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Context, Service Provision, and Reflections on Future Directions of Support for Individuals With Intellectual Disability in Singapore

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Abstract

The author examined how individuals with intellectual disabilities (ID) are supported in Singapore and what are the needs for further service development. Service provision for individuals with disabilities in Singapore is broadly reflective of its changing needs as a developing nation. Disability service provision began in the post-war period and then advanced greatly during the last 20 years with the proliferation of early intervention and specialized programs for school age children as well an expansion of adult-focused supports. Social services are organized along the ‘Three Ps Model” (public, private and people), involving a collaboration of non-governmental organizations, the government and the corporate sector. With respect to school-age services, although a fairly comprehensive system has been put in place to support the education of students with disabilities, the system continues to evolve. The situation is more limited with respect to adult supports, With Singapore reaching high levels of employment, there is an impetus for some individuals with ID to be part of the workforce; for those without work skills, day options for some include workshops and developmental activity centers. For parent carers supports remain limited and there is a disparity between the goals outlined in the World Disability Report and currently available options for most adults and their families. Recommendations include studies to better understand the population of persons with ID and their needs, and a re-examination of the diffused responsibility for disability-related services within the government and an evaluation of the way that services are delivered by the voluntary sector.
INTRODUCTION

Singapore, an island city-state in Southeast Asia, ranks among the most prosperous countries in the world. The population of approximately 5.4 million (Department of Statistics, 2013) occupies a land mass of 637.5 square kilometers, just slightly smaller than the area of New York City. Ethnic Chinese constitute the majority of the residents (76%). This is followed by ethnic Malays (13.6%), Indians (9.4%) and others (3.4%). Singapore has four official languages (i.e., English, Mandarin, Malay and Tamil) but English is the language of commerce, administration, and educational instruction. It is estimated that about 3% of the population have some form of disability (Steering Committee on the Enabling Masterplan 2012-2016 [EM2], 2011). Services for persons with disabilities have existed since pre-World War II Singapore but developments over the ensuing decades followed. Adapting the framework from the World Report on Disability (World Health Organization [WHO], 2011), this paper describes the issues pertaining to the number of individuals with disabilities in Singapore, explores the policy/legal framework and context of the provision of support, and comments on the current areas of service provision. It ends with a reflection of directions for the sector.

PREVALENCE OF DISABILITY

Singapore has an established system for developmental screening and a child development program for tertiary diagnoses (Ho, 2007) but there are no formal studies of the prevalence of disability in Singapore. In the absence of systematic data reporting, the prevalence of disability has been estimated at about 3.2% among young children (birth to 6 years), 2.5% among school aged children (7 to 18 years), and 2.5% for those aged 18 years and above (Steering Committee of the Enabling Masterplan 2012-2016, 2012). The
prevalence of children with intellectual disabilities has not been reported. On the average, about 3.2% of children born in a certain year are referred to the national child development program for concerns about their development or behavior (Ho, 2007). Of these children, about 14-17% received an initial diagnosis of global developmental delay. Another 27-29% received a diagnosis of autism spectrum disorder (ASD). With the number of preschool diagnoses of neurodevelopmental disorders increasing, the prevalence of older children and adults with various disabilities is likely to correspondingly rise.

One issue complicating prevalence studies of intellectual disabilities in Singapore is the unavailability of instruments that are adapted and normed for the Singapore context, which would allow for a valid assessment of individual development (particularly within the cognitive or intellectual domain). Perhaps another possible difficulty for gathering information within prevalence studies is the culturally-based social stigma of having a child with disability in Asia and the reluctance of family informants to report conditions related to disability. This could be understood with reference to traditional values of karma (and retribution) or to an East Asian cultural emphasis on academic achievement (see Ghosh & Magana [2009] for a discussion of research on Asian culture and intellectual disabilities).

