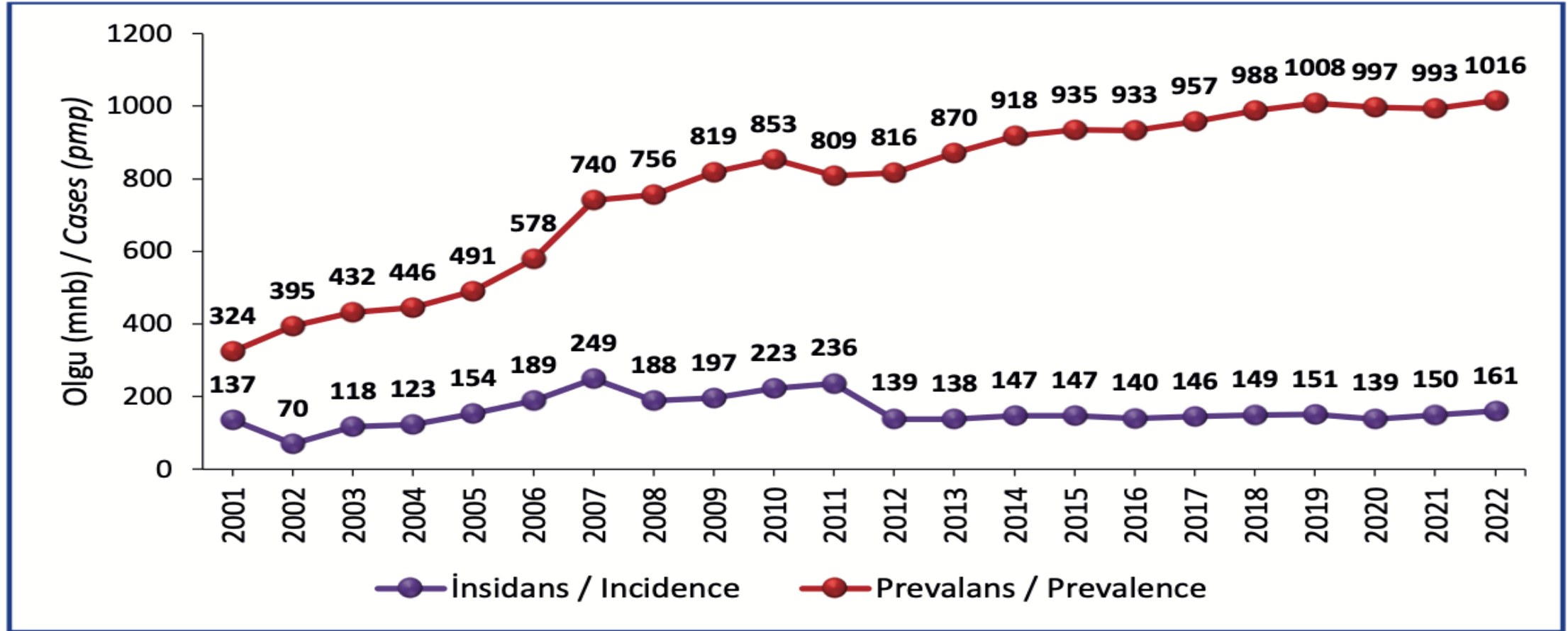


# Kidney Healthcare Providers & Decision-Making Processes of End-Stage Kidney Disease Patients

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**ŞEKİL 1.** Türkiye’de böbrek replasman tedavisi gerektiren son dönem böbrek hastalığının insidansı ve prevalansı.

**FIGURE 1.** Incidence and prevalence of end-stage kidney disease requiring kidney replacement therapy in Turkey.

**TABLE 2.** *Distribution of prevalent patients (including pediatric patients) receiving kidney replacement therapy (KRT) by KRT type as of the end of 2022.*

	n	%
<b>Merkez hemodiyalizi / In-center hemodialysis</b>	60.466	69,77
<b>Ev hemodiyalizi / Home hemodialysis</b>	1.257	1,45
<b>Periton diyalizi / Peritoneal dialysis</b>	3.552	4,10
<b>Böbrek transplantasyonu / Kidney transplantation *</b>	21.390	24,68
<b>Toplam / Total</b>	86.665	100,00

\* **Yaklaşık sayı / Approximate number**

**Genel prevalans / General prevalence = 1.016,2 mnb / pmp**

- Fluck et al. (2014) showed that many nephrologists believed that home HD and high-dose HD were better for the patient, but most of their patients preferred center HD.
- Lorcy et al. (2015) asked French nephrologists which RRT method they would choose if they had ESRD, and the priority was transplantation
- Wachterman et al. (2019) reported that for nephrologists, the decision not to start dialysis and instead to continue conservative treatment was emotionally draining due to clinical uncertainty about the prognosis of dialysis and discomfort with death.

