# Chapter 1 The Economics of Long-Term Care: Key Concepts and Major Financing and Delivery Models

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### **ABSTRACT**

This chapter presents key concepts of economics relevant to the financing and delivery of long term care services. It first examines the magnitude of population aging in developed economies, and the associated implications for long term care. Key economic concepts relating to the demand, supply and financing of long term care services are then discussed. Policies, practices and major models of financing of long term care are further explored followed by a presentation of the conceptual framework for reform. It concludes that in view of the magnitude of the problem, incremental changes in the existing systems are unlikely to be adequate. A clear understanding of the economic concepts to underpin major transformation of existing systems and policies that do not align with populations trends is urgently needed.

# INTRODUCTION

Economics is "the study of how men and society end up choosing…to employ scarce productive resources that could have alternative uses to produce various commodities and distribute them for consumption…. It analyses the costs and benefits of improving patterns of resource allocation" (Samuelson 1976).

The economics of long term care, therefore, refers to the use of economic concepts, theories and tools to analyze how resources are allocated in the financing and delivery of different types of long term care services, as well as how they should be reallocated to achieve more desirable outcomes.

Long term care (often also referred to as social care or aged care) consists of a mix of services to assist an impaired person to function in activities of daily living (ADL), include bathing, transferring, toileting, and dressing, as well as incidental activities to daily living (IADLs), which include cooking, housekeeping, moving around, and managing personal finances (Spector & Fleishman 2001). It does

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not include the medical care that the impaired person requires. Long term care covers both community services and residential services. Community services include services delivered to the home of the individual (such as home-helpers' services, visiting nursing services), and services provided at day care centres. Residential services include a range of residential facilities depending on the severity of disability (such as self-care homes, care and attention homes, nursing homes and infirmaries) (Yuen 2014). The care is generally provided over a long period of time, and often until death. While the unit cost of care is relatively low compare to acute care, the total cost of care can be very high in view of the high number of persons requiring care and the fact that it is necessary to provide care over a long period of time.

This chapter first examines the magnitude of population aging in developed economies, and the associated implications for long term care. Concepts and issues relating to the demand, supply and financing of long term care services are then discussed. Policies, practices and major models of financing as well as a conceptual framework for reform are presented towards the end.

### **BACKGROUND**

As a result of longer life-expectancies, the elderly population is rising at a speed, which is unprecedented in the history of mankind. It is a global phenomenon affecting every country and region, with industrialized economies experiencing the highest ageing growth rate at the present time. The share of the population aged 80 years and over is expected to more than double in coming decades across the OECD, growing from 4% in 2010 to close to 10% by 2050 (Colombo & Mercier, 2011).

This ageing process is widespread and enduring, because of the ubiquitous and sustaining nature of the trend of longer life expectancies and lower fertility rate of developed economies. The world is not likely to return to the kind of age structure that the previous generations experienced (United Nations Population Division, 2001).

Associated with ageing is the increasing need for long term care for a significant percentage of the elderly population. Long term care expenditure has been on the increase for most countries, and is expected to increase at a much greater rate in the coming decades. In the USA, it was estimated that 25% of its population age 65 and above requires some form of long term care (Feldstein). In the United Kingdom it was found that while, on average, people could expect to live to age 77, 15 of these years would be spent with some form of disability (WHO, 2015). In Australia, it was found that three quarters of the elderly persons who died used some form of long term care during the twelve months before death, and around half of them used long term care services more than four years before death (Australian Institute of Health and Welfare 2015). In Hong Kong, it has been projected long term care spending will increase from 1.4 percent of GDP (in 2011) to 3 percent of GDP by 2036, with an average growth rate of 3.1% (Chung et al, 2009).

A very significant form of disability relating to aging is dementia. In 2015, dementia affected more than 47 million people worldwide. By 2030, it is estimated that more than 75 million people will be living with dementia, and the number is expected to triple by 2050. In one Australian study, it was estimated that around 10% of the expected increase in health-care costs during the next 20 years would come from demand for care for this condition alone (Vos, Goss, Begg & Mann, 2007; WHO, 2015)

While the notion that longer life expectancy inevitably translates into higher health care expenditure is challenged by some – some studies indicate that expenditures for the 65-74 age group for hospital care as well as for outpatient visits actually fell (Oliver, Foot & Humphries 2014, Kingsley 2015, Rolden,

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