HISTORICAL CONTEXT

Having achieved its independence first from the British and then from Malaysia in 1965, Singapore has had a relatively brief history as an independent state (Turnbull, 2009). However, it has a record of providing services to individuals with disabilities that dates back to its colonial roots. Services for individuals with disabilities have existed since the postWorld War II period, but these have been restricted to charity-run homes for individuals with physical impairments. Special schools for individuals with sensory impairments followed in 1950s and early 1960s. During this period service provision was largely provided by the charity sector and to people with physical disability.
The years immediately pre- and post-independence in the 1960s and 1970s were tumultuous years for Singapore with military threats externally from neighboring Indonesia and internally in the form of tension and riots between ethnic groups (Turnbull, 2009). Yet, despite the socio-political instability, services for individuals with intellectual disabilities emerged in the late 1960s and 1970s. Perhaps due to the events that pre-occupied the government of Singapore, public policy did not benefit from key international developments within the field of disability such as the enactment of the 1975 Education for All Handicapped Children Act (Public Law 94-142) in the United States, or the 1978 Warnock Report which subsequently led to the passing of the 1981 Education Act in the United Kingdom.

The progress of service provision for individuals with disabilities is broadly reflective of the changing needs of Singapore as a developing nation (Lim & Nam, 2000; Poon, Musti-Rao, & Wettasinghe, 2013). As human resource needs for manufacturing industries increased in the 1980s and 1990s (Turnbull, 2009), there was a proliferation in service provision, particularly for individuals with intellectual disabilities. Sheltered workshops and day activity centers were developed for adults with physical and/or intellectual disabilities. It was also during this period that early intervention services, as well as special programs for children with ASD, were established. Mirroring the trend in the special education sector was an increasing awareness of students with disabilities within mainstream schools. This led to the development of programs for children with learning disabilities, such as dyslexia, as well as an itinerant integration support program for children with physical impairments.

In the mid-2000s, the issue of inclusion entered public and political rhetoric (e.g., Lee, 2004) with resulting changes in the education and social service sector. Disability service provision advanced greatly during the early part of the twenty-first century with the proliferation of early intervention and specialized programs for students with ASD. More
significantly, there was an increasing blurring of boundaries between special and mainstream education sectors, with increasing efforts made towards the integration of students with varying levels of disabilities in mainstream educational settings. The following is a description of the current service provision across the life span.

LEGAL/POLICY FRAMEWORK AND CONTEXT

Commitment to international instruments on disability

Historically, social services in Singapore are run by non-governmental organizations, known as Voluntary Welfare Organizations (VWOs), instead of being directly provided by the government. This is due to the prevailing tenet that social services are jointly funded via a collaboration between the public (i.e., government), private (i.e., corporations), and people (i.e., the VWOs) sectors (also called the ‘Three Ps Model’). Apart from this tenet formerly termed as “Many Helping Hands” (Ho, 2007), service provision for individuals with disabilities is also influenced by more recent policy and legal frameworks (see UNESCAP, 2011).

Singapore signed the UN Convention on the Rights of Persons with Disabilities (CRPD) in 2012 and ratified it one year later with three reservations (United Nations, 2013). The first of which was a response to the requirement that the state has to protect the legal capacity of persons with disabilities from abuse (i.e., Article 12 paragraph 4). It was argued that there is sufficient oversight and supervision by the relevant authorities with regards to measures relating to the exercise of legal capacity (United Nations, 2013). The second reservation pertains to the prohibition of discrimination against persons with disabilities in the provision of health insurance (Article 25, paragraph [e]). In this case, an exception was sought for private insurers of health insurance. The third reservation refers to the guarantee of voting rights and the provision of assistance, where necessary, for people with disabilities in
voting (Article 29, subparagraph [a] [iii]). A reservation was sought on this matter as it is inconsistent with Section 42(5) of the Parliamentary Elections Act (Cap. 128) where it was stated that the presiding officer of each voting center (who has signed an oath safeguarding voting secrecy) had the authority to provide assistance in voting in cases of physical or visual impairment. The Act did not specify how individuals with other forms of disability were to be supported.

