

NURSING AND HEALTH CARE IN SWEDEN

Linda Shields, PhD, FRCNA, NH&MRC, is a Public Health Research Fellow, Mater Children's Hospital, an Adjunct Senior Lecturer, University of Queensland, a Visiting Fellow, Queensland University of Technology, Brisbane, Australia, a Visiting Fellow, Örebro University, Sweden and University of Northumbria, Newcastle-upon-Tyne, England.

Inger Kristensson-Hallström, Associate Professor, is a Clinical Lecturer, Children's Hospital/Department of Caring Sciences, University Hospital, Lund, Sweden

Birgitta Andershed, RNT, Dr Med Sci, is a Senior Lecturer, Department of Caring Sciences, Örebro University, Örebro, Sweden

Karin Jackson, RNT, MScN, is a Postgraduate Student, Department of Caring Sciences, Örebro University, Örebro, Sweden

Mats Eriksson, RN, BScN, is a Postgraduate Student, Linköping University, Linköping, Sweden

Accepted for publication April 2002

ACKNOWLEDGEMENTS

The first author (LS) is supported by the National Health and Medical Research Council of Australia Public Health Postdoctoral Fellowship Number 997096 and the Winston Churchill Memorial Trust, and the second author (IK-H) is supported by the South Swedish School of Nursing.

Key words: nursing, primary health care, Sweden

ABSTRACT

Sweden, one of the Nordic countries, has a long history of social justice and equality of access to health care. Nursing plays an important role in this and nursing education is of a high standard. The aim of this paper is to describe Sweden's health system and nursing within it, thereby giving Australian nurses information which may generate an interest in, and provide background for, collaborative work. It is part of a series initiated by the first author who visited Sweden, Iceland and England in 2000 under the auspices of a Churchill Fellowship, and who has returned to Sweden and England to continue work begun during the Fellowship.

Sweden's health service is characterised by an ethic of egalitarianism and high standards; primary health care plays a large role and tertiary health care is easily accessible. Nursing in Sweden is of a high standard, with devolvement of responsibility and decision-making to those working in the wards and units. Nursing education has been influenced by the historical development of nursing in Europe and today, Swedish nurses enjoy a high standard of university education with government support readily available to make specialist education accessible. Because of the similarities in both the cultures, and nursing, in Australia and Sweden, Australian nurses would find Sweden a wonderful country in which to implement cross-cultural, collaborative work. This paper provides background knowledge for such collaboration.

INTRODUCTION

Australia and Sweden are alike in many ways, both culturally and politically. However, geographically they are two of the most distant countries on the globe. The numbers of people who travel between Australia and Sweden are small when compared to travel between Australia and, for example, Britain. Consequently, few Australian nurses are able to take the opportunity to become more familiar with Sweden. The aim of this descriptive paper is to provide Australian readers with knowledge of Sweden, its social and health care systems and how nursing fits within those systems, and a brief background is given on Swedish history. The paper provides some comparisons with selected Australian health parameters, and describes the system of inpatient care, primary health care, the education of health professionals, the role of clinical nursing and nursing research. By understanding how other health systems work, and nursing within them, international collaborations can grow. In this way, all benefit. By knowing about how health care is delivered in Sweden, Australian nurses will be able to access opportunities provided for cross-cultural links, research projects and possibly funding.

This paper is part of a series on the health care systems of countries visited by the first author during visits to Iceland, Sweden and England under the auspices of a Churchill Fellowship (Shields 2000). Articles which describe the health care systems of the visited countries and Australia to respective audiences in the nations involved are being published (Shields and Kristjánsdóttir 2001).

A description of Sweden

A brief summary of the history of Sweden is important to understand how their present health care system came into being. Sweden, a Nordic country, has Norway on one border, Finland on the other. Its early history included Stone and Bronze Age civilizations followed by the Vikings. Sweden's history has been turbulent, with periods of war and conflict with its neighbours interspersed with long periods of peace. The various states which made up medieval Sweden were unified in 1280. It was part of the Hanseatic League of traders but remained a largely agrarian society. Following the Napoleonic wars, the French Marshall, Bernadotte, was elected to the Swedish throne and the present day Royal Family is descended from him (Bendure 1999).

