



BCKD₂₀₁₇
BC KIDNEY DAYS

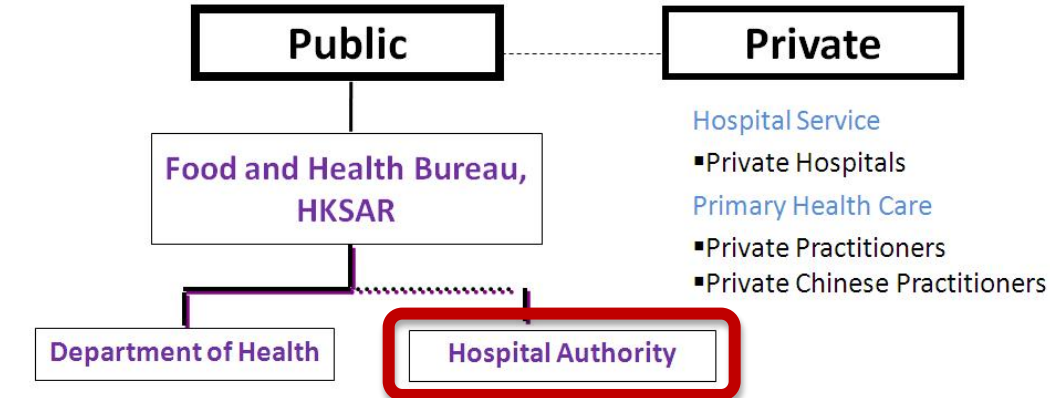
Developing Home Hemodialysis Program in Hong Kong

Dr. Yuk Lun CHENG

Outline

- **Needs**
- **Model**
- **Data**
- **Outcomes**
- **Challenges**

Healthcare Systems in Hong Kong



Management of Public Health

- Chest Clinics
- Child Assessment Centres
- Clinical Genetic Service Centres
- Dental Clinics
- Dermatology Clinics
- Elderly Health Centres
- Integrated Treatment Centres
- Maternal and Child Health Centres
- Methadone Clinics
- School Dental Clinics
- Social Hygiene Clinics
- Student Health Service Centres
- Travel Health Centres
- Women Health Centres

