

**END - STAGE RENAL DISEASE
AND KIDNEY REPLACEMENT THERAPY
IN BACHMAI HOSPITAL
HANOI - VIETNAM**

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Overview of Vietnam

Location: South East Asia

Population: 84 millions

332 000 km²

60 provinces and 5 cities

Urban areas: 25%

Rural areas: 75%

Population growth rate: 2.1% per year

People of working age: 52 millions

In 2005:

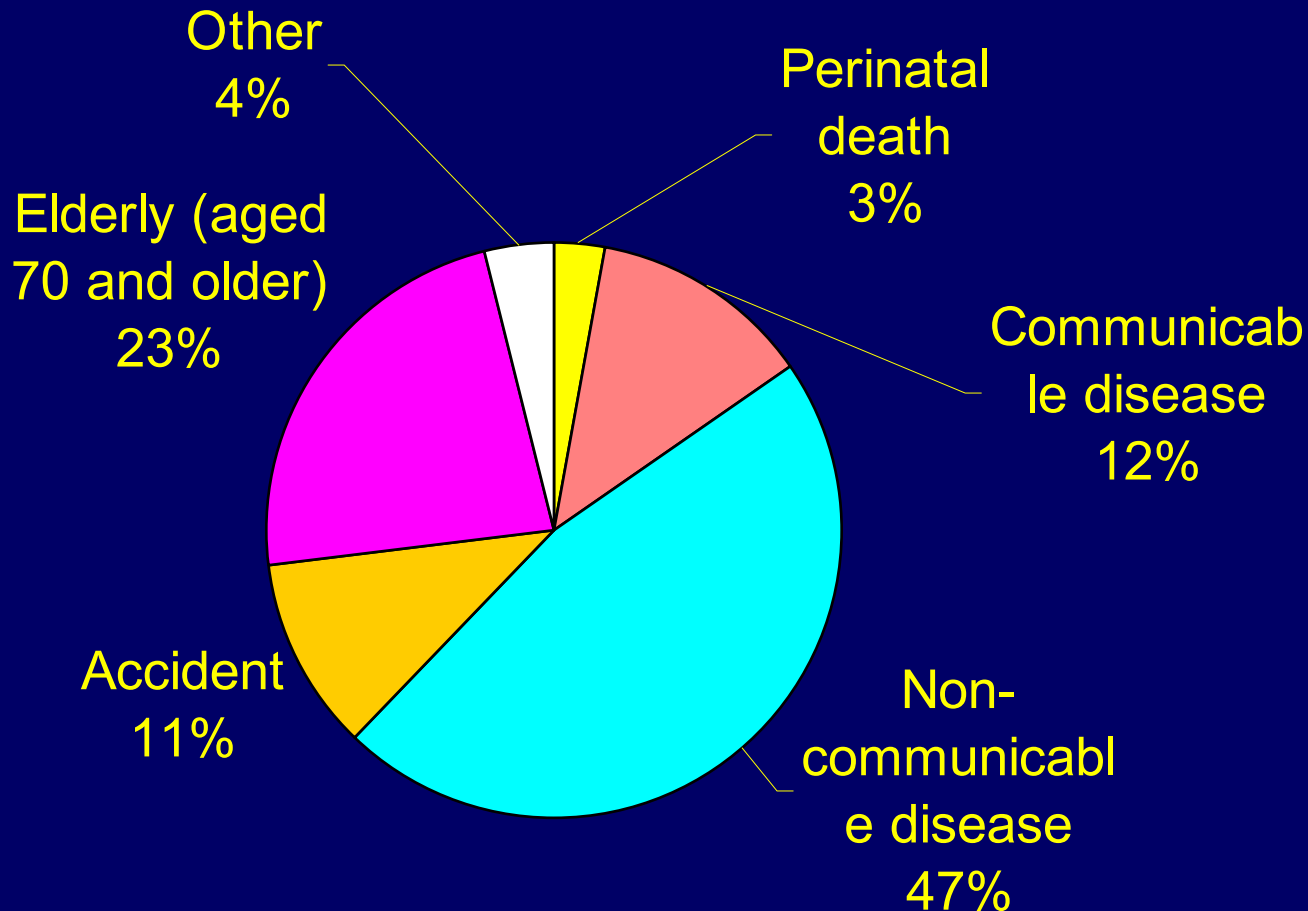
6 doctors and 6.3 nurses

per 10,000 inhabitants



HEALTH CARE IN VIETNAM

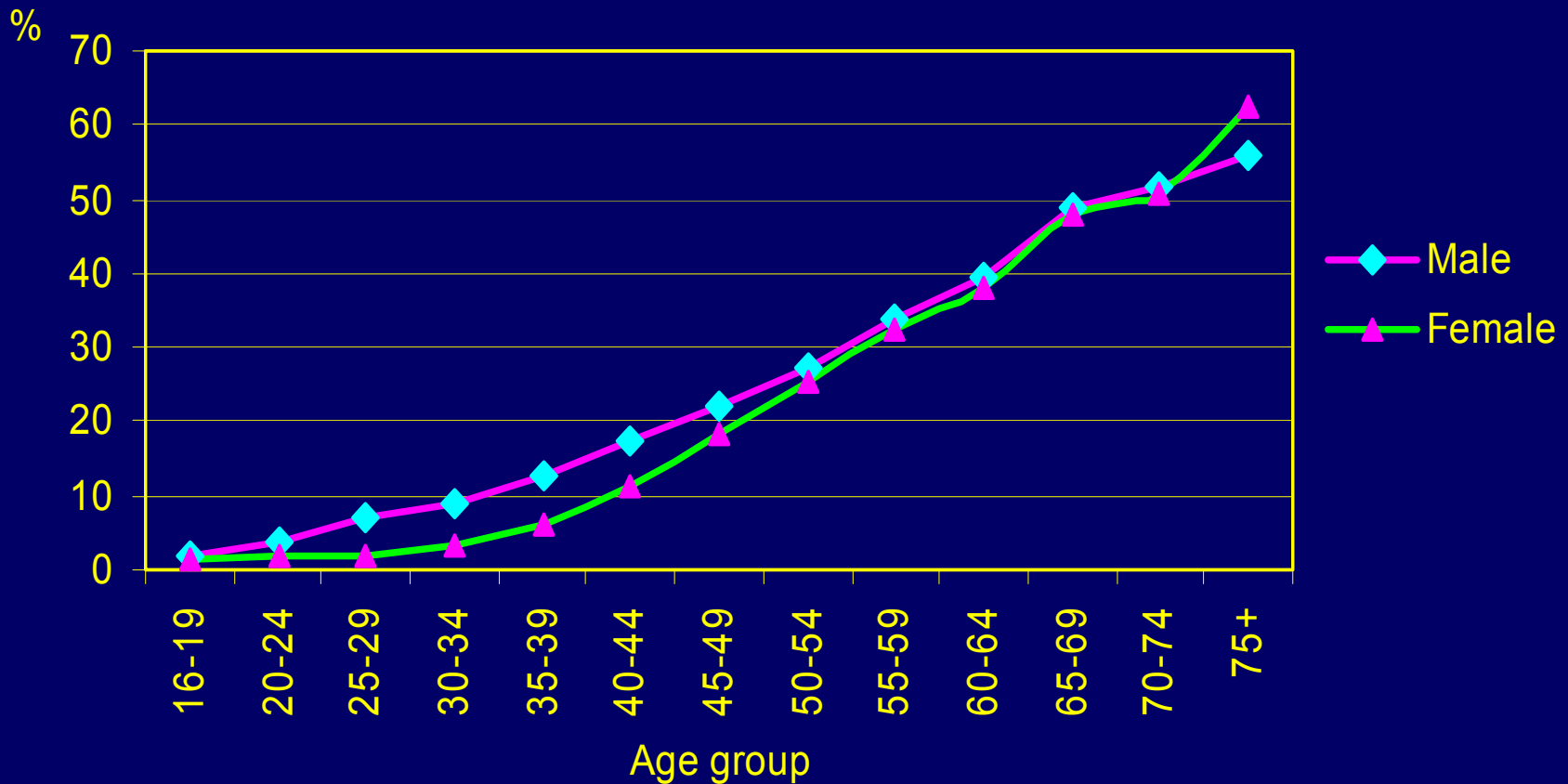
Structure of cause of death



Important non-communicable diseases

- ❑ Economic growth, aging population, lifestyle changes are causes leading to an increasing burden of non-communicable diseases.
- ❑ **Cancer:** Vietnam reports about 75 000 new cases of cancer/year. The case fatality rate is high, and cancer accounts for around 12% of total deaths annually in Vietnam.
- ❑ **Vavular heart diseases** decrease, **MI** is now one of leading causes of mortality.

Prevalence of hypertension by age group and sex



-Hypertension: prevalence of hypertension in those ≥ 16 years is 15.1% in males and 13.5% in females. An estimated 50% of men and women > 65 years have hypertension.

Accidents and injuries

- ✱ **Accidents and injury:** accidents are the 4th leading cause of death in Vietnam (11%) as well as disability.
- ✱ **Traffic accidents** is alarming cause. On average, > 40 people died each day
- ✱ ⇒ Strong intervention from government: helmet wearing is obligated since 15th, Sept 2007.





Health care in communes



TRẠM Y TẾ XÃ CẨM NÔNG, HUYỆN CẨM XUYÊN (HÀ TỈNH)





Health care center
In districts

Phẫu thuật tại nhà
kỹ thuật



15 5 2003



Health care in Hospitals



BỆNH VIỆN TRUNG ƯƠNG HUẾ



Bach Mai Hospital Hanoi Vietnam

Establishment: more than 100 years hystory. The biggest general hospital in Vietnam

