2 EARLY INTERVENTION SERVICE DELIVERY: CURRENT PRACTICE AND CHALLENGES

Chapter 2 sets the scene for understanding both the international and the South Australian contexts of early intervention service delivery. It describes the concepts of early intervention, the contexts and current trends in service delivery, and the current challenges faced by occupational therapists who work in this field in South Australia.

2.1 DEFINING THE CONCEPT OF EARLY INTERVENTION

Early intervention is a field of intervention shared by a number of professionals who have a common belief in the value of intervention at any early stage in the life of the child. These professionals believe in the early identification of disorders and early intervention to maximise the impact of intervention on the child's life and prevent further progression of disorders. The mission of early intervention is to assist young children and families to thrive (Shonkoff & Meisels, 2000).

Within this shared underlying general philosophy and mission, the term "early intervention" has different meanings for the different parties involved in service delivery. The age range for entry into early intervention services is one of the aspects that varies significantly between services. For example, Shonkoff and Meisels (1990), recognised as leaders in the early intervention field, define the age group as birth to three years, while other programs with variable ages include, for example, the Child and Family Resource Program in the USA with its population defined as birth to eight years (Zigler, 2000), the Collaborative Perinatal Project – birth to seven years (Broman, Bien & Shaughnessy, 1985), and the AusEinet project, which covers the ages from birth to 24 years (The Australian Early Intervention Network for Mental Health in Young People, 2000). The age group for early intervention in South Australia is defined as birth to 6 years (Department of Human Services, 1999). In practice, the term "Early Childhood Intervention" generally refers to services for children up to the age of formal school entry. In addition to the variances in ages, variances in

types of population groups also occur, for example services that prioritise children at risk, as is the case in Britain, or in contrast, Europe, Japan and Korea, where all children are targeted (Shonkoff & Meisels, 2000).

The definition of the type of service under the broad banner of early intervention also varies significantly, due to the different perspectives that each professional discipline brings to the field. International literature provides various examples of programs that have a specific focus. Examples are provided by Shonkoff and Meisels (1990): psychodynamic and developmental perspectives (Greenspan, 1990); behavioural-ecological approaches (Vincent, Salisbury, Strain, McCormick & Tessier, 1990), and neurobiological models (Anastasiow, 1990), amongst others. The focus of intervention varies according to the composition of the early intervention teams involved, and the specific population groups serviced. In some countries, such as Australia, early intervention services consist of mainly health care professionals, while others also include representatives from the education and other sectors, as recommended by pioneers of educational programs such as Sequin and Montessori (Shonkoff & Meisels, 2000). Others take a broader view in incorporating government agencies and government-supported programs, such as child care facilities; agencies that provide financial contributions to parents, assist with housing and standards of living / living conditions, and also those dealing with legislation and employment conditions for parents, as is the case in Europe (Shonkoff & Meisels, 2000). Others incorporate families' local communities, for example community centres, toy libraries, sporting facilities and support services for various population groups, such as services for multi-cultural and single-parent populations in the USA (Peck, 1993).

Adding to the complexity of defining the field of early intervention, are the considerable changes that this field has undergone during the past 40 years. Although the general philosophy of early intervention has remained the same, different trends have come and gone as the field has struggled to provide scientific evidence of its effectiveness and the

most effective way of achieving outcomes for children. The aforementioned difficulties in defining the field of early intervention, have all contributed to the difficulty of establishing a sound scientific basis for the field. In addition, difficulties in research practicalities have resulted in added complications and, in some cases, a lack of credibility in terms of existing studies. For example, the ethical considerations are considerable when comparing a group who is receiving intervention, while another group is being withheld from intervention in order to serve as a control group. The longitudinal nature of early intervention outcomes calls for long-term studies, which require time and ongoing, adequate funding over a number of years. Various uncontrollable factors also influence intervention outcomes, one of which is the quality of service delivery, which may, once again, influence the scientific credibility of studies if these factors are not addressed properly.

In spite of these difficulties in grounding the scientific basis of early intervention, clinicians, parents, school personnel, and other parties involved in this field, have continued to lobby for these services, based on their underlying belief in the efficacy of early intervention, as well as the economic benefits of early intervention (Barnett & Escobar, 1990). This has resulted in developments in early intervention internationally, with the current renewed focus on the value of early intervention in contributing to the lives of children worldwide.

2.2 INTERNATIONAL INFLUENCES AND DEVELOPMENTS IN THE FIELD OF EARLY INTERVENTION

European countries and the USA are described in the literature as leaders in the field of early intervention. Both provide different perspectives to the field. Table 1 summarises the major international influences and developments in the field. When reading Table 1, the overlaps that exist between the different influences and developments should also be considered.

In Europe, some countries view early intervention not as a separate service delivery system, but as part of a broad network of government-supported programs. Countries such as Denmark, France, Finland and Sweden provide a comprehensive family support "package" that may consist of high-quality and accessible child care services, financial support for families, paid parental leave, and other support programs. These programs have been initiated mainly through political support rather than research evidence of the effectiveness of such measures. Europe draws on many of the research foundations that are being developed in the USA to underpin its programs (Kamerman, 2000).