1. Fluck RJ, Fouque D, Lockridge RS. Nephrologists' perspectives on dialysis treatment: results of an international survey. BMC Nephrol. 2014 Dec;15(1)
2. Lorcy N, Turmel V, Oger E, Couchoud C, Vigneau C. Opinion of French nephrologists on renal replacement therapy: survey on their personal choice. Clin Kidney J. 2015 Dec;8(6):785-8.
3. Wachterman MW, Leveille T, Keating NL, Simon SR, Waikar SS, Bokhour B. Nephrologists' emotional burden regarding decision-making about dialysis initiation in older adults: a qualitative study. BMC Nephrol. 2019 Dec;20(1)

- The aim was to determine the specificity of thoughts and attitudes of kidney healthcare providers in Türkiye about Dialysis Modalities when consulting people with End-Stage Kidney Disease.

- An online survey was prepared and distributed to KHPs in every region of Türkiye between March 15, 2023, and June 15, 2023, based on previous qualitative researches.

Inclusion criteria are

- Nephrologists,
- Pediatric nephrologists,
- Dialysis Certified Internal Medicine Physicians,
- Dialysis Certified General Practitioners
- Nurses **in Türkiye.**



- Ethics committee approval was received for this study from the ethics committee of Bezmialem Vakıf University (Number: 2023/59).

## Questionnaire

### ABOUT KIDNEY REPLACEMENT THERAPIES EVALUATION OF IDEAS

The aim of this survey is to **"investigate the factors affecting the opinions and preferences of nephrologists and dialysis certified physicians in Turkey in the decision-making process of Renal Replacement Therapies"**. The survey results will be evaluated for use in a scientific research. Thank you very much for your contributions.

1-Your gender  
-FEMALE - MALE

2-Your age  
\_\_\_\_\_

3-Select the geographical region where you work (7 geographical regions will be given in the options).

4-Select your branch.  
-Nephrologist  
- Pediatric nephrologist  
- Dialysis Certified Internal Medicine Physician  
-General Practitioner with Dialysis Certificate

5-How many years have you been working in the field of nephrology?  
A-) Less than 5 years B-) 5-10 years C-) 10-20 years D-) More than 20 years

6-Which modality are your dialysis patients treated with the most?  
A-) Center Hemodialysis  
B-) Peritoneal dialysis  
C-) Home Hemodialysis

7-Which dialysis method do you think you have less knowledge about?  
A-) Center Hemodialysis  
B-) Peritoneal dialysis  
C-) Home Hemodialysis

8-Who do you believe has the most influence on a patient's choice of dialysis method? Rank each option from very (1) to least (4).

	1	2	3	4
Nephrologist				
Dialysis Nurse				
The Patient Himself				
Patient's family or caregiver				

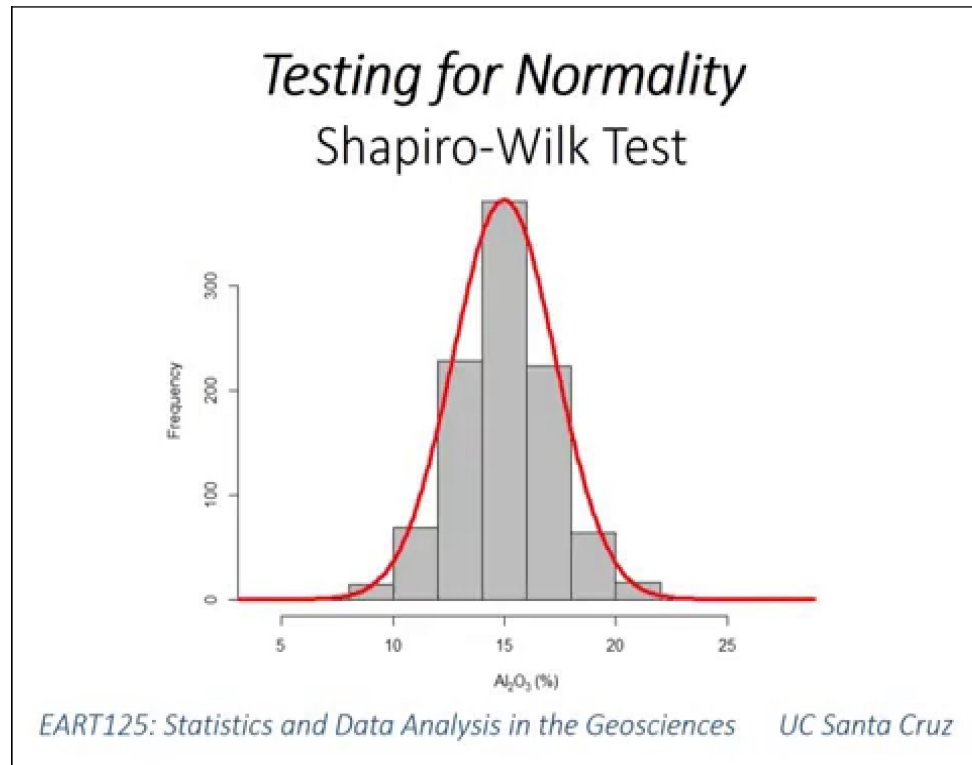
9-Do you have a family member with Chronic Kidney Disease?  
-Yes -No