Total staff: >2170

Medical doctor: > 350

Nurse: > 900

Professor and Associate Prof: >30

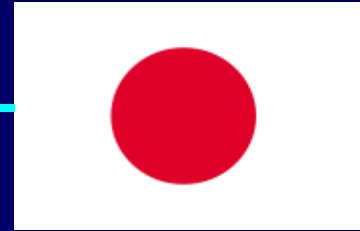
Ph.D degree: >50

Master degree: >70

Number of bed in Nephrology for in-patients: 80



Friendship
Collaboration



Building which was funded by Japanese government and people (JICA project)

Functional Characteristics of Nephro-urology

Major center for training of Hanoi Medical University
Under-graduate, Graduate level
Training for clinical specialist and CME

Practical place for Nursing
School

Scientific study and new technique apply
International collaboration

Department of
Nephrology

Advisory for
physicians from
provinces and cities

Ordinary and Specific
Medical Care
(CAPD and HD)
Therapies for Out-patients
and In-patients

Take part in
upgrading level and
quality of medical
system in
Nephrology of
Vietnam

Nephro-Urology Department

Administration

- Head of Department
- Deputy Head Dep.
- Head Nurse

Staff

- 15 doctors:
 - 1 A/Prof
 - 2 MD. PhD.
 - 11 MD. MS
 - 1 second degree Specialist
- 24 nurses

Nurses

- Disease:
 - GN
 - Diabetic GN
 - Urinary infecton
 - Kidney stone
 - Polycystic
 - Cancer
 - Congenital abnormalities
 - Tubulopathies
 - Kidney failure all causes
 - Prostatic disease

Technics

- UltraSound (Echo)
- Cystoscopy and cystography
- IVP
- UPR
- Kidney Biopsy
- CAPD
- HD for emergency
- Ultrafiltration
- Plasma aphethesis
- Lithotripsy

Main activities

- Patient care
- Training
- Research
- Direction and advising for Local hospitals

CLINICAL ACTIVITIES

Department has experienced in treatment and education for 30 years with:

1. The nephrology out-patient service :
Approx: 18000 patients visit/year.
1. Inpatient activity: 80 inpatient beds, over 3563 patients/year
2. Before 9/2007: we had 12-25 cases acute HD daily
3. From 9/2007 : Received dialysis machines from NPO Japan many of life are timely saved.