**Legal framework**

There are no inherent constitutional provisions for individuals with disabilities. However, there are disability-specific laws and regulations. The Mental Capacity Act (2008) stipulates that trusted persons can be appointed to make decisions on their behalf should individuals become mentally incapacitated. The Act also applies to carers of individuals with disabilities who lack the mental capacity to make decisions independently. The Voluntary Sterilization Act was amended in 2012 to better protect individuals with disabilities. As amended, new provisions dictated that individuals with disabilities who had the mental capacity to make informed decisions had to be asked to give consent before such procedures could take place. Likewise, such individuals can voluntarily seek to undergo such procedures without the consent of their parents, guardians, or spouses. For those without the mental capacity to give informed decisions, a court order would be required if their parents, spouses, or guardians sought such procedures for them. Third, the Legislative Code on Accessibility in the Built Environment (Building and Construction Authority, 2007) expands upon the Code on Barrier-Free Accessibility in Buildings (Building and Construction Authority, 1990) and the Code on Accessibility in the Built Environment (Building and Construction Authority, 2007). The Code provides the basic design and construction requirements as well as guidelines for improving access to built environments for individuals with disabilities. Finally, the Income Tax Act revised in 2008 provides income tax deduction to owners who have
undertaken renovations to their premises so as to facilitate the mobility or work of persons with disabilities.

*Policy framework*

Service development and provision for individuals with disabilities are overseen by national planning committees. The first of such national planning committees is the Advisory Council on the Disabled (ACD; 1988) which was established in the late 1980s to provide directions for policy via feedback from various stakeholders. One initiative spearheaded by the ACD was the establishment of a system for the early identification and management of children with developmental disabilities (Ho, 2007). This was an important milestone as the positive identification of children with disabilities led to a corresponding demand for special education services. The ACD also made recommendations for teacher training in special education, better teacher-student ratios in special schools, and increased funding and oversight of special education provision by the Ministry of Education. These in turn led to the establishment of special education as a field in Singapore.

Another recent milestone marking the support of people with in Singapore was the first Enabling Masterplan (EM1, Steering Committee of the Enabling Masterplan 2007-2011, 2007). Led by representatives from public and private sectors as well as VWOs, the EM1 was designed to guide the development of programs and services for people with disabilities in Singapore. Recommendations for early intervention and education included seeking the leadership of the Ministries of Education and Health in the integration of services, an increase in program quality, an extension of special education to 21 years for selected students who benefit from additional pre-vocational and vocational skills training, and increased subsidies for early intervention. It also recommended that job placement, training, and support programs be developed to support the employment of individuals with different forms of developmental disability. It also recommended establishing an employer’s consortium and
encouraging companies to hire workers with disabilities. Other recommendations included the establishment of an office of disability, barrier free accessibility to buildings and public transport, and the availability of human resource to achieve this. This EM1 was endorsed by the government in parliament.

The EM2 continued its special focus on early intervention and special education (Steering Committee of the Enabling Masterplan 2012-2016, 2012). It brought special attention to the focal issues pertaining to post-school years building upon the earlier recommendations for providing employment opportunities. The issue of care provisions for adults with disabilities focused on the demand for more and quality services for those with higher support needs. In addition, cross-cutting issues such as transition, carer support, human resource, technology, accessibility, community integration, and healthy lifestyle were highlighted. As in the case of the EM1, the EM2 also received the endorsement of the government.

SERVICE PROVISION FOR INDIVIDUALS WITH DISABILITIES

Screening and evaluation

There is a developmental screening program in Singapore, which is aided by the provision of a child health booklet given to parents of all children born in Singapore. The development of children is monitored from birth to four years old (see EM2). Booklet items were adapted from the Denver Developmental Screening Test (Lim, Chan, & Yoong, 1994; Lim et al., 1996) which was adapted and normed for use with a Singapore population. There is a prescribed section for physician examinations at 1, 3, and 18 months and then at 4 years. In addition, parents are also prompted to complete checklists within the Health Booklet at 1, 3, 4, 5, 6, 9, 12, 15, 18 months, 3, and 4 years. These checklists contain items that are spread across the developmental domains (e.g., pointing to parts of the body) to screen for delays in development.
The Child Development Program in Singapore diagnoses the majority of children with disabilities in Singapore (Ho, 2007). A study by Lian and colleagues (2012) reported that about 85% of referrals to the major child development service provider were made by either primary care physicians or hospitals. However, many of these cases were first identified by vigilant parents and teachers before the referrals were made. With the introduction of the Developmental Support Program progressively being rolled out by the anchor providers of preschool services in Singapore, more children with developmental concerns noted by their teachers receive screening and intervention from the community (EM2). Supported by a team of pediatricians, learning support educators, psychologists, and therapists, children with disabilities either receive short-term support in their respective preschools or can be referred for comprehensive assessment and support services run by the Child Development Program.

