


**Is the Field of Nephrology Changing?:
Scope of Practice and Future Directions**

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Disclosures: None



Objectives

At the end of this session, participants will be able to:


- 1) Describe the workforce and scope of practice of nephrology care
- 2) Identify the pipeline of trainees to nephrology
- 3) Discuss where nephrology as a field is heading



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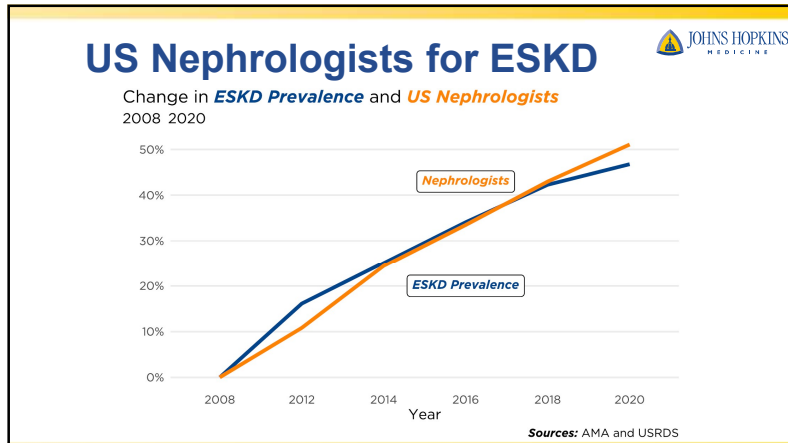
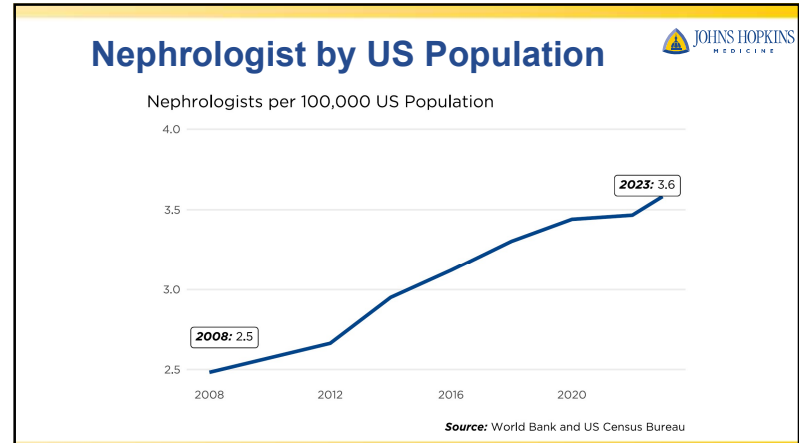
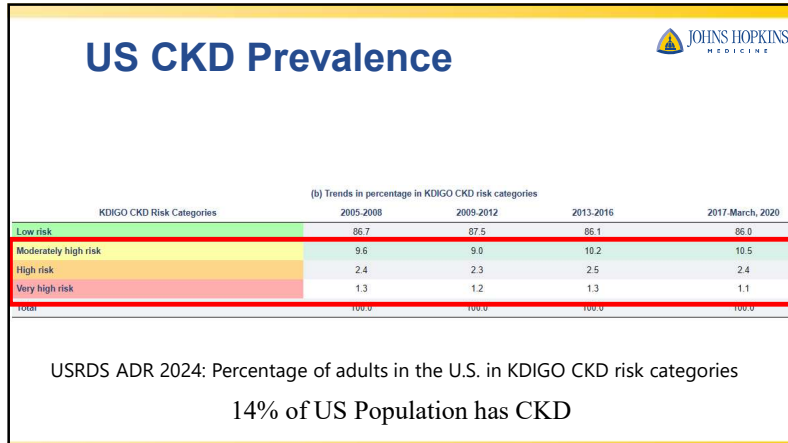
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What are the primary roles of a nephrologist?