Table 1 International Influences and Developments in the Early Intervention Field

Origin of Developments and Influences	Developments in Early Intervention Service Delivery	Main Influences
Europe	Broad network of programs. Comprehensive package of services.	Political lobbying and support.
USA	Assimilation of information on projects identified as resulting in favourable outcomes for clients. Agreement regarding the field's efficacy.	Occupation with pursuing scientific evidence of the field's efficacy, together with advances in research methodologies and medical technology.
Nature versus Nurture Debate	Recognition of both biological and environmental factors on child development. Improved understanding of biological processes in brain development with resultant improved intervention strategies. Acknowledgment of impact of environment on child development resulting in the following trends: Social inclusion, family centred practice, client empowerment, cultural sensitivity, and coordinated service delivery.	Refinement of research methodologies. Advances in medical technology. Advances in studies on brain development.

Currently, the USA is at the forefront of contemporary research and it has proved to be an international leader whose research and policies impact on the policies of many other countries. Since the inception of the early intervention field in the early 1960s, programs have undergone revolutionary developments. A plethora of literature exists which documents the history of early intervention programs in the USA. Based on clinicians' experiences of the impact of early intervention on the life of the child, the field has occupied itself with proving

its efficacy in order to strengthen the scientific base and therefore the commitment of the government and others for early intervention programs. The body of literature is overwhelming with, until recently, inconsistent results regarding the efficacy of programs. For example, Ryan (1974) provides a discussion in the Report on Longitudinal Evaluations of Preschool Programs, which includes the earlier evaluations of the Head Start program.

The Head Start program is one of the earliest early intervention initiatives that is worth mentioning. The Head Start program is a national program that commenced in 1965 and has been a key government initiative in the field of early intervention. Its initial conceptual framework was revolutionary for its time, with its focus on community and family participation, in conjunction with child development (Peters & Kontos, 1987), the involvement of a broad array of professionals, and its combination of health, education and social services (Shonkoff & Meisels, 2000). Since its inception, it has overcome many hurdles and modifications. An assessment has been due in 2000-2001. Another project – the Collaborative Perinatal Project, has provided the most extensive longitudinal data on the impact of biological and social risk factors (Shonkoff & Meisels, 2000; Broman, Bien & Shaugnessy, 1985). This project influenced the debate of "Nature versus Nurture", a debate that has been ongoing since the field was initially established. Some dialogue regarding this issue may still be found in the literature to this day.

The "Nature versus Nurture" debate contributed to the questioning of the value of early intervention on a child's development. Early pioneers in the field, such as Gesell in the early 1900s, believed in the genetic predisposition of the developmental progression in the child, while others, such as Hunt (1961) and Broman, and Nichols and Kennedy (1975), were convinced of the impact of environmental forces on developmental outcomes. Various projects were launched as a result of this controversy, and led to government support of research projects and services during this period. Since then the early intervention field has come to the realisation that both these factors (developmental and environmental) influence

child development interactively. The longitudinal assessment of the Collaborative Perinatal Project indicates support for the impact of biological and social risk factors on development (Broman, Bien & Shaughnessy, 1985). In addition, the National Research Council and Institute of Medicine (Shonkoff & Phillips, 2000), which consolidates the research in early intervention, supports the recognition of both influences.

The 1980s and 1990s saw an evolution in the concepts of social inclusion, family-centred practice and empowerment, cultural sensitivity, and coordinated service delivery in early intervention (Halpern, 2000). The field of early intervention saw the refinement of research methodologies in an endeavour to develop more scientifically sound studies, and the 1990s saw breakthroughs in the examination of brain development (Shonkoff & Meisels, 2000). With the increased acknowledgement of the impact of the environment on child development, research during several of the past decades has focused on an expanded understanding of the conditions that influence child development (National Research Council and Institute of Medicine, 2000).

During the past decade, the field of early intervention has started to assimilate scientifically sound studies to provide evidence of its efficacy, as well as evidence regarding the development of the brain and its receptiveness for intervention during the early years of life. These studies are documented in publications of various leaders in the field, such as the Carnegie Corporation of New York (1994), Broman, Bien and Shaughnessy (1985), and Lipsey and Wilson (1993) – with the latter two authors conducting a meta-analysis of early intervention projects. In addition, Guralnick (1997), Shonkoff and Meisels (2000), and the National Research Council and Institute of Medicine (2000) have assimilated projects that have resulted in favourable outcomes. Common themes may be identified amongst these selected, well-designed studies, as well as a general agreement regarding the field's efficacy. Advances in scientific, rigorous research methodologies and medical technology have also contributed to these results.