School-going children in Singapore are also screened at entry to primary school to identify those who are weak in literacy or numeracy skills and need learning support programs. Those who continue to experience difficulties may be referred for a diagnostic evaluation by psychologists within the Ministry of Education. In contrast to preschool and primary school aged children, adolescents and adults have limited access to fewer options for diagnostic services.

*Early intervention and educational provision*

Preschool children with disabilities are able to access a range of early intervention services (Poon & Lim, 2012). Those with mild levels of impairment may attend one of 17 childcare centers that receive government funding to include children with lower levels of support needs under the Integrated Child Care Program (ICCP). Children with higher levels of support needs may access early intervention at one of the government funded Early Intervention Program for Infants and Children (EIPIC). Service provision in both of these
cases is not free and provided by VWOs. All children receive a subsidy from the government but the amount of the subsidy provided depends on the per capita household income of the household. These centers charge a fee for their early intervention services at a rate that they determine. For example, families at the highest tier of subsidies pay between SGD$6 to SGD$50 per month for a daily program whereas those with the lowest tier of subsidies pay between SGD$350 to SGD$960 (SG Enable, 2014). Generally, these EIPIC programs consist of learning support and/or intervention services by staff trained in early childhood special education, high levels of parental involvement, low teacher-child ratios and individualized goals for each child. At present, EIPIC services in Singapore have the capacity for 2,300 children within the 17 centers from the point of diagnosis till the year they turn 7 years of age. In addition to these programs, children can also receive early intervention as outpatients in hospitals (Ho, 2007) and/or by attending preschools. In short, there is a range of publicly available early intervention options for young children with disabilities from the moment they receive a diagnosis.

Formal education, with a few exceptions (e.g., retention), begins the calendar year a child turns seven years old. Parents of children with disabilities in Singapore need to make a choice between attending a mainstream or a special school. A recent report estimated that 39% of the 4,800 students attending special schools in Singapore had received a diagnosis of ASD or multiple disabilities, 52% had an intellectual disability, 5% had a physical disability and 3% had a sensory disability (Tan, 2011). There are currently 20 special schools in Singapore, all of which are operated by VWOs. As in the case of the EIPIC centers, there is considerable variation over the specific approaches or methods undertaken within special schools. However, some key characteristics that are shared amongst special schools for children and young people with disabilities include having an individualized education plan, better
teacher-student ratios, collaboration with allied educators and health professionals, and a structured visual approach to teaching.

About 1.5% of students in mainstream schools have some form of special needs (Steering Committee of the Enabling Masterplan 2012-2016, 2012). To support the educational needs of children in mainstream schools, the Support for Special Needs Initiative in 2005 was introduced to support the inclusion of students with disabilities in mainstream schools (Ministry of Education, 2007). To achieve that, all primary and some secondary schools are staffed by an Allied Educator – Learning and Behavior Support (AED-LBS). The AED-LBS is trained in supporting the learning and behavioral needs of students with disabilities (usually mild) through various approaches such as via the provision of in-class support, pull-out support and/or teacher consultancy. In addition, one in ten primary and one in five secondary school teachers currently receive 110 hours of training to support students with disabilities in mainstream schools (Ministry of Education, 2007).