- Inpatient care
 - Consultation
 - ESKD
 - CKD
 - AKI
 - Electrolytes
 - HTN
 - Primary attending
 - Biopsies, dialysis catheters
- Outpatient care
 - Outpatient clinic
 - Kidney replacement
 - In-Center hemodialysis
 - Home hemodialysis
 - Peritoneal dialysis
 - Transplant management



US Supply/Demand Match

- Estimated: ~12,000 clinical nephrologists
- All CKD/ESKD: 32.0 million people
 - 2667 patients/nephrologist

Estimates exclude patients with electrolyte abnormalities, refractory hypertension, nephrolithiasis, inpatient care, AKI follow-up.

Population per Nephrologist- Global Statistics

- ASN/ERA-EDTA/ISN joint survey of nephrology leaders internationally
- Result: High income countries had the most nephrologists

Sozio SM, Pivert KA, Caskey FJ, Levin A. The state of the global nephrology workforce: a joint ASN-ERA-EDTA-ISN investigation. *Kidney Int.* 2021 Nov;100(5):995-1000.

Global Prevalence of Nephrologists

International Society of Nephrology Global Kidney Health Atlas 2023

Okpechi IG, Tummalaipalli SL, Chothia MY, Sozio SM, Tungsganga S, Caskey FJ, Riaz P, Ameh OI, Arruebo S, Damster S, Donner JA, Jha V, Levin A, Nangaku M, Saad S, Tonelli M, Ye F, Bello AK, Johnson DW. A global assessment of kidney care workforce. *Nephrol Dial Transplant.* 2024 Sep 5;39(Supplement_2):ii43-ii48.

Scope of Nephrology Practice Worldwide

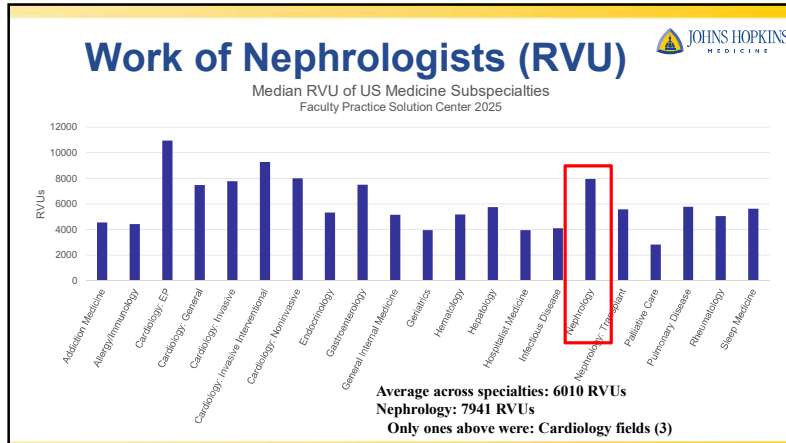
	Nephrologist	Specialist	PCP	Surgeon
Kidney Health Services—Primary Physician				
Acute Dialysis	95.7%	4.3%	0%	0%
AKI	85.3%	10.3%	4.4%	0%
Chronic Hemo	100%	0%	0%	0%
Chronic PD	98.4%	0%	1.6%	0%
CKD1-3	52.9%	7.4%	39.7%	0%
CKD4-5	98.6%	0%	1.4%	0%
ESRD	91.3%	0%	8.7%	0%
CRRT	66.1%	33.9%	0%	0%
GN	98.6%	0%	1.4%	0%
Hypertension	47.8%	46.4%	5.8%	0%
Living Donor	94%	3%	0%	3%
Transplant—Early	89.2%	1.5%	0%	9.2%
Transplant—Late	97%	0%	1.5%	1.5%

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Nephrology Practice: Vietnam

Global Perspectives Kidney360

Global Dialysis Perspective: Vietnam
By Pham Van^{1,2} and Chen Yu Dao¹
 KIDNEY360 1: 974-976, 2020. doi: <https://doi.org/10.34067/KID.0002672020>

