# Current State Of Vascular Access In Chronic Hemodialysis Patients In Algeria

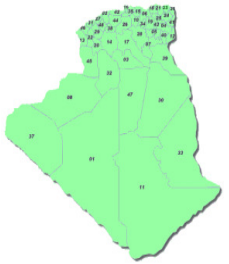
**Lydia BENHOCINE**
Ali BENZIANE
Mohamed BENABADJI
Nephrology Departement.
University Hospital of Beni Messous.Algiers

**3rd International Conference** on
« Nephrology & Therapeutics »
26-27 June 2014. Valencia. Spain

“ We believe that we can keep alive patients with uremia as long as the veins and arteries are in good condition. ”

Willem Kolff, 1944

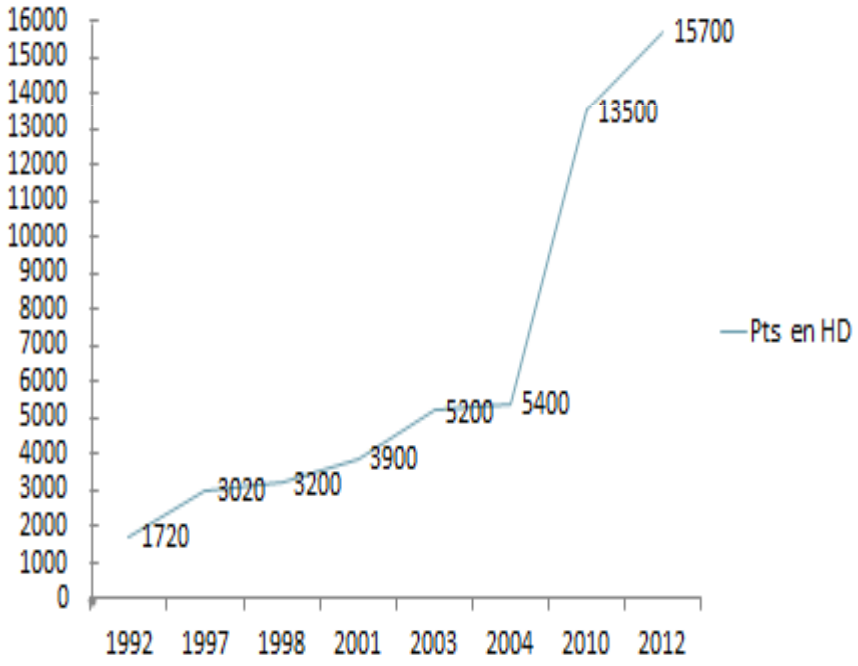
# In ALGERIA..



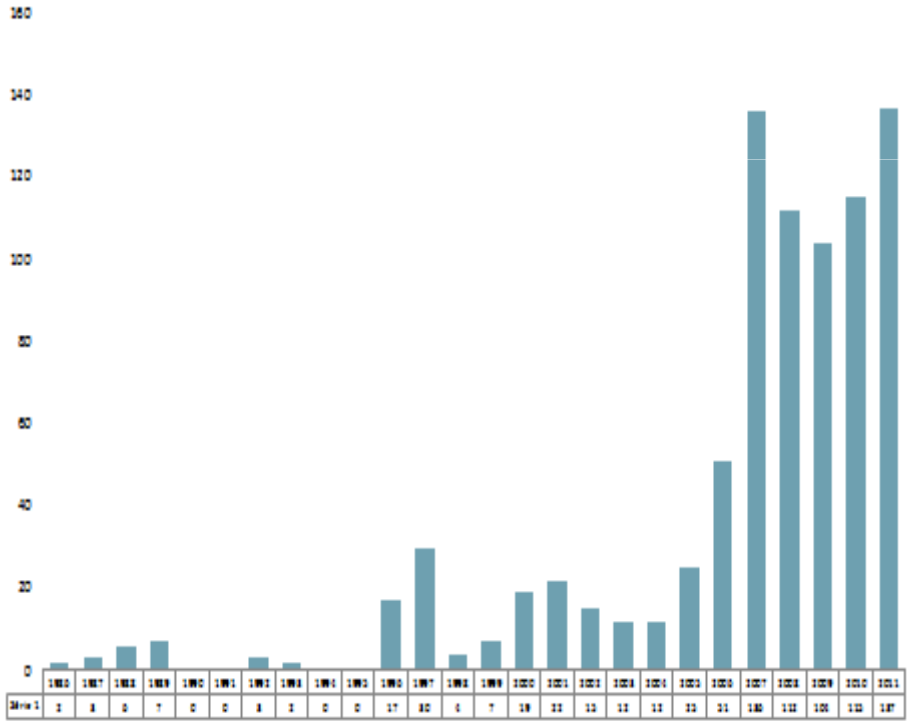
- Population of 37.100 000 inhabitants.
- Prevalence of ESRD 350 PMP
- Incidence of 94 PMP (3500 New cases/year)
- 17416 ESRD Patients
- 15.232 Patients on HD : 274 Hemodialysis center
  - 154 Public Centers 8013 patients
  - 120 Private Centers 7219 patients
- 430 patients on Peritoneal Dialysis (90 Infants)
- 100 Renal Transplantation / year ( 3% )

ESRD: end stage renal disease HD :hemodialysis

## Prevalence of Hemodialysis




## Renal Transplantation Activity



- Despite all the progress made in the techniques of renal replacement therapy, survival on hemodialysis (HD) depends in a large part on **the quality of vascular access.**

- Vascular access and its eventual complications remains **the leading cause of morbidity** in hemodialysis patients.