In-patients



Out-patients



CLINICAL ACTIVITIES

1. Patients admissions :

- ☐ Acute renal failure,
- ☐ Chronic renal failure with or without complications
- ☐ Nephrotic syndromewith or without complications
- ☐ Obstructive uropathy or urinary tract infection.

CLINICAL ACTIVITIES

1. The follow up :

- ❑ Consultation units for chronic renal failure patients
- ❑ New patient who are referred to the nephrology department for (CAPD) or kidney transplantation.
- ❑ Urologic problems



CKD IN VIETNAM

- 2002 in central vietnam: 3,38 % CKD at various stage:
- Stage I : 0,28%,
- Stage II : 0,39%
- Stage III : 0,16% ,
- Stage IV , V: 0,09%
- Age : $51,7 \pm 16,5$ years

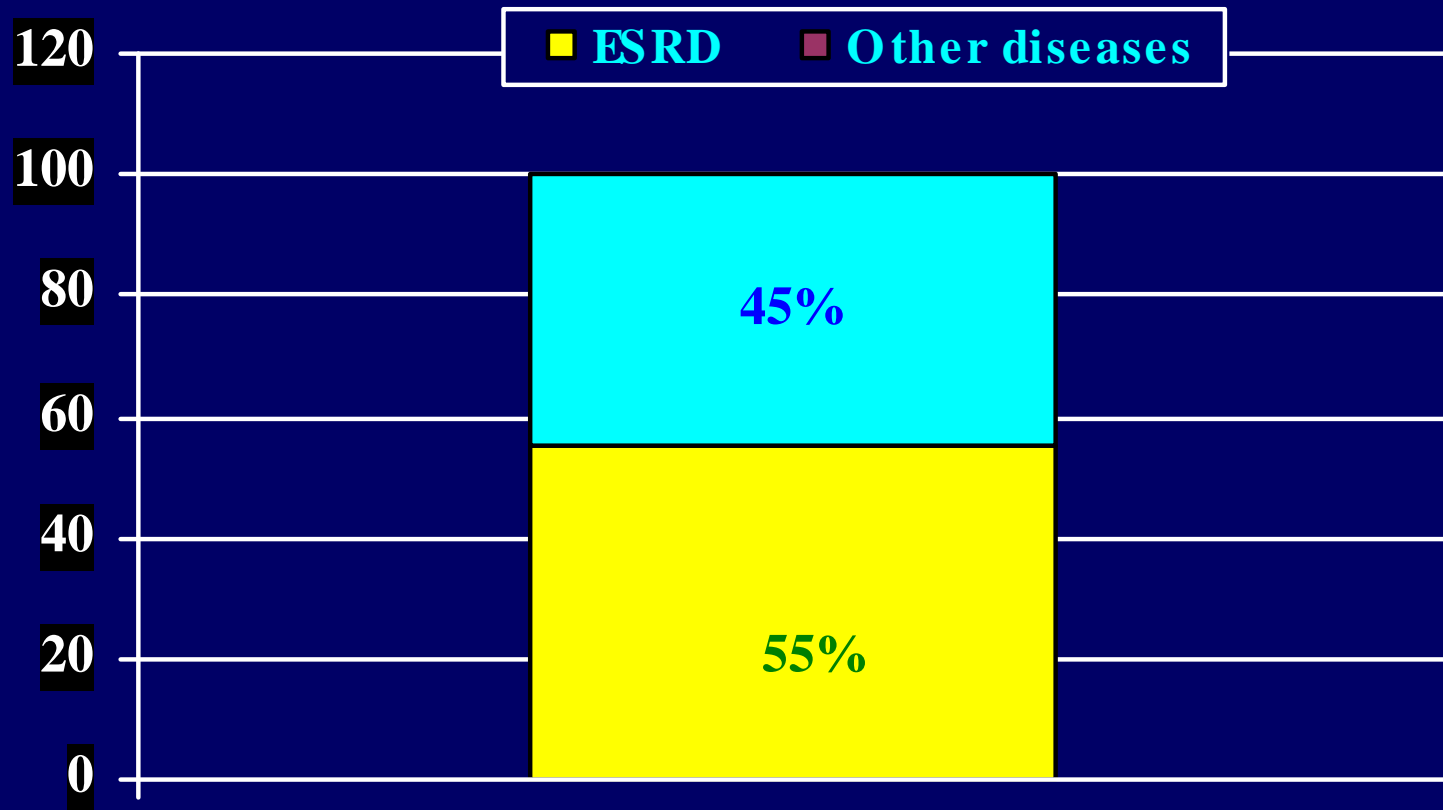
ESRD IN VIETNAM

2005 : Hanoi screening: Identified 3.1% of subjects as CKD (stages 3-5) with positive findings in urine test