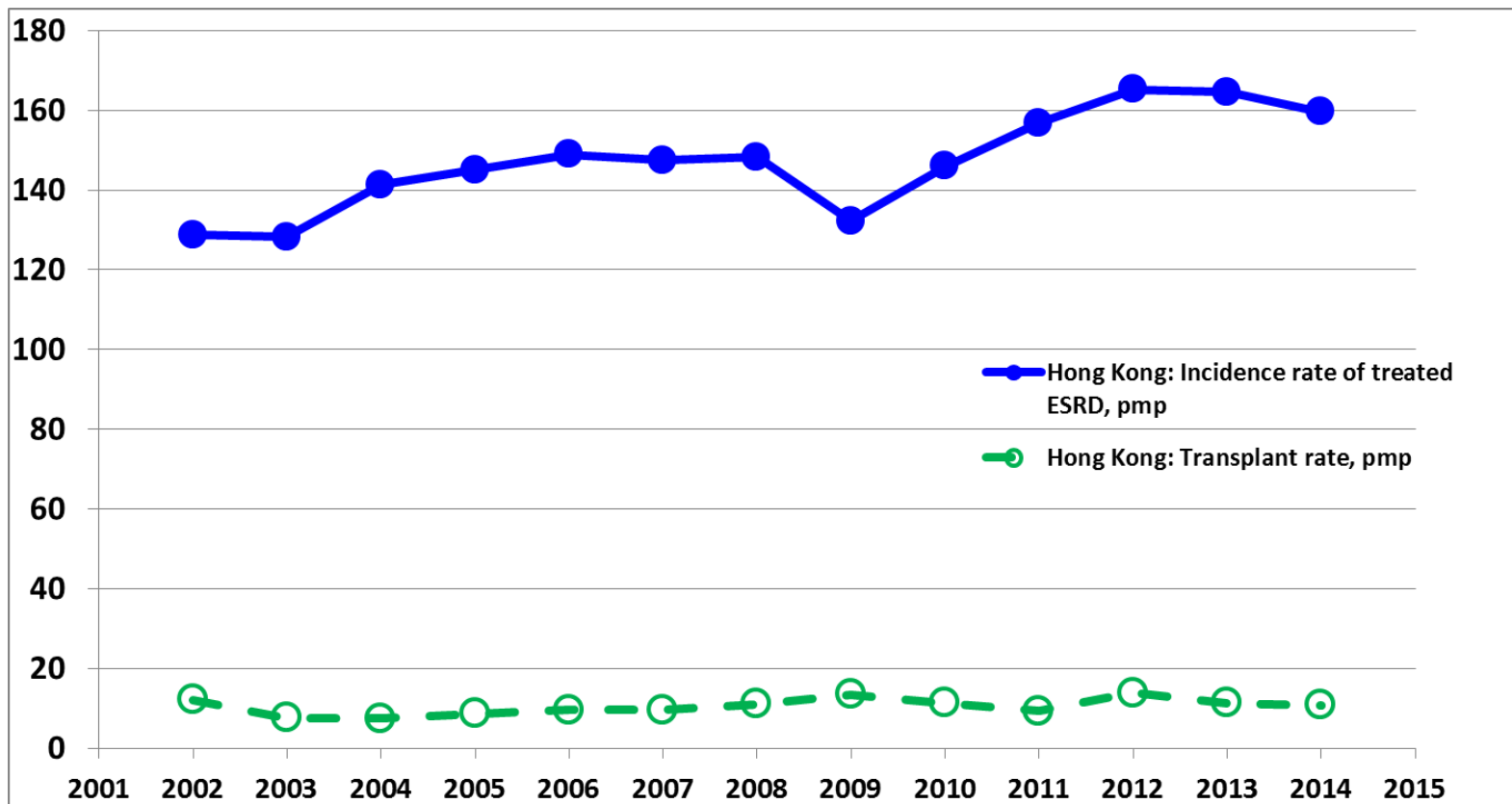
Management of Public Hospitals

- Public Hospitals
- General Out-patient Clinics
- Special Out-patient Clinics

Take care > 90% population
~ 90-95 RRT patients

<https://www.gov.hk/en/residents/health/hosp/overview.htm>
Leung CB, et al. Kidney Int Suppl 2015