# Objective of the study

1. identify what type of vascular access for Hemodialysis is made on first intention?

2. realize a clinical expertise on the vascular access for dialysis in patients after a certain period of HD.

# Patients and Method :

- Prospective study.
- Multicenter

- Datas collated on 60 days (data collection and statistical study)
- **1029** chronic Hemodialysis patients.

- **21** Hemodialysis centers (public and private center) located in the capital city of Algiers and neighboring towns.

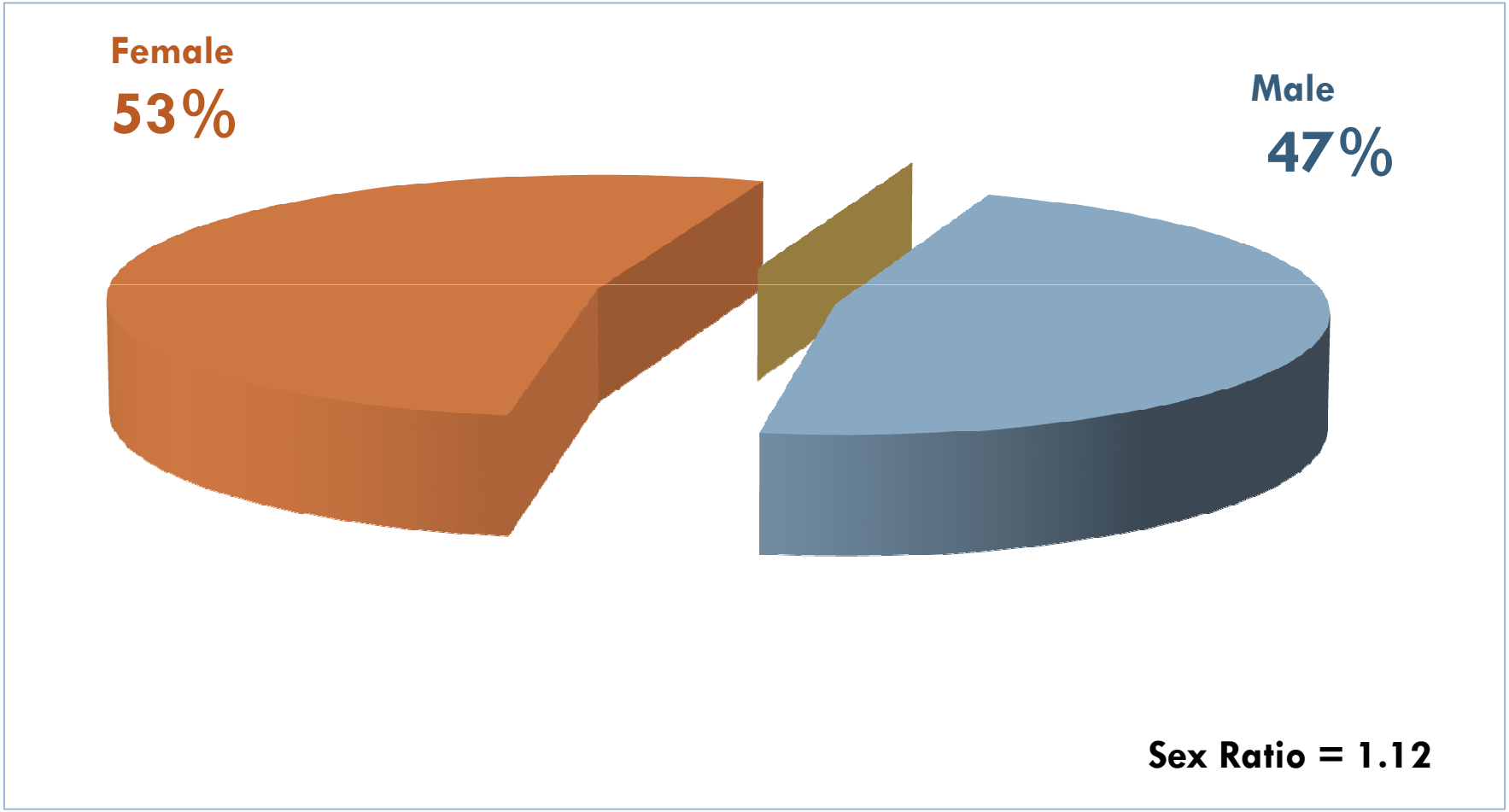
  (Tizi ouzou.Tipaza.Ain Defla.Medea.Msila.El-Eulma..)