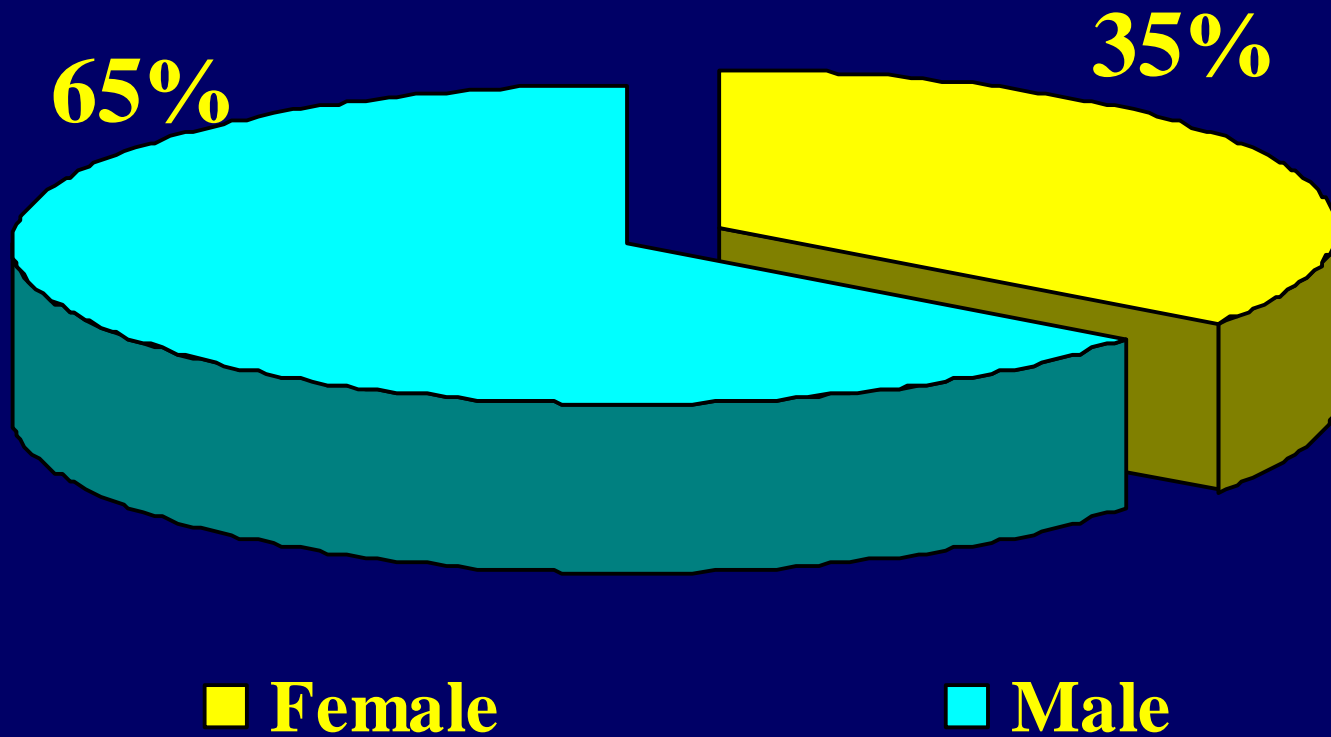
2008 :

- Estimated 100-150 new patients/ million/ year
- Total new patients/ years : 1000
- ESRD patients on hemodialysis : 10000