In relation to the future of the field of early intervention, leaders are urging researchers and practitioners to focus on identifying program characteristics that facilitate favourable development outcomes for children (Lipsey & Wilson, 1993), and also to formulate well-grounded standards of practice (Shonkoff & Meisels, 2000). It is within this call for investigating standards of practice that this discussion will now focus on a consolidation of literature regarding international trends in the field of service delivery and current perceptions regarding standards of practice.

2.3 INTERNATIONAL TRENDS IN EARLY INTERVENTION SERVICE DELIVERY

Modern trends in service delivery may be identified in the literature. A number of recent publications report on projects that aim at identifying program characteristics that have resulted in favourable development outcomes for children. In addition, other publications provide information on approaches that are based on the consensus of experienced interventionists. Examples of these include Shonkoff and Meisels (2000), and Guralnick (1997). The trend towards working more collaboratively is implicitly interwoven in these programs and may be categorised as follows: collaboration with the client, collaboration with the community, collaboration with other team members, and collaboration with other agencies and program characteristics. Table 2 depicts these current trends in early intervention and will be referred to in later chapters.

Table 2 Current Trends in Early Intervention Service Delivery, as identified in the Literature

Current Trends in Service Delivery		Author and Date of Publication
A. COLLABORATION WITH CLIENT		
Prevention	Preventative measures.	Osofsky & Thompson (2000), Meisels (1984), Guralnick (1997).
Family-centred Practice	Family-centred practice.	Halpern (2000), Carnegie Corporation (1994), Dunn (2000), The American Occupational Therapy Association ([AOTA]1989), Winton, McCollum & Catlett (1997), Wyngaarden Krauss (2000).
	Understanding the family as a dynamic system.	Shonkoff & Meisels (2000).
	Centred on needs of the family.	Guralnick (1997).
	Family involvement and empowerment.	Simeonson & Bailey (1990), Wyngaarden Krauss (2000).
	Enabling and empowering relationships between service providers and families.	Harbin, McWilliam & Gallagher (2000).
	Family involvement as decision makers in service delivery.	Wyngaarden Krauss (2000).
	Parent education.	Halpern (1990), Simeonson & Bailey (1990), Osofsky & Thompson (2000), Carnegie Corporation (1994).
	Caregiver-focused interventions.	Seitz & Provence (1990).
	Sensitivity to families and cultures.	Harbin, McWilliam & Gallagher (2000).
	Improvement of family coping skills.	Simeonson & Bailey (1990).
	A range of family services.	Simeonson & Bailey (1990).
	Promotion of family conditions, parental competencies and behaviour.	Halpern (1990).
Child-focused Programs	Client involvement.	Dunn (2000).
	Individualisation of service delivery.	The National Research Council and Institute of Medicine (2000), Wolery (2000).
	Individualisation of targeted programs.	Sameroff & Fiese (2000).
	Child-focused programs.	Bricker & Veltman (1990).

Table 2 Continued

Current Trends in Service Delivery		Author and Date of Publication
B. COLLABORATION WITH THE COMMUNITY		
Community-based programs	Community-based intervention.	Guralnick (1997), Halpern (2000).
	Involvement and support of local community.	Halpern (2000), Carnegie Corporation (1994).
Programs that address Contextual Influences	Focus on the relationships between parent and child.	Osofsky & Thompson (2000), Kelly & Barnard (2000).
	Facilitation of social networks and support for families.	Osofsky & Thompson (2000).
	Consideration of family and contextual influences.	Crnic & Stormshak (1997), Sameroff & Fiese (2000).
	Emphasis on the social supports of the family.	Dunst, Trivette & Jodry (1997), Osofsky & Thompson (2000).
	Promotion of child's social competence.	Guralnick & Neville (1997).
	Recognition of cultural competence.	The National Research Council and Institute of Medicine (2000), Garcia Coll & Magnuson (2000).
	Recognition of impact of relationships on development.	The National Research Council and Institute of Medicine (2000), Garbarino & Ganzel (2000).
	Recognition of impact of community, broader social, economic and political environment.	Shonkoff & Meisels (2000), Earls & Buka (2000).
	Environmental impact on development and fostering of nurturing environment.	Carnegie Corporation (1994).
Integrated, functional Intervention	Integrated into community.	Peck (1993).
	Integrated into integrated settings.	Wolery & Fleming (1993).
	Integrated into child's routine.	Dunn (2000).
	Provision of services in natural environment, including inclusive educational and childcare settings.	Gallagher (2000).
C. COLLABORATION WITH OTHER TEAM MEMBERS		
Teamwork	Integration of contributions of multi-disciplinary team members.	Guralnick (1997), Sameroff & Fiese (2000), McCune, Kalmanson, Fleck, Glazewski & Sillari (1990), AOTA (1989), Dunn (2000).
	Recognition of the inter-disciplinary nature of the field.	Shonkoff & Meisels (2000).
	Multi-, inter- and trans-disciplinary team approaches.	Dunn (2000).

