Chapter 10

HEALTH

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The desire to attain good health is universal. Throughout history man has always endeavoured to protect his health, at first by devising techniques and selecting special individuals to ward off 'evil spirits'. Observation and experience gradually identified ways for keeping well. Laws were developed to govern health and, as large communities developed, methods of sanitation were devised. But it was not until the 1800s with the discovery that germs caused disease, that significant advances in man's understanding of, and ability to successfully treat, illness were made.

Yet, for all the knowledge and resources now directed towards attaining good health, death, disease, injury and illness are still part of every-day life, present everywhere and touching all of us.

10.1 MORTALITY

In 1990 the deaths of 3713 resident Tasmanians were recorded. This was 23 more than the 1989 figure of 3690, and represents a crude death rate of 8.1 per 1000 mean population. Of the deaths, 2046 were males and 1667 were females, a ratio of 123 males for every 100 female deaths.

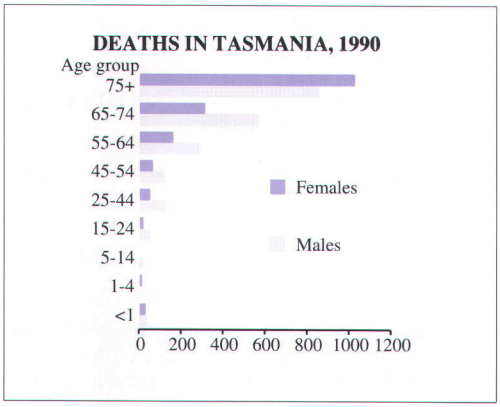
Up until age 75 male deaths outnumbered female deaths. The reversal in the 75 and over age group occurs because of the higher number of females of that age in the population. In all groups the age-specific death rate of males is higher than that of females and for most age groups the male rate is almost twice the female rate. The death rate among infants, children aged less than one year, is higher for males than for females.

Cardiac unit, Royal Hobart Hospital (installed 1991). Photo: The Mercury

10.1 DEATHS IN TASMANIA, 1990

Age group (years)	*Males*	*Females*	*Persons*
Under 1	35	28	63
1-4	4	11	15
5-14	9	8	17
15-24	48	16	64
25-44	127	48	175
45-54	119	62	181
55-64	280	159	439
65-74	572	310	882
75 and over	852	1 025	1 877
Total	2 046	1 667	3 713

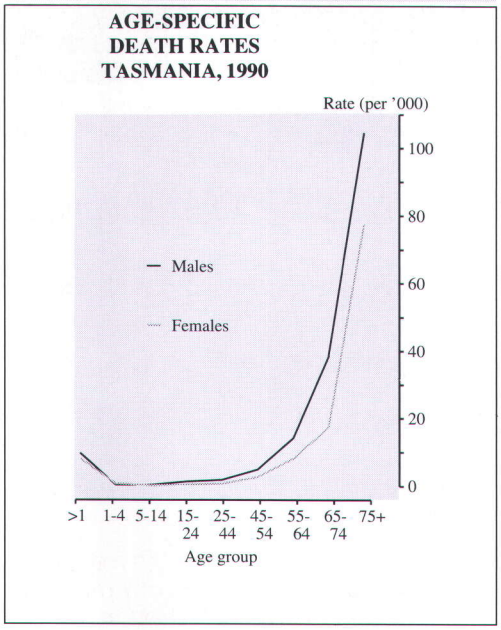
(Source: ABS Catalogue No. 3312.6).



10.2 AGE-SPECIFIC DEATH RATES, TASMANIA, 1990

Age group (years)	*Males*	*Females*
Under 1	9.67	8.18
1-4	0.28	0.82
5-14	0.25	0.23
15-24	1.33	0.45
25-44	1.81	0.69
45-54	4.93	2.66
55-64	14.21	8.10
65-74	38.65	17.57
75 and over	104.63	77.59
All ages	9.03	7.26

(Source: ABS Catalogue No. 3312.6).



10.1.1 Causes of Death

Four causes of death accounted for just over two thirds of all deaths registered in 1990. These were Ischaemic heart disease (25.4 per cent), Cancers (25.1 per cent), Cerebrovascular disease (8.5 per cent), and Accidents, poisonings and violence (6.6 per cent).