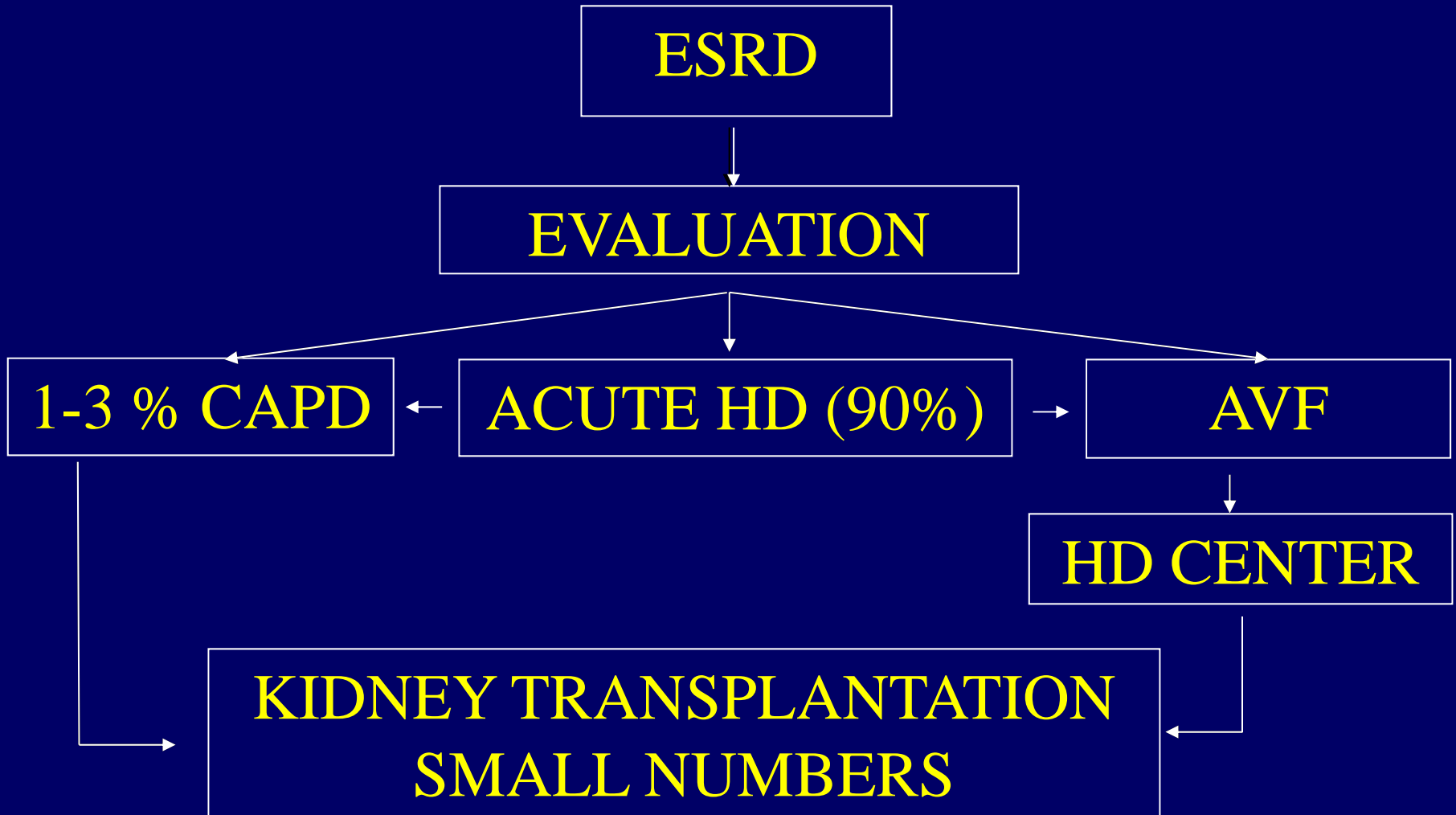
PERCENTAGE OF ESRD PATIENTS IN DEPARTMENT OF NEPHROLOGY



Sex distribution of ESRD patients

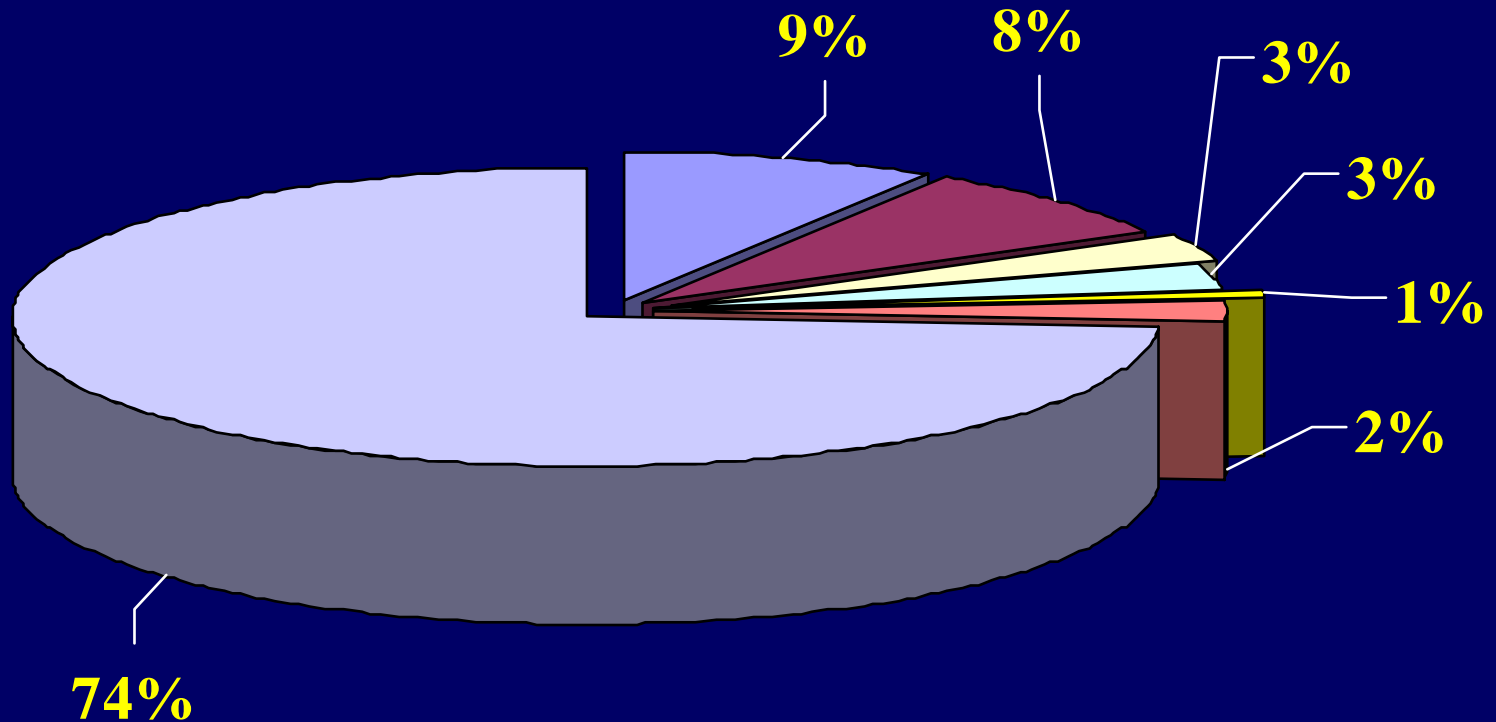


ESRD treatment Methods



90% ESRD patients come at very late with complications

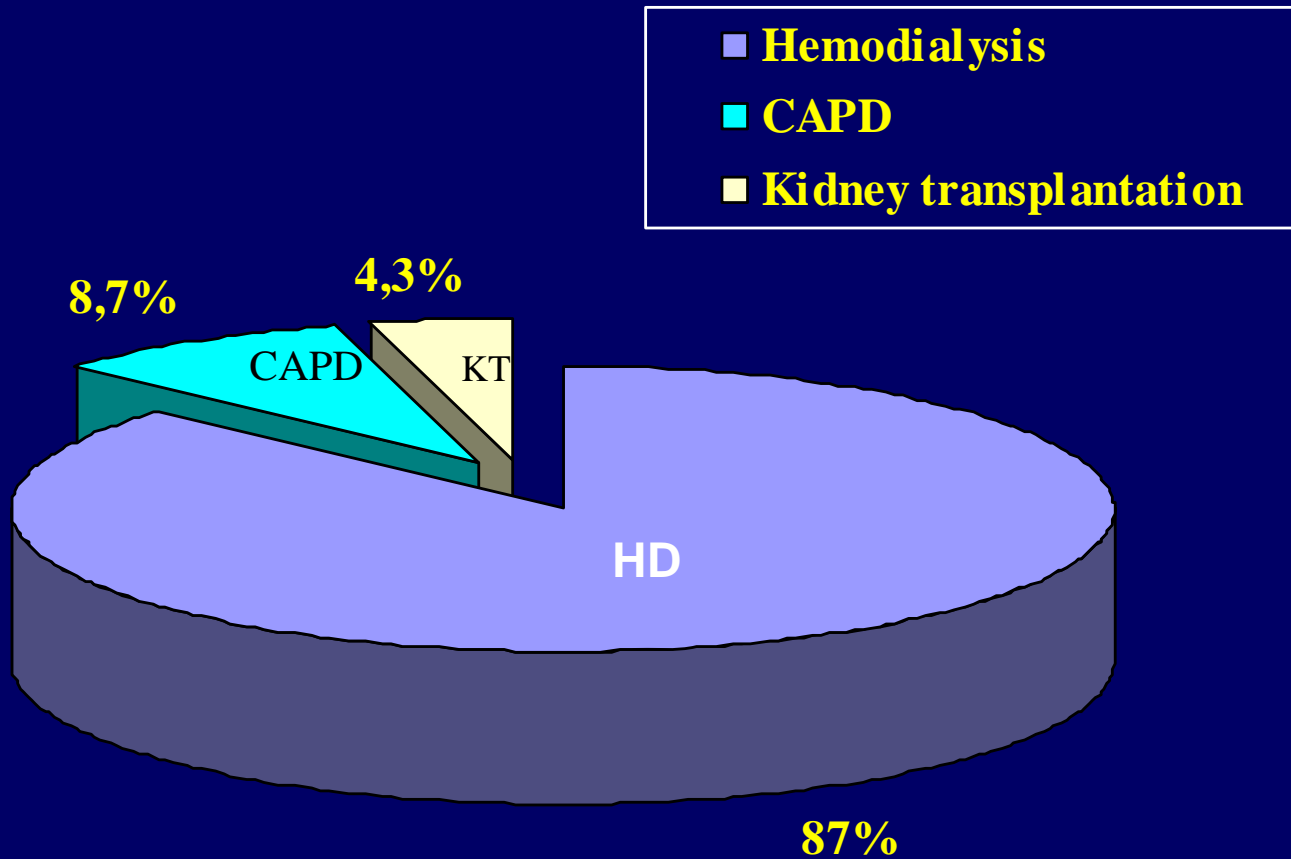
CAUSES OF RENAL DISEASES ON HD



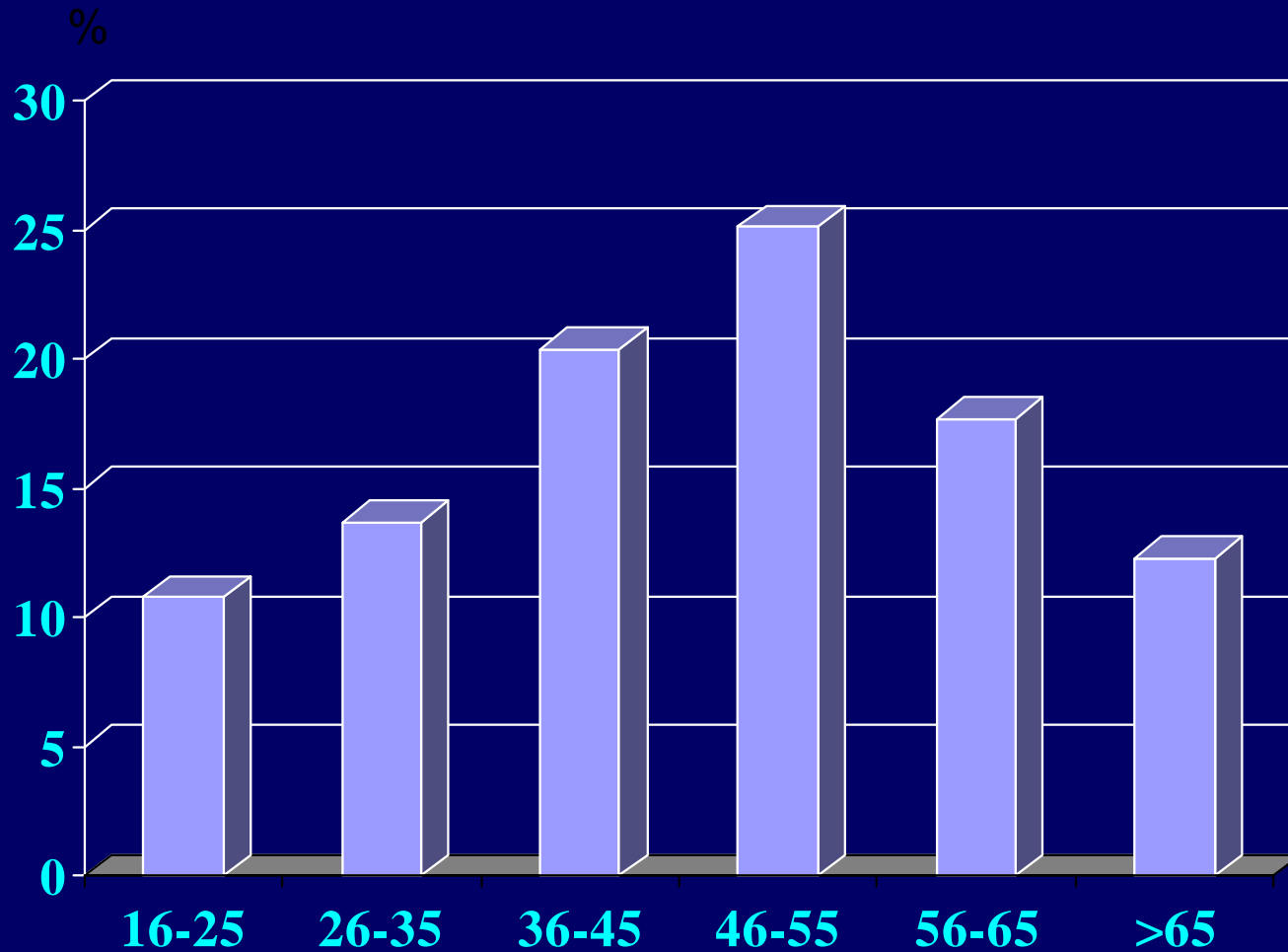
■ Diabetic Nephropathy
■ Polycystic kidney disease
■ SLE
■ Chronic GN

■ Kidney Stone
■ Hypertension
■ other

ESRD AND TREATMENT METHODS



HD AND PATIENT AGE



Internal jugular central line or femoral line for acute hemodialysis



Internal jugular central line for acute dialysis



HD THERAPY

- Total number in Vietnam: Approx: 10000
- Not all provinces have dialysis center
- Mostly located in cities and big hospital:
- Hanoi : 300, Hochiminh City: 600 patients
- Payment: Insurance cover for insurance card holders
- Dialyzer : Reused and most low flux
- Cost : 20 USD/ 4 hours