Table 2 Continued

Current Trends in Service Delivery		Author and Date of Publication
D. COLLABORATION WITH OTHER AGENCIES		
Network of Programs	A comprehensive, cohesive system.	Harbin, McWilliam & Gallagher (2000), Gallagher (2000).
	Continuous, comprehensive and integrated services.	Halpern (2000).
	A multitude of programs and resources.	Harbin, McWilliams & Gallagher (2000).
	Continuous service delivery with attention to transition between programs.	Gallagher (2000).
	The integration of childcare, early education and early intervention.	Kagan & Neuman (2000).
	Coordinated service delivery.	Shonkoff & Meisels (2000), Gilkerson, Gorsk & Panitz (1990), Dunn (2000).
	Case management to ensure coordinated services.	Harbin & McNulty (1990).
	Consultation and collaboration.	Hanson & Widerstrom (1993).
	Interagency collaboration.	AOTA (1989), Dunn (2000).
E. OTHER PROGRAM CHARACTERISTICS		
Leadership	Characteristics of leaders of programs: a clear sense of mission, a broader and more comprehensive vision of the service system, the ability to communicate vision to stakeholders, knowledgeable about best practice and utilising best practice, use of a variety of resources, adept at understanding complex situations, creating and facilitating change.	Harbin, McWilliam & Gallagher (2000).
Service Providers	Qualities of service providers: knowledgeable and use of best practice, use of initiative and resourcefulness, flexibility, and responsiveness.	Harbin, McWilliam & Gallagher (2000).
Mix of Service-delivery Models	Mix of parent support and direct developmental services.	Halpern (2000), National Research Council and Institute of Medicine (2000).
	Focus on individual client variables and contextual variables.	Dunn (2000).
	Mixed options of service delivery available to clients.	Dunn (2000), AOTA (1989).
	Direct services used only in combination with other models.	Dunn (2000).
Well-designed and Goal-focused Programs	Well designed and goal focused.	National Research Council and Institute of Medicine (2000).
	Planning and coordination of services.	Guralnick (1997).

2.3.1 Collaboration with the Client

Some of the earliest programs in America concentrated on single-dimension, child-focused approaches during which a prescribed program of stimulation was implemented by an interventionist (Simeonson & Bailey, 2000; Osofsky & Thompson, 2000). These programs were usually implemented in isolation, for example, either at home or at a centre, by one professional, with the focus on one type of service and from one philosophical viewpoint (Harbin, McWilliam & Gallagher, 2000). Lessons learnt from this period include the effectiveness of individualised, well designed and implemented programs. The characteristics of these programs are supported in current literature as an important option in service delivery (National Research Council and Institute of Medicine, 2000).

Modern trends that may be distinguished in the literature relating to collaboration with the client, are provided in Table 2. These include, amongst others, preventative strategies and family-centred practices, which include family involvement, empowerment and parent education. Child-focused programs fall into this category as a trend carried over from earlier programs in recognising its effectiveness in terms of individualisation of service delivery and individually targeted programs, and include the trend towards client involvement in the planning of intervention, as well as during intervention itself.

Since then, programs have undergone considerable changes due to the influence of research findings on effective programs and other environmental factors impacting on the delivery of services in America. The following current and future challenges in the social and economic circumstances of families are examples of changes that impact on service delivery and that services hence need to adapt to: high levels of hardship for families, changes in parents' employment, the increase in the number of children in child care settings, and a greater awareness of the negative effects of stress on young children (National Research Council and Institute of Medicine, 2000). These factors have contributed to an increased

focus on recognising the environment as an important aspect in intervention, with increased collaboration with the community, significant others in the child's life, and other agencies.

2.3.2 Collaboration with the Community

Modern trends include the active involvement and support of the community in intervention, and the recognition of contextual influences on intervention, with the underlying principle being an acknowledgment of the impact of environmental influences on the early development of the child. It includes a focus on the integration of the family into the community; on social networks, relationships and supports, as well as families' cultural, economic and political environments. In addition to this, it recognises the provision and integration of intervention into functional environments of the child and family.

2.3.3 Collaboration with other Team Members

When viewing the child and family in a holistic way, which includes both biological and environmental factors, teamwork becomes essential. Modern trends are to work collaboratively in multi-, inter-, and trans-disciplinary teams in order to make intervention appropriate and streamlined.

2.3.4 Collaboration with other Agencies

One of the current international trends is the European influence that supports a well-integrated, coordinated and comprehensive network of services across a broad spectrum of programs. Programs that support families on multiple levels and keep pace with modern demands on them are utilised in order to effectively support them in providing a nurturing environment for their children. This view is also supported in the American literature (Harbin, McWilliam & Gallagher, 2000; National Research Council and Institute of Medicine, 2000). Case management is mentioned in the literature as a strategy to coordinate service delivery within a network of services and to ensure effective interagency collaboration.

2.3.5 Other Characteristics of the Program

The literature identifies other program characteristics that have resulted in favourable outcomes for clients: characteristics of its leadership; the service providers; the use of an appropriate mix of service delivery models, including a focus on both individual client variables and contextual variables; and well-designed, goal-focused programs. It is within this international framework of developments and trends that the discussion now turns to the South Australian context of early intervention service delivery.

