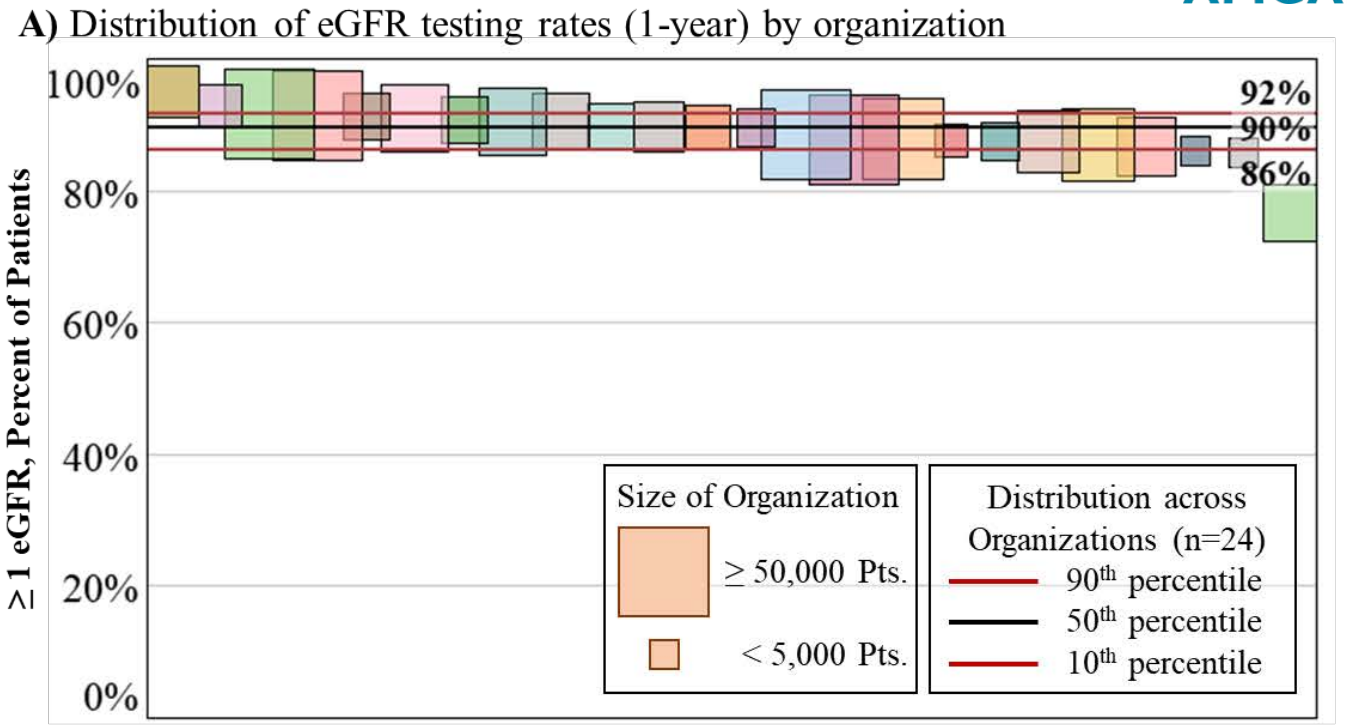
Data source: Electronic health record data (including outbound billing claims) were analyzed from 513,165 adults with type 2 diabetes, receiving primary care from 24 health care organizations and 1,164 clinical practice sites. These data were mapped and normalized by Optum.

Study Population

		All Patients	uACR and eGFR tested	uACR or eGFR not tested
		n= 513,165	n=278,309	n=234,856
Patient Demographics	Age: 18-49	12.3%	11.3%	13.4%
	Age: 50-64	35.1%	35.0%	35.1%
	Age: 65-75	34.5%	36.0%	32.8%
	Age: 76-85	18.1%	17.6%	18.8%
	Gender: Female	48.6%	48.1%	49.2%
	Race: Asian	2.7%	3.0%	2.3%
	Race: Black or African American	12.3%	12.6%	11.9%
	Race: White or Cauacasian	78.1%	77.3%	79.0%
	Race: Other/Unknown	6.9%	7.1%	6.8%
	Ethnicity: Hispanic	6.5%	7.0%	5.9%
	Ethnicity: Not Hispanic	89.7%	89.9%	89.5%
	Ethnicity: Unknown	3.8%	3.1%	4.6%
	Commercial Insurance	44.0%	44.8%	42.9%
	Medicaid Insurance	4.9%	4.3%	5.6%
	Medicare Insurance	46.6%	46.2%	47.0%
	Other	4.5%	4.6%	4.4%
	RUCA: Metropolitan	80.2%	83.3%	76.4%
	RUCA: Large rural city	8.5%	7.1%	10.3%
	RUCA: Small or Isolated Rural	8.6%	7.3%	10.2%
	RUCA: Unknown	2.7%	2.3%	3.1%
Comorbid Conditions (Dx in last 24 months)	Hypertension	80.1%	81.0%	79.0%
	Heart Failure	9.0%	8.1%	10.1%
	ASCVD	30.4%	29.5%	31.6%
	CKD	19.0%	19.7%	18.1%
Utilization (last 24 months)	E&M Visits: mean (SD)	13.2 (12.7)	13.7 (13.0)	12.6 (12.3)

uACR and eGFR Testing Rates

Figure 1: eGFR (panels: A, C) and uACR (panels: B, D) 1 year measurement rates by HCO (panels: A, B) and sites of care within HCOs (panels: C, D)

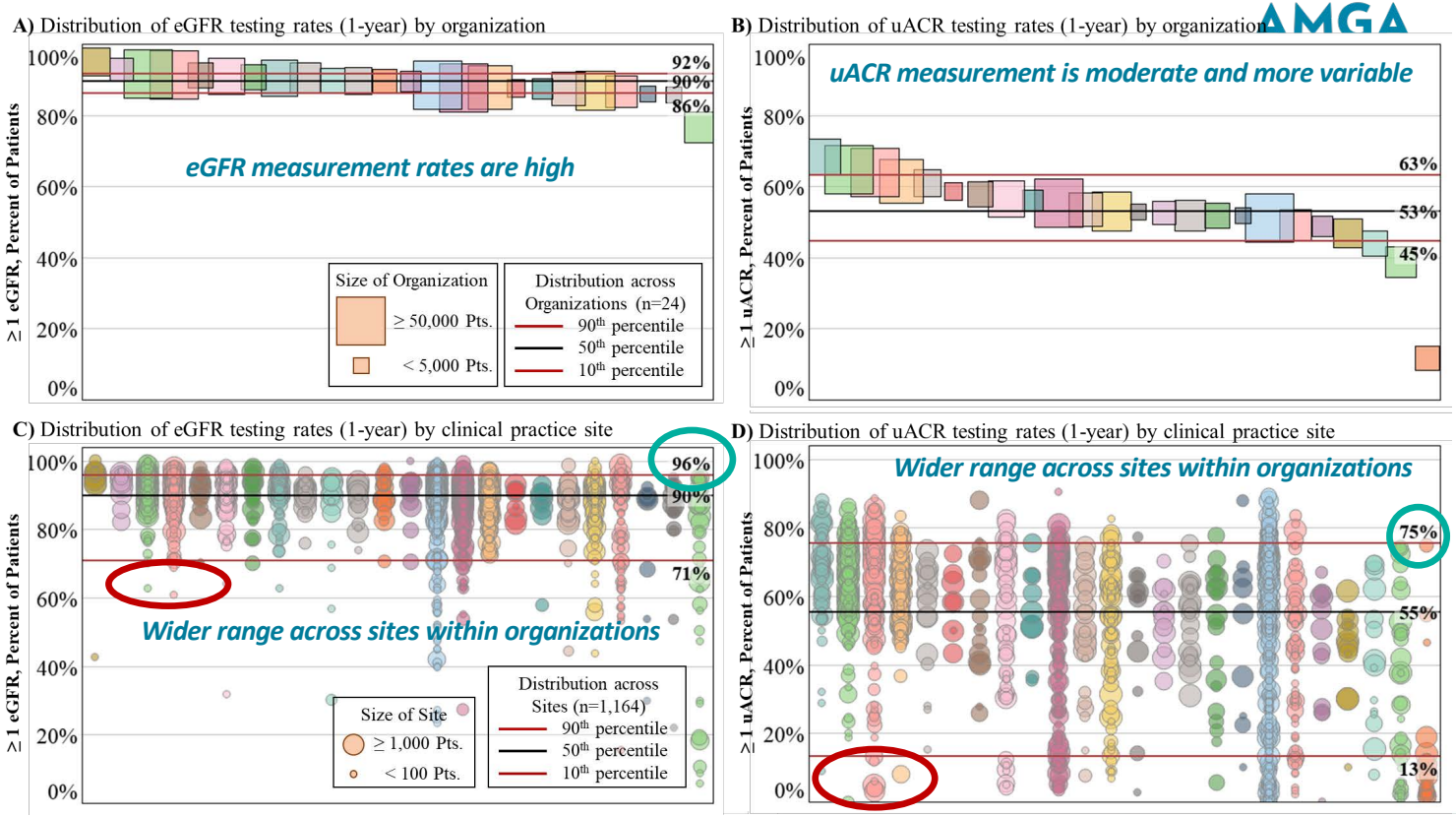


Each square reflects a different healthcare organization (HCO) which are ranked (horizontally) in descending order based on measurement rates.
Each set of colored circles reflects the sites of care within the respective HCO with the same color above.

uACR and eGFR Testing Rates

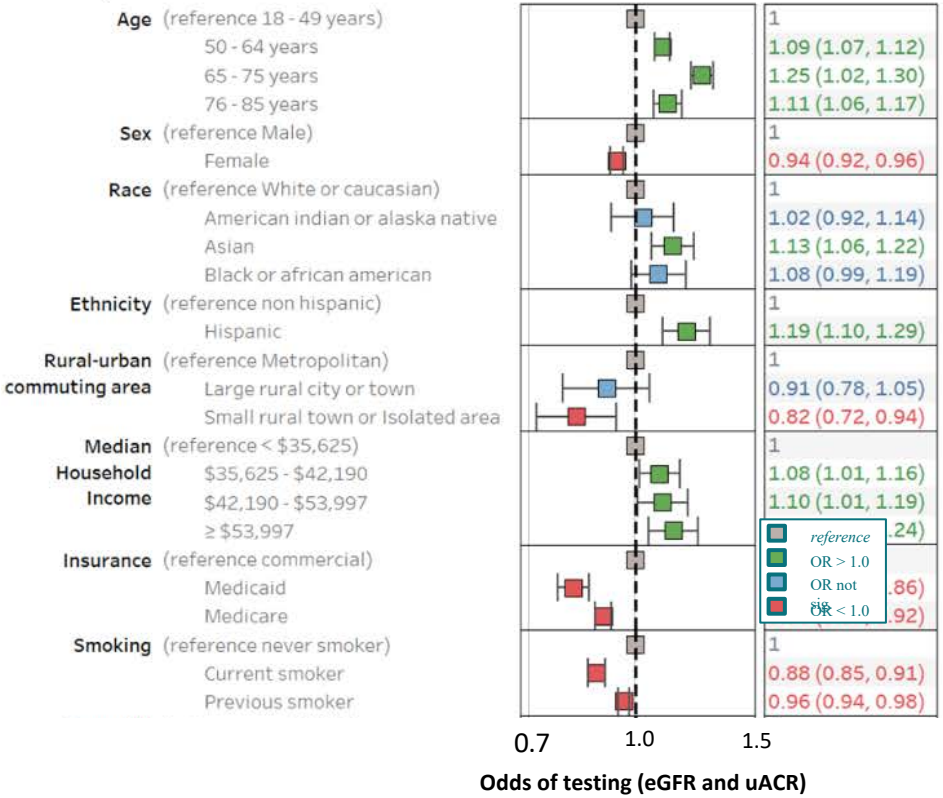
- Many organizations have at least one site among the **lowest-** and **highest-**performing sites across all organizations

Figure 1: eGFR (panels: A, C) and uACR (panels: B, D) 1 year measurement rates by HCO (panels: A, B) and sites of care within HCOs (panels: C, D)



Each square reflects a different healthcare organization (HCO) which are ranked (horizontally) in descending order based on measurement rates.
Each set of colored circles reflects the sites of care within the respective HCO with the same color above.

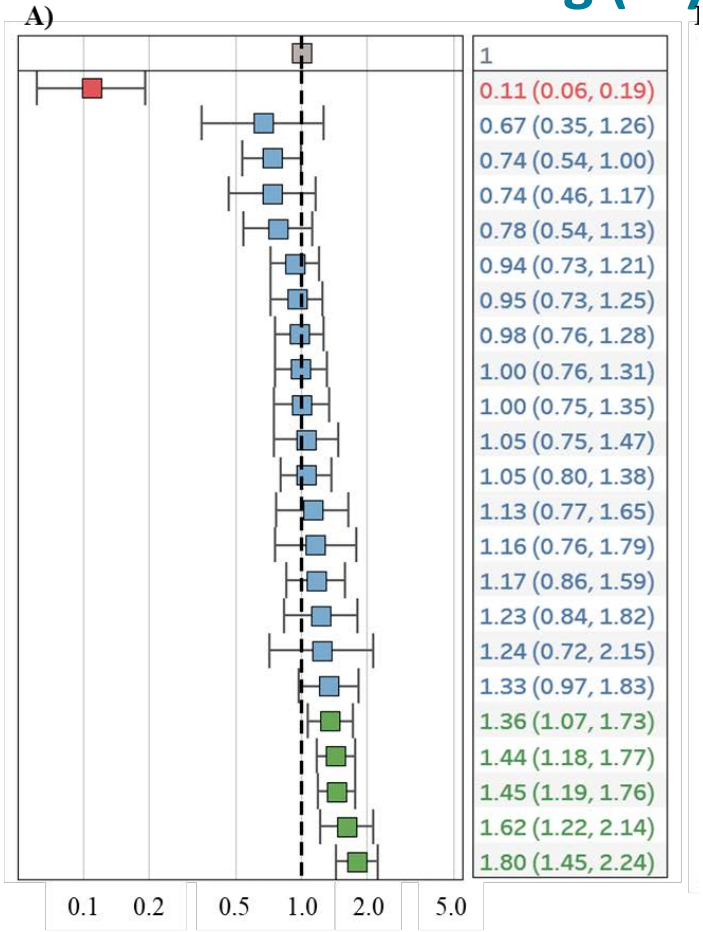
Differences in Testing (1-year) by Patient and Clinical Characteristics



Odds ratios (OR) were calculated using logistic regression, adjusted for healthcare organization and the other covariates in the figure, and using robust standard errors clustered by clinical practice site (error bars show 95% confidence intervals). Odds ratio > 1.0 indicate increased odds of testing

- Associated with higher eGFR and uACR testing
  - Older age (vs. 18 – 49)
  - Asian race (vs. White)
  - Hispanic ethnicity
  - Higher median household income
- Associated with lower eGFR and uACR testing
  - Female
  - Rural (vs. Metropolitan)
  - Medicaid and Medicare (vs. commercial)
  - Current and previous smoker (vs. never)

Differences in Testing (1-year) Across Health Care Organizations

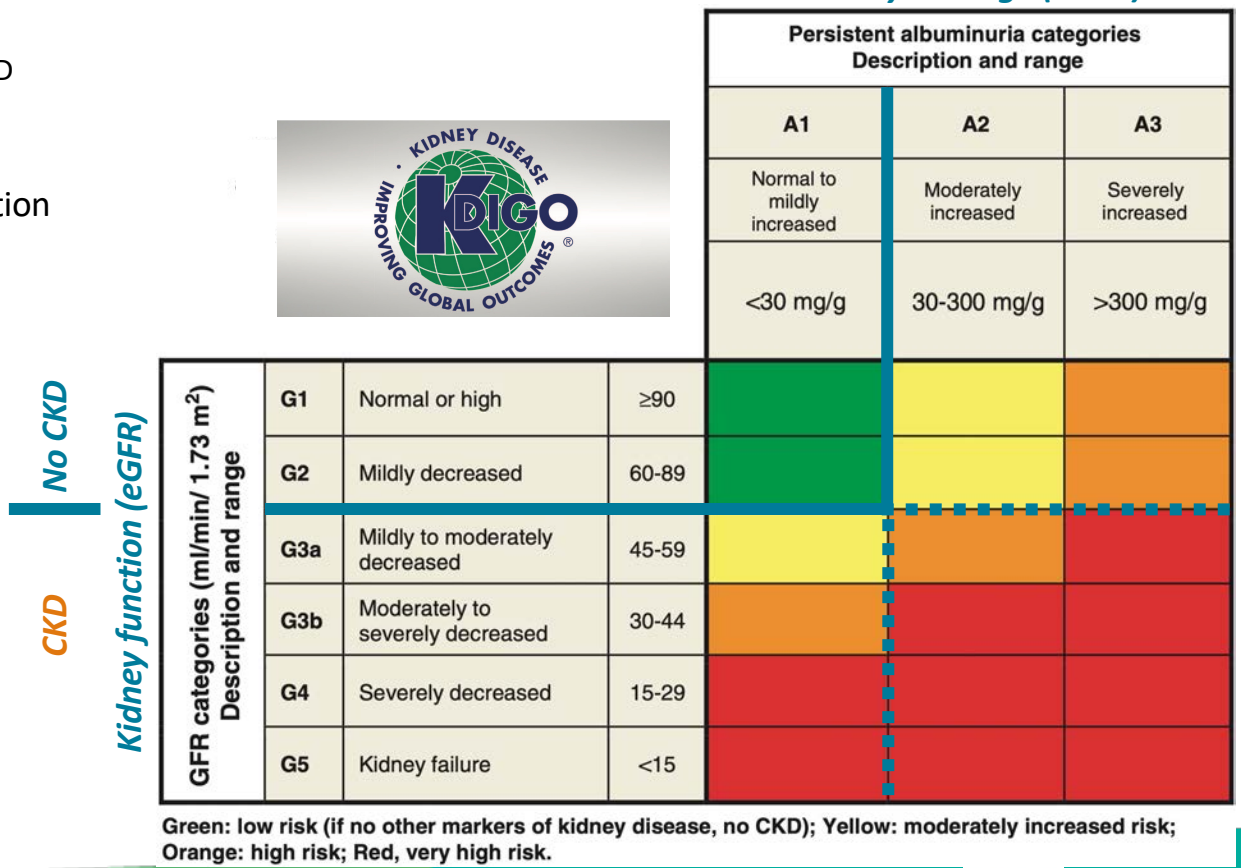


- After adjusting for differences in patient and clinical characteristics, odds ratio across health care organizations ranged from 0.11 to 1.80

