

Home Dialysis ECHO: Leveraging National Experts to Address Facility Barriers

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A hand is shown placing a wooden block with a blue plus sign on top of a stack of other wooden blocks. The blocks in the stack feature various medical icons: a heart with a plus sign, two pills, a syringe, a person in a wheelchair, and a first aid kit. The word 'AGENDA' is written vertically in a large, blue, sans-serif font on a white diagonal banner that runs from the top right towards the center of the image.

AGENDA

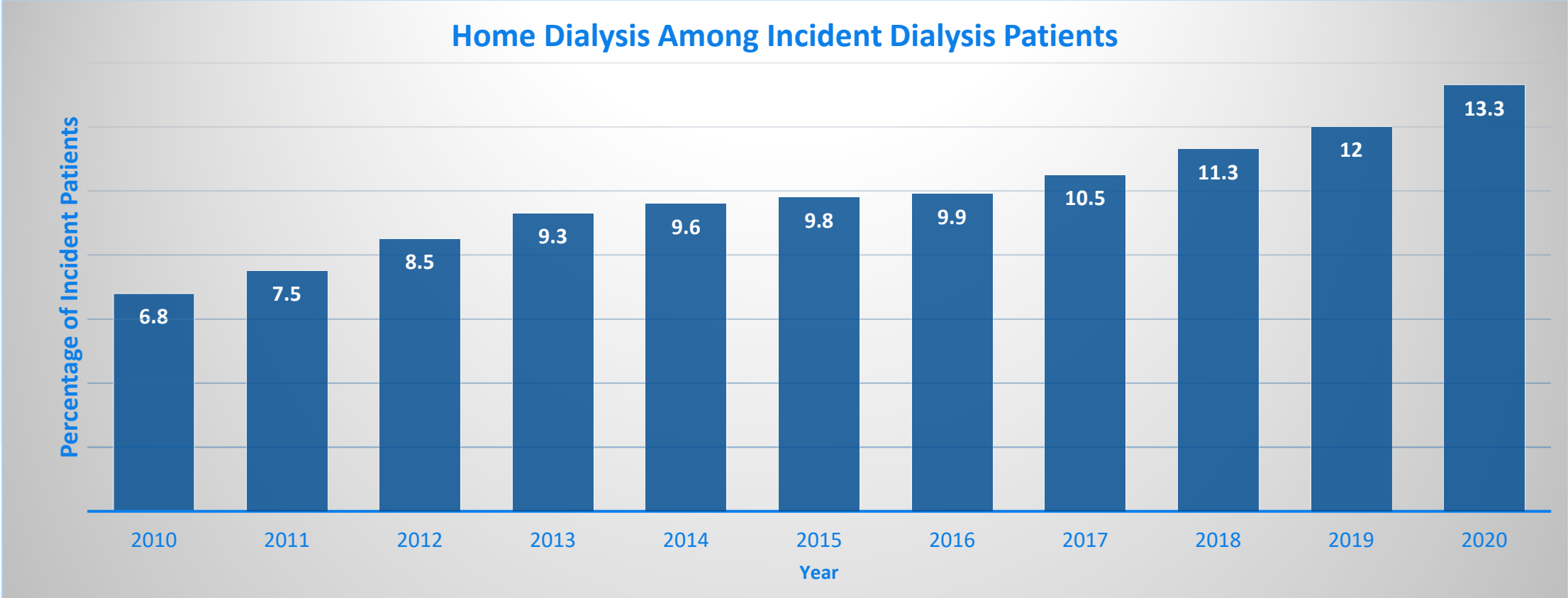
- Review the framework for the Home Dialysis ECHO program and year one results
- Identify best practices because of this program
- Understand how health equity is addressed in the Home Dialysis ECHO program

