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**Estimating the prevalence of
mental disorders among income
support recipients: Approach,
validity and findings**

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Executive summary

Recent welfare research in the United States (US) has sought to identify the prevalence of common mental disorders and mental health problems among welfare recipients to better understand the circumstances of those who do not seem to be benefiting from welfare reform. These studies find that mental disorders and symptoms of mental health problems are alarmingly common among US welfare recipients. Many studies show that over half of all US welfare recipients are at risk of clinical mental disorders, with around 35 per cent having a clinically diagnosable mental disorder. Evidence suggests that, because of their mental illness, these individuals will have difficulty finding and maintaining employment, will be at increased risk of social isolation and entrenched dependency, will have difficulty meeting their participation requirements and be at increased risk of sanction and penalty. Further, parental mental health problems have negative effects on children's development.

This paper represents the first attempt to quantify the extent of common mental health problems among the Australian income support population. Data is available on the extent of income support reliance among people with psychotic disorders and the Department of Family and Community Services (FaCS) delivers a range of services and programs that are targeted at people with such disorders. The clinical and epidemiological study of low-prevalence disorders conducted as one aspect of the Australian Bureau of Statistics' (ABS) National Survey of Mental Health and Wellbeing (Jablensky et al. 1999) found that 85 per cent of people with psychotic disorders receive a government pension or payment. Although severely disabling, the 12-month prevalence of psychotic disorders is less than one per cent of the Australian population. The focus of this research, however, is on the prevalence and consequences of common mental disorders, such as anxiety, depression and substance use disorders, which affect around 18 per cent of the population and are likely to be experienced by an even greater proportion of income support recipients.

This report presents analysis of the ABS National Survey of Mental Health and Wellbeing. As well as estimating the overall population of income support recipients, the data were used to identify five client segments that correspond to different types of income support payment. The segments were:

- ▶ the unemployed
- ▶ students
- ▶ partnered women with children
- ▶ unpartnered women with children
- ▶ people not in the labour force.

The data showed that all mental disorders were much more prevalent among income support recipients than non-recipients. This was also the case for each of the separate client segments (with the exception of partnered mothers who had a similar prevalence to non-income support recipients).

Some of the key findings indicate that:

- ▶ almost one in three income support recipients (more than 30 per cent) have a diagnosable mental disorder in any 12-month period. This is 66 per cent more than the prevalence of mental disorders among Australian adults not receiving income support (18.6 per cent)
- ▶ substance use disorders are more prevalent among people receiving unemployment benefits and students. These groups also experience elevated levels of anxiety and depression
- ▶ the prevalence of clinical anxiety and depressive disorders among lone mother recipients is between three and four times the national average with 45 per cent of lone mothers experiencing a diagnosable mental disorder.

The data show that poor mental health is a factor likely to have an impact on many FaCS clients and reduce their ability to achieve social and economic goals. The findings reported in this paper suggest that the goal of increased economic participation among income support recipients could be facilitated by the introduction of strategies that take account of the higher prevalence of mental health problems among this population. People and organisations developing policy, managing programs and delivering employment or other services to income support recipients should recognise and understand the consequences of the elevated prevalence of mental disorders within the targeted client groups. In particular, policy and service delivery directed to sole parents needs to take account of the very high level of distress within this group. It is important to ensure that strategies to improve economic and social participation among income support recipients in these circumstances are supported by understanding and knowledgeable staff and the provision of targeted and effective services.

At one level, this report outlines a fairly negative picture, identifying elevated levels of mental distress among income support recipients that may limit their capacity for economic participation. However, this data support the direction of recent reforms designed to assist clients to better manage and address these types of barriers, and indicates that further reform has the potential to achieve even greater outcomes for these disadvantaged clients.

1 Introduction

1.1 What is mental illness and mental health?

Mental health refers to a person's ability to function and undertake productive activities, to develop and maintain meaningful relationships and to adapt to change and cope with adversity. Mental health underlies an individual's ability to interact with others and their environment. It represents an individual's sense of wellbeing and competence, and their ability to realise their full potential.

Mental health problems and disorders refer to the negative end of the continuum of mental health. This is where poor mental health interferes with people's lives and their productivity (in school, work or personally), and impacts negatively on their personal relationships. Mental disorders are characterised by alterations in thinking, mood or behaviour associated with distress or impaired functioning. Mental disorders include schizophrenia, depressions, anxiety disorders, dementia and substance use disorders. Each condition is unique in terms of its symptoms and effects, the causal factors and treatments. It is also important to recognise that mental disorders affect people differently.

Mental illness is a most debilitating condition and accounted for 13.3 per cent of the total disease burden (an estimate of lost years of healthy life) in Australia in 1996. It is estimated that up to 20 per cent of adult Australians experience a mental disorder within a 12-month period. The Commonwealth and state/territory governments have identified mental health as a National Health Priority Area as a way of attending to a previously neglected, yet fundamentally important health domain.

1.2 Aim of this paper

This paper focuses on the prevalence of common mental disorders. This includes depressive disorders, substance use disorders and anxiety disorders. The affective or depressive disorders include major depressive episode, dysthymia, mania, hypomania and bipolar affective disorder. A number of alcohol and drug use disorders are considered, including harmful alcohol use, alcohol dependence, harmful drug use (cannabis, opioids, sedatives and stimulants) and drug dependence. It also looks at anxiety disorders including social phobia, agoraphobia, panic disorder, generalised anxiety disorder, obsessive compulsive disorder and post-traumatic stress disorder.

The purpose of this paper is to estimate the prevalence of common mental disorders within the Australian income support population. The first task is to outline and validate the approach used to identify and estimate the population of income support recipients, including the different client segments (recipients of different types of payments, with different experiences, expectations and obligations). This is an important first step if results are to be considered credible and relevant to current policy discussions. Secondly, this paper will present information on the prevalence of mental disorders among all income support recipients, as well as for the separate client segments. The paper will then review the effectiveness of the identification, highlight future research directions, and identify policy implications. The first chapter, however, will outline why it is important to consider mental health in the context of ongoing reform of the Australian welfare system.

2 The importance of considering mental health in the context of welfare reform

2.1 Welfare reform and active labour markets: Promoting personal capacity?

Both internationally and within Australia, governments are increasingly emphasising active labour market programs that involve intensive job-search, vocationally-focused education and training, social or economic participation obligations (including work or work-type activities) and increased penalties for non-compliance, rather than systems based on passive income support (Martin 1998; Saunders 2002). This is, in part, a response to growth in unemployment during 1980s and 1990s and concerns about the economic sustainability of existing approaches (Saunders 2000). Another important driver of these changes is the notion that passive welfare promotes a culture of dependency, a loss of personal mastery, a decrease in recipient motivation, and the development of attitudes and values inconsistent with work (Buckingham 2000; Mead 2000). Thus, an aim of welfare reform in the US is to increase the self-sufficiency and independence of welfare recipients (Long 2001).

Within Australia, the movement towards active labour market policy has steadily increased from the 1980s (with the introduction of the activity test), through the extensive labour market programs implemented under *working nation* in the mid 1990s, to the current welfare reform process (see Saunders 2002; Whiteford & Angenent 2002). In 2000 a reference group provided recommendations to government on the possible directions of welfare reform in Australia (Reference Group on Welfare Reform 2000). The government subsequently announced and introduced policy changes that moved in the directions outlined by the group (Commonwealth of Australia 2001, 2002; Vanstone & Abbott 2001). A key element of the Australian welfare reform process is the development and extension of the concept of mutual obligation, particularly as embodied by the 'work for the dole' program (Abbott 2001; Howard 2001). The reform agenda seeks to increase the economic and social participation of income support recipients, including people who previously have had no activity obligations (for overview see Vanstone & Abbott 2001).

2.2 Understanding the success of welfare reform internationally

Success has undoubtedly accompanied the introduction of welfare reform policies in the US. Welfare caseloads have decreased by more than 50 per cent since 1996 (Butler 2000 2002; GAO 2002). It is unclear, however, whether this reduction should be attributed to the introduction of these work-first policies and/or whether it is an indication of the positive economic conditions (Long 2001).

Recently, an increasing number of researchers and policy makers within the US have proposed that the success of the work-first approach has been limited to welfare recipients with fewer barriers to employment and that others, such as those with mental health problems, have not benefited to the same extent (Danziger et al. 2000; Danziger & Seefeldt 2002; Loprest & Zedlewski 2002).