Odds ratios were calculated using logistic regression with robust standard errors clustered by clinical practice site (error bars show 95% confidence intervals). Adjusted for age, sex, race, ethnicity, insurance, rural urban commuting area, median household income, smoking, comorbid conditions (ASCVD, CKD, diabetic retinopathy, heart failure, hypertension) diabetes complication severity index, utilization (visits with any provider, with nephrologists, with endocrinologist, and for education), medications prescribed (ACE-I/ARB, GLP-1 RA, SGLT2 inhibitor, statin), HbA1c control (< 8.0%), and BP control (< 140/90 mmHg). Odds ratio > 1.0 indicate increased odds of testing.

eGFR and uACR Categories

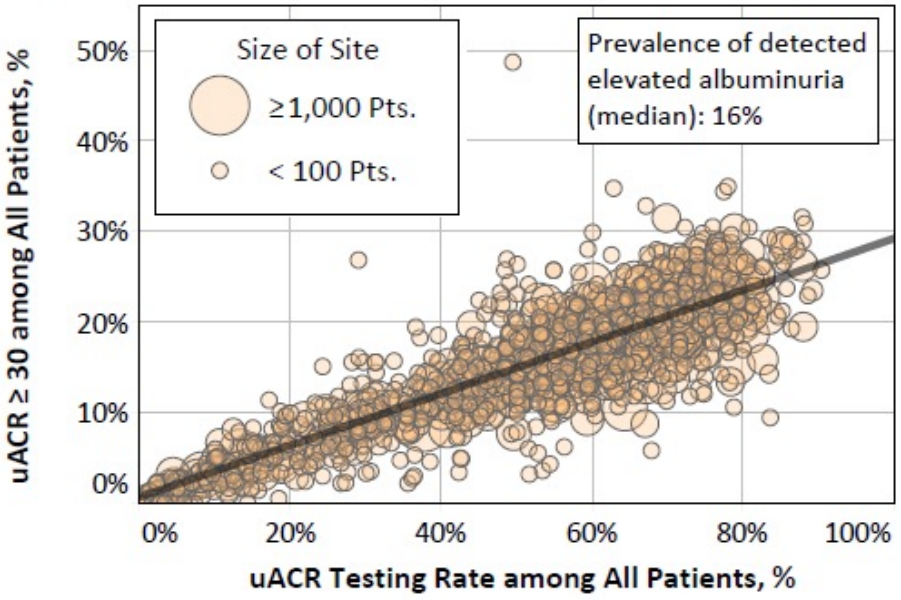
- Both tests must be used
  - to identify new or undiagnosed CKD
  - to risk-stratify patients with CKD
- CKD diagnosis: decreased kidney function or increased damage for ≥ 3 months
  - eGFR < 60 ml/min/1.73m^2 **or**
  - uACR ≥ 30 mg/g
- **Half** of patients with CKD had elevated uACR *without* decreased eGFR (=22/43)
  - These patients not identified by eGFR



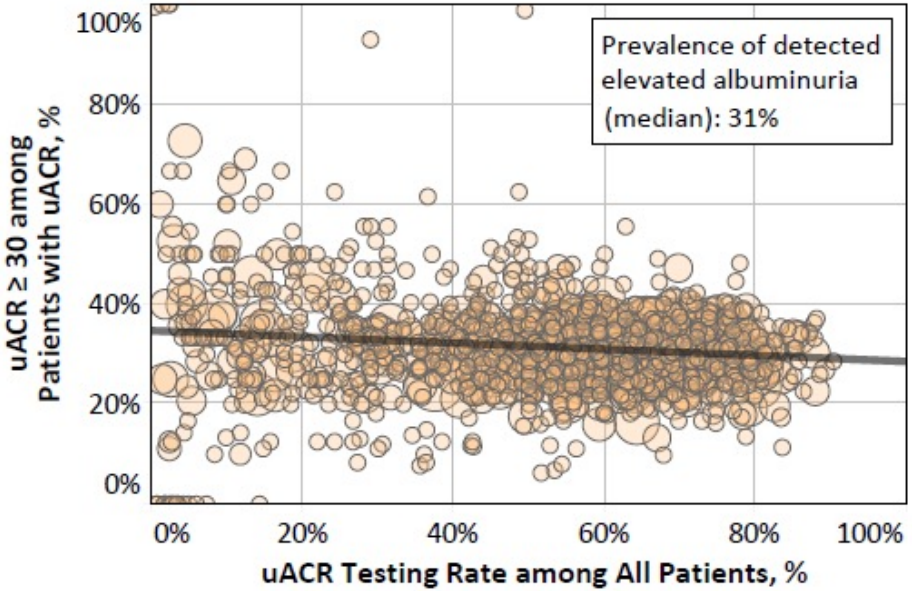
uACR Testing and Prevalence of Detected Elevated Albuminuria

- Among all patients with T2DM, the average prevalence of detected elevated albuminuria increased linearly with uACR testing (B)
  - Overall, the prevalence of detected elevated albuminuria was ~15%
  - Average prevalence increased linearly with uACR testing rates at sites, with estimated prevalence of 6%, 15%, and 30%, at uACR testing rates of 20%, 50%, and 100%
- Among patients with T2DM and uACR tested, roughly 1 in 3 people tested had elevated albuminuria at sites with both low and high uACR testing rates (D)

B) All Patients, by Clinical Practice Site



D) Patients with uACR Tested, by Clinical Practice Site



Risk classification of CKD among patients tested without diagnosed CKD

uACR Categories (mg/g)

eGFR Category (ml/min/1.73m²)	A1: <30	A2: 30-300	A3: ≥ 300	
G1: ≥ 90	31.2%	7.8%	1.0%	40.0%
G2: 60-89	39.3%	9.4%	1.2%	49.9%
G3a: 45-59	6.0%	2.1%	0.4%	8.5%
G3b: 30-44	0.9%	0.5%	0.2%	1.5%
G4: 15-29	0.0%	0.0%	0.0%	0.1%
	77.4%	19.8%	2.8%	100.0%

No CKD	70.5%
Intermediate risk	23.2%
High risk	5.2%
Very high risk	1.2%

Patients without eGFR or uACR in the past year were excluded. CKD diagnoses ascertained from outbound claims in the past 2 years using the 9th and 10th revisions of international classification of diseases (ICD). CKD risk categories: no CKD, eGFR ≥ 60 (mL/min/1.73m^2) and uACR < 30 (mg/g); moderate risk, eGFR 45 – 59 and uACR < 30, eGFR ≥ 60 and uACR 30 – 299; high risk, eGFR 30 – 44 and uACR < 30, eGFR 45 – 59 and uACR 30 – 299, eGFR ≥ 60 and uACR ≥ 300; very high risk, eGFR < 30 and uACR < 30, eGFR < 45 and uACR 30-299, eGFR < 60 and uACR ≥ 300.

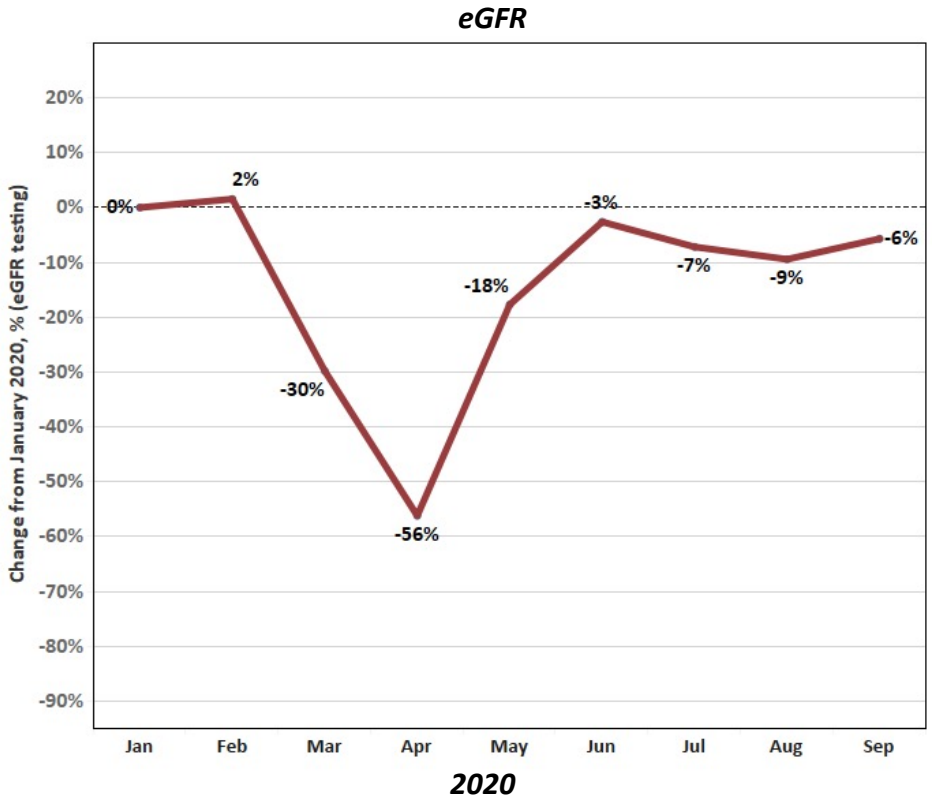
- Among patients with T2DM and no diagnosis of CKD, 29.5% had laboratory evidence of CKD
  - Only half of patients with laboratory evidence of CKD had a diagnosis

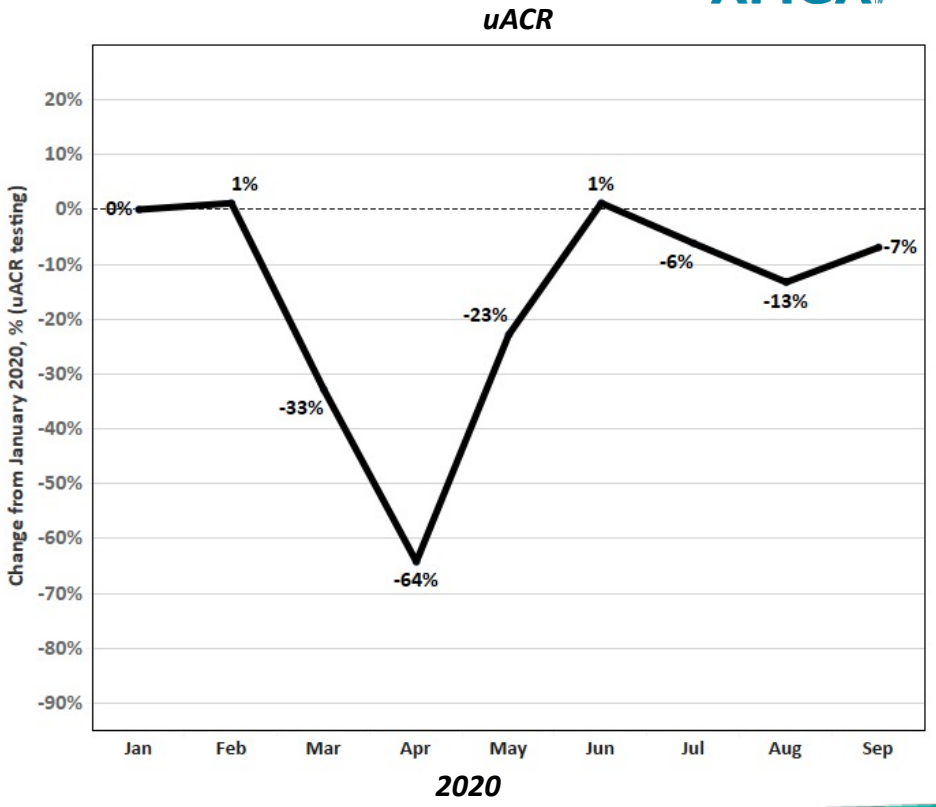
Conclusions

- Almost half of patients with T2DM are not tested annually with eGFR and uACR
  - eGFR testing rates were high
  - uACR testing was performed among only 50% of patients within 1 year and 75% within 3 years
- Dramatic testing variation among clinical practice sites within every organization
  - Most organizations had sites with high testing rates from whom to learn, and sites with low testing rates that need improvement
- Average prevalence of detected elevated albuminuria increased linearly with uACR testing rates
  - With approximately half (47%) of patients with type 2 diabetes not tested, it is likely approximately half of the patients with elevated albuminuria were not detected
- Improving uACR testing in type 2 diabetes will increase identification of patients with CKD
  - For whom guidelines recommend more frequent patient monitoring, and use of ACE inhibitor/ARB, SGLT2 inhibitor, and GLP-1 RA medications
- Beyond improved identification, there remain opportunities for organizations to increase CKD diagnosis and management

Impact of COVID-19 on eGFR and uACR

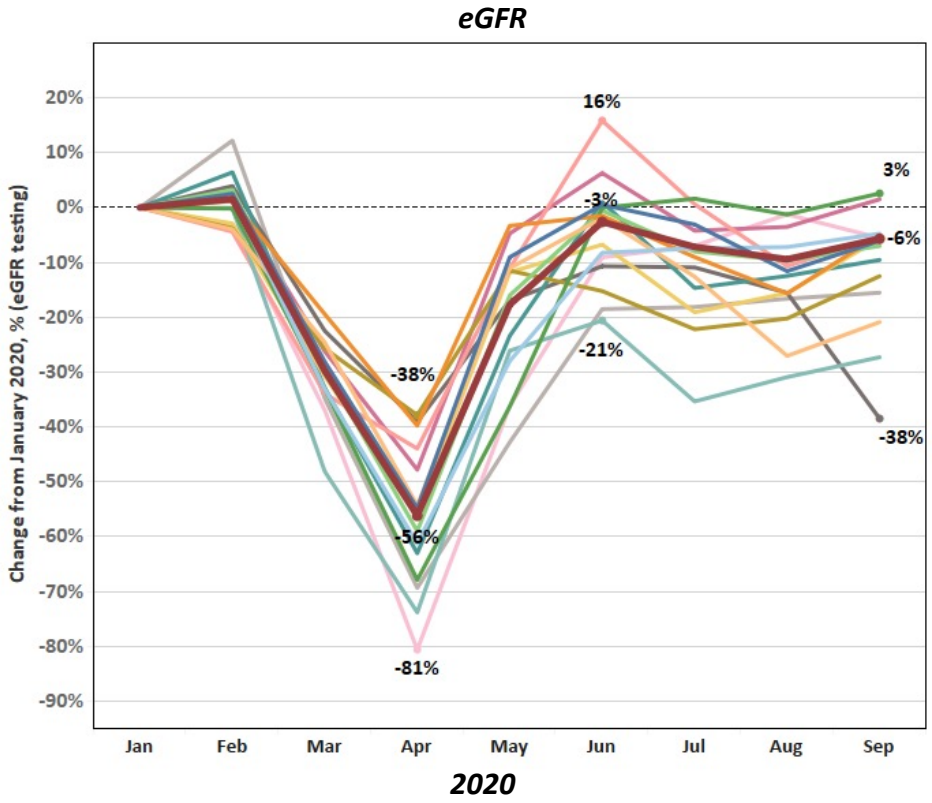
Impact of COVID-19 on eGFR and uACR testing