Overview & ECHO Framework



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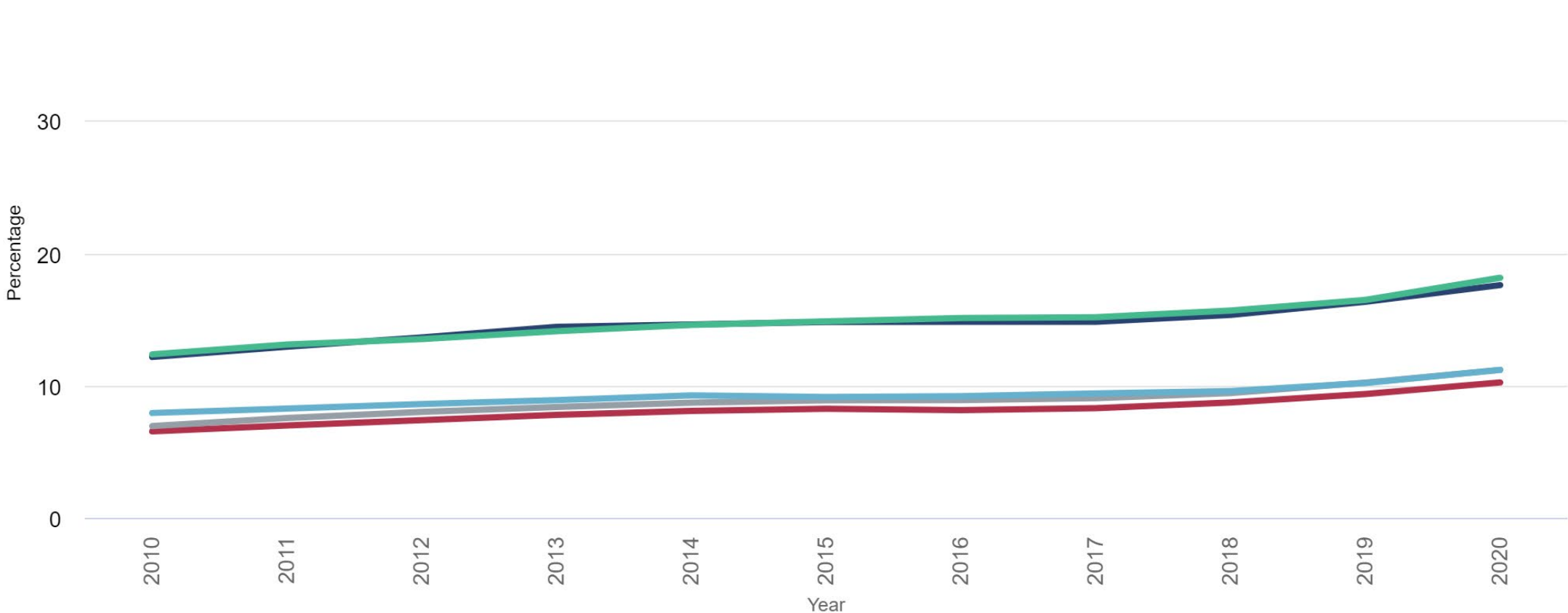
Growing proportional use of home dialysis in the US



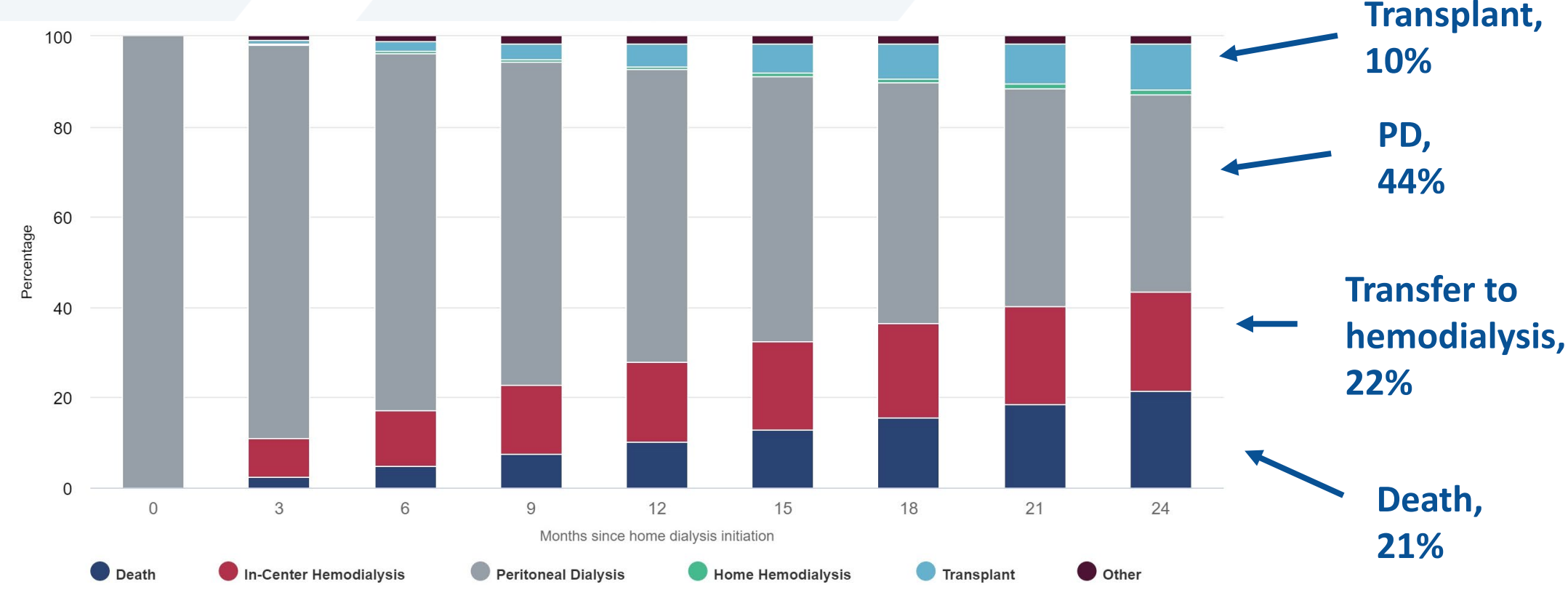
Data Source. 2022 USRDS Annual Data Report