10-If you needed Kidney Replacement Therapy, which dialysis method would you choose?  
A-) Center Hemodialysis  
B-) Peritoneal dialysis  
C-) Home Hemodialysis

11- Please indicate whether you prefer home dialysis modalities or center hemodialysis for patients with the following conditions:

	I definitely prefer central hemodialysis	I slightly prefer central hemodialysis	I prefer none of them	I slightly prefer home dialysis modalities	I would definitely prefer home dialysis modalities
Low socioeconomic status holders					
Those with multiple chronic diseases					
Low level of education (those with less than secondary school education)					
Full-time or part-time employees					
Those with no one to take care of					

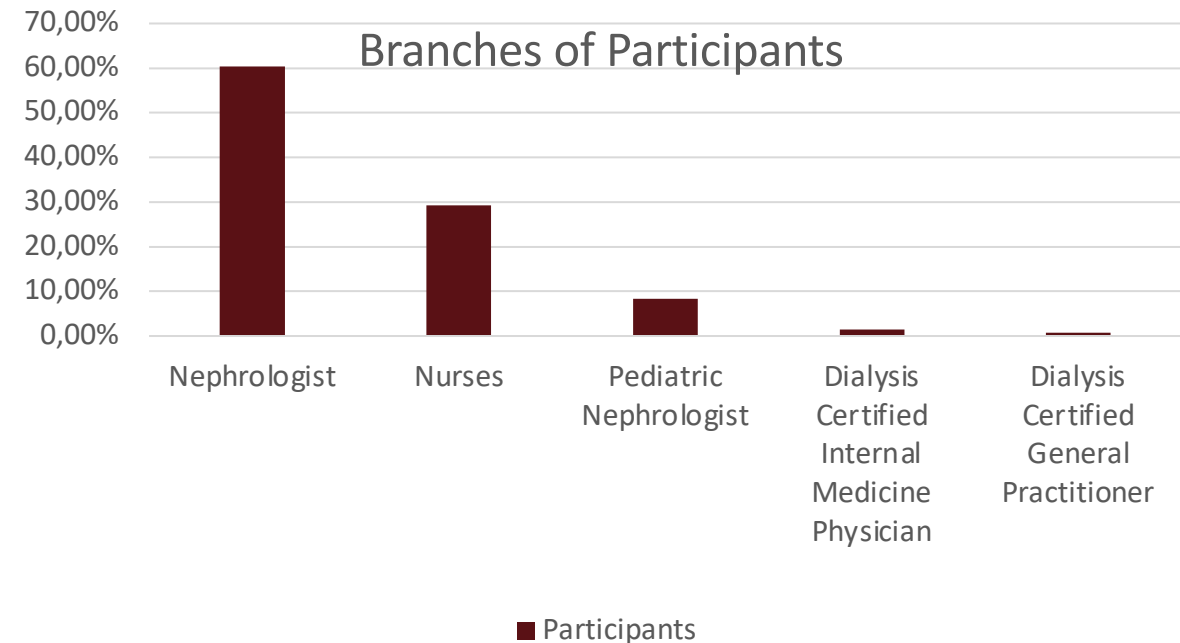
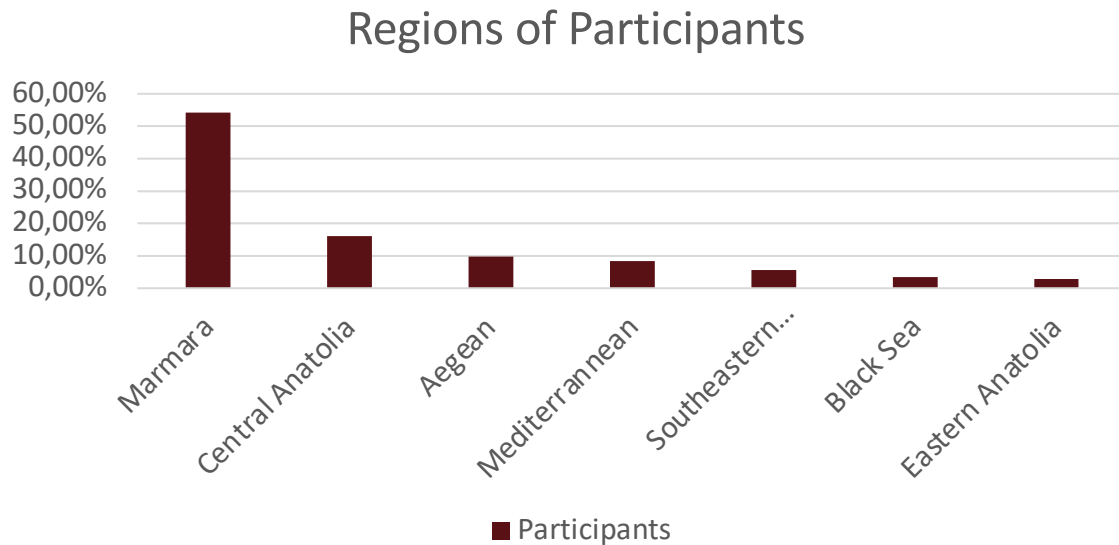
## Data analysis