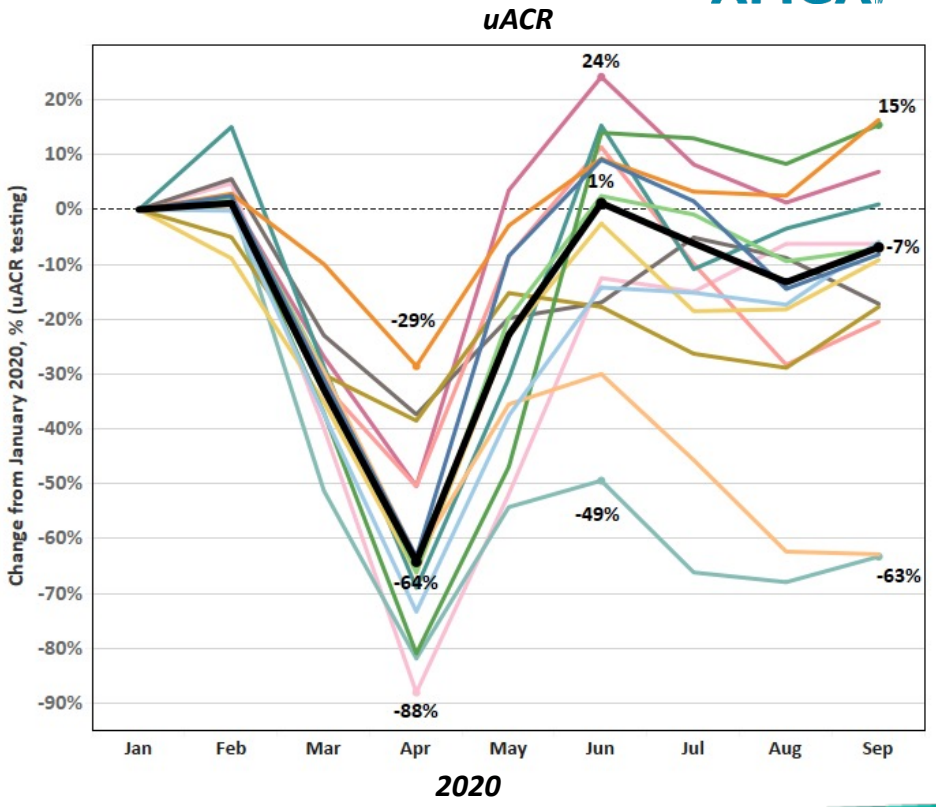




Unpublished Data

Impact of COVID-19 on eGFR and uACR testing





Unpublished Data

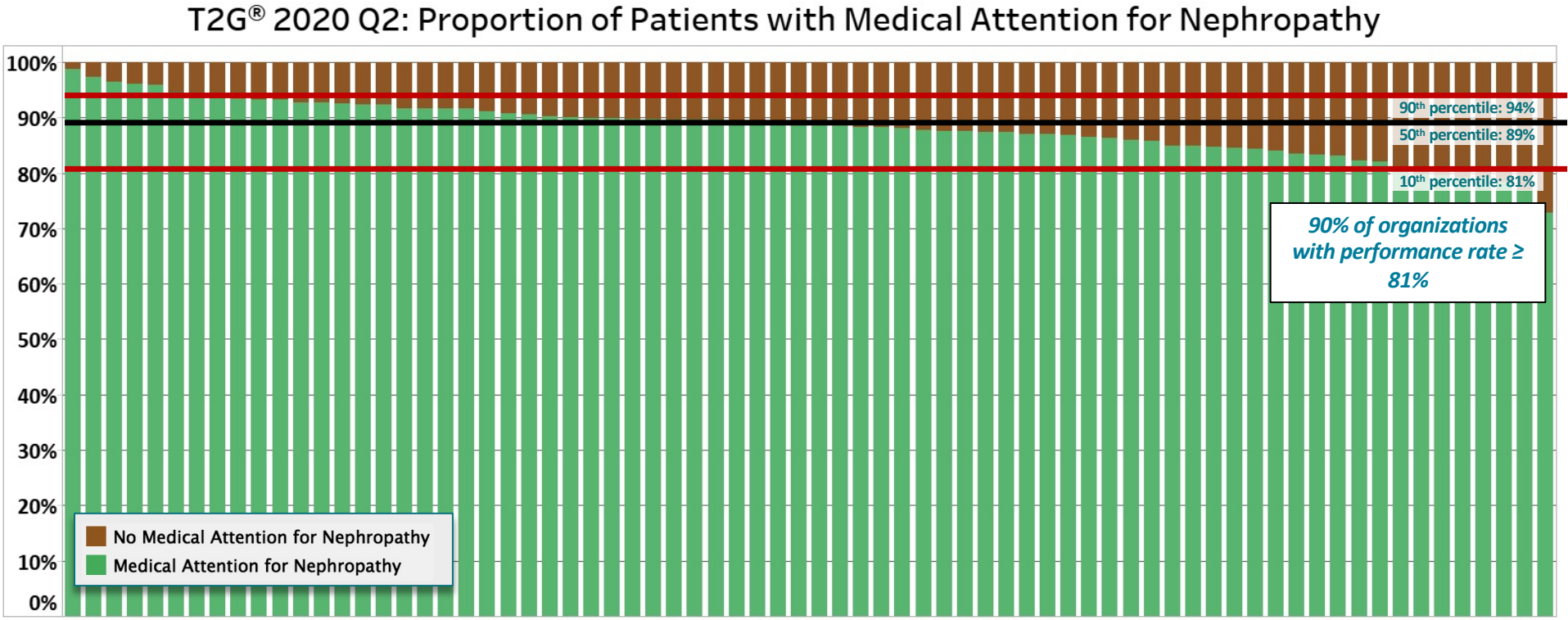
Kidney Related Quality Measurement in Type 2 Diabetes

Quality Measures for CKD in Diabetes

- **Medical Attention for Nephropathy (traditional measure, used in AMGA's Diabetes Campaign):** Percentage of patients who had a nephropathy screening test or evidence of nephropathy
  - Any urine protein test **OR**
  - Diagnosis of nephropathy **OR**
  - Visit with a nephrologist **OR**
  - Prescribing ACE-i or ARB

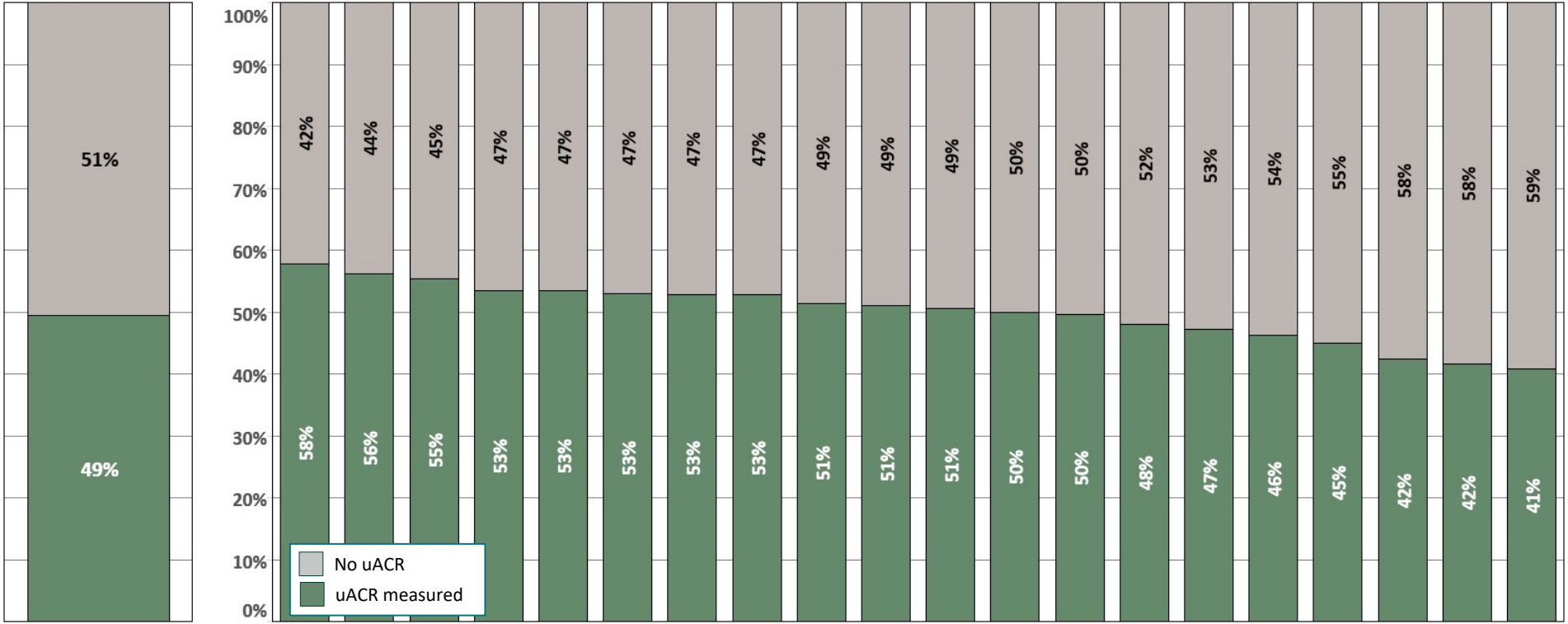
- **Kidney Health Evaluation (new measure, HEDIS Measurement Year 2020):** Percentage of patients who received kidney health evaluation
  - eGFR **AND**
  - Urine Albumin-Creatinine Ratio (uACR)

Medical Attention For Nephropathy (Together 2 Goal* 2020 Q2)



uACR Measurement Rates

- 685,000 patients aged 18 – 75 with type 2 diabetes and at least 2 visits with a PCP, cardiologist, endocrinologist, or nephrologist.
- Overall, 49% of patients (in green) had a urine albumin to creatinine ratio test in the 12-month measurement period.
- Rates ranged from 41 – 58% across individual organizations.



Unpublished Data

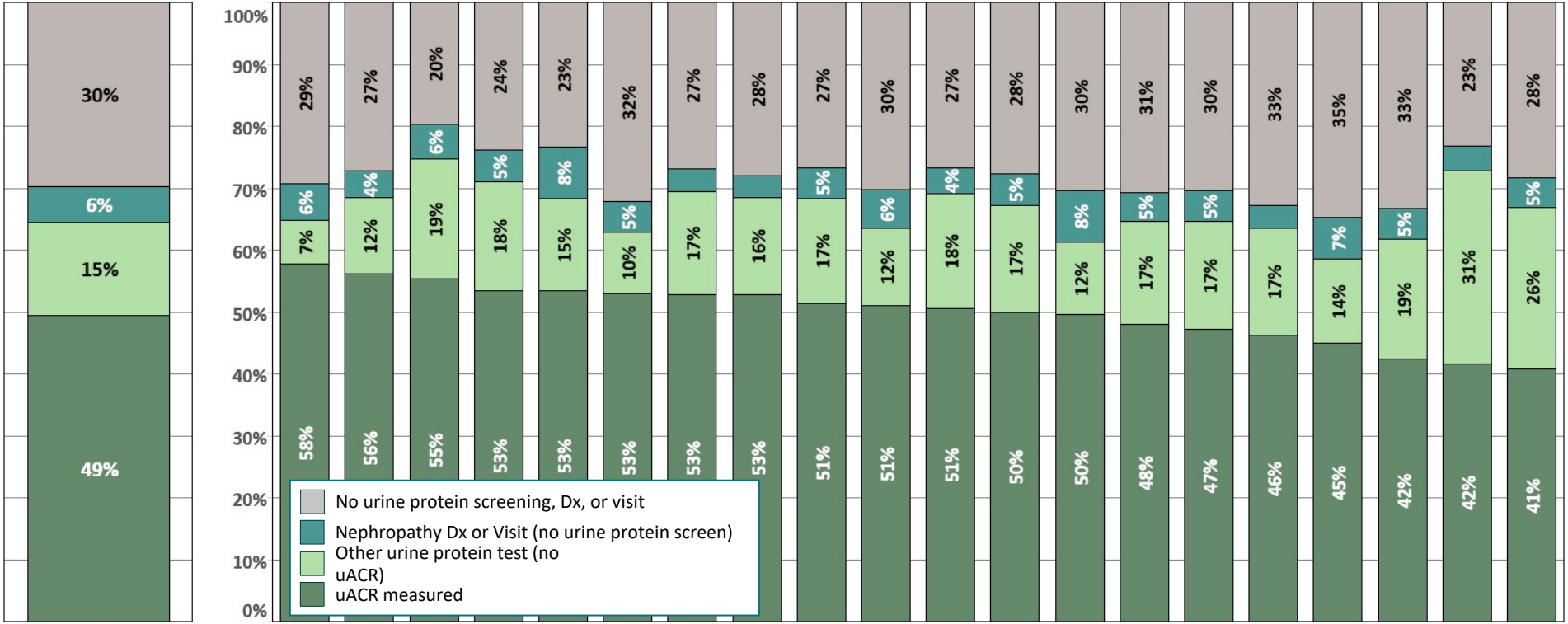
Urine Protein Test for Nephropathy Screening or Monitoring

- 685,000 patients age 18 – 75 with type 2 diabetes and at least 2 visits with a PCP, cardiologist, endocrinologist, or nephrologist.
- Overall, 15% of patients (in light green) had a urine protein test in the 12-month measurement period other than uACR.
- Rates ranged from 7 – 31% across individual organizations.

Unpublished Data

Diagnosis or Treatment of Nephropathy or Visit with Nephrologist

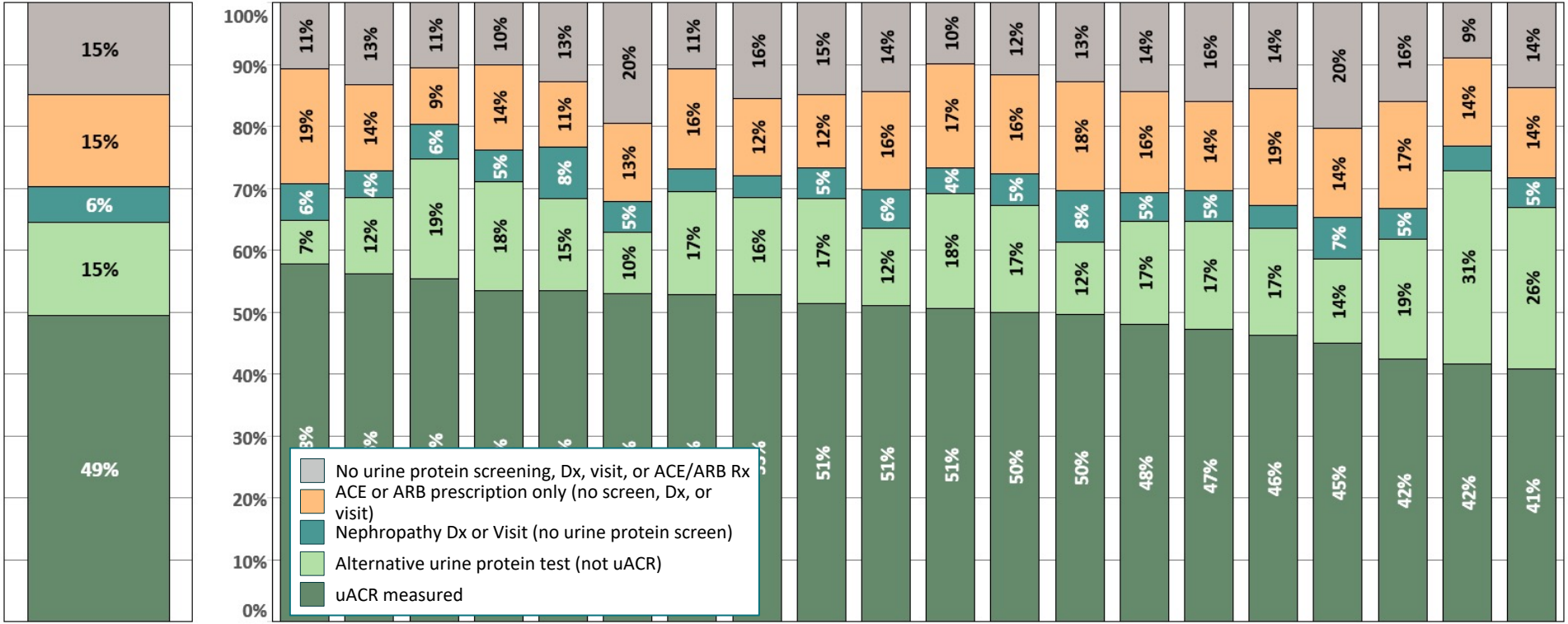
- Overall, 6% of patients (in teal) had a diagnosis for nephropathy, treatment for nephropathy, or a visit with a nephrologist, and no urine protein test.
- Rates ranged from 3 – 8% across individual organizations.



Unpublished Data

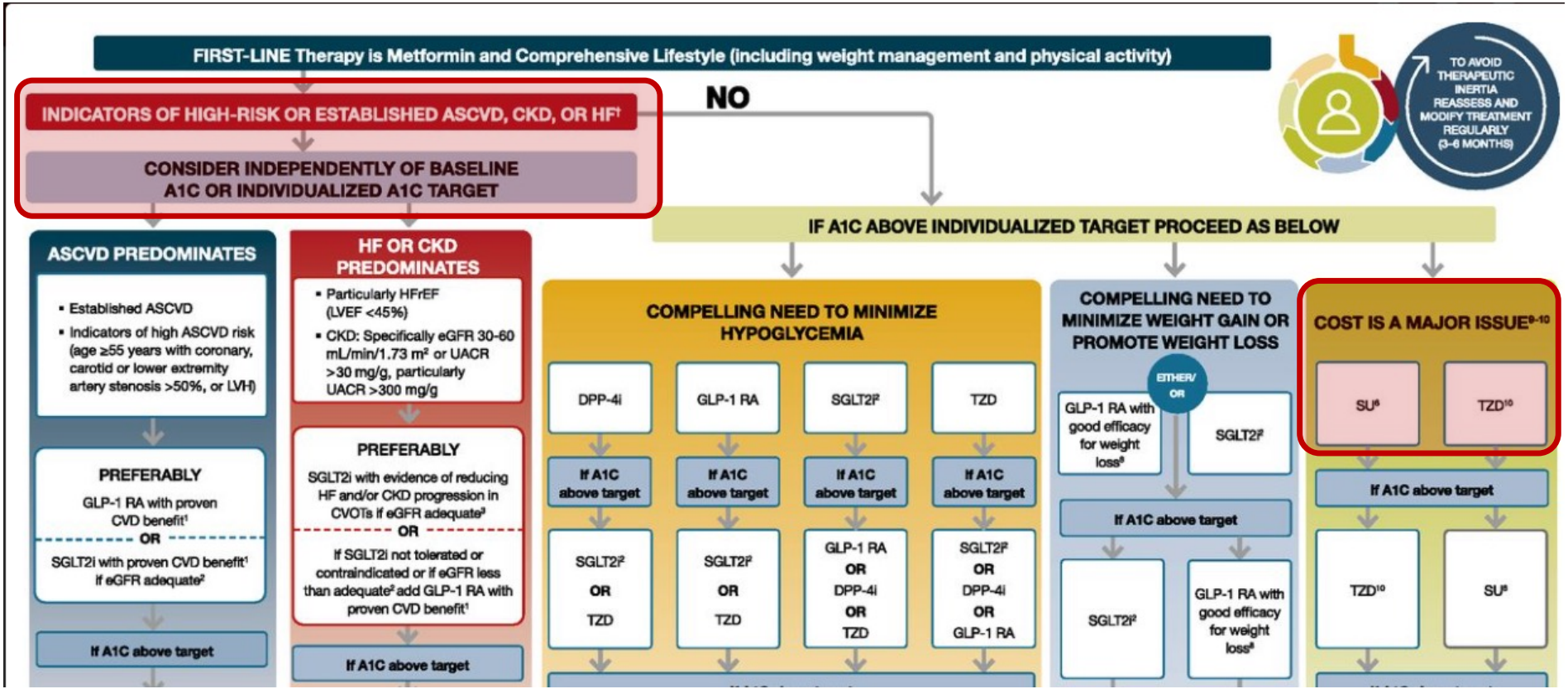
ACE-i or ARB Prescription

- Overall, 15% of patients (in orange) had an ACE-i or ARB prescription and no urine protein test, nephropathy Dx, nephropathy treatment, or visit with a nephrologist.
- Rates ranged from 12 – 19% across individual organizations.