Although a fairly comprehensive system has been put in place to support the education of students with disabilities, the system continues to evolve. As part of the process of needs identification conducted in the EM2, school leaders in special education and parents of children with disabilities had their views sought in focus group discussions. One highlighted issue was the variation in quality among the school management committees that run the special schools as they composed of volunteers with different levels of training and experience. Another issue was the degree to which personnel in special education could be recruited, trained, and retained to decrease turnover. Due perhaps to differences in the needs of children who are being supported in schools, the curriculum in special education is varied and the respondents noted needing some central direction from the Ministry of Education. There was also an appeal to extend the current exit age of 18 years for those in special education to 21 years to provide time allocated for vocational training. While, those
interviewed reported that the AED-LBS personnel were helpful for students with disabilities who attended mainstream schools, they also noted that not every secondary school was staffed with one. Lastly, the parents of children with disabilities wanted special education to be included in the Compulsory Education Act.

Work and employment

With Singapore reaching high levels of employment, there is a greater impetus for employing individuals with intellectual disability. The EM2 estimated a 2.5% prevalence of disability among the adult population in Singapore. Whilst there is no published data on the numbers of individuals with disability in employment, the SPED Graduant Survey cited in the EM2 provides some information. The Survey included all students graduating from special schools “who may be eventually work ready” and likely from schools providing education to students with mild to moderate intellectual disabilities. It was reported that the number of adults with disabilities who have graduated to sheltered workshops (32.7 to 35.5%) has not changed between 2008 and 2010, whereas the proportion of adults moving on to open employment has increased from 2.6 to 24.8% during the same period. Although the numbers are still comparatively low, the figures show a positive trend towards a higher level of employment for individuals with lower support needs.

With some exceptions, special schools do not traditionally offer the academically demanding national curriculum that is assessed via national examinations. However, there has in the recent years been a push towards recognizing the vocational skills of students with disabilities via national vocational certification schemes. Special schools offering this certification have traditionally been the ones serving students with mild intellectual disability, but others schools have also sought to offer the vocational certification schemes to their students who are able to access them. Apart from job preparation, some VWOs have been
tasked with providing job placement and support services. Four such agencies are funded to provide job support for six months following job placement.

However, preparing individuals with disabilities for employment is only part of the picture. Initiatives have also been put in place to create job opportunities. An Open Door Fund was set up to support job redesign, workplace modification, and to provide paid internships. More importantly, the Enabling Employers’ Network, a consortium of over 100 employers has been established to provide employment opportunities to individuals with disabilities.

Despite these initiatives, the EM2 reported that the supply of jobs provided by the consortium of employers exceeded the number of individuals with the training to take up such jobs. This disparity was attributed to (a) inadequate skill sets, (b) poor fit between support needs and existing job designs, and (c) having incompatible attitudes. Even when placed in jobs, some individuals with disabilities continued to struggle with sustained employment requiring support beyond the six months of funding. Funding for a further one to two years of support was sought. Feedback from persons with disabilities interviewed during the EM2 consultation process revealed that the existing training programs did not sufficiently cater to the breadth of individual needs and were more suitable for those with mild intellectual disability.

Individuals who are unable to secure open employment sometimes find work in sheltered workshops. There are organizations that provide vocational training to adults with higher support needs whilst at the same time enabling them to earn an allowance and gain experience. The goal of these settings is to provide a step to future open employment. There are currently eight sheltered workshops receiving government funding. Of these, four primarily support individuals with intellectual disability and the four support individuals with physical impairments. Records from the National Council of Social Service revealed that the
2009 and 2010 income profile of individuals with disabilities in sheltered workshops cited in EM2 was low. Of the 1,298 and 1,357 clients attending sheltered workshops in 2009 and 2010, respectively, 9-11% earned less than SGD$50 monthly, 50-52% earned SGD$51-$100, 21-22% earned SGD$100-$200, and 5% earned above SGD$200 monthly. Clients in production workshops (147 and 158 employed in 2009 and 2010, respectively), 30-39% earned under SGD$300.