Most deaths among people aged from 1 to 44 years result from motor vehicle traffic accidents, and suicide and self-inflicted injuries. These causes account for over one third (42.6 per cent) of all male deaths, and almost one quarter (21.6 per cent) of all female deaths in that age group.

10.3 PRINCIPAL CAUSES OF DEATH, TASMANIA, 1990

Cause	*Proportion of all deaths*	*Number*	
		Males	*Females*
Ischaemic heart disease	25.4	540	402
Malignant neoplasm	25.1	545	386
Cerebrovascular diseases	8.5	133	182
Accidents, poisonings and violence	6.6	183	63

(Source: ABS Catalogue No. 3312.6).

Around the ages 35 to 40 years a change in the pattern of death takes place. In the 25 to 44 year age group diseases of the circulatory system account for the deaths of 13 per cent of males. This figure jumps to 37 per cent for males aged between 45 and 64 years.

Cancer also becomes significant. Two broad groups, malignant neoplasms of the digestive organs and peritoneum (which includes 'stomach' and 'colon' cancer), and lung cancer account for most cancer deaths. Fifteen per cent of male deaths between 1 and 44 years are due to various forms of cancer. This figure more than doubles to 38 per cent for males between 45 and 64.

While the predominant causes of death among women are similar, the pattern differs in that fewer women die from accidents, poisonings and violence, but more women than men die from cerebrovascular disease.

Diseases of the circulatory system are responsible for 13 per cent of the deaths of women in

the 25 to 44 year age group. The proportion rises to 43 per cent in the 65 to 74 year age group, then to 60 per cent for those 75 years and over. Diseases of the respiratory system account for fewer female than male deaths.

10.2 HEALTH SERVICES

(Article contributed by the Department of Health.)

In 1988-89 the Department of Health undertook a major review of its health services and organisational structures. The 'New Directions' for health were accepted in early 1989 by both major political parties and the process of change began.

The principles underlying the 'New Directions' include integrated regional structures for health service delivery and State-wide emphasis on policy and planning, coordinated through central office.

These new structures will allow:

- greater emphasis on planning and evaluation;
- a focus on the principles of primary health care and health promotion;
- increased community participation in policy, planning and service delivery;
- a move from institutional to community-based care; and
- a multi-disciplinary approach to health service delivery.

The developments during the past two years have been significant and have included:

- abolition of individual hospital boards and creation of three interim regional hospital boards (July 1990);
- establishment of a high level regionalisation task force and reference group to facilitate creation of the regions (July - November 1990);
- development and passage of the *Health (Regional Boards) Act* (passed by both Houses of Parliament in May 1991 and coming into effect in July 1991);
- appointment of Regional General Managers (February 1991);
- appointment of Regional Health Boards (July 1991); and
- appointment of District Health Forums (October 1991).

Tasmania's restructured health services will result in a move from an outdated system which emphasised institutional care to one which provides better services in areas such as health promotion, illness prevention, and public and environmental health.

It allocates responsibility for provision of services to three regional bases and leaves responsibility for policy development, resource allocation and management coordination with a smaller, streamlined central Department of Health.

Each hospital, community health centre and multi-purpose facility will complement the work and function of major centres.

10.2.1 The Minister for Health

The State Government, through the Cabinet process, has the overall responsibility for State administration and service delivery, including the health portfolio. Cabinet sets the budget framework within which the Health agency must operate.

The Minister for Health is responsible to Cabinet, and to State Parliament, for the overall management of the health portfolio.

The Minister is responsible for the Health agency and specifically for:

- the appointment of Regional Health Boards;
- the appointment of District Health Forums;
- the negotiation of Health Service Agreements with each of the Regions; and
- approval of Regional Quality Assurance Committees.

The Minister may give directions to the Board on specific matters under the *Health (Regional Boards) Act* or other relevant legislation.

10.2.2 The Regional Health Boards

The three Regional Health Boards are in the South, the North and North-West.

Each Board has seven members:

- five persons nominated by the Minister;
- a nurse; and
- a registered medical practitioner.

In addition, the Southern Board has as an ex-officio member, the Dean of the Faculty of Medicine.