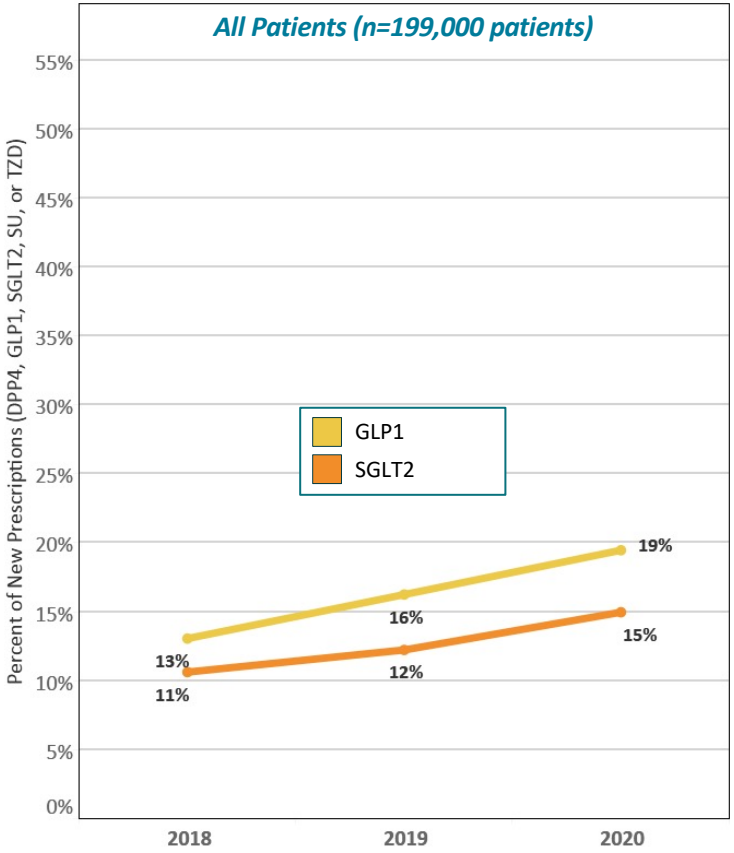


Unpublished Data

Prescribing of Reno/CV-protective Medications for Type 2 Diabetes



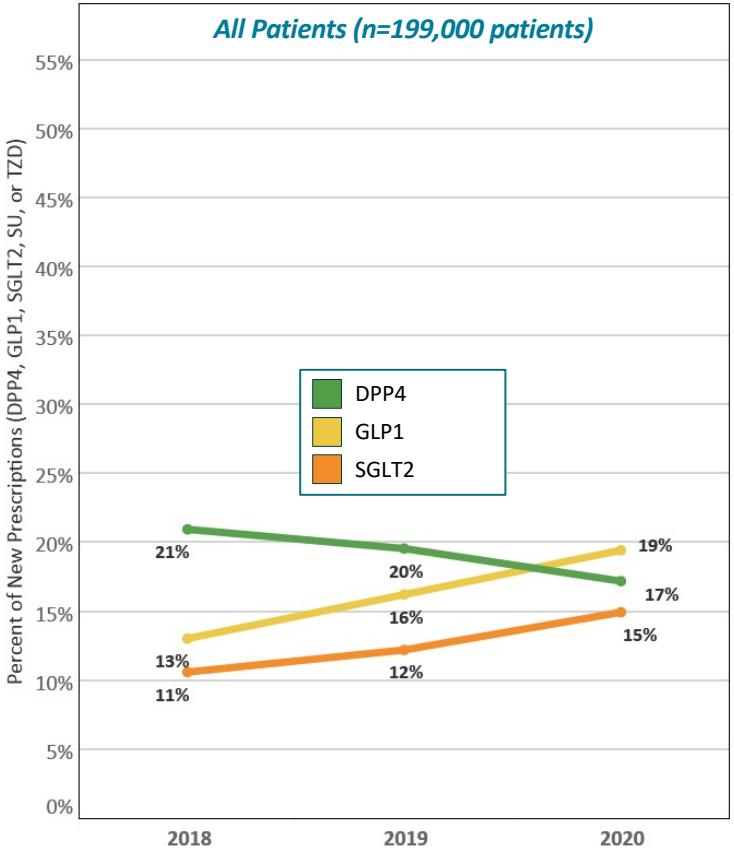
Trends for New Prescriptions: 2018–2020



- GLP1 and SGLT2 prescribing increasing over time

Unpublished Data

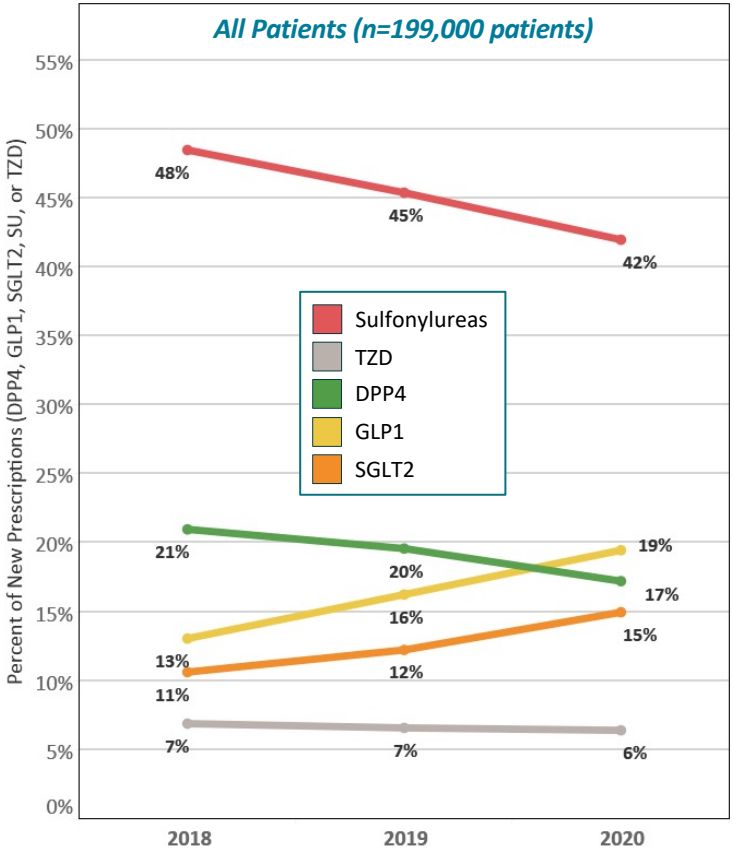
Trends for New Prescriptions: 2018–2020



- GLP1 and SGLT2 prescribing increasing over time
- DPP4 prescribing decreasing over time

Unpublished Data

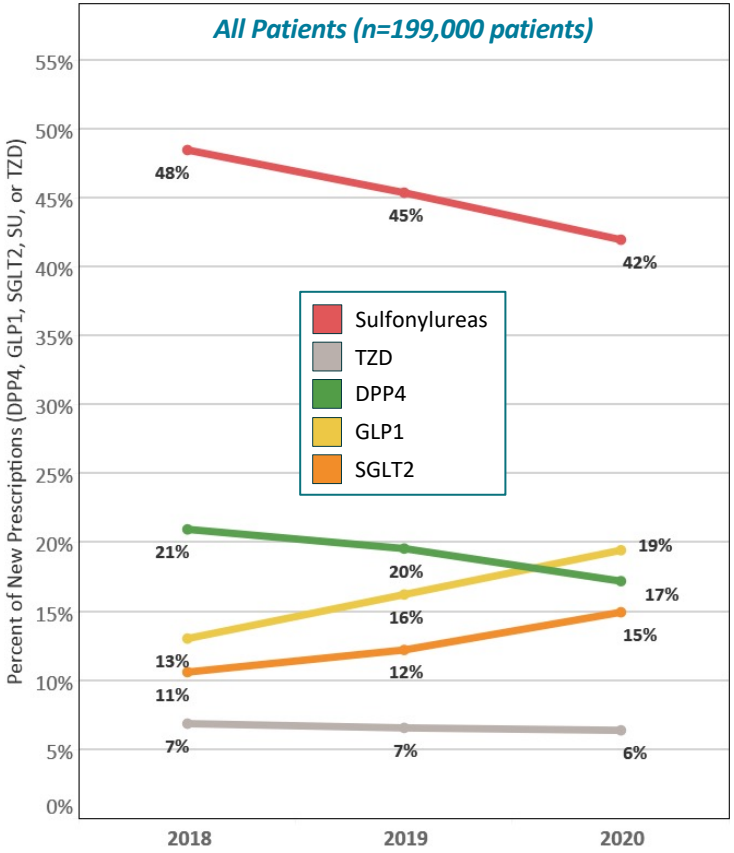
Trends for New Prescriptions: 2018–2020



- GLP1 and SGLT2 prescribing increasing over time
- DPP4 prescribing decreasing over time
- Sulfonylurea prescribing decreasing over time

Unpublished Data

Trends for New Prescriptions: 2018–2020

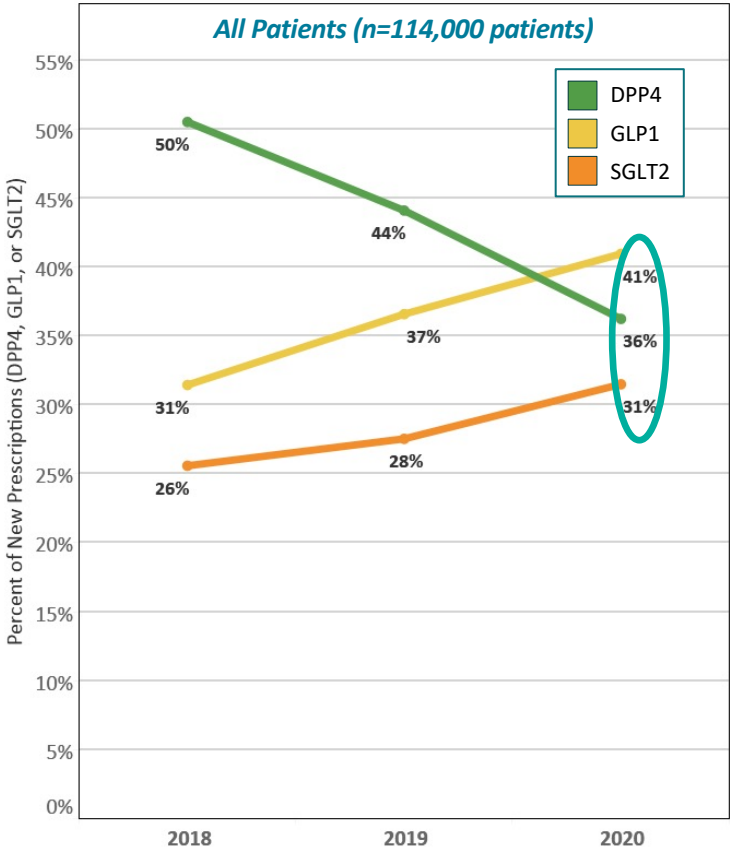


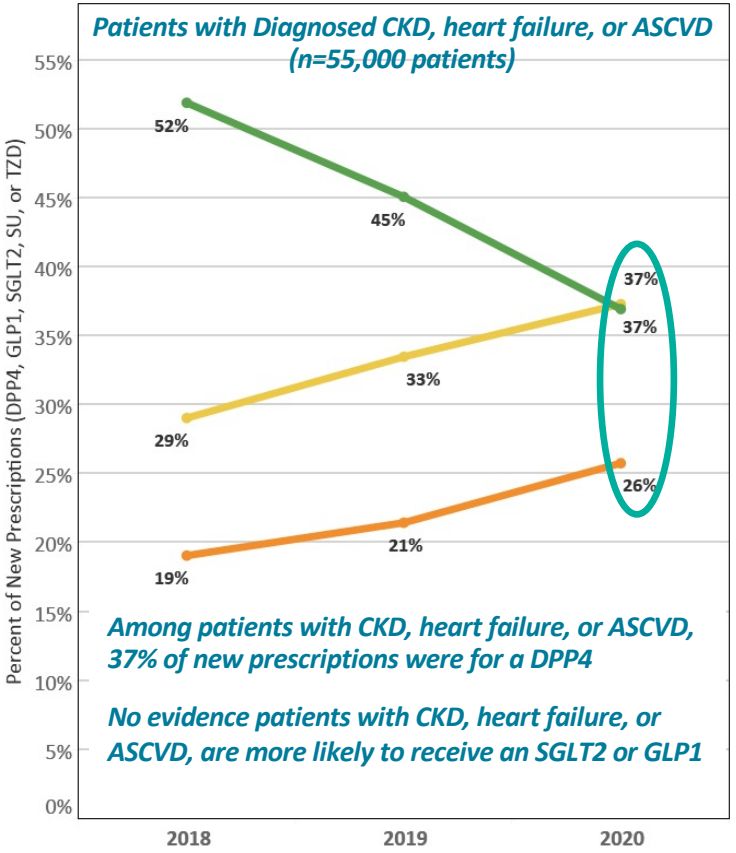
- GLP1 and SGLT2 prescribing increasing over time
- DPP4 prescribing decreasing over time
- Sulfonylurea prescribing decreasing over time
- **Average Annual Out of Pocket Costs***
  - "traditional" treatments (TZD and sulfonylureas)
    - **$250 to $355**
  - "novel" treatments (SGLT2, GLP-1, DPP4s)
    - **$1,231 to $1,981**

* DeJong C, Masuda C, Chen R, Kazi DS, Dudley RA, Tseng C. Out-of-Pocket Costs for Novel Guideline-Directed Diabetes Therapies Under Medicare Part D. *JAMA Intern Med.* Published online September 14, 2020. doi:10.1001/jamainternmed.2020.2922

Unpublished Data

Trends for New Prescriptions: 2018–2020





Among patients with CKD, heart failure, or ASCVD, 37% of new prescriptions were for a DPP4

No evidence patients with CKD, heart failure, or ASCVD, are more likely to receive an SGLT2 or GLP1

Unpublished Data

THE JOURNAL OF
AMBULATORY CARE MANAGEMENT

J Ambulatory Care Manage
Vol. 000, No. 000, pp. 1–11

OPEN

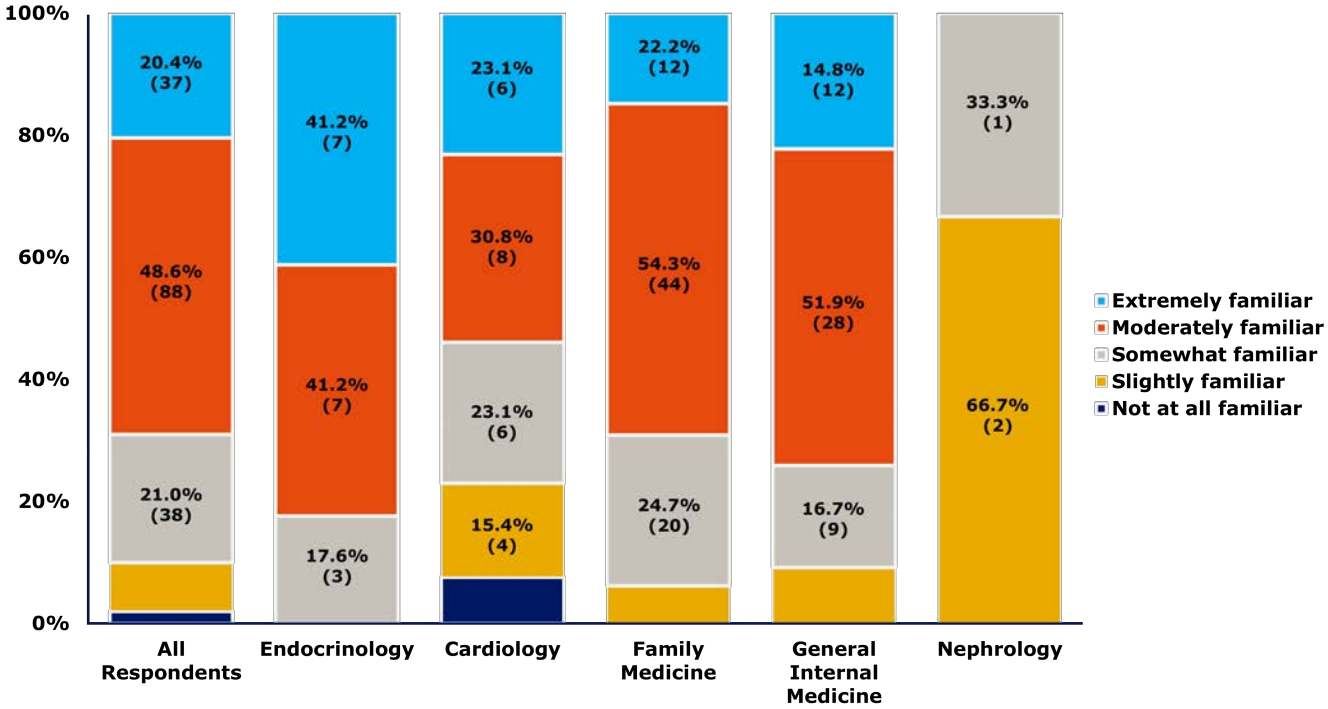
Cardiovascular Disease in Patients With Type 2 Diabetes