Incidence Rate of treated ESRD & Transplant Rate

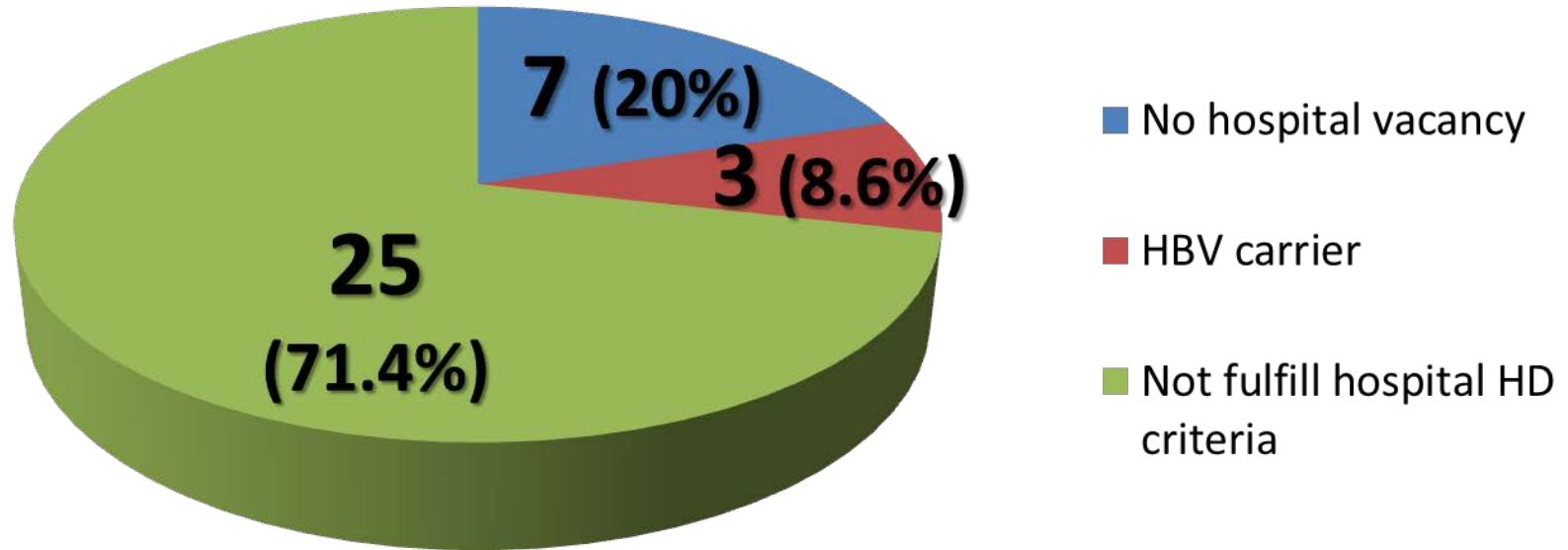


Need for Augmented HD Service in HA

- **Hospital HD service was expected to be saturated.**
- **Patients with PD failure / high risk PD ~ 80 per year.**
- **Pilot Home HD in 2006.**
- **HD Public Private Partnership Programme in 2010.**

