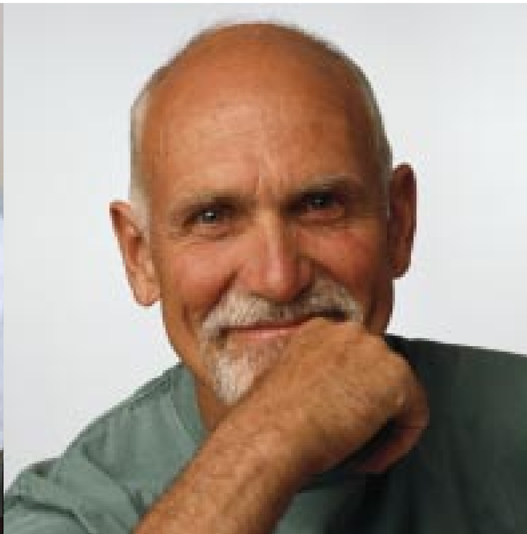
Hospital admission risk program (HARP) Mental health working party report



Victoria
The Place To Be

Hospital admission risk program (HARP)
Mental health working party report

March 2003

Published by Hospital Demand Management,
Metropolitan Health and Aged Care Services Division
Victorian Government Department of Human Services
Level 16, 555 Collins St, Melbourne Vic 3000
Fax (03) 9616 8347
Email: paul.williamson@dhs.vic.gov.au

March 2003

Also published on www.health.vic.gov.au/hdms/harp/index.htm

© Copyright State of Victoria 2003

This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act 1968.

Authorised by the Victorian Government, 555 Collins Street, Melbourne.

Printed by Big Print, 520 Collins Street, Melbourne

Preface

The Hospital Admission Risk Program (HARP) was established in 2001 as the prevention component of the Hospital Demand Management (HDM) Strategy.

The HARP Reference Group, chaired by Professor John Funder, oversees the implementation of HARP, including the allocation of funds to service providers, and advises on how hospital admissions and emergency department presentations can be prevented. HARP focuses on tertiary prevention – that is, avoiding unnecessary emergency presentations and hospital admissions and readmissions. HARP targets people who have manifest health need, often where their disease or condition is chronic or complex.

In July 2002, the HARP Reference Group formed seven working parties to undertake analysis in priority areas that provide opportunities to have a significant impact on preventing the avoidable use of hospitals.

These working parties were:

- Chronic Heart Failure
- Chronic Obstructive Pulmonary Disease
- Community-Hospital Interface
- GP-Hospital Interface
- Integrated Care for Clients with Complex Needs
- Mental Health
- Technology

This report presents the findings of the Mental Health Working Party.

The working party reports build on the information presented in the HARP Background Paper and have been produced to assist in designing projects for the 2003–04 HARP funding round.

The Department of Human Services would appreciate any comments, suggestions for further work or other feedback you may have on the contents of the working party reports. These can be forwarded to the HARP project officers, Ian Coverdale at ian.coverdale@dhs.vic.gov.au or Paul Williamson at paul.williamson@dhs.vic.gov.au and will be considered as we further develop the evidence around preventive initiatives.

Foreword

The HARP Mental Health Working Party has undertaken this project to assist in better understanding the increase in mental health presentations to emergency departments (EDs). From this work, the HARP Mental Health Working Party has identified a number of critical points of intervention for which HARP pilot or demonstration projects may prove beneficial in reducing the identified increase in demand of mental health presentations to EDs. These relate to:

- diversion from inappropriate use of the ED
- improved responsiveness to people presenting at an ED
- effective follow-up and after-care of people presenting at an ED.

A major conclusion of this project is that improved entry processes to the mental health service system that incorporate community and primary health care responses, as well as specialist public mental health services, will be of significant benefit.

To date, the entry system to specialist public mental health services has not been well funded as a dedicated service component. Area Mental Health Services have variously applied available resources to their triage/duty/intake systems resulting in an inconsistent mix of designs, responses and outcomes.

Underpinning the benefit of a responsive and timely service entry system that is suitable for access by people experiencing a mental health problem, is the need for it to be strengthened and, of critical importance, for sufficient and suitable back-up services to be available. Improving the front-end response will be of limited use if the further needs of people seeking services are insufficiently addressed.

The provision of HARP funding provides an opportunity for more appropriate service models to be developed and evaluated, for service gaps to be identified and addressed, and for efficiencies to be realised in the way funds are currently applied to the entry system to specialist public mental health services.

Professor Bruce Singh
Chair
HARP Mental Health Working Party

Acknowledgements

This report was produced by the Mental Health Working Party of the HARP Reference Group, supported by Peter Gibbs and Frank Prem of FLP Associates P/L. This working party included:

Professor Bruce Singh	University of Melbourne (Chair)
Mr Ian Patrick	Metropolitan Ambulance Service
Professor Anne-Maree Kelly	Joseph Epstein Centre for Emergency Medicine Research
Dr Peter Archer	Maroondah Hospital
Ms Liz Virtue	Melbourne Health
Dr Mukesh Haikerwal	Australian Medical Association
Mr Larry Osborne	General Practice Division Victoria
Dr Bill Pring	Royal Australian and New Zealand College of Psychiatrists
Mr John MacDonald	Doutta Galla Community Health Service
Ms Gabrielle MacTiernan	Plenty Valley Community Health Service
Ms Robyn Batten	Southern Health
Ms Margaret Goding	St Vincent's Health
A/Professor Peter Doherty	Bayside Health
Dr Tim Rolfe	Southern Health
Ms Isabell Collins	Victorian Mental Illness Awareness Council
Mr John McGrath	Carers of People with a Mental Illness Network
A/Professor Amgad Tanaghow	Office of the Chief Psychiatrist, Department of Human Services
Ms Robin Fisher	Drugs and Health Protection Services
Ms Sue Daly	Hospital Demand Management, Department of Human Services
Mr Ian Coverdale	Hospital Demand Management, Department of Human Services
Ms Jenny Smith	Mental Health Branch, Department of Human Services
Ms Phyl Halpin	Mental Health Branch, Department of Human Services

Special acknowledgement is extended to Kerry Meier and Helen Lococo for organising the carer consultations through the Carers of People with a Mental Illness Network, and to Isabell Collins of the Victorian Mental Illness Awareness Council for organising the consumer consultations.

Thanks go to Dr Dianne Clifton for her kind provision of survey information from Monash Medical Centre; to Ms Robyn Batten for giving permission to quote additional data from Southern Health; to Mr Greg Boland of the Victoria Police for his attempts at organising a consultation forum of police officers; to Mr Ian Patrick and Mr Alex Currell for making MAS data available; to Ms Donna Sebille and Mr David Henry for assisting with case study material, and to Professor Anne-Maree Kelly for assisting in identifying data related to intentional self-harm.

Contents

Preface iii

Foreword iv

Acknowledgements v

Abbreviations xi

Executive summary 1

1. Project background and context 5

1.1 Increasing demand 5

1.2 The Hospital Demand Management Strategy 5

1.3 The Hospital Admission Risk Program 6

1.4 Demand for mental health services 7

1.5 The Mental Health Working Party 9

2. Project methodology 10

2.1 Consultations 10

2.2 Data review 12

2.3 Literature review 12

2.4 Case examples 12

3. The existing mental health service delivery system 13

3.1 The framework for service delivery 13

3.2 Recent developments 14

4. Data analysis 18

4.1 VEMD 18

4.2 RAPID 26

4.3 MAS 29

4.4 Monash Medical Centre 35

4.5 Southern Health 36

5. Messages from literature and evidence 38
5.1 The nature of mental health demand 38
5.2 ED service users 38
5.3 Pathways 44
6. Service models 47
6.1 Case management 57
6.2 Arranged hospitalisation 57
6.3 Brief hospitalisation 57
6.4 Psychiatric emergency services 58
6.5 Crisis cards 59
6.6 Telephone triage 60
6.7 Consumer involvement 60
6.8 Police models 60
6.9 Crisis intervention 61
7. Recommendations 63
Appendix 1 Schedule of questions for service provider consultation 66
References 67

List of figures

1: Outline of HARP 8

2: Framework of Service Delivery – regional services 13

3: VEMD age comparison – all patients and mental health patients 1998–99 to 2001–02 20

4: VEMD discharge comparison – all patients and mental health patients 1998–99 to 2001–02 21

5: Trend of top ten mental health related VEMD diagnostic groups 1998–99 to 2001–02 22

6: Trend of aggregated mental health related VEMD diagnostic groups 1998–99 to 2001–02 23

7: Trend of top ten mental health related VEMD diagnostic groups 1998–99 to 2001–02 (intentional self-harm included) 24

8: Comparison of VEMD and RAPID diagnostic groups 28

9: Four-year series – all MAS and psychiatric cases 30

10: Four-year series – proportion of MAS psychiatric cases 30

11: Four-year series – cases in MAS psychiatric categories 31

12: Four-year series – all MAS and psychiatric patient transports 31

13: Four-year series – proportion of MAS psychiatric patient transports 32

14: Four-year series – transported patients in MAS psychiatric categories 32

15: Four-year series – all MAS patient transports and cases 33

16: Four-year series – MAS psychiatric patient transports and cases 33

17: Four-year series – MAS psychiatric patients gender 34

18: Four-year series – age distribution of MAS psychiatric patients transported 34

List of tables

1: Mental health ED presentations 1998–99 to 2001–02 19

2: Trend data related to change in mental health presentations 1998–99 to 2001–02 20

3: Proportion of intentional self-harm categories 23

4: Percentage by ED of intentional self-harm 2001–02 25

5: Referrals to specialist public mental health services from EDs (RAPID) 2000–01 to 2001–02 27

6: MAS dispatch codes for psychiatric cases 29

7: Australasian National Triage Scale 48

Abbreviations

AMHS	Area Mental Health Service
ANTS	Australasian National Triage Scale
CAT	Psychiatric Crisis Assessment and Treatment
CHS	Community Health Service
CMHS	Community Mental Health Service
ED	Emergency Department
GP	General Practitioner
HARP	Hospital Admission Risk Program
HDM	Hospital Demand Management Strategy
PDSS	Psychiatric Disability Support Services
RAPID	Redevelopment of Acute and Psychiatric Information Directions
VEMD	Victorian Emergency Minimum Dataset
VMIAC	Victorian Mental Illness Awareness Council

Executive summary

The Victorian public health system, like others in Australia and internationally, has been experiencing unprecedented and sustained increases in demand, which is placing added pressure on hospitals. Demand for emergency admissions to public hospital services in Victoria is growing consistently at 3–4% per annum. Within the Melbourne metropolitan area, hospitals with major emergency departments (EDs) have experienced growth in admissions of over 7% per annum over recent years.

Demand for specialist public mental health services in Victoria is also increasing. Over the past four years registered Area Mental Health Service (AMHS) consumers increased by about 20%; registered client contacts increased by 36%; and acute adult inpatient admissions increased by 7%. Data and observation have created a strong impression that the numbers of people with mental health problems presenting to EDs is also increasing.

As part of an integrated demand management strategy, HARP is developing preventive initiatives to reduce the demand pressures on hospitals by averting the avoidable use of EDs and inpatient services. The HARP Mental Health Working Party was established to develop an understanding of the increase in mental health presentations to EDs, and to develop strategies to reduce the number of people with mental health problems inappropriately presenting to EDs.

Through analysis of health service data and consultation with service providers, consumers of mental health services and carers of people with a mental illness, this project has confirmed the impression that demand on EDs of people with mental health problems is increasing.

Health service data indicate that mental health presentations to EDs account for around 4.2% of all presentations to Melbourne metropolitan hospitals. Over the past four years, mental health presentations to EDs have increased by over 47%, at an average of almost 12% per year. This compares to a 26% rise in presentations of people with non-mental health related primary diagnoses, which is an average increase of 6.5% per year.

Increase in demand on EDs can be understood in the context of substantial reforms in specialist public mental health service design and delivery over the past decade or so. In support of the move from institutional to community-based care for people with serious mental illness, specialist public mental health services were redesigned and a community-based focus for entry to services was developed, through Psychiatric Crisis Assessment and Treatment (CAT) services and community mental health services (CMHS). Mainstreaming of specialist public mental health services has emphasised EDs as an important point of entry for people seeking resolution of mental health problems. Recent enhancements to CAT in recognition of the need for increased suicide prevention have also increased this emphasis on EDs. Policy relating to specialist public mental health services has been implemented variably across the State, resulting in differences in accessing the system, service responsiveness and consumer outcomes.

Many additional factors are identified as contributing to the increase in mental health presentations to EDs, including general increased awareness of the burden of mental health issues, changes in practice and accessibility of general practitioners (GPs), variable accessibility to community-based alternatives to ED presentation, and the prevalence of use and abuse of drugs and alcohol in the community.

Service providers identify confusion in understanding and utilising referral pathways to specialist public mental health services, the Metropolitan Ambulance Service (MAS) identifies a limited range of alternatives to transportation to an ED, and specialist public mental health services are using the ED as a 'safe' place for conducting community-based assessments. Use of the ED as a point of system entry is becoming a default position for many people seeking service access; it is free of charge, and available 24 hours a day, seven days a week.

Data from the MAS indicate that over the past four years, requests for emergency ambulances for people categorised by the MAS as 'psychiatric' have risen by 72% compared to a growth of 22% for all other case categories. Of people subsequently transported by ambulance, the growth rate for psychiatric category patients is 59% compared to 24% for all other patient categories. The MAS has indicated that more than one half of psychiatric category cases requesting an emergency ambulance are known by the MAS to have a psychiatric history. Of psychiatric category patients transported by ambulance, direct clinical treatment is rarely required by the paramedics.

Increased presentations to ED, however, are not entirely associated with specialist public mental health service clients. The greater proportion of mental health presentations to the ED is of people with intentional self-harm, high prevalence disorders (depression and anxiety) or people with substance use disorders. Organised responses from the community health sector, general practice and substance abuse services may be appropriate for many of these presentations.

While frequent attenders to the ED with mental health problems represent only a small proportion of the total number of people presenting to the ED, they account for a disproportionate amount of presentations.

Opportunities to intervene in the pathways taken by people in using the ED arise at three important points:

- prior to arrival at the ED
- upon arrival at the ED and during the ED admission period
- upon discharge from the ED.

Critical factors required to prevent inappropriate use of the ED include:

- provision of accurate and appropriate information to people regarding their mental state and the best means for them to have mental health problems addressed
- increased community-based alternatives for addressing situational crises and low level emotional or psychological distress, other than the provision of a medical/psychiatric response

- after hours alternatives, such as counselling/support and primary health access
- increased dedicated resources applied to the triage/duty aspect of the specialist public mental health service system and greater consistency of service response across the system
- reduced system barriers for previously registered specialist public mental health service clients gaining service re-entry
- availability of alternative disposition pathways for police and ambulance officers.

Critical factors associated with the ED environment include:

- broadening the focus of triage assessment instruments for the determination of mental health priority and mental health response requirements
- reducing delays in initiation of, or access to, mental health triage/assessment following general ED triage screening
- reducing reliance on non-trained people, such as carers and friends, to contain and manage critical mental health situations
- improving capacity for consumer privacy
- improving consistency of response across services
- clarifying issues of medical clearance and subsequent or concurrent capacity to undertake mental health assessment
- reducing waiting times that relate to availability of a psychiatric inpatient unit bed and/or transportation arrangements for transfers
- reconciling differences in local mental health catchment commitments and ED need for efficient arrangement of transfer of patients to a specialist public mental health service.

Critical factors associated with discharge from the ED include:

- standardisation of follow-up requirements from the ED
- monitoring re-presentation at ED of persons referred to specialist mental health care by the ED
- increasing capacity for assurance/monitoring by the specialist public mental health service of the success of referral arrangements of patients assessed but not eligible for specialist public mental health service provision
- improving response capacity when early signs of relapse are evident
- increasing alternatives/referral options for ED patients ineligible for specialist public mental health service provision
- standardising case management approaches, continuing care and disposition planning both from the ED and from psychiatric inpatient units
- improving psychiatric bed availability and access to transport for patients to be transferred to another facility.

The findings of this project indicate that resolution of the problem of inappropriate mental health presentations to EDs is complex and cannot be addressed by a single response. Service enhancements that intervene across the pathways taken by people are all likely to have some merit. These will include interventions associated with referral mechanisms, individual consumer options and choices, alternative community-based provider capacity, activities at triage and within the ED, disposition practices and follow-up, as well as improved mental health service crisis intervention and case planning and management practices.

In considering the means to reduce inappropriate demand on EDs of mental health presentations, this project concludes that reduction will be effected by continued consistent, high quality, evidence-based implementation and monitoring of Victoria's service framework for specialist public mental health services. Beyond this continuing endeavour, five major planks of reform that are consistent with HARP are considered likely to have the greatest impact upon demand:

1. Initiatives that lead to effective mental health responses at points of service entry.
2. Initiatives aimed at collaboration between specialist public mental health services and the MAS at the point of identification of a psychiatric category case, and at the point of decision to transport a patient to the ED.
3. Initiatives that identify and assertively intervene with people with a mental health problem who use the ED on multiple occasions.
4. Initiatives that respond to people who are not eligible for specialist public mental health services.
5. Initiatives that address the needs of people presenting at ED s with primary substance abuse issues.

1. Project background and context

1.1 Increasing demand

The Victorian public health system, like others in Australia and internationally, has been experiencing unprecedented and sustained increases in demand. Factors contributing to this demand include

- the ageing population
- new treatment options through advances in medical technology
- a reduction in the availability of GPs for home visits and after hours care
- the shortfall of residential aged care beds relative to demand
- workforce shortages, particularly of nurses
- societal changes that have led to a reduction in the capacity of the informal carer network in the community.

The increasing demand has placed added pressure on hospitals with demand for medical admissions to public hospital services in Victoria (and other States) growing consistently at 3–4% per annum. The demand pressures are being particularly felt within the metropolitan public hospital sector where emergency admissions have grown at 7–8% per annum.

The cumulative effect of these pressures has exceeded the capacity of the acute public health system to respond. For example, between 1999 and 2001 there were periods when access to emergency services was limited resulting in delayed admissions for emergency patients and increased occasions of ambulance bypass. Additionally, elective surgery waiting times increased as elective surgery has been reduced to accommodate greater pressure on emergency services.

1.2 The Hospital Demand Management Strategy

In May 2001, the Victorian Government committed $582 million over a four-year period through the Hospital Demand Management (HDM) Strategy to strengthen the capacity of the health system to manage the increasing demand pressures.

The HDM Strategy focuses on the service system as a whole rather than on fragmented or single organisations. It promotes appropriate pathways for people using health care services and encourages models of care that respond to current demands for health services. Collaboration between health providers is emphasised under this new approach.

Key aspects of the HDM Strategy are:

- creating extra capacity through funding growth
- relieving pressure on hospital beds and emergency departments by diverting people to alternative options where clinically appropriate

- working with clinicians to improve patient management practices
- implementing a prevention strategy to reduce demand pressures – Hospital Admission Risk Program (HARP).

In the first year (2001–02) of the HDM Strategy there was marked improvement in key indicators used to monitor health system pressure. Occasions of ambulance bypass at HDM hospitals decreased by 56% on the previous year while the percentage of people admitted to wards within target waiting times increased from 74% to 80%. The Victorian Government is building on these successes by extending the period of the HDM Strategy by two years to June 2007. In addition, the scope of the HDM Strategy has been broadened to encompass elective demand pressures[1].

1.3 The Hospital Admission Risk Program

HARP is a major component of the HDM Strategy. It was established in November 2001 with the aim of implementing a prevention strategy to reduce the demand pressures on hospitals, by averting the avoidable use of EDs and inpatient services.

HARP will target prevention initiatives that are the most likely to be effective and deliver tangible and demonstrable outcomes. These initiatives will focus on people who have a manifest health need, often where their disease is chronic or complex. Priority will be given to high volume conditions and/or frequent users of the acute public hospital system.

Although HARP is targeting demand pressures on acute public hospitals, it spans the continuum of care. The emphasis is on better supporting and proactively managing people in their homes and within the community rather than reactively responding to acute exacerbations of their conditions. By strengthening the continuum of care through a more integrated and cooperative service system, with clearer pathways and enhanced models of care that are patient-centred, it is expected that patients will be more effectively cared for. This will occur through:

- supporting people's independence and capacity to live within the community
- clearer clinical pathways delivering better continuity of care
- increasing capacity within the health system to respond to the health needs of people
- creating greater cohesion between the public hospitals and the primary care and sub-acute sectors
- developing responsiveness in services and proactive management of health needs.