A Qualitative Analysis of Knowledge, Attitudes, and Beliefs of Health Care Professionals

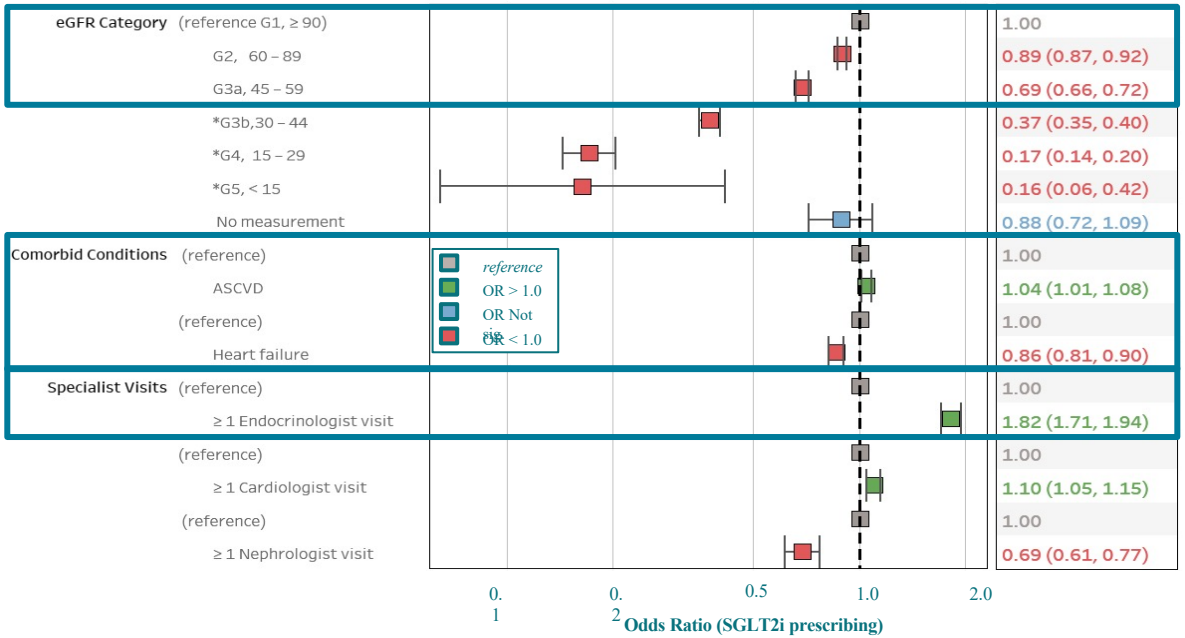
Elizabeth L. Ciemins, PhD; Monette McKinnon; Carol Mabler Hamersky, PhD; Neeraj N. Iyer, PhD; Jill Powelson, DrPH

Abstract: Guidelines for the management of patients with type 2 diabetes mellitus (T2DM) recommend SGLT-2 (sodium-glucose cotransporter 2) inhibitors and GLP-1 RAs (glucagon-like peptide 1 receptor agonists) as second-line agents for patients with, or at risk for, cardiovascular disease. A better understanding of guideline implementation will further the provision of evidence-based health care to patients. Interviews and surveys of clinicians were conducted to understand providers' knowledge, attitudes, and beliefs related to the 2019 American Diabetes Association Standards of Care for T2DM. There was a lack of widespread knowledge of the guidelines and comfort with their use. Clinicians require additional training and education on the efficacy of the new medications and accompanying clinical guidelines. **Key words:** *cardiovascular disease, clinical guidelines, diabetes, evidence-based care*

Familiarity with ADA Guidelines



Association of eGFR category, comorbid conditions, and specialist visits with SGLT2i prescribing

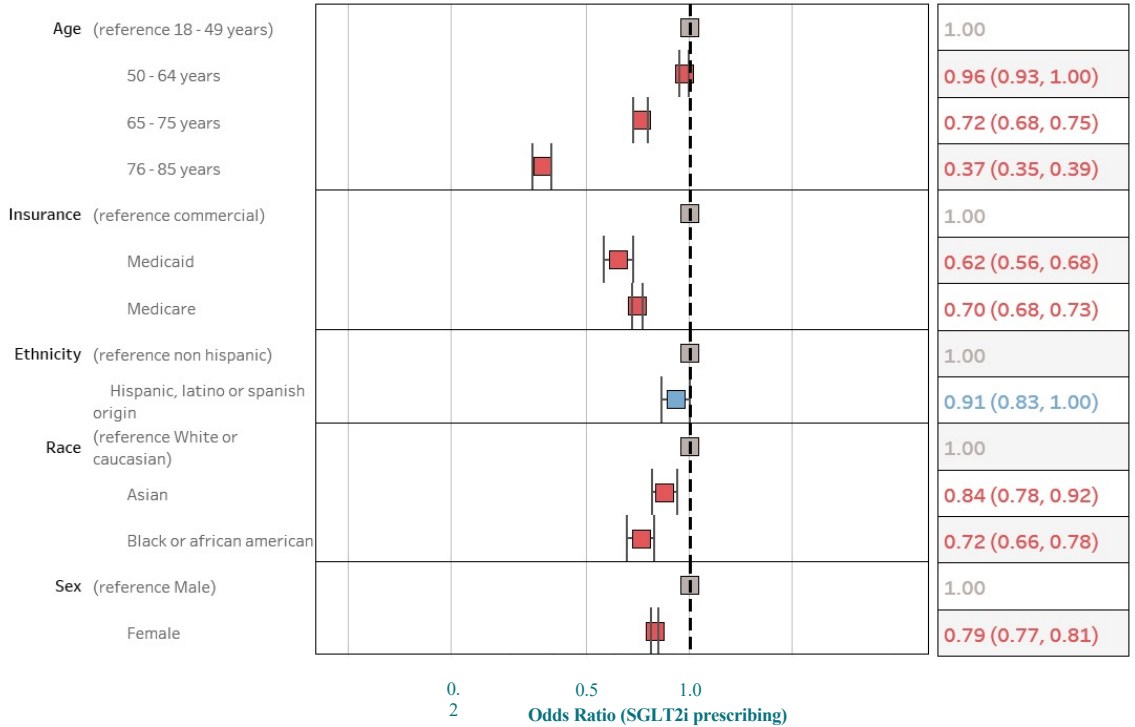


- While clinical guidelines preferentially recommend use of SGLT2is among patients with T2DM and ASCVD, HF, or CKD, findings suggest these recommendations have not been widely adopted in clinical practice.
- Endocrinologists may play an important role in prescribing new glucose-lowering medications.

Odds ratios (OR) were calculated using logistic regression, adjusted for all predictor variables, in addition to age, sex, race, ethnicity, financial class, and health care organization. Error bars show 95% confidence intervals. Odds ratio > 1.0 indicate increased odds of prescribing.
eGFR was calculated from serum creatinine measurements using the CKD-EPI equation, reported in mL/min/1.73m^2. Reference groups for specialist visits are patients with no visits with the respective specialist.
* Indications for SGLT2i initiation and continued use vary by individual medication within the class for eGFR G3b and are contraindicated for eGFR G4+.

Unpublished Data

Association of patient demographics SGLT2i prescribing



Odds ratios (OR) were calculated using logistic regression, adjusted for eGFR, ASCVD, heart failure, specialist utilization and health care organization Error bars show 95% confidence intervals. Odds ratio > 1.0 indicate increased odds of prescribing.

- Patients with older age, female, black race, Medicaid or Medicare insurance all associated with lower SGLT2 Prescribing.

Unpublished Data

Opportunities for improved care in T2DM

- Increase uACR testing
- Increase confirmatory testing and CKD Diagnosis among patients with lab evidence of CKD
- Adopt new kidney related quality measures
- Increase prescribing of guideline recommended medications for the appropriate patients

AMGA Foundation

Influenza vaccination impacts on Cardiovascular Outcomes

John W. Kennedy, M.D.
President, AMGA Foundation
Chief Medical Officer, AMGA

Chronic Medical Conditions (CMC) in US Adults

- 60% of adults aged 50-64 in the US are living with a CMC
- 75% of those aged 65 and older have at least 1 CMC

Fox S, Duggan M. http://www.pewinternet.org/2013/11/26/part-one-who-lives-with-chronic-conditions/. Accessed Jan 14, 2021

https://www.istockphoto.com/search/2/image?phrase=Sick%20adult&family=creative

Links between Chronic Medical Conditions & Flu Hospitalizations

- More than 90% of adults hospitalized for influenza from 2017-2020 had at least 1 underlying CMC

Centers for Disease Control. https://gis.cdc.gov/grasp/fluview/FluHospChars.html. Accessed August 31, 2021

https://www.istockphoto.com/search/2/image?phrase=hospitalized%20adult

Healthy People 2030 Influenza Immunizations

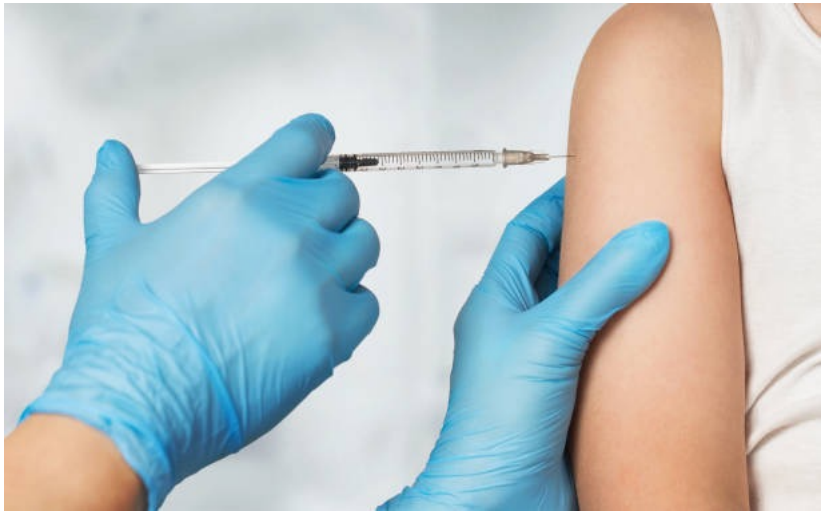
- Influenza Immunization Rates for All Age Groups Continue to Lag Behind Healthy People 2030 Goal of 70%

US Department of Health and Human Services. https://health.gov/healthypeople/objectives-and-data/browse-objectives/vaccination/increashttps://www.cdc.gov/flu/fluvaxview/coverage-1920estimates.htme-proportion-people-who-get-flu-vaccine-every-year-iid-09/data. Accessed January 22, 2021.

https://www.google.com/search?q=Healthy+People+2030+Images&rlz=1C1GCEU_enUS922US922&sxsrf=AOaemvIQZF7ZW9K4rKtt8lTGTejbqa9JfA:1632433320191&tbm=isch&source=iu&ictx=1&fir=PXanYyIHLjSXJM%252C6hK3NO5bB3m1BM%252C_&vet=1&usg=AI4_-kQNdwKxRy2CM4aF5NAEmFfYfkpX-Q&sa=X&ved=2ahUKEwiN7ayBiJbzAhW7MVkFHSQSDdgQ9QF6BAgNEAE&biw=1280&bih=577&dpr=1.5#imgrc=PP_RM2B0xDZIjM

CDC National Immunization Survey-Flu Data

- For the 2019-2020 Flu season vaccination coverage with >= 1 dose of flu vaccine :
- 6 mo- 17 yo 63.8%
- >= 18 yo 48.4%
- Total elig Pop 51.8%



Centers for Disease Control. https://www.cdc.gov/flu/fluvaxview/coverage-1920estimates.htm. Accessed August 13, 2021

https://www.istockphoto.com/search/2/image?phrase=Flu%20vaccine&family=creative

Protection Beyond Flu

- Influenza has additional burden due to its impact on multi-organ systems, with increased susceptibility to:
  - Secondary bacterial infections,
  - CV events such as triggering acute MIs or stroke,
  - Functional decline & loss of independence
  - Exacerbations of other conditions
    - Diabetes mellitus
    - Renal disease
    - COPD

https://www.istockphoto.com/search/2/image?phrase=Protection

References. 1. Murata Y, et al. J Infect Dis. 2007;195(7):1029-1037. 2. McCullers, JA.. Clin Microbiol Rev. 2006;19(3):571-582. 3. Cates CJ, et al. Cochrane Database Syst Rev. 2013;(2):CD000364. 4. Kopsaftis Z, et al. Cochrane Database Syst Rev. 2018;6:CD002733. 5. Udell JA, et al. JAMA. 2013;310(16):1711-1720. 6. Udell JA, et al. Expert Rev Cardiovasc Ther. 2015;13(6): 593-596. 7. Kwong JC, et al. N Engl J Med. 2018; 378(4):345-353. 8. Siriwardena AN, et al. CMAJ. 2010;182(15):1617-1623. 9. Kytomaa S, et al. JAMA Cardiol. 2019;4(4):363-369. 10. Panhwar MS, et al. JACC Heart Fail. 2019;7(2):112-117. 11. Rezkalla S, et al. Wisconsin Medical Journal. 2010;109(4):209-213. 12. Warren-Gash C, et al. Eur Respir J. 2018;51(3):pii1701794.
13. Boehme AK, et al. Ann Clin Transl Neurol. 2018; 5(4):456-463. 14. Zhu T, et al. Thromb Haemost. 2019;102(6):1259-1264. 15. Watanabe, T. Eur J Pediatr. 2013;172(1):15-22. 16. Lam PP, et al. BMC Infect Dis. 2016;16(1):615. 17. Schaffner W. Clinical Diabetes. 2007;25(4):145-149. 18. Ekstrand JJ. Semin Pediatr Neurol. 2012;19(3):96-100. 19. Gozalo PL, et al. J Am Geriatr Soc. 2012;60(7):1260-1267.

Flu & CVD outcomes in Scotland

- Case series in Scotland that looked at adults > 40 years old with a first time MI or stroke over a 10 year period (2004 – 2014)
- 10 fold increase in AMI w/in the 3d after influenza infection
- 8 fold increase in stroke in that same time period

https://www.istockphoto.com/search/2/image?family=creative&mediatype=photography&phrase=Scotland

Warren-Gash C,et. al. Laboratory-confirmed respiratory infections as triggers for acute myocardial infarction and stroke: a self-controlled case series analysis of national linked datasets from Scotland. Eur Respir J. 2018 Mar 29;51(3):1701794. doi: 10.1183/13993003.01794-2017. PMID: 29563170; PMCID: PMC5898931.

Flu and CVD Outcomes in Denmark

- Case series in Denmark that looked at adults 40+ with first time MI or stroke over a 6 year period (2010-2016)
- increased incidence rate of first AMI and stroke following influenza infections

https://www.istockphoto.com/search/2/image?mediatype=photography&phrase=Denmark

Ohland J, Warren-Gash C, Blackburn R, Mølbak K, Valentiner-Branth P, Nielsen J, Emborg HD. Acute myocardial infarctions and stroke triggered by laboratory-confirmed respiratory infections in Denmark, 2010 to 2016. Euro Surveill. 2020 Apr;25(17):1900199. doi: 10.2807/1560-7917.ES.2020.25.17.1900199. PMID: 32372757; PMCID: PMC7201950

Vaccination Care Gaps Among At-risk Adults

- 2012-2013 NHIS (National Health Interview Survey)
- Annual household survey conducted by the National Center for Health Statistics of the CDC.
- **90.1%** of unvaccinated adults <65y with a CMC had at least one HCP visit where vaccination could have been provided

https://www.istockphoto.com/search/2/image?phrase=doctor%20office

Lu PJ, O'Halloran A, Ding H, Srivastav A, Williams WW. Uptake of Influenza Vaccination and Missed Opportunities Among Adults with High-Risk Conditions, United States, 2013. Am J Med. 2016 Jun;129(6):636.e1-636.e11. doi: 10.1016/j.amjmed.2015.10.031. Epub 2015 Nov 6. PMID: 26551981; PMCID: PMC5831078.

Vaccination Care Gaps in CVD Patients

- A study in adults aged 40+ with atherosclerotic CVD (ASCVD)
- Lack of influenza vaccination in nearly 1 in 3 adults in the US with established ASCVD (32.7%)
- 7.4 million care gaps annually

https://www.istockphoto.com/search/2/image?phrase=Cardiac%20patient

Grandhi GR, Mszar R, Vahidy F, Valero-Elizondo J, Blankstein R, Blaha MJ, Virani SS, Andrieni JD, Omer SB, Nasir K. Sociodemographic Disparities in Influenza Vaccination Among Adults With Atherosclerotic Cardiovascular Disease in the United States. JAMA Cardiol. 2021 Jan 1;6(1):87-91. doi: 10.1001/jamacardio.2020.3978. PMID: 32902562; PMCID: PMC7489417.