Early Home HD in HK

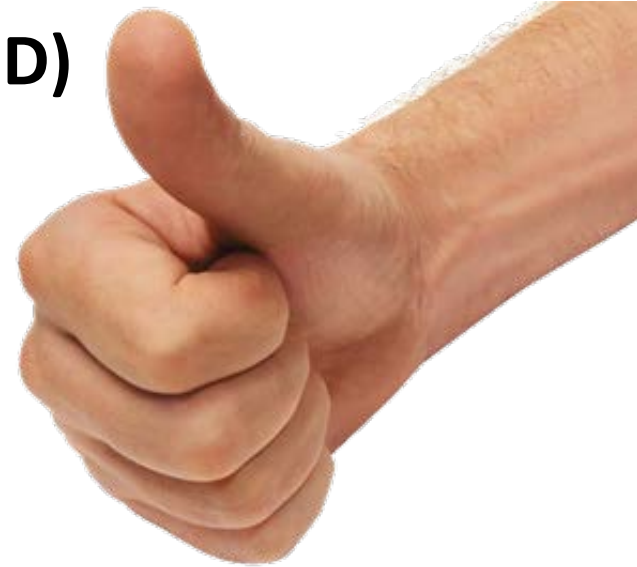
Single centre experience 1978 - 1985



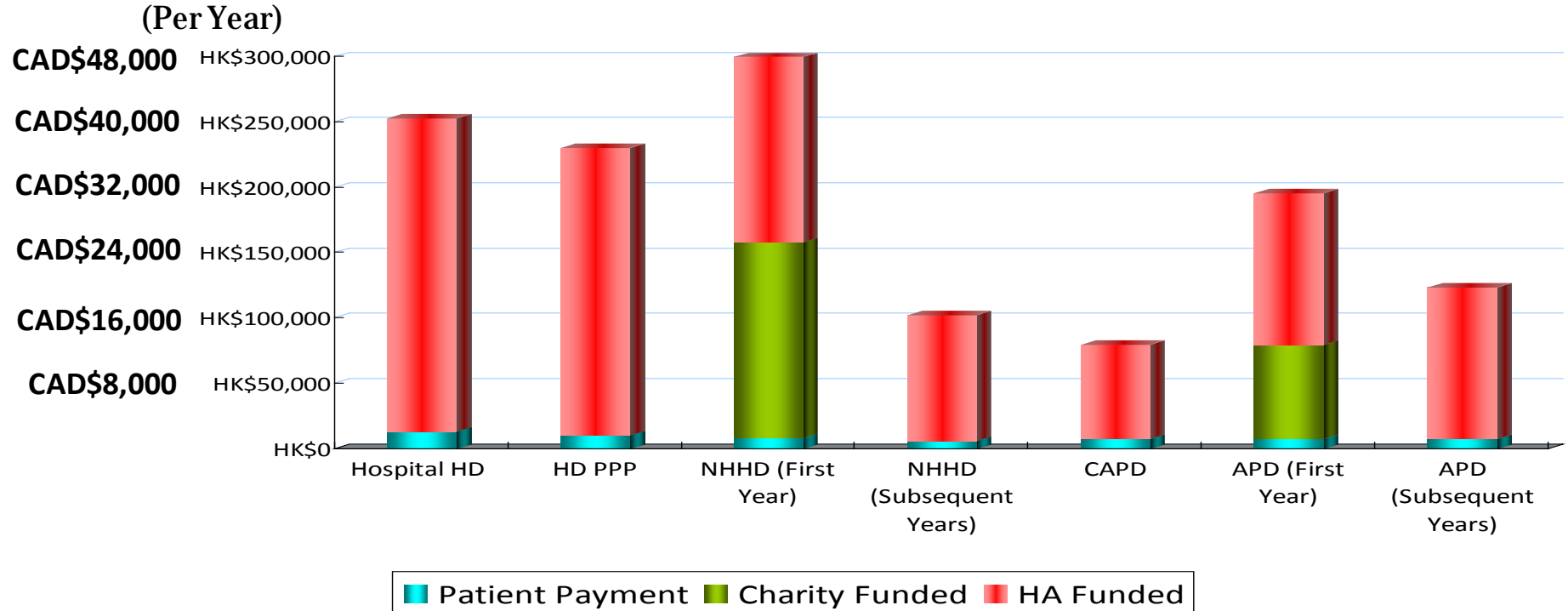
Keep patients dialyze at home

Nocturnal Home HD (Extended HD) (mainly observational study)

- **Better survival**
- **↓ Hospitalization**
- **↓ LVH & EPO dose**
- **Good BP control, excellent phosphorus control**
- **Better quality of life**



Cost of RRT to the Health care service of HA



Funding Model

HA

HD consumables

**Charitable
Organization***

HD/RO machine purchase
/ rental & maintenance

Patient

Water, electricity
& miscellaneous

*Hong Kong Jockey Club Charitable Trust
Hong Kong Kidney Foundation

Patient Selection

Hong Kong Jockey Club Charitable Trust

- 200
- Medical indications
- PD 1st policy
 - PD failure
 - High risk PD
 - Underdialysis
 - Frequent PD peritonitis
 - UF failure
 - Contraindication for PD