- The variability of the data be analyzed by Shapiro-Wilk test. Pearson Chi-square, Fisher's Exact Chi-square or Fisher Freeman Halton test be applied to examine the differences between categorical variables.

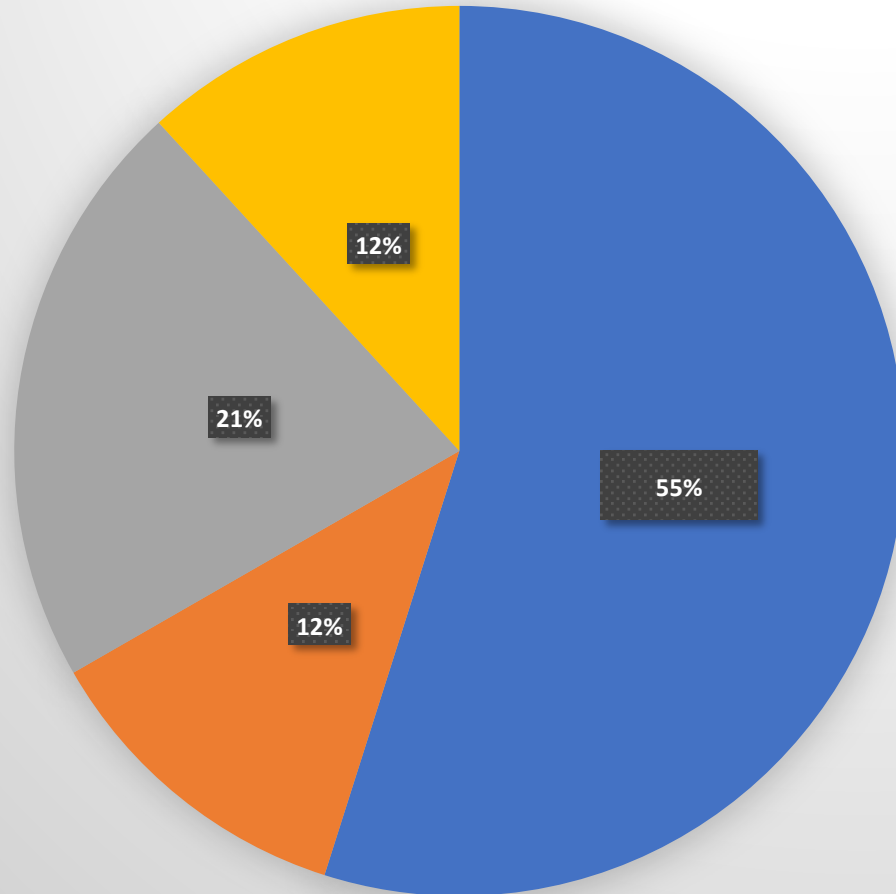


- 102 physicians and 42 nurses completed the survey.
- (F82, M62, mean age 45+/- 8,6 years)



