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## Performance in Daily Living Activities of the Elderly while Living at Home or Being Home-bound in a Thai Suburban Community

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### Abstract

The purpose of this study was to examine the ability of elderly people in performing their daily activities while living at home or being home-bound in the community. Data collection included interviews and observation of their performance at their home in the community. The study found that all of the elderly communicated independently. They also acted independently in interpersonal interactions and relationships, but they needed assistance from people or equipment in some activities such as walking and bodily care. Most of the home-bound elderly performed activities of daily living independently, whereas the elderly living at home were dependent when using transportation and driving.

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*Keywords:* Activities of daily living; Community; Elderly; Home-bound; Performance

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### 1. Introduction

As the world faces up to a global population ageing, Thailand is also moving rapidly to an ageing society [1]. A challenge for increasing urgency growth of elderly populations is to enable the elderly to maintain their functional abilities and perform basic activities independently at home, which affects their quality of life. “Ageing in Place” option generally refers to the active elderly who stay in their home [2]. Well-being under ageing in place should enable

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the elderly to carry out basic activities associated with daily living safely and independently, participate in social roles, and receive personal assistance from caregivers as needed. World Health Organization (WHO) [3] has purposed “Age-friendly Principles” to deal with rapidly ageing societies for preparing at community level. Community involvement in health, Thailand cooperation strategy with WHO focuses on strengthens primary care in community health system [4] that leads to the health outcomes achieved. Thai community is classified a specific characteristic of each into three groups; well elderly, home-bound elderly and bed-bound elderly for priority to provide the elderly service [5]. This research focuses on the home-bound elderly group who is independence or need partial assistant with some limitation to perform activities of daily living. This group has some problem to participate social activity mainly living in home. Following that line of thought, independent daily activities are an important health indicator, physical independence in a home environment is an effective health-promotion.

The framework and standardized taxonomy of the International Classification of Functioning, Disability and Health (ICF) [6] has been used as a practical tool in a clinical context to describe functional status [7]. The theoretical approach of the ICF may facilitate the communication among individuals of various professions and disciplines of a health team at primary health care level. It has potential to enhance successful “ageing in place” in community-based health care and enable for measuring functional status more specific treatment or intervention. The aim of this study was to evaluate activities of daily living or ADLs performance of home-bound elderly by applying activity limitations and participation restriction domains of ICF.

Table 1. Characteristics of the home-bound elderly (N= 32).

Demographic data	Number of respondents	Percentage (%)
Age (years)		
60- 69	6	18.74
70- 79	13	40.63
> 80	13	40.63
Gender		
Male	11	34.38
Female	21	65.63
Marital status		
Single	5	15.63
Married	14	43.74
Others	13	40.63
Chronic health conditions		
No	-	-
Yes	32	100.00
Physical disabilities (More than one answer)		
No disabilities	6	18.75
Mobility impairment	19	59.38
Visual impairment	6	18.75
Hearing impairment	2	3.13

## 2. Materials and methods

This study was a cross-sectional survey. Namprae Village in Chiang Mai, Thailand was a community selected for on-going community-based study that explores the ADLs performance among older adults by applying ICF concept. Older people were people aged 60 years and older and met with the inclusion criteria of home-bound elderly people. Lists of this elderly people were obtained from the Health Promoting Hospital at Namprae sub-district. Subjects were contacted and visited in their homes. All those who agreed to participate in the study were inspected and assessed for the ADLs performance. The study was approved by the Ethics Committee of the Faculty of Associated Medical Sciences, Chiang Mai University.

The ADLs performance assessment was developed based on a list of ICF categories from the activities and participation components. Content validation step was followed by a panel of experts [8]. They were five experts, three experts in teaching and/or practicing in areas of ICF and two researchers in area of community and elderly. The final version contained 20 activities/items more specific for home-bound elderly group in Thai community context.

All the subjects were collected the data by face to face interviews with the elderly and/or their family members and by direct observation of the performance at home. The performance of ADLs was interpreted as whether subjects had dependent or independent. Demographic and the ADLs performance were analyzed by using descriptive statistics to calculate frequency and percentage.

### 3. Results and discussion

In all, 32 home-bound elderly people (94.12% of the target population) agreed to participate that were investigated in the community.

Table 2. Performance in Daily Living Activities of the home-bound elderly (N= 32).

Activities of Daily Living	Independent (%)	Dependent (%)
<b>d4. Mobility</b>		
d430 Lifting and carrying objects	75.00	25.00
d440 Fine hand use (picking up, grasping)	71.88	28.13
d450 Walking	37.50	62.50
d465 Moving around using equipment (wheelchair, skates, etc.)	68.75	31.25
d470 Using transportation (car, bus, train, plane, etc.)	-	100.00
d475 Driving (riding bicycle and motorbike, driving car, etc.)	15.63	84.38
<b>d5. Self care</b>		
d510 Washing oneself (bathing, drying, washing hands, etc)	37.50	62.50
d530 Toileting	78.13	21.88
d540 Dressing	81.25	18.75
d550 Eating	93.75	6.25
d560 Drinking	93.25	6.25
d570 Looking after one's health	15.63	84.38
<b>d6. Domestic life</b>		
d620 Acquisition of goods and services (shopping, etc.)	15.63	84.38
d630 Preparation of meals (cooking etc.)	31.25	68.75
d640 Doing housework (cleaning house, washing dishes laundry, ironing, etc.)	31.25	68.75
<b>d7. Interpersonal interactions an relationships</b>		
d710 Basic interpersonal interactions	68.75	31.25
d760 Family relationships	56.25	43.75
<b>d9. Community, social and civic life</b>		
d910 Community life	6.25	93.75
d920 Recreation and leisure	6.25	93.75
d930 Religion and spirituality	6.25	93.75

The results were divided into two parts; demographic profile and ADLs performance. Characteristics and ADLs ability of the participants are presented in Table 1 and Table 2, respectively. All of the home-bound elderly people had chronic health conditions that included any of the following; heart disease, high blood pressure, arthritis, asthma or diabetes. Majority, they still had physical disabilities as limitation in the ability to carry out activities of daily living independently.

This study identified the ADLs performance under ICF categories among elderly people who living in community by home visit evaluation. Most persons were independently in basic ADLs such as self-care activity such as drinking, eating, dressing and toileting. The activities reported as most dependent were driving, looking after one`s health, and acquisition of goods and services. They were need assistance in more complex ADLs task. To encourage older people to remain healthy and independent in their own place require health and social policies to deliver appropriate systems [9]. Thus, ICF has been used to identify facilitators and barriers among persons with disabilities [7]. However, It can provide a perspective in broad sense about ADLs performance capacity of home-bound elderly that enhances independent living “ageing in place” to promote healthy ageing.

The study found that all of subjects (100%) were dependently in using transportation. Moreover, ADLs dependence was most common in many activities; community life, recreation and leisure, religion and spirituality and acquisition of goods and services. These activities were more complex and socially influenced as well as design and construction of buildings for public use and physical geography. All individuals should be given the opportunity to maintain their independence and well-being in their own home. An important goal in health promotion is to create environments that support healthy living and subjective well-being [10]. More convenient in transportation (especially in public), accessibility and other facility in Thai community is needed to enable home-bound people`s opportunity living with well-being in community-based health care.

#### 4. Conclusion

Individuals living with chronic health conditions, most of subjects could not independently perform these activities; transportation community and, social and civic life. The political and community action be required to support Thai ageing society. Application of the approach of the ICF has the potential to facilitate the elderly service in primary health system with indifferent disciplines. It can provide a perspective for the public health services in the community on ADLs issue including the everyday living and community living.

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