Health Equity Care Gaps in Flu Vaccinations

Adults with CVD Flu Vaccination Care Gap High risk characteristics:

- younger aged Adults 40-64 yo,
- Non-Hispanic Black and Hispanic
- low/poor family income
- Uninsured
- No usual source of care
- High school education level or less

Adults with 2 high risk characteristics had 2.5 fold greater odds of lacking vaccination = 2,400,000/yr

Adults with 4 or more high risk characteristics had nearly 6 fold higher odds lacking vaccination and ASCVD = 733,000/yr

https://www.istockphoto.com/search/2/image?phrase=Health%20Equity

Grandhi GR, Mszar R, Vahidy F, Valero-Elizondo J, Blankstein R, Blaha MJ, Virani SS, Andrieni JD, Omer SB, Nasir K. Sociodemographic Disparities in Influenza Vaccination Among Adults With Atherosclerotic Cardiovascular Disease in the United States. JAMA Cardiol. 2021 Jan 1;6(1):87-91. doi: 10.1001/jamacardio.2020.3978. PMID: 32902562; PMCID: PMC7489417.

Vaccination for Secondary Prevention of CVD

- Smoking cessation decreased the chance of recurrence of MI by 32-43%,
- Statins by 19-30%,
- Anti-hypertensives by 17-25%
- Influenza vaccine decreased the chance of having an MI by 15-45%.

https://www.istockphoto.com/search/2/image?phrase=cardiac%20risk

- MacIntyre CR, Mahimbo A, Moa AM, Barnes M. Influenza vaccine as a coronary intervention for prevention of myocardial infarction. Heart. 2016 Dec 15;102(24):1953-1956. doi: 10.1136/heartjnl-2016-309983. Epub 2016 Sep 29. PMID: 27686519; PMCID: PMC5256393.

Meta-Analysis of Flu and CVD Outcomes

4 randomized controlled trials and 12 observational studies in patients with established CVD

Influenza vaccination was associated with

25% reduction in all-cause mortality

18% reduction in cardiovascular mortality

https://www.istockphoto.com/search/2/image?mediatype=photography&phrase=Cardiac%20Patient

Yedlapati SH,et. al. *Effects of Influenza Vaccine on Mortality and Cardiovascular Outcomes in Patients With Cardiovascular Disease: A Systematic Review and Meta-Analysis.* J Am Heart Assoc. 2021 Mar 16;10(6):e019636. doi: 10.1161/JAHA.120.019636. Epub 2021 Mar 13. PMID: 33719496.

Rise to Immunize™ Overview

John W. Kennedy, M.D.
Chief Medical Officer, AMGA
President, AMGA Foundation

National Campaign Framework

Measure Up
Pressure Down®
AMGA Foundation

Together 2 Goal®
AMGA Foundation
National Diabetes Campaign

A Foundation in Immunizations

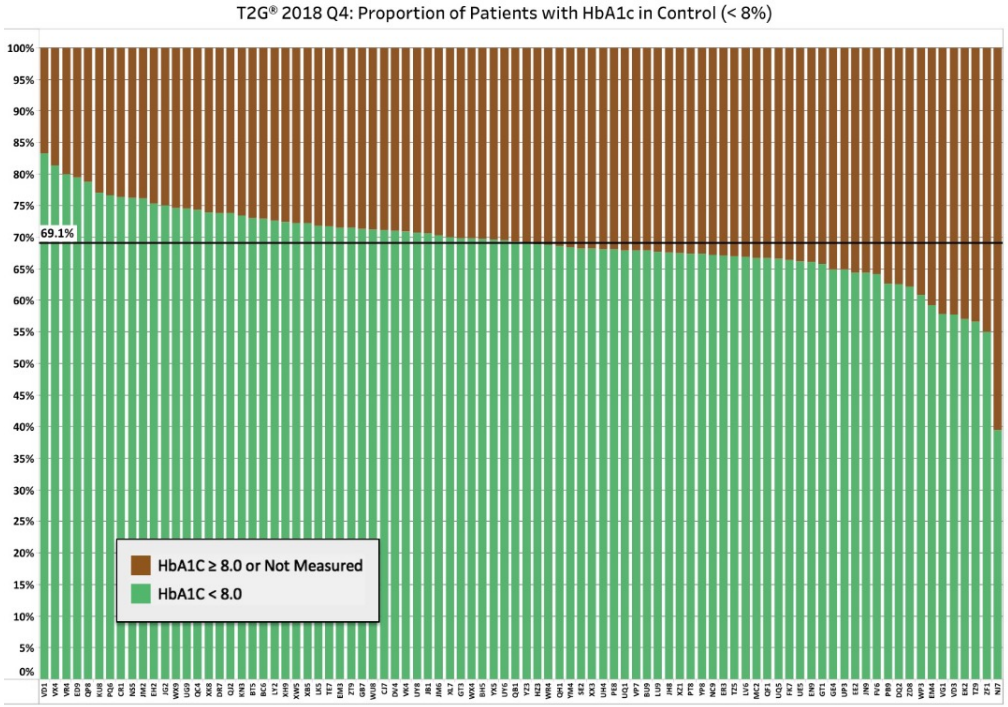
Rise to Immunize™ Goal

25 million vaccines administered by 2025

Campaign Measures

	Basic Track	Core Track
Influenza (19+)	√	√
Pneumococcal (66+)	√	√
Td/Tdap (19+)		√
Zoster (50+)		√
Bundle		√

Blinded Data Reports



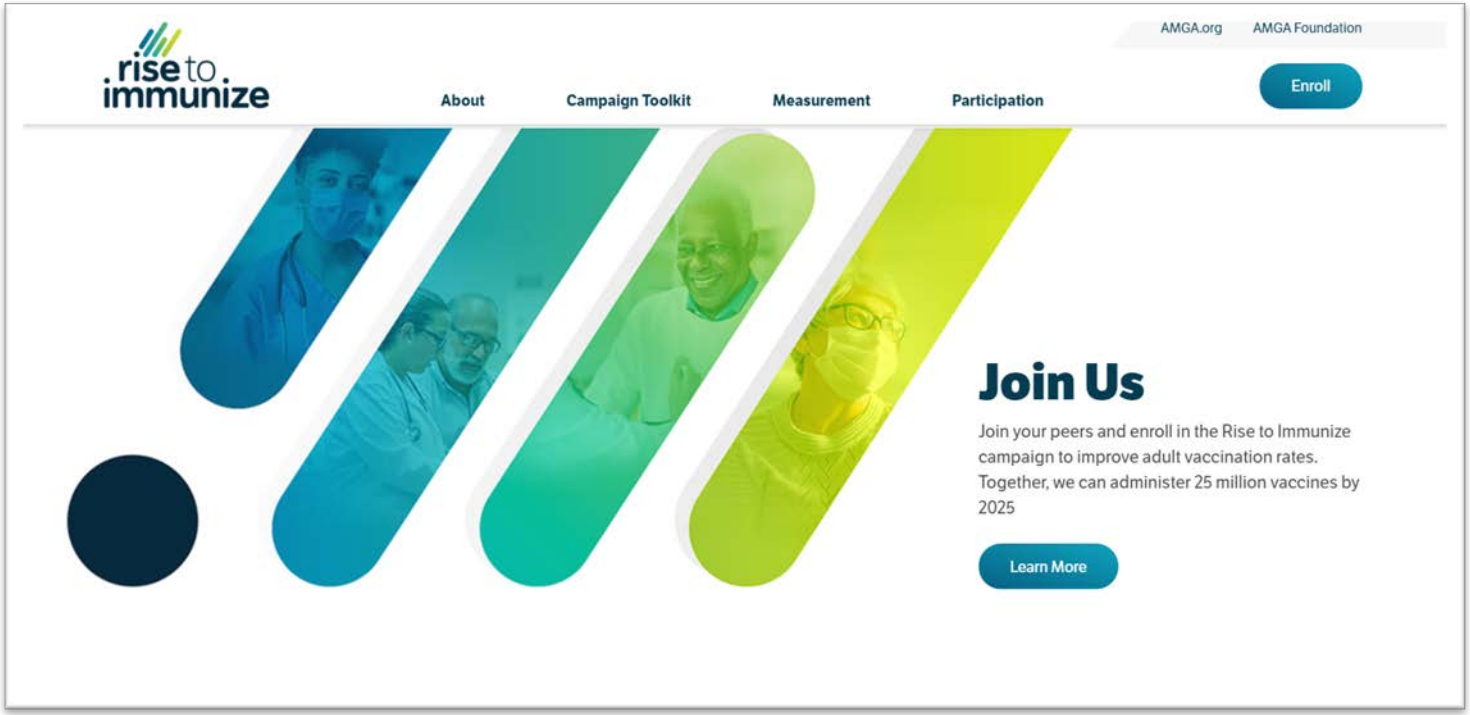
rise to immunize

Campaign Planks

Plank Domain

AMGA

www.RiseToImmunize.org



Campaign Resources

- Campaign Toolkit
- Community Listserv
- Monthly Webinars
- Mentorship
- Tools for patients & providers
- Newsletter

Campaign Supporters

Sponsors

Pfizer	Founding Sponsor
SANOFI	Principal Sponsor
MERCK	Achieving Sponsor
janssen PHARMACEUTICAL COMPANIES OF Johnson & Johnson, gsk	Contributing Sponsors

Partners

THE GERONTOLOGICAL SOCIETY OF AMERICA	The Gerontological Society of America
immunization action coalition IAC immunize.org	Immunization Action Coalition
NATIONAL Minority Quality Forum	National Minority Quality Forum

Campaign Participants

AMGA Foundation

Panel Session

Moderated by
Francis Colangelo, M.D., MS-HQS, FACP
Chief Quality Officer
Premier Medical Associates, P.C.

AMGA Foundation

Screening, Diagnosis, and Treatment: Combating clinical inertia in CKD and Other Cardiometabolic Diseases

Suelyn Boucree, M.D., M.B.A, FACP
Medical Director, Quality
Hackensack Meridian Health

AMGA Foundation

Clinical Inertia: What is this?

Interviews Conducted vs. Standard Definition

- “Burn-out”
- Fatigue
- Lacking motivation
- Dissociation

- “the failure to establish appropriate targets and escalate treatment to achieve treatment goals.”[1]
- “failure to initiate or intensify therapy”

Three Classes of Factors

The Healthcare Professional

The Patient

The National Healthcare System.

AMGA Foundation

Focusing on Prevention

Kidney Disease and other Cardiometabolic Diseases

- Chronic Kidney Disease (CKD)
- Diabetes Mellitus
- Cardiovascular Disease (CVD)
- Dyslipidemia
- Obesity
- Hypertension
- Physical Inactivity
- Smoking

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How is Clinical Inertia Showing up Our Practice?

Clinical Inertia & CKD

PROVIDER

-Apathy toward escalation of care

- Incomplete clinical encounters

- Decreased focus on patient education

- Switching jobs

? Taking more vacation

- Feeling less accountable

PATIENT

- Demotivated/fatalistic view

- Tired of hearing the same thing

- No improvement in targets – feels discouraged

- Fear (of contracting COVID – stay away from clinic setting) coupled with vaccination hesitancy

- Difficulty in regaining cadence in visits

HEALTH SYSTEM

- Decreased resources

Human

IT

Financial

- Decreased Access

SGLT2 Inhibition for CKD and Cardiovascular Disease in Type 2 Diabetes: Report of a Scientific Workshop Sponsored by the National Kidney Foundation

Katherine R. Tuttle, Frank C. Brosius III, Matthew A. Cavender, Paola Fioretto, Kevin J. Fowler, Hiddo J.L. Heerspink, Tom Manley, Darren K. McGuire, Mark E. Molitch, Amy K. Mottl, Leigh Perreault, Sylvia E. Rosas, Peter Rossing, Laura Sola, Volker Vallon, Christoph Wanner, and Vlado Perkovic

Table 4. SGLT2 Guidelines for CKD and CVD in Diabetes

Professional Group Recommendations	SGLT2i Recommended in CKD	SGLT2i Recommended in ASCVD	SGLT2i Recommended in HF	SGLT2i Recommended Independent of Metformin
European Society of Cardiology/ European Association for the Study of Diabetes Guidelines 2019[87]	Yes[a]	Yes	Yes	Yes (patients drug naive for glucose-lowering agents)
American Diabetes Association Standards of Medical Care in Diabetes 2020[85]	Yes[b] (if GFR adequate based on drug approval label)	Yes (if GFR adequate based on drug approval label)	Yes (if GFR adequate based on drug approval label)	No
Kidney Disease: Improving Global Outcomes Diabetes and CKD Guideline 2020[88]	Yes[c] (if GFR adequate based on drug approval label)	Yes (if GFR adequate based on drug approval label)	Yes (if GFR adequate based on drug approval label)	No
American Heart Association Scientific Statement on Cardiorenal Protection in Diabetes and CKD 2020[86]	Yes[d] (if GFR adequate based on drug approval label)	Yes (if GFR adequate based on drug approval label)	Yes (if GFR adequate based on drug approval label)	No comment

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; CVD, cardiovascular disease; eGFR, estimated glomerular filtration rate; HF, heart failure; SGLT2, sodium/glucose cotransporter 2; SGLT2i, sodium/glucose cotransporter 2 inhibitor.
[a]eGFR of 30 to <90 mL/min/1.73 m^2.
[b]eGFR of 30 to 60 mL/min/1.73 m^2 or urinary albumin-creatinine ratio > 30 mg/g, particularly urinary albumin-creatinine ratio > 300 mg/g.
[c]eGFR ≥ 30 mL/min/1.73 m^2.
[d]eGFR ≥ 30 or ≥45 mL/min/1.73 m^2 depending on agent; for canagliflozin, eGFR of 30 to 45 mL/min/1.73 m^2 and urinary albumin-creatinine ratio > 300 mg/g.

Prevalence and correlates of stress and burnout among U.S. healthcare workers during the COVID-19 pandemic: A national cross-sectional survey study

Prevalence and correlates of stress and burnout among U.S. healthcare workers during the COVID-19 pandemic: A national cross-sectional survey study

Kriti Prasad[a,b,*], Colleen McLoughlin[c], Martin Stillman[b], Sara Poplau[b], Elizabeth Goelz[b], Sam Taylor[c], Nancy Nankivil[c], Roger Brown[d], Mark Linzer[b], Kyra Cappelucci[c], Michael Barbouche[e], Christine A. Sinsky[c]

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[b] Hennepin Healthcare, Minneapolis MN, United States
[c] American Medical Association (AMA), Chicago, IL, United States
[d] University of Wisconsin School of Nursing, Madison, WI, United States
[e] Forward Health Group, Madison WI, United States

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Nursing
Allied health professionals
Mental health

ABSTRACT

Background: COVID-19 has put extraordinary stress on healthcare workers. Few studies have evaluated stress by worker role, or focused on experiences of women and people of color.
Methods: The "Coping with COVID" survey assessed US healthcare worker stress. A stress summary score (SSS) incorporated stress, fear of exposure, anxiety/depression and workload (Omega 0.78). Differences from mean were expressed as Cohen's d Effect Sizes (ESs). Regression analyses tested associations with stress and burnout.
Findings: Between May 28 and October 1, 2020, 20,947 healthcare workers responded from 42 organizations (median response rate 20%, Interquartile range 7% to 35%). Sixty one percent reported fear of exposure or transmission, 38% reported anxiety/depression, 43% suffered work overload, and 49% had burnout. Stress scores were highest among nursing assistants, medical assistants, and social workers (small to moderate ESs, $p < 0.001$), inpatient vs outpatient workers (small ES, $p < 0.001$), women vs men (small ES, $p < 0.001$), and in Black and Latinx workers vs Whites (small ESs, $p < 0.001$). Fear of exposure was prevalent among nursing assistants and Black and Latinx workers, while housekeepers and Black and Latinx workers most often experienced enhanced meaning and purpose. In multilevel models, odds of burnout were 40% lower in those feeling valued by their organizations (odds ratio 0.60, 95% CIs [0.58, 0.63], $p< 0.001$).
Interpretation: Stress is higher among nursing assistants, medical assistants, social workers, inpatient workers, women and persons of color, is related to workload and mental health, and is lower when feeling valued.

Coping with Covid

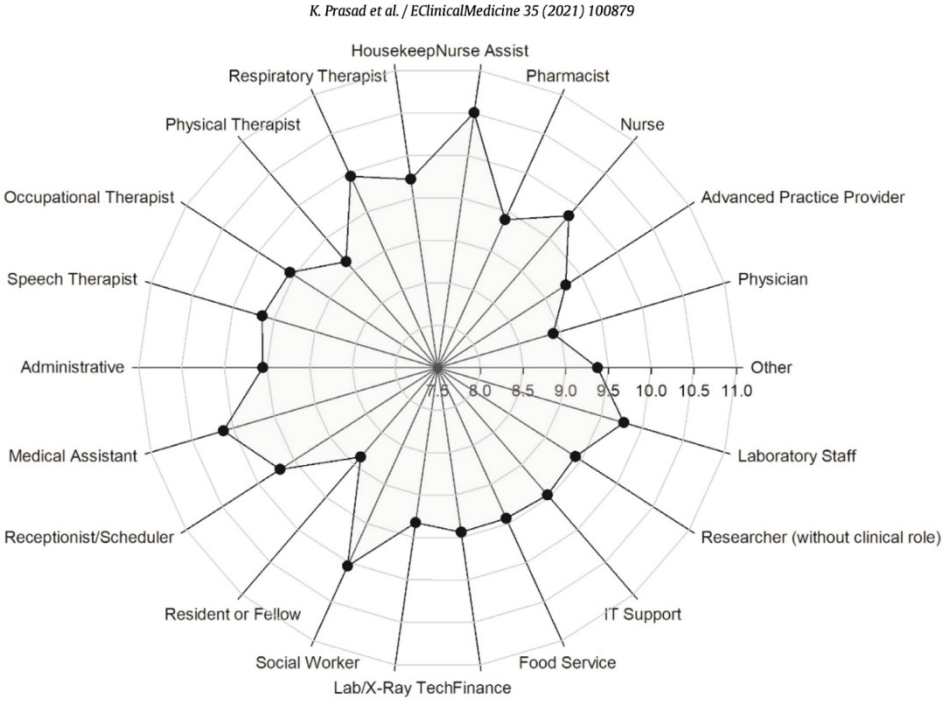

Fig. 1. Occupational variability in stress scores.
Range of stress summary scores (4–16).