Sweden has not been involved in any wars since the beginning of the 19th Century and has maintained a foreign policy of non-alignment in peacetime and neutrality during war. It played an active role in the setting up of both the League of Nations and the United Nations and has been a full member of the European Union since 1994 (Bendure 1999). With abolition of the absolute monarchy in the 19th Century, a new constitution based on Montesquieu's model and characterised by the separation of powers was introduced (Umeå University 1997). Since then, Sweden has had a parliamentary government.

Sweden was one of the least developed countries of Europe well into the 20th Century, when one-fifth of the population emigrated to America to find a better way of life in a land free of poverty. Since the end of World War II, Sweden has become a leading industrial nation, with a high standard of living and a socialist welfare state (Bendure 1999). In 2000, Sweden's Gross National Income (GNI) per capita was US\$26,780 compared with Australia's which was US\$20,530. (The World Bank [2001] defines GNI thus: 'GNI per capita (GNP per capita) is the gross national income, converted to US dollars ... divided by the midyear population') and is the currently recognised indicator of economic status in the world. While there is some difference between GNI for Australia and Sweden, both countries are still classed as 'high income' by the World Bank (2001). For most Swedes, income tax rates are similar to Australia's, although they pay 25% value added tax (Swedish National Tax Board 2000) and various local taxes implemented by local government agencies.

Sweden had one of the first social security systems in the world and social welfare remains a cornerstone of public policy. Employers and employees together pay social security contributions to cover pensions, health insurance and other social benefits. Health care and social welfare are seen as public sector responsibilities, and are administered by a national social insurance system. Health care is either free or heavily subsidised and medicines and medical aids are funded. Generous allowances are available for those who have to care for ill, dying or disabled family members at home, for example, in every family parents are allowed 60 days per year on 80% of full pay to care for each sick child, and this can be extended for another 60 days. Maternity leave gives parents up to one-year leave on full pay and three months on reduced pay.

Parents are supposed to share this time equally and most fathers spend some months on paternity leave. The parents also receive tax-free child allowances, equal for everyone, until the child's 16th birthday. All education - primary, secondary, technical and tertiary - is free, books are subsidised and generous student loans available, making tertiary education readily and equitably accessible.

Egalitarianism pervades Swedish society and culture, despite the paradox of having a royal family. Responsibilities are acknowledged and taught as part of the concept of individuals' rights. Swedes take an active role in their society, for example, even though voting is not compulsory, up to 95% of people voted in previous elections, though in the latest election this decreased to 81%. Teaching about rights and responsibilities begins at an early age at home and is an integral part of all formal education. It is a criminal offence in Sweden to smack a child (Ministry of Justice Sweden 1983, 1999). Housework and child rearing is often shared between partners, and subsidised child day care is available for all working and/or studying parents. The rights that are such an integral part of Swedish culture are concomitant with responsibilities and in practice this often means that a balance is sought between accessing services and contributing to those services.

Health parameters

Table 1: Selected health characteristics, Sweden and Australia. (World Health Organization 2001a-d)

	SWEDEN	AUSTRALIA
Total population	8,841,000	18,063,000
IMR	3.8	5.5
MMR	0.1	0.1
Life expectancy - males	77.1	76.8
Life expectancy - females	81.9	82.2
Health spending/capita/year	1,943	1,601
Immunisation rate	99%	86%
Number of nurses	821	830
Number of doctors	311	240

IMR: infant mortality rate expressed as /1,000 live births

MMR: maternal mortality rate expressed as /100,000 births

Life expectancy at birth

Health spending in US dollars per capita per year

Immunisation rate of all children

Number of nurses and doctors expressed as /100,000 population

World Health Organization (WHO, 2001) statistics are used in this section. Sweden, like Australia, holds some of the world's best health statistics and some are compared in Table 1. Many health parameters differ little between the two countries, and while it is not possible to give an exegesis of them all here, those included are easily understood and provide a picture of the state of health of the Swedish population. Life expectancy in Australia is similar to Sweden (WHO 2001a) and rates for deaths from diseases such as diabetes, heart disease and malignancies are higher in Sweden than Australia as seen in Table 2

(WHO 2001b). When death rates by causes and age groups are compared, deaths in children and young people are higher in Australia. It is beyond the scope of this paper to examine these findings, but further work is planned.

Sweden's immunisation rate is higher than Australia's (WHO 2001c) and the cause of the difference is probably cultural. In both countries, immunisation services are free and readily accessible to all. The community health system in Sweden is efficient, comprehensive and its use is an integral part of Swedish culture, in other words, people are enculturated to use the primary health care services as part of normal life. In Australia, preventive health services are often poorly used or ignored.