As an outcome of more effective management of patients across the continuum of care, the preventive initiatives implemented are expected to reduce the rate of growth in the demand for public hospital services for targeted conditions and groups of people.

Figure 1 provides an outline of HARP.

1 Further information on the HDM Strategy can be found at http://www.health.vic.gov.au/hdms/

HARP Reference Group

The Department established a HARP Reference Group to bring together a range of key stakeholders with an interest and expertise on hospital use and prevention to provide advice on:

- target population groups or conditions with the most potential for preventing hospitalisations
- models of care that have demonstrated efficacy
- trends in morbidity and care options
- how to evaluate programs funded under HARP
- allocation of HARP funds.

HARP working parties

In July 2002, the HARP Reference Group established a series of working parties to undertake detailed work in priority areas that provide opportunities to have significant impact on the health status of people at risk of hospitalisation. The working parties completed their work in February 2003 and have each produced a report to contribute to the evidence base around prevention initiatives. The release of the reports has been timed to inform the 2003–04 HARP funding round.

The seven working parties are:

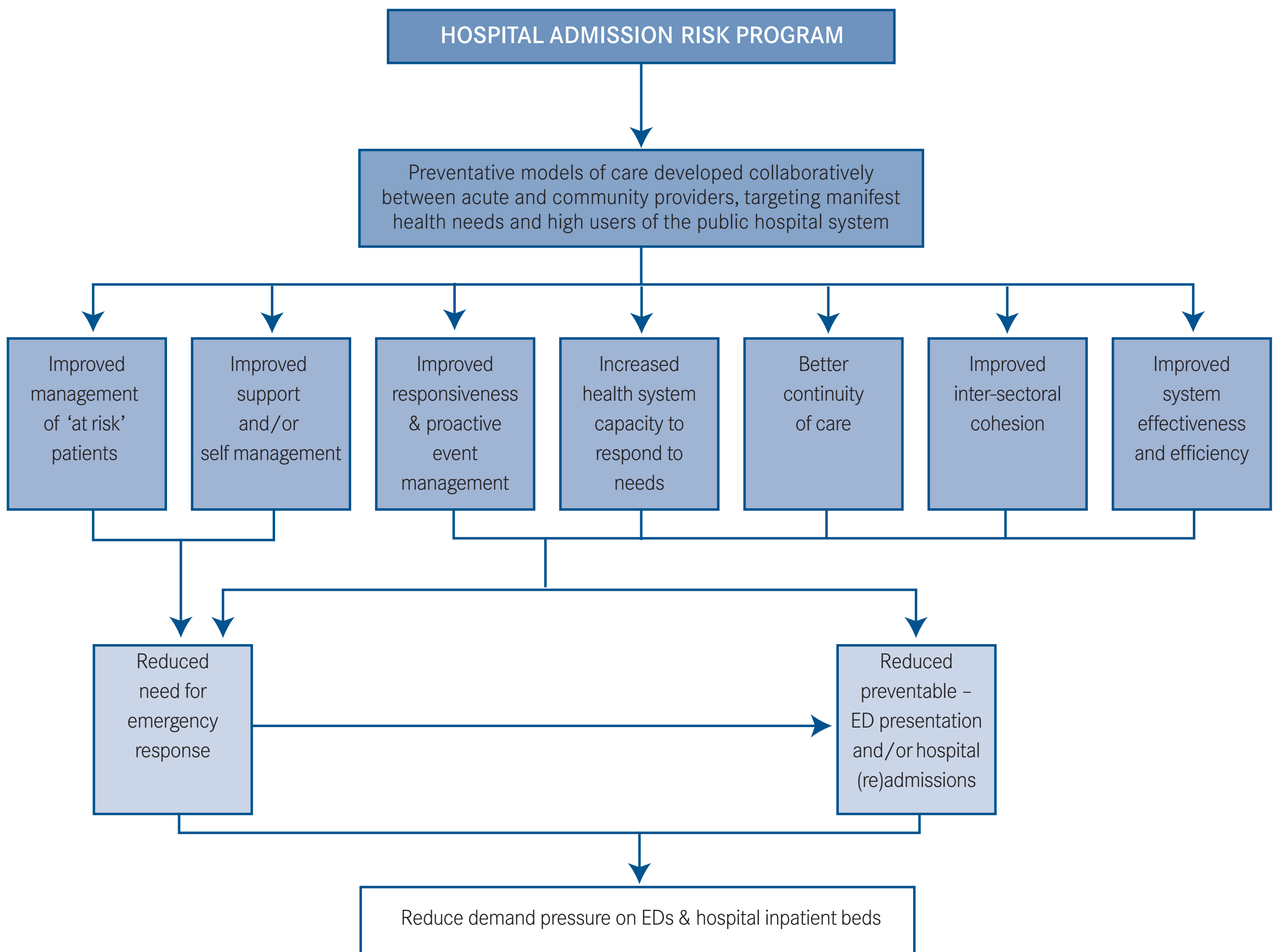
- Chronic Obstructive Pulmonary Disease
- Chronic Heart Failure
- Community-Hospital Interface
- GP-Hospital Interface
- Integrated Care for Clients with Complex Needs
- Mental Health
- Technology.

1.4 Demand for mental health services

The Victorian Emergency Minimum Dataset (VEMD) shows an increase in mental health presentations to EDs between 1999–2000 and 2001–2002. ED managers and clinical directors believe these presentations are having an impact on workloads and contributing to ambulance bypass (a two-hour time period during which ambulances are requested to bypass a specified ED when the hospital has determined that the ED has reached its capacity to treat patients safely).

Demand for specialist public mental health services in Victoria is increasing. Between 1997 and 2001, the total number of registered AMHS consumers increased by about 20%. There has also been a 36% increase in registered client contacts during the same period. Additional evidence of service demand and increases include:

Figure 1 Outline of HARP



- CAT team contacts have increased by 52% across all specialist public mental health services between 1997 and 2000
- Psychiatric Disability Support Service (PDSS) consumers increased by 39%t between 1997 and 2000
- Acute adult inpatient admissions increased by 7% between 1997 and 2000.[1]

1.5 HARP Mental Health Working Party

The HARP Mental Health Working Party is one of the seven working parties established by the HARP Reference Group. The Mental Health Working Party is chaired by Professor Bruce Singh and first met in November 2002 to confirm its project brief and establish the course of investigation from which this paper is derived.

The membership of the Mental Health Working Party is listed in the section 'Acknowledgements'.

The project brief of the Mental Health Working Party was to:

- develop an understanding of the increase in mental health presentations to EDs
- develop diversion strategies to reduce the number of people with mental health problems inappropriately presenting to EDs.

The recommendations of this paper will inform the development of funding guidelines for the 2003–04 HARP funding round and the subsequent assessment of submissions that are lodged.

2. Project methodology

The methodology involved a range of consultations with key informant groups.

2.1 Consultation

Service provider consultations

1. Invitations to consultation workshops were distributed by e-mail to all service provider agencies in Victoria in the following categories:

- Area Mental Health Services (AMHS).
- Clinical directors and managers of 14 metropolitan and five rural EDs.
- Community health centres and services.
- Metropolitan Ambulance Service.
- Rural Ambulance Victoria (RAV).
- Divisions of General Practice.

Two workshops were organised – one for metropolitan services and one for rural services. Notification of attendance at the rural workshop was received from five participants: four from AMHS and one from a community health service. Considering the lack of representation across the intended services mix, the decision was made to not continue with the rural workshop.

Approximately 60 senior representatives of services attended the metropolitan workshop on 6 December 2002. The workshop was organised into three consultation groups broadly representing the western, northern and eastern, and southern areas of metropolitan Melbourne.

2. Representatives of each of the four agencies in receipt of 2001–02 HARP funding to undertake five projects with a mental health component were interviewed along similar lines to the questions posed in the service provider workshop. The five projects are:

- Melbourne Health – increase capacity in the ED by addressing the discharge block currently affecting acute psychiatric inpatient beds by providing step-down accommodation and clinical supervision for mental health inpatients.
- Melbourne Health – provide more appropriate care to people with complex psychosocial needs who present to EDs, often associated with mental health and/or alcohol and drug problems, homelessness, social isolation and acute or chronic medical problems.
- Peninsula Health – improve the health and welfare outcomes of people with drug and alcohol and mental health issues by providing support in the acute environment and improving access to community-based treatment services.
- Plenty Valley Community Health Service – develop a coordinated system of care for adolescents and young adults who are experiencing mental health problems, self-harming behaviour or are abusing drugs and alcohol.

- St Vincent's Health – provide a flexible response between the ED, inpatient and outpatient services and community agencies to assess the complex needs of patients who self-harm, have a history of drug and alcohol problems, homelessness and/or mental health conditions that are not within the scope of specialist mental health services.[2]

3. The Alfred Hospital CAT Manager and the acting ED Nurse Manager were consulted to obtain an overview of the operation and interface arrangements between mental health triage, CAT and the ED.

4. At the first meeting of the Mental Health Working Party, members in turn expressed their major issues on the topics under consideration in this project and these were recorded. Similarly at the second meeting, and following presentation of the major themes arising from the consultations to date, members made further contribution to the discussion that endorsed and clarified the major themes from their perspectives.

Consumer consultations

The Victorian Mental Illness Awareness Council (VMIAC) assisted the project consultants to organise a consultation forum with consumers attending VMIAC's monthly statewide meeting on 12 December 2002. Approximately 20 consumers participated in the forum. The consultants guided the discussion to cover the following questions:

a) What is your experience of presenting to an ED?

b) Which pathways have you taken to and from the ED?

c) Which ED admissions would you consider avoidable and why?

In addition to the consultation forum, VMIAC personnel undertook to pose to each of their regular consumer meetings across Victoria during the project period the single question, 'Why are you choosing to attend the ED instead of using psychiatric triage?'. Seven consumer groups comprising 82 consumers contributed to this discussion. The major responses were recorded and made available to the Project consultants.

Carer consultations

Two carer forums were organised for facilitation by the Project consultants by the Carers of People with a Mental Illness Network. One forum took place in Caulfield on 9 December 2002 for carers from the eastern and southern areas; the other was conducted in Whittlesea on 11 December 2002 for carers from the northern and western areas. Nine people attended each of the forums. The questions for the forums were similar to those used with consumers and adapted for relevance to carers.

2.2 Data review

The project consultants extracted information from the VEMD, the Redevelopment of Acute and Psychiatric Information Directions (RAPID) dataset and the MAS dataset.

In addition, data reports were made available from the MAS, Monash Medical Centre Emergency Psychiatric Services, and Southern Health Emergency Departments (Clayton and Dandenong).

2.3 Literature review

Initially a literature review was sought by the Mental Health Working Party of alternative response models to EDs for people presenting with a mental health crises and problems, and of mental health crisis prevention. The first meeting of the Mental Health Working Party elaborated on the scope of the project to include increased understanding of the broad spectrum of activity associated with ED presentations of people with mental health problems. The project consultants therefore undertook a scoping review of the literature covering antecedents, decisions, pathways, capacity for alternative actions, ED response, action decisions, disposition and consequences associated with ED presentations.

A search of the literature was restricted to journal articles published in English during the past decade. Seven hundred and sixty one (761) articles were initially identified as germane to the project; 165 articles were retrievable within the limitations of this project; and 89 were subsequently found to be of some relevance to the project.

2.4 Case examples

Case examples that could illustrate the issues under consideration were recorded during the consultations and were also sought from specific informants to the project.

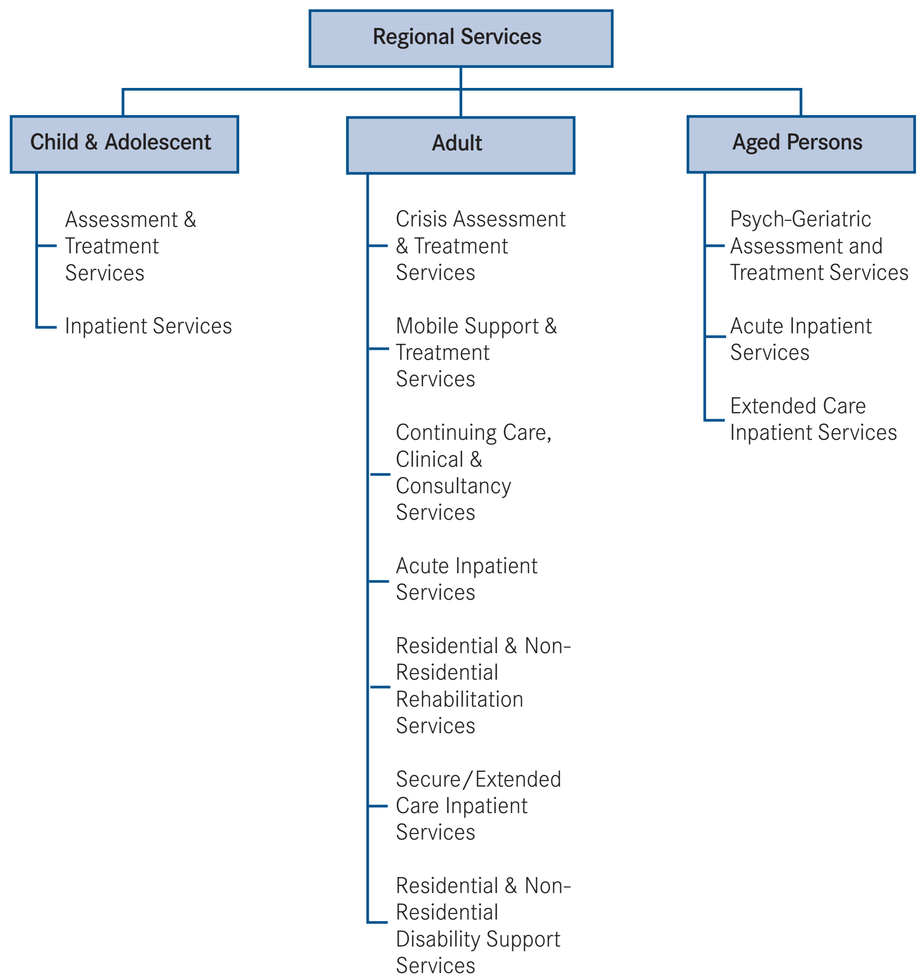
3. The existing mental health service delivery system

3.1 The framework for service delivery

The system of specialist public mental health services in Victoria has, to a large extent, been standardised over the past decade through the introduction from 1994 of Victoria's *Framework for Service Delivery*[3] and subsequent developmental enhancements, including the recently released *New Directions for Victoria's Mental Health Services*[4]. These initiatives have been informed by the National Mental Health Strategy (1992) and the First and Second National Mental Health Plans.

There is an expectation upon AMHSs to provide a range of services in accord with Victoria's *Framework for Service Delivery* and with practice and quality guidelines developed since its inception. The framework for regional level services is reproduced in Figure 2. Statewide services are not included.

Figure 2: Framework for Service Delivery – regional services



Specialist public mental health services subscribe to a number of quality mechanisms, not least periodic clinical guidelines and operational circulars provided through the Office of the Chief Psychiatrist and the Mental Health Branch, and the *National Standards for Mental Health Services*[5]. These quality mechanisms inform expectations of specialist public mental health services, including their association with EDs and with people with mental health problems seeking access to services through this means.

3.2 Recent developments

This section identifies recent developments of relevance to the issues being considered by the Mental Health Working Party.

Recent history

The recent history of Victoria's mental health system is an important influence on change in demand for ED services by people with mental health problems. Prior to the move from institutional to community-based care for people with serious mental illness, a major entry point to the specialist public mental health system was through the duty work office attached to each mental health facility. People with known or suspected mental illnesses presented or were taken by carers, friends, ambulance or police to these facilities where duty/intake decisions were made. Relocation of psychiatric acute beds to general hospitals and the general thrust of mainstreaming of specialist public mental health services altered this pathway and was influential, by association, in placing the ED as an important point of entry for people seeking resolution of mental health problems.

CAT services

Psychiatric Crisis Assessment and Treatment (CAT) services were established to provide 24-hour community assessment and treatment for people with a mental health problem who may otherwise require admission to a psychiatric hospital. They also act as the 'gatekeeper' to admissions to psychiatric inpatient units in the context of increasing focus on community-based service provision. Informants to this project suggest that the role of CAT has altered over time to be more inclusive of people in crisis for whom admission to a psychiatric hospital is unlikely, and that this situation has diverted CAT services from their central task while increasing their overall workload.

Enhanced CAT

In 1997, the Victorian Suicide Prevention Taskforce[6] highlighted the need to improve the response of services to people at risk of suicide. In the following year, the Mental Health Branch distributed $8.1 million to enhance existing services, particularly CAT, to ensure a 24-hour, seven-day a week response to all people presenting as suicidal or with intentional self-harm. These funds were to provide prompt assessment in EDs of public hospitals and in the community. Such

assessment was to include all presentations of suicide or intentional self-harm, and people who were intoxicated or otherwise affected by substance use. One effect of this 'enhanced CAT' initiative was to extend the eligibility for CAT assessment beyond presentations of people with a strictly defined mental illness.

While the initiative has been mostly greeted in a positive manner, concerns have been expressed within service provider consultations regarding the outcomes of this initiative. AMHS appear to have variably implemented the initiative in accord with the key service requirements outlined by the Mental Health Branch, CAT services now have an increased mandate for which they are reported by some service providers to be insufficiently resourced, and the focus of the initiative on the ED has increased the profile of the ED as a central point of service access.

Primary mental health

Throughout 2001 and 2002, primary mental health and early intervention teams were established in each AMHS aimed at assisting the interface between primary health services and specialist public mental health services. The focus is on people with high prevalence mental disorders across all age groups and younger people with emerging mental illness. There is also an emphasis on working closely with GPs and community health services. It is anticipated that the teams will have a positive effect on access by primary health to specialist public mental health services where this is required, and will help to enhance the primary care sector's capacity to treat and manage mental health problems. The initiative may have a positive impact on ED demand over time.

Improving access to mental health beds

During 2002–2003 financial year, 29 additional acute mental health beds are being funded to help ease the pressure on existing inpatient beds.

Further pressure on inpatient beds will be eased through a sub-acute care model that is to be piloted in specialist public mental health services. It will provide a 'step-up' and 'step-down' function between community care and inpatient treatment. The sub-acute pilot services will be targeted to clients experiencing a significant mental health crisis or illness relapse and clients in transition between hospital and their ongoing living arrangements. It is anticipated that the development of these services will assist in averting acute inpatient admission and enabling earlier discharge from inpatient units. Sub-acute mental health services will provide a combination of accommodation, active specialist mental health treatment, supervision/monitoring, psychosocial support and practical assistance, and group activities. Service design is anticipated to include collaboration between AMHS providers (particularly CAT services) as clinical treatment providers, and PDSS/accommodation provider agencies as providers of accommodation and other support services. The expected length of stay for clients is up to two weeks.

General systemic changes

Systemic changes over the last decade have had a mixed effect; some have assisted and some have complicated EDs responding to people with mental health problems. Among these are:

- increased awareness in the community and among generic service providers of mental health and mental illness and, in particular, the burden of disease associated with depression and anxiety
- increased awareness of suicide and suicidal behaviour
- police procedures, based on current requirements of section 10 of the *Mental Health Act 1986*, requiring a medical opinion be sought where there is a belief that offending or aberrant behaviour may be related to mental ill health
- changes in practice and accessibility of GPs, including reduced hours, reduced bulk billing, shortages in some areas, and increased concern regarding medical liability
- variable accessibility to community-based alternatives to ED presentation
- the prevalence of use and abuse of drugs and alcohol in the community and among people with a mental illness, and its capacity to mimic or exacerbate mental illness.

Specialist public mental health triage/duty/intake systems

Each of the 21 adult AMHS has a triage/duty/intake service that provides a screening assessment to determine the most appropriate path of action. Where the provision of further specialist public mental health services is considered to be appropriate by the screening clinician, a detailed intake assessment is undertaken; commonly by a CAT service or by a specific intake worker.

Variability of triage/duty/intake systems across the State was identified in a recent survey undertaken by the Office of the Chief Psychiatrist.[7] AMHS triage/duty/intake systems tend to be provided during normal business hours either by a dedicated worker or as a component of CAT activity. AMHS extend this service during evening hours either as a continuum of usual triage/duty/intake or by the CAT directly adopting this responsibility. Business and after hours services tend to be located either in the CMHS, independently or, rarely, directly in the ED. Overnight triage /duty/intake is usually managed directly through CAT, by 24-hour dedicated triage, or by the local psychiatric inpatient unit. Approximately 50% of AMHS considered their triage/duty/intake systems to work well.