Some claim that this selective success has led to welfare rolls now containing an increased proportion of people with mental health problems and other barriers (Loprest & Zedlewski 1999; Moffit & Cherlin 2002). Other research though has found little or no increase in the level of disadvantage in the current welfare client base (Zedlewski 1999; Zedlewski & Alderson 2001).

It is important to note that there is a range of complementary and sometimes competing policies operating together as ‘welfare reform’, and that the interaction of different measures may mask the lack of success of those recipients with more severe barriers (Moffit & Cherlin 2002). Although the least disadvantaged welfare recipients are more likely to find work, the introduction of increased earnings disregards (whereby people are able to earn higher levels of income and remain in receipt of welfare) has meant those who do find work may continue to receive welfare (and remain on the rolls) while working (Danziger, Carlson & Henly 2001). Further, data from the US shows that sanctions have a greater effect on the disadvantaged, who are less able to comply with requirements, causing them to disproportionately leave welfare without an employment outcome (Loprest & Zedlewski 2002; Zedlewski 2002). Thus, although those who fail to find work may be more disadvantaged, they may be more likely to leave welfare due to non-compliance and those who do find work may continue to receive welfare.

Why is mental health an issue?

There is an extensive body of research investigating the relationship between mental health and socio-economic factors such as unemployment, poverty, education, deprivation and social exclusion (Dohrenwend et al. 1992; Harrison, Barrow & Creed 1998; Kessler, House & Turner 1987; Rodgers 1991; Sturm & Gresenz 2002). There is clearly a strong relationship between these factors and receipt of welfare or income support. Although some argue that receiving welfare itself has negative psychological consequences (Mead 2000), others have suggested and shown that there are no differences in the mental health of welfare recipients and non-recipients when income, work experience, education levels and other salient factors are controlled (Petterson & Friel 2001). Irrespective of any debate of causality, it is important to understand the characteristics of welfare or income support recipients to enable a better policy and service delivery response.

Recently in the US, research and policy initiatives have increasingly focused on the mental health of welfare recipients (see Lennon 2001). This is partly recognition that welfare reform in the US has not met the needs of all recipients. It is also driven by the fact that the US Congress reconsidered the Temporary Assistance to Needy Families (TANF) legislation during 2002. The original TANF legislation introduced in 1996 was highly controversial as it abolished guaranteed cash assistance to women with dependent children. Much of the recent US welfare research examined the mental health of sole parents with the objective of informing the reauthorisation process.

2.3 Evidence of the poor mental health of US welfare recipients

Research with US welfare recipients demonstrates a significantly higher prevalence of mental disorders and symptoms, particularly depression, compared to those not receiving welfare payments (Olson & Pavetti 1996; for overview see

Derr, Hill & Pavetti 2000; and Lennon, Blome & English 2001). Studies use measures that provide an estimate of the clinical prevalence of a disorder (such as the Composite International Diagnostic Interview (CIDI); Andrews & Peters 1998) or measures of symptoms (such as the Center for Epidemiological Studies Depression scale (CES-D), Radloff 1977). Such symptom measures have validated thresholds that correspond to the likely presence of clinical disorders.

Danziger et al. (2000) found that 35 per cent of women on welfare in the US had a diagnosable mental disorder, with 27 per cent of recipients experiencing clinical depression. Coiro (2001) found that 40 per cent of welfare recipients demonstrated symptoms that indicated they were likely to have diagnosis of clinical depression, yet only three per cent had accessed mental health services. Moore, Zaslow, Coiro, Miller and Magenheim (1995) reported that 42 per cent of welfare recipients were at risk of depression. Kalil, Born, Kunz and Caudill (2001) found that 52 per cent of welfare recipients reported significant depressive symptoms and were at risk of clinical depression, while Kalil, Schweingruber and Seefeldt (2001) reported that 60 per cent had significant depressive symptoms. Sweeney (2000) concluded that between one quarter and one third of welfare recipients have serious mental health problems. The research reviewed above suggests that up to 60 per cent of women on welfare experience symptoms of mental disorders.

Derr, Douglas and Pavetti (2000) also showed that generalised anxiety and post-traumatic stress disorders are significantly more common among welfare recipients than in the general population (up to four times higher). Similarly, Jayakody, Danziger and Pollack (2000) compared single mothers (welfare recipients and non-recipients) and found that illegal substance and alcohol dependence were more common among welfare recipients. In summary, Horwitz and Kerker (2001) described the prevalence of mental disorders in the welfare population as 'alarmingly high'.

The increased prevalence of mental disorders is not restricted to welfare recipients who are sole parents. For example, Danziger et al. (2001) investigated the psychological wellbeing of recipients of a General Assistance program that provided cash assistance to non-elderly adults without dependent children. This research also found elevated symptoms of depression, with half of these welfare recipients at risk of clinical depression.

The conclusions are also not restricted to the US environment. In a recent French study, Kovess, Gysens, Poinard, Chanoit and Labarte (1999) found that the prevalence of mental disorders in recipients of the *Revenue Minimal d'Insertion* (a general income support payment for people with limited resources that is separate from the unemployment, retirement and disability benefit schemes) was more than five times the rate in the general Parisian population.

2.4 The implications of mental health problems for employment

These findings are particularly relevant in the welfare reform context as evidence shows that the presence of a mental disorder reduces a person's employability (Danziger et al. 2000; Kessler & Frank 1997; Lennon et al. 2001). Mintz, Mintz, Arruda and Hwang (1992) reviewed existing literature and reported that more than 50 per cent of people with depression have a functional work impairment that restricts their ability in the workplace. Kalil, Schweingruber et al. (2001) found that the presence of depressive symptoms was associated with welfare

recipients being less likely to achieve an employment outcome. Derr, Hill et al. (2000) discuss a number of ways in which depression can affect a person's ability to work. They highlight:

- the direct adverse effect on work behaviour
- that the episodic or irregular nature of the disorder limits employment options
- the possible side-effects of medication
- the likelihood of limited work history or educational achievement
- the stigma associated with mental illness that prevents many people from seeking treatment
- employer reluctance to hire someone with mental health problems.

2.5 Types of policy responses implemented in the US

Given the lack of employment success of some groups of welfare recipients and the identification of high levels of mental disorders among those on the welfare rolls, policy makers in the US have considered ways in which mental health treatments and services can be incorporated into employment programs. A range of different solutions has been implemented (see Derr, Douglas et al. 2000; Derr, Hill et al. 2000) including:

- introducing screening and assessment processes to identify those with mental health problems such as depression
- ensuring employment staff have appropriate skills to identify and manage clients with mental health problems
- linking welfare recipients with existing mental health services
- integrating employment and mental health services
- providing short-term mental health counselling (both crisis and employment-focused)
- using welfare funds to expand existing mental health services
- where appropriate, assisting clients to apply for more appropriate disability payments.

In addition, programs designed to improve personal skills and cognitive style, self esteem and the ability to cope have proved to have positive effects for welfare recipients, both in terms of overall wellbeing and the achievement of employment outcomes, while being cost effective (Caplan, Vinokur & Price 1997; Caplan, Vinokur, Price & van Ryn 1989).

2.6 The current understanding of the mental health of welfare recipients in Australia

Within the Australian context, there has been growing attention to the mental health of income support recipients. The Minister for Family and Community Services has stated that providing opportunities for vulnerable and disadvantaged people is a key aspect of the welfare reform process in Australia. This includes providing assistance to help people with mental health problems to participate in employment or social and community activities (Vanstone 2002b).

This commitment is demonstrated by the investment in the Personal Support Programme (PSP). The PSP was the first program implemented through the *Australians Working Together* welfare reform process. It is designed to provide individualised assistance to people with multiple non-vocational barriers including, for many clients, mental health problems (FaCS 2002). The introduction of this program, as the first step of welfare reform, recognises that some people will not benefit immediately from welfare-to-work strategies, without first addressing their barriers.