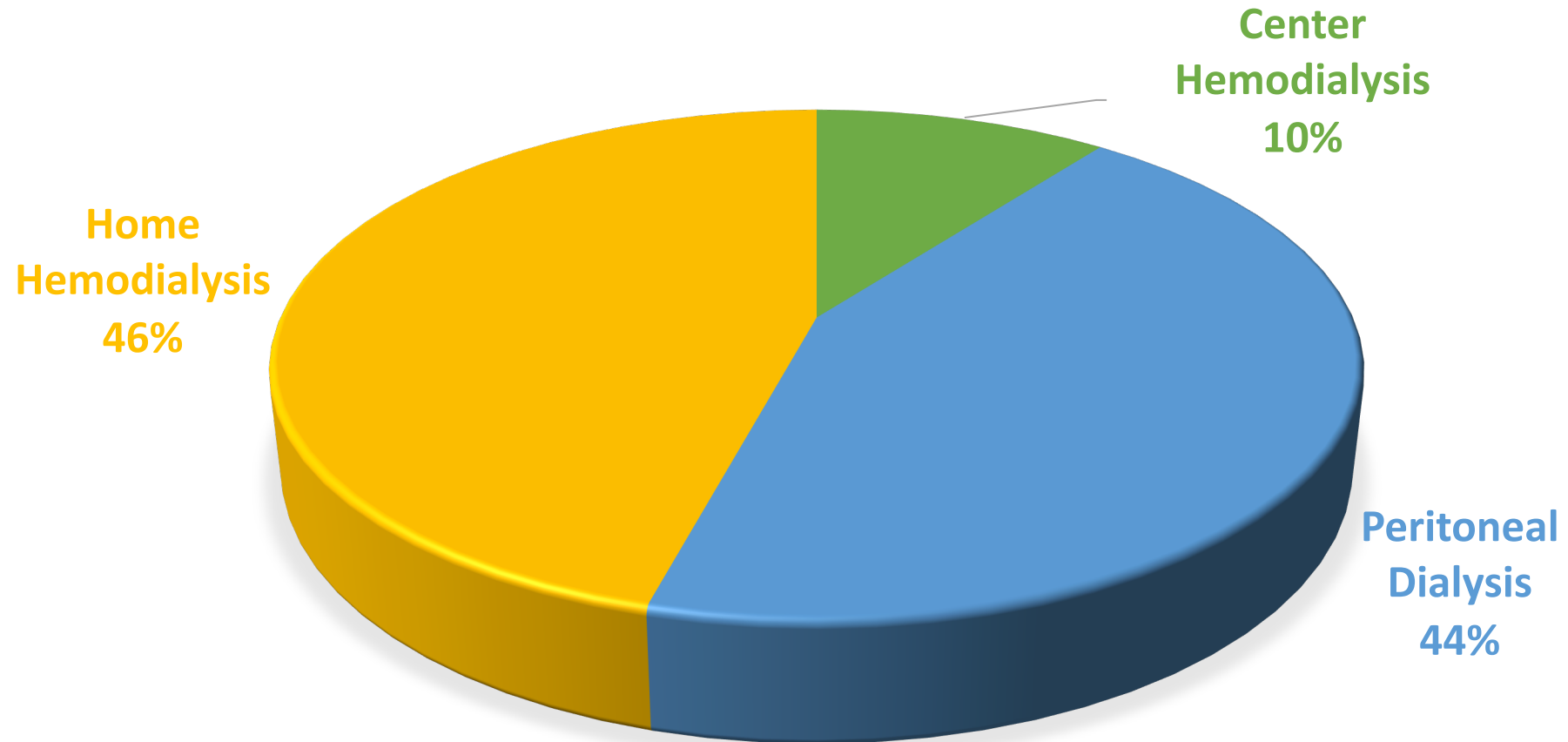
- The current patients of the respondents are predominantly treated with **In-Center Hemodialysis (90.3%)** and to a lower percentage **(9.7%) with Peritoneal Dialysis.**
- **68.8% of the participants** thought that they had insufficient information about **Home Hemodialysis.**

