UNIT NO. I

EPIDEMIOLOGY AND OVERVIEW OF DISABILITY

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ABSTRACT

Persons with disabilities (PWDs) form an integral part of our community. The Ministry of Social and Family Development (MSF) in Singapore has developed the Enabling Masterplan (EMIC) 2012 – 2016 with the vision of an inclusive society where PWDs are enabled to participate fully. A life course and integrated approach is adopted in caring for such persons with the 4 pillars of early intervention; education and healthy lifestyle; employment; and adult care. Five cross cutting issues need to be addressed: caregiver support and transition management; manpower and technology; Transport; Public education; and accessibility. Family Physicians being the medical practitioners in the frontline of medical care are touchpoints in accessibility to healthcare services and benefit schemes for this group of people.

Keywords:

People with disabilities, enabling masterplan, early intervention, education, employment, Adult care, cross cutting issues.

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INTRODUCTION

Persons with disabilities (PWDs) form an integral part of our community. The Ministry of Social and Family Development (MSF) in Singapore has developed the Enabling Masterplan (EMIC) 2012 – 2016 with the vision of an inclusive society where PWDs are enabled to participate fully. Figure 1 shows the areas of emphasis in this vision. A life course and integrated approach is adopted in caring for such persons with the 4 pillars of early intervention; education and healthy lifestyle; employment; and adult care. Five cross cutting issues need to be addressed: caregiver support and transition management; manpower and technology; Transport; Public education; and accessibility. Family Physicians being the medical practitioners in the frontline of medical care are touchpoints in accessibility to healthcare services and benefit schemes for this group of people.

EPIDEMIOLOGY

Singapore prevalence rates

As is stated in Singapore's Enabling Masterplan of 2012-2016, ¹ there is no official central registry of persons with disabilities. Existing data from government agencies such as MCYS, MOE are estimates based on incidence rates and service utilisation.

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Approximately 3 percent of the resident population is estimated to have some form of disability. This figure is higher than incidence rates and takes into account acquired disabilities which are expected to be more prevalent in the ageing population. The 3% prevalence figure also provide a buffer for non-service users. Table 1 shows the incidence rates and the estimated number of PWDs based on 2010 Singapore population.

Nature of disabilities

The disabilities in children, youth, and adults are fairly broad ranged. The common denominators are such persons require the help of family members, caregivers, and voluntary helpers in the daily activities of daily living to greater or lesser extent:

- Children and youth Developmental disability, intellectual disability and autism spectrum disorders, hearing loss, visual loss, physical disability
- Adult Disability from childhood, stroke, spinal cord injury, traumatic brain injury, musculoskeletal injury, psychiatric illness, dementia.

BETTER HEALTH FOR PEOPLE WITH DISABILITIES

Better health for people with disabilities is also recognised by member countries of the World Health Organisation ² in its resolution adopted in the 66th World Health Assembly in 2013. The resolution calls for Member States to:

- Make all mainstream health services inclusive of people with disabilities.
- Provide more support to informal caregivers.
- Ensure that people with disabilities have access to rehabilitation services that can enable them to achieve their full potential and have the same opportunities as others to participate fully in society.

A LIFE COURSE AND INTEGRATED CARE APPROACH

Life course approach

Using the life course approach in the framework of the Enabling Masterplan as shown in Figure 1, the following are keypoints to note.

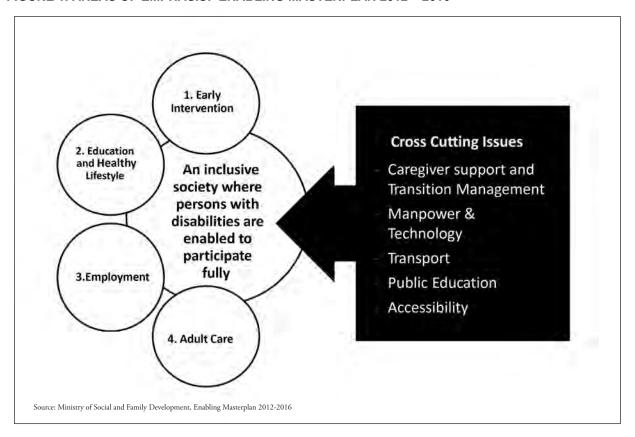
Early intervention. The early formative years are critical in a child's development. For children with developmental delay, there is strong evidence to support early intervention and its effects in improving the long-term outcome of the child and the family. Effective intervention services share common critical success factors, namely involvement of family, early detection, inclusion, and qualified professionals.