This does not necessarily mean that all income support recipients with a mental health problem need to participate in intensive and specialised programs such as PSP. There has been a long-term international trend for mainstream programs and services to be delivered in a way that is sensitive to, and can incorporate interventions and assistance to meet the needs of people with disabilities (see Erhel, Gautie, Gazier & Morel 1996; Organisation for Economic Co-operation and Development 1992). Programs such as PSP will not be necessary for all income support recipients with mental health problems. Instead, many people may be more appropriately serviced by mainstream programs that are flexible enough to meet their individual (including mental health) needs.

There has been considerable Australian research examining the relationship between unemployment and mental health (Mathers & Schofield 1998), some of which has used the same data as this analysis (Flatau, Galea & Ray 2000). However, little Australian research has focused on unemployed welfare recipients. Croft (2002) reviewed data collected by Centracare Australia, a welfare agency delivering employment services through the Job Network. He reported that many unemployed clients had significant but hidden or previously unrecognised mental illness. Eardley, Chalmers and Abello (2002) conducted qualitative research examining long-term unemployment in western Sydney. They also concluded that mental health problems were very common among long-term unemployed job seekers. Job Network employment providers estimated that between 30 and 60 per cent of their clients had serious psychiatric disorders and drug or alcohol use problems. Both employment agencies and the job seekers themselves perceived that these issues would limit their chances of finding and keeping a job. The current analysis is unique in that it seeks to quantify the prevalence of mental disorders among unemployed income support recipients. Further, the aims are much broader, also considering the mental health of the population of Australian income support recipients.

A number of recent reports have identified the importance of mental health for a variety of different FaCS clients and across a range of FaCS programs (ACOSS 2001; Pearce, Disney & Ridout 2002). The consistent messages from these reports are that mental illness is a significant barrier to participation, that people with mental illness are among the most vulnerable and marginalised people in our society, and that social policy makers need to better understand the special circumstances of those with mental health problems.

In general, Commonwealth social policy has understood and responded to the issue of mental health from the perspective of major mental illness such as psychosis. Jablensky et al. (1999) found that 85.2 per cent of people with psychotic disorders receive a government pension or allowance and that 68.3 per cent receive a disability pension. Commonwealth social policy has long recognised that major mental illness, such as psychosis, has a profound effect

on an individual's capacity to participate in society, and has developed and delivered programs and services to assist those with, or at risk of, such mental health problems (Disability Support Pension (DSP), Reconnect, Supported Accommodation Assistance Program, Disability Employment Assistance). However, psychosis is only one aspect of mental illness and affects less than one per cent of the population at any one time. The issue examined in this paper is the prevalence of common mental disorders among all income support recipients and the consequences for their economic and social participation.

An aim of welfare reform in Australia is to reduce entrenched disadvantage by achieving higher levels of economic and social participation, including among people previously without activity obligations (parents, older workers and people with disabilities). Given the US experience, it can be expected that many of these income support recipients will have mental health problems. These recipients may require an approach that recognises their individual circumstances, is delivered by staff with appropriate skills and experience, and provides services and support to meet their specific needs. This may require FaCS to:

- ▶ identify circumstances where mental health problems present a barrier that must be addressed to enable people to increase their social or economic participation
- ▶ specify appropriate participation requirements
- ▶ understand the levels and types of support that will be needed to overcome and address these mental health barriers.

2.7 Limitations of existing data and management information

Prior to this analysis, no attempt has been made within Australia to quantify the prevalence of mental disorders within the income support population as a whole, although some management information on disability is available for some segments of the population. The department does collect information on the primary disability of DSP recipients (FaCS 2002). This data suggests that psychiatric or psychological disorders are the primary disabling condition for 25 per cent of DSP recipients, while a further 11 per cent are classified as having intellectual or learning conditions as their primary disability. However, even the data for this segment of FaCS customers is limited. Research has shown that more than 60 per cent of people with a disability have more than one disabling condition, with 30 per cent reporting conditions from two or more distinct disability groups (ABS 1996). For example, DSP recipients who are identified with a musculo-skeletal condition as their primary disability may also have a mental disorder that is not recorded on the FaCS database. Thus, the available administrative data does not accurately identify the prevalence of mental disorders among DSP recipients. It is particularly important in the context of ongoing reform of individual participation requirements for FaCS to understand the needs and circumstances of its clients and to know how best to target services and assistance. As such, knowledge of the types of mental health problems experienced by FaCS clients is a basis for maximising the achievements of each individual as well as being able to understand and foresee their behavioural responses to different policy options (difficulties achieving return to work outcomes).

3 Methods: How was the mental health of FaCS clients assessed?

3.1 National Survey of Mental Health and Wellbeing

The National Survey of Mental Health and Wellbeing (hereafter referred to as the **National Survey**) was conducted by the ABS in 1997. The survey used a representative sample of persons living in private dwellings from all states and territories. The National Survey was designed to provide data on the prevalence of major mental disorders and the associated levels of disability and health service usage in Australia. About 13 600 households were approached, with one person aged 18 or over from each house randomly selected for interview. Overall, 10 641 individuals completed the survey (a 78 per cent response rate). The sample was weighted based on state, part of state, age, gender and probability of selection to match the overall Australian population.

It is important to recognise that the National Survey focused on common mental illnesses (including anxiety, depression and substance use disorders), and did not assess the prevalence of other less common mental disorders such as schizophrenia and dementia. As such, the current estimates of the prevalence of mental disorders in FaCS clients will be an underestimate, as older Australians and those with psychotic illness are disproportionately recipients of income support payments.

Further information on the design and conduct of the survey is available in the *Profile of adults* (ABS 1998) and the *User's guide* (ABS 1999). Details and other findings from the survey have been extensively reported (Andrews, Hall, Teesson & Henderson 1999; Henderson, Andrews & Hall 2000).

3.2 Measures used

The National Survey collected a range of socio-demographic information including age, gender, marital status, labour force status, main source of income, household structure, housing tenure, educational levels, country of birth and languages used at home.

The primary diagnostic component of the survey was based on a computerised version of the **Composite International Diagnostic Interview** (CIDI) Version 2.1. This involves a fully structured diagnostic interview to identify symptoms of the most prevalent mental disorders and approximate diagnosis based on either the International Classification of Diseases—10th revision (ICD-10) or the Diagnostic and Statistical Manual of Mental Disorders—4th revision (DSM-IV). The reliability and validity of the CIDI have been demonstrated (Andrews & Peters 1998). The data reported in the present analysis used the ICD-10 classification, presented at the level of any anxiety disorder, any depressive disorder, and harmful alcohol or drug use or dependence, as well as a measure of any mental disorder.

A set of screening questions was used to identify people with **possible psychosis**. The scoring classification discussed by Degenhardt, Hall and Lynskey

(2001) was also used. These authors report that a score of three or more (out of a maximum of six) is able to discriminate between people with and without schizophrenia or schizoaffective disorder.

There were several measures of disability included in this analysis:

- ▶ the **Brief Disability Questionnaire** (BDQ; Ormel et al. 1994) contains questions designed to measure general levels of disability. Analysis has found that the BDQ emphasises the physical aspects of disability (Andrews, Sanderson & Beard 1998; Sanderson, Andrews & Jelsma 2001) though it does include items that assess motivation and social relations. As outlined in the National Survey user guide (ABS 1999), the current analysis examines the BDQ disability score categorised into severity of disability. The levels and corresponding BDQ scores are:

 - a score of two or less = no disability
 - score of three or four = mild disability
 - score of five to nine = moderate disability
 - score of 10 or more = severe disability.
- ▶ The **Short Form 12 Health Questionnaire** (SF-12; Ware, Kosinski, & Keller 1996) provides two summary scales, a physical and a mental health scale, that reflect limitations across different domains of daily activities and functioning due to health. After Sanderson and Andrews (2002), SF 12 scale scores were categorised into four levels of disability based on the standardised scale mean and standard deviation:

 - scores of 50 or higher were classified as no disability
 - scores of 40 to 49 were classified as mild disability
 - scores of 30 to 39 as moderate disability
 - scores below 30 were classified as severe disability.
- ▶ For each individual, a measure of **overall disability** was derived based on the maximum level of disability identified on the categorised BDQ, SF12—mental and SF12—physical measures.

3.3 Other data sources

One of the primary purposes of this paper is to derive and validate estimates of the income support recipient population from the National Survey. Therefore, results from the analysis of the National Survey data were compared with a variety of other data sources including FaCS administrative data and other ABS publications.