According to the Victorian Auditor General, based upon a random sample of duty assessment forms at six AMHS:

- Forty per cent of the total sample of 935 referrals contacted the duty worker for assistance between 9 am and 5 pm, 26% made initial contact between 5 pm and midnight, and 8% contacted services between midnight and 9 am. Time of initial contact was not recorded in 26% of cases. Seventy-two per cent of all duty contacts with the AMHS occurred via telephone, and 28% occurred face-to-face.

- Forty-three per cent of people accessing services were aged between 16 and 34 years, 33% were between 35 and 55 years, and 24% were between 56 and 64 years.
- Referrals to the AMHS came from many sources, however, the most frequent (61%) were referrals by the consumer or their family. Nineteen per cent came from the hospital ED, 18% came from GPs, and 2% from ‘other community sources’, including the police and ambulance.
- Forty per cent of people accessing services were currently registered AMHS consumers, 14% had previously been registered and 21% were new referrals. Due to omissions in AMHS documentation, the remaining 25% were of unknown status.[8]

4. Data analysis

This section presents and analyses data from the VEMD, the RAPID dataset and the MAS dataset. Data provided by Southern Health in relation to studies they have carried out is also presented.

4.1 VEMD

The VEMD records around 97% of all Victorian ED presentations. Data from all hospitals that submit to the VEMD were analysed for the four financial years 1998–99 to 2001–02. Data for 1998–99 are not complete for many hospitals and are less reliable than for subsequent years.

Mental health presentations were selected by using ICD-10 codes beginning with F (Mental and Behavioural Conditions) plus Z915 (Personal History of Self-Harm). Only the primary diagnosis was used to sort the presentations.

Proportion of presentations

For the 2001–02 financial year, VEMD data indicate that presentations with a mental health related primary diagnosis represented 3.2% of all presentations to EDs in metropolitan Melbourne, and 1.9% in regional Victoria.

Trends in presentations

Presentations of people with mental health related primary diagnoses to Victoria's EDs increased overall from 16,591 in 1998–99 to 24,407 in 2001–02, a rise of 47% compared to a 26% rise in presentations of people with non-mental health related primary diagnoses. The range of increase in mental health related primary diagnoses is evidenced across the four years by a rise at Monash Medical Centre of 162% and a decrease at the Mercy Hospital East Melbourne of 31%. Major differences between hospitals may be explained by structural and functional changes over a four-year period resulting in alterations in patient movement. Comparison between the narrower two-year period 2000–01 and 2001–02, demonstrates a general increase in mental health related primary diagnoses presentations of 12.6% with a range of 814% increase at Sunshine Hospital (resulting from the opening of a new ED at that site in August 2001) and a decrease of 24% at Williamstown Hospital, as indicated in Table 1.

Table 1: Mental health ED presentations 1998–99 to 2001–02

Hospital	98–99	99–00	00–01	01–02	% change for 4 years	% change 2000–01 to 2001–02
Sunshine	81	85	96	878	984.0	814.6
Rosebud			133	206	N/A	54.9
Bendigo	294	264	324	479	62.9	47.8
Geelong	842	937	837	1,127	33.8	34.6
Mercy Werribee	497	526	628	795	60.0	26.6
Shepparton	296	343	400	500	68.9	25.0
Northern	405	755	787	953	135.3	21.1
Ballarat Base	366	432	464	545	48.9	17.5
Frankston	722	1,063	1,140	1,329	84.1	16.6
Maroondah	624	1,036	1,378	1,604	157.1	16.4
Wangaratta	303	304	239	276	-8.9	15.5
ARMC Austin	876	993	950	1,073	22.5	12.9
RMH	1,825	1,722	1,763	1,965	7.7	11.5
RCH	141	292	281	313	122.0	11.4
Angliss	300	348	359	399	33.0	11.1
Royal Women's		42	66	72	N/A	9.1
MMC Clayton	521	1,208	1,268	1,367	162.4	7.8
Box Hill	736	920	1,049	1,115	51.5	6.3
Alfred	1,787	2,244	1,914	2,028	13.5	6.0
Latrobe Regional	548	439	432	452	-17.5	4.6
St Vincent's	1,774	2,223	2,375	2,476	39.6	4.3
Dandenong	1,056	1,306	1,505	1,558	47.5	3.5
Mildura	617	835	758	750	21.6	-1.1
Mercy E Melb	16	10	12	11	-31.3	-8.3
Horsham	266	352	360	325	22.2	-9.7
Echuca	145	207	253	220	51.7	-13.0
Western	1,140	1,026	1,258	1,072	-6.0	-14.8
Warrnambool	296	420	468	386	30.4	-17.5
Williamstown	117	131	175	133	13.7	-24.0

Trend analysis indicates that the growth in presentations to all EDs of patients with mental health related diagnoses has not been consistent across the four years, as indicated in Table 2. The increase in these presentations was marked in the 1998–999 to 1999–2000 period, increased slightly in the following 12-month period, and increased more markedly in the final 12-month period. Introduction of the enhanced CAT initiative may be a factor contributing to this initial rise.

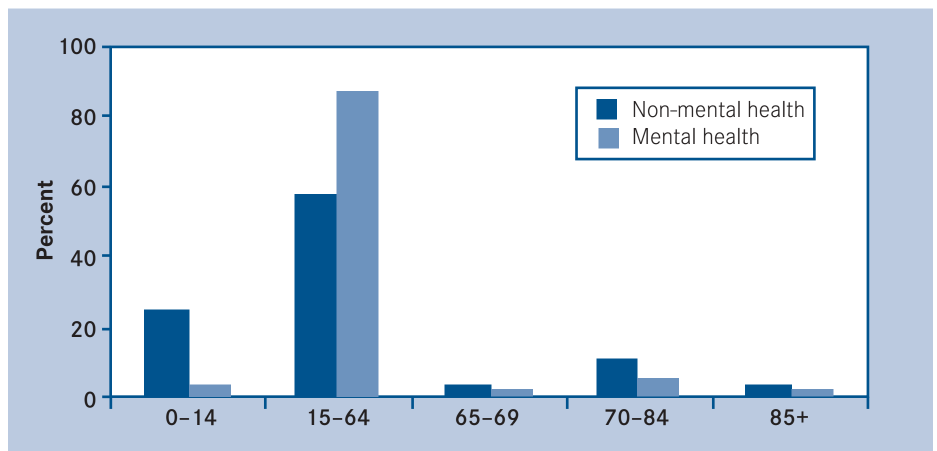
Table 2: Trend data related to change in mental health presentations to all EDs 1998–99 to 2001–02

	98–99 to 99–00	99–00 to 00–01	00–01 to 01–02
Metro	26.2	7.6	12.9
Regional	14.1	0.0	11.6
State	23.3	5.9	12.6

Age

While the proportional representation of age groups has not altered significantly across the four years, comparison of the age distribution of people presenting to ED with mental health related primary diagnoses and those with non-mental health related primary diagnoses as an average across the period indicates marked differences (Figure 3). Relatively few people under the age of 15 years or over the age of 64 years present with a mental health problem. However, the known prevalence of intentional self-harming behaviours among younger people may not be registered as such among primary diagnoses related to VEMD. Further discussion on the impact of intentional self-harm is provided below.

Figure 3: VEMD age comparison – all patients and mental health patients 1998–99 to 2001–02



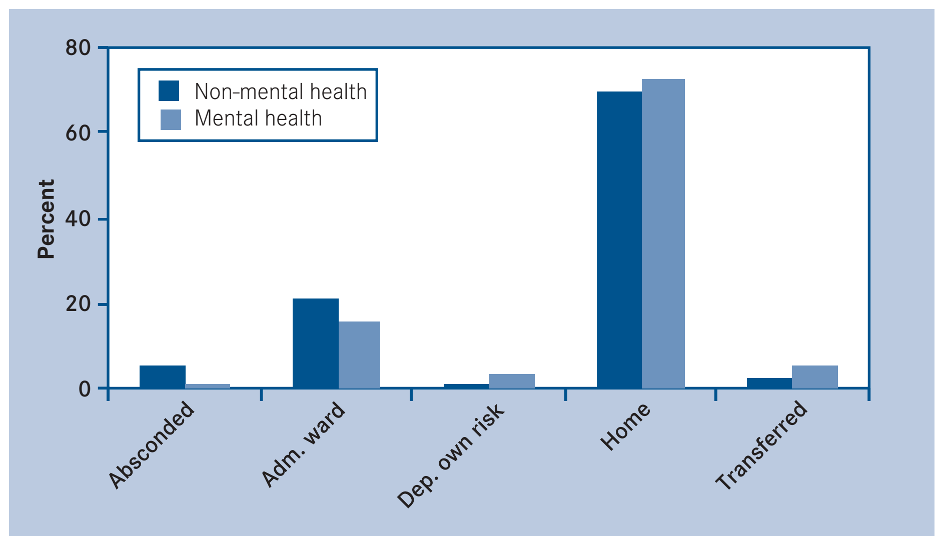
Discharge

Discharge destinations from the ED have not altered significantly across the four years. Averaging across the four-year period (Figure 4) demonstrates that people with mental health related diagnoses are:

- less likely than those with non-mental health related diagnoses to be admitted to an inpatient unit from the ED
- more likely to depart from the ED at their own risk after commencement of treatment
- more likely to be discharged home
- more likely to be transferred to another hospital.

Recording of diagnosis is not compulsory for patients who leave before being seen; this accounts for the low percentage of patients with discharge destination 'absconded'.

Figure 4: VEMD discharge comparison – all patients and mental health patients 1998–99 to 2001–02



Mental health related diagnostic groups

A review of the ten most prevalent mental health related diagnostic groups for the four-year period indicates no significant change in trend (Figure 5). The order of the diagnostic groups is reasonably consistent for each of the four years. 'Mental disorders not elsewhere specified' have a reduced prominence in the most recent three years and 'Acute and transient psychotic disorders' have an increased prominence. Anxiety, depression and alcohol related conditions represent the majority of diagnoses.

Grouping of the mental health related diagnoses into 'like' types provides a further picture of trends across the four years (Figure 6). Alcohol and drug related diagnoses have declined over the period, however, this aggregate group continues to comprise some 20–25% of all mental health diagnoses. Schizophrenia and acute psychosis and mood disorder diagnoses are on the increase.

Figure 5: Trend of top ten mental health related VEMD diagnostic groups 1998–99 to 2001–02

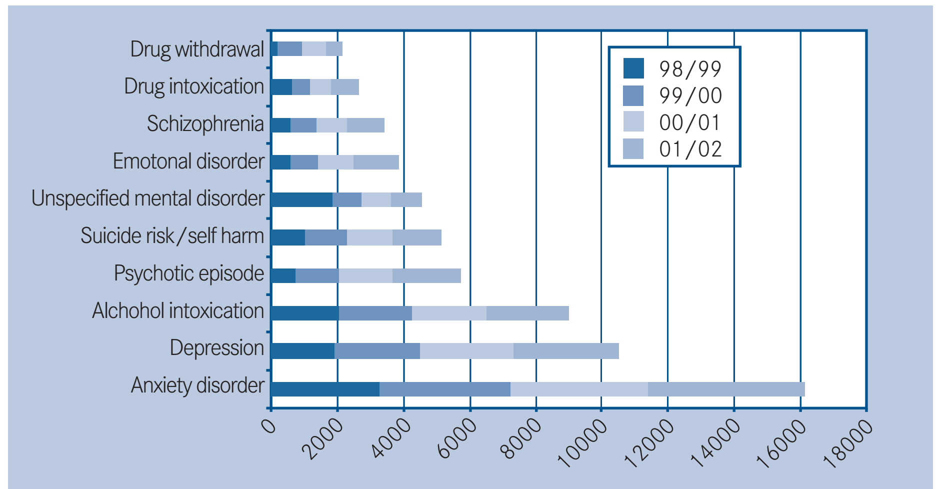
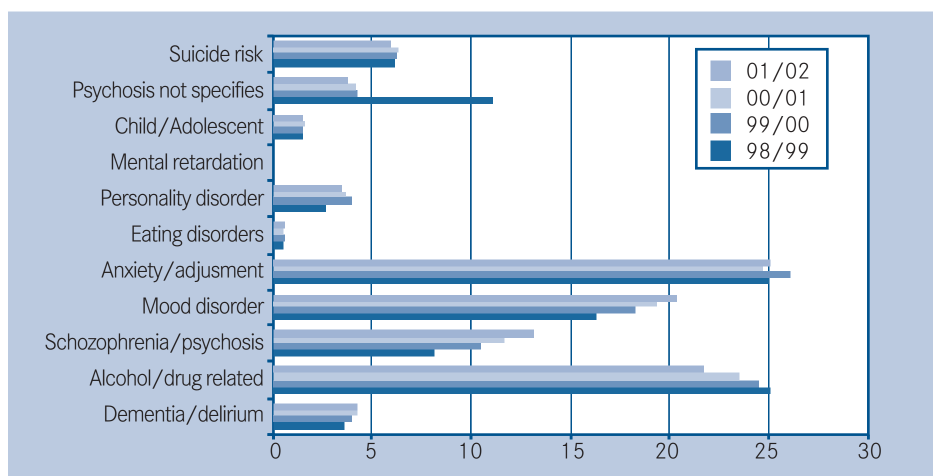


Figure 6: Trend of aggregated mental health related VEMD diagnostic groups 1998–99 to 2001–02



Effect of intentional self-harm

While VEMD provides for recording of self-harm as a primary diagnosis using code Z915, self-harm is usually considered as a secondary classification to the primary diagnosis, e.g. laceration, and, therefore, using Z915 alone underestimates the true extent of intentional self-harm presentations.

VEMD also provides for coding of 'human intent' associated with the presenting condition at an ED. Further analysis of diagnosis groups that are not a mental health diagnosis and where the 'human intent' field is coded as 'intentional self-harm' identifies around 30% of presentations in addition to those with a mental health related primary diagnoses. If intentional self-harm is included as a mental health related category then the proportion of mental health presentations to EDs is calculated for the 2001–02 financial year as around 4.2% rather than 3.2% for Melbourne metropolitan hospitals and as around 2.5% rather than 1.9% for regional hospitals.

Intentional self-harm can be categorised into three broad types as indicated in (Table 3). The proportional representation of each category has been consistent for the past three years with intentional self-harm related to alcohol, drug or other substances accounting for some 70% of coding. The relative proportions of this category directly attributable to drug overdose associated with substance abuse and other drug overdose is not known.

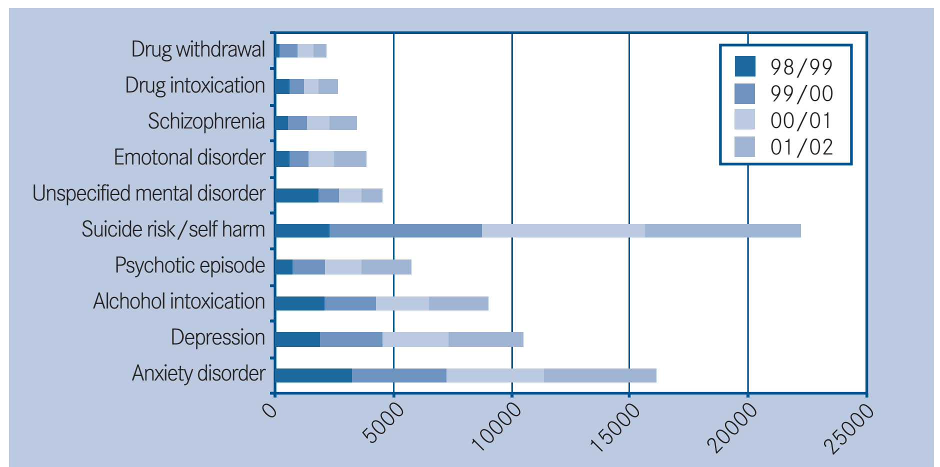
Incorporation of intentional self-harm as a mental health related category increased the overall State mental health presentations by 14% in 1998–99 and by 31% in the following year. Records for the subsequent two years show a more consistent pattern; 32% increase in 2000–01 and 27% increase in 2001–02. The relative contribution to intentional self-harm of specific age groups is not known.

Table 3: Proportion of intentional self-harm categories

	98/99	%	99/00	%	00/01	%	01/02	%
Alcohol/drug/substance	1043	45%	4712	73%	4878	71%	4601	70%
Injury/electrocution / drowning/trauma	1196	51%	1712	27%	1994	29%	1966	30%
Other	91	4%	15	0%	3	0%	11	0%
Total	2330	100%	6439	100%	6875	100%	6578	100%
% contribution to increase in mental health presentation		14%		31%		32%		27%

The inclusion of intentional self-harm within calculations of primary diagnosis has a significant effect upon the top-ten mental health related diagnoses. Suicide risk/intentional self-harm becomes by far the most prominent diagnostic category.

Figure 7: Trend of top ten mental health related VEMD diagnostic groups 1998–99 to 2001–02 (intentional self-harm included)



The incidence of recorded intentional self-harm is not consistent across EDs. Table 4 shows the percentage of recorded intentional self-harm by ED and the percentage of mental health related primary diagnoses for the 2001–02 financial year. The Northern Hospital recorded an additional 48% of presentations with a non-mental health primary diagnosis that incorporated intentional self-harm; Williamstown recorded 11%. Note is made of the large number of regional hospitals recording high rates of intentional self-harm relative to their ranking for proportional mental health presentations.

Table 4: Percentage by ED of intentional self-harm 2001–02

Hospital	% Mental health presentations 2001–02	% Intentional self-harm 2001–02
Northern	2.30%	48%
Bendigo	1.60%	44%
Frankston	3.40%	42%
Angliss	1.20%	41%
Box Hill	3.40%	40%
ARMC Austin	3.10%	38%
Wangaratta	1.70%	37%
Latrobe Regional	1.70%	34%
Western	3.60%	32%
MMC Clayton	2.90%	32%
Sunshine	2.00%	31%
Geelong	3.10%	31%
Dandenong	4.00%	28%
Warrnambool	2.00%	24%
RMH	4.20%	23%
Mercy Werribee	2.80%	21%
Horsham	2.40%	21%
Ballarat Base	1.70%	19%
Maroondah	5.30%	19%
Echuca	1.80%	19%
St Vincent's	8.00%	19%
Mercy E Melb	0.10%	18%
Shepparton	1.90%	17%
RCH	0.60%	16%
Alfred	5.70%	14%
Mildura	2.90%	13%
Williamstown	0.70%	11%
Rosebud		N/A
Royal Women's		N/A

A report on mental health ED presentations derived from the VEMD dataset for the year 2000–01[9] indicates that:

- Gender distribution of mental health presentations is similar to that of non-mental health presentations with slightly more males than females presenting.
- The clear age distribution peak of 15 to 54 years of mental health related presentations is quite different to that for patients with a non-mental health diagnosis.
- There is a clear increase in the number of mental health presentations on weekend days (as is also the case with injury and asthma presentations). The report suggests an explanation might be an increased incidence of presentations related to substance abuse.
- People who present with a mental health related condition generally arrive in EDs later in the day than other cases. The highest rate of presentation occurs in the evening between 5 pm and 1 am.
- Mental health related presentations are under-represented in triage category one and two presentations.
- Mental health related presentations have a distribution of lengths of stay in the ED that is identical to that of non-mental health presentations. Most lengths of stay are less than 12 hours with a mean length of stay of five hour 20 minutes and a median stay of three hours 39 minutes. Patients awaiting transfer to another facility appear to wait longer in the ED than those patients not transferred (including those who are discharged). However, the number of people presenting with a mental health related primary diagnosis who spend more than 12 hours in an ED prior to transfer to another facility (18%) is small in comparison to the number waiting 12 hours or more that are not transferred. Less than one patient per fortnight with a mental health related primary diagnosis waits 12 hours or more prior to transfer to another facility.

4.2 RAPID

Redevelopment of Acute and Psychiatric Information Directions (RAPID) records all service activity of specialist public mental health services in Victoria. This is a new system of data collection, the quality of which has not been tested in all areas. The integrity of the data used in this project, however, is expected to be sufficient.

Data for the two financial years 2000–2001 and 2001–2002 from RAPID was analysed by identifying cases where the source of referral to specialist public mental health services was an ED. Table 5 shows the number, gender and age range of those referred from the ED to a specialist public mental health service. Of note is the substantial increase between the two years (59.8%) in the number of referrals from the ED to specialist public mental health services.