**Formal Supports for Adults**

*Day activity centers* Although some adults with disabilities find employment, a large proportion of those requiring higher degrees of support find it difficult even with the support of sheltered workshops. Day activity centers (DACs) provide structured activities that promote the development of these individuals, most of whom have some degree of intellectual disability. DACs also serve a secondary function of providing day respite for carers, who can use the time when their relative is engaged at the DAC to work, run errands, and/or to access leisure activities. There are currently 20 service providers providing services to 1,000 individuals with disabilities, but the capacity is expected to increase by 500 within the next five years (Wong, 2013). In all but one, services end when the adult turns 55 years of age. With the exception of four which cater primarily to individuals with physical impairments and three to individuals with ASD, the others primarily provide support to individuals with intellectual disability. With 18.8 to 29.4% of graduates “who may be eventually work-ready” moving on to DACs between 2008 and 2010, there is insufficient capacity to cater to all of the persons with disabilities (particularly those with higher support needs). Consequently many remain at home, but there is no available data on the prevalence of such individuals.

*Residential options* The home care of individuals with disabilities is thus a concern for many of their parents who, in Singapore, typically provide care until they are no longer
able to do so (Poon, 2013). Recently, Poon, Koh, and Magiati (2013) surveyed parents of 105 school-going children with intellectual disability, ASD, and profound/multiple disabilities who responded that they valued future outcomes relating to their children’s personal satisfaction, safety and security over and above those relating to social participation, and conventional social attainments. These parents rated the overall likelihood of their child attaining various future outcomes significantly lower than the importance they placed on these same outcomes. Their ratings of the importance or likelihood of outcomes did not differ across the diagnostic groups, but were significantly predicted by their child’s symptom severity.

Perhaps one reason for the worries of adults with disabilities is the lack of subsidized residential options, as these options typically provide support only to individuals with disabilities who, for various reasons, are unable to live with their families. Hostels provide short-term residential options with focused training on vocational and life skills for individuals until they are able to return to their families or move to another residential option. There are currently three such hostels in Singapore. Adult residential homes provide longer-term care to individuals with disabilities. There are currently eight residential homes – six catering to individuals with intellectual disability and two supporting to those with physical impairments. However, these residential homes provide services to those who are neglected or had carers who are unable to cope with caring for them.

There are currently efforts targeted at improving the service quality of residential settings resulting from the first EM (Steering Committee of the Enabling Masterplan 2012-2016, 2012)). The first is an on-site consultancy service provided by a psychiatric hospital to provide the assessment, consultation, and staff training. There is also a community group home currently being piloted as a residential option for individuals with intellectual disability. Whilst there are developments, parents remain anxious about the care of their adult child with
a disability after they are unable to continue to provide care (Steering Committee of the Enabling Masterplan 2012-2016, 2012; Poon, 2013). Likewise, the lack of capacity and options are gaps in service provision. With a small but growing number of individuals aging, there are currently efforts examining the feasibility of expanding the service delivery of elder care services. Given the geographical size of Singapore and commuting difficulties experienced by some, the development of a greater range of home-based care options is one thing that was proposed in the EM 2. A related matter was the quality of service provided at such settings where there remains a need to help these facilities manage their clients’ challenging behavior and focus on quality of life issues.

Whilst the current focus on day and residential care options is a necessary one, there is also a need to adopt a wider view of support options for adults with disabilities. The World Report on Disability has highlighted other formal services, such as community support and independent living, respite services, community access, and information and advice services (WHO, 2011).

Enabling environments

To date, gains in ensuring the accessibility of transport, buildings, and other physical environments have been made. In terms of transportation, public mass transit train stations have been retrofitted with barrier-free features such as elevators to train platforms and tactile guidance features. Taxi stands have been fitted with ramps and color-contrasting ‘decision’ tactiles and there is effort underway to ensure that all public buses are wheelchair-accessible by 2020.

In terms of the physical environment, an accessibility masterplan has been established to address accessibility issues in new and existing buildings. Likewise, an exercise aimed at making all pedestrian walkways, taxi and bus shelters, and all public roads barrier-free was undertaken and completed between 2006 and 2011. Practically all public buildings have been
upgraded and a fund was introduced in 2007 to provide a fiscal incentive to upgrade private buildings. Universal design features in the built environment have also been encouraged.