Although the National Survey data was collected during 1997, much of the comparative data are from 1999 (or early 2000 in cases of unpublished departmental administrative data). There were changes in the structure of income support payments between 1997 and 1999. For example, Youth Allowance was introduced and replaced Youth Training Allowance, Newstart and Sickness Allowance for people aged under 21 and AUSTUDY for people aged under 25. AUSTUDY Payment was introduced for students aged 25 years or older. The parenting payments were renamed and the Disability Wage Supplement subsumed into the DSP. For increased relevance, the current study seeks to estimate current administrative arrangements.¹

The **FaCS administrative data** are primarily drawn from FaCS *Occasional Paper 1* 'Income support and related statistics: A 10-year compendium, 1989–1999' (Bond & Wang 2001). Where needed, additional data is drawn from the FaCS administrative (Superstar) database.

The other important source of data was the 1998–99 **ABS Household Expenditure Survey** (HES; ABS 2000a; 2000b). The 1998–99 HES comprised a sample of 6893 private dwellings (from 8908 selected). The survey involved computer-assisted interviews with individual household members aged 15 years and over to assess income, household and personal characteristics. In addition, household members completed a diary in which personal expenditure was recorded. The current analysis is concerned with the person (rather than household or income-unit) level items. The particular focus is on the interaction between the demographic measures (including gender, marital status, income unit type, relation to reference person in income unit, labour force status, and education status) and income and earnings (such as principal source of income, receipt of government payments, type of payment, and so on).

3.4 Outline of analyses

The main purpose of the current analyses is descriptive. The first objective is to demonstrate the validity of the approach adopted to estimate the population of income support recipients and the specification of client segmentation. Having demonstrated the validity and utility of the estimates, the report then examines the prevalence of mental disorders amongst all income support recipients of workforce age as well as the individual client segments. These comparisons involve simple chi-squared analyses and logistic regressions. Throughout this report, the proportions and mean scores are weighted to reflect the Australian population. Data analyses were conducted using SPSS (for National Survey analysis) and SAS (for analysis of HES). For calculation of statistical significance, the weighting factor that represented the reciprocal of the probability of selection was re-scaled by dividing by the mean weight of the total sample (n/N). Thus, the measure of variability represents that expected from the total sample size, not from the total population.

4 Validation results: Demonstrating that the data does accurately identify FaCS clients

4.1 Overall estimate of income support recipients

FaCS administrative data show that the total number of income support recipients of workforce age in 1999 was 2 627 742 or 21.3 per cent of the Australian workforce age population (Bond & Wang 2001). The category of workforce age refers to men aged 15 to 64 years inclusive and women aged 15 to 59 years inclusive. The population targeted by the National Survey was adults over 18 years. To increase comparability, data from the individual payment tables presented (Bond & Wang 2001) were used to exclude payment recipients aged under 18 from the calculation of the FaCS population.

There were, however, some circumstances in which it was difficult to obtain relevant data. For example, the data tables for different income support payments did not use consistent age categories. Therefore, for some payments it was not possible to derive comparable figures. To overcome this, FaCS administrative data from the earliest available Superstar dataset (which was the first data collection period in 2000) was used to calculate the age by gender distribution of some payments. These distributions were then applied to the client numbers reported in the Bond and Wang publication. Similarly, the data within the published report did not always separate 18 to 19 year olds from other recipients aged less than 20 years for some payments. Again, age by gender distribution from later FaCS administrative data was applied to derive the population of interest. Finally, Bond and Wang presented data on the comparable Australian working age population but again, only presented data on the population aged under 20 and did not specifically identify those aged 18 and 19. The age by gender distribution of the Australian population from an ABS demographic characteristics publication (ABS 2000c) was applied to the Bond and Wang data to derive the appropriate 18 to 19 year-old comparative population. Table 1 provides detail of the final populations of interest for this paper and indicates the adjustments made to increase comparability with the National Survey dataset.

The revised figure of workforce age income support recipients, focusing on adults aged 18 and over, was 2 398 143. This was 20.8 per cent of the corresponding Australian population. The decreased level of income support receipt compared to the previous figure is expected given that young people have higher levels (30 per cent of 16 year olds receive income support payments; Bond & Wang 2001).

The weighted estimate of the workforce age population who rely on government pensions or allowances as their main source of income from the National Survey was 2 095 252 (95 per cent confidence interval between 2 008 621 and 2 181 710). This was 19.0 per cent (between 18.2 and 19.8 per cent) of the workforce age population (18 years and over).

Table 1: Summary of age and gender distribution of income support recipients (restricted to those of workforce age 18 years or over)

	Males					Females					TOTAL	
	18-19	20-29	30-39	40-49	50-59	60-64	18-19	20-29	30-39	40-49		50-59
DSP ¹	4 765	29 197	49 799	71 816	118 652	93 097	3 373	20 666	29 938	49 265	87 254	190 496
Sick Allow ²	0	2 055	2 202	1 777	1 423	342	0	927	748	942	737	3 354
Wife—AP	0	0	0	0	0	0	0	34	422	2 439	19 969	22 864
Wife—DSP	0	0	0	0	0	0	0	822	6 500	18 266	38 262	63 850
Carer ¹	98	805	2 394	4 138	5 958	3 147	164	1 383	3 065	7 143	9 721	21 476
Partner	0	0	0	731	2 849	2 440	0	0	0	12 283	50 619	62 902
PPS ¹	66	4 001	11 529	9 120	2 156	238	8 146	112 745	147 914	77 135	9 092	355 032
PPP ¹	31	2 328	8 429	7 521	1 814	155	2 804	57 625	96 109	44 272	5 585	206 395
Widow Allow	0	0	0	0	0	0	0	0	0	0	23 061	23 061
Mature Allow	0	0	0	0	0	43 521	0	0	0	133	1 154	1 287
Newstart ²	629	153 358	123 418	88 577	68 965	10 381	408	75 241	33 730	44 013	29 527	182 920
YA (other)	24 740	10 953	0	0	0	0	21 279	8 173	0	0	0	29 452
YA stud	33 058	42 178	0	0	0	0	43 695	49 301	0	0	0	92 996
ABSTUDY ³	1 611	2 753	1 999	1 005	310	56	1 984	3 854	3 023	1 821	745	11 427
AUSTUDY	0	11 861	10 310	4 162	992	42	0	9 054	6 481	3 375	864	19 774
Service pension	0	0	15	1 523	9 212	3 685	0	51	501	3 595	8 475	12 622
DVA support	0	0	0	0	0	0	0	0	0	0	784	784
Special ²	21	398	378	148	75	99	73	942	521	240	169	1 944
% in each age group	5.94	23.72	19.21	17.39	19.39	14.35	6.29	26.16	25.25	20.34	21.96	100
Total recipients	65 019	259 887	210 473	190 518	212 407	157 203	81 926	340 818	328 952	264 922	286 019	1 302 637
Australian population (ABS) ⁴	272 290	1 437 748	1 456 653	1 373 900	1 079 003	378 484	2 585 505	1 402 661	1 462 707	1 374 976	1 043 508	5 542 357
% receiving income support	23.88	18.08	14.45	13.87	19.69	41.54	31.69	24.30	22.49	19.27	27.41	23.50

Table 1: Summary of age and gender distribution of income support recipients (restricted to those of workforce age 18 years or over) (continued)