Table 5: Referrals to specialist public mental health services from EDs (RAPID) 2000–01 – 2001–02

	2000–2001	%	2001–2002	%
Total number of referrals	2,717		4,343	
Number of referrals to:				
Child and Adolescent Services	149	5.48	178	4.10
Adult Services	2,504	92.16	4,034	92.89
Aged Persons Services	64	2.36	131	3.02
Gender				
Male	1,271	46.8	2,016	46.4
Female	1,446	53.2	2,327	53.6
Age				
<16	33	1.2	39	0.9
16–64	2557	94.1	4106	94.5
>65	104	3.8	171	3.9
Not Recorded	23	0.8	27	0.6
Diagnosis				
Not recorded	175	6.4	405	9.3
Adult Personality Disorder	172	6.3	238	5.5
Associated with Physiological Disturbance	29	1.1	38	0.9
Behavioural/Emotional Disorders (child-adolescence)	20	0.7	20	0.5
Mental Retardation	5	0.2	6	0.1
Mood – Affective Disorder	535	19.7	900	20.7
Neurotic Stress-Related Disorder	467	17.2	727	16.7
Non Mental and Behavioural Disorders*	582	21.4	939	21.6
Organic Disorder	22	0.8	43	1.0
Out of Date ICD 9 Code	34	1.3	61	1.4
Psychoactive Substance Abuse	220	8.1	311	7.2
Psychological Development	3	0.1	3	0.1
Schizophrenia	444	16.3	636	14.6
Unavailable	2	0.1	4	0.1
Unspecified Mental Disorder	7	0.3	12	0.3

* Conditions not attracting a primary diagnosis of mental and behavioural disorder.

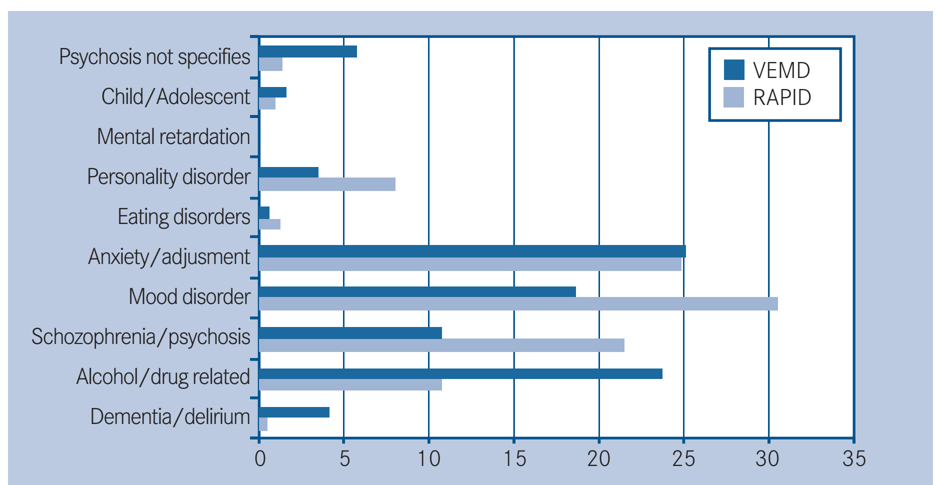
RAPID data provided to this project included substantial non-identifying patient information related to each event of a person referred to specialist public mental health services from an ED during the two financial years 2000–2001 and 2001–2002. Regrettably, the data could not be interrogated sufficiently for this project, as the non-identifying patient information generated was related to any patient activity for the year, not only to referral from the ED.

To the extent that comparison of RAPID and VEMD data is valid, the data shows that 21,672 ED presentations in 2000–01 and 24,407 in 2001–2002 were provided a primary mental health related diagnosis. For the same two periods, 2,717 people and 4,343 people respectively were referred from ED to a specialist public mental health service. The project consultants note the change in referral pattern but are unable to provide a useful explanation.

Comparison of RAPID and VEMD primary diagnosis data demonstrates that referrals to specialist public mental health services represent a different mix of diagnostic groups than those presenting to an ED.

Figure 8 demonstrates the differences between VEMD mental health related diagnoses and those of people subsequently referred to specialist public mental health services. Specialist public mental health services appear from this data more likely to provide a primary diagnosis of personality disorder, mood disorder, and schizophrenia/acute psychosis than clinicians diagnosing for VEMD, and less likely to provide a primary diagnosis related to alcohol or drug use. Caution is required with this data, as the primary diagnosis provided in the RAPID data may not be directly related to the event of presentation to the ED. Diagnostic decisions and subsequent decisions to refer a person for a mental health assessment have an impact on pathways taken and, in turn, may affect outcomes for people as well as outcomes for ED demand.

Figure 8: Comparison of VEMD and RAPID diagnostic groups



4.3 MAS

The MAS records psychiatric cases resulting from a request for an emergency ambulance via a '000' call under nine categories as indicated in Table 6. Cases are categorised using protocols designed to identify the presenting problem by telephone assessment and do not represent a diagnosis.

Table 6: MAS dispatch codes for psychiatric cases

Code	Event type	Event description
25A1	Psych: non violent and non suicidal	An event not representing violence or suicide.
25A2	CAT team at scene or patient recommended	CAT team present or doctor in attendance or the patient is recommended under the Mental Health Act.
25B1	Psych: 3rd party situation	Response to a third party and the symptoms are unknown.
25C1	Psych: not alert	An event where the person is not alert.
25C2	Violent psych – use caution	An event representing the threat of violence.
25C3	Psych: threatening suicide	An event representing the threat of suicide.
25D1	Psych: attempted hanging or suffocation	An event incorporating attempted hanging, strangulation or suffocation.
PSYCH2	Psychiatric: acute problems	An event incorporating acute psychiatric problems.
PSYCH3	Psych transfer: non urgent	Response to a request for routine transfer by ambulance.

Data for the four years 1999 to 2002 from the MAS Emergency Patient Care Records were analysed. For the year 2002, only 11 months data to November was available at the time the data was provided. All analysis undertaken of this data is based on including a twelfth month derived from the average of the 11 months data.

Cases

The total number of cases for which MAS dispatched an emergency ambulance rose steadily over the four-year period from 199,716 to 242,929, a growth of 21.6%. The number of cases recorded within psychiatric categories also increased during the period from 5,882 to 10,124, a growth of 72.1% (Figure 9). The proportion of psychiatric category cases within the total MAS count of cases increased over the period from 2.9% to 4.2% (Figure 10).

Figure 9: Four-year series – all MAS and psychiatric cases

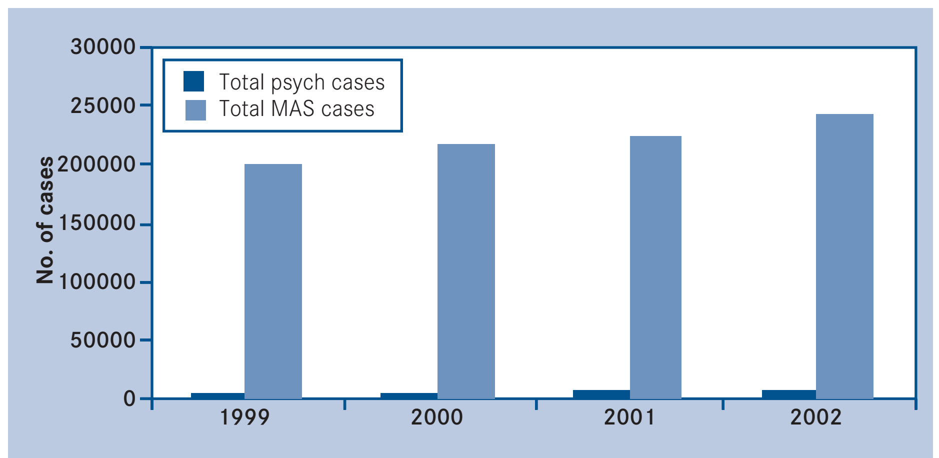
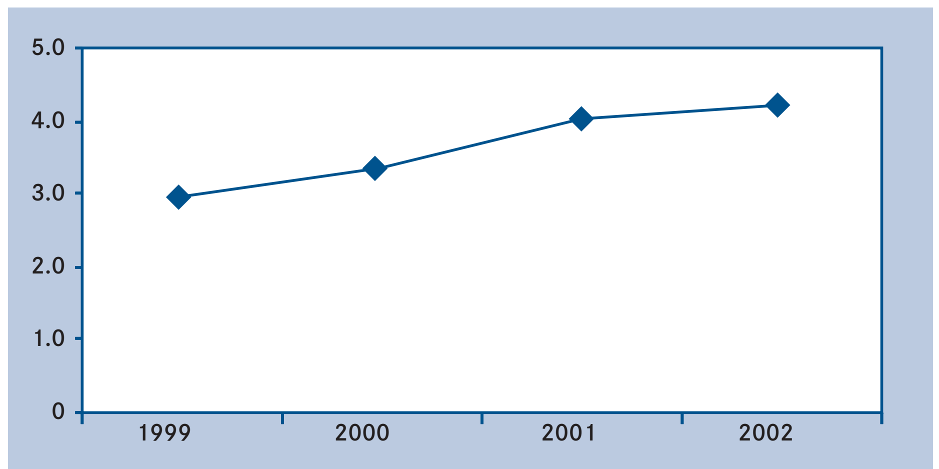
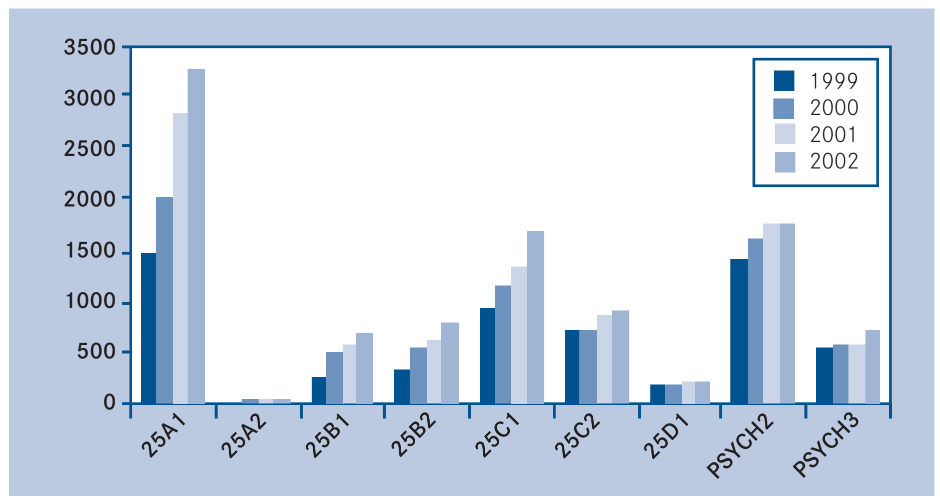


Figure 10: Four-year series – proportion of MAS psychiatric cases



Growth in cases in each of the psychiatric categories for the four years is consistent with overall growth for all psychiatric categories. The data suggest that when an ambulance is dispatched for an event within a psychiatric category, that rarely is a CAT team present, or a doctor in attendance, or the patient is recommended under the Mental Health Act.

Figure 11: Four-year series – cases in MAS psychiatric categories



Patients

MAS defines each case as an event to which one or more ambulances are dispatched. There are more cases than patients transported as in some instances no person is transported following the dispatch of an ambulance, for example, the call may be cancelled or a person may refuse to be transported. The total number of patients transported increased for all MAS patients from 144,200 to 178,375 over four years, a growth of 23.7%. Psychiatric category patients transported represented 3,927 patients in 1999 and 6,231 patients in 2002, a growth across the period of 58.7% (Figure 12). The proportion of MAS patients in psychiatric categories transported increased over the period from 2.7% to 3.5% (Figure 13).

Figure 12: Four-year series – all MAS and psychiatric patient transports

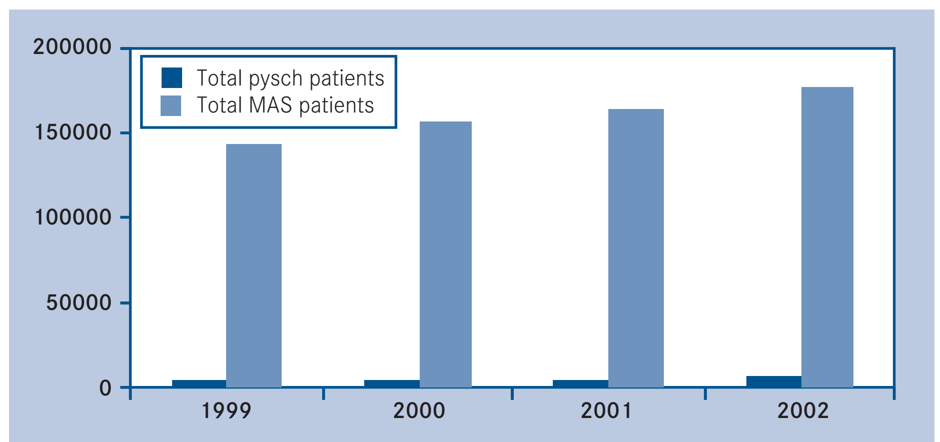
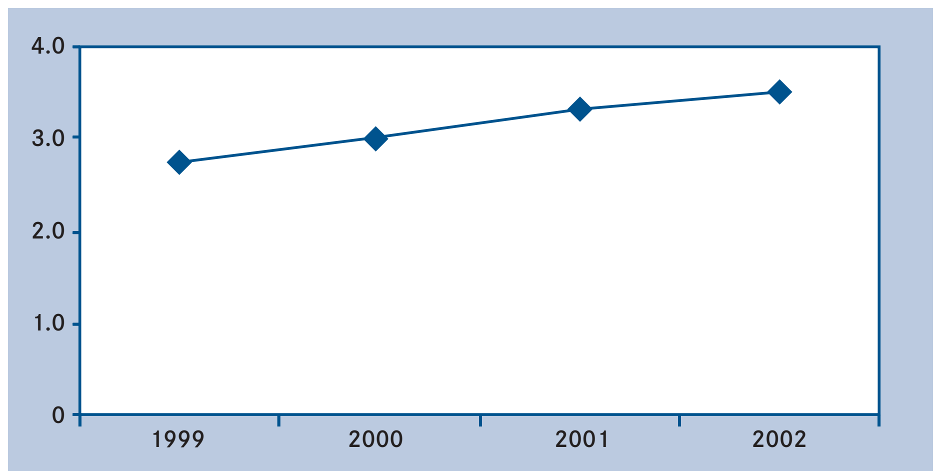
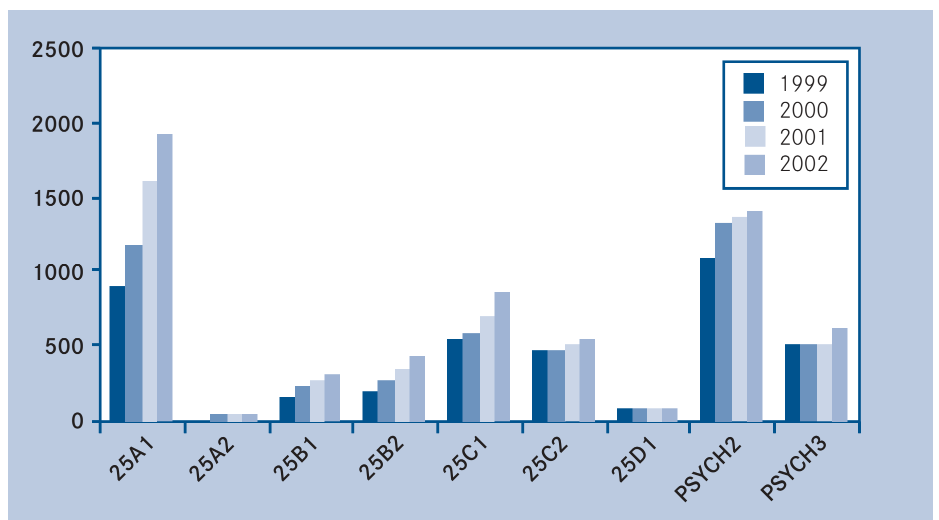


Figure 13: Four-year series – proportion of MAS psychiatric patient transports



Growth in patient transport numbers in each of the psychiatric categories for the four years is consistent with overall growth for all psychiatric categories (Figure 14).

Figure 14: Four-year series – transported patients in MAS psychiatric categories



The relationship between all patient transports and all MAS cases has remained consistent for the period (Figure 15). However, as demonstrated in (Figure 16) the relationship between patients and cases in psychiatric categories has altered over time. Psychiatric category cases have grown at a greater rate than psychiatric category patient transports, and psychiatric category patient transports have grown

at a greater rate than all MAS transports. This suggests a greater proportion of ambulance dispatch is being directed to psychiatric category cases over time. No particular psychiatric categories are indicated in this growth.

Figure 15: Four-year series – all MAS patient transports and cases

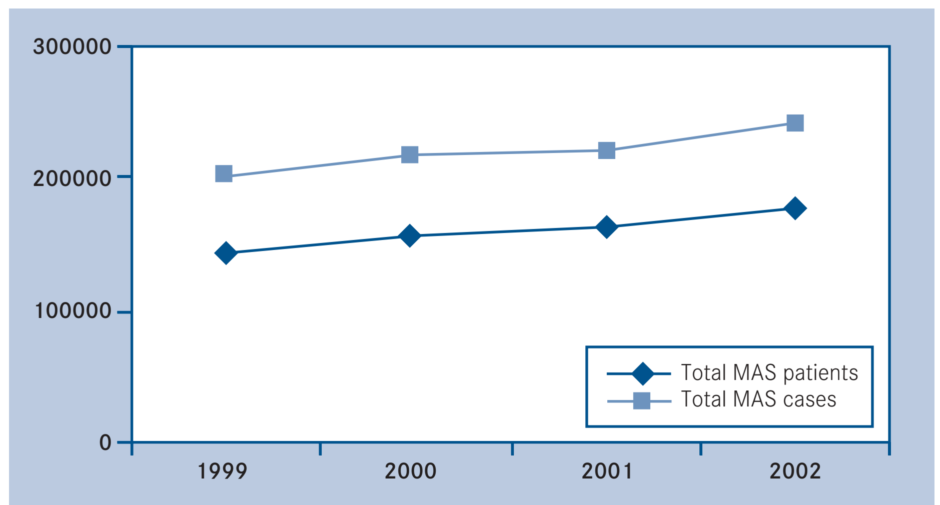
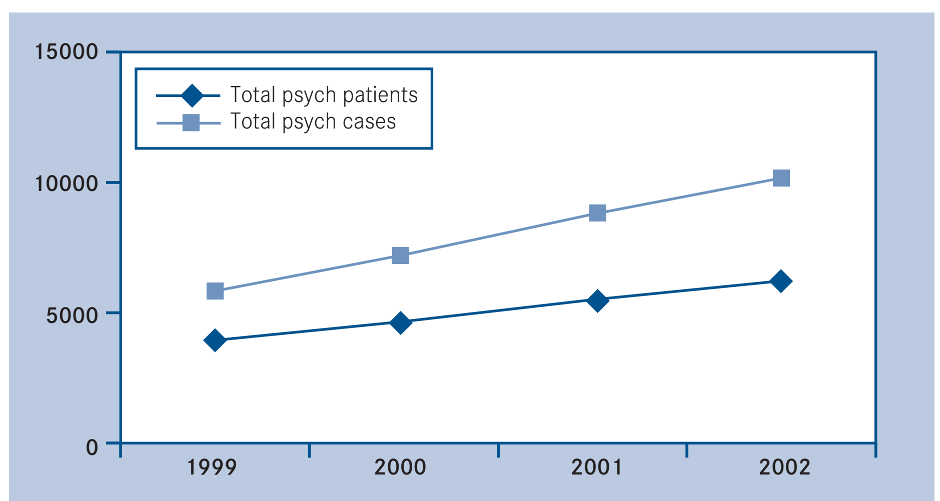


Figure 16: Four-year series – MAS psychiatric patient transports and cases



Gender mix of psychiatric category patients is unremarkable (Figure 17). Patient's age distribution is shown in (Figure 18).