TABLE 1. INCIDENCE AND ESTIMATED NUMBER OF PEOPLE WITH DISABILITIES		
	Incidence rate	Estimated number of PWDs
		(based on 2010 population)
Pre-school (0 – 6 years) ^a	3.2%	7,000
School (7 – 18 years) ^b	2.5%	13,000 (7,600 mainstream, 5
		400 SPED)
Adulthood & Aged (More than	2.5%	77, 200
18 years) ^c		

Source: Enabling Masterplan 2012 – 2016, Singapore – Ministry of Social and Family Development, 2013.

Footnotes: a = MOH's Child Development Unit statistics 2006 - 2011; b = MOE data on school-going cohort 2005 - 2010; and c = MOH's National Heath Surveillance Survey

FIGURE 1. AREAS OF EMPHASIS: ENABLING MASTERPLAN 2012 - 2016



A study by Lian et al (2012) ³ of the profiles and outcomes of 1,304 children referred for development and behavioural concerns to a tertiary child development centre in Singapore between Jan 1, 2003 and Dec 1, 2004 concluded that most were children with high prevalence, low-moderate severity disorders who could potentially achieve fair-good prognosis with early intervention. The single most common presenting concern was speech and language (S&L) delay (29%). The most common clinical developmental diagnosis was autism spectrum disorder (ASD) (30%), followed by isolated S&L disorder, global developmental delay (GDD) and cognitive impairment (CI). Recommendations included S&L therapy (57%), occupational therapy (50%) and psychological/behavioural services (40%). At one year, ASD remained the most common definitive diagnosis (31%), followed by S&L disorder, CI, and GDD.

Education and healthy lifestyle. Education is the cornerstone for individuals to be independent, self supporting and contributing members of society. For children with special needs in particular, having quality education in their formative years will be critical in maximising their potential in independence, gainful employment, lifelong learning, and community integration.

Employment. A value-chain framework to enable persons with disabilities to achieve self-reliance through employment is important. Vocational assessment, training, job placement, and support is important. Sustained employment is dependent on availability of employment opportunities, job readiness, and quality of job support services.

Adult care. This is an important growing area in the context of a rapidly ageing population in Singapore. Care arrangement is also a serious concern for many aging parents of disabled children. A spectrum of care options need to be in place to support the varying needs of PWDs and their family caregivers.

A recent local paper by Wei et al (2012) ⁴ highlights the need to bridge the health-social divide for improving the mental health for people with intellectual disability. People with intellectual disability are known to be associated with a high incidence of psychiatric co-morbidity and problem behaviours.

Another recent local paper by Wee et al (2013) 5 presented the results of a study on the sociodemographic and clinical profile of 239 older adults with intellectual disability aged 40 and older receiving services from the Movement of the Intellectually Disabled of Singapore (MINDS). The authors concluded that older adults with intellectual disability have multiple medical, functional and social issues and that more can be done to support this group of adults with special needs. The majority were fully independent in basic activities of daily living but only 21.1% were fully communicative. The majority (73.5%) had a primary caregiver; almost equal proportions relied on either parents or siblings. Older client age was associated independently with lack of a primary caregiver. The common co-morbidities included hyperlipidemia (17.6%), hypertension (15.9%), psychiatric diagnosis (16.3%), and epilepsy (10.6%).

Cross cutting issues requiring an integrated approach

Five cross cutting issues affect persons with disabilities across their lifecourse. The keypoints are summarised below.

Caregiver Support & Transition Management. Two key areas are important in supporting caregivers. One, caregivers need the necessary skills and knowledge to be competent; two, respite care options can provide caregivers with short-term and temporary relief from their care giving duties. Proactive approach to support PWDs through their different transition point of their care is needed and this is undertaken by SG Enable.