# Questionnaire sent to the treating Nephrologist

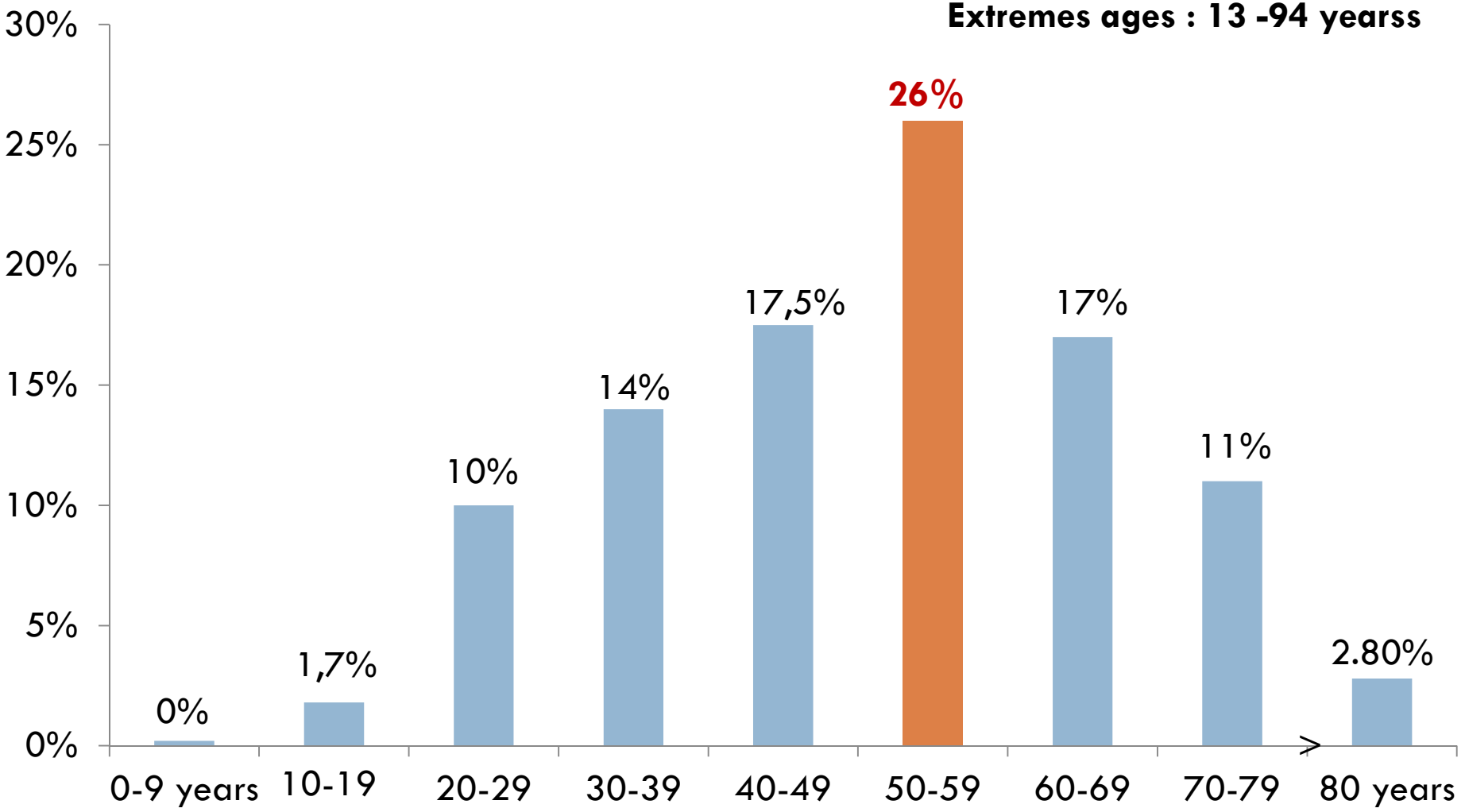
| Sex | Age | Origin | Initial Neph | Diabete | HTA | other Path. | Date of 1st HD | Numb Jug Cath | Numb Fem Cath | Numb Tunneled Cath | Num Gore-tex | Numb AVF | AVF life span | Proximal/distal AVF | Cause of no functioning AVF | Current state of vessels |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