HD THERAPY in hospital

1. Acute dialysis unit

- 25-30 patients /day
- Internal jugular central l or femoral line
- waiting for AVF maturation

2. Chronic dialysis unit

- Patients : 600
- Total HD machines: 80
- 4 shifts per day
- Patients with longest duration on HD : 20 years

Acute HD unit



Chronic DIALYSIS unit

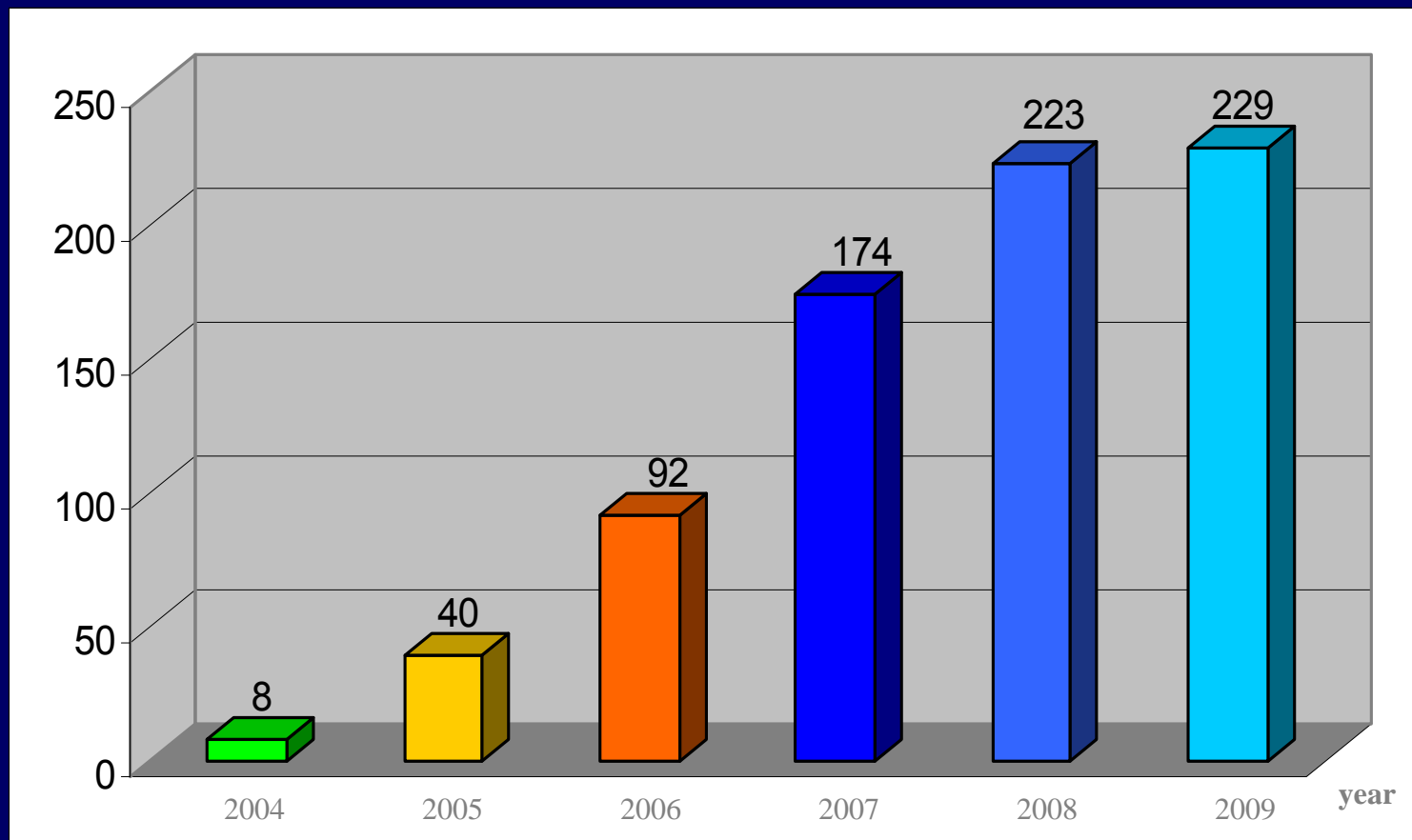


CAPD TREATMENT

- Started in Vietnam since 2000
- Total number in Vietnam: Approx: 1100
- Not all provinces have CAPD center
- Country total : 22 center for CAPD
- Mostly located in cities and big hospital:
- Hanoi : 300, Hochiminh City: 600 patients
- Come to see doctor : Monthly
- Patients choices:
 1. On working
 2. Far from hemodialysis center.