Manpower & Technology. Skilled manpower is crucial in ensuring that services are accessible and effective. Scaling up training of care staff to meet the projected demand will be needed. Increasing the attractiveness of jobs in the social service sector will also be needed. The use of assistive technology (AT) and information and communications technology (ICT) enhance the quality of life of PWDs and their potential to lead productive lives.

Transport. Several transport assistance schemes have been created, namely the taxi subsidy scheme for PWDs who cannot take public transport to school or work, VWO transport subsidies for PWDs using VWO transport to school and care services, and Car Park Label Scheme for vehicles carrying persons with physical disabilities to park at designated parking

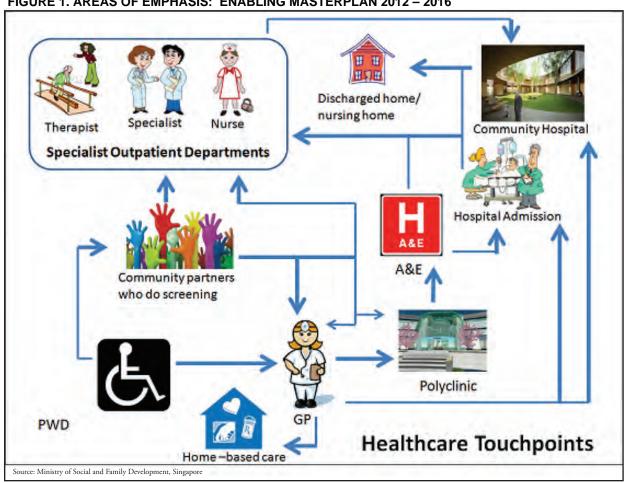


FIGURE 1. AREAS OF EMPHASIS: ENABLING MASTERPLAN 2012 - 2016

lots to allow them to get in and out of the vehicles with ease. **Public Education.** Public education is important in changing mindsets and promoting an inclusive society. Effective public education must be sustained and co-ordinated.

Accessibility. Accessibility to services, information and communication is needed for PWDs to be included in society. Accessibility to healthcare services, information and schemes can be facilitated by Family Physicians functioning as touchpoints.

ROLE OF FAMILY PHYSICIANS

Based on what has been discussed, it is clear that Family Physicians can play a major role in the care of PWDs through the execution of the following.

- Being the first touch point to services. See Figure 2.
- Communication and explanation to PWDs and caregivers.
- Early intervention
- Ongoing care
- Preventive care
- Public education
- Being the patient centred medical home

Patient centred medical home

This is a team based health care delivery model led by a Family Physician, or other care provider that provides comprehensive, continuous medical care to patients with the goal of obtaining maximal health outcomes. The provision of patient centred medical homes may allow better access to health care, increase satisfaction with care, and improve health. There are 4 elements of importance:

- Patient centred care
- Quality care
- Health information technology
- Practice organisation

Within such a model of care, accessibility, care co-ordination, continuing care, and health promotion and disease prevention can be fostered. Looking at the health care needs of PWDs, there is much more satisfying care that such a care model can provide.

Prevention is always important. People with disabilities suffer

from acute and chronic medical problems just like those without disabilities but the consequences may be magnified because of the disabilities. It is noteworthy that some disabilities can be prevented from recurring, as for example the recurrence of complications of the cardiovascular complications of the metabolic syndrome; some disabilities can be prevented through appropriate screening measures e.g. antenatal screening of high risk mothers, and much future disabilities can be prevented by primary preventive measures targeted at the risk factors e.g. attention to prevention of falls resulting in traumatic brain injuries or severe musculoskeletal injuries, or the prevention of metabolic syndrome through attention to diet, exercise, and weight control.

CONCLUSION

Persons with disabilities (PWDs) form an integral part of our community. Family Physicians being the medical practitioners in the frontline of medical care are touchpoints in accessibility to healthcare services and benefit schemes for this group of people.

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LEARNING POINTS

- In Singapore, 3% of the resident population is estimated to have some form of disability.
- The four pillars in the life course approach to enable PWDs to participate fully in society are: early intervention, education and healthy lifestyle, employment, and adult care.
- The five cutting issues that need to be addressed in implementing the enabling masterplan for PWDs are: caregiver support and transition management; manpower and technology; transport; public education; and accessibility.
- Family physicians are often the first touchpoint to services or schemes that PWDs need to improve their health.