The new role for the Boards will involve them stepping back from day to day management and looking at the health of the population and the factors that determine the health of that population. To a large extent administration of the health services will be left to the management, the clinicians and the other health professions.

The Regional Health Boards will take a greater interest than did the former hospital boards in the actual determinants of ill health so that they can promote nutrition, education, housing and employment.

The Boards will determine broad priorities for the provision of health services; for example, how much is to be spent on aged care as compared with hospital services, mental health, drug and alcohol services, services for the physically disabled and other health service categories.

The Boards will be funded to undertake their functions through annual *Health Service Agreements* which will outline the range, level and distribution of health services to be provided in the region, the resources to be made available to each Board and the overall policy framework in which each Board will operate.

The General Manager of each Board is responsible for the overall management and administration of the facilities, services and resources under the Board's control.

The General Manager is responsible to the Secretary, Department of Health for a number of matters.

10.2.3 District Health Forums

One of the exciting initiatives in the new framework for health planning and service delivery in Tasmania is the establishment of District Health Forums.

There will be 15 District Health Forums - four in the North-West, six in the North and five in the South. They are:

- North-West districts based around -
  King Island
  Circular Head/Burnie
  West Coast
  Ulverstone/Devonport/Latrobe

- Northern districts based around -
  Furneaux Group
  Launceston
  Deloraine/Westbury/Beaconsfield
  East Coast (Bicheno and north)
  Campbell Town/Ross/Longford
  North East

- Southern districts based around -
  Hobart
  Glenorchy
  Huon/Channel/Kingborough/Bruny Island
  Clarence/East Coast
  Southern Midlands/New Norfolk/Ouse

The Forums are designed to represent the broad range of interests and the socioeconomic and ethnic groups within the District.

They represent a Government and Agency commitment to social justice principles in creating real opportunities for community participation in the health decision-making process.

The role of District Health Forums is to ensure people have a say in the planning of their health and the health of their communities.

10.2.4 The Secretary and Central Office

The Central Office is responsible for overall State-wide policy and planning.

The Secretary is the Chief Executive of the Agency, of which the Regions are a key part. As Chief Executive and senior adviser to the Government on health matters, and the administration of the Agency, the Secretary is responsible for the public health system in Tasmania.

The Secretary is also responsible for:

- Commonwealth/State negotiations;
- high-level, inter-agency negotiations on a State level;

- industrial relations;
- maintenance of standards;
- management of the Agency budget;
- State-wide policy and planning;
- development of State-wide information systems; and
- State-wide technology planning.

10.2.5 The State Health Plan

An integral part of the Department of Health's planning process is the development of the State Health Plan. The Department published an Issues Paper in May 1990, encouraging public comment and consultation.

The input received will be combined with other Departmental information, such as morbidity data and population characteristics, to form the basis of the Plan and the planning process.

The State Health Plan will consist of a number of papers released progressively over 12 months. These will consist of Issues Papers and Background Papers.

The first Issues Paper, *The Mission and Development of the Tasmanian Health System,* was released in April 1991.

Two background papers, *The Public's View* and *The Regionalisation of the Tasmanian Health System*, were released in September 1991.

The second Issues Paper, *Goals and Targets of the Tasmanian Health System,* was released in early 1991 followed by Regional Health Plans, policy papers on specific groups such as women, children and the aged.

The third Issues Paper will outline the roles and responsibilities of Central Office.

Further papers will provide operational health plans from each of the Regional Health Boards and policy positions on areas such as aged care and women's health.

The State Health Plan will give overall policy framework for the development of our health services. The planning process is a consultative one, seeking regular input from regional management, staff and the community.

10.3 OCCUPATIONAL HEALTH AND SAFETY

The legislation covering health and safety at workplaces in Tasmania is administered by the Department of Employment, Industrial Relations and Training, and the Department of Resources and Energy via the *Industrial, Safety Health and Welfare Act* (1977) and Regulations and the *Mines Inspection Act* (1975) with its Regulations.

The Occupational Health Branch of the Department of Health provides expert advice on medical, health and industrial hygiene aspects of the workplace to government departments, private industry, unions and individuals on request. In the last year cost recovery mechanisms have been introduced and have stimulated demand for these services.