Racial and ethnic disparities in home dialysis use in the US



Outcomes over the 24 months following peritoneal dialysis initiation, 2017-2018



Data Source: 2022 United States Renal Data System Annual Data Report



Advancing American Kidney Health Initiative (AAKH)

- Medicare expenditures for beneficiaries with kidney failure (1% of beneficiaries) represent over 7% of all Medicare costs
- The AAKH initiative was launched by US Department of HHS in July 2019
- Aimed at reducing the use of the most costly form of treatment for kidney failure (in-center HD) through:
 - Reducing new kidney failure cases
 - Increasing the number of kidney transplants
 - Encouraging greater use of home dialysis modalities
- AAKH has a stated aim to have *80% of new kidney failure patients treated with dialysis at home or a kidney transplant by 2025*



Barriers to greater home dialysis utilization in the US

- Nephrology trainees in the US lack exposure to home dialysis therapies
- Many nephrologists not comfortable writing home dialysis prescriptions
- Lack of infrastructure
- Inadequate number of trained home dialysis staff (nurses, technicians, dietitians, social workers)
- Current home dialysis staff may not have adequate experience managing complex/difficult cases
 - Medical, psychosocial, infrastructure-related



Special Report

AJKD

Exploring Barriers and Potential Solutions in Home Dialysis: An NKF-KDOQI Conference Outcomes Report



Christopher T. Chan, Eric Wallace, Thomas A. Golper, Mitchell H. Rosner, Rebecca Kurnik Seshasai, Joel D. Glickman, Martin Schreiber, Patrick Gee, and Michael V. Rocco

Am J Kidney Dis 73(3):363-71

AJKD

Special Report

Overcoming Barriers for Uptake and Continued Use of Home Dialysis: An NKF-KDOQI Conference Report



Christopher T. Chan, Kelli Collins, Erich P. Ditschman, Lisa Koester-Wiedemann, Tonya L. Saffer, Eric Wallace, and Michael V. Rocco

Am J Kidney Dis 75(6):926-34

Actionable steps to address education and mentorship for providers

Education for Providers

Background

There is significant variability in comfort level of nephrology providers in management of home dialysis patients; 55% of fellows graduating are not comfortable prescribing home dialysis.

Action Item

Identify knowledge gaps needed to improve home dialysis care. Provide a means of assessing improvement in home dialysis knowledge before and after didactic sessions.

How to Execute

1. Create surveys to be administered to providers at the time of videoconferences to identify areas of interest and knowledge gaps.
2. Create surveys to measure provider self-efficacy.
3. Develop a home dialysis curriculum that can be iteratively modified to address knowledge gaps and interest areas identified by the surveys.

Mentorship for Providers

Background

Difficult home dialysis cases may be best managed by case presentation to experts.

Action Item

Create a forum by which providers can present cases to experts.

How to Execute

1. Develop a panel of experts in home dialysis including physicians, social workers, nutritionists.
2. Train staff members on conducting a learning community over videoconference.
3. Identify interested dialysis providers or dialysis units, ideally at the dialysis unit level. Encourage participating units to report outcomes such as hospitalization rate, adequacy standards, peritonitis rate, churn rate, and growth.
4. Provide participants with mechanisms to submit deidentified cases and participate in the project.
5. Conduct weekly education and case presentation sessions.



Chat CT, et al. Am J Kidney Dis 75(6):926-34

What is project ECHO?



- Extension for Community Healthcare Outcomes
- Established by Dr. Sanjeev Arora with UNM in 2003
 - Original aim to address hepatitis C through case-based All Teach/All Learn format
- Participants engage in virtual community with peers to share support, guidance, feedback
- Participants present real (anonymized) cases to specialists – and each other – for discussion and recommendations
- Goal: continuous loop of learning, mentoring, peer support
- Project ECHO initiatives are now in 44 countries and approach 1000 in number



Home Dialysis Project ECHO

- Project ECHO – a videoconference-based collaborative, CME/CE accredited, case-based learning program.
- NKF & Comagine Health (ESRD Network 16) partnered to develop a pilot program with the goal of building clinicians' confidence levels and improving home dialysis uptake and retention. Pilot launched March 11, 2021 concluded on March 24, 2022.
- Format: A 60-minute case-based learning experience held twice a month. Sessions included:
 - Learners presenting cases from their own practices
 - Followed by group discussion and recommendations for treatment
 - A short 15-minute educational talk on a subject related to home dialysis presented by a SME