Figure 17: Four-year series – MAS psychiatric patients' gender

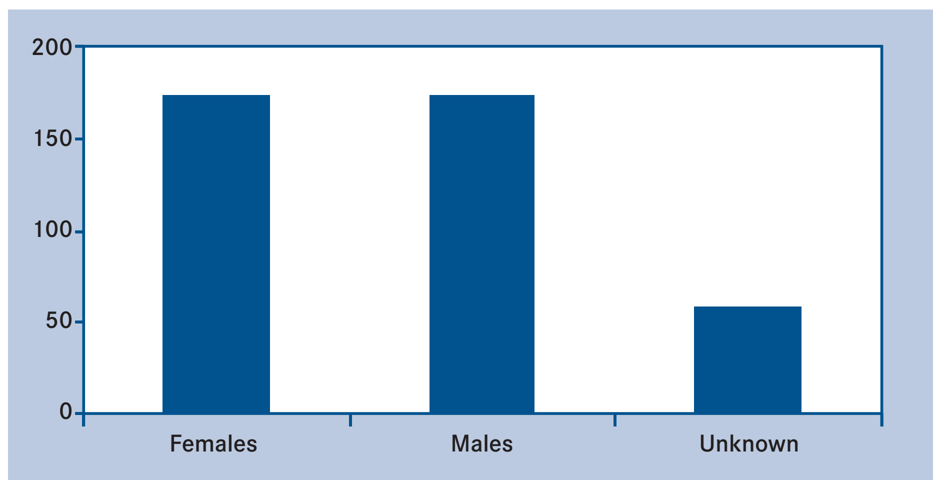
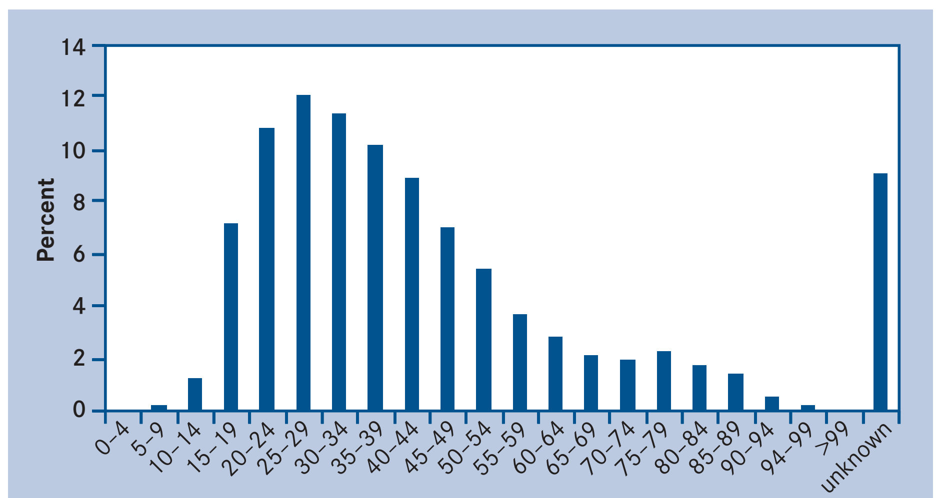


Figure 18: Four-year series – age distribution of MAS psychiatric patients transported



Additional data is included from a report of a random sample study of 90 patient care records of events in August 2002 undertaken by the MAS.[10] This study indicates that:

- The peak ages of patients in the psychiatric categories are between 20 and 50 years.
- More than one half are known to the MAS as having a psychiatric history.
- The great majority are located at home; a lesser but significant proportion are located on the street.
- Hostility to paramedics was evidenced in around 12% of cases.
- The patient had taken an overdose of drugs or alcohol in approximately 18% of cases.
- More than one half of patients were subsequently transported by ambulance, some 7% by police, 1% travelled by taxi, and about 44% did not require ambulance transport. In around 11% of cases not requiring ambulance transport, paramedics were determined as no longer required prior to arrival of the crew.
- Average time involved in each case ranged from 12 minutes for cancelled calls, 29 minutes for police transport, 34 minutes for those not requiring ambulance transport, and over one hour for ambulance transport.
- Peak periods of request for ambulance response were between 10.00 am and 4.00 pm, slightly less so between 4.00 pm and 2.00 am, and quieter at other times.
- In the 90 cases reviewed, the only treatment provided to these patients was that five patients received oxygen, and one patient received a pad and bandage for a minor laceration.

4.4 Monash Medical Centre

Data were collected at Monash Medical Centre on Emergency Psychiatric Services (EPS) activity for a three-month period in 1998 (April to June) and repeated (with some modification) in 2001 (June to August). This study encompasses all clinical activity undertaken by Emergency Psychiatric Services, which includes the Emergency Department Psychiatry Registrar, the After Hours Medical Officer, the Psychiatric Nurse Consultant, the Team (CAT) and, during the first time period, a clinical psychologist to the ED. Overall, the comparable data was consistent for the two periods.

In the study of 1998:

- 54% of patients were assessed in the ED, 17% in the psychiatric hospital environment, 20% in the community, 5% in a medical ward and 1% in a police cell.
- 64% of patients were assessed after normal business hours.
- 35.5% of patients assessed in the ED had an address outside of the AMHS catchment area.

- 38% of presentations were direct presentations (self/family/friends), 7.6% were referred by the police, 15.5% by an ED doctor, 6.3% by a CMHS or case manager. 4.8% by a GP, and 2.3% by a private psychiatrist.
- Major presenting problems comprised depression and/or intentional self-harm (39.5%) and psychosis or mania (24.8%). Specifically, intentional self-harm or suicide attempt made up 20.5% of the presentations, psychosis 19.7%, depression and/or suicidal ideas 19.7%, requirement for medical/mental state review 17.1% (this group comprised hospital inpatients in the psychiatric or medical wards seen by the after hours doctor), drug or alcohol problem 3.8%, and violence/anger/agitation 2.1%.
- Disposition involved CAT or CMHS follow-up (36.5%), admission to a public psychiatric unit (31.8%), referral to a private psychiatrist (7.2%), referral to a GP (6.5%), home without follow-up (2.6%), absconded (1.5%), referred to drug and alcohol services (1.3%).

The 2001 study provided particular illumination on drug and alcohol issues:

- 45% of presentations included the presence of alcohol (15%) drugs (21%) or both. For 33% of these presentations, the effect of substance use was considered to be contributing to the patients' presenting problems.
- 34% of patients presenting with substance use were diagnosed with psychosis or mania, and 47% with depression and/or suicidal intent.

For all patients, 36% of presentations occurred during normal business hours and 47% between 4 pm and midnight.

4.5 Southern Health ED (Clayton and Dandenong)

Data from Southern Health on frequent users of the ED that have a VEMD mental health related primary diagnosis during the financial year 2001–2002 shows that:

- 15% of individual attenders to ED had multiple presentations (>=2) during the year, representing 31.5% (815 of 2,584) of all presentations.
- 1.8% presented four or more times, representing 8.5% of all presentations.
- Of the multiple presenters, three individuals presented on 41 occasions between them – representing 1.6% of all mental health presentations for the year. These were:
  - A 35 year-old male with 18 presentations who was usually discharged home or who left at his own risk; was admitted to the psychiatric inpatient unit three times; was readmitted within 28 days on ten occasions; received seven different diagnoses within ED; whose condition was primarily described as alcohol intoxication and withdrawal; and who generally used ambulance transport.
  - A female in her mid-fifties with 12 presentations who was usually discharged home, was admitted to the psychiatric inpatient unit on three occasions; was

readmitted within 28 days three times; received four different diagnoses within ED; whose condition was primarily described as unspecified anxiety or depressive episode; and who used a combination of ambulance, police and private vehicle transport.

- A 37 year-old male with 11 presentations; who was discharged home on each occasion; received six different diagnoses within ED; whose condition was primarily described as a combination of history of self-harm and personality disorder; and who used a combination of ambulance, police and (mainly) private vehicle transport.

It should be noted that the data from which these characteristics were drawn dealt only with mental health primary diagnoses (F codes and the Z109 code). Additional non-mental health presentations to the ED may have occurred within the same period.

5. Messages from the literature

5.1 The nature of mental health demand

A primary goal of this project is to enhance information regarding the initial impression of increased demand on EDs of people with mental health problems. The literature reveals that the issue of increasing demand is not restricted to Victoria and is not a recent phenomenon. International discussion in the literature regarding this issue can be traced to at least the early 1980s.

De-institutionalisation in Australia of mental health services has brought increasing numbers of patients to the ED in need of psychiatric assistance,[11] while de-institutionalisation is included, along with homelessness and substance abuse, as an indicator for similar increases in North America.[12, 13, 14]

Data evidence indicates that:

- Presentations to ED of mental health related diagnoses as categorised for VEMD have risen over four years by 47% compared to 26% for non-mental health related primary diagnoses.
- Increases in ED demand of people with mental health related primary diagnoses are widely variable across EDs and inconsistent across years.
- Demand on the ED by people with mental health related primary diagnoses is greater towards the end of the day and, in particular, between 5 pm and 1 am. This contrasts with the peak period for specialist public mental health triage services of 9 am to 9 pm, and for MAS requests for ambulance of 10 am to 4 pm.
- People with mental health related primary diagnoses do not have an undue impact on waiting times in EDs. Those awaiting transfer to another facility tend to wait longer than those not transferred, however, waiting for transfer accounts for only a small proportion of those waiting for 12 hours or more.
- The number of people within MAS psychiatric categories transported to EDs over the past four years has increased at a greater rate than the increase of people not in a psychiatric category and appears to represent a greater proportion of overall MAS activity than formerly.

5.2 ED service users

Fundamental to the issue of demand upon EDs of people with mental health problems are questions regarding the characteristics of these service users, the nature of the problem, and why people choose to use the ED rather than alternatives.

Characteristics of ED service users

Data evidence indicates that:

- Most people presenting with a mental health problem are in the age range 15–64 years. Those less than 15 years represent 3% of these presentations and those over 64 represent 10%. The age distribution is quite different to that of

non-mental health related diagnoses. Of presentations referred to specialist public mental health services, proportionally less are referred in the under 16 years of age group (1.2%) and in the over 64 years of age group (3.8%).

- According to VEMD data, anxiety disorders and adjustment disorders (25.2%), alcohol and drug related disorders (23.7%), and mood disorders (18.6%) comprise 67.5% of all presentations. Schizophrenia and acute psychosis and unspecified psychosis comprise a further 16.7% of all presentations. Presentations of alcohol and drug related disorders appear to be declining while presentations of schizophrenia and acute psychosis, and mood disorder diagnoses are on the increase.
- The inclusion of data relating to intentional self-harm demonstrates that this is by far the largest category of mental health related presentations. Intentional self-harm associated with alcohol, drugs or other substances represents the greater proportion of all intentional self-harm. The proportion of these presentations relating solely to substance abuse is not known.
- Comparison of RAPID and VEMD data suggests that specialist public mental health service clinicians are less likely than ED clinicians to provide a diagnosis of alcohol and drug use, and more likely to diagnose personality disorder, mood disorder and schizophrenia/acute psychosis.
- While more males than females presenting to ED are given a mental health related diagnosis, gender distribution is consistent with overall ED presentations. However, more females than males are subsequently referred to specialist public mental health services.
- MAS data indicate that the majority of psychiatric category people transported are non-violent and non-suicidal (33%); violent (17%), or describing acute psychiatric problems (17%).
- According to the MAS, over one half of all psychiatric category cases are known to the MAS to have a psychiatric history; around 18% will have taken an overdose of drugs or alcohol; and around 5% of patients transported require intervention for a physical condition or injury.

Consultations with service providers, consumers and carers provide an experiential dimension to understanding the characteristics of ED service users. The major themes arising are:

- Increased presentations to ED are perceived not to be entirely associated with traditional specialist public mental health service clients. An impression exists of a greater number of people who do not ‘fit’ well within the service criteria established by current service types. A general increase is identified among those with mental health problems related, in particular, to socioeconomic issues, homelessness, social/situational problems and feelings of isolation, as well as people living in supported accommodation and/or with:

- personality disorders
- behavioural disorders and associated self-harm
- agitation and/or violence
- alcohol and drug intoxication
- underlying anxiety and/or depression.

A 36-year-old man suffering post traumatic stress disorder has poor coping skills and abuses prescribed medications. He has numerous life stresses, has taken one overdose and has started cutting himself. The man has presented a number of times at the ED; the CAT team has been involved. This man is viewed as having a personality disorder, is a low suicide risk, is considered to achieve numerous secondary gains resulting from his self-harming, and meets no strict service criteria. A focused intervention has been initiated with the following objectives:

- Minimise focus on self harm – concentrate on coping.
- Divert from ED presentations to the GP.
- Encourage physical exercise.
- Encourage understanding of why he self-harms, what the secondary gains are, increase his capacity to talk about episodes afterwards.

The result has been decreased presentations to the ED.

- Other than the Southern Health ED data described previously, no data evidence has been made available that throws light on frequent and persistent users of ED. Anecdotally, frequent users are characterised as presenting with:
  - chronic self-harm (para suicide) to ease distress
  - anti-social behaviour
  - vague somatic complaints
  - range of socioeconomic issues and isolation.

A man in his late 30's with a history of some 50 presentations to an ED over a three-month period, with intentional or threatened drug overdoses and/or alcohol intoxication, moved into another specialist public mental health service catchment area following family break up and commenced the same pattern at a second ED (around four presentations a week).

The man told the mental health nurse that he had a history of obsessive compulsive disorder and major depression and needed medications. Enquiry of the man's GP indicated that medication was continually prescribed partly out of fear of the man. A new GP in the area was instrumental in 'managing' the man's medication; much to the patient's own dismay.

Enquiry of the previous catchment specialist public mental health service indicated that a case management plan was about to be developed at the time of the man's departure.

A case management meeting was arranged by the mental health nurse and included representatives from the police, the ED, specialist public mental health services, drug and alcohol services, a housing program, the new GP and the patient.

Following the meeting the man ceased presenting at the ED but is known recently to still be in the area. The trigger for a change in behaviour is not known.

- Inappropriate presentations tend to be the socially isolated and lonely people who attend because the ED is a 24-hour service. Mental health service consumers indicate that loneliness and isolation represent major issues for them, particularly outside of normal business hours.

A 19-year-old itinerant girl diagnosed with borderline personality disorder is known to present at the EDs of four hospitals in Victoria. The girl uses a false name and states she is younger than she is as a means of gaining access to a range of services, including paediatric care. Staff suspect that she seeks the nurturing and care experienced at hospitals.

- Confusion exists regarding effective intervention with, and discharge of, substance users. Substance users tend to be referred from ED to CAT and then become 'labelled' as mentally ill. There is 'handballing' between alcohol and drug services and specialist public mental health services. Carers consider that EDs are dismissive of people with alcohol or drug use.
- The Royal Children's Hospital reported a doubling in presentations of young people, typically associated with aggression.

This limited project was unable to identify the proportion of people presenting to EDs that were currently registered or had been registered with specialist public mental health services. This should be a matter of interest in further studies, particularly given the MAS position that greater than one half of all psychiatric category requests for ambulance are known by the MAS to have a previous psychiatric history. A report of one study in Leeds, England, identified almost 60% of patients presenting to an ED to be currently in contact with the formal mental health services.[15]

The literature also provides some commentary on the characteristics of ED users, as follows:

- Non-urgent use of the ED is not restricted to people with mental health problems. However, non-urgent use may be associated with the similar characteristics of social fragility, homelessness, self-referral and no regular source of health care[16].

- The Liverpool Hospital (Sydney) study identified mental health clients as the most frequent ED users. The study concluded that frequent return to the ED is a complex problem involving both individual (physical, social and psychological) and structural/organisational factors. A comprehensive program addressing all relevant factors appears essential if frequent attendance to the ED is to be reduced.[17]
- A study in the UK of 77 frequent attenders to an ED (seven or more visits in a month) indicated that 45% had psychiatric disorder and 49% had some form of alcohol-related disorder. Frequent attenders had lower health status, more psychiatric disorder, more general hospital admissions and more GP visits. The study suggests that specific treatment and management strategies are required, although many may be difficult to engage.[18]
- Use of psychiatric emergency services in a Veterans Health Administration service in North America indicates that, characteristically, people with chronic mental illness, those with addictive disorders, those who are homeless, and those lacking social supports are frequent attenders.[19] A Finnish study of repeated use of psychiatric emergency outpatient services concludes that extended repeat use of emergency services is associated with inadequate social support and serious psychiatric problems.[20] In the USA, a study examining the pattern of frequent ED users over time (10 visits in 12 months) to all local metropolitan hospitals suggests that most patients do not remain frequent ED users over time.[21] Interestingly, in this study 55% of patients had a medical problem as the cause of their ED presentation.
- A Swedish study sought to determine the proportion of ED patients who frequently use ED (four or more visits in 12 months), and to compare their frequency of use of other health care services at non-ED sites. The study found that high ED users are also high users of other health services and exhibit a higher than expected mortality rate.[22]
- According to one commentator on mental health services in New York State, homeless people reject services because of an inadequate mental health system, and fragmentation of health, mental health, and substance abuse programs. An integrated mental health service system is advocated.[23] A service in Manchester, England, operated by St. John Ambulance volunteers places the physical services of the ED within easy reach of homeless people and recruits qualified nurses for one evening a week to act as 'befrienders'.[24] A study of the provision of compassionate care from trained volunteers of homeless people in an ED in Canada reduced the average number of visits per month by one third for the study group.[25]
- A prospective study of overt alcohol misuse in hospital services in England identified that the burden on hospitals is enormous.[26] In spite of a high prevalence of substance abuse among psychiatric patients, detection of acute intoxication in the psychiatric emergency setting has been low.[27]

Perceived reasons for increased use of ED

Informants to the project identify a range of ways to understand why presentations to ED of people with mental health problems are increasing:

- Carers of people with a mental illness note that the ED is an obvious option for them in the absence of alternative knowledge. 'New' carers have little or no information regarding access to specialist public mental health services. Attendance at the ED in respect of an 'emergency' is a default position.
- Increased earlier discharge from psychiatric inpatient units and/or failing of adequate discharge planning results in return to the ED at the point of relapse for those patients who use the ED as their point of service entry.
- Pathways to access specialist public mental health services are not clear to the community, service providers, consumers or carers. The ED is a known alternative that is available 24 hours a day, seven days a week, and is considered by some to be a 'safe' place for people to attend.
- EDs are free of charge. This contrasts with decreasing access to bulk-billing from GPs.
- Health service policies associated with mainstreaming of specialist public mental health services have focused on the general hospital, and the ED in particular, in respect of mental health services. This is reflected in the Monash Medical Centre data: 54% of emergency psychiatric service assessments were undertaken in the ED and only 20% in the community.
- Specialist public mental health services are directing patients towards the ED as a place where assessment can be undertaken (sometimes by the mental health worker) in relative safety; or where a person does not fit the criteria (in the context of policy directing services towards 'serious mental illness') for specialist public mental health service; or because CAT services are stretched in respect of resource capacity to respond.
- GPs are directing patients towards the ED for ease of access and for relative safety. Note is made, however, that in the Monash Medical Centre surveys only 4.8% of mental health referrals were registered by the emergency psychiatric service as referred by a GP.
- Long waiting times in the ED are associated with reduced access to acute psychiatric inpatient units; longer waiting periods for assessment of recommended patients; delay for access to out-of-area beds (including wait for transport); and limited options for appropriate referral from ED.
- There are too few community alternatives, particularly for addressing the mental health problems of depression and anxiety, and for out-of-hours response.
- There is reduced responsiveness of the service system to mental health crises resulting in presentation to the ED as a last resort. As one carer put it: 'the situation has to get to a tragic state before intervention can occur'.

- Poor communication, collaboration and coordination between components of the service system reduce acceptable community-based options to ED and/or increases the time spent in ED.
- There has been a loss of faith by consumers and carers in the crisis response of specialist public mental health service providers. According to carers, service providers give variable advice. One consumer summarised a theme as: 'people are told to do all sorts of "silly things" by workers when they are in crisis, or in order to relieve stress'. Other consumers include in the advice they have received: 'have a hot bath with a spoonful of salt', 'get a good night's sleep, you will feel better in the morning', and one suicidal patient was told 'why don't you go ahead and get it over with?'
- There is disillusionment among consumers regarding specialist public mental health service triage. Triage workers are recognised as too busy to respond effectively, they are perceived as not always following through on agreed actions (such as informing case managers of issues arising), and in some services an answering machine is available.

5.3 Pathways

This section explores the pathways taken by people with mental health problems by combining analysis of Victorian mental health policy and practice guidelines, the major themes arising from consultations, and reference to the literature. Consideration is given to events that precede presentation to the ED, the systems and processes of the ED that assist or impinge upon outcomes for people, and events related to leaving the ED and to follow-up.