## Who do you believe has the most effect on a patient's choice of dialysis modality?



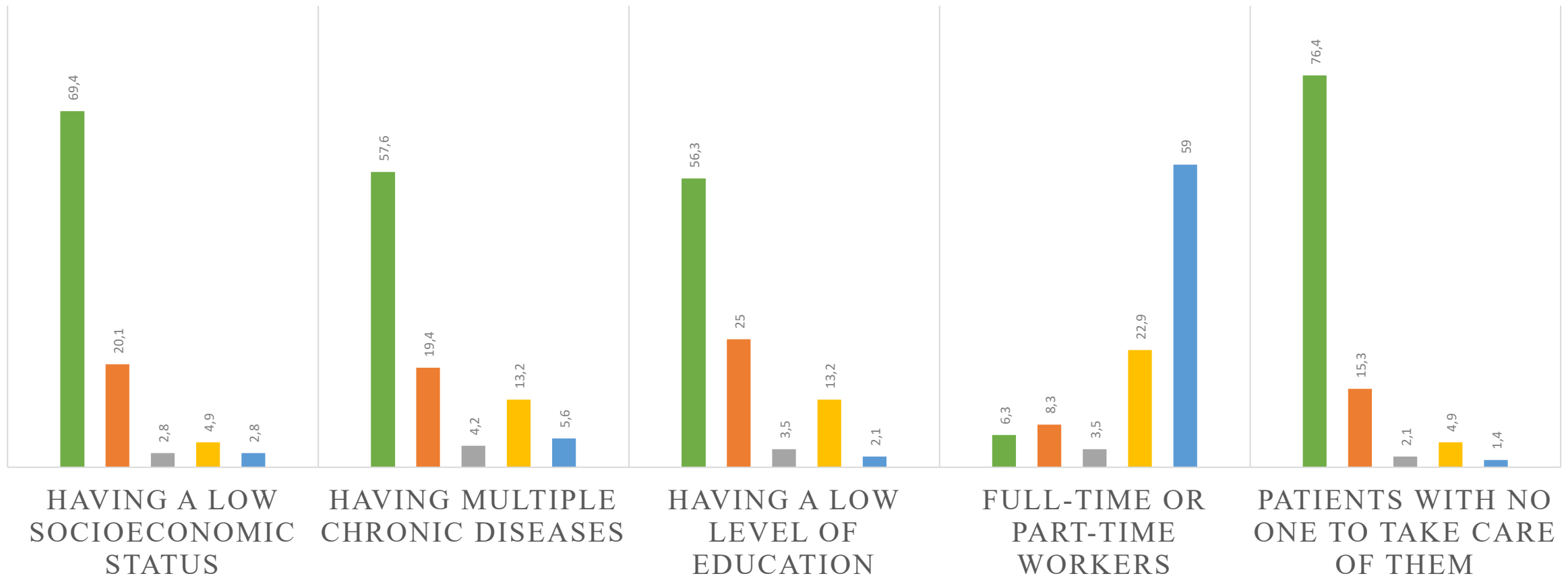
- Nephrologist
- Dialysis Nurse
- The patient themselves
- Relative or caregiver of the patient

## WHICH MODALITY WOULD YOU PREFER IF YOU NEEDED KIDNEY REPLACEMENT THERAPY?



## WHAT IS DIALYSIS MODALITY PREFERENCE OF KIDNEY HEALTHCARE PROVIDERS FOR INCIDENT PATIENTS?

- I strongly prefer center hemodialysis.
- I slightly prefer center hemodialysis.
- I don't prefer any dialysis.
- I slightly prefer home dialysis.
- I strongly prefer home dialysis.



- The pivotal role attributed to nephrologists in the decision-making process regarding dialysis modality underscores the importance of specialized expertise in guiding treatment decisions tailored to individual patient needs.
- The results indicate that the KHPs preference for Home hemodialysis, although most of their patients are treated with In-Center hemodialysis.
- Most KHPs consider themselves incompetent in home hemodialysis.

## Limitations

- The study is limited by the high proportion of participants from the Marmara region, potentially limiting its generalizability to KHPs in other regions of Türkiye.

- Education, training and new regulations regarding dialysis modalities are needed.
- HCPs need to be trained in Share Decision Making:
  - support for the individual with kidney failure
  - identification of cultural barriers
  - communication strategies
  - Recognizing psychosocial factors, such as anxiety



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- Turkish Society of Nephrology



**Thank you for your attention**

- Registry of The Nephrology Dialysis and Transplantation of Turkey, Registry 2021
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- Fluck RJ, Fouque D, Lockridge RS. Nephrologists' perspectives on dialysis treatment: results of an international survey. *BMC Nephrol*. 2014 Dec;15(1)
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