2.4 THE SOUTH AUSTRALIAN CONTEXT OF EARLY INTERVENTION SERVICE DELIVERY

Early intervention service delivery in South Australia has been influenced by a number of context-specific factors, including developments in the following government areas: health care and health services for children; mental health services; and disability services. In addition, the demographical and sociological contexts of South Australia and profession-specific factors influence service delivery. These areas are summarised in Table 3 and provide a framework for the discussion that follows.

2.4.1 Government Policies and Funding Priorities

2.4.1.1 Health Care

Early intervention in South Australia has followed international trends in the adoption of a focus on primary health care and health promotion. Primary health care includes the prevention of diseases, early detection and intervention (The South Australian Health Commission, 1992). It is seen as a means of achieving health for all and focuses on inequities in health status and on equal access to health care. The principles underlying primary health care are provided in Table 3.

Managed by the Minister of Health, and the Housing and Community Services of the Commonwealth at a national level, Australia has followed the international trend by stating its

commitment to the World Health Organisation's "Health for All by the Year 2000" strategy, published in 1981. The implementation of the health promotion strategy has subsequently been refined in a number of reports and reviews.

The process of implementation and refinement is ongoing. Difficulties experienced with the implementation of the policy include inadequate funding, difficulties with communication between states and the Commonwealth, confusion regarding roles and principles, a lack of involvement of non-government stakeholders, and a lack of uniformity in establishing priorities and implementing strategies for change (O'Connor & Parker, 1995). In addition to these difficulties in implementation, the 1980s were characterised by an overriding concern about expenditure on health, making the implementation of health promotion difficult (O'Connor & Parker, 1995).

Developments in South Australia followed national trends under the governance of the local state government. Since 1976, the South Australian Health Commission has funded the health care services in South Australia. Other organisations playing significant roles in health promotion in South Australia are the Foundation of South Australia, the Health Development Foundation, and the Community Health Centres.

The most recent "Australian Health Care Agreement", covering the period 1998 – 2003, provides current funding priorities in health care, focuses on community health, and aims at a balance between individual and community health, integrated and coordinated services, evidence-based services, equitable access and cost efficiency (Brandis, 2000). Mental health priorities are preventative care, early intervention, and the promotion of the improvement of quality and efficiency of service provision. Priorities regarding hospital services are to improve the effectiveness and efficiency of services, reduce the demand for hospital services, and improve the integration of care across hospital and community settings. Another emerging theme is the need for health care providers to form collaborative relationships with clients.

Table 3 Core Developments in the Early Intervention Service Delivery Context in South Australia

Health Care	Funding priorities	Services to Children	Mental Health Services	Disability Services
Primary health care: health promotion, early detection and intervention.	Balance between individual and community health.	Promotion of healthy, supportive environments.	Primary health care, prevention, early intervention.	Integration into community life.
Access to services, full participation of clients, cost effectiveness.	Evidence-based practice.	Involvement of government and community.	De-institutionalisation, integration into community life.	Quality assurance.
Equity, social justice, intersectoral collaboration of all parties involved, community participation, empowerment, supportive environments, access to information, enhancing life skills and opportunities to make healthy choices.	Cost efficiency.	Customer focus.	Continuity of care.	Coordinated service delivery.
	Integrated and coordinated services.			
	Collaborative relationships with clients.			
Use of social networks.	Effectiveness and efficiency of services.	Commitment to client participation.	Relevant and high quality services.	
Client education.		Balance between health promotion and treatment of ill health.	Collaboration of services.	
		Equity and access.	Active participation of clients.	
		Coordination and collaboration between services.	Client education.	
		Development of a skilled workforce.		
		Early intervention.		

IMPACT ON EARLY INTERVENTION SERVICE DELIVERY IN SOUTH AUSTRALIA

Demographical Factors	Sociological Factors	Profession-specific Factors
Geographical layout – vast regional areas.	Changes in traditional family structures.	Client-centred intervention.
Current funding focus on health services to regional areas.	Greater diversity in childcare and increased number of children in childcare.	Evidence-based practice.
Shortage of health services and personnel in regional areas.	Changing patterns of leisure for families.	The use of team structures.
Increasing number of people with disabilities.	Increased interpersonal violence.	Staffing considerations.
	Increased integration into mainstream services.	
	Multi-cultural diversity.	
	Clients becoming more empowered and involved in service delivery.	

2.4.1.2 Services to Children

Contributions to the development of services for children include the "Health Goals and Targets for Australian Children and Youth" (Jolly, 1992) and in 1995, the Australian Health Minister's endorsement of the "Health of Young Australians" report, which lays the foundation for the principles provided in Table 3. This report was followed by "The National Health Plan for Young Australians" (Australian Ministers' Advisory Council, 1996) that addressed the above-mentioned key areas in more detail.