# RESULTS

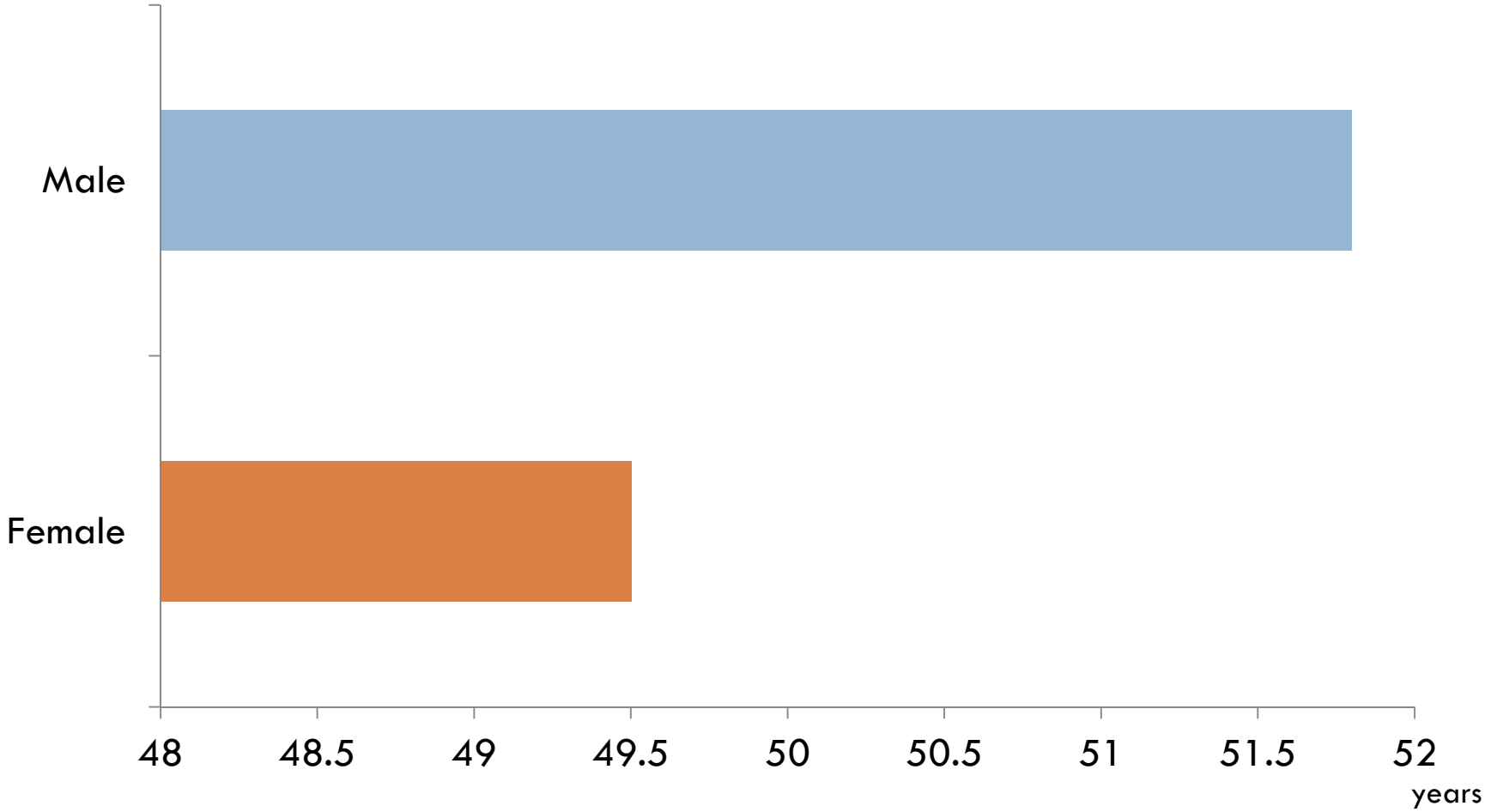
# Gender



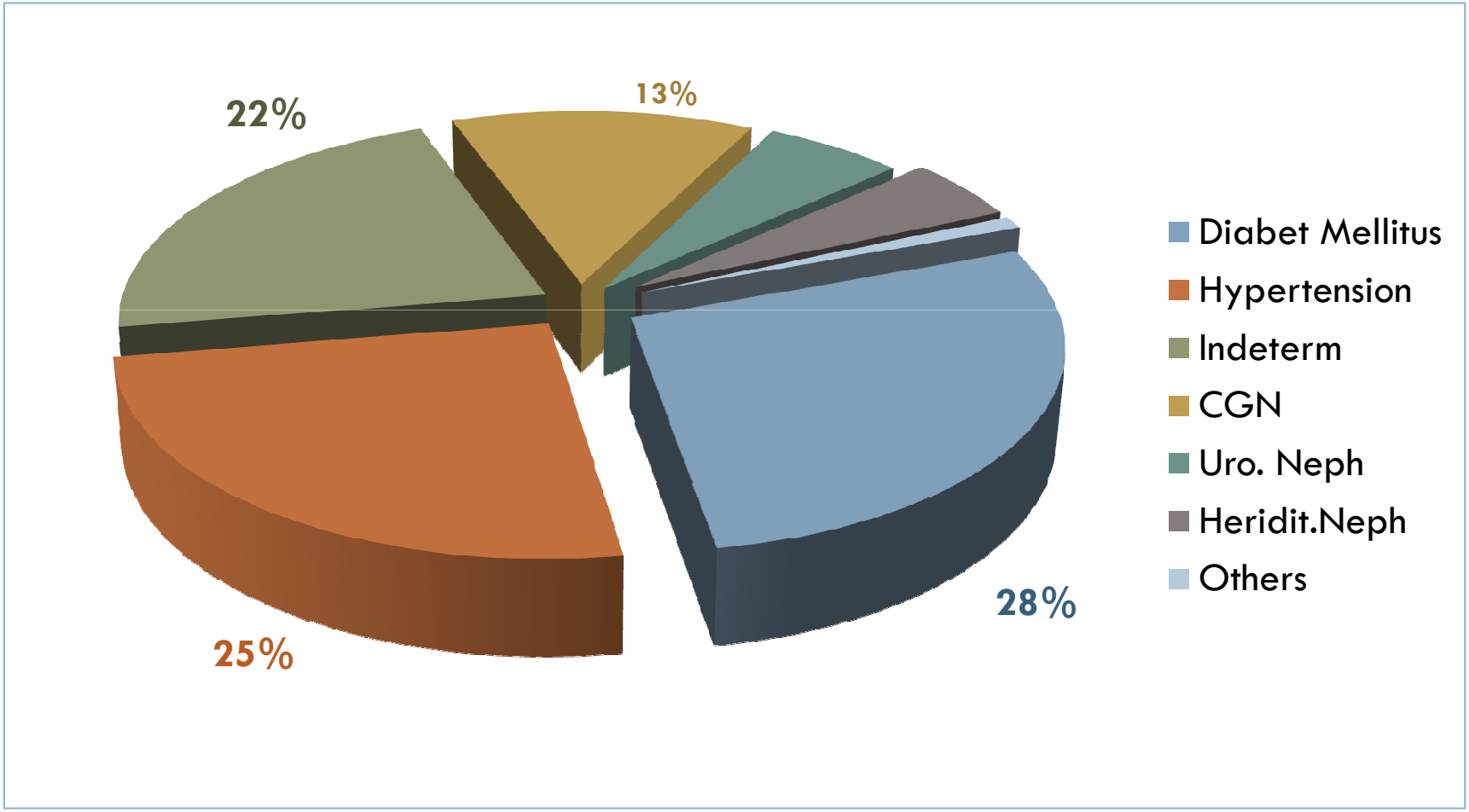
# Age


Extremes ages : 13 -94 yearss
30%
25%
20%
15%
10%
5%
0%
0%
1,7%
10%
14%
17,5%
26%
17%
11%
2.80%
0-9 years
10-19
20-29
30-39
40-49
50-59
60-69
70-79
80 years