Death rates from motor vehicle accidents, especially in young males, are higher in Australia. Swedish drink driving legislation is more stringent than Australia's, with fines imposed for alcohol levels over 0.02% (Institute of Alcohol Studies 2000) and this may contribute to the lower motor vehicle accident death rates, though no research was found to corroborate this. Rates for deaths by drowning were lower in Sweden than Australia, only marginally so when deaths are examined in total, but when the 'toddler' (1-3 year-old) age group is separated, then a large difference is seen. It is well known that Australian children in the 1-5 year age group are at a high risk of drowning because of the large number of back yard swimming pools (Fenner 2000, Pitt and Balanda 1998), so these numbers are not unexpected.

Youth suicide is lower in Sweden than in Australia, though it is difficult to postulate reasons for this. There is

some suggestion that the rate of young Swedish men attempting suicide is decreasing (Allebeck et al 1996), while Australian research indicates the rates are rising (Wilkinson and Gunnell 2000).

Nursing numbers per population are similar in Sweden and Australia, though Sweden has more doctors (WHO 2001d). The worldwide nursing shortage has affected Sweden since the early 1990s, while Australia has only recently begun to feel its full effect (Queensland Nurses' Union 2000; Australian Institute of Health and Welfare 1999). The other figure of note in Table 1 is the amount of health spending per capita per year, with the Swedish government allocating substantially more than Australia (WHO 2001e).

The health situation is to some extent similar in Sweden and Australia. In both nations, cardiovascular conditions account for a large number of all deaths (WHO 2001), problems from allergic conditions have grown (Meza and Gershwin 1997), the proportion of overweight individuals is increasing (Swedish Association for the Study of Obesity 2001, NHMRC Working Party on the Prevention of Overweight and Obesity 2001), and the numbers of elderly people are rising substantially. Sweden has one of the world's largest elderly populations and soon 20% of the population will be aged 65 or over (Swedish Institute 1999), and a similar figure is projected for Australia (Grey 2001).

Table 2: Death rates by selected causes and sex, expressed as per 100,000 population. Sweden 1996, Australia 1995 (World Health Organization 2001e)

Causes of death	Sex	Sweden		Australia	
Malignant neoplasms	M	248.1		209.8	
	F	221.8		160.0	
Diabetes mellitus	M	17.9		4.5	
	F	17.6		4.4	
Hypertensive disease	M	6.7		4.7	
	F	8.7		7.3	
Acute myocardial infarction	M	180.4		108.5	
	F	127.9		90.4	
Ischaemic heart disease	M	113.3		67.9	
	F	101.0		56.5	
Maternal mortality rate	F	0.1		0.1	
			15-24 years		15-24 years
Motor vehicle accidents	M	7.5	12.7	14.7	31.1
	F	3.6	4.4	6.5	10.3
Drownings			Age 1-4 years		Age 1-4 years
	M	1.5	0.8	1.9	6.9
	F	0.4	0	0.7	3.4
Suicide			15-24 years		15-24 years
	M	20.0	12.0	19.0	23.1
	F	8.5	4.6	5.1	6.1

Management and quality care

Swedish society has three political and administrative levels - central government, county or regional councils and local authorities. About 20 county councils are responsible for the provision of health services. The different areas have a population between 60,000 and 1.7 million people. The county councils also collaborate at a national level. The central government lays down basic principles for health services through laws and ordinances. The most important of these is the Health and Medical Services Act of 1982 (National Board of Health and Welfare Sweden 1982a), which states that all services shall be based on respect for the patient's integrity and his/her right to make autonomous decisions. Other laws regulate qualifications, obligations and responsibilities of personnel, professional confidentiality, and patients' records. There has been a move from specific, detailed regulations toward broader legislation which includes performance appraisal and accountability reporting of results and performances within the services.

The Ministry of Health and Social Affairs is responsible for developments in areas such as health care, social insurance and social issues, and in 1994, a set of regulations (rewritten in 1997) was issued stating that all health services shall include a system for continuous quality improvement. The National Board of Health and Welfare (NBHW) review and evaluate services provided to determine their correspondence with identified goals. Another government agency engaged in evaluation work is the Swedish Council of Technology Assessment in Health Care (2001) which reviews and synthesises current knowledge in relevant fields and existing scientific materials to provide basic data to enable evidence-based decision-making.