Hong Kong Kidney Foundation

- 60
- Social indication
- Means test required

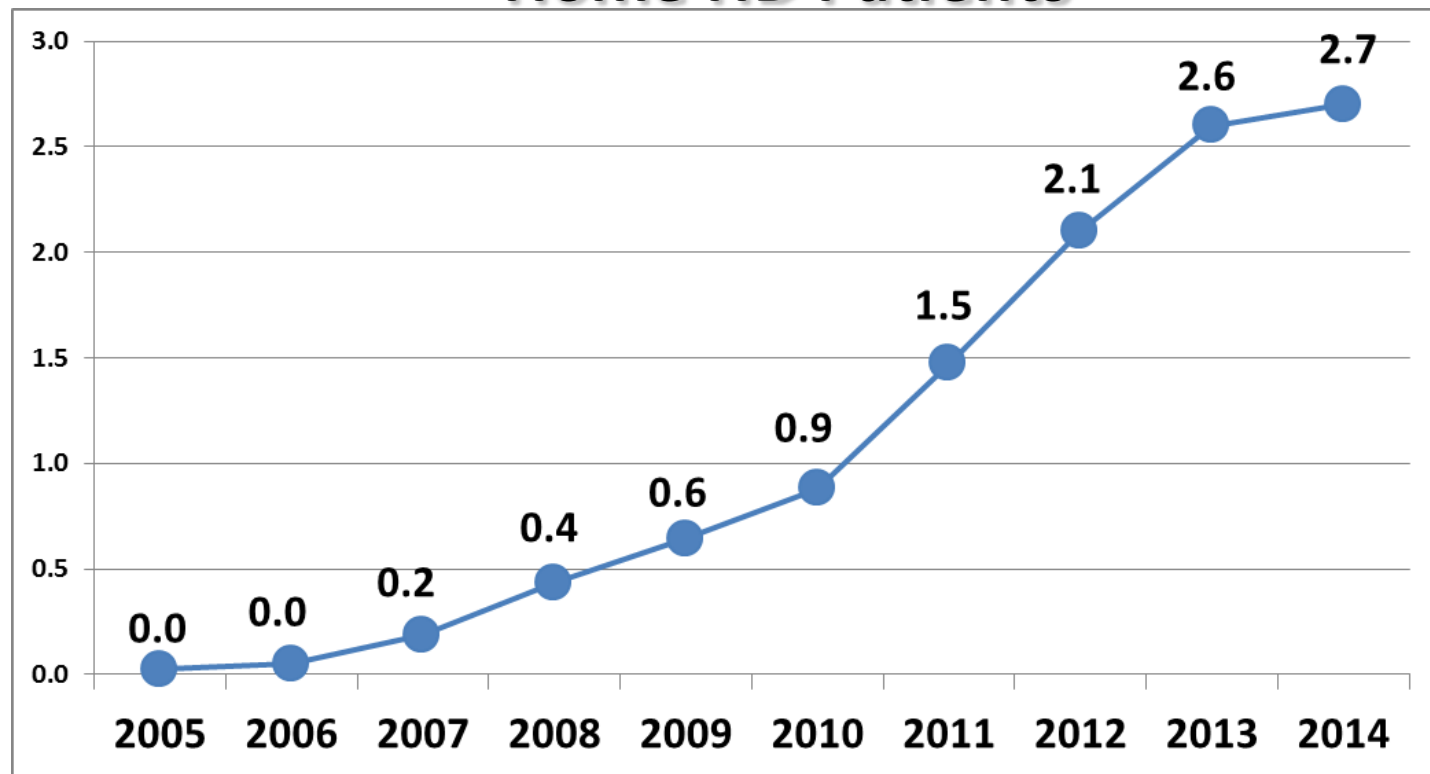
- **Working group**
- **Centre set up (separate area but within existing hosp infrastructure).**
- **Staff**
 - **Overseas training (doctors and nurses)**
 - **Local training: train the trainers**
 - **24/7 on call support**
- **Standardization of protocol**
- **Training program 12 weeks**
- **Patients**
 - **Promotion**
 - **Selection**
 - **Home visit**
 - **Regular social activities**