	Persons							Males	Females	% of recipients across payments	% males across payments	% females across payments
	18-19	20-29	30-39	40-49	50-59	60-64 ⁵	TOTAL					
DSP ¹	8 138	49 863	79 737	121 081	205 906	93 097	557 822	65.85	34.15	23.26	33.53	14.62
Sick Allow ²	0	2 982	2 949	2 720	2 160	342	11 153	69.93	30.07	0.47	0.71	0.26
Wife – AP	0	34	422	2 439	19 969	0	22 864	0.00	100.00	0.95	0.00	1.76
Wife – DSP	0	822	6 500	18 266	38 262	0	63 850	0.00	100.00	2.66	0.00	4.90
Carer ¹	262	2 188	5 459	11 281	15 679	3 147	38 016	43.51	56.49	1.59	1.51	1.65
Partner	0	0	0	13 014	53 468	2 440	68 922	8.73	91.27	2.87	0.55	4.83
PPS ¹	8 212	116 746	159 443	86 255	11 248	238	382 142	7.09	92.91	15.93	2.47	27.25
PPP ¹	2 836	59 953	104 538	51 793	7 399	155	226 674	8.95	91.05	9.45	1.85	15.84
Widow Allow	0	0	0	0	23 061	0	23 061	0.00	100.00	0.96	0.00	1.77
Mature Allow	0	0	0	133	1 154	43 521	44 808	97.13	2.87	1.87	3.97	0.10
Newstart ²	1 037	228 598	157 149	132 590	98 493	10 381	628 248	70.88	29.12	26.20	40.65	14.04
YA (other)	46 019	19 126	0	0	0	0	65 145	54.79	45.21	2.72	3.26	2.26
YA stud	76 753	91 479	0	0	0	0	168 232	44.72	55.28	7.02	6.87	7.14
ABSTUDY ³	3 595	6 607	5 022	2 826	1 055	56	19 161	40.36	59.64	0.80	0.71	0.88
AUSTUDY	0	20 915	16 791	7 537	1 856	42	47 141	58.05	41.95	1.97	2.50	1.52
Service pension	0	51	516	5 118	17 687	3 685	27 057	53.35	46.65	1.13	1.32	0.97
DVA support	0	0	0	0	784	0	784	0.00	100.00	0.03	0.00	0.06
Special ²	94	1 340	899	387	244	99	3 063	36.53	63.47	0.13	0.10	0.15
% in each age group	6.13	25.05	22.49	18.99	20.78	6.56	100					
Total recipients	146 946	600 704	539 425	455 440	498 425	157 203	2 398 143	45.68%	54.32%			
Australian population (ABS) ⁴	530 794	2 840 409	2 919 360	2 748 876	2 122 511	378 484	11 540 434	51.97%	48.03%			
% receiving income support	27.68	21.15	18.48	16.57	23.48	41.54	20.78					

Data from Bond and Wang (2001)

1 Identification of recipients aged 18–19 (from those aged under 20) based on age x gender distribution for relevant payment from earliest departmental 2000 data (from Superstar).

2 Data not presented in these age categories. Age x gender distribution from earliest available departmental 2000 data (from Superstar) applied to data in Bond & Wang.

3 ABSTUDY figures apply 1998 age and gender distributions to 1999 totals.

4 Age x gender distribution from ABS 3201.0 June 2000 (revised 1999 figures) used to calculate number of recipients aged 18–19 from data presented in Bond and Wang.

5 Only males are included in this age group

The National Survey estimate resembles but underestimates the actual population of income support recipients. One factor contributing to the underestimate is the operationalisation of income receipt in the National Survey. While the FaCS population data refers to the number of individuals receiving any level of payment, the National Survey data is based on individuals' self-reported receipt of income support payments as their main source of income. Thus, people with earnings or other income greater than their income support payments would not be identified as income support recipients.

A number of ABS surveys collect information about income sources and are able to be used to estimate the relative contribution of government pensions and allowances to total income (Income and Housing Costs series, HES). However, published data are presented at the level of income units (such as families) rather than individuals. It was necessary, therefore, to undertake analysis of the Confidentialised Unit Record File from the HES to investigate this issue and examine the validity of the National Survey estimates.

Australian Bureau of Statistics Household Expenditure Survey 1998–99

This analysis is based on the person (rather than the household or income unit) component of the HES dataset. To match the National Survey estimates, the analysis of HES focused on males aged between 18 and 64 and females aged between 18 and 59. The data was weighted to reflect population parameters (as well as estimates of the population for comparison). While the HES data provides an estimate of the number of income support recipients and the type of payment they receive, it must be noted that the information on welfare receipt is self-reported and is therefore subject to inaccuracy due to under-reporting and lack of knowledge of specific payment types.

Overall, it is estimated from HES that 3 493 345 people of workforce age received some form of government pension, payment or allowance in 1998–99. Of these, 68.4 per cent reported that this government payment constituted their main source of income.

This data includes more than 900 000 people who reported only receiving Family Allowance and more than 200 000 who indicated that this was their main source of income.² Family Allowance (or Family Tax Benefit A and B since 2000) is not an income support payment, but a payment designed to provide additional financial assistance to families with low or middle incomes and those with a single earner. It is paid in recognition of the costs of raising children and is not intended to be a family's main source of income. As a result of the inclusion of Family Allowance recipients, the estimate of the total number of income support recipients is inflated, as is the estimate of the proportion of payment recipients with other main sources of income. There are other consequences of the inclusion of Family Allowance recipients that will be discussed later. (These findings also illustrate the different relative contribution that government payments and allowances make depending on whether analysis is at the household/income unit or the individual level).

A better estimate of the population of income support recipients with other primary earnings was obtained by examining HES data for those individuals who reported receiving income support payments (Sickness Allowance, Veteran's Pensions, Newstart Allowance, Youth Allowance, Mature Aged Allowance, Widow Allowance, Disability Support Pension, Parenting Payment, AUSTUDY/ABSTUDY

and Wife Pension). It was estimated that there were 2 488 170 income support recipients, of which 2 155 700 or 86.6 per cent reported that these government payments were their main source of income. These figures are reasonably close to the overall income support population from the FaCS administrative data in Bond and Wang and the estimate derived from the National Survey. Table 2 details the estimates and population figures discussed in this section for comparison.

Table 2: Various population figures and estimates of income support recipients

	All recipients of payment/pensions	Payments as main source of income
All recipients (Bond and Wang, 2001) Income support recipients	2 398 140	na
All recipients (HES) Include non-income support payments (family allowance)	3 493 350	2 389 090
All income support recipients (HES) Exclude family allowance etc	2 488 170	2 155 700
National Survey Estimate	na	2 095 250
National Survey Applying HES proportions (86.6%)	2 419 460	