About 50 national health care quality registers provide a knowledge base for continuous improvement applications (NBHW Sweden 1996). Every person working in health care is encouraged to report incidents or accidents to their manager; these are compiled by every ward and hospital and are used as an indicator in local quality assurance assessment. If, in connection with care or treatment, a patient suffers a serious injury or illness, the institution providing the care is obliged to report this to the NBHW. Where faults or negligence are attributable to members of staff, (nurses, doctors and others), this can be referred by patients, relatives or managers to the National Medical Disciplinary Board, a judicial government authority. This Board decides on disciplinary measures (warning or admonition) or can remove the person from the professional register (Swedish Institute 1999).

Inpatient care

Health services in Sweden are characterised by funding which allows the implementation of extensive and efficient services. For conditions that require hospital treatment, medical services are provided at county level and regional level. Hospitals are divided into the following categories:

- Regional (tertiary) hospitals, which provide specialised treatment and care;

- District general hospitals, which provide specialised treatment;
- General hospitals, which do not have specialised wards, but staff may include specialists;
- Nursing homes for patients who, after diagnosis, can be treated and cared for outside the general or regional hospitals;
- Rehabilitation centres for patients who, after diagnosis, need specialised rehabilitation for varying periods of time;
- Hospital lodgings, which are for patients needing long-term observation or treatment but who can care for themselves;
- Nursing and occupational homes for the mentally handicapped or ill and disabled people; and
- Hostels for outpatients who are unable to live at home at the time of treatment.

There are some private hospitals and practitioners, and individuals may choose to use (and pay for) their services. Patients have the freedom to choose where and by whom they wish to be given medical attention.

County medical services are available at some 80 central country hospitals and district county hospitals. Here, care is provided in a number of specialist fields, partly as inpatient and partly outpatient care. County medical services include psychiatric care, increasingly being provided as outpatient services. The regional medical system operates at nine regional hospitals, which have a wider range of specialist and sub-specialist areas than those at country level, for example neurosurgery, thoracic surgery and highly specialised laboratories (Swedish Institute 1999).

Adult patients pay a nominal daily fee for hospital admission while children receive free care. The average length of stay in Swedish hospitals in 1997 was five days for medical beds, five for surgical and 24 for psychiatric (Nordic Medico-Statistical Committee 2000). The number of days for both short-term and long-term care per person per year has decreased in recent years in most age groups resulting in a reduction in the number of inpatient beds. People with mental handicaps have, in the main, left institutional care and now live in the community.

During recent years there has been a change in Swedish health care towards more involvement of relatives, a stronger focus on primary health care and the introduction of new models of care, for example hospital based home care and day care. This has resulted in an increase in the level of acuity of patients in both hospitals and in nursing homes, and a centralisation of the most acute inpatient care at hospitals. This development will continue into the future.

Primary health care

Community health services in Sweden are well planned, efficiently conducted and widely used. Each district has a community health centre (*Vårdcentral*), one doctor for every 2,000 people and one child health nurse for every 500 children under the age of six years, although these numbers can vary and are determined by local health authorities (NBHW Sweden 1982a; NBHW Sweden 1994;

Magnusson 1999; Jansson 2000). Adults pay to use these services, children under 18 years do not. Initial access to the services is by telephone, sometimes via a receptionist. A new system is being developed under which nurses operate a telephone consulting service. Callers are directed to an answering machine if the nurse is busy and the call is returned. The nurse can give advice over the telephone, or give the caller an appointment with a nurse or doctor. A patient may visit the clinic, be seen by a triage nurse and referred to the appropriate health professional. Referral to specialists is via medical and nursing staff, except in paediatrics where parents are entitled to present independently either to a private specialist or to a hospital. Except for emergencies, admission to hospital is usually through the *Vårdcentral*. Everyone in Sweden is free to choose the health centre, family doctor and hospital they wish to attend. In 1992, a guarantee of a standard of care for patients was introduced, ensuring that primary care services offer help the day of first contact, provision of a general practitioner service within eight days and specialist consultation within three months. This guarantee aims to reinforce the position of the patient as the primary focus in all care services.