The branch has the most comprehensive collection of air sampling equipment to monitor dusts and chemicals in the workplace. Recently completed projects have included airborne monitoring of dust levels during asbestos removal, heat stress monitoring in a large laundry and steriliser gas monitoring in hospitals.

Teaching is also regarded as a priority. Regular lectures and demonstrations are carried out for the University of Tasmania, the Australian Maritime College, Further Education Colleges, the Trade Union Training Authority, Tasmanian Trades and Labour Council and technical areas.

The Branch has the most comprehensive collection of occupational health and safety references in Tasmania to back up its services and to respond to outside requests for information. Frequent use is made of computer-based literature searches and a CD-ROM-based information system.

There is such an obvious need for these services to the Tasmanian community that the Branch is poised for expansion and for changes to improve its services to its clients.

10.3.1 Employment Injuries

There were 11 542 employment injury claims reported as occurring during the 1989-90 financial year. This is an increase of 1401 on the 10 141 reported as occurring in 1988-89.

Reports of employment injuries to men increased by 12.1 per cent to 9428 from the 8409 reported in 1988-89. Reports involving women also increased: 2114 for 1989-90 compared to 1732 in the previous year.

Of the 11 542 claims reported, 359 were identified as diseases while 11 183 related to accidents. Diseases accounted for about three per cent of all reports, a figure consistent with the pattern of previous years.

In 1989-90, there were five deaths reported in Tasmania, four men and one woman. Compensation paid on these was an estimated $192 451.

In addition to the five deaths, there were a further five cases where the injured people were unable to resume work as a result of their injuries. These are described as *permanent total disability* cases.

These, and fatalities, because there is no resumption of work, are not used in the calculation of average time lost and average daily compensation figures.

There were also 31 cases where the people were able to resume work, but in a reduced capacity and with a subsequent loss of earnings, due to *permanent partial disabilities*.

10.4 EMPLOYMENT INJURIES, 1989-90

	Deaths	*Injuries*
Males	4	9 428
Females	1	2 114
Persons	5	11 542

(Source: ABS Catalogue No. 6301.6).

Temporary disabilities accounted for the remaining 11 501 reports, over 99 per cent of all claims.

While generally considered to be less serious than the other three types of disabilities, temporary disabilities can nevertheless involve a considerable amount of time off work and medical treatment before the affected people can resume normal duties.

For the year, an estimated total of $22.7 million was paid in compensation for all original claims reported to the Australian Bureau of Statistics, an increase of $3.1 million over the amount estimated in 1988-89. This gives an average cost for each non-fatal claim of $1955, and an average of $96 for each day lost for temporary and permanent partial disability cases. In 1988-89 the average cost for each day lost was $98.

The average cost for non-fatal claims involving men was $1979, with a daily cost of $105; for women it was $1846 with a daily cost of $69.

10.4 HEALTH RESEARCH

The Menzies Centre for Population Health Research was established in January 1988 after a Menzies Foundation Workshop was held in Hobart in February 1987. The Workshop recognised the need to stimulate population health promotion, based on research, and recommended the establishment of a Centre for Population Health Research within the University of Tasmania. Tasmania was seen as an ideal place to carry out the aims of such a Centre because of its relatively stable population, and its well integrated medical records.

The Centre has been established to contribute information on the causes of disease and where knowledge is sufficient, to help mount programs which will reduce the incidence of a particular disease. A further goal is to train researchers to national and international levels. Collaboration with a range of organisations such as Yale University, USA, International Diabetes Institute, Melbourne, and Kunming University, Peoples Republic of China will help facilitate this process. The Centre also provides consultancy research services to Government and industry.

Tasmania's relative isolation and small size makes it easier to organise and conduct certain types of population health research requiring the linkage of information from many different sources. Tasmania is well suited to research on the incidence, prevalence, time trends, risk factors and other aspects of more common global health problems, including coronary heart disease.

The research the Centre is now undertaking reflects this, with major projects being conducted in cardiovascular risk factor assessment and reduction, Sudden Infant Death Syndrome

MAJOR RESEARCH PROJECTS

Tasmanian Infant Health Survey

This major research project at the Menzies Centre for Population Health Research consists of both a prospective cohort study and a concurrent case control study.