CAPD IN DEPARTMENT OF NEPHROLOGY

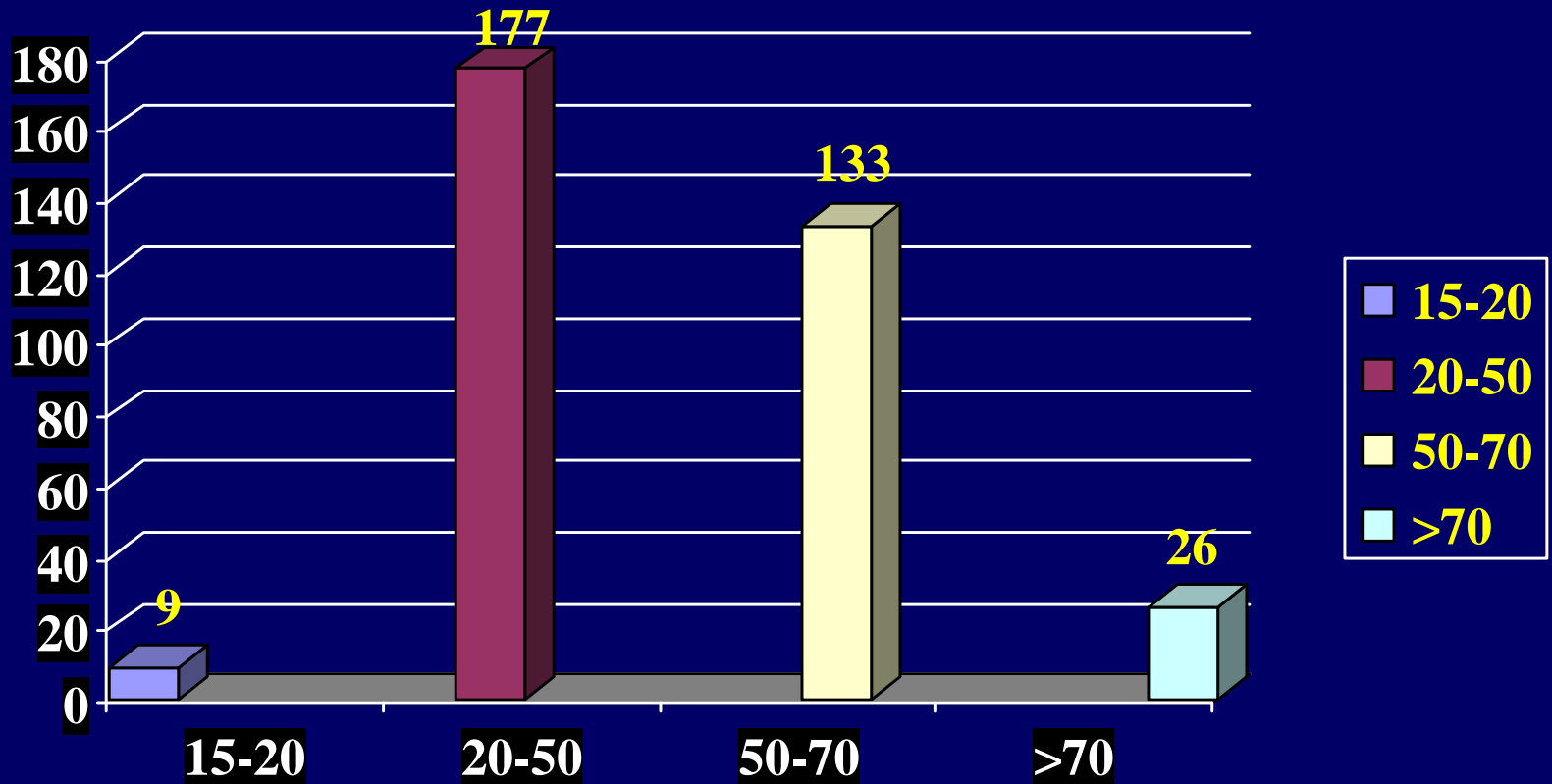
The number of patients on years



N= 345

AGE OF CAPD PATIENT

n = 345



Oldest : 81

youngest: 15

CAPD TREATMENT



CAPD TREATMENT IN OUR HOSPITAL

- CAPD started 2004
- Total numbers CAPD : 345
- Present: 230
- Mortality after 6 years: 74 (21,4%)
- Turn to HD and Kidney Transplantation : 41 (11,9%)
- Cost : 400 USD/ month
- Payments: Insurance company for health insurance card holders

Conclusion

Avenues for improvements in our country include:

1. Increasing awareness of renal disease amongst the population and general practitioners
2. Early diagnosis of CKD, making preventive strategies to delay the onset of ESRD
3. Greater government involvement to better fund units , enhance the quality of services and the wider availability of transplantation.

Thank you
please
come to Vietnam



Hanoi



Hue



Hoi An



Central Highlands



Cu Chi Tunnels



Sapa



Perfume Pagoda



Halong Bay



Cat Ba Island



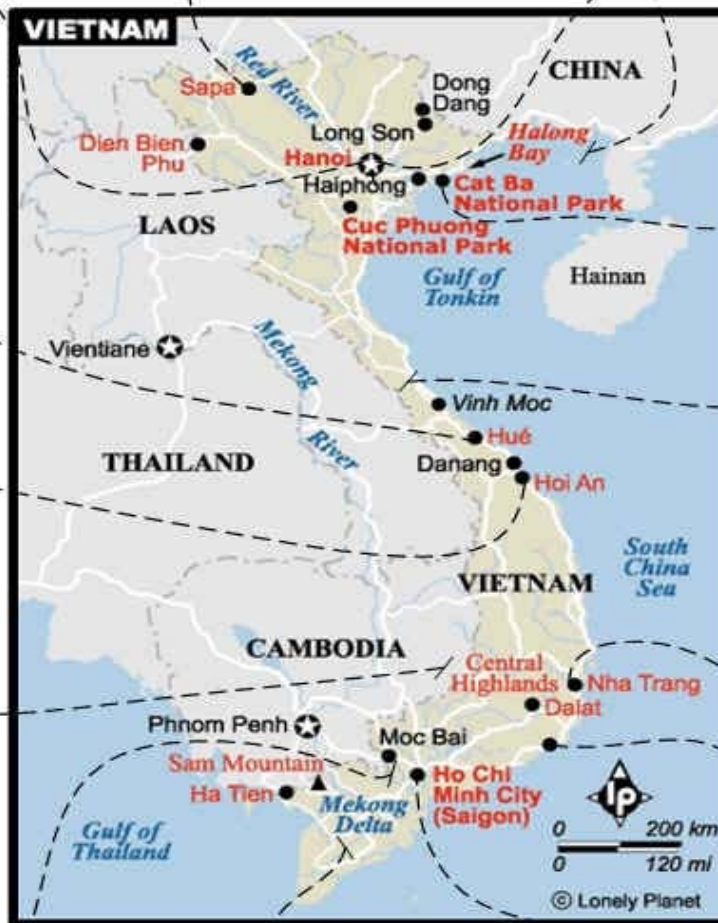
Marble Mountain



Nah Trang



Mui Ne



Mekong Delta



Saigon