Care is coordinated throughout the life span, and colloquially, is said to be 'womb to tomb'. Antenatal care is provided at the *Vårdcentral*, and at the final antenatal visit/class parents meet the baby health clinic nurse. He/she visits every baby at home soon after birth and at eight months of age. At the eight months of age home visit the focus is on injury prevention (NBHW Sweden, 1992a 1992b). Under Swedish law every school must employ at least one qualified school nurse (Department of Education Sweden 1985; Ministry of Education and Science Sweden 1992c) and school nurses work closely with the *Vårdcentral*. Nurses and doctors are mandated to report child abuse (NBHW Sweden 1980).

Screening services (breast, pap smear, testicular examination and others) are provided, as well as sexual health and immunisation clinics. Older people who become dependent on others for care can be housed in a community-run nursing home which often is attached to the *Vårdcentral*. Provision of health services for the elderly, disabled people and people suffering from long-term mental illness is the responsibility of the community authorities (NBHW Sweden, 1982b, 1982c, 1982d).

The *Vårdcentral* has a laboratory for basic pathology tests; many have facilities for radiological investigation, though complicated procedures are done in hospitals. Allied health services such as physiotherapy, speech and occupational therapy, social work and dietetics are available. Because of Sweden's large immigration program many health centres treat people from several different countries. The effects of these immigration programs on health services are similar to those found in Australia which service the multi-ethnic population. Language and cultural differences influence the workload of the *Vårdcentral*, and migrants are helped to understand the Swedish community health service with publications in different languages, and by cross-cultural education for health workers (NBHW Sweden 1995).

Swedish people make full use of health services and have an appreciation of the importance of self-care and well being. Health education and advertising stresses the importance of primary health care and how it can be accessed (Bergstrand 2000). Most organisations have gymnasium and sport and recreation facilities for their employees, and staff are encouraged to use them. People take advantage of available social security benefits and consequently are able to utilise benefits such as sick leave, carers' payments and other entitlements appropriately. Swedes know the advantages of health screening and illness prevention, and access services, though women are more likely to do so than men (NBHW Sweden 1998a). The health system is efficient, cost effective and provides extremely well coordinated care to the Swedish people. Cultural factors facilitate the full use of the system as people are used to accessing these community and screening services rather than having a heavy reliance on hospital and tertiary care.

The history of nursing education in Sweden

The development of nursing education in Europe had three main influences - the deaconess education system in Germany, Florence Nightingale, and the Red Cross. Eriksson (1985) classified development of Swedish nursing education into four periods: 1) the 'pre-theoretical' period, 1851-1920; 2) the 'medical-centred' period, 1920-1966; 3) the 'multi-sciences' period, 1966-1977; and, 4) the 'nursing sciences' period from 1977.

The first nursing school, situated in the *Diakonissanstalten* in Stockholm was opened in 1851 and was based on the deaconess schools in Germany. Florence Nightingale studied at the deaconess school at Kaiserwerth in 1851 (Florence Nightingale Museum 2001). The next school was opened in 1867 by the newly formed Red Cross and the third was begun in 1884 by the Swedish monarch, Queen Sofia. During this first period, many hospitals set up schools of their own controlled by the director of the hospital, usually a physician. Medical officers controlled the education of nurses and their work, and the length and quality of the courses varied. The 'medical-centred period' of nursing education saw it become state-controlled and it was during this time that education became focused on medical knowledge and techniques, in line with the development of specialities within medicine itself. During the 'multi-sciences period' nursing subjects were supplemented with topics such as sociology and psychology. The focus of the content was mostly on anatomy, physiology, pharmacology and diseases and was in later times criticised as too specialised and too technology-orientated (Kapborg 1995, 1998). It was at this time that nurses under training were given the status of students rather than being counted as ward staff (Derbring and Stölten 1992).

The 'nursing sciences period' began in 1977 when reforms in the higher education sector brought nursing education under direct control of the National Swedish Board of Universities and Colleges. A shift in emphasis demanded that nursing education be grounded in sciences and be connected with research and that it be taught as a specific subject grounded in a holistic view of the

individual (Derbring and Stölten 1992). The latest reforms in nursing education have ensured it is now regulated by the *Higher Education Act* (Ministry of Education and Science Sweden 1992c) and the EES-law which provides guidelines for organisation and curriculum content and bringing nursing education in line with the requirements of the European Union (Kapborg 1995). Nursing degrees, which are designated Bachelor of Science now require a three-year course of study.