ECHO Hub Faculty – Year 1



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Helena, MT



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GARY MOORE,
PATIENT ADVOCATE
Anchorage, AK



KATY WILKENS, MS, RD
Northwest Kidney Centers
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Year 1 Results



ECHO Curriculum & Attendance

Session Date	Topic (Attendance)
March 11, 2021	How to Establish a Culture of Promoting Home Dialysis (33)
March 25, 2021	Assumptions About Barriers to PD (37)
April 22, 2021	Modality Education (30)
May 6, 2021	Infection Prevention (23)
May 20, 2021	Assessment by the Interprofessional Team (32)
June 3, 2021	Psychosocial Adjustment/Adapting (38)
June 17, 2021	Best Practice Training Techniques for Successful Home Dialysis (35)
July 1, 2021	Ingredients for a Successful Home Dialysis Team (31)
July 15, 2021	Clinical Strategies to Help Patients Feel Comfortable Performing Dialysis at Home (19)
July 29, 2021	PD Catheter Placement/Growing Relationship with PD Catheter Surgeons (20)

Session Date	Topic (Attendance)
August 12, 2021	Involving the Family/Support People in Training and Follow Up (32)
August 26, 2021	Hernias and Leaks in Peritoneal Dialysis (15)
September 9, 2021	Transitional Units (21)
November 18, 2021	Nutrition and Home Dialysis (34)
December 3, 2021	Home Hemodialysis Platforms (22)
December 16, 2021	Troubleshooting the PD Prescription (22)
February 10, 2022	Improvement of Technique Survival (21)
On Demand	Technological Safety
On Demand	Co-Management with the Patient
On Demand	Acute PD, Urgent Start PD

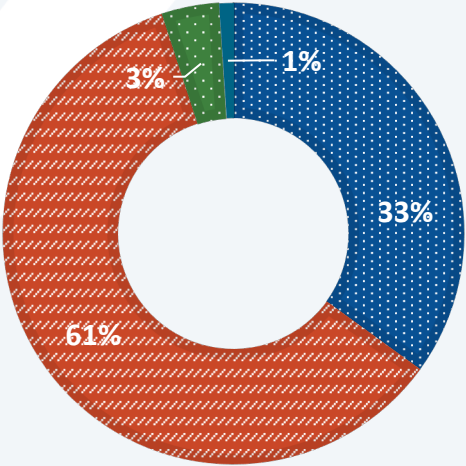
108 healthcare workers registered for our home dialysis ECHO project. The median number of participated sessions was 1.5 (range = 16). The registrants represented a diverse background (including dietitian [n = 15], facility administrator [n = 20], nurse [n=36] and social worker [n=18]).



Self-Reported Evaluation Results

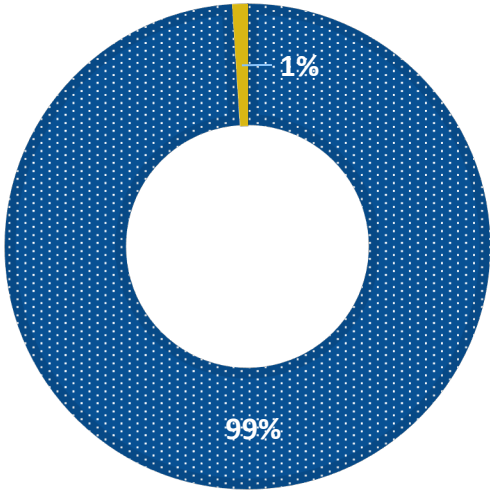
THE ACTIVITY MET THE LEARNING OBJECTIVES:

■ Agree ■ Strongly Agree ■ Neutral ■ Strongly Disagree



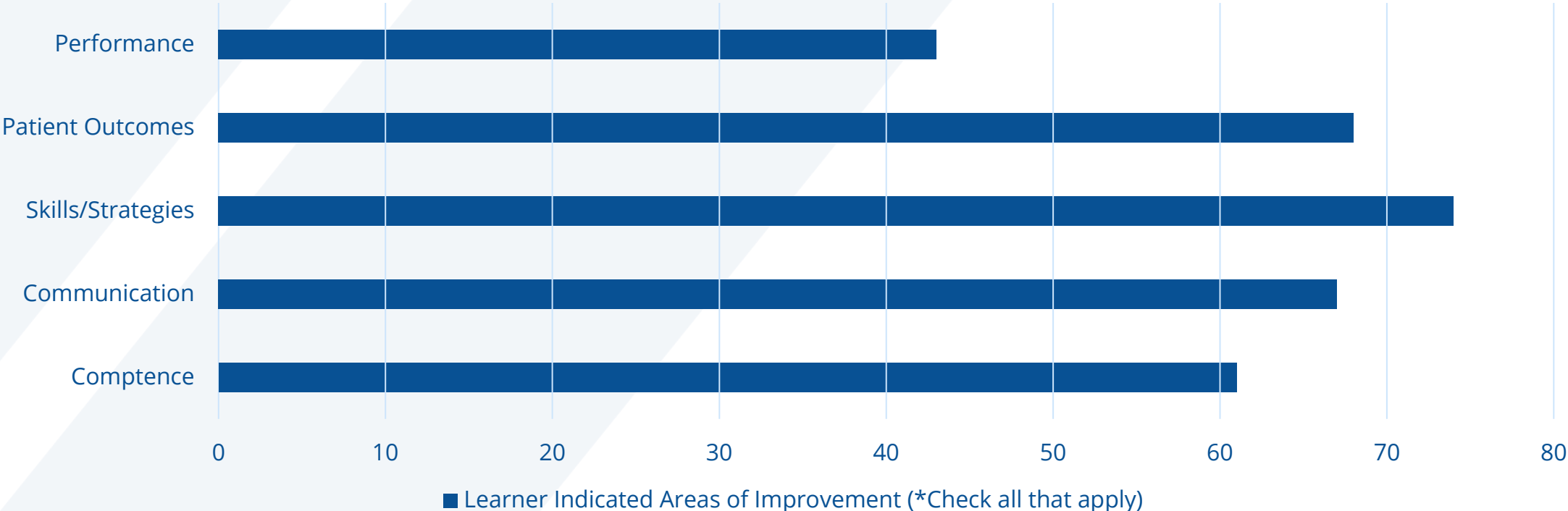
I WOULD RECOMMEND THIS ACTIVITY TO MY PEERS

■ Yes ■ No



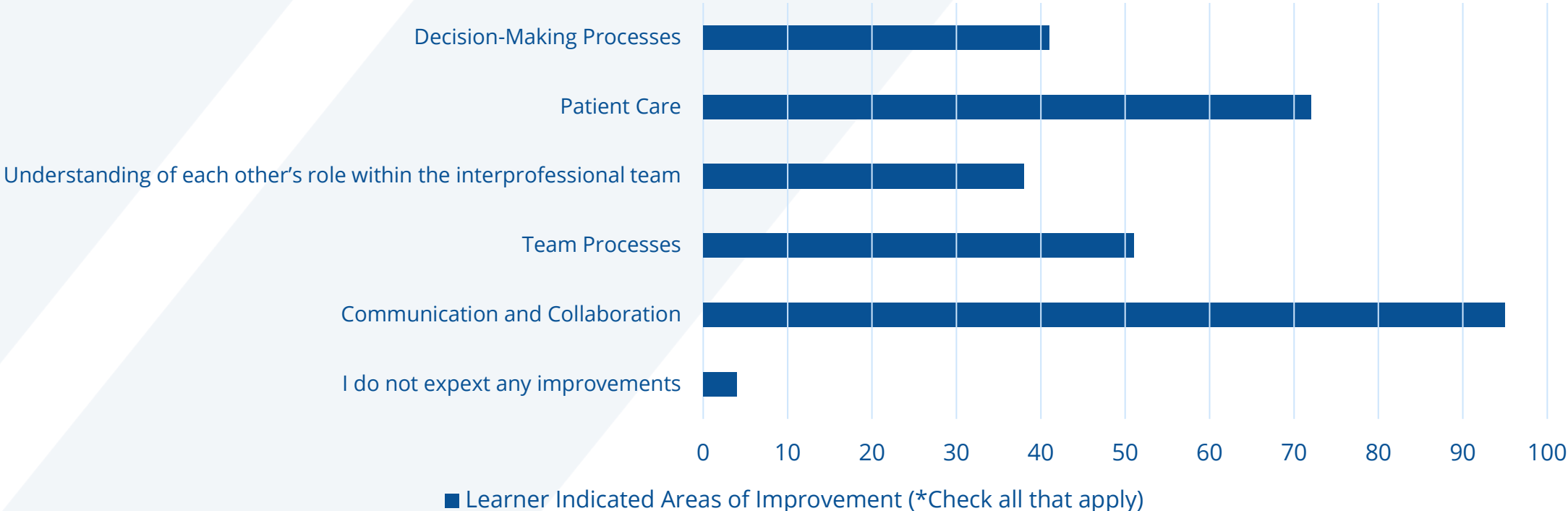
Self-Reported Evaluation Results

This activity will assist to improve my:



Self-Reported Evaluation Results

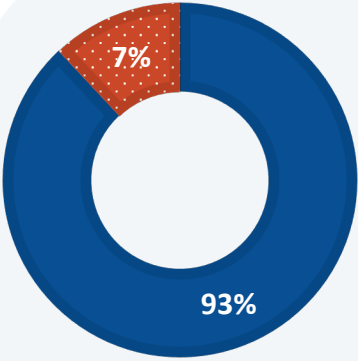
This activity will improve my interprofessional Healthcare team's:



Self-Reported Evaluation Results

**I PLAN TO MAKE CHANGES
IN MY PRACTICE BASED ON
THE INFORMATION IN THIS
ACTIVITY**

■ Yes ■ No



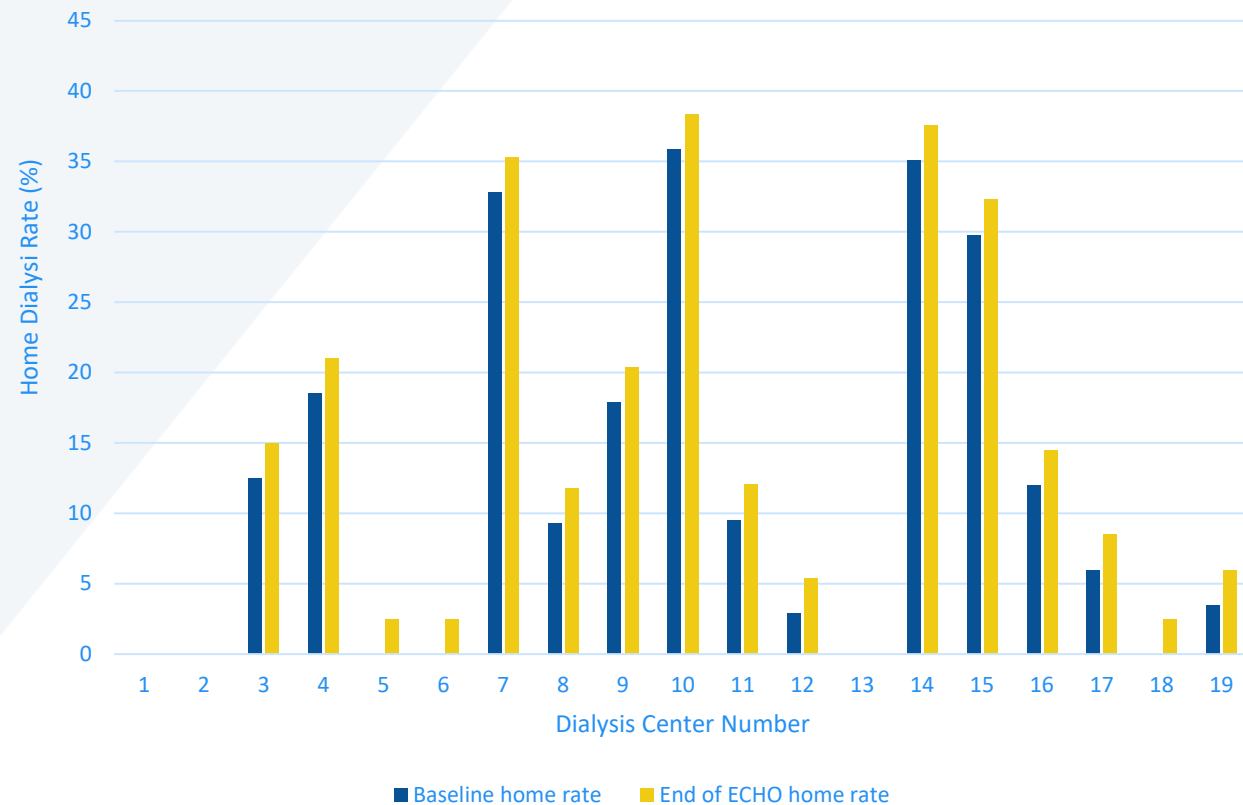
Planned Changes Include:	
Modify my approach to treatment, referral or co-management	47%
Modify elements of staff training or treatment protocols in my practices	27%
Utilize alternative communication methodologies with my patients and families	33%
Modify my patient education information/materials	46%
Other -Surgeon Education -Schedule time during IDT to discuss bariatric surgery as an option for PD patient -Discuss flexibility of home treatments -Approaching education from a new angle	3%

*Question was a “check all that apply”, allowing learners to select multiple answers

Home Dialysis Rate Outcomes

At baseline, the participating centers' median home dialysis rate was 9.28% (0.00 – 18.52%) [25-75%] which increased to 12.8% (0.00 – 24.6%) [Wilcoxon Signed Rank Test, $p = 0.004$] at the end of implementation of the Program.