The South Australian Child Health Policy and Youth Health Policy are both based on the principles of primary health care and emphasise health prevention and promotion. True to the aims of primary health care, early intervention has been an area of focus in South Australia. The Department of Human Services' Strategic Plan, entitled "The Development of a Service and Funding Plan for Children with Additional Needs", was introduced in 1998.

In 1999, the advisory group set up by the Department of Human Services reported on the early intervention services in South Australia (Department of Human Services, 1999). The report supports early identification, referral and access to services, a coordinated approach, information to be provided to health professionals and families regarding early intervention, alternative service responses and increased or better utilised resources. It calls for adequate funding of early intervention services.

The advisory group identified the early intervention target population as being children from birth to school entry (0-6 years) who have, or are at risk of, a delay in development or disability, and their families and caregivers. The report describes the nature of early intervention services by stating that various agencies may be involved in the delivery of these services. The services are provided by the State Government through the Department of Human Services, including the Disability Service Offices, the Department of Family and

Community Services, the Department of Education, Training and Employment (DETE), and various non-government agencies and parent / community groups.

Screening and assessment services are usually provided by Child and Youth Health and Child Development Units of the Women's and Children's Hospital, Flinders Medical Centre, the Llyell McEwin Health Service, and associated country services. In addition, the Early Childhood Intervention Network, funded by Child and Youth Health, the Intellectual Disabilities Council (IDSC), and DETE, have coordinators who provide information and link families to a range of services. Children identified with development delays or disabilities are referred to either the IDSC or the Crippled Children's Association (CCA). These organisations provide specialist services to families. Other services include the Autism Association, the Down's Syndrome Society, and Townsend House. Child and Adolescent Mental Health Services provide services to children under six with extreme mental health problems. In 1999, the following programs were identified as providing early intervention services: Southern Fleurieu Health Services, Port Lincoln Community Health Services, Noarlunga Community Health Services, IDSC Early Childhood Services, Kent Town Pre-School, and the Northern Regional Paediatric Unit, based at Port Augusta Hospital (Department of Human Services, 1999).

2.4.1.3 Mental Health Services

A significant development regarding mental health services in South Australia has been the adoption of the National Mental Health Policy. It was developed in 1992 as a National Mental Health Plan and committed itself to improving the lives of people with mental illness. Specific strategies were outlined (Lloyd, Kanowski & Samra, 1998). In addition, the "Prevention in Mental Health" report of the Mental Health Committee of the National Health and Medical Research Council was released (Martin & Davis, 1995). Service delivery trends and priorities are provided in Table 3. Difficulties with the funding of community-based services and resources, and limited coordination of services have since

proved to be major obstacles. The "Action Plan for Reform of Mental Health Services 2000–2005" (Department of Human Services: Mental Health Services, 2001) that followed, embraced an effective primary health care strategy, and emphasised, amongst other things, early intervention, prevention, detection and screening, evidence-based practice and effective education about mental illness.

The Action Plan was based on the National Survey of Mental Health and Wellbeing, which aimed at obtaining information regarding the prevalence and distribution of mental health problems, the degree of disability associated with this, and specific information regarding services used by children, adolescents and families (Woolbridge, 2000). Noteworthy is the finding that children aged 6 to 12 years were more likely to have a disorder than were adolescents aged 13 to 17 years. The report states that only 50% of young people who met the criteria for a mental health illness and who indicated a need for help, actually received professional help.

2.4.1.4 Disability Services

An important new direction in the area of disability services was taken with the implementation of the Disability Services Act in 1986, which established a framework to redirect disability services, and specified the need to develop specific guidelines. The focus fell on de-institutionalisation of segregated services, and integration into community life. A lack of coordination and the abscence of an overall plan caused difficulties in implementing the policy. The "Working Solution" report reviewed the Commonwealth Disabilities Services Program in 1995 and made suggestions on the refinement of the program (Baume & Kay, 1995). This report laid the foundations for a quality assurance strategy, coordinated services, and the promotion of best practice and quality services.

South Australia showed its commitment to facilitate the integration of people with disabilities into community life by means of the South Australian Disability Services Act of

1993 and the report entitled "Promoting Independence: Disability Action Plans for South Australia: a policy statement on the adoption of disability action plans by the Government of South Australia" (Department of Human Services, 2000).

2.4.2 Demographical Factors in South Australia

In addition to the development of a policy related to early intervention, demographical factors in South Australia also play an important role in this regard. These include changes in population growth, the geographical layout of the population, and the development of a multi-cultural society. The 1996 ABS Census estimated the total population of South Australia at 1,474,389. Its capital, Adelaide, has a population of 1 million people. Geographically, South Australia covers 984,160.2 square kilometres (Rural Health Training Unit, 2000). Apart from Adelaide, there are only two other cities, namely Whyalla and Mt Gambier, with populations of more than 20,000 people (Gay, Herriot & May, 1995).