Specialist postgraduate programs are available in specialist areas such as midwifery, emergency care, general care, public health, paediatrics, psychiatric care and care of the elderly, and in generic fields such as administration, leadership and teaching. Postgraduate research programs for masters and doctoral degrees is open to all health professionals. The minimum length of a doctoral programme is four years.

Within nursing positions in the hospitals, there are allowances for time off for study, financial support is given to allow nurses to undertake extra education and subsidised childcare is sometimes provided. Education is highly valued in Swedish society and this carries over into health care, where education, both formal as in university courses, and within the health services with in-service and continuing education, is widely available to all health professionals.

Students in Sweden can obtain state support (National Agency for Higher Education 2001) which consists of combinations of study grants and study loans (which must be repaid). Amount of support is often based upon sustained level of income. There are high expectations of success within academia and students in all disciplines work hard to meet those demands.

Nursing regulation in Sweden

On graduation with a nursing degree, one must register with the National Board of Health and Welfare (NBHW Sweden 2001). About 20 professions, most in the health care sector and including medicine are regulated legislatively and have protection of title. Disciplinary action for a nurse can include prosecution by the NBHW with a reminder or a warning or loss of licence (NBHW Sweden 1998b). Warnings and reminders occur, but it is unusual for a nurse to lose his/her licence to practice. The legislation places restrictions on those who can be registered as nurses, and nurses who practice complementary therapies cannot use the title 'nurse' while they are so doing (NBHW Sweden 1998b). Swedish nurses are insured vicariously through their work and the Swedish Association of Health Professionals (*Vårdförbundet* 2001). The average salary for a Swedish nurse is about 17,000-18,000 Swedish crowns (Aus\$3,000-3,200) per month before tax; for an administrator 22,000-24,000 Swedish crowns (Aus\$4,000-4,350) (*Vårdförbundet* 2001). Comparatively, the cost of living is higher in Sweden than Australia, with petrol over double the cost and a large expense necessary for heating and special clothing for the severe winters.

Nurses and research

Research by nurses has developed rapidly during the last few decades and is integral to the education of health care professionals. Nursing students are trained to use research reports and evidenced based care in their work. The Swedish Council on Technology Assessment in Health Care (2001) supports a special group whose focus is evidence based nursing. The first doctoral theses in caring/nursing research appeared in 1978. Heyman (1995) categorised 65 theses into subject areas and examples included nursing of patients with a variety of illnesses, alternative symptoms or disabilities, nursing in the start and at the end of life, nursing of the elderly, patients' and staff's experiences within health care, nurse education and theory/concept development. Currently, there are about 400 nurses in Sweden who have completed a doctoral dissertation. Assessment for all doctoral studies in Sweden, encompasses: a) production of a thesis; plus, b) publication of four or five papers in international, peer-reviewed journals during the period of study; and, c) an oral public defence of thesis with a chosen opponent before three to five examiners. All these requirements must be met before a doctoral degree is awarded. There are 16 professors in nursing though it is difficult to compare these figures with Australia because the requirements for professorial level appointments differ a great deal between the two countries.

CONCLUSION

Culturally, Sweden and Australia have many similarities and this is echoed in the health services of each country. This paper gives an overview of the Swedish health service and how nursing fits within it. Sweden's health service is characterised by an ethic of egalitarianism and high standards. Primary health care has an important part to play in keeping the population healthy and access to this system is facilitated by readily available access to its services and by enculturation of the Swedish people to its use. Tertiary health care also is easily accessible, and hospitals are well maintained and managed with a large range of specialities available.

Nursing in Sweden is of a high standard, with devolvement of responsibility and decision-making to those working in the wards and units. The nursing shortage, which is affecting health services across the world, is having an effect in Sweden as nurses cannot be found to maintain the high levels of staffing that were an integral part of health care. Nursing education has been influenced by the historical development of nursing in Europe augmented by Nightingale principles. Swedish nurses now enjoy a high standard of university education and government support is available to make specialist education accessible. However, it is now being as affected by the nursing shortage as the clinical areas.

Nurses in both countries can benefit from cross-cultural exchanges and recent legislation signed by the Swedish and Australian governments providing work permits for people up to the age of 30 years will facilitate this, at least amongst younger nurses. Cross-cultural experiences are always valuable and Sweden, with its wonderful scenery, high standard of living and warm and friendly people is an ideal place for Australian nurses to consider visiting.