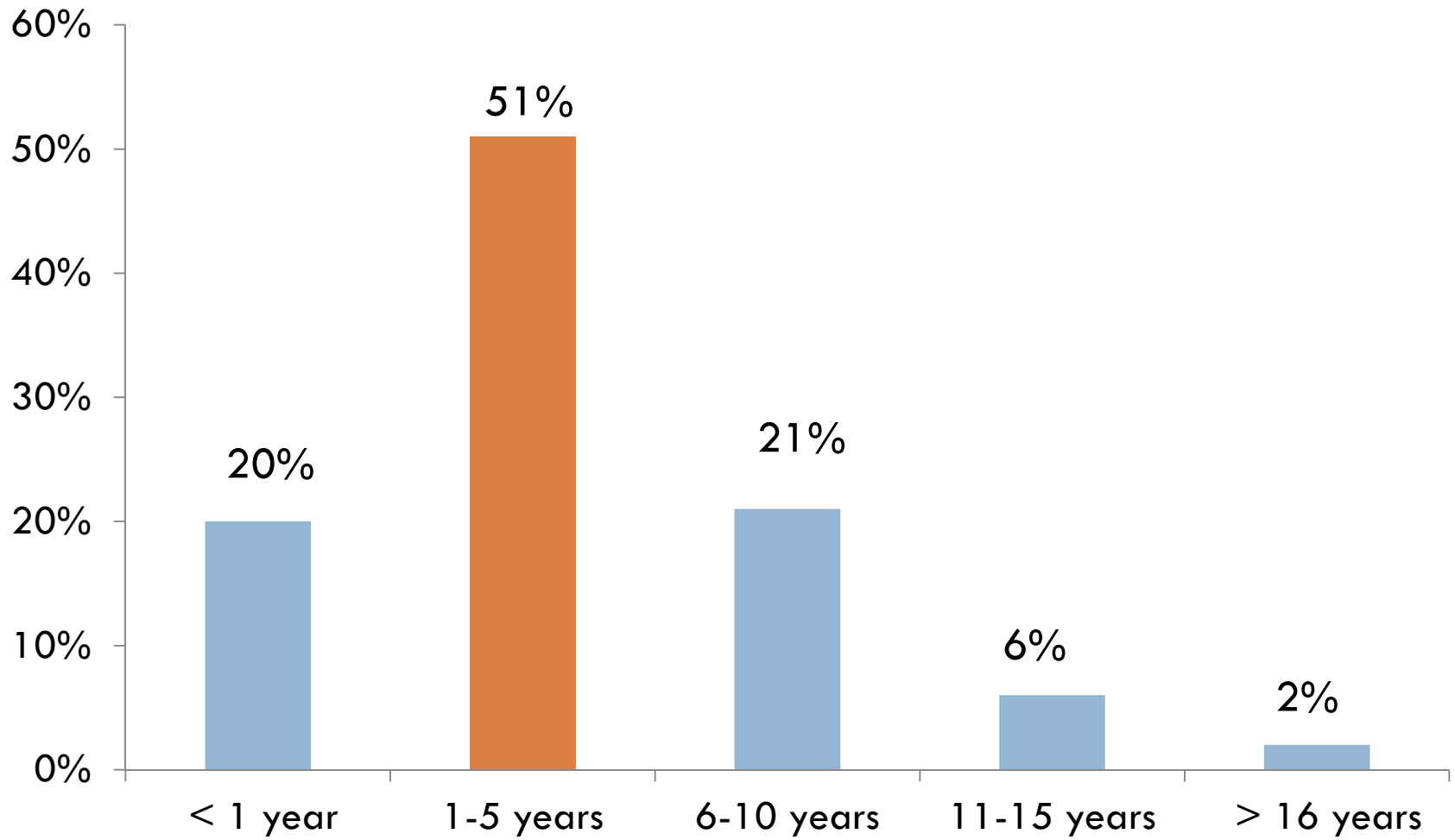
# Distribution by age /gender



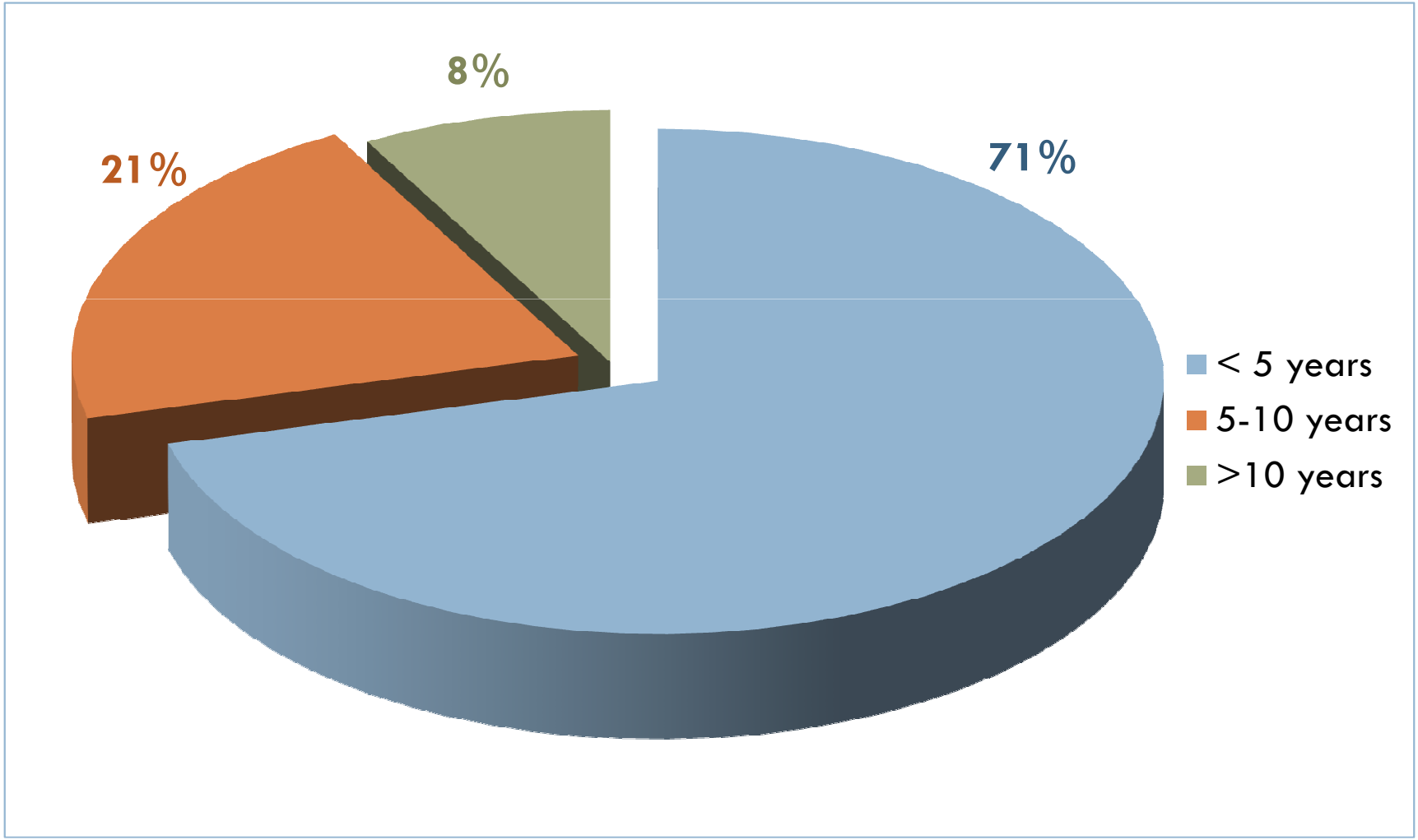
# Initial Nephropathy



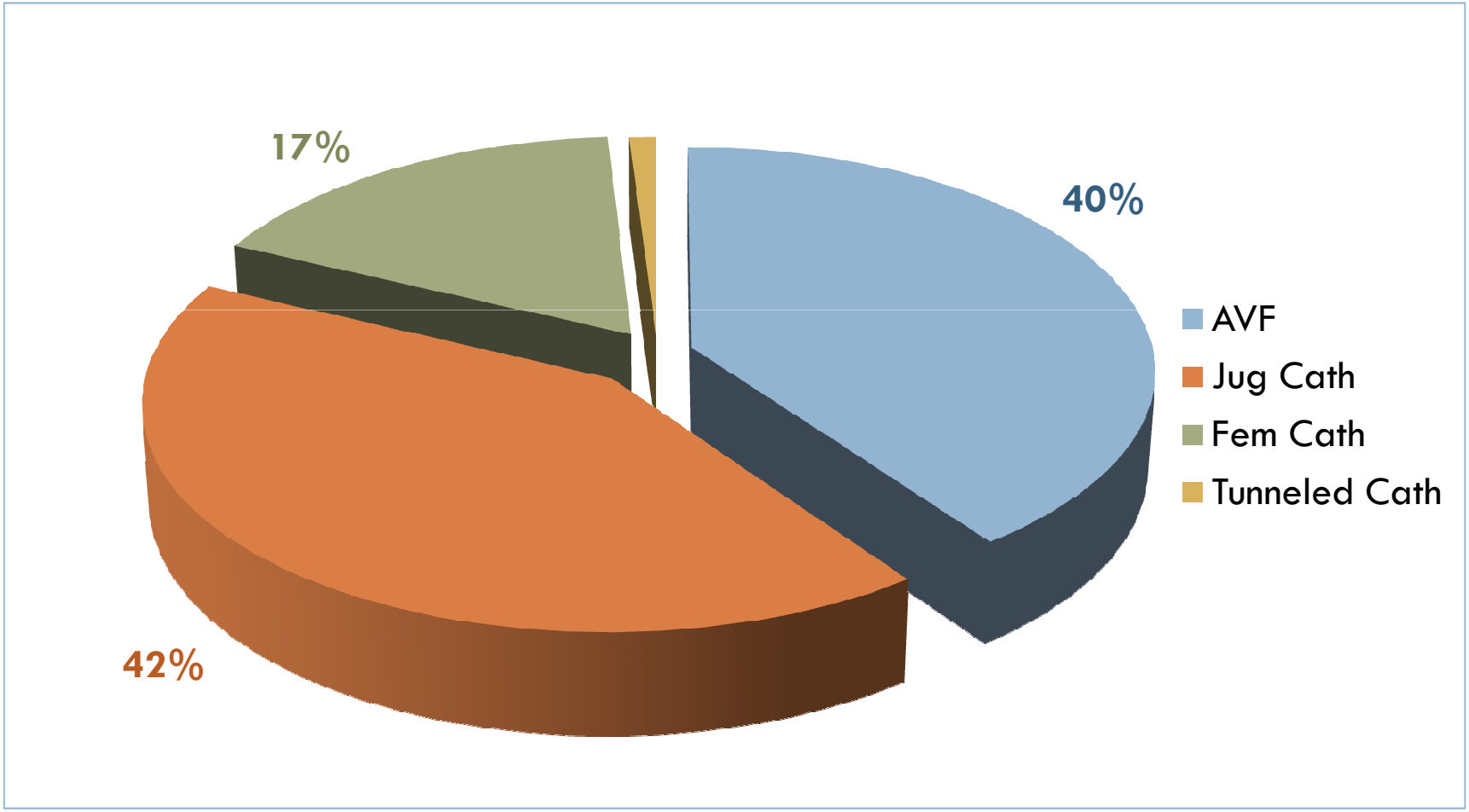
# Life Span On HD



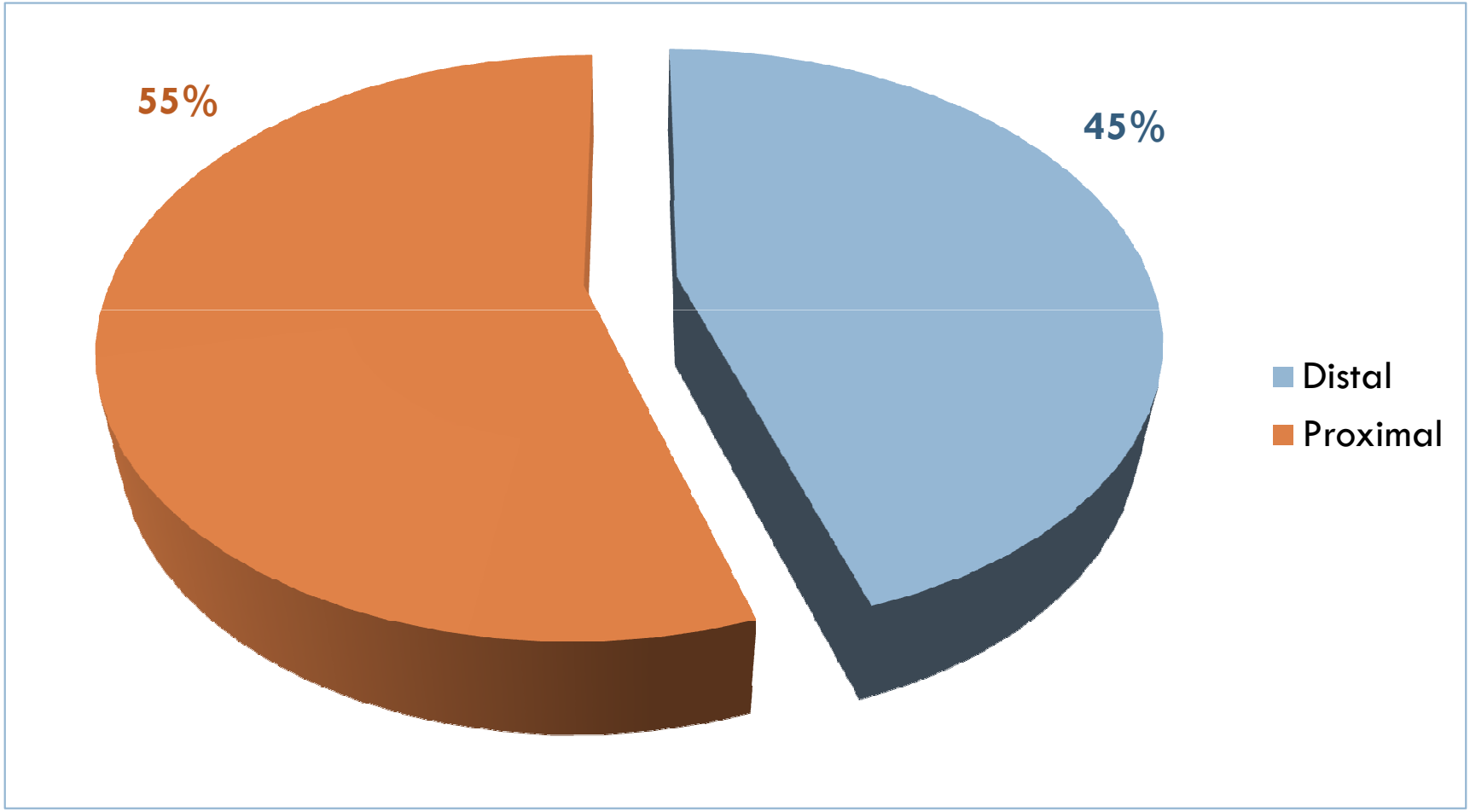
# Life span on HD



# First access for HD was…



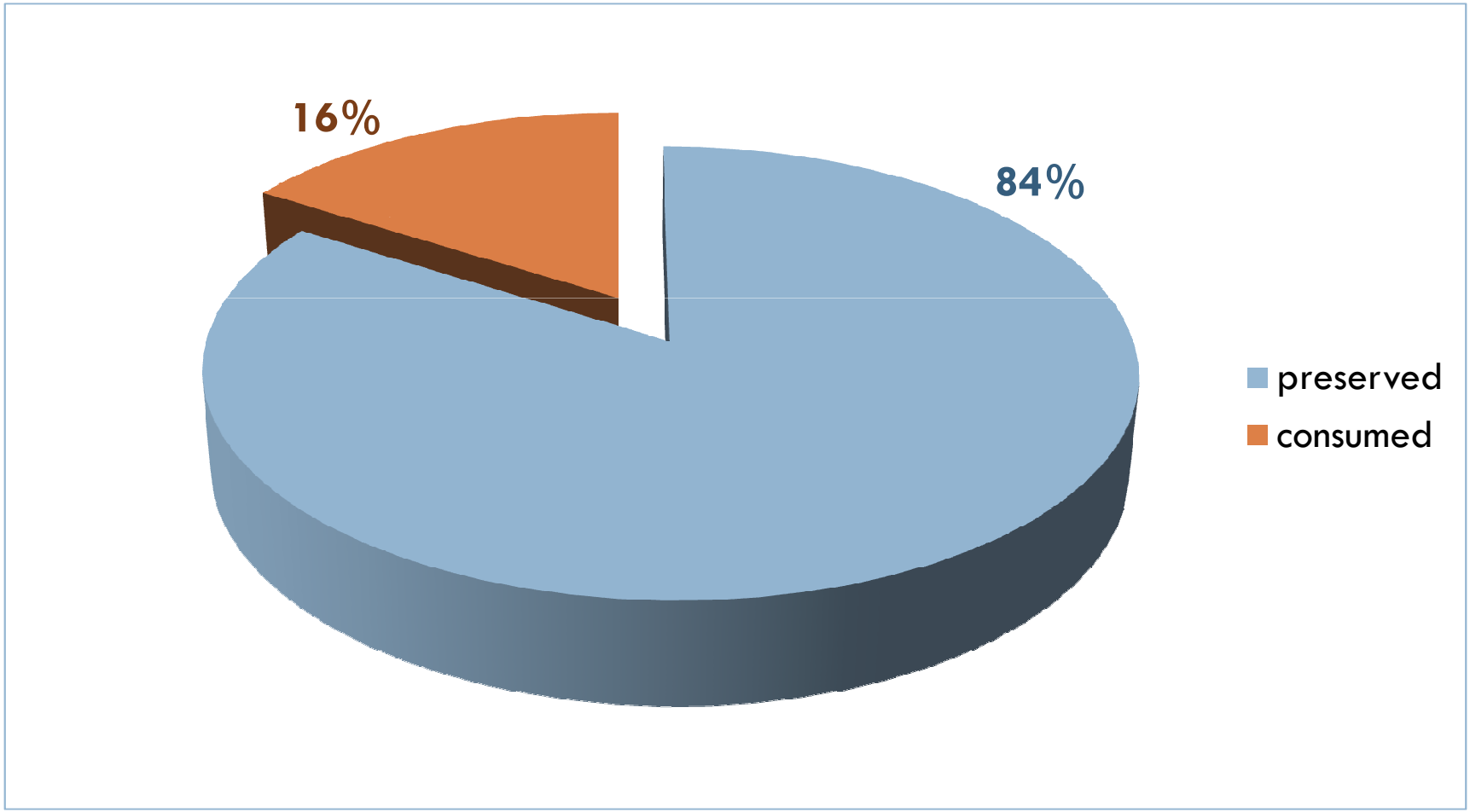
# First AVF was…



# Total of AVF Vs Life span on HD

| | 0- 5 years | 6 - 10 years | 11 - 15 years | > 15 years |
|---|---|---|---|---|
| 01 AVF | 557 patients | 223 Patients | 69 Patients | 19 Patients |
| 2 AVF | 53 | 10 | 8 | 4 |
| 3 AVF | 16 | 8 | 2 | 3 |
| 4 AVF | 9 | 3 | 3 | 4 |
| 5 AVF | 5 | 4 | 3 | 6 |