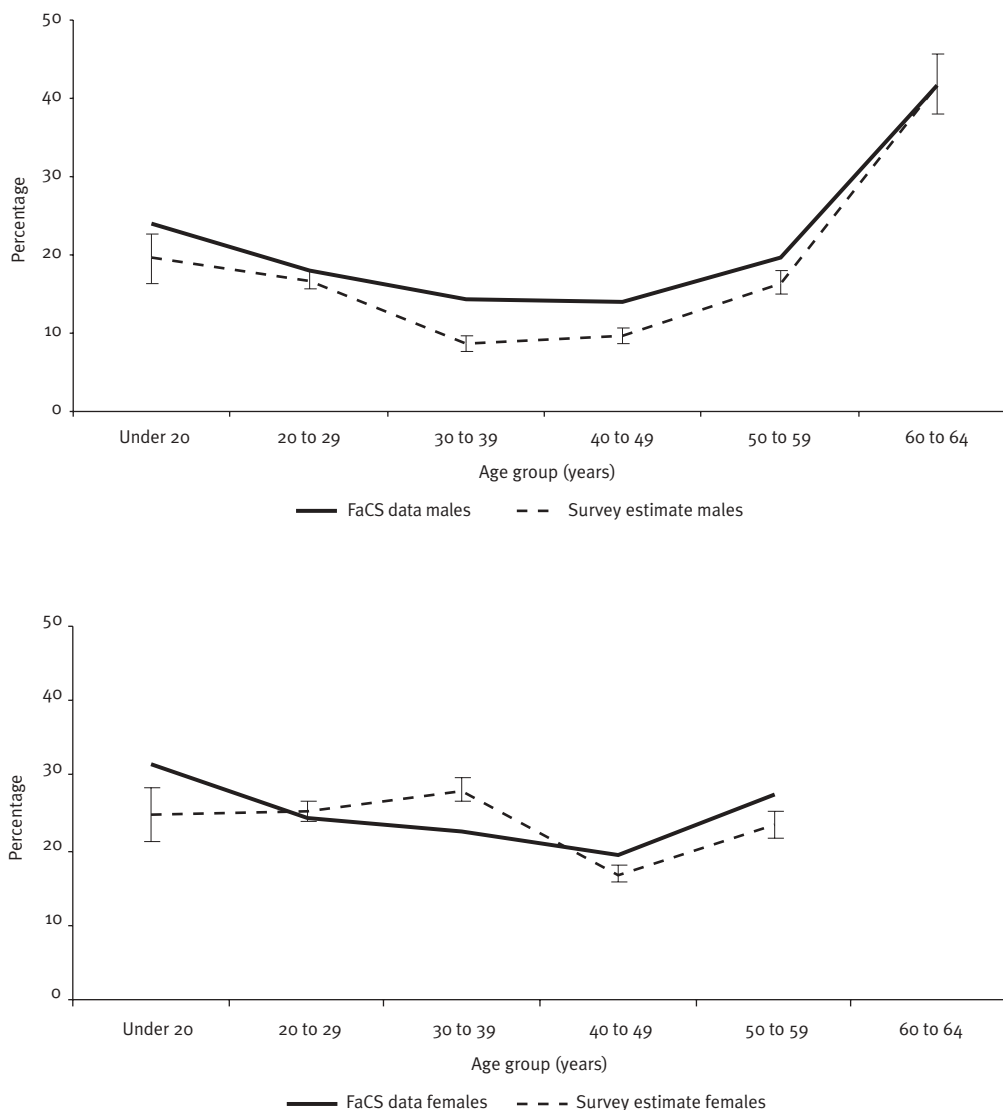
4.2 Analysis by age and gender

As well as providing a reasonable estimate of the overall population receiving income support, the National Survey estimate is also consistent with FaCS administrative data on the receipt of income support by age and gender (see figure 1).

Consistent with administrative data, the National Survey demonstrates greater levels of receipt of income support by women than men (23.5 compared to 18.3 per cent), despite the inclusion of the older, more income support dependent age group for men. The National Survey and FaCS administrative data show a consistent pattern of income support receipt across age, with levels of income support receipt decreasing through the mid age groups and then increasing in the older age groups, particularly those aged over 60.

The data in figure 1 show that the National Survey estimates are generally below the actual level of receipt of income support payments. As discussed, the National Survey underestimates the income support population as it only identifies those people who report income support payments as their main source of income. The only anomalous data point is for women in the 30 to 39 age group. The National Survey estimate is greater than the actual population figure. This is likely to be due to the inability to differentiate income support payment and Family Allowance recipients with no other personal income. Nonetheless, it is important to recognise that those receiving Family Allowance are still FaCS clients who receive no greater source of personal income. This group is substantial, but does not dominate the population estimate. Interpretation of data, particularly results for partnered women with children, will need to take into account these non-income support recipients. This does not, however, invalidate the process nor diminish the relevance of the findings.

Figure 1: Percentage of males and females receiving income support payments: Comparison of actual FaCS data with National Survey estimates (with standard errors)



4.3 Analysis by client segment

Bond and Wang (2001b) identified six main categories of workforce age income support recipients based on payment type. These were:

- unemployed people (which included people who were temporarily incapacitated and those receiving Mature Age Allowance)
- disabled or sick people
- students
- lone parents
- partnered parents
- wives and partners (those who receive Wife Pension and Partner Allowance).

These groups accounted for 95 per cent of workforce age income support recipients. The payments not included in this categorisation each represented less than two per cent of total income support recipients.

A somewhat different classification or categorisation is adopted in this analysis. It is diagnostically and descriptively useful and incorporates a number of the other payment types not included in the Bond and Wang classification. As there is no information on specific payments received in the National Survey, the classification was based on demographic characteristics. The items utilised included main source of income, gender, age, partnered status, study, young dependent (less than 17) children at home, and labour force status.

The five client segments presented in this report are:

- unemployed people
- students
- partnered women with children
- unpartnered women with children
- not in labour force/disability.

The main difference between this and other payment classification of Bond and Wang is that the disability and other non-activity tested payments (those that do not compel individuals to actively look for work) are grouped together as ‘not in labour force’ payments.

Table 3 outlines each of these client groups. It identifies and describes the individual payments within each category and, based on the Bond and Wang administrative data, outlines the percentage of income support recipients of workforce age within each category. It also shows the demographic characteristics used to define these groups within the National Survey data and presents the percentage of income support recipients estimated to be in each group.

All National Survey segments were based on people of workforce age who reported that their main source of income was government pensions, payments or allowances. The survey items classifying labour force status were based on standard ABS employment questions, which focus on employment during the previous four weeks and whether those not employed had actively looked for work and had been available to start work.

Overall, there is a broad similarity between the administrative data and National Survey estimates in the relative size of these client groups. Only the partnered women with children group substantially differed from (an overestimate of) the corresponding payment population. Again, this reflects the influence of women who only receive Family Allowance.

Table 3: Income support client segments: Description and comparison of administrative data and National Survey estimates

FaCS ADMINISTRATIVE DATA		NATIONAL SURVEY ESTIMATES	
	Description of payments and population size	Client characteristics and estimate (with 95% confidence interval)	
1. Unemployed			
Newstart Allowance	Paid to people 21 years or over and under Age Pension age who are unemployed. Newstart Allowance recipients must satisfy the activity test by actively seeking work and/or undertaking an activity designed to improve their employment prospects. They also must accept offers of suitable employment. Youth Allowance (other) is available to young people under 21 years of age who are looking for work.	<ul style="list-style-type: none"> ● Report government allowance or pension as main source of income. ● Workforce age (males aged < 65; females aged < 60). ● Not in full-time study. ● Males and females who report labour force status as unemployed — looked for work and able to accept job. ● Males with labour force status of 'part-time employment'. ● Females with labour force status of 'part-time employment' and who do not have children aged 16 and under at home. 	25.5% (23.11 to 27.94)
		28.7%	
2. Students			
Youth Allowance (student)	Youth Allowance (student) is available to people under 25 years of age who are studying or training. A parental means test applies unless assessed as independent. A personal income and assets test applies. AUSTUDY is available to full-time students aged 25 and over who are undertaking an 'approved' course at an approved institution. Income and assets tests apply. ABSTUDY is available to Aboriginal or Torres Strait Islander people at primary or secondary school, or in full-time or part-time post-school study.	<ul style="list-style-type: none"> ● Report government allowance or pension as main source of income. ● Workforce age. ● Full-time study (regardless of labour force status). 	9.9% (8.40 to 11.45)
AUSTUDY Payment			
ABSTUDY			

Table 3: Income support client segments: Description and comparison of administrative data and National Survey estimates (continued)

FaCS ADMINISTRATIVE DATA		NATIONAL SURVEY ESTIMATES	
Description of payments and population size		Client characteristics and estimate (with 95% confidence interval)	
3. Partnered women with children Parenting Payment (partnered)	Parenting Payment (partnered) is paid to the primary carer of a child aged under 16. Must satisfy income and assets tests which include consideration of partner income.	9.4%	21.8% (19.54 to 24.03)
4. Unpartnered women with children Parenting Payment (single)	Parenting Payment (single) is available to sole parents who are caring for a dependent child under 16. Income and assets tests apply.	15.9%	11.9% (9.50 to 12.72)
5. Not in the labour force Disability Support Pension	Paid to people aged 16 years or over and (generally) not yet Age Pension age. Must have a continuing inability to work 30 hours or more per week because of their physical, intellectual or psychiatric impairment and score 20 points or more of impairment scales. Must satisfy income and assets tests.	30.7%	31.6% (28.92 to 34.25)

Table 3: Income support client segments: Description and comparison of administrative data and National Survey estimates (continued)

FACS ADMINISTRATIVE DATA		NATIONAL SURVEY ESTIMATES
	Description of payments and population size	Client characteristics and estimate (with 95% confidence interval)
Mature Age Allowance	Mature Age Allowance is a non-activity tested income support payment. This payment recognises the labour market difficulties faced by some older unemployed people who are close to retirement age. To qualify a person must have turned 60 years of age and be less than Age Pension age and have no recent workforce experience.	
Partner Allowance	Partner Allowance is a non-activity-tested payment available to people born on or before 1 July 1955 who have no dependent children and no recent workforce experience. It is payable to partners of people receiving allowances and pensions. Subject to income and assets tests.	
Widow Allowance	Widow Allowance is a non-activity tested income support payment that recognises the labour market difficulties faced by single older women who have no recent workforce experience and may have depended on the support of their partner. Available to women over 50 years of age who were widowed, divorced or separated (including separated de facto) after the age of 40.	
Wife Pension	Wife pension is paid to wives of Age or Disability Support pensioners who do not receive a pension in their own right. No new grants of Wife Pension have been made since July 1995. It is subject to income and assets tests and residency requirements.	