Antecedents to the ED

Mental health problems are a complex cluster of psychological, emotional and behavioural elements underpinned by a range of socioeconomic conditions. The manifestation of the mental health problem for the person is as likely to be in the form of a crisis to be addressed as an illness to be treated. Even for people with a diagnosed mental illness, and for their carers, urgency is not always related to a relapse of the condition. It is in this context of a sense of being in health crisis that people seek an urgent response from health care services. The 'problem' is often ill-defined, the symptoms are often vague. An act of intentional self-harm is probably the clearest form of condition requiring presentation that meets the traditional criteria of an ED. For most other mental health problems the traditional ED is unlikely to be the pathway of optimal choice.

The informants to this project suggest that a person's knowledge and experience limit exercise of choice in pathways to care. Overall, specialist public mental health services work well for registered clients. However, considerable problems are described in gaining initial access, particularly where the presentation is not readily diagnosed as a mental illness. Some carers and consumers have described specific

assertive strategies for obtaining what they need on the basis of experience in navigating access both to the ED and to specialist public mental health services. In the main, however, an impression exists that the broader community is not aware of options when faced with a mental health problem, even if such identification were possible and, indeed, such options may be extremely limited.

New consumers

The main choices for people with little knowledge of the service system or of the health condition with which they are confronted are to attend their GP, call an ambulance or attend the ED. Informants outlined the limitations to using GPs: they are not always available when required; they may impose a cost; they may not be sufficiently competent with mental health problems; and they are not well positioned to spend the time required to address the crisis.

With respect to the literature, Grigg, Herrman and Harvey (2002) identified that new patients are more likely to be assessed within a mental health duty/triage system if the referral is presented in technical language and if it is initiated by a health professional, particularly a GP, ED or other mental health service.

Previous consumers

Informants advised of difficulties in accessing mental health services even when they had reasonable knowledge of the services they required. They described the challenges of knowing who to contact to gain entry to the mental health service system, and the sense of the service system being too busy or disinterested to deal with anything perceived as a non-urgent psychiatric matter.

Even those people known to the specialist public mental health services identify difficulties in gaining direct access rather than attending the ED. Current registered consumers of specialist public mental health services describe a poor response to changes in mental health status. Expressed concerns that a person's mental state may be deteriorating have been described by consumers as being met with unhelpful and, occasionally, poor quality responses. Attempts at after-hours access in particular are seen as problematic. Consumers describe requiring a 'sympathetic ear and common sense advice'. Reducing escalation of a problem is considered by consumers and carers as critical to reducing the impact of a mental health crisis on them and on the use of the ED. As one consumer stated: 'a gram of prevention is worth a kilogram of cure'.

Carers advise that lack of early intervention often results in unnecessary and unwanted police involvement. Consumers assert that case managers should work with them to create a crisis plan of early warning signs and what to do. One consumer stated in this regard, 'it's important to see a case manager when you are well to establish a plan'. Unfortunately, the episodic case approach reported by some to be adopted by specialist public mental health services appears to act against continuing care for people in remission, and against ready response at relapse.

Service providers

Service providers too are challenged to identify alternatives to presentations at the ED. GPs are reputedly not clear about access to specialist public mental health services and are frustrated by the oppositional attitude expressed by some mental health duty/intake workers. Confused geographical service boundaries are reported to play a part in this. Some GPs find it easier to send a person to the ED than to access a CAT team, even where the two have protocols in place, and some GPs will use the ED because of their perception that CAT will not attend if the patient is intoxicated. Informants suggest that increasing concern about public liability and medical indemnity is causing GPs to refer people to the ED as a matter of precaution, particularly in the absence of obtaining prompt response from a psychiatrist.

With respect to GP referral overall to specialist public mental health duty/triage, Grigg, Herrman and Harvey suggest that with a referral rate of 4%, 'the GP is not actively involved in the referral process for the vast majority of new referrals to the mental health service'.[28]

The MAS responds on every occasion but having done so is limited in its options. Paramedics assess the situation and, following the exercise of opportunities to avert unnecessary transportation, are still likely to transport the person to an ED. MAS paramedics express the view that they could be more active in diversion to alternatives to the ED if options were available to them. While carer informants to this project have commented that the MAS tends not to respond well to requests from carers for assistance where there is no evidence of risk to self or others (and advise to call the police), consumer informants give praise to the MAS for being 'caring and patient'.

The police occasionally become involved in events suggestive of a mental health problem, particularly where violence is threatened or apparent. Informants from medical services reported that police officers will take a person to an ED to fulfil the requirements of section 10 of the Mental Health Act ('A member of the police force must as soon as is practicable after apprehending a person…arrange an examination of the person by a registered medical practitioner'), since finding a doctor in an ED is guaranteed.

Telephone crisis services are well known as a front line response for many people with mental health problems. The impact of telephone crisis services in diverting people both to, and away from, the ED, and their role in the future may be of interest for future study.

CAT teams too are not immune from using the ED as a preferred alternative. When a person requires admission to a psychiatric inpatient unit but no beds are immediately available, the ED is perceived to offer a 'safe' alternative for the CAT clinician and the patient, and a staging post towards the admission. Informants suggested that enhancements to CAT services focused on the ED and have ensured the ED acts as a central gateway to service provision. Consumers have stated that

some case managers will advise them to use the ED in the event of a perceived change in health status.

CAT clinicians have recognised changes in their practice environment that cause them to be more reactive to crises and less responsive to treatment needs; that increasingly involve them in complex situational crises requiring an investment of valuable time; and that raise ongoing concerns about safety in undertaking community assessments without sufficient back-up support. Carers have expressed the view that 'they won't attend if it is late or if there is a perception of danger'. As a consequence, resources are stretched, capacity for case planning and continuing care is reduced, and the ED is used as a safer alternative to community interventions. Consumers state that 'it is almost impossible to get the CAT team – they are overworked'.

A large amount of literature addresses the relationship between primary care providers and GPs, in particular, and variously described mental health liaison services. Shared care approaches are described[29, 30, 31, 32] the benefits of which are reported to include positive responses from GPs, reduced referrer anxiety and increased self-reliance by GPs.

Some authors describe services where mental health workers operate from within GP settings.[33–34] Evaluation of the Liverpool (England) Primary Care Mental Health Project indicates use of inpatient beds dropped by 38% and waiting time for assessment reduced from six weeks to 1–2 weeks.

Putman describes an extended hours community mental health nursing service in Milton Keynes, England, that includes response to an out of hours GP service comprising a cooperative of 111 GPs (one of 250 similar services throughout the UK) and the local A&E.[35]

Liaison mental health services in EDs are described in a number of papers.[36, 37 38, 39, 40, 41] Few of these provide any evaluation comment. Described rates of referral to ED of people with mental health problems appear consistent with the Victorian experience.[42, 43, 53]

Major issues

The major issues that may lead a person to present with a mental health problem at an ED appear to be:

- A large number of presentations are associated with intentional self-harm. These presentations may be considered appropriate for initial response by an ED.
- There is no systemic response to providing people with accurate and appropriate information regarding their mental state and the best means for them to have mental health problems addressed.
- There are few community-based alternatives for addressing situational crises and low level emotional or psychological distress other than to provide a medical/psychiatric response.

- After hours alternatives, such as counselling/support and primary health access, are generally not available and deny the service system a potentially viable option and alternative.
- Too few dedicated resources are applied to the triage/duty aspect of the specialist public mental health service system and there is inconsistency of service response across the system.
- System barriers exist for previously registered specialist public mental health service clients gaining ready re-entry to specialist public mental health service assessment other than at a point of crisis or significant relapse of mental illness.
- Differential decisions in respect of a medical or mental health crisis and the prospect of alternative pathways to care are not readily available for police or ambulance officers.
- The MAS has too few options to transporting a person with a mental health problem to an ED.

Within the ED

Initial triage within the ED

All people presenting to an ED are subject to a triage assessment by a triage nurse. This brief assessment seeks to identify indicators of clinical urgency related to the Australasian National Triage Scale (ANTS). Mental health indicators were not included in the ANTS and have subsequently been added. Table 7 shows the five-category scale of the ANTS, the expected maximum waiting time from triage presentation to commencement of medical assessment and treatment, and the mental health indicators for each category[44].

Table 7: Australasian National Triage Scale

ANTS category	Treatment acuity (maximum waiting time)	Mental health indicators
ANTS 1	Immediate	Severe behavioural disorder with immediate threat of dangerous violence.
ANTS 2	10 minutes	Violent or aggressive; immediate threat to self or others; requires or has required restraint; severe agitation or aggression.
ANTS 3	30 minutes	Very distressed, risk of self-harm; acutely psychotic or thought disordered; situational crisis, deliberate self-harm; agitated/withdrawn potentially aggressive.
ANTS 4	60 minutes	Semi-urgent mental health problem; under observation and/or no immediate risk to self or others.
ANTS 5	120 minutes	Known patient with chronic symptoms; social crisis, clinically well patient.

Two health services in Australia are identified in this project as having published mental health triage guidelines that aim to enhance the ANTS[45–46]. A small number of unpublished guidelines are also identified by Tobin et al. Barwon Health ED used the mental health triage scale created by the South Eastern Sydney Area Mental Health Service. Following introduction at Barwon Health, ED staff reported significant improvement in confidence in triaging clients with mental illness; perceptions of ED staff improved regarding being attended to in a suitable timeframe; clients were being attended to in the timeframes expected; and an increase was noted in categories 1, 2, 3 and 5, and a decrease in category 4.[47]

A purported impact of mainstreaming specialist public mental health services has been to manage the triage of mental health presentations to ED in the same manner as for other health issues, followed by involvement of mental health professionals as appropriate subsequent to the triage process. According to Tobin et al. (1999):

> Overall evaluation of these [small number of] Australian scales revealed that there is no clear differentiation between symptoms/behaviours "observed" and behaviour "reported" by a third party. They are combined in a single description. This is seen to pose potential difficulties for non-mental health trained staff not accustomed to objective observation of mental health behaviour, and to weighting information received from third persons. The existing scales could also be criticised for using mental health terminology, thus requiring specialist knowledge by the triage nurse.

Informants to the project have voiced their concerns about the complexity of mental health triage and the difficulties for general triage nurses at the ED in making informed decisions regarding the urgency of mental health related presentations. Carers of people with a mental illness have highlighted the lack of respect afforded them in the ED as knowledgeable contributors to the assessment of a consumer's need and of urgency of an appropriate response.

A study conducted at Monash Medical Centre tested the effectiveness of triage guidelines for mental health needs as developed in Tasmania. A comparison of triage nurse categorisation and psychiatric nurse consultants' categorisation demonstrated a statistically significant disagreement between the two groups of nurses. Triage nurses assign more people to category 2 while psychiatric nurse consultants assign more people to category 5. Triage nurses appear more likely to take common symptoms of psychosis and corresponding behaviour as a sign of urgency. A conclusion is reached that using a triage scale is insufficient on its own; training is required.[48]

The central platform of mental health triage scaling in Australia appears to be that of relative passivity of the patient. Violence, aggression and active self-harm (or other life threatening condition) rank as more urgent matters than relapse of mental illness in a person with a long-standing condition. This is understandable in the context of the triage decision-making framework, but the need for early access to specialist public mental health services (prior to escalation of agitation or of prematurely leaving the ED) should not be based solely upon such gross alarming behaviours.

While categorisation within the triage scale of people with mental health problems is broadly consistent with that of all other presentations, contributions to the project from consumers, carers and mental health service providers suggest that the urgency for appropriate assessment and treatment of some mental health related presentations is underrated. Consumers and carers criticise longer waiting times associated with lower rated categories. Anecdotal evidence suggests that waiting can increase anxiety and agitation (symptoms of reported concern for ED personnel) sometimes resulting in the person leaving the ED without being further assessed. Carers have stated their grave concern with such a scenario in reporting on the considerable time and effort that can be required to encourage a person to attend an ED (sometimes spanning several days), to then be left to wait (with the perception that they are also being held responsible to 'contain' or 'manage' the consumer), and to see the consumer leave before active intervention. As one carer stated: 'there is a disproportionate dependence on carers and a risk of death to clients because it is so hard to get a response'.

Following intervention by the police and the CAT, a young woman is taken by ambulance to the ED. The woman's mother advises that the patient will abscond from the ED unless closely supervised. Soon after the young woman reappears at her mother's house after having absconded from the ED.

It is interesting to observe that a person with a mental health problem in the community seeking access to specialist public mental health services can telephone the area duty/intake worker and immediately consult with a mental health professional. A person presenting to an ED, where the expectation of an early response is high, is not afforded that opportunity, even though staff of the ED have ready telephone access to the specialist public mental health service.

The ED environment

Many informants expressed concern that the ED environment is not conducive to good mental health related intervention. As noted, people often need to wait. They may become agitated, placing pressure on other patients and on ED staff. There is often no capacity to reduce or contain anxiety. A perception exists among consumer informants that they do not feel wanted in the ED by staff and they reported their discomfort around this. A project described by Crowley indicates that facets of ED culture, such as staff values, technology, communication patterns and the environment, give mental health a low status.[49]

Violent and aggressive people and those presenting with major physical trauma are no less disturbing for people with mental health problems than they are for others. These observations stand in contrast to the notion expressed by some service providers, including CAT workers, that the ED is a relatively safe and secure place where mental health assessment can be carried out and towards which people are encouraged to present.

Privacy is cited as a considerable issue in the ED. Consumers, carers and service providers alike express discomfort with having to engage in psychosocial assessment, often incorporating significant personal disclosure, in an open public area or in a cubicle behind a curtain.

Much of the North American literature on psychiatric triage is informed by the experiences of specialised psychiatric emergency services that are located adjacent to EDs. One paper argues that keeping general triage and psychiatric triage separate is advantaged by safety, establishing boundaries, and treatment of medical emergency.[50]

Obtaining mental health assessment

Subsequent to triage decision-making, and while the person waits (usually in the general waiting area unless violence/agitation or the need for medical intervention promotes the person to a trolley or cubicle), a process of notification for mental health assessment is undertaken from within the ED. Specialist public mental health services in Victoria vary considerably in the way services are organised, from on-site 24-hour stand-up mental health teams to off-site, mobile, variable availability mental health workers. The structure of the service must have an effect on the response capacity of the specialist public mental health service in relation to varying times of the day, waiting time for patients, knowledge and skill of staff, and worker interest in the case (in the context of distraction by other competing priorities). A few hospitals have developed or expanded the role of psychiatric consultation-liaison to include a dedicated specialist public mental health response to the ED, at least during business and/or extended business hours.

While the peak time for mental health related presentations to the ED is after normal business hours, specialist public mental health services tend not to be well organised to accommodate this requirement. Presentation to the ED overnight may, in some facilities, lead to an extended stay before being seen for a mental health assessment (possibly by the duty psychiatric registrar) and/or a stay until the following morning to effect a considered disposition decision.

Mental health assessment and disposition decisions may be hampered by the need for an historical case perspective without ready access to previous case files and notes. In some services, one of the routine causes of delay in obtaining an in-situ mental health response is the requirement for the mental health worker to obtain the physical file of the patient, prior to seeing them. Hospitals variously organise clinical files and computerised case tracking systems. For some, the information relationship between the general hospital (including the ED) and the relevant components of the specialist public mental health services (consultation-liaison service, the CAT, and the duty/intake service), is significantly fractured.

Current data does not readily differentiate intentional self-harm presentations to the ED as a primary diagnosis, precluding identification of how much activity by specialist public mental health service staff is related to suicide/self-harm. It is

anticipated, however, that each non-mental health primary diagnosis that was also recorded as intentional self-harm would be assessed within the mandate of the enhanced CAT service component. Of remaining interest is the amount of mental health presentations that are not identified through the ED triage and assessment processes, and therefore not referred for mental health assessment; and also the extent of non-acceptance for further intervention by specialist public mental health services following assessment.

People with mental health problems who present to the ED frequently constitute a category of patient placing particular demands upon the ED. The information considered for this project indicates that frequent users (four or more presentations in any one year) who are assessed and diagnosed by specialist public mental health services may represent 8–9% of all mental health related presentations. Some specialist public mental health services are known to be active in senior level review of all frequent users of the ED. It was beyond the capacity of this project to consider the correlation between mental health related frequent users and non-mental health related frequent users, or the degree of overlap that may exist.

For some hospitals the issue of 'medical clearance' arises. Mental health workers are reluctant to engage in assessment with a person until the ED medical staff have undertaken medical assessment. In cases where medical intervention is clearly indicated, this may well represent a considered view on priorities. Inherent in the process is the prospect of increased delay when mobilisation of mental health resources does not occur until medical clearance is satisfied. In these cases there is, firstly, a wait for medical assessment and, secondly, a wait for mental health assessment. This exacerbated waiting time creates increased demand on the EDs' need for throughput.

Persons presenting as intoxicated by drugs or alcohol represent a particularly problematic category of patient. ED staff report that many of the people described as 'intoxicated' are once-off presenters for whom the real issue of 'clearance' before discharge is that of psychiatric clearance, that is, they cannot release a person who is otherwise well enough to leave, and unlikely to be seen again, until a mental health assessment has occurred.

Disposition decisions of people with mental health problems will be many and varied, according to particular circumstances. In complex situations, the process of organising safe and appropriate disposition can decrease throughput from the ED while arrangements are being made. Some people are voluntarily or involuntarily admitted to a psychiatric inpatient unit. Informants have raised concern about the perceived lack of availability of psychiatric beds and the consequent requirement for a person to wait in the ED. People being transferred to a hospital out-of-area can represent a particular delay while transport by MAS is organised.

Major issues

The major issues that arise within the ED appear to be:

- narrow focus of triage assessment instruments for determining mental health priority and mental health response requirements
- delays in initiation of, or access to, mental health triage/assessment following general ED triage screening
- reliance on non-trained people (carers and friends) to contain and manage critical mental health situations in a way not expected of people with other conditions
- absence of privacy
- inconsistency of response from one service to the next
- lack of clarity around issues of medical clearance and subsequent or concurrent capacity to undertake mental health assessment
- extended waiting times that relate to availability of a psychiatric inpatient unit bed and/or transportation arrangements for transfers
- delay in efficient transfer of patients to another specialist public mental health service as a result of different mental health and ED catchment commitments.

Obtaining physical assessment

Service provider informants to the project suggested that people with a mental health problem can have unresolved physical conditions because ED staff move these patients through the ED pathway as quickly as possible. Carers have suggested that mental illness is a low priority in the ED and that 'people who have a physical illness who are mentally ill are fobbed off'. Consumers also express that physical presentations are not well treated when a history of mental illness is identified.

Allen et al. discuss studies identifying the high rate of underlying medical disorder in people appearing to be suffering a mental illness (5–42%). Of concern is the ageing population, the continued spread of HIV infection, and substance abuse.[51]

Reeves et al. examined inappropriate admissions to a psychiatric hospital when psychiatric symptoms were secondary to a physical condition. The most frequent conditions missed were:

- severe intoxication with alcohol or other substance (34%)
- drug or alcohol withdrawal or delirium tremens (12%)
- prescription drug overdose (12%)
- inadequate physical examination (44%)
- failure to obtain pathology results (34%)
- failure to obtain available history (34%).[52]

Leaving the ED

Where people are assessed by a specialist public mental health service they will either not be accepted for further service and subsequently sent home or referred back to the ED or they may be accepted for further specialist public mental health services. This project was not able to throw light on the decisions and pathways regarding those people not accepted by a specialist public mental health service for further intervention. Anecdotally, it is understood that where continuity of care is indicated, that GPs play a substantial role. Consideration of the appropriateness of continuing care decisions for these patients, or for those patients not accepted by the specialist public mental health service and sent home, in relation to the number that return again to the ED is an area that may be worthy of further investigation.

Those people accepted for further specialist public mental health services will be discharged from the ED and usually either followed-up by the CAT team or referred for continuing care and case management services at the local AMHS. Continuity is reported to be variable, ranging from continued intervention by the CAT team that has undertaken the ED based assessment, to no follow through or failure to attend an appointment made.

Informants advised that the general absence of psychiatric outpatient clinics in Victoria (provision of outpatient appointments by psychiatrists as an alternative to follow-up by a CMHS) means that one option for follow-up of patients discharged from the ED is simply not available.