Statistical sources such as the Australian Institute of Health and Welfare (1998), the South Australian Health Association, and the South Australian Health Commission (1992) indicate that the number of people with disabilities is increasing due to the improvements in services to this population group. In 1993, the prevalence of disability was estimated to be 70 per 1 000 children aged 0–14. Children in the 5 to 9 age group had the highest rates of disability, handicap and profound or severe handicap (Moon, Rahman & Bhatia, 1998) amongst children.

Looking at the demographics of South Australia, the increased focus on services and funding for rural and remote areas in South Australia is significant. The highest population density in South Australia is recorded in urban and coastal areas: 27% of the people live in remote and rural areas, while 73% live in Adelaide. Gay, Herriot and May (1995) describe South Australia's country areas as being characterised by a large number of small towns, separated by vast distances and experiencing considerable isolation and diversity in social

status. This rural and remote population is served by more than 100 health care units, provided by a mixture of public, private and non-government services in 75 different locations (Gay et al., 1995). They include hospitals, community health, domiciliary care and aged care services, general practitioners, medical specialists and allied health services.

In the past, country health care has been characterised by limited health promotion and community development programs; limited services for certain population groups and those with special health needs, e.g. people with disabilities, Aboriginal people, and the elderly, and a lack of coordination between services (Gay et al., 1995). Key developments have been the National Rural Health Strategy (Department of Human Services and Health, 1994) and the report of the South Australian Health Commission (Department of Human Services), entitled "Healthy Horizons Report (2000)". Regionalisation occurred in July 1996, aiming to tailor the needs of health care services, to facilitate service planning, to further coordination and integration of service delivery, and to promote administrative efficiency (Rural Health Training Unit, 2000). Currently the provision of equitable access to adequate and appropriate health care services in rural and remote areas is a priority for the public health system (Rural Health Training Unit, 2000). The Report of the Inquiry into Infrastructure and the Development of Australia's Regional Areas, released in 2000, emphasises the shortage of health care services and personnel. The report recommends incentives to attract medical and allied health care personnel to regional areas and support services to this population as a high priority.

In addition, Australian health care literature refers to some strategies that have been trialled to facilitate access to services in rural and remote areas. Tele-Rehab is mentioned as an option by Anastassiadis, Finch, Killington and Rolan (1998), and Langley, McNair, Bray, Fletcher, Maffett and Rawicki (1998). These authors discuss the use of video conferencing to provide services to geographically and demographically isolated areas. Symington (1998) also reports on the use of a consultancy service to remote areas, in collaboration with available

local support. This consultancy service consists of on-site assessments and training, educational seminars, and an advisory telephone service.

2.4.3 Sociological Factors in South Australia

Several sociological factors in South Australia are significant and noteworthy. The "Health of Young Australians" report, endorsed by the Australian Health Ministers (1995) acknowledges the influence of the sociological factors displayed in Table 3. In addition, cultural developments also play a significant role. The report mentions the changes in multi-cultural diversity in delivering services to young Australians, and this is also mentioned in the "Action Plan for Reform in Mental Health Services 2000–2005" (Department of Human Services, 2001).

Multicultural diversity has become part of life in Adelaide to a large extent. In the period between 1950 and 1970 a high level of migration from Europe occurred. Although the dominant culture remained Anglo-Saxon, the 1980s saw an increase in other cultural influences. The report entitled "Developing Accessible Services for People with a Disability and of Non-English Speaking Background: A model" (The Action on Disability within Ethnic Communities Inc., 1992), called for the design of programs and services with the capacity to be responsive to the cultures and languages of the users of the particular service provided.

In addition to the above, health care providers are becoming more aware of the need for client participation (Alexander, 1995), and clients are becoming more aware of their rights to be actively involved in aspects such as decision making with regard to service delivery (Weir, 1991).

2.4.4 Factors related to the Profession of Occupational Therapy

In line with and as a result of some of the international trends previously mentioned, occupational therapy service delivery in South Australia has undergone several developments,

e.g. the active involvement of the client in the application of the client-centred approach and the growing need for evidence-based practice. Changes have also occurred within the organisational structures in which occupational therapists in the field of early intervention are employed and should also be taken into account. Occupational therapists in these settings most often find themselves working in multi-disciplinary team structures, some of which do not report to a discipline-specific line manager.

Another point that is noteworthy is South Australia's statistics on occupational therapy staffing levels. Informal reports indicate that occupational therapy services in South Australia are in high demand, but that financial cutbacks in health care have resulted in less full-time employment being available, causing heavy workloads for therapists already employed. Statistical information on occupational therapists in Australia is very limited. The President of the National Association for Occupational Therapists, OT Australia (South Australia), indicated that South Australia has significantly lower staffing numbers in early intervention than other states (Ramsay, 2001). The Occupational Therapy Registration Board of South Australia (2001) indicates that 586 occupational therapists are actively registered, of whom 491 (84%) are currently employed. This is the third lowest registered number when compared with other states (indicated in 1998): Victoria – 1 567; Queensland – 989; Western Australia – 952; Australian Capital Territory – 101 and Northern Territory – 79 (AIHW, 2001).