REFERENCES

- Allebeck, P., Brandt, L., Nordstrom, P. and Asgard, U. 1996. Are suicide trends among the young reversing? Age, period and cohort analyses of suicide rates in Sweden. *Acta Psychiatrica Scandinavica*, 93(1):43-48.
- Australian Institute of Health and Welfare. 1999. *Nursing Labour Force*. Australian Government Printing Service. Canberra: Australian Institute of Health and Welfare. Available from URL: www.aihw.gov.au.
- Bendure, G. 1999. *Lonely Planet: Scandinavia and Baltic Europe*. Hawthorn: Lonely Planet Publications Pty. Ltd.
- Bergstrand, M. 2000. *Health education conversations: Communicative strategies in consultations between district nurse and patient*. Unpublished dissertation. Stockholm: Stockholm University (in Swedish).
- Department of Education Sweden 1985. *Educational Act 1985:1100; Chapter 14*. Stockholm: Department of Education. (in Swedish).
- Derbring L. and Stöhlen C. 1992. *Linking nursing education with research: Vision and reality*. Doctoral dissertation, Lund University. Stockholm: Almqvist and Wiksell International (in Swedish with English summary).
- Eriksson, K. 1985. *Vårddidaktik*. Stockholm: Almqvist and Wiksell (in Swedish).
- Fenner, P. 2000. Drowning awareness. Prevention and treatment. *Australian Family Physician*, 29(11):1045-1049.
- Florence Nightingale Museum. *The Florence Nightingale story*. London: Florence Nightingale Museum. Available from URL: www.florence-nightingale.co.uk/
- Grey, L. 2001. *Two year review of aged care reforms*. Canberra: Commonwealth Department of Health and Aged Care. Available from URL: www.health.gov.au/accf/2yr_rvw/download/finalrep.pdf.
- Heyman, I. 1995. *The emergence of nursing research in Sweden. Doctoral theses written by nurses 1974-1991*. Gothenburg: Bokförlaget Daidalos (in Swedish).
- Institute of Alcohol Studies. 2000. *Drink drive limits and penalties in the European Union*. St Ives: Institute of Alcohol Studies. Available from URL: www.ias.org.uk/factsheets/drinkdriving.htm#anchor4961779.
- Jansson, A. 2000. *The nurse in primary health care with focus on child health care*. Dissertation. Lund: Lund University (in Swedish).
- Kapborg I. 1998. Nursing education in Sweden: Development from vocational training to higher level education. *Journal of Advanced Nursing*, 27:372-378.
- Kapborg, I. 1995. Evaluation of Swedish nursing education and professional practice. Doctoral dissertation. Studies in educational sciences 4. Stockholm University. Stockholm: HLS Förlag.
- Magnusson, M. 1999. *Child health services: Effectiveness and parental satisfaction*. Dissertation. Uppsala: Uppsala University (in Swedish).
- Meza, C. and Gershwin, M.E. 1997. Why is asthma becoming more of a problem? *Current Opinion in Pulmonary Medicine*, 3(1):6-9.
- Ministry of Education and Science Sweden. 1992c. *Högskolelag*. (Act of Higher Education) SFS 1992:1434. Stockholm: Ministry of Education and Science (in Swedish).
- Ministry of Justice Sweden. 1983. *The Swedish Law: The parents and children code, chapter 6, section 1*, 1983:47. Stockholm: Ministry of Justice (in Swedish).
- Ministry of Justice Sweden. 1999. *The Swedish Penal Code chapter 3, section 5 DS 1999:36* <http://justitie.regeringen.se/propositioner/mmm/ds/pdf/Penalcode.pdf> Stockholm: Ministry of Justice (in Swedish).
- National Agency for Higher Education. 2001. *Education policy*. Stockholm: National Agency for Higher Education. Available from URL: www.hsv.se.
- National Board of Health and Welfare Sweden. 1980. *Socialtjänstlagen 620 §71* Stockholm: Department of Social Welfare. (in Swedish).
- National Board of Health and Welfare Sweden. 1982a. *Health and Medical Services Act, SFS 1982:763 §5*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1982c. *SFS 1982:763 §31*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1982d. *SFS 1982:763 §18-25*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1992a. *Guidelines for advice for parents on injury prevention*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1992b. *Studies of health in child care*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1994. *Child Health Care: Child health care services in Sweden. Aims, surveillance programme and directions for the future*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1995. *Health and welfare for refugees*. Stockholm: National Board of Health and Welfare: Available from URL: www.sos.se (in Swedish).