Current gaps in service delivery have been identified in the EM2 focus group discussion with service providers and individuals with disabilities. They include the need for accessible and affordable transport, as well as increased accessibility of media for individuals with sensory impairments (e.g., close captioning). Another aspect which requires further support is the adoption of assistive technology. Whilst there is a proliferation of mobility devices such as electric wheelchairs within public places, other assistive technology options such as alternative and augmentative communication devices remain limited. Although there is a subsidy for the purchase of assistive technology provided to households from the lower income bracket, cost remains an issue (Steering Committee of the Enabling Masterplan 2012-2016, 2012).

**General health care**

Subsidized health care is generally available to all citizens and permanent residents of Singapore who access government supported hospitals. In addition, there is a low cost national insurance (Medishield) that pays for the majority of the cost of hospitalization. There was a recent removal of clause for the exclusion of congenital and neonatal conditions. However, apart from the national plan, few other insurers provide insurance for individuals with disabilities. Due to the lack of disability specific data, the impact of disability on health is unknown.

**DRIVING FORCES AND FUTURE DIRECTIONS**

The task of supporting individuals with disabilities at a national level is a daunting endeavor. Yet, Singapore has, over the past five decades, made great gains in providing supports to individuals with disabilities. In the sections that follow, the factors underlying the development of disability support, service gaps, and future directions will be discussed.
Driving forces

As mentioned, one likely factor driving this progress is economic development. The development of services for individuals with disabilities in Singapore has paralleled and perhaps been indirectly driven by the level of economic prosperity (and needs) of the country. The mindset of economic pragmatism constituted a tenet underlying Singapore’s development in its formative years. However, Singapore’s economic prosperity has afforded social development and with it, the introduction of an inclusive rhetoric in social service provision (Lee, 2004). In recent years, Singapore’s ratification of the United Nations Convention of Rights of the Persons with Disability has further introduced the rhetoric of rights. It is likely that the issue of rights and equity may now feature more strongly within the social discourse regarding disability.

Another factor lies with volunteers. Under the people, public, and private model of service provision in Singapore, volunteers play a large part in roles such as providing guidance in the boards of governance of VWOs, in organizing events such as fundraising, and in the day-to-day operations. One important group of volunteers in this sector is family members of individuals with disabilities. Most associations that run services were established by parents. Parents also feature prominently as advocates for their children with disabilities. Apart from the work in establishing and supporting the operations of service providers, parents contribute in other ways. Advocacy also takes place in less overt forms such as participation in on-line support groups. Whilst the previous two factors are present in many developed countries, perhaps Singapore’s small size provides a unique advantage in the efficient provision of such supports and services.

Gaps

As observed, most if not all of the recommendations of the EM1 were implemented to various degrees. EM2 is currently being rolled out and it is expected, given the success of
EM1, that its recommendations will be successfully addressed. However, the success of the EMs does not necessarily entail that no gaps exist. Two areas will receive focus in this analysis: education, which has been the focal point of service delivery, and formal supports in adulthood, which has in the recent years, received more attention.

**Education.** Mainstream as well as special schools are regulated by the Ministry of Education. However, voluntary welfare organizations run the special schools and the early intervention centers are funded by the Ministry of Social and Family Development. Early intervention, when provided by hospitals, is funded by the Ministry of Health. This lack of centralized planning coordination, and oversight potentially leads to difficulties in the transition of children across educational environments (Poon & Lim, 2012). Furthermore, the lack of a disability-specific legislation in Singapore potentially puts specific individuals or groups of people with disabilities in a vulnerable position with no guaranteed level of service provision. Although, the EMs represents an advance in policy planning and development, both EM1 and EM2 have highlighted the need for children with disabilities to be included within the Compulsory Education Act.

One characteristic of education in Singapore is the examination-oriented pedagogy (c.f., Hogan et al., 2013). Although this has led to Singapore performing extremely well in international benchmarking exercises such as the Trends in Mathematics and Science Study (e.g., Gonzales, Williams, Jocelyn, Roey, Kastberg, & Brenwald, 2008), the very intensive examination oriented approach makes differentiated instruction difficult to achieve. In addition, the academic transcripts of students with disabilities in national examination indicate that the examinations were taken under special conditions, leading parents to worry about potentially negative labelling.

