

# Prevalence Survey on Infection in Residential Homes for Elderly (RCHE) in Hong Kong

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## Background

- Underlying medical problems in elderly home residents
- Frail residents more prone to infection
- Overseas study prevalence infection: 1.6%-32.7%
- No local data
- Surveillance helps to decide better infection control strategy



## Objective

- To determine the rate of infection in residents of RCHE in Hong Kong
- To identify the associated risk factors for infections



## Design

- One day point prevalence survey



## Method

- Carried out on 7/12/2006
- Trained staff visit selected RCHE and interview the residents to collect relevant information and determine individuals' infection status



## Sampling

- Stratified cluster random sampling
- Stratified according to regions: HKI, KLN and NT
- Stratified according to type of RCHE: private, non-private
- 30% of residents in each home are sampled systematically

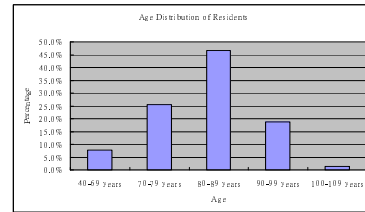


## Results

- 1626 residents from 43 RCHEs were interviewed



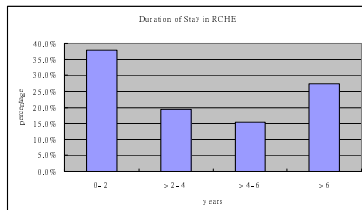
## Age Distribution



99.6% were Chinese  
Age Range: 41-107 year old; Median Age: 83 year old  
Female: Male Ratio: 67.5%: 32.2%



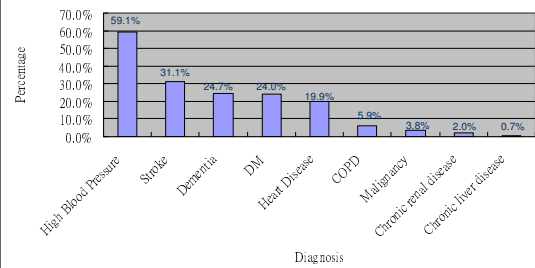
## Duration of Stay in RCHEs



Mean Duration of Stay 4.5 years



## Underlying Diagnosis of Residents

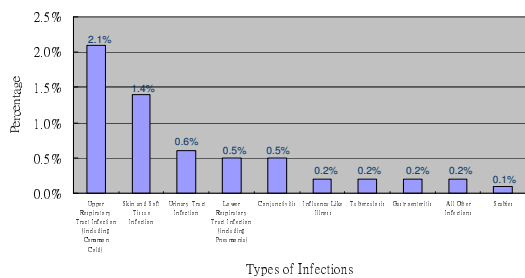


## Prevalence of Infection

- 1626 residents interviewed, 95 fulfilled the definition of infection.
- Three residents had two infections and the rest (92/95) had only one infection. None had more than two infections.
- The estimated overall prevalence of residents with infections was 5.8% (95/1626; 95% Confidence Interval: 4.3%-7.4%)
- The result is compatible with the reported prevalence of the overseas studies (ranged from 1.6% to 32.7%).



## Prevalence of Infections in RCHE



## Risk factors

- Immobility was a significant risk factor for skin & soft-tissue infection (odds ratio=3.08; 95% CI: 1.37-6.92)
- Presence of urinary catheter was a significant risk factor for UTI with an odds ratio of 63.69 (95% CI: 18.43-220.11).
- Chronic obstructive pulmonary disease (COPD) was shown to be a significant risk factor for LRTI with an odds ratio of 16.77 (95% CI: 3.41 – 82.58)



## Discussion

- First territory-wide study to describe the prevalence of infections in RCHEs and their associated risk factors
- Respiratory tract infection is the most common infection in RCHE. Infection control measures to prevent the spread of respiratory virus (respiratory hygiene and cough etiquette) should be reinforced in RCHE especially during winter months to prevent the spread of the illness



## Discussion

- Skin and soft tissue infections ranked the second most common infection among residents of RCHEs. It is associated with mobility status. Training course for RCHE staff on skin care may help to improve the problem
- UTI is third commonest infections in RCHEs and urinary catheter is a significant risk factor.
- To prevent urinary tract infection, visiting doctors should examine each resident critically to see whether the catheter is necessary. If urinary catheter is deemed necessary, advice should be given on the practice of caring of urinary catheter so as to decrease the incidence of UTIs



## Recommendation

- Regular surveillance is necessary to monitor the progress and the effectiveness of infection control measures.



## Acknowledgement

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# Thank You