	Hemodialysis	Status and Funding
No. of patients on dialysis in Vietnam (total no. and per million people in the general population)		Total no. of patients with RRT • Approximately 30,000 on MHD (310 patients per 1 million population) • Approximately 2000 on PD • >4000 with kidney transplantation Or 372 patients with RRT per 1 million population Home dialysis is not available in Vietnam >95% of patients on dialysis covered by insurance from 80% to 100% depending on the kind of insurance. Patients on OL-HDF have to pay out-of-pocket expenses
Home dialysis		Dialysis units are mainly hospital based; freestanding ones are few and invested by privates Majority of dialysis units, especially hospital-based ones, are nonprofit. All private freestanding are for profit; patients have to pay out-of-pocket expenses
Payment for dialysis		Insurance reimburses about \$25 per dialysis session Only nurses care for patients. Technicians are only in charge of machine maintenance/ minor repairation One nurse for five patients during dialysis
Dialysis facilities		Patients are seen by their nephrologists once per month. Nephrologists on duty have to see all patients at least once during dialysis session
Dialysis profit		>95% patients are dialyzed via AVE, approximately 4% AVG, approximately 1% CVC. In some facilities, tunneled CVC is used for dialysis while awaiting the maturation of AVE.
Reimbursement policy		
Care for patients during dialysis		
Nurse-to-Patient Ratio in the dialysis units		
Average length of a dialysis session, h		
Patients' consultation/visit		
Vascular access		

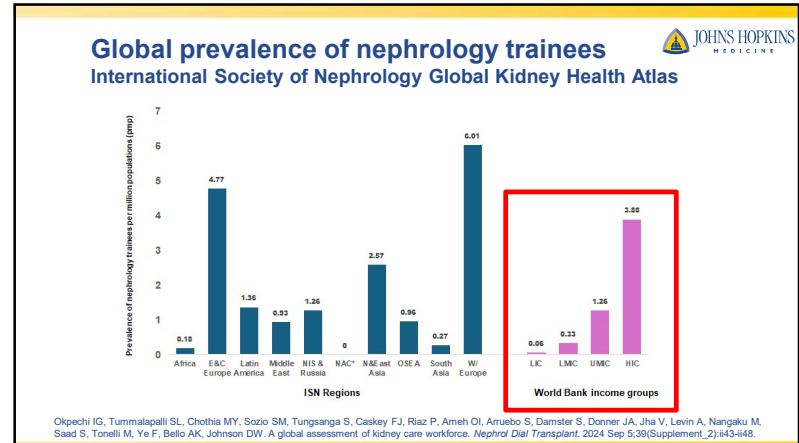
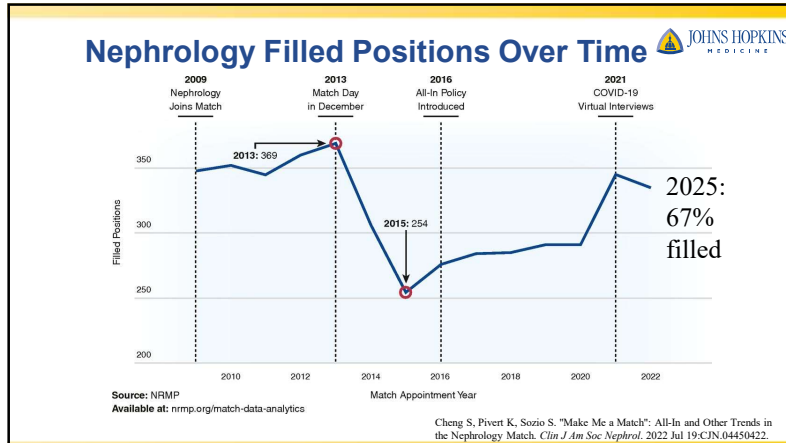
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Workforce Opportunities

- How many nephrology trainees are entering the field?