Local Statistics (Coping with Covid)

- 5,220 responses (clinical and non-clinical team members)
- 79% reported anxiety or depression
  - 43% moderate to severe
  - 49% reported burnout
  - Summary data for Well-Being Index at HMH
    - 38% of physicians with high levels of distress (slightly above national mean)
    - 55% of nurses with high levels of distress (slightly below national mean)

The Physicians Foundation 2021 Physician Survey: COVID-19 Impact Edition: A Year Later

- 61% of physicians report burnout
- 57% have felt anger, tearfulness
- 14% sought medical attention despite high incidence of mental health symptoms

8/10 physicians were impacted as a result of COVID-19

- - 49% reported a reduction in income
- - 32% experienced a reduction in staff
- 18% switched to a primary telemedicine practice
- The majority of physicians identified their families (89%), friends (82%) and colleagues (71%) as most helpful to their mental health and wellbeing during the pandemic

- >70% believe a multipronged approach needs to be taken to address mental health conditions, burnout and or preventing suicide: confidential therapy, counseling or support phone lines,
- Evidence based professional training to prevent burnout, behavioral health conditions and suicide
- Peer to peer support groups
- Evidence based campaigns to address stigma with seeking mental/behavioral health support

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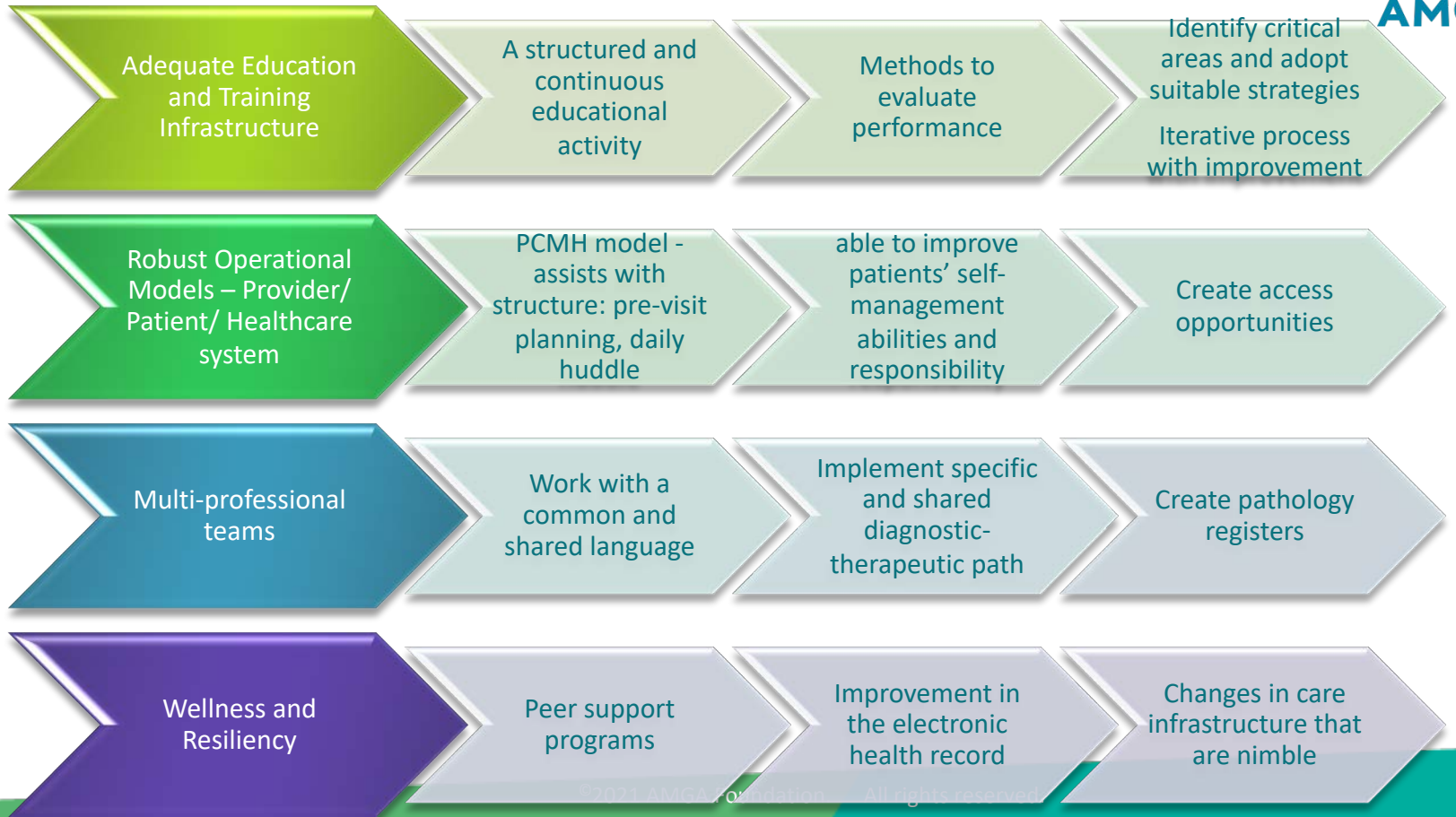
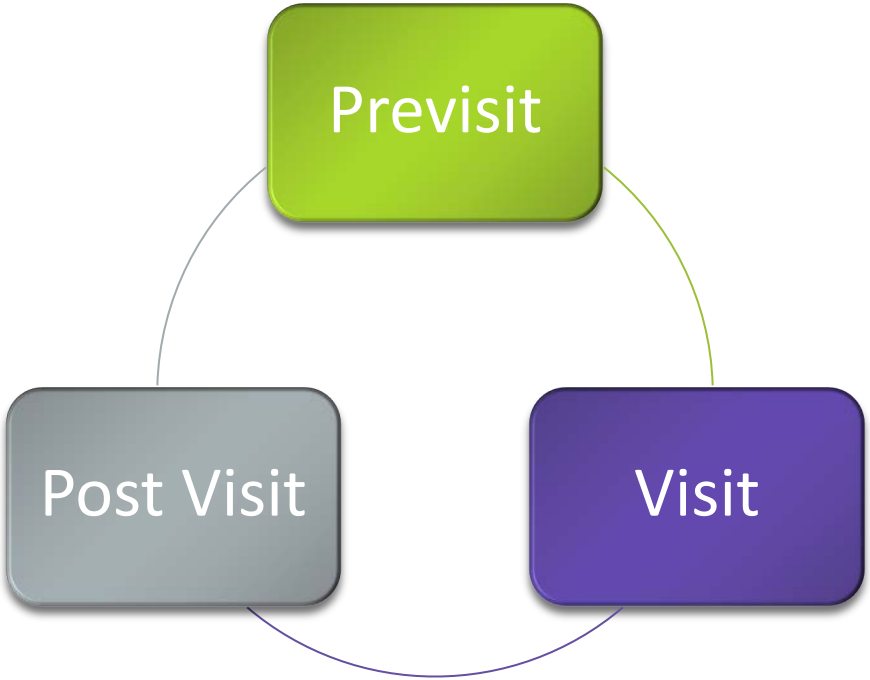
Strategies To Overcome Clinical Inertia

The Approach



Complete Patient Cycle

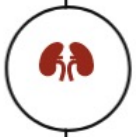


Diabetes Mellitus: Associated Measures

Quality & Patient Safety

HBA1C Poor control | Keep A1C <9%, Ideally <7% - 3 monthly follow-up

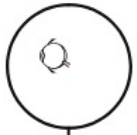
Controlling High Blood Pressure | Keep BP<140/90mmHg



Nephropathy Screening I order micro albumin/creatinine ratio/ place patient on ACEI/ARB

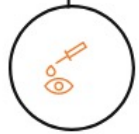
Statin Use | Order statin

Depression Screening | perform screening with PHQ9, prescribe medication/refer patient/suicide risk assessment



Eye Exam | yearly eye exam and file/scan appropriately

Foot Exam | perform in EPIC under foot exam (PE section)/ refer to podiatrist



Vaccination |pneumonia vaccination/guidance

BMI |Enter BMI in the problem list and enter assessment and plan into in said section of the problem list/refer to dietician/nutritionist

Team Workflow in the Care of the Diabetic Patient

Pre-Visit

1

MA:

Check for gaps in care and follow up on orders/ referrals, etc. to ensure receipt and proper filing/scanning

During Visit

2

MA:

- Instruct & ensure patient to remove his/her shoes during rooming
- Remind clinician of outstanding health maintenance items (order where possible in accordance to license)
- Performs 3 monthly HBA1C checks

Provider

- Exam to include foot exam (w/monofilament test) & document in Physical Exam section of the chart (see the foot section - will capture the screening needed
- **Use smartest -** order all relevant labs/referrals/supplies
- Review the DM content from book with patient employing shared decision making

Post Visit

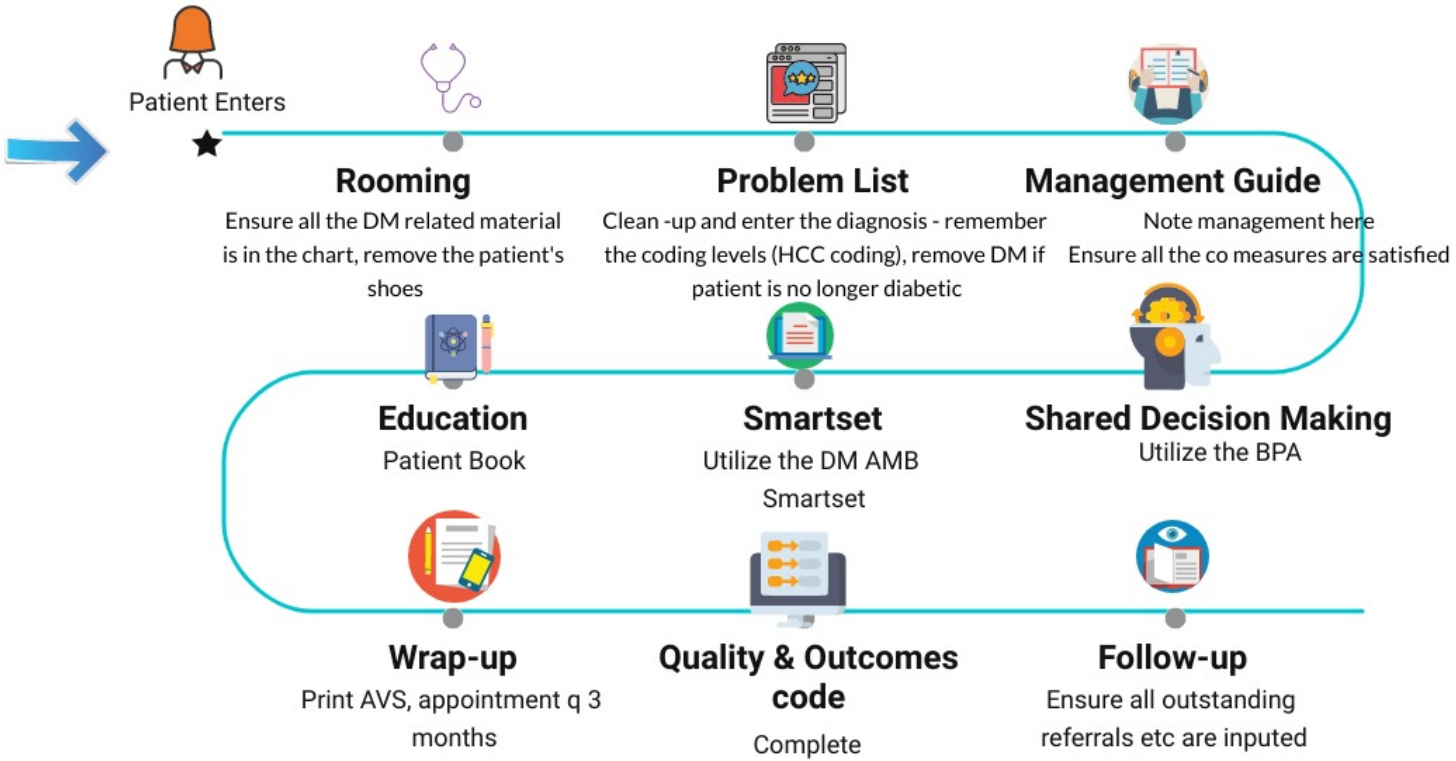
3

MA:

Check on outstanding referrals, tests, etc and retrieve/ assist with appointment scheduling

Obtain the reports and ensure proper filing/scanning

Meeting the Measure (HBA1c Poor Control)



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Thank You!

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Combating Clinical Inertia in CVD

Andy Dang, M.D.
Medical Director Quality and Population Health
Sharp Rees-Stealy Medical Group

Financial Disclosures

- None

Reflection

"Great things in business are never done by one person; they're done by a team of people."
- Steve Jobs

SHARP Rees-Stealy Medical Centers

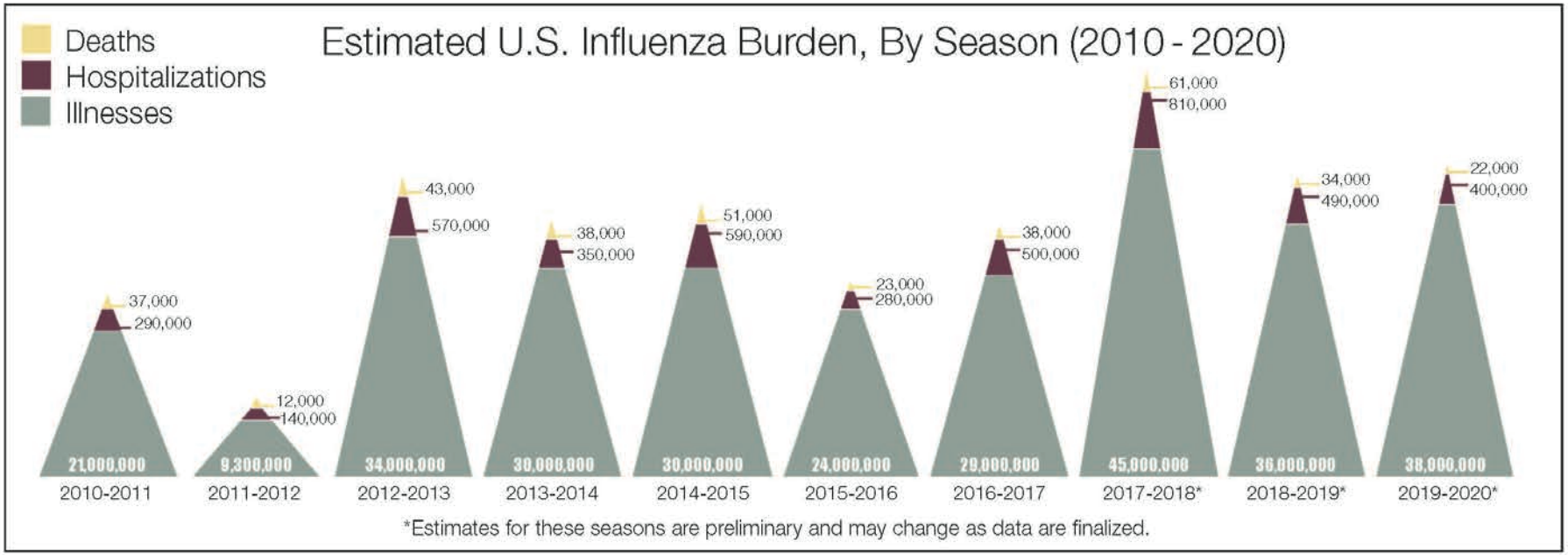
- Multi-specialty medical group with 19 clinic locations throughout San Diego, 5 urgent cares, 7 retail pharmacies
- Primary & specialty care, with ancillary services under one roof, at most locations
- 2,500 Employees
- 557 Physicians + ~100 APPs
- Average HMO enrollment >185,000 and 1.4m physician visits
- 30+years managing care under population-based payment structures

National Impact of Heart Disease

- Leading cause of death in the United States[1]
- 360,900 people die from CVD in 2019[2]
- 805,000 people have a heart attack annually[3]

1. Centers for Disease Control and Prevention. Underlying Cause of Death, 1999–2018. CDC WONDER Online Database. Atlanta, GA: Centers for Disease Control and Prevention; 2018.
2. Centers for Disease Control and Prevention, National Center for Health Statistics. About Multiple Cause of Death, 1999–2019. CDC WONDER Online Database website. Atlanta, GA: Centers for Disease Control and Prevention; 2019..
3. Fryar CD, Chen T-C, Li X. Prevalence of uncontrolled risk factors for cardiovascular disease: United States, 1999–2010 pdf icon[PDF-494K]. NCHS data brief, no. 103. Hyattsville, MD: National Center for Health Statistics; 2012.