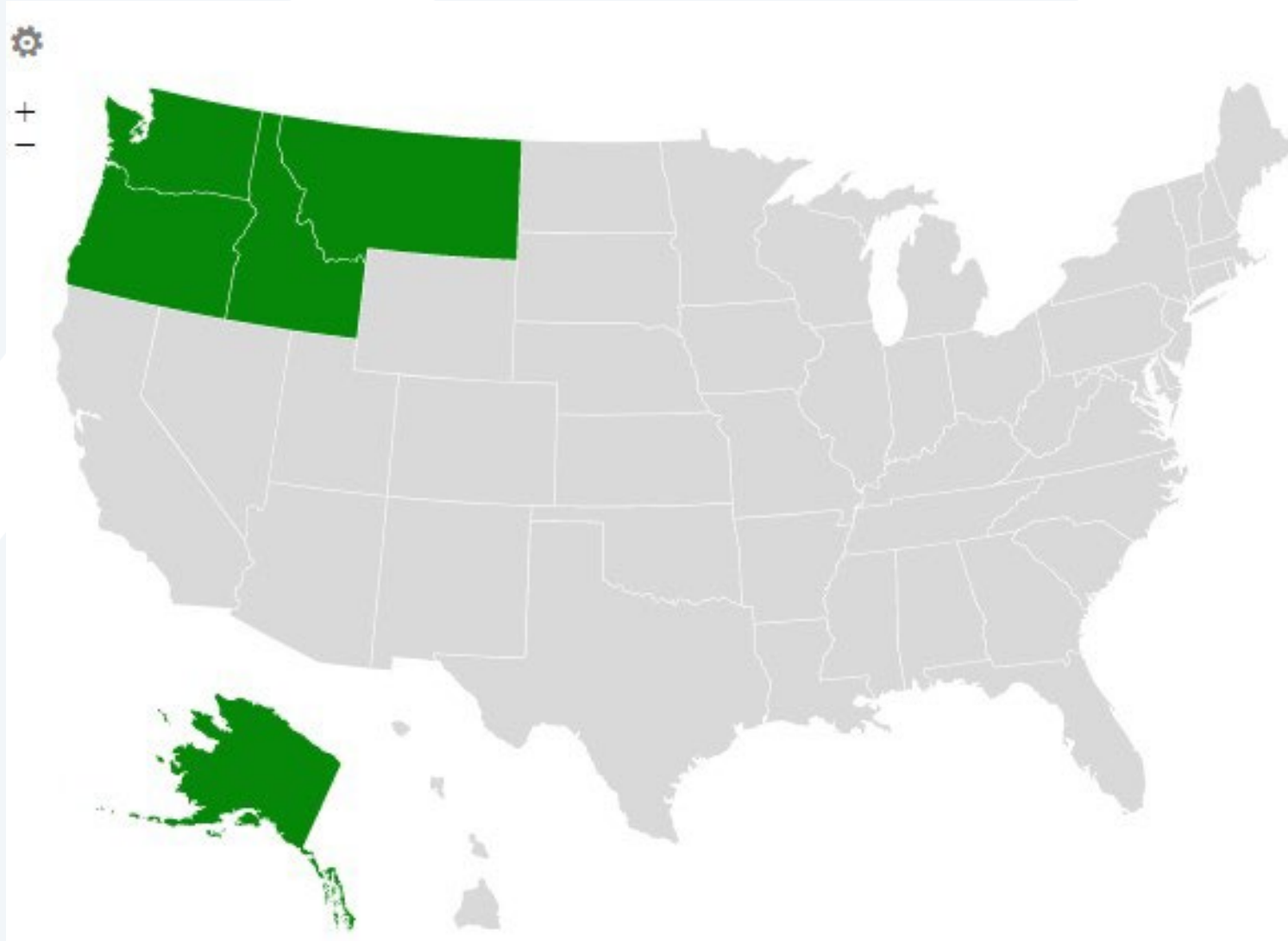
Home Dialysis Rate Before and After Project ECHO