| Tunneled Cath | 2 | 8 | 5 | 5 |
| TOTAL | 642 patients | 256 patients | 90 Patients | 41 Patients |

# Clinical evaluation of vascular access for HD (less than 10 years on HD )



# Comments :

.Sex Ratio was identical

.Relatively young population (40-60 years)

.Percentage of undetrmined nephropathy remains eleveted.

.Percentages of Diabetic and Hypertensive Nephropathies join International datas.

# Comments :

.**Central Catheter** **remains the leading access for** HD.

(Despite 40% AVF on first intention → Follow-up of uremic patients before ESRD)

.**1 Patient/2 :** First AVF Proximal than Distal

.**1 patient /5** has « a Poor Vascular capital » within 10 years of dialysis.

# CONCLUSION

- Vascular Capital of hemodialysis patients is **VITAL.**
- **Great interest to preserve it preciously :**

→ Education of uremic patients and nursing staff.

→ Careful assessment of where anastomosis should be performed using radiological investigation if necessary.

(Distal>>Proximal)

→ Regular radiological monitoring of the vascular access.

- Multidisciplinary planning seems essential to achieve this goal and thus improve **the survival** of patients on chronic hemodialysis.

# Acknowledgment :

.Dr Bahamida,Dr Mazouni, Dr Rezzak.,Dr lechehab et Nadia.Beni Messous Hospital.
.Dr Labou,Dr Chachoua et aux medecins généralistes de l'EPH Kolea.
.Dr Tayar Clinique du rein .Cheraga
.Dr Bedja et Karim. Clinique Ibtissama. Dely Brahim
.Dr Chaimi.Dr Zeghlache Clinique Hydra
.Dr Moualek. Pr Rayane clinique Baraki
.Dr Bridja et Hocine.Clinique bonne santé. Belcourt
.Dr Hamiche Clinique hemodial Larbaa.
.Dr Oussalah. Dr Badaoui. Pr Seba.Tizi Ouzou university hospital
.Dr Slimani.EPH Sidi Aissa.
.Dr Tafoukt . EPH El-Eulma.
.Dr Belamri.CHU Thenia. Hemodialysis center of khemis khechna.
.Dr Belhaoua EPH Ain defla
.Dr Gouceme.Dr Hammadouche. Hemodialysis center of Hadjout.cherchell
.Dr Dif. EPH berouaghia
.Dr Mahmoudi.Private hemodialysis center of Tizi Ouzou

# GRACIAS !