Special mention is made of the practice of discharge from the psychiatric inpatient unit and its potential effect upon demand on the ED. Consumers and carers highlighted the importance of adequate and effective discharge planning that includes information on early warning signs and how to address relapse or crisis. In the absence of such information, and given the strong suggestion that re-entry to specialist public mental health services is not without its problems, consumers and carers will continue to use the ED as a point of service entry.

Studies related to suicide prevention have been consistent in their call for improved follow-up as a means of linking intentional self-harming ED presenters to appropriate after care. In one study, suicide attempters receiving specialised treatment were more likely to attend one treatment session. Adherence was significantly improved by receiving specialised treatment.[53]

Currently, four Commonwealth-funded projects under the National Suicide Prevention Strategy are being designed and implemented in Victoria that specifically address follow-up from EDs of suicidal and intentional self-harming people. These are in operation at:

- Western Health
- Southern Health

- Goulburn Valley Division of General Practice
- A consortium of five Primary Care Partnerships in Loddon Mallee.

Effective strategies can equally apply to all people with mental health problems. A Belgian study investigated efficacy of a combination of several referral strategies (fixed appointment, involvement of family, presence of the after care person, motivational counselling) in increasing referral and treatment compliance of patients referred to the psychiatric emergency departments of three general hospitals. A significant beneficial effect on compliance with referral was found and the influence of the experimental procedure was still evident after three months.[54]

One study suggests that follow-up phone calls of deliberate self-harmers after discharge from the ED may be effective.[55] However, a control study of 827 patients admitted to hospital wards with deliberate self-harm, within which the intervention group was offered telephone support should any further crisis occur in addition to treatment as usual, demonstrated that the intervention had no significant effect on the overall deliberate self-harm repetition rate.[56] Evidence from a model of practice of follow-up phone calls associated with older people discharged from the ED suggests that phone contact can be just as effective as surgery consultations.[57]

A study investigated an experimental referral procedure, where non-compliant patients were visited in their homes by a community nurse to assess reasons for non-compliance and to motivate clients to comply with the referral. The analysis suggests a significant beneficial effect of the experimental procedure on compliance with referral. A near-significant effect on rate of repetition of suicidal behaviour was also found.[58]

Some research seeks to identify characteristics of people associated with non-adherence to follow-up treatment. Among these are having a place to live, depression and substance abuse;[59] previous psychiatric admissions, currently receiving outpatient treatment, and not admitted at the ED;[60] not receiving a psychiatric assessment (non-assessed patients were more likely to have a past history of deliberate self-harm and to have exhibited difficult behaviour in the ED).[61]

The findings of a study in Pittsburgh suggest that repeat users of psychiatric emergency services have demographic and diagnostic characteristics that may permit early identification. For these patients, alternative management strategies, such as intensive case management, may reduce their use of these services.[62]

In relation to models of case management, a number of studies have reported on the effectiveness of assertive community treatment in improving client outcomes, social functioning, reducing hospital admissions involving police, engagement and retention in treatment and, in some studies, reducing rates and/or duration of hospital admission.[63, 64, 65, 66] One study suggests that provision of time-limited assertive community treatment is not detrimental to homeless clients.[66]

Major issues

The major issues that arise in relation to discharge from the ED are:

- no standardised follow-up requirements from the ED
- monitoring re-presentation of persons not accepted for specialist public mental health service provision following ED referral
- lack of assurance/monitoring regarding the success of referral arrangements of patients not accepted for specialist public mental health service provision after referral by the ED
- lack of response capacity when early signs of relapse are evident
- limited alternatives/referral options for ED patients not accepted for specialist public mental health service provision
- variable case management approaches, continuing care and disposition planning both from the ED and from psychiatric inpatient units
- psychiatric bed availability/access to transport for patients to be transferred to another facility.

6 Service models

This section considers alternative response models for people presenting with mental health problems in crisis to EDs, as well as models of mental health crisis prevention that are discussed within the available literature.

A search of the literature revealed few alternative models of response directly related to ED presentations of people with mental health problems. The literature generally considers the role of the primary care sector within pathways taken by people to an ED and describes models of psychiatric liaison and various styles of attachment of mental health workers to primary care clinics. In Victoria, these models of service delivery are exercised within psychiatric consultation-liaison services, GP shared care approaches, and the Primary Mental Health and Early Intervention Initiative.

The North American literature describes the role of psychiatric emergency services as a parallel process to general emergency services that are usually situated adjacent to the ED. This literature also describes various collaborative approaches between the police and mental health services, but primarily from the perspective of reducing impact on psychiatric inpatient facilities and the justice system rather than the ED.

The literature generally considers alternative ways of addressing presentations of people with mental health problems once they arrive at the general hospital rather than to preventive practices A number of the service models are presented here.

6.1 Case management

1. A description of a case management program for frequent users of ED utilising individualised care plans developed by a multi-disciplinary team for 24 patients (over 12 months) with characteristics drawn from two or more of the following:

- chronic medical condition
- complex medical condition
- drug-seeking behaviour
- violent behaviour
- abusive behaviour.

The median of visits to the ED of 26.5 was reduced to a median of 6.5 visits.[68]

6.2 Arranged hospitalisation

2. An experimental study in Virginia of frequent users of psychiatric inpatient care examined the effect of scheduled intermittent hospitalisation on hospital utilisation, community adjustment, and self-esteem of persons with serious and persistent mental illness. Patients in the experimental group were pre-scheduled for four hospital admissions each lasting for 9 to 11 days per year for two years. The control group had traditional access to hospital. Both groups used about the same number of hospital days (even though the experimental group could and did gain access to

standard hospitalisation in addition to scheduled hospitalisation). The experimental group showed improvement in self-esteem, affect and complaints of physical symptoms at one year. No differences between the groups were found in hospital utilisation, financial management, substance use or psychological wellbeing at one year. The paper suggests that using hospitalisation as a last resort may negatively influence the person's wellbeing. Scheduled intermittent hospitalisation can prevent some of the crises that lead to hospitalisation.[69]

3. A study of one chronically disabled person demonstrated the clinical use of a patient-based voucher system for brief hospitalisation in the Grampians Psychiatric Services. In contrast to previous admissions, a patient chosen, voucher-based admission was single, brief and uneventful.[70]

6.3 Brief hospitalisation

4. The use of four crisis beds at the Hillcrest Hospital is described. It was anticipated that patients with personality and adjustment disorders, who did not have specific services provided, would be the predominant users of the crisis beds. It was also expected that discharge back to the community would be the most common outcome and that patients with major psychoses would be more likely to require transfer to other inpatient services. Very few patients with major psychoses were admitted to the crisis beds and most patients were able to be discharged directly back into the community and were not readmitted during the follow-up period.[71]

5. The crisis intervention model apparently currently being developed in most crisis units and emergency services in the French-speaking countries in Europe is presented. A 'crisis interaction' phase commences assessment and action at the place where the initial call for help was made. Subsequent intervention includes individual and family meetings, and short-term hospitalisation in the brief therapy centre (a specially designed unit as an answer to psychiatric crisis and as an alternative to hospitalisation as required).[72]

6. An evaluation of 92 patients referred from the emergency room to an overnight psychiatric observation program in Denver found that 80% were unemployed, 55% expressed suicidal or homicidal ideation, 49% were intoxicated or at risk for alcohol withdrawal, 41% were homeless. The most frequent psychiatric diagnosis was substance abuse or dependence (77%). Eighty-eight per cent of people were referred next day for follow-up and treatment. Use of inpatient beds reduced by 2.5 times in the pre and post six-month periods.[73]

7. A Brief Admission Unit of six beds exists at Glenside Hospital, SA, as part of a psychiatric emergency service. An evaluation indicated that nearly all admissions come through the ED (about 18% of all presentations). Mean duration of admission was 3.9 days, compared with other acute units of 11.5 days. The unit had a key role in relieving pressure on beds elsewhere in the system.[74]

8. A program in San Francisco – La Posada – is described as a non-hospital alternative for clients who needed immediate, 24-hour structured treatment and support but who do not necessarily require the services of a general psychiatric hospital. Individuals are diverted by psychiatric emergency services (42%) or admitted following short stay on a locked inpatient unit (54%). Five to eight per cent of patients required subsequent admission to hospital. Length of stay is less than two weeks. The program uses active discharge planning. Approximately 40% of discharged clients go on to transitional residential treatment services for both mental health programs and programs designed for dual-diagnosis treatment.[75]

6.4 Psychiatric emergency services

9. Psychiatric emergency services in the USA are described. These are noted to have changed from a visiting psychiatrist to an emergency room to a comprehensive array of emergency interventions, such as mobile crisis teams, holding beds, access to emergency medications and medical evaluations. Increased use of these programs is noted. particularly by children and adolescents.[76]

10. The components of the Comprehensive Psychiatric Emergency Program (CPEP) in New York City are described as the emergency room, the extended observation unit, and crisis services. By law, in New York State each CPEP is to provide emergency psychiatric evaluations, treatment and disposition; extended observation beds up to 72 hours; mobile crisis outreach services; and crisis residential beds. Patients are triaged, evaluated, treated and referred in the psychiatric emergency room. The CPEP provides both medical and psychiatric triage on site for patients appearing to have psychiatric problems, bypassing the more traditional model, which requires medical triage by the medical emergency room. A physician is present in the psychiatric emergency room. Intensive follow-up and tracking is provided for high priority patients. The CPEP utilises an Extended Observation Unit (EOU) of three beds. The EOU was utilised more often by primary substance abuse patients. Data indicated that the crisis outreach component of the service did not serve the type of patients who present to the emergency room and therefore did not affect diversion.[77, 15]

11. The psychiatric emergency service in Albany, New York City, is situated as a separate space with specialised staff and provides a combined evaluation, admission and referral service. Presentations by children and adolescents have increased. Average contact time is 6.5 hours (possibly associated with the need to consult with insurance companies/managed care). Substance abuse represents a higher proportion of presentations than others.[78]

6.5 Crisis cards

12. In a study in England of the use of crisis cards (that state patients' treatment details and preferences in anticipation of a later occasion when the patient might be too ill to express them directly) among patients with psychosis and at high risk of crisis, 106 eligible clients were offered a card and 40% agreed to participate. For participants, admissions fell by 30% in the follow-up year.[79]

13. Adolescent patients discharged from hospital following a suicide attempt were allocated a token (Green Card) allowing re-admission to hospital on demand. Of the 47 people who were allocated tokens, only 6% (compared to 12% in the control group) made further suicide attempts during the following year, and 11% made use of the tokens. While not statistically significant, the results do suggest lower rates of repeat suicide attempts in the group receiving the token, even if it was not used.[80]

6.6 Telephone triage

14. Telephone triage can help to reduce patient numbers and therefore reduce waiting times. Conclusions from early research into telephone triage were mainly unfavourable; the majority of recent research results are more favourable. The literature suggests that telephone triage can be successful but advises the use of formal protocols, training of staff and adequate documentation.[81]

6.7 Consumer involvement

15. A study investigating consumer service delivery in a mobile assessment program designed to assist homeless people with severe psychiatric disorder found that consumer and non-consumer staff were generally comparable. Results suggest that consumer staff were engaged in more street outreach and were less often dispatched for emergencies. There was a trend for consumer staff to be more likely to certify their clients for psychiatric hospitalisation.[82]

16. A comparison of service outcomes for people who are homeless and have a serious mental illness provided by case managers who are mental health system consumers and by case managers who were not consumers indicated that services provided by consumers and non-consumers yielded equivalent client outcomes. Several measures of clinical, social and occupational functioning were evaluated; as were two measures concerning therapeutic relationship.[83]

17. One described project, The Welcome Basket Program, links clients who have had two or more admissions over 12 months to consumer provider activities and community-based services after discharge from hospital with apparently positive impact on readmission rates and duration of stay.[84]

6.8 Police models

A number of collaborative models between the police and mental health services in North America have been described. These are aimed at diversion of some mentally ill offenders away from jails. There is some relevance in these models to diversion from EDs.

18. Over the last 15 years, community policing models have emerged in Los Angeles, expanding police function beyond traditional law enforcement to include more service and assistance tasks, greater responsibility for protection of and service to vulnerable populations, including those with disabilities. Three forms of specialised response programs are described:

- Police-based specialised police response – officers with special mental health training serve as first line police response to mental health crisis in the community and act as liaison officers to the formal mental health system. (Police rated this model highest in terms of minimising time spent on these types of calls).
- Police-based specialised mental health response – mental health professionals are employed by the police to provide on-site and telephone consultation to police officers in the field.
- Mental health-based specialised mental health response – partnerships/cooperative arrangements are established between police and mobile mental health crisis teams that are part of local community mental health services.[85, 86, 87, 88]

19. The Crisis Intervention Team (CIT) model utilises police officers with advanced training and specialisation who actively respond to emergency telephone calls associated with people with mental health problems.[89]

20. 'Cops and Docs' is a collaborative violence prevention effort including participation from trauma and emergency nurses that addresses the cycle of violence. It incorporates substantial cross-training.[90]

6.9 Crisis intervention

The literature contains a number of reports of evaluations of mental health crisis services, with particular reference to reducing psychiatric hospitalisation, and their benefits relative to other modes of intervention.[91]

21. The impact of a community-based mobile crisis intervention program on the rate and timing of hospitalisation and exploration of major consumer characteristics related to the likelihood of hospitalisation were evaluated. Hospitalisation rates were reduced by 8%. A consumer using hospital-based intervention was 51% more likely than one using the mobile crisis services to be hospitalised within 30 days after the crisis. Those most likely to be hospitalised were young, homeless and experiencing acute problems; they were referred by psychiatric hospitals, the legal system or other treatment facilities; they showed signs of substance abuse, had no income and were severely mentally disabled.[92]

22. A comparison in South Australia of the rates of inpatient admission between a mobile community-based psychiatric emergency service and a hospital-based psychiatric emergency service (in an ED setting), and identification of the clinical characteristics of consumers indicated that hospital-based emergency service contacts were found to be more than three times as likely to be admitted to a psychiatric unit when compared with those using the mobile community-based psychiatric emergency service, regardless of their clinical characteristics. The site of initial assessment accounted for a substantial proportion of the variance in decisions to admit to hospital.[93]

23. The effectiveness of a mobile crisis program in handling emergency calls identified as psychiatric emergencies was evaluated and the satisfaction of consumers and police was rated. The study retrospectively compared psychiatric emergencies handled by the mobile crisis program with those handled by regular police intervention. Of crises handled by the mobile crisis program, 55% were managed without psychiatric hospitalisation compared with 28% of emergencies handled by police. The average cost per case was 23% less for persons served by the mobile crisis program. Both consumers and police gave positive ratings to the mobile crisis program.[93]

24. Mobile teams that respond to urgent situations of high to moderate acuity are described, as well as teams that operate as mobile clinics focusing on the immediate post-hospitalisation period. A mobile outreach team that is crisis-oriented may reduce the number of patients coming to the ED. A team providing after care may reduce the revolving door phenomenon. A program in South Carolina is noted for diminishing lack of cooperation, and hence dispositional dilemmas, by networking human service agencies.[94]

25. The Greater Bridgeport Community Mental Health Center operated by the State of Connecticut incorporates a Mobile Crisis Team (MCT) that was developed to address the needs of a small number of clients who relapse upon discharge from psychiatric hospital. The MCT provides a telephone hot line, crisis intervention and evaluations in EDs and in the community. It serves as a gateway to the entire mental health centre. For the small group of chosen patients, the MCT provided appointments but also allowed for drop-in to the service. Outreach service was common – 18 clients were serviced, each with a major mental illness. There was a reduction of 17% in hospitalisations and 55% in number of days hospitalised. Staff often felt overwhelmed combining this work with that of a general crisis service. Transferring these patients to outpatient units for case management became difficult due to workloads and ambivalence on the part of the MCT staff.[95]

26. The impact of the addition of a mobile psychiatrist to a 24-hour crisis intervention team on the number of admissions to hospitals was evaluated. There was a sharp decrease in public hospital admissions during the study period without any increase in private hospital admissions. This decrease was followed by a definite rebound after the on-site services of the psychiatrist were terminated.[96]

27. An after-hours (1700-2330 hrs, weekdays) crisis intervention program staffed by psychiatric residents developed in the general emergency room to reduce inpatient psychiatric admissions showed that, in the first year, inpatient admissions during the hours covered decreased by 34%. Previously, emergency room staff were making admission decisions.[97]

7 Recommendations

The Mental Health Working Party findings indicate that the problem of inappropriate mental health presentations to EDs is complex and cannot be addressed by a single response. Service enhancements that intervene across the pathways taken by people are all likely to have some merit. These will include interventions associated with referral mechanisms, individual consumer options and choices, alternative community-based provider capacity, activities at triage and within the ED, disposition practices and follow-up, as well as improved mental health service crisis intervention and case planning and management practices.

The results of this project suggest that the demand on EDs will be reduced with continued consistent, high quality, evidence-based implementation and monitoring of Victoria's Mental Health Service, the *Framework for Service Delivery*.

One of the strong messages arising out of the consultation process was that any initiatives that are developed within the framework of HARP should build on the existing service system and infrastructure. The working party endorses this message and has formulated its recommendations into five key areas to encourage a systems-based approach. A number of other recommendations are also provided and are considered to have merit beyond the five key areas outlined.

HARP and broader policy frameworks within the Department of Human Services should support and encourage:

1. Initiatives that lead to effective mental health responses at the points of service entry.

Decision making points include prior to utilisation of the ED, at the ED, and by specialist public mental health triage/duty/intake services. Improving the front line mental health response of primary mental health care providers, specialist public mental health services and ED triage staff is likely to have a significant impact on presentations to the ED. Potential projects include:

1.1 Identifying a best practice model. That is, documenting and analysing examples of good practice across primary health, ED and specialist public mental health systems leading to timely and effective responses for people attending the ED for a mental health problem. Good practice will involve a response being available to the general community, other service providers, clients and carers of specialist public mental health services and also as an immediate point of referral for non-urgent category patients presenting to the ED and to GPs. Effective response will incorporate active, informed and authoritative responses to all requests for service associated with an appropriate specialist back-up assessment and referral capacity both in the community and at the ED.

1.2 Building on care coordination within the ED to increase capacity for effective responses to people seeking help with mental health difficulties.

1.3 Developing and implementing standardised mental health triage scaling for the Victorian context and associated training and support that assists general triage nurses in referral decisions to specialist public mental health services.

1.4 Developing consistent standards for specialist public mental health service triage/duty/intake systems.

2. Initiatives aimed at collaboration between mental health services and the MAS at the point of identification of a psychiatric category case, and at the point of decision to transport a patient to the ED.

The MAS transports many people with a mental health problem to the ED, often due to a lack of alternative treatment options. Potential initiatives include:

2.1 Providing outreach support to MAS to respond to non-urgent requests for service of people classified within psychiatric categories but having no known psychiatric history.

2.2 Providing a 24-hour response that provides for three-way consultation between callers known to be a client of specialist public mental health service, the MAS, and the specialist public mental health service with a view to providing an alternative to dispatch of ambulance transportation.

2.3 Providing a 24-hour response that provides for three-way consultation between patients directly assessed by the MAS and known to be a client of a specialist public mental health service, the MAS, and the specialist public mental health service with a view to providing an alternative to transportation to an ED.

3. Initiatives that identify and assertively intervene with people with a mental health problem who use the ED on multiple occasions.

Frequent users of the ED represent a disproportionate amount of the presentations of people with mental health problems. Consistent responses, together with assertive and planned interventions with these people, may reduce their ED use. Possible projects encompass:

3.1 Establishing standard criteria for recognition of frequent users and the use of 'flags' for assertive action.

3.2 Senior level review of frequent users of the ED.

3.3 Case planning and implementation with frequent users.

3.4 Specific project(s) to address the needs of frequent users presenting with substance use issues.

4. Initiatives that respond to people who are not eligible for specialist public mental health services.

A large proportion of people presenting to EDs with situational crises, emotional or psychological distress or uncomplicated depression or anxiety may benefit through intervention by services other than specialist public mental health services. Possible projects include:

4.1 Enhancing psychiatric consultation-liaison services in the ED to include capacity for follow-up and linking people not eligible for service by specialist public mental health services.

4.2 Enhancing community health counselling services, complex casework, in-reach practices to the ED, and outreach practices following ED disposition, including after-hours services.

5. Initiatives that address the needs of people presenting at EDs with primary substance abuse issues.

People presenting to the ED with primary substance abuse issues, co-morbidity with mental illness, and/or self-harm associated with substance use, represent a large proportion of the mental health related diagnostic groups. Possible projects include:

5.1 Increasing detoxification services, enhancing follow-up of substance abusers and effectively linking to recovery services.