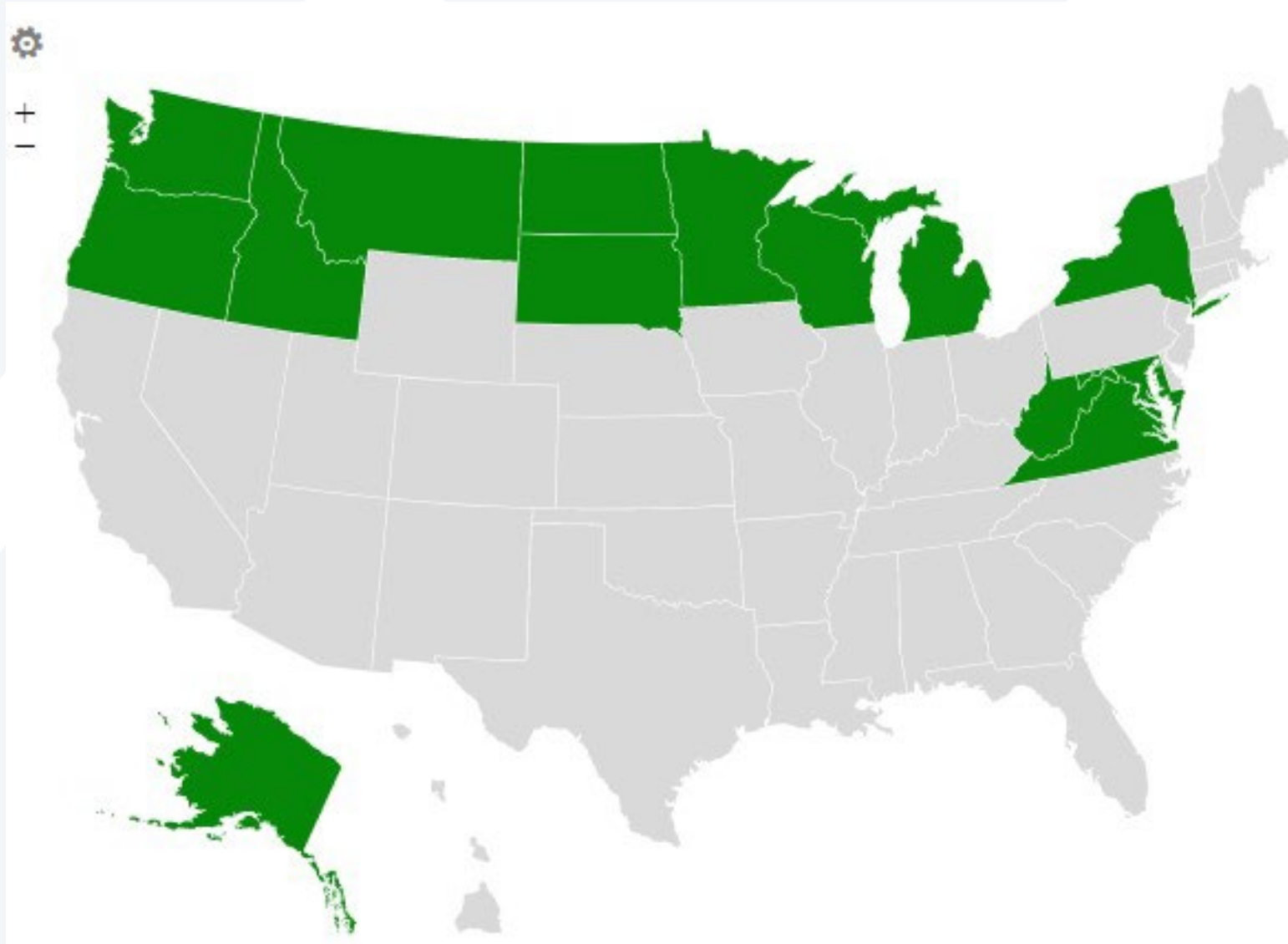
Best Practices & Health Equity Impact



Network Involvement – Year 1



Network Involvement – Year 2



ECHO Hub Faculty – Year 2



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Olive Branch, MS



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Patient Advocate
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Facility Participation – Year 2

- Each Network was asked to recruit between 15-20 facilities
- Considerations:
 - Transition to Home outcome measures over time
 - Demographics
 - Feeder facilities to Home programs
 - Recommendation of Quality Staff
 - Recommendation of Regional Leadership



Sample ECHO Session Highlighting Health Equity (2/9/23)

- **Case Study** (30 minutes) – Start up of a Rural Clinic

- Knowledge Gap
- Transportation – Distance between Clinic and Home
- Getting Medications to Patients

Weigh In of Faculty Hub

SW - Medicaid to help with transportation

Dr - Telehealth

RN – Reduce time to clinic to once a month, meds/education given at once

- **Didactic Presentation** (15 minutes with discussion following)

Jenny Shen, MD - Harbor – UCLA - county safety net Hospital

- “Health Equity Barriers/Solutions in Home Dialysis”



How the Home ECHO Program Builds Resilient Communities

- Encourages facilities to look at barriers from several perspectives including the patient perspective (Doctor, Social Worker, Nurse, Technician, Dietician, Patient)
- Creates a community of support – Same attendees each session for the year
- Ultimately helps move patients home with more freedom
- Exposes front line providers with national subject matter expertise
- Addresses specific challenges providers are dealing with through the “Case Study” portion of the presentation



Feedback

“This has been a wonderful opportunity for our facilities to share their home program challenges and successes with peers, learn about topics specific to home dialysis, and consult with a wide range of experts from across the country.”

Brandy Vinson, Network 5

“One of our participants said that she loves how the expert panel works together with the participants on the case study and she feels like a part of the team to chime in with the case studies.”

Michelle Prager, Network 2

“I just wanted to let you know that I have enrolled three clinics for this program. These clinics all have brand new Home nurses, who will truly benefit from this program. The nurses are excited to be a part of this program, thank you for the opportunity.”

Regional Leadership for FKC Rural Washington and Idaho (Network 16)

“The Home ECHO Program has been a great opportunity for us to bring together providers who are advocates for Home Dialysis to discuss best practices, specific challenges & solutions in an interactive and energized atmosphere.”

Dee LeDuc, Network 11



Thank You!

Questions?

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