Distribution of Nocturnal Home HD Training Centres under HA



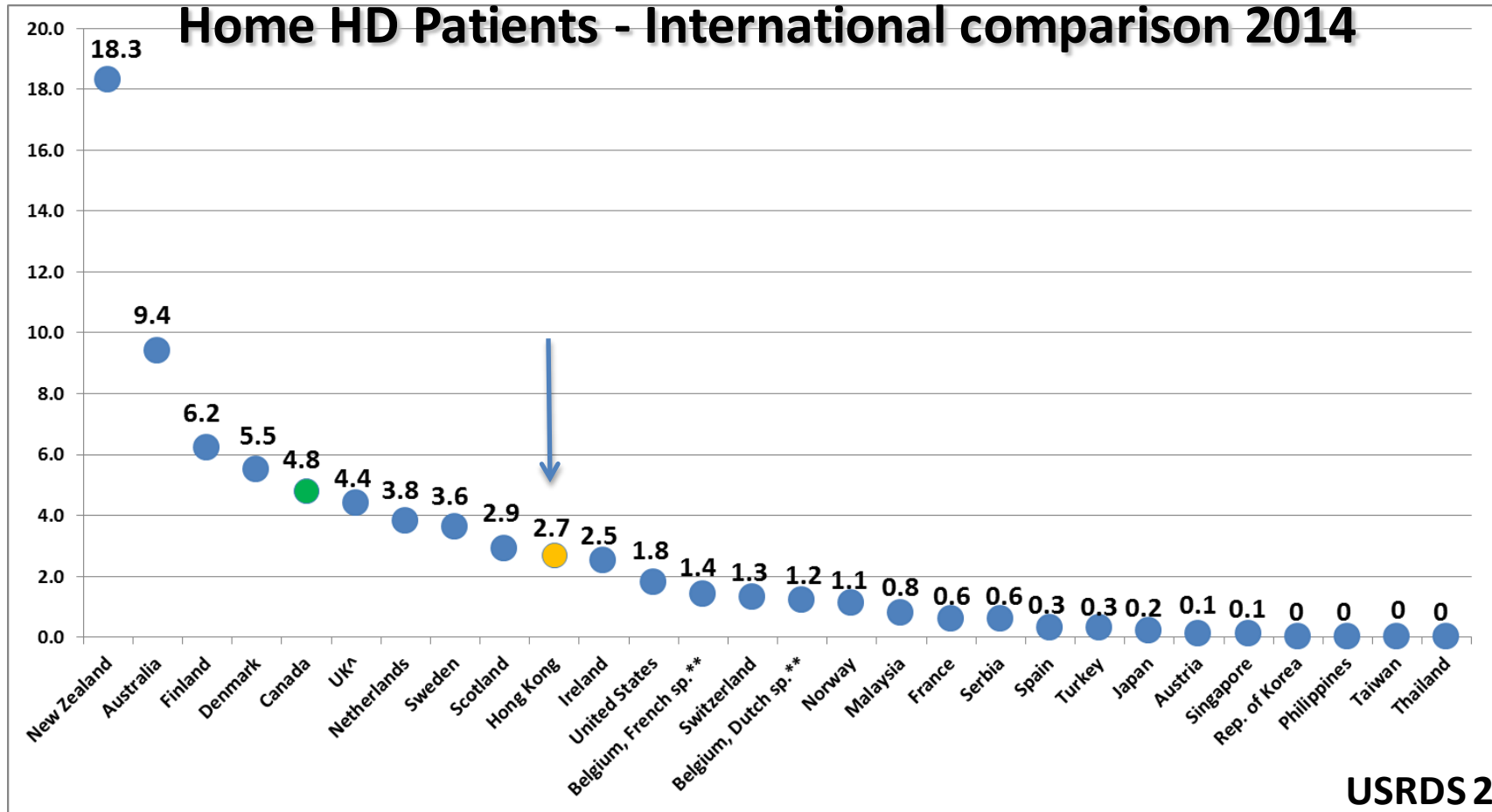
% distribution of prevalent dialysis patients

Home HD Patients



% distribution of prevalent dialysis patients

Home HD Patients - International comparison 2014



Outcomes

(Alternative Day, 6-9 hours per session)

- **Improvement in anemia, serum phosphorus & BP, quality of life.**
- **Reduction in LV mass, anti-hypertensives and phosphate binders.**
- **Higher employment rate (Vs CAPD).**
- **Appear better conception rate.**