**Formal Support.** A recent study of parents of adolescents with ASD in special schools indicated that parents were likely to continue being the primary carers after their child
completed education and would continue to do so in their home environment until they were unable to care for their adult child (Poon, 2013). The limited availability of formal supports was a particular parental concern and they expressed high levels of anxiety regarding their child’s future. In a related investigation, parents of children with developmental disabilities surveyed indicated a gap between what they felt was important for their child and what they expected their child to attain in adulthood (Poon et al., 2013). These studies highlight the need for families to be supported in their care for their children with intellectual disability. The World Disability Report (WHO, 2012) also identified respite care, information services, advocacy services, day care, and residential support services as some aspects of care that are relevant for parents and other carers. Yet analyses of EM2 interviews with family members of persons with disabilities in Singapore highlighted, amongst other concerns, the need for quality care (especially respite), financial support, and the need for information indicating a disparity between the goals outlined in the Report and the reality of service availability in Singapore.

**Future directions**

In articulating Singapore’s paradigms of social service provision, one fundamental issue that has eluded public discourse is the underlying assumption that service provision to date has largely been driven by the economic merits of the provision rather than a response to the needs of individuals with disabilities and their families. Although this approach of economic pragmatism was necessary in the formative years of Singapore, the cost of disability to society needs to be considered, both in economic terms and social effects. How this paradigm of economic pragmatism will pan out in the context of Singapore’s recent ratification of the CRPD remains to be seen in public policy development. To what extent will the discourse shift from one of needs to one of rights; from one of service provision to one of quality of life? Whilst the ideals of human rights and of economic pragmatism are not
necessarily diametric opposites in the delivery of services to persons with disabilities, balancing these two ideological pillars will not be an easy task. However, the inclusion of individuals with disabilities and their families in this discussion is an important first step.

A related issue is that of the ownership of the social service sector. As mentioned, the current structure is the Three Ps Model (involving a collaboration among the Public, Private, and People sectors). The need to relook at this aspect was highlighted in EM1 with its call for both the Ministries of Education and Health to take greater involvement in both special education and intervention. This has occurred, but early intervention centers and special schools continue to be run by the people sector in the form of VWOs. The case is similar for services for adults with disabilities. This is advantageous as it builds on the decades of expertise resident within the VWOs and they are able to respond to changes within their areas of specialization, such as in the establishment of partnerships with other organizations. However, this strength is paradoxically also its limitation as a differential rate of response within the sector may mean that some groups of persons with disabilities receive relatively lower levels of desired support. Highlighted earlier, this clear demarcation between the public and VWO sectors can also lead to systemic gaps as in the case of special schools. Moreover, the support of persons with disabilities by charities also runs somewhat contradictory to the rights of persons with disabilities which were espoused by Singapore’s ratification of the CRPD. Hence it is imperative that the rationale underlying social service provision by the people sector be revisited.

An issue that was highlighted several times is the lack of systematic data reporting and monitoring. As highlighted in various sections, there are large gaps in knowledge of the prevalence of disability and the characteristics and needs of individuals with disabilities. Yet this knowledge is essential for the smooth delivery of services. One possible solution is to fund research describing the state of the needs and service provision of persons with
disabilities in Singapore. However, the linguistic environment in Singapore makes data
collection challenging at times. In supporting disability-focused research, it may be important
to fund projects developing research infrastructure (e.g., test adaptation and norming; survey
validation). Another aspect that requires investigation is the impact of culture on the response
to disability and its implications for service provision. As Ghosh and Magana (2009) have
suggested, it is likely that the East and Southeast Asian cultural backgrounds of the Singapore
population may have some impact upon their beliefs, attitudes, and practices. However,
Singapore also has a large population that is educated in the West. The impact of
the juxtaposition of these beliefs merits investigation.
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