International literature provides some examples of strategies utilised by services to overcome staffing-related issues. Salvatori (1997) identifies a number of strategies for occupational therapists to consider in reaction to the changes in the health care system in Canada. Pong (in Salvatori, 1997) describes the options of collaborative practice, personnel substitution, and multi-skilling. The author emphasises collaborative practice in view of the need for coordinated, continuous service delivery. Personnel substitution refers to the use of other service providers to do the work usually done by providers with specific qualifications,

credentials, or titles. Pong states that the use of substitutes such as nurse practitioners, physician assistants and midwives has been proven to be safe and cost effective.

Von Zweck and Gillespie (1998) discuss the use of support staff in occupational therapy, and Hagler (in Salvatori, 1997) suggests that certain tasks typically performed by occupational therapists may be effectively delegated to support personnel. Pong describes multi-skilling as the cross-training of a service provider to perform procedures and functions in two or more disciplines. Multi-skilling has been used successfully in America with technical personnel, and in Canada with nurses (Salvatori, 1997). This author, as well as Foto (1996), suggests that multi-skilling and personnel substitution are strategies that may be explored by occupational therapists in order to deal with staff shortages and deliver a cost-effective service. Harbin, McWilliam and Gallagher (2000) name the following strategies that resulted from staffing shortages in the USA: a trans-disciplinary approach, the use of therapists as consultants with individuals who work more regularly with the children, as well as the implementation of intervention in the natural environments of children.

Within this framework of current trends and changes in the context of early intervention service delivery in South Australia, it is evident that programs – in particular occupational therapy programs, for the purposes of this study – need to reflect regularly on the appropriateness of their services in order to ensure that such services keep up with society's changing demands. These changes provide challenges for service providers in this field.

2.5 CHALLENGES FOR EARLY INTERVENTION SERVICE DELIVERY IN SOUTH AUSTRALIA

Occupational therapy services seem to have been slow in taking on early intervention as a priority, even though health care and other government policies, as well as funding priorities, support this direction. Due to a number of difficulties, as mentioned previously in this chapter, services have been struggling to adhere to these policies. Some early intervention

services in South Australia are in the process of considering changes or are already undergoing changes to their service delivery models, with a greater focus on health promotion.

References to the difficulties encountered in changing traditional ways of service delivery are found in the international literature. Difficulties may be due to the fact that societal and policy changes require fundamental shifts in service delivery (Harbin, McWilliam & Gallagher, 2000). Further changes that personnel are required to make, are mentioned by Klein & Gilkerson (2000), and include: skills in developing respectful, collaborative relationships with families; becoming systems thinkers; developing capacity for reflection and self knowledge; and the use of interdisciplinary or collaborative teaching and learning. These authors mention the need for personnel to be able to work effectively with adult learners, and understanding the impact of changes in the larger social system.

Challenges for services are to consider changes in line with the factors impacting on service delivery. Figure 1 provides a consolidation of the factors that were discussed previously in this chapter, with the focus on the service system. It provides a framework that may be used when services are evaluating their current service delivery models and considering changes. An assessment of environmental influences impacting on service delivery needs to include factors such as those found within the sociological, demographical, political and economic arenas. In addition, the overriding principles of primary health care need to be considered. Items included in an internal assessment include client age and type; the intervention strategies used by the service versus current trends of practice (discussed under "International Trends" within this chapter); and organisational or service-related factors (refer to Table 2). These aspects, coupled with the identification and assessment of specific problematic areas within the service, such as long waiting lists and inadequate supplies of staff, should give rise to the question on whether change is required within current service

delivery models. Further referencing to Figure 1 are included in Chapter 4, Research Design and Methodology.

Various authors advocate that services consider the use of a combination of models that are suitable to both the core principles of occupational therapy (Boyt Schell & Slater, 1998) and the specific population characteristics (Dunn, 2000; Case-Smith, 1997; Cromwell, 1984). A survey by Case-Smith and Cable (1996) reveals that the use of multiple models in school-based services is effective. Letts, Fraser, Finlayson and Walls (1993) add to these contributions by stating that health care – in the form of clinical treatment services; disease prevention – in the form of lifestyle modification and health education; as well as health promotion – in the form of collaborative, intersectoral action in order to reduce inequities, enhance coping and create healthier environments, should all be considered as complementary approaches. In addition, Halpern (2000) and the National Research Council and Institute of Medicine (2000) advocate a mix of parent support and individualised intervention programs.

2.6 SUMMARY OF CHAPTER

Chapter 2 provides a framework of changes and trends in the early intervention field, the challenges in changing practice and the need for occupational therapists to reflect on their services and consider ways of meeting new demands. The discussion in Chapter 3 focuses on the process of change in organisations, since its relevance is significant in the current context of service delivery in South Australia.

Figure 1 Factors influencing the Early Intervention Service Delivery Process