Tang HL, et al. Nephrol 2011

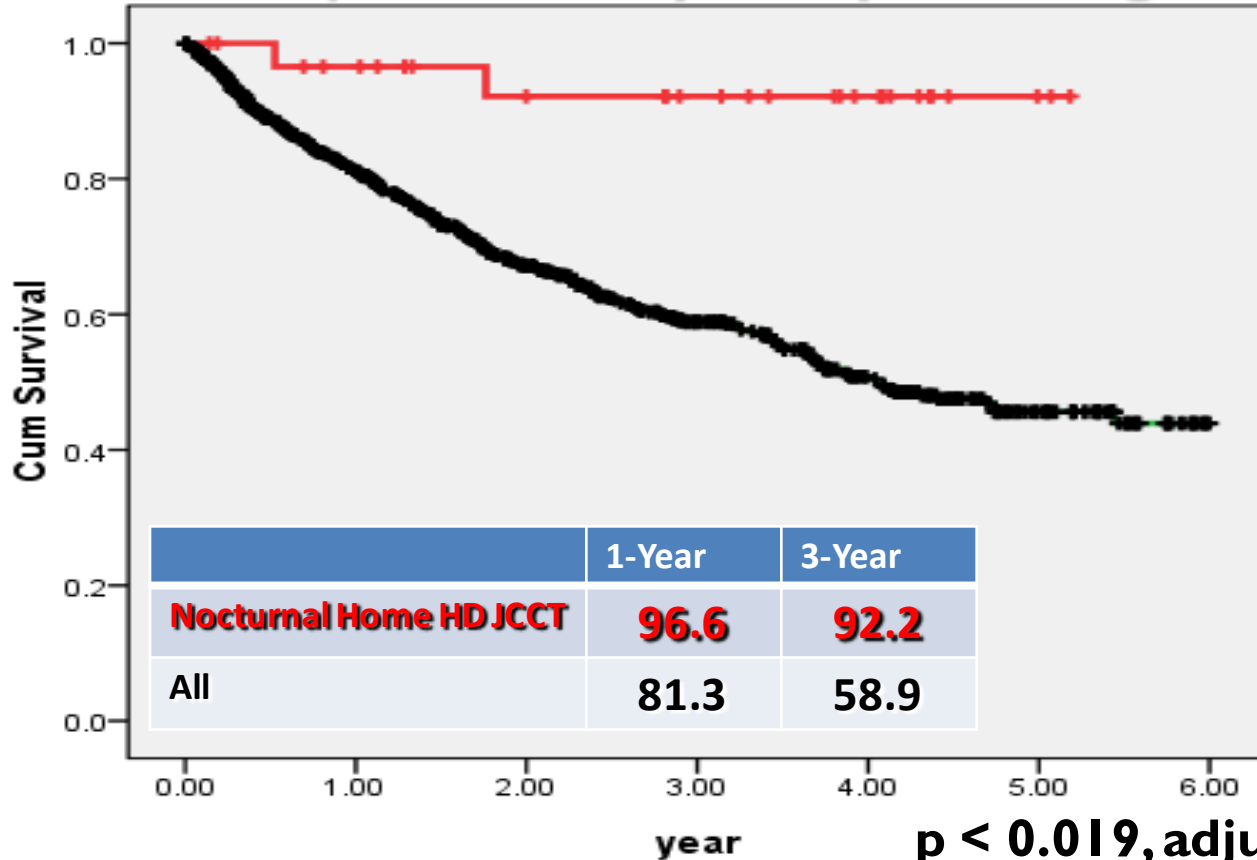
Tang HL, Tong KL. HKMA Medical Bulletin 2012

Wong JHS, et al. Hemodial Int (in press)

Personal communication

Patient Survival

(Preliminary analysis of registry data)