Unemployed

The unemployed group comprises those people on Newstart Allowance and Youth Allowance (other). These payments require recipients to actively seek employment. The estimate from the National Survey excludes those people who are in full-time study. The majority are people whose labour force status was defined as 'unemployed'. This means they have actively sought employment. In addition, all males working part-time and all females **without** young children at home who were working part-time were also classified as unemployed. All women **with** young children, including those working part-time, were classified into the 'parenting' groups unless they specifically identified that they were looking for work. Both administrative data and National Survey estimates attribute more than one quarter of all income support recipients to the unemployed client segment. As table 4 demonstrates, there is also general consistency between the administrative data and the National Survey unemployed client segments on the common demographic characteristics, including the gender and age distributions.

Table 4: Characteristics of unemployed client segment comparing administrative data and National Survey estimates

	ADMINISTRATIVE DATA Unemployment payments (Newstart and Youth Allowance)	NATIONAL SURVEY Unemployed
Gender		
Male	68.8	62.6
Female	31.2	37.4
Age		
18–24	27.1	30.7
25–29	15.7	15.6
30–34	11.4	12.7
35–39	10.4	7.1
40–44	9.5	9.0
45–49	8.5	6.6
50–59	13.4	16.8
60+	1.4	1.7
Marital status		
	(rate of payment)	(marital status)
Partnered	26.6	38.9
Single	73.4	61.1
Earnings		
	(earned income)	(reported working)
Nil	87.7	73.9
Country of birth		
Australia	65.5	74.3

Students

The student group includes those people receiving Youth Allowance (student) who are aged under 25 years, those receiving AUSTUDY Payment who are aged 25 years and older, and ABSTUDY recipients who are Indigenous students. The National Survey estimate represents those respondents who reported that they were studying full-time. Again, the administrative and survey figures were similar, accounting for just under 10 per cent of income support recipients. There is less data available in Bond and Wang on the characteristics of the recipients of student payments (see table 5). While the National Survey estimate reproduces the population gender distribution, it does seem to somewhat underestimate the number of young (under 20) students.

Table 5: Characteristics of student client segment comparing administrative data and National Survey estimates

	ADMINISTRATIVE DATA Youth Allowance (student), AUSTUDY and ABSTUDY	NATIONAL SURVEY Student
Gender		
Male	47.0	46.5
Female	53.0	53.5
Age		
under 20	34.3	19.0
20–29	50.7	62.0
30–39	9.3	10.8
40–49	4.4	7.6
50–59	1.2	0.6
60+	0.04	0.0

Partnered women with children

This client group was designed to match Parenting Payment (partnered). The payment is made to the primary carer of dependent children under 16 in families with limited income and assets. Although the payment is available to males and females, administrative data shows that the overwhelming majority of recipients are female (see table 6). The estimate from the National Survey was based on women with a partner (either married or de facto), who had a child and were looking after a child aged 16 or under at home. It included women identified as working part-time and those not in the labour force.

As discussed, this category was the one that most differed from FaCS administrative data. This is likely to reflect the inclusion of those receiving only Family Allowance (now Family Tax Benefit A or B). As the HES data showed, for many women with no labour force attachment or limited other income, Family Allowance represented their main source of income despite not being an income support payment. This is not a particular problem, as this group are FaCS clients nonetheless and would share many characteristics with the Parenting Payment recipients, while having more financial and economic resources (that is, they do not qualify for Parenting Payment due to their own or their partner's income or assets).

Table 6 compares the demographic characteristics of the administrative and survey groups. The results support the decision to exclude males from this group, as only three per cent of payment recipients are male. The National Survey grouping is reasonably similar to the payment group although it does seem to overestimate the percentage of younger mothers, the proportion of recipients in employment and those who own or are purchasing their home. These differences are again likely to reflect the inclusion of the somewhat more affluent Family Allowance recipients.

Table 6: Characteristics of ‘partnered women with children’ client segment comparing administrative data and National Survey estimates

	ADMINISTRATIVE DATA Parenting Payment Partnered	NATIONAL SURVEY Partnered women with children
Gender		
Male	3.3	Nil
Female	96.7	100
Age		
Up to 29	22.4	28.6
30–39	54.2	50.9
40–49	21.1	18.8
50–59	2.2	1.8
60+	0.1	0
Country of birth		
Australia	78.3	75.6
Employment		
Working	7.0	11.2
Home ownership		
Own/purchasing	49.5	67.0

Unpartnered women with children

This group corresponds to Parenting Payment (single). This payment is made to sole parents caring for a dependent child aged 16 or under. The corresponding estimate from the National Survey was defined in a similar manner to the previous ‘partnered’ grouping except it focused on those women without a partner. Again, the estimate includes those working part-time and those not in the labour force and excludes males. Comparisons show a close correspondence between the administrative and survey data (see table 7). Although more males receive this payment, female recipients still predominate (93 per cent). On the other characteristics, the two groups are very similar though the estimate does identify a greater proportion of older (50 to 59 year old) mothers. The National Survey estimate of the single parent group does not seem to be influenced by the presence of Family Allowance recipients.

Table 7: Characteristics of ‘unpartnered women with children’ client segment comparing administrative data and National Survey estimates

	ADMINISTRATIVE DATA Parenting Payment Single	NATIONAL SURVEY Unpartnered women with children
Gender		
Male	7.0	Nil
Female	93.0	100
Age		
Under 20	2.8	2.8
20–29	30.3	27.8
30–39	41.4	40.2
40–49	22.4	22.4
50–59	2.9	7.2
60+	0.1	0
Country of birth		
Australia	79.8	81.5
Employment		
Working	27.0	32.0
Home ownership		
Own/purchasing	19.3	18.5

Not in the labour force

The final category is the ‘not in the labour force’ (NILF) group which was designed to reflect non-activity tested workforce age payments such as DSP, Mature Age Allowance, Partner Payment, Wife Pension and Widow Allowance. Whether due to disability or age and lack of recent labour market experience, the recipients of these payments are not expected to undertake job search activities. As a consequence of the payment eligibility criteria and the fact that disability is associated with age, these payment recipients are generally older than those in the other categories. It is also the case that a number of these payments have been closed to new applicants and are being phased out. This reflects changing community views of the importance of labour force attachment for all people and changing roles and expectations of women (Yeatman 2000). The National Survey estimate of this group comprised all males and those women without young children who were ‘not in the labour force’. Overall, the relative size of the NILF group was similar in the administrative and survey data.

Table 8: Characteristics of the ‘not in labour force’ (disability) client segment comparing administrative data for main payment (DSP) and National Survey estimates

	ADMINISTRATIVE DATA Disability Support Pension	NATIONAL SURVEY Not in the labour force
Gender		
Male	62.9	61.5
Female	37.1	38.5
Age		
Under 20	2.4	3.8
20–29	8.6	7.6
30–39	13.8	10.2
40–49	21.0	15.8
50–59	35.6	41.8
60+	18.6	21.1
Marital status		
Partnered	36.5	37.6
Single	63.5	62.4
Country of birth		
Australia	70.9	70.6
Single female parents		
Percentage of population	1.7	Nil
Employment		
Working	9.1	Nil
Home ownership		
Own/purchasing	62.4	57.9

Given that DSP is the main payment in this grouping (75 per cent of recipients), the demographic comparison in table 8 focuses on this payment type. It is apparent that the National Survey grouping closely resembles the characteristics of payment recipients. The main difference is the percentage of people identified as working. Due to the definitional criteria, it is logically not possible to be working while not being in the labour force. Nonetheless, a number of people on these non-activity tested payments are engaged in part-time work. This issue will be considered in the next section.

The other potentially important characteristic of the NILF group—given the predominance of DSP recipients—is the presence of disabilities or impairments

that compromise activities of daily living. To examine the prevalence of disability within the National Survey estimate, the three categorical disability measures previously discussed (based on the BDQ, the SF12-mental and the SF12-physical scales) were examined. For each individual, a new measure of maximum disability was derived that represented the highest or most severe level of disability from each of these three measures. This approach considers both physical and mental disorders within a single scale. Table 9 presents the percentage of respondents within each client group (and the no income support group) who reported no disability and those with a moderate or severe disability.