ASNDATA

Led by **Kurtis A. Pivert, MD**, the ASN Data Analytics Program supports informed, strategic decision-making and implementation of ASN initiatives and programs by collecting, managing, analyzing and synthesizing data relevant to nephrology and nephrology professionals.

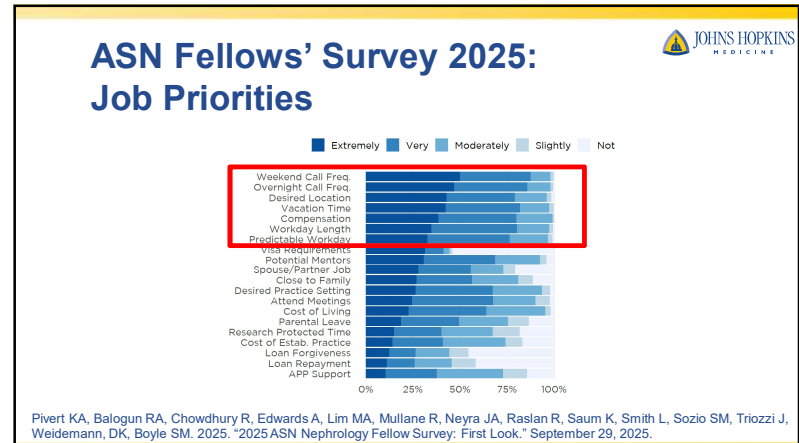
Reports

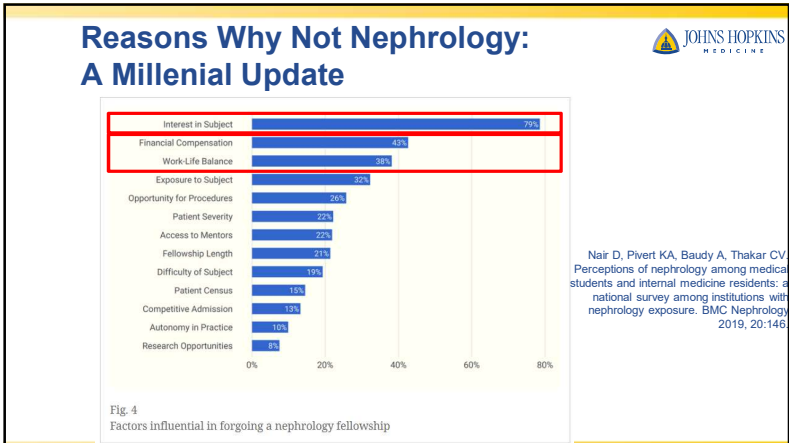
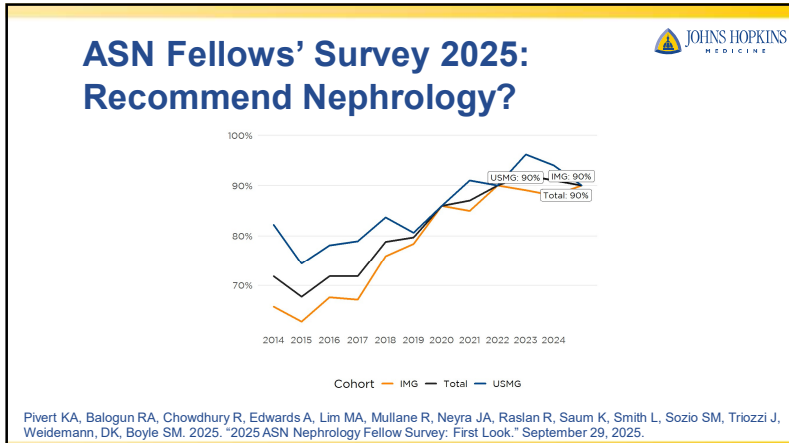
- 2025 ASN Nephrology Fellow Survey
- ERAS 2026: Nephrology Fellowship Applications