- National Board of Health and Welfare Sweden. 1996. *Quality system in health care*. SOSFS 1996:24. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 1998a. *Yearbook of Health and Medical Care. Stockholm: National Board of Health and Welfare*: Available from URL: www.sos.se (in Swedish).
- National Board of Health and Welfare Sweden. 1998b. *Lag om yrkesverksamhet på hälso- och sjukvårdens område SFS 1998:531*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Board of Health and Welfare Sweden. 2001. *Basic medical training with the EU/EEA. National Board of Health and Welfare*. Available from URL: www.sos.se/hs/bu/eu/eng.htm.
- National Board of Health and Welfare Sweden. 1982b. *Health and Medical Services Act 1982. SFS 1982:763 §18*. Stockholm: National Board of Health and Welfare (in Swedish).
- National Health and Medical Research Council of Australia. 2001. *Report of NHMRC working party on the prevention of overweight and obesity*. Canberra: National Health and Medical Research Council of Australia.
- Nordic Medico-Statistical Committee. 2000. *Length of stay*. Copenhagen: Nordic Medico-Statistical Committee. Available from URL: www.nomnos.dk/Nomstats/nomstats.htm.
- Pitt, W.R. and Balanda, K.P. 1998. Toddler drownings in domestic swimming pools in Queensland since uniform fencing requirements. *Medical Journal of Australia*, 169(10):557-558.
- Queensland Nurses' Union. 2000. *Nursing Shortages Predominate in National Skill Shortages List*. Brisbane: Queensland Nurses' Union. Available from URL: www.qnu.org.au/nursingshortages.htm.
- Shields, L. 2000. *The delivery of family-centred care in hospitals in Iceland, Sweden and England: A report for The Winston Churchill Memorial Trust*. Canberra: The Winston Churchill Memorial Trust. Available from URL: www.churchilltrust.org.au.
- Shields, L. and Kristjansdottir, G. 2001. Nursing and health care in Iceland. *Collegian* 8(2):32-35.
- Swedish Association for the Study of Obesity. 2001. *Obesity in Sweden. Göteborg*: Swedish Association for the Study of Obesity. Available from URL: www.iotf.org/oonet/sweden.htm.
- Swedish Council on Technology Assessment in Health Care. 2001. *SBU*. Stockholm: Swedish Council on Technology Assessment in Health Care. Available from URL: www.sbu.se/sbu-site/index.html.
- Swedish Institute. 1999. General facts on Sweden. FS 99 ac NC. Stockholm: Swedish Institute. Available from URL: www.si.se/e_infoweden/653.cs?dirid=1358.
- Swedish National Tax Board. 2000. *Tax Yearbook of Sweden 2000*. Stockholm: Swedish National Tax Board. Available from URL: www.rsv.se/english/index.html (in Swedish).
- The World Bank Group. 2001. *Country data: Data profiles*. Available from URL: www.worldbank.org/data/countrydata/countrydata.html.
- Umeå University. 1997. *The history of Sweden*. Umeå: Umeå University. Available from URL: www.informatik.umu.se/sweden_info/SI/history.html.
- Vårdförbundet. 2001. Stockholm: *Vårdförbundet*. Available from URL: www.vardforbundet.se (in Swedish).
- Wilkinson, D. and Gunnell, D. 2000. Youth suicide trends in Australian metropolitan and non-metropolitan areas, 1988-1997. *Australian and New Zealand Journal of Psychiatry*, 34(5):822-8.
- World Health Organization. 2001a. *Basic health indicators*. Geneva: World Health Organization. Available from URL: www-nt.who.int/whosis/statistics/.
- World Health Organization. 2001b. *Mortality data*. Geneva: World Health Organization. Available from URL: www-nt.who.int/whosis/statistics/.
- World Health Organization. 2001c. *Immunization statistics*. Geneva: World Health Organization. Available from URL: www-nt.who.int/whosis/statistics/.
- World Health Organization. 2001d. *Health personnel*. Geneva: World Health Organization. Available from URL: www-nt.who.int/whosis/statistics/.
- World Health Organization. 2001e. *Statistical data from the World Health Report 2000*. Geneva: World Health Organization. Available from URL: www-nt.who.int/whosis/statistics/.