The cohort study is continuing well. From 1 January 1988 to 30 June 1991 over 5000 infants (approximately 23 per cent of live births) have been eligible to join the study. The hospital response rate has been 96 per cent; the overall home response rate is 86 per cent (92 per cent for 1991).

The first finding from this study was published in the British Medical Journal *The Lancet* in May 1991. The study found that infants placed prone at one month of age are at approximately four times increased risk of Sudden Infant Death Syndrome (SIDS). The public health implications of this work has meant considerable time has been spent discussing it on a national and international level.

Scientific Consensus and Scientific Meeting

In July 1991, a national meeting was held in Canberra to assess the evidence of the link between prone position and SIDS and to formulate Australian policy on infant sleeping position. A number of key scientists presented their evidence on the prone sleeping position and SIDS.

The Menzies Centre team of Professor Terry Dwyer and Dr Anne Louise Ponsonby presented the Tasmanian prospective data. A unanimous consensus was reached that infants should not be placed prone to sleep unless there were specific medical or other reasons.

The meeting affirmed that sleeping prone is a major risk factor for SIDS. A public health program should be mounted to inform health professionals and the public of this risk. This program and its impact should be monitored, the funds being made available for this evaluation. The meeting also affirmed that research is necessary to develop an understanding of the biological mechanisms responsible for the relationship between prone sleeping position and SIDS. This research should be encouraged and supported.

The meeting affirmed that epidemiological research into SIDS is an essential basis for public health policy. Epidemiological research should be regarded as a priority and be adequately funded.

SIDS Monitoring Program

The SIDS rate in Tasmania needs to be carefully monitored in 1992 and 1993. The identification of risk factors for SIDS will lead to changes in the way infants are cared for and this should reduce the number of SIDS deaths in Tasmania. This needs to be monitored as other factors, such as climate, levels of breast feeding, infant viral illness and smoking which may affect SIDS, should also be evaluated.

Cardiovascular Disease Research

Collaborative research is being conducted between Menzies Centre and Kunming Medical College, Kunming, China. This prospective study aims to develop a diet that will prevent high blood pressure. To do this, the local Chinese cuisine is being changed to conform with the Australian guidelines on sodium and potassium intake.

If these guidelines prevent the usual rise of blood pressure with age they will have far-reaching importance worldwide, especially in China where the cost of medication is prohibitive and where stroke is now one of the leading causes of death.

The study will be conducted in two stages:

Stage 1, commenced in September 1991, consists of setting up a new 'Nutrition and Health' cafeteria for student volunteers, in which the modified Chinese diet is being trialled by 200 college students.

Stage 2 consists of the introduction of the diet to 4000 volunteers in the residential workforce of several large factories, where the workers obtain all their meals at the canteen. Another 4000 will adhere to their usual diet. Both groups will have their blood pressure taken and urinary excretion of salt monitored for three years. Dr Trevor Beard, Senior Research Fellow, is working with Professor Wang Tong-Yin to conduct the study.

(Article contributed by The Menzies Centre for Population Health Research.)

(SIDS), kidney disease among Tasmanians with diabetes mellitus, and melanoma incidence.

The Centre is also divided into study subgroups. Both the Tasmanian Cancer Registry and the Tasmanian Diabetes Registry are managed by the Centre. The Tasmanian Injury Database has been established at the Centre with the aid of the National Better Health Program and the State Government. The Menzies Clinic for Better Health conducts individual and corporate health assessments and offers a four week-long Lifestyle Management Program.

Finally, the Centre has established a Health Economics Unit, one of a few in Australia. This provides the national health community with a service which is increasingly in demand, both by pharmaceutical companies and in relation to projects requiring health-benefits cost-analysis.

The World Health Organisation selected the Menzies Centre to be a collaborating centre for programs for the prevention of primary cardiovascular disease (CVD) in the Western Pacific Region. The appointment gives the Menzies Centre the potential to influence the future direction of the treatment of CVD in this country and the Western Pacific. This prestigious agreement will give the Menzies Centre a high profile in the international scientific community.

A range of scientific staff are employed to undertake research including epidemiologists, computer programmers and biostatisticians. This gives the Centre the capacity to analyse its own statistics as well as eventually allowing the Centre to offer a service to other groups.

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