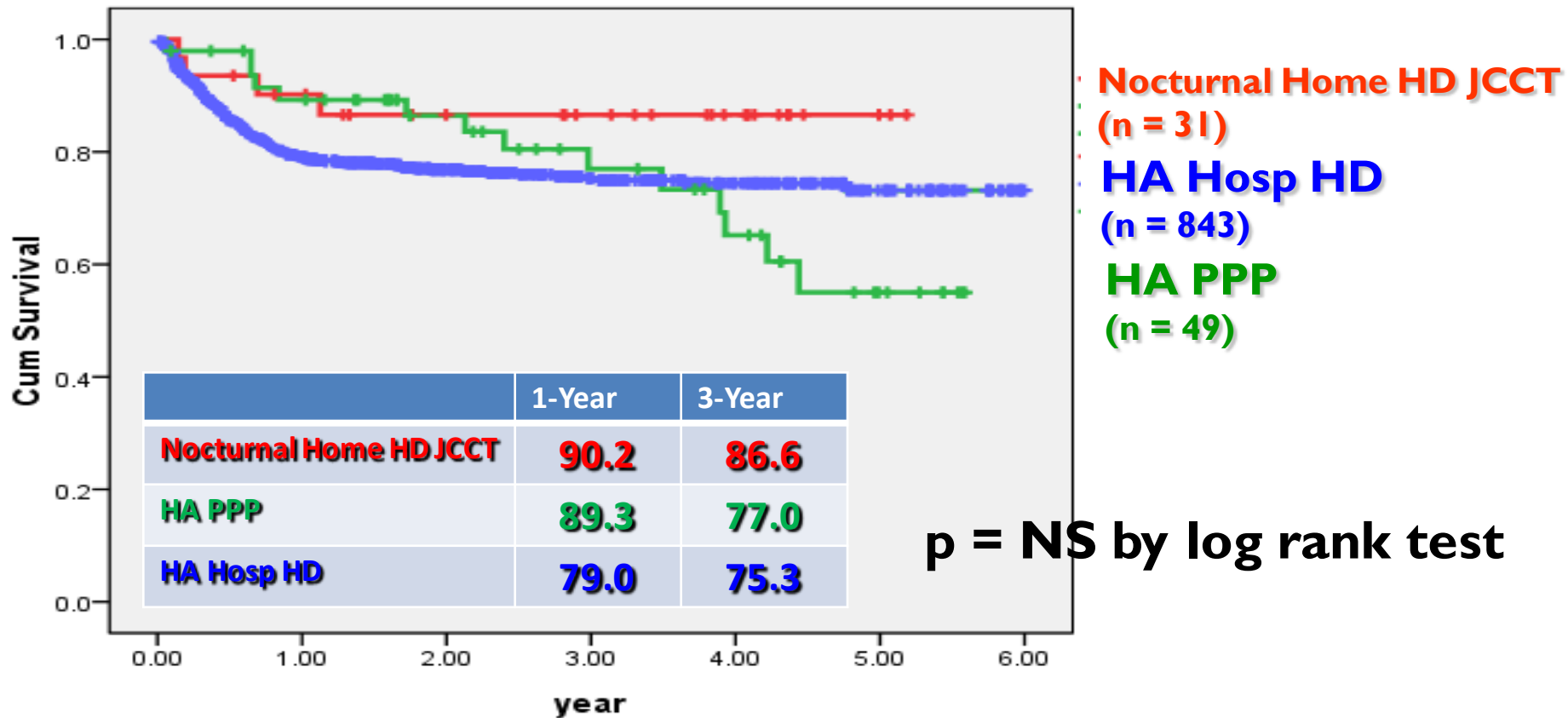
**Nocturnal Home HD
JCCT (n = 31)**

**All (n = 923)
(Nocturnal home HD
JCCT / HA Hosp HD/
HA PPP)**

$p < 0.019$, adjusted to age and gender

Technique Survival

(Preliminary analysis of registry data)



Challenges

- **PD 1st policy**
 - Vascular access primary failure rate up to 40%
 - Respite HD up to 49% vascular access related
 - Long training time
- **Drop out rate (patient factors up to 42%)**
- **Relatively small living areas**
- **Lack of manpower indicators**

THANK YOU