5.2 Specifically skilled substance abuse workers as part of the mental health response in ED.

Beyond these five major areas of development, the Mental Health Working Party recommends that the following initiatives merit further consideration:

- Purchase from the MAS of specific fast-track transportation of people waiting in the ED for transfer to another facility.
- ‘Medical clearance’ provided by the general triage nurse.
- Development of collaborative after-hours services by GPs, either as a voluntary exercise between practices or organised through a general hospital.
- Enhanced general waiting room strategies that reduce stress and anxiety for consumers, carers and service providers.
- Formulation of standards of respect for privacy for people with mental health problems within EDs.
- Provision of support by employed consumer ‘mentors’ within the ED waiting area and, in particular, with frequent users. Potential extension to consumer-directed case management.
- Ease of reactivating specialist public mental health service re-entry following case closure. Use of voucher systems for known frequent ED users.
- Enhanced coordination of psychiatric inpatient bed availability.
- Formulation of standards for follow-up of people assessed in the ED by specialist public mental health services.

Appendix 1

Schedule of questions for service provider consultation

Facilitators posed the following questions for discussion and interchange with the service provider group:

a) What is the experience of mental health presentations to ED?

- What is the perception of an increase in mental health presentations?
- What are the characteristics of the people presenting? Have they altered? What is the impact of frequent users? What are the characteristics of frequent users?
- What are the causes of increased mental health presentations?
- What are the challenges for ED from mental health presentations? What are the challenges for other services?
- What are the ED responses to/decisions regarding people presenting? Are different decisions/actions applied to different types of presentation?

b) Which pathways are taken to and from the ED?

- How do people arrive at ED? Who refers them? Under what conditions are referrals made?
- What is the involvement of Area Mental Health Services/ambulance services/police services?
- What disposal decisions from ED are made for mental health presentations? How appropriate are these decisions?
- What are the opportunities and limitations to effective follow-up of people?

c) Which ED admissions are avoidable?

- What are the characteristics of people for whom ED presentation could be avoided?
- What improvements can be made to reduce unnecessary presentations to ED? What alternative practices are known or considered?
- What are the opportunities and limitations for alternative practices?

d) Where is there evidence of improved practices – statewide, national, international?

References

1 Department of Human Services, including Patient Records Information System Manager (PRISM), 1997–2000,and Victorian Psychiatric Disability Support Services Minimum Data Set, 1997–98 t o 2001 in Victorian Auditor General, *Mental health services for people in crisis*, Victorian Government, October 2002.

2 Department of Human Services, *An update on the Hospital Admission Risk Program (HARP)*, Victorian Government, September 2002

3 Department of Human Services, Victoria' s Mental Health Service: framework for service delivery, Victorian Government, March 1994.

4 Department of Human Services, *New directions for Victoria's Mental Health Service: the next five years*, Victorian Government, September 2002.

5 Commonwealth of Australia, *National Standards for Mental Health Services*, Canberra, December 1996.

6 Victorian Government, Suicide prevention: Victorian Task Force Report, Information Victoria, July 1997.

7 Department of Human Services, Survey of Area Mental Health Services triage arrangements, OCP, May 2002 (unpublished).

8 Victorian Auditor General, *Mental health services for people in crisis*, Victorian Government, October 2002.

9 EDCG, Analysis of VEMD Mental Health Emergency Department Presentations in 2000–01, Department of Human Services, (unpublished).

10 G Cooper, Transport of psychiatric patients, August 2002, MAS (unpublished).

11 B Westwood & G Westwood. 'Multi-presenter mental health patients in emergency departments–a review of models of care', *Aust Health Rev*. 2001;24(4):202–13. Review.

12 JM Oldham & ME DeMasi ME. 'An integrated approach to emergency psychiatric care', *New Dir Ment Health Serv*. 1995 Fall;(67):33–42.

13 JL Curry, 'The care of psychiatric patients in the emergency department', *J Emerg Nurs*. 1993 Oct;19(5):396–407.

14 JF Karshmer and A Hales, 'Role of the psychiatric clinical nurse specialist in the emergency department', *Clin Nurse Spec*. 1997 Nov;11(6):264–8. Review.

15 A Greenwood, 'Mental health emergency', *Nurs Stand*. 2000 May 31–Jun 6;14(37):14–5.

16 T Lang, A Davido, B Diakite, E Agay, JF Viel, % B Flicoteaux,. 'Non-urgent care in the hospital medical emergency department in France: how much and which health needs does it reflect?' J *Epidemiol Community Health*. 1996 Aug;50(4):456–62.

17 M Harris, K Daffurn, C Saunders, B Westwood, S Clark & M Short, *Multi-presenters to the Emergency Department The Simpson Centre for Health Services Innovation*, Liverpool Hospital, Sydney

18 ER Williams, E Guthrie, K Mackway-Jones, M James, B Tomenson, J Eastham & D McNally, 'Psychiatric status, somatisation, and health care utilization of frequent attenders at the emergency department: a comparison with routine attenders', *J Psychosom Res*. 2001 Mar;50(3):161–7.

19 SF Noronha, PN Desai, 'Psychiatric emergency services in the Veterans Health Administration: A review', *New Directions for Health Services*, 1999, 82, 75–99

20 O Saarento, H Hakko & M Joukamaa, 'Repeated use of psychiatric emergency out-patient services among new patients: a 3-year follow-up study', *Acta Psychiatr Scand*. 1998 Oct;98(4):276–82.

21 T Kne, R Young & L Spillane, 'Frequent ED users: patterns of use over time', *Am J Emerg Med.* 1998 Nov;16(7):648–52.

22 H Hansagi, M Olsson, S Sjoberg, Y Tomson & S Goransson, 'Frequent use of the hospital emergency department is indicative of high use of other health care services', *Ann Emerg Med*. 2001 Jun;37(6):561–7.

23 S Tsembris & C Elfenbein, 'A perspective on voluntary and involuntary outreach services for the homeless mentally ill', *New Directions for Health Services*, 1999, 82, 9–19

24 P McGee & AM Barnard, 'Meeting the needs of homeless people: the St John Ambulance mobile service', *Nurs Stand*. 1999 Jul 7–13;13(42):38–40.

25 DA Redelmeier, JP Molin & RJ Tibshirani, 'A randomised trial of compassionate care for the homeless in an emergency department', *Lancet*. 1995 May 6;345(8958):1131–4.

26 M Pirmohamed, C Brown, L Owens, C Luke, IT Gilmore, AM Breckenridge & BK Park. 'The burden of alcohol misuse on an inner-city general hospital', *QJM*. 2000 May;93(5):291–5.

27 GW Currier, MR Serper, MH Allen, 'Diagnosing substance abuse in psychiatric emergency service patients', *New Dir Ment Health Serv*. 1995 Fall;(67):57–63.

28 M Grigg, H Herrman, C Harvey, 'What is duty/triage? Understanding the role of duty/triage in an area mental health service', *Aust N Z J Psychiatry*. 2002 Dec;36(6):787–91.

29 P Chisholm & D LeMoine, 'A shared mental health care model'. *Can Nurse*. 2002 Oct;98(9):22–4.

30 R Tummey, 'A collaborative approach to urgent mental health referrals', *Nurs Stand*. 2001 Sep 12–18;15(52):39–42.

31 S Kisely, J Horton-Hausknecht, K Miller, C Mascall, A Tait, P Wong, R Bostwick, 'Increased collaboration between primary care and psychiatric services. A survey of general practitioners' views and referrals', *Aust Fam Physician*. 2002 Jun;31(6):587–9.

32 K Kushner, R Diamond, JW Beasley, M Mundt, MB Plane, K Robbins. 'Primary care physicians' experience with mental health consultation', *Psychiatr Serv*. 2001 Jun;52(6):838–40.

33 N Kates, M Craven, AM Crustolo, L Nikolaou & C Allen, 'Integrating mental health services within primary care. A Canadian program', *Gen Hosp Psychiatry*. 1997 Sep;19(5):324–32.

34 VK Sharma, G Wilkinson, C Dowrick, E Church & S White, 'Developing mental health services in a primary care setting: Liverpool Primary Care Mental Health Project', *Int J Soc Psychiatry*. 2001 Winter;47(4):16–29.

35 S Putman, 'Extended hours community mental health nursing service', *Accid Emerg Nurs*. 1998 Oct;6(4):192–6.

36 P Callaghan, S Eales, T Coats, L Bowers, J Bunker, 'Patient feedback on liaison mental health care in A&E', *Nurs Times*. 2002 May 21–27;98(21):34–6.

37 S Brendon & M Reet, 'Establishing a mental health liaison nurse service: lessons for the future', *Nurs Stand*. 2000 Jan 12–18;14(17):43–7.

38 WJ Kordilla, 'A forty-hour psychiatric assessment nurse position in a suburban level I trauma center's emergency department', *J Emerg Nurs*. 1994 Feb;20(1):20A, 22A.

39 JR Stutesman & D Yohanna,. 'An emergency psychiatry and crisis intervention service located in the emergency department: Northwestern's experience', *J Emerg Nurs*. 1994 Feb;20(1):22A, 25A, 28A, 30A.

40 S Gold & H Bergman, 'A geriatric consultation team in the emergency departmen', *J Am Geriatr Soc*. 1997 Jun;45(6):764–7.

41 JM Ryan, S Clemmett & A Snelson,. 'Role of a psychiatric liaison nurse in an A & E department', *Accid Emerg Nurs*. 1997 Jul;5(3):152–5.

42 I Ryrie, M Roberts, R Taylor, 'Liaison psychiatric nursing in an inner city accident and emergency department', *J Psychiatr Ment Health Nurs*. 1997 Apr;4(2):131–6.

43 P McEvoy, 'Psychiatry at the front line: CPNs working outside regular hours in an inner-city A&E department', *J Psychiatr Ment Health Nurs*. 1998 Dec;5(6):445–50.

44 Australian College of Emergency Medicine, Australasian Triage Scale, ACEM, 1994, Revision adopted by Council, November 2000.

45 M Tobin, L Chen & E Scott, *Development and Implementation of Mental Health Triage Guidelines for Emergency Departments*, South Eastern Sydney Area Health Service, Revised October 1999

46 D Smart, C Pollard, B Walpole, 'Mental health triage in emergency medicine', *Aust N Z J Psychiatry*. 1999 Feb;33(1):57–66; discussion 67–9.

47 M Broadbent, H Jarman & M Berk, 'Improving competence in emergency mental health triage',. *Accid Emerg Nurs*. 2002 Jul;10(3):155–62.

48 T Wand, B Happell, 'The mental health nurse: contributing to improved outcomes for patients in the emergency department', *Accid Emerg Nurs.* 2001 Jul;9(3):166–76.

49 JJ Crowley,. 'A clash of cultures: A&E and mental health', *Accid Emerg Nurs*. 2000 Jan;8(1):2–8.

50 R Ries, 'Advantages of separating the triage function from the psychiatric emergency service', *Psychiatr Serv*. 1997 Jun;48(6):755–6.

51 MH Allen, MA Fauman, SF Morin, 'Emergency psychiatric evaluation of "organic" mental disorders', *New Dir Ment Health Serv*. 1995 Fall;(67):45–55.

52 RR Reeves, EJ Pendarvis, R Kimble, 'Unrecognized medical emergencies admitted to psychiatric units', *Am J Emerg Med*. 2000 Jul;18(4):390–3.

53 MJ Rotheram-Borus, J Piacentini, R Van Rossem, F Graae, C Cantwell, D Castro-Blanco, S Miller, J Feldman, 'Enhancing treatment adherence with a specialized emergency room program for adolescent suicide attempters', *J Am Acad Child Adolesc Psychiatry*. 1996 May;35(5):654–63.

54 D Spooren, C Van Heeringen, C Jannes, 'Strategies to increase compliance with out-patient aftercare among patients referred to a psychiatric emergency department: a multi-centre controlled intervention study', *Psychol Med*. 1998 Jul;28(4):949–56.

55 M Cedereke, K Monti, A Ojehagen, 'Telephone contact with patients in the year after a suicide attempt: does it affect treatment attendance and outcome? A randomised controlled study', *Eur Psychiatry*. 2002 Apr;17(2):82–91.

56 MO Evans, HG Morgan, A Hayward, DJ Gunnell, 'Crisis telephone consultation for deliberate self-harm patients: effects on repetition', *British Journal of Psychiatry*. 1999 Jul; 175:23–7

57 D Allen, 'Telephone follow up for older people discharged from A&E', *Nurs Stand.* 1997 Aug 6;11(46):34–7.

58 C Van Heeringen, S Jannes, W Buylaert, H Henderick, D De Bacquer, J Van Remoortel, 'The management of non-compliance with referral to out-patient after-care among attempted suicide patients: a controlled intervention study', *Psychol Med*. 1995 Sep;25(5):963–70.

59 SK Dobscha, K Delucchi, ML Young, 'Adherence with referrals for outpatient follow-up from a VA psychiatric emergency room', *Community Ment Health J*. 1999 Oct;35(5):451–8.

60 WD Klinkenberg & RJ Calsyn, 'Predictors of receiving aftercare 1, 3, and 18 months after a psychiatric emergency room visit', *Psychiatr Q.* 1999 Spring;70(1):39–51.

61 L Hickey, K Hawton, J Fagg, H Weitzel, 'Deliberate self-harm patients who leave the accident and emergency department without a psychiatric assessment: a neglected population at risk of suicide', *J Psychosom Res*. 2001 Feb;50(2):87–93.

62 PF Sullivan, CM Bulik, SD Forman, JE Mezzich, 'Characteristics of repeat users of a psychiatric emergency service', *Hosp Community Psychiatry*. 1993 Apr;44(4):376–80.

63 SJ Ziguras & GW Stuart, 'A meta-analysis of the effectiveness of mental health case management over 20 years', *Psychiatr Serv*. 2000 Nov;51(11):1410–21.

64 C Issakidis, K Sanderson, M Teesson, S Johnston, N Buhrich, 'Intensive case management in Australia: a randomized controlled trial', *Acta Psychiatr Scand*. 1999 May;99(5):360–7.

65 N Wolff, TW Helminiak, GA Morse, RJ Calsyn, WD Klinkenberg, ML Trusty, 'Cost-effectiveness evaluation of three approaches to case management for homeless mentally ill clients', *Am J Psychiatry*. 1997 Mar;154(3):341–8.

66 E Slupczynska-Kossobudzka & L Boguszewska, 'Effects of community mobile team intervention in the Drewnica Hospital catchment area. 1. Patient outcome', *Int J Soc Psychiatry*. 1999 Autumn;45(3):207–15.

67 RA Rosenheck & D Dennis, 'Time-limited assertive community treatment for homeless persons with severe mental illness', *Arch Gen Psychiatry*. 2001 Nov;58(11):1073–80.

68 D Pope, CM Fernandes, F Bouthillette, J Etherington, 'Frequent users of the emergency department: a program to improve care and reduce visits', *CMAJ*. 2000 Apr 4;162(7):1017–20.

69 JD Dilonardo, CE Connelly, L Gurel, RF Seifert, K Kendrick, SL Deutsch,. 'Scheduled intermittent hospitalization for psychiatric patients', *Psychiatr Serv*. 1998 Apr;49(4):504–9.

70 J Little & D Stephens, 'A patient-based voucher system of brief hospitalisation', Aust N Z J *Psychiatry*. 1999 Jun;33(3):429–32.

71 D Ash & C Galletly, 'Crisis beds: the interface between the hospital and the community', *Int J Soc Psychiatry*. 1997 Autumn;43(3):193–8.

72 M De Clercq & V Dubois, 'Crisis intervention models in the French-speaking countries', *Crisis*. 2001;22(1):32–8.

73 E Francis, W Marchand, M Hart, A Carter, J Schinka, A Feldman, P Ordorica. 'Utilization and outcome in an overnight psychiatric observation program at a Veterans Affairs Medical Center', *Psychiatr Serv*. 2000 Jan;51(1):92–5.

74 P Clarke, RJ Hafner, G Holme, 'The brief admission unit in emergency psychiatry', *J Clin Psychol*. 1997 Dec;53(8):817–23.

75 S Fields & GK Weisman, 'Crisis residential treatment: an alternative to hospitalization', *New Dir Ment Health Serv*. 1995 Fall;(67):23–31.

76 CD Cross, 'Psychiatric emergency services. Introduction'. *Psychiatr Q*. 2000 Summer;71(2):97–9.

77 AM Sullivan, & J Rivera,.' Psychiatric emergency services. Introduction', *Psychiatr Q.* 2000 Summer;71(2):97–9.

78 RE Breslow, BJ Erickson & KC Cavanaugh, 'The psychiatric emergency service: where we've been and where we're going', *Psychiatr Q*. 2000 Summer;71(2):101–21. Review.

79 K Sutherby, GI Szmukler, A Halpern, M Alexander, G Thornicroft, C Johnson & S Wright, 'A study of 'crisis cards' in a community psychiatric service', *Acta Psychiatr Scand.* 1999 Jul;100(1):56–61.

80 A Cotgrove, K Zimsky, D Black & D Weston, 'Secondary prevention of attempted suicide in adolescence', *Journal of Adolescence*, 1995 18, 569–577

81 T Fortune, 'Telephone triage: an Irish view', *Accid Emerg Nurs*. 2001 Jul;9(3):152–6. Review.

82 JS Lyons, JA Cook, AR Ruth, M Karver & NB Slagg, 'Service delivery using consumer staff in a mobile crisis assessment program', *Community Ment Health J*. 1996 Feb;32(1):33–40.

83 MJ Chinman, R Rosenheck, JA Lam & L Davidson, 'Comparing consumer and nonconsumer provided case management services for homeless persons with serious mental illness', *J Nerv Ment Dis*. 2000 Jul;188(7):446–53.

84 P Montgomery & H Kirkpatrick,. 'Understanding those who seek frequent psychiatric hospitalizations', *Arch Psychiatr Nurs*. 2002 Feb;16(1):16–24. Review.

85 R Borum, 'Improving high risk encounters between people with mental illness and the police', *J Am Acad Psychiatry Law*. 2000;28(3):332–7.

86 MW Deane, HJ Steadman, R Borum, BM Veysey & JP Morrissey,. 'Emerging partnerships between mental health and law enforcement', *Psychiatr Serv*. 1999 Jan;50(1):99–101.

87 HJ Steadman, MW Deane, R Borum & JP Morrissey, 'Comparing outcomes of major models of police responses to mental health emergencies', *Psychiatr Serv.* 2000 May;51(5):645–9.

88 S Cochran, MW Deane & R Borum, 'Improving police response to mentally ill people', *Psychiatr Serv*. 2000 Oct;51(10):1315–6.

89 R Dupont & S Cochran, 'Police response to mental health emergencies–barriers to change', *J Am Acad Psychiatry Law*. 2000;28(3):338–44.

90 C McCue, 'Cops and Docs program brings police and ED staff together to address the cycle of violence', *J Emerg Nurs*. 2001 Dec;27(6):578–80.

91 S Guo, DE Biegel, JA Johnsen & H Dyches, 'Assessing the impact of community-based mobile crisis services on preventing hospitalization', *Psychiatr Serv*. 2001 Feb;52(2):223–8.

92 M Hugo, M Smout & J, Bannister,. 'A comparison in hospitalization rates between a community-based mobile emergency service and a hospital-based emergency service', *Aust N Z J Psychiatry*. 2002 Aug;36(4):504–8.

93 RL Scott, 'Evaluation of a mobile crisis program: effectiveness, efficiency, and consumer satisfaction', *Psychiatr Serv*. 2000 Sep;51(9):1153–6.

94 PM Gillig, 'The spectrum of mobile outreach and its role in the emergency service', *New Dir Ment Health Serv*. 1995 Fall;(67):13–21.

95 L Liefland, EM Caporale, T Wellington, L Barber, 'A crisis intervention program. Staff go the extra mile for client improvement', *J Psychosoc Nurs Ment Health Serv*. 1997 Feb;35(2):32–5.

96 GR Reding & M Raphelson, 'Around-the-clock mobile psychiatric crisis intervention: another effective alternative to psychiatric hospitalization',. *Community Ment Health J*. 1995 Apr;31(2):179–87.

97 M Lambert, 'Psychiatric crisis intervention in the general emergency service of a Veterans Affairs hospital', *Psychiatr Serv.* 1995 Mar;46(3):283–4.

State Government Victoria

Department of
Human Services