Data Detail

- Data Detail: Physician Trends in the 2022 FSMB Census
- Data Detail: Telehealth Trends in ESRD

ASN





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Future of Nephrology Care

EXECUTIVE ORDERS

Executive Order on Advancing American Kidney Health

HEALTHCARE | Issued on: July 10, 2019

- Payment models, awareness, and innovation incentives

Future of Nephrology Training

Recommendations to Redefine the Future of Nephrology

- Enhance competency-based nephrology education
- Establish individualized pathways to meet career goals**
- Emphasize personalized care
- Reconsider expectations for training in procedures
- Close gaps in current nephrology training
- Promote the well-being of nephrology fellows
- Prioritize diversity, equity, inclusion, & health care justice
- Ensure equal opportunities for all nephrologists
- Foster interprofessional & interdisciplinary practice
- Inspire lifelong learning

Rosenberg ME, Anderson S, Farouk SS, Gibson KL, Hoover RS, Humphreys BD, Orlowski JM, Udani SM, Waitzman JS, West M, Ibrahim T. Reimagining Nephrology Fellowship Education to Meet the Future Needs of Nephrology: A Report of the American Society of Nephrology Task Force on the Future of Nephrology. *CJASN* 18(6):816-825, June 2023.

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CLINICAL JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY

Current Subspecialty Pursuits: Fellow Graduates

- 34% of fellows report entering additional subspecialty fellowship after graduation
 - Transplant and critical care medicine most represented

Subspecialty Fellowship After General Nephrology Fellowship
2025 ASN Annual Nephrology Fellows Survey

Subspecialty	Percentage of Fellows
Transplant Fellowship	45
Critical Care Fellowship	28
Interventional Nephrology	13
Glomerular Disease	5
Research	5
Onconeurology Fellowship	3

Pivert KA, Balogun RA, Chowdhury R, Edwards A, Lim MA, Mullane R, Neyra JA, Raslan R, Saum K, Smith L, Sozio SM, Triozzi J, Weidemann, DK, Boyle SM. 2025. "2025 ASN Nephrology Fellow Survey: First Look." September 29, 2025.

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Nephrology Subspecialty Training Programs Documented

ASN Subspecialty Training Program Database

Subspecialty	Number of Programs
Transplant Nephrology	35
Critical Care Nephrology	14
Interventional Nephrology	7
Glomerular Diseases	6
Home Dialysis	4
Onconeurology	3
Nephrology Genetics	3
Glomerular Diseases and Onconeurology	3
Nephrology Palliative Care	1

n=76 total programs

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Other Areas Being Addressed from Future of Nephrology Task Force

- Attention to the individual fellow
 - Well-being, justice, opportunities
- Continue to assess and advocate for competency in general nephrology
- Inspire lifelong learning


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Rosenberg ME et al. *CJASN* 18(6):816-825, June 2023

Conclusions 

- Nephrology practice continues to have a core of CKD and ESKD care
 - Both in the US and worldwide
- Despite having a pivotal role in patients' care, the field is facing a workforce deficit
- The field of nephrology continues to evolve to:
 - Meet the expectations of our trainees
 - Needs of the field



Conclusions 

The Future Nephrology Workforce: Will There Be One?

Mark G. Parker, Tod Ibrahim,[†] Rachel Shaffer,[†] Mitchell H. Rosner,[†] and Bruce A. Molitoris[‡]*

Clin J Am Soc Nephrol 6: 1501-1506, 2011. doi: 10.2215/CJN.01280211

The Future Nephrology Workforce: There Will Be One

Mark G. Parker ^{1,2,3} and Stephen M. Sozio ^{4,5}

CJASN 16: 1752-1754, 2021. doi: <https://doi.org/10.2215/CJN.05040421>

Thank you!