Estimated Influenza Disease Burden, by Season
United States, 2010-11 through 2019-20 Influenza Seasons



https://www.cdc.gov/flu/about/burden

Association between Flu & CVD

- Risk of heart attacks 6 times higher within a week of confirmed flu infection[1]
- Serious heart complications occurred in 12% of patients hospitalized with the flu[2]
- Meta-analysis showed lower risk of CV mortality and MACE[3]

1. Kwong J. et al. Acute Myocardial Infarction Laboratory-Confirmed Influenza Infection. NEJM 2018;378:345-353
2. Chow E., et al. Acute Cardiovascular Events Associated with Influenza in Hospitalized Adults: A Cross-sectional Study. Ann Intern Med 2020 Oct 20; 173(8) 605-613
3. Yedlapati S et al. Effects of Influenza Vaccine on Mortality and Cardiovascular Outcomes in Patients with Cardiovascular Disease: A Systemic Review and Meta-Analysis. JAHA2021;10e019636

Pneumococcal PNA and CVD

- Vaccination with pneumococcal vaccine PPV23 associated with decreased risk of any CV event esp ≥ 65 years[1]

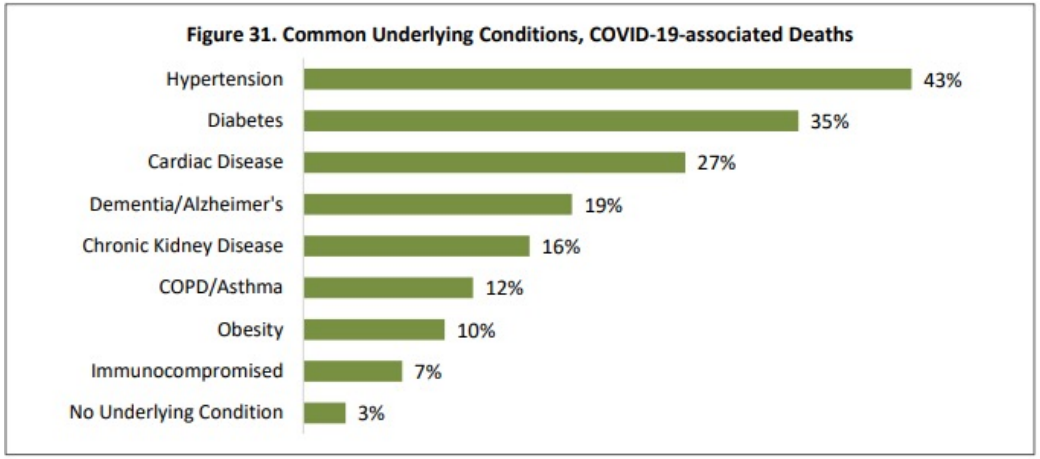
1. Marra, F et al. The Protective Effect of Pneumococcal Vaccination on Cardiovascular Disease in Adults: A Systemic Review and Meta-Analysis. IJID 99(2020)204-213.

COVID Data

Common comorbidities associated with in hospital mortality:

- HTN 46.7%
- DM 27.9%

Reference: Rosenthal, N et al. Risk Factors Associated with In-Hospital Mortality in a US National Sample of Patients With COVID-19. *JAMA Network Open*.2020;3(12):e2029058. doi:10.1001/jamanetworkopen.2020.29058external icon



COVID Vaccination

Table 2. COVID-19 Cases Among San Diego County Residents by Vaccination Status Since March 1, 2021

	Not Fully Vaccinated*	Fully Vaccinated**	Total
Cases	70,764 (78.6%)	19,311 (21.4%)	90,075
Hospitalizations	2,346 (95.2%)	118 (4.8%)	2,464
Deaths	293 (85.4%)	50 (14.6%)	343

COVID-19 WATCH

Weekly Coronavirus Disease 2019 (COVID-19) Surveillance Report

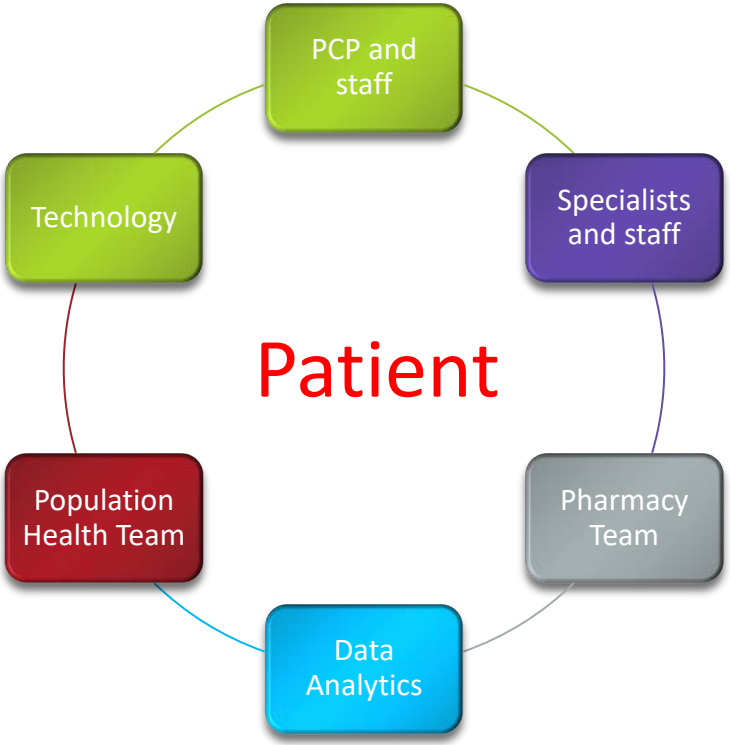
COVID-19 Hospitalizations by Vaccination Status

Hospitalization rate for not fully vaccinated residents is ***34 times higher*** than fully vaccinated residents

Dates: 8/22-8/28/2021

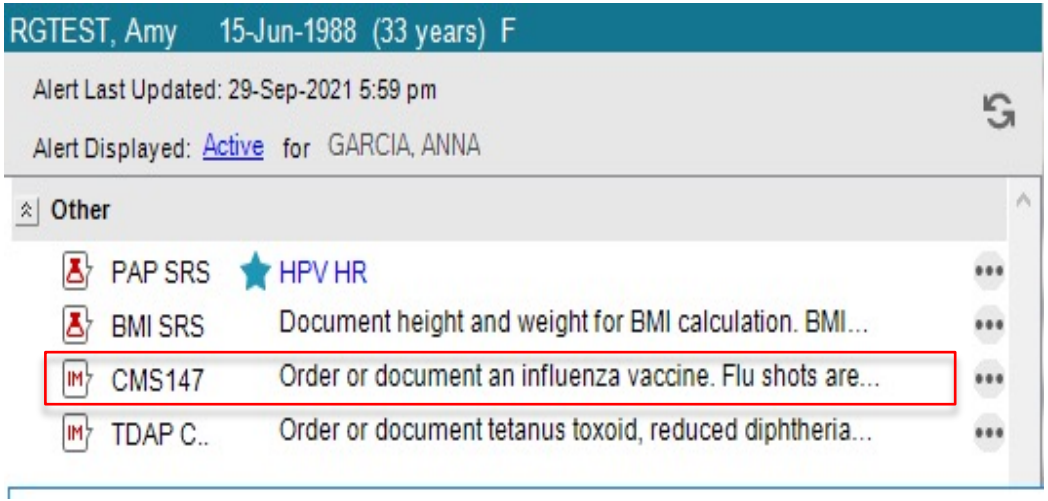
Not Fully Vaccinated* Hospitalization Rate	Fully Vaccinated ** Hospitalization Rate	County Overall Hospitalization Rate
1.72	0.05	0.77

Team Based Approach to CVD



Population Health Approach

- Telling the story
- Manual alerts
- Electronic alerts



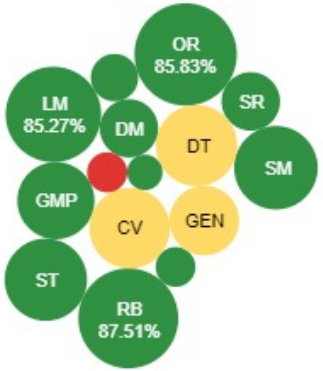
Population Health Approach

- Data Transparency
- Healthy Competition

SRS Hypertension Overall Rate as of October 3, 2021: 85.62% *Updated weekly

Select Graph for Hypertension Control - Goal 85% (FY2020 Goal 85%)

Hypertension Rate



Vaccination Efforts

- Outreach Efforts
  - Text Messages, Patient portal
  - Phone Calls
- Providing care at convenient locations and times
  - PCP clinics
  - Specialty clinics
  - Population health nurse clinics
  - Vaccine Clinics (flu and COVID)

COVID and Its Challenges

- Decreased in-person visits
- Staffing challenges
  - Government vaccination mandates
  - Burnout

Continued Risk Reduction of CVD

- 85% of patients with HTN are controlled <140/90
- Statin use (CY2020)
  - 90% of patients with ASCVD on statin
  - 93% of senior patients with diabetes on statin
- CDC Certified Diabetes Prevention Program
- Aggressive Management of Diabetes
  - A1c < 8 – 73.3%
  - BP control - 85.3%

“It’s that tingle in my stomach, that lump in my throat and that smile on my face that tell me I am part of an incredible team.”

Kristine Lilly, US Soccer Player

AMGA Foundation

Combating Clinical Inertia in CVD

Barbara Hodne, M.D.
Chief Quality Officer
The Iowa Clinic

AMGA Foundation

The Iowa Clinic

Physician-Owned & Governed

Multi-Specialty

200+ Providers

Commercial & MSSP Risk-Based Contracts

Average 600,000+ patient visits /year

Addressing Barriers Leading to Inertia

- Provider Education / Lack of Knowledge
- Provider Discomfort with conversation
- Need support understanding disease mgmt. tools

Importance of Coding & Assessing Obesity

BMI >= 40 is an HCC with a weighting almost 3x that of Diabetes w/o Complications! (.273 or ~**$2,400**!)

For patients active in our MSSP (2Q):

BMI > 40: 16% without HCC ICD10

BMI 35-39: 66% without HCC ICD10

ICD10 HCC Coding for BMI >=40

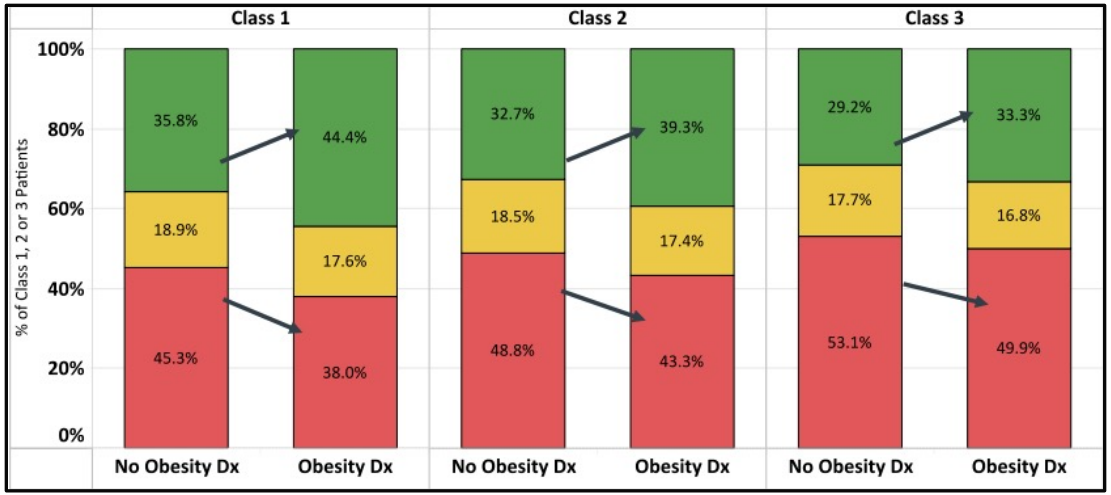
E66.01 – Obesity, morbid BMI 40 -49.9

Z68.41 – BMI of 40 to 44.9 in adult

Z68.42 – BMI of 45 to 49.9 in adult

Z68.43 – BMI 50 to 59.9, adult

Z68.44 – BMI 60-69.9, adult



Obesity Class	BMI Range
Class 1	30 – 34.9
Class 2	35 – 39.9
Class 3 (HCC)	>= 40.0

= Weight Loss

= Weight Maintenance

= Weight Gain

*Source: AMGA Obesity Collaborative - ***PRELIMINARY***

What are we doing to combat inertia?

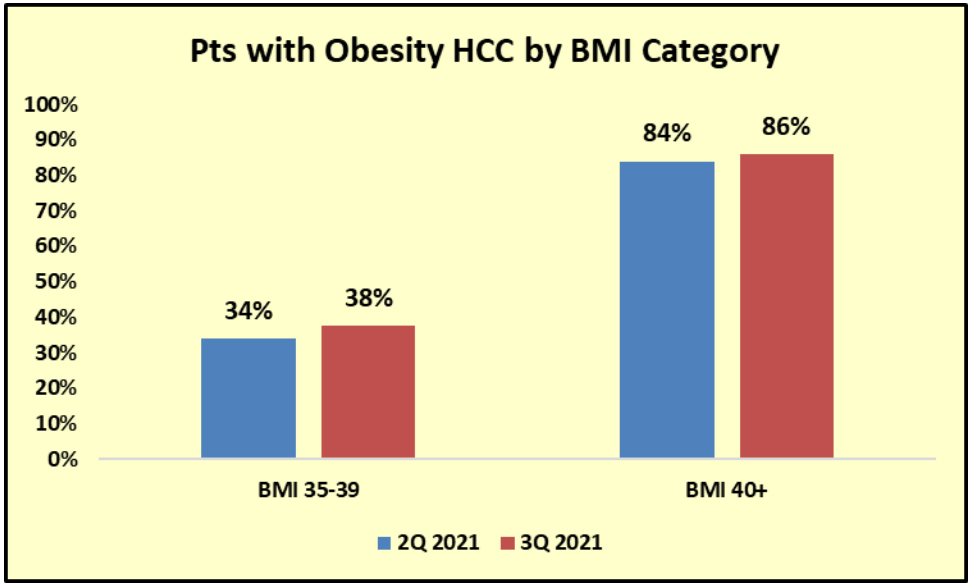
- Educating Providers & Staff
  - How to Approach pts
  - Good dialogue
- Have staff “tee-up” appropriate diagnosis with pre-visit chart review
- What are their Resources?

  Embedded in EMR

Obesity Toolkit

- AACE Algorithm for Obesity Care
- Weight Management - Confluence Health
- Dial-A-Dietitian
- Hy-Vee Dietitian Services
- Mercy Weight Loss Center
- Unity Point Weight Loss Services
- Mercy Wellness Center, Next Step Program
- Mercy Next Steps Referral
- Pharmacotherapy
- Physical Therapy
- Mifflin St. Jeor Calorie Counter

Impact of Current Efforts



ICD10 HCC Coding for BMI >=40

E66.01 – Obesity, morbid BMI 40 -49.9
Z68.41 – BMI of 40 to 44.9 in adult
Z68.42 – BMI of 45 to 49.9 in adult
Z68.43 – BMI 50 to 59.9, adult
Z68.44 – BMI 60-69.9, adult

We will monitor the impact of this on BMI reduction over time

Rotating Breakout Sessions

Group assignments

Group A-Ballroom

Facilitator:	Dr. Stephanie Copeland
Panelist:	Suelyn Claudia Boucree
Note taker:	Stephen Shields
1	Marissa Alvord
2	Ferdaus Hassan
3	Barbara Kaplan Pritchard
4	Edward J. MacMillan
5	Heidi Kabler
6	Beth M. Averbeck
7	Francis R. Colangelo
8	Frederick J. Bloom, Jr.
9	Richard H. Bone
10	Danielle F. Casanova
11	Elizabeth L. Ciemins
12	Cori Grant

Group B- Imperial II

Facilitator:	Leon Jerrels
Panelist:	Dr. Trung Q. Dang
Note taker:	Cindy Shekailo
1	Ryan Cottrell
2	Marie Frazzitta
3	Martine Thurin
4	Natalie Tortorella
5	Wichitah Leng
6	Dave N. Dolton
7	Diane L. George
8	Kathy L. Hutchens
9	Pete Johnson
10	John W. Kennedy
11	John Cuddeback
12	Sherry Greenwood

Group C-Decatur

Facilitator:	Robert W. Brenner
Panelist:	Barbara Hodne
Note taker:	Jeff Mohl
1	Julie Sievert
2	Angela Zachery
3	Carol Hamersky
4	Chris McMahon
5	Jesse Bushman
6	Ms. Christina L. H. Taylor
7	Joseph Territo
8	Dick Clark
9	Nikita Stempniewicz
10	Jerry Penso
11	Cori Rattelman
12	Ms. Christina Santos

Continued- Breakouts

- Each panelist will be in the room for 20mins
- Following the conclusion of the breakouts, you will be released for a break
- Please return to the ballroom at 4:00pm

AMGA Foundation

Breakout Session Report Out

Breakout Session Facilitators

Robert Brenner, M.D., M.M.M
President, Clinical Intergation &
Physician Enterprise
Valley Health System

Stephanie Copeland, M.D., M.B.A., FAAP, CPHQ
Senior Medical Director, Quality
DFW Market
WellMed Medical Group (TX

Leon Jerrels, M.B.A., M.H.A., RN, CPHQ
Director, Quality Improvement
Kelsey-Seybold Clinic

AMGA Foundation

Insight Showcase and Closing

Christina Taylor, M.D.
Chief Medical Officer
McFarland Clinic, P.C.
Chair, AMGA Foundation

Insight Showcase

Insight Showcase

Thank You to Our CCR Corporate Partners

Let us know how we did!

Please take a moment to fill out a quick survey. The survey will take approximately 3 mins. to fill out.

The link is now in your email. If you have not received the link, please notify Johonna.