Table 9: Prevalence of disability (maximum of the three disability measures) within each client segment

	No disability (%)	Moderate or severe disability (%)
No income support	48.4	24.2
Unemployed	36.8	36.5
Studying	43.1	33.8
Partnered women with children	35.1	34.8
Unpartnered women with children	21.9	42.7
Not in labour force/disability	16.0	66.6

It is apparent that the NILF group had significantly greater levels of disability. Logistic regression analysis showed that all groups were significantly less likely to have a **moderate to severe disability** than the NILF group. The odds ratios ranged from 2.5 times less likely for the unpartnered parents, to six times less likely for those people in the non-income support group. Similarly, the people in the NILF group were more likely to have **any level of disability** (including mild) than all of the other groups, apart from those in the unpartnered women with children group.

These results demonstrate that the NILF group had greater levels of disability and impairment than the other client groups. This may reflect the identification of DSP recipients (whose eligibility is based on the presence of a disability) and/or the older average age of those identified in this client segment. In any event, it provides further validation of the classification adopted and an indication of the importance of this category/grouping of payment types. It is also worth noting that departmental figures show that the closing of other non-activity tested payments (Widows Allowance) has resulted in a substantial increase in DSP recipients further suggesting that the grouping of these payments is appropriate (FaCS 2001).

4.4 Examining client classification using the HES data

The final step in validating the National Survey data and the client segment estimates considers data from the 1998–99 HES. This final analysis examined those people who reported that government payments were their main source of income and applied a similar categorisation to that used for the National Survey data. Because the HES collects data on the types of income support payments that individuals report that they receive, it will be possible to examine the validity of the classification. It is anticipated that the relationship between client segmentation and payment type will match the description in table 3. Table 10 shows the segments into which recipients of each payment were classified.

Table 10: Classification of client segments by self-reported main payment type using 1998–99 Household Expenditure Survey data

Payment received	Classification	Per cent of payment group
Sickness Allowance	Not in labour force	82.3
	Unemployed	10.1*
Family Allowance	Partnered parents	86.0
Veterans' Payments	Not in labour force	75.7
Newstart Allowance	Unemployed	78.1
	Not in labour force	17.4*
Youth Allowance	Unemployed	38.0
	Students	54.7
Mature Aged Allowance	Not in labour force	92.3
	Unemployed	7.7*
Widow Allowance	Not in labour force	70.6
	Unemployed	16.4*
Disability Support Pension	Not in labour force	78.2
	Unemployed	11.9*
Parenting Payment (partnered and single)	Partnered parents	56.6
	Unpartnered parents	23.9
	Unemployed	10.7*
AUSTUDY payment/ABSTUDY	Students	92.4
Wife Pension	Not in labour force	60.4
	Partnered parents	24.2
	Unemployed	14.1*

From ABS Household Expenditure Survey 1998–99

* considered to be incorrect classification

Due to differences in the data items available in the HES and the National Survey, the classification process was not identical. For example, whereas the National Survey categorisation was based on the identification of women who had given birth to children and who had young children at home, it was necessary in the HES dataset to identify women in income units with 'dependent' children, including students. The labour force question in HES also identified self-employed individuals (whereas the National Survey did not). These people were classified in the same manner as those working part-time.

Overall, 81.9 per cent of respondents were classified as expected based on payment type. The majority of Newstart Allowance and more than one third of Youth Allowance recipients were classified into the unemployed group. The greatest anomaly was that more than 17 per cent of Newstart Allowance recipients were classified into the NILF group. This reflects that these respondents reported that they did not undertake job search activities or were unavailable to commence work. Data from Bond and Wang shows that in 1999, 9.5 per cent of Newstart Allowance recipients were exempted from activity requirements due to incapacity. For these people, classification into the NILF segment seems appropriate. Taking these respondents into consideration (assuming they would not indicate involvement in job search activities), the overall accurate classification of Newstart Allowance recipients would be close to 90 per cent and a reasonable approximation. Further, around 4.8 per cent of Newstart Allowance recipients met their activity test requirements in other ways,

such as through participation in training or other types of labour market programs. These recipients may also be among those not indicating involvement in active job search.

The student group was accurately classified with over 90 per cent of AUSTUDY/ ABSTUDY recipients and over half of Youth Allowance recipients categorised into this group.

Almost 90 per cent of Family Allowance recipients who received no other form of payment were classified into the 'partnered women with children group'. This is consistent with expectations and previous discussion. It confirms that care must be taken in interpreting data from this client segment.

More than half of Parenting Payment recipients were also categorised into the partnered women with children group. A somewhat unexpected finding was that almost a quarter of Wife Pension recipients were also classified as partnered women with children. This is, however, an accurate indication of their circumstances, with the decision between Wife and Parenting Payment dependent on the age of the respondent, the time of first claim (Wife Pension has been closed to new applicants since 1995) and the fact that their partner receives a pension.

About one quarter of Parenting Payment recipients were categorised into the unpartnered women with children group. This was the only payment type making a significant contribution to this category. The most common incorrect classification for Parenting Payment recipients was to the unemployed group, reflecting self-identification as a job seeker.

Finally, the majority of Sickness Allowance (more than 80 per cent), Veterans' payment (75 per cent), Mature Aged Allowance (92 per cent), Widow Allowance (70 per cent), DSP (78 per cent) and Wife Pension (60 per cent) recipients were accurately classified into the NILF client group. Apart from the classification of wife pensioners as partnered mothers, the most common misclassification for the payments in this group was into the unemployed group, accounting for about 10 per cent of recipients of each payment type.

These types of 'errors' were a function of the approach taken to classification. As previously mentioned, it is not possible to classify anyone engaged in part-time work, self-employed or who considers themselves as actively looking for work as being in the non-labour force group. People in these circumstances classified themselves as being unemployed, or as seeking more employment regardless of the type of payment they were receiving. Similarly, women with children who reported being 'unemployed' and looking for work were classified as unemployed, even though they were likely to be receiving Parenting Payment.

It was possible, by including all women with children in the parenting groups and further refinement of categorisation based on age and gender, to increase the overall accuracy of the classification process to between 86 and 90 per cent. However, a decision was made that the current classification process is valid and potentially more meaningful even though it may not reflect the current payment structure at the finest level of detail. It is consistent with the direction of the welfare reform process, moving towards increasing labour force connectedness for all individuals. It also identifies and provides a reasonable approach to deal with the overlap between different payment types. The classification represents the self-perception and actual activities of each individual. It is likely that there

is greater similarity between Newstart, DSP and Mature Age Allowance recipients who consider themselves unemployed and are actively seeking work, or between those who are effectively not in the labour force, than there is within these payment boundaries.

It is also noteworthy that little error can be attributed to the decision relating gender to classification of parenting payment recipients. The exclusive focus on women with children was supported by administrative data.

4.5 Summary of the definition and classification process

The preceding section provided an extensive description of the process of deriving estimates of income support recipients from the National Survey and validated these estimates against administrative data and other data sources. It is a necessary step, however, to show that the data and findings reported in the next section and other publications are credible and worthy of attention. Confidence in the validity of the data is important as the objective of the analysis is to identify policy implications and future research directions.

Overall, the identification of income support recipients from the National Survey data was satisfactory. Due to the reliance on self-report and the focus on 'main source of income', the estimates for the overall population and most of the individual client groups underestimate the actual administrative data. The partnered women with children group also seems to include a number of women who only receive Family Allowance. Nonetheless, the estimates resemble the overall population, with similar characteristics. For example, the gender and age distributions of income support recipients derived from the National Survey approximate those found in the FaCS administrative data. Similarly, the client segmentation has produced meaningful groups that resemble the different payments, and reflect the relative size of each segment. It is concluded, therefore, that the data from these groups are readily interpretable, and are able to be generalised to important segments of the FaCS income support population.

5 Results: The prevalence of mental disorders

This section presents findings on the prevalence of mental disorders among income support recipients. While the overall results showing how many income support recipients have mental disorders is important, it is the more detailed analysis of the different types of disorders and the prevalence among different client segments that will have greater relevance for developing policy and service delivery strategies.

5.1 Prevalence of mental disorders among all income support recipients

The first analyses consider together all those identified in the National Survey as income support recipients, without differentiation. The point of comparison for all analyses is the remainder of the Australian workforce age population who do not receive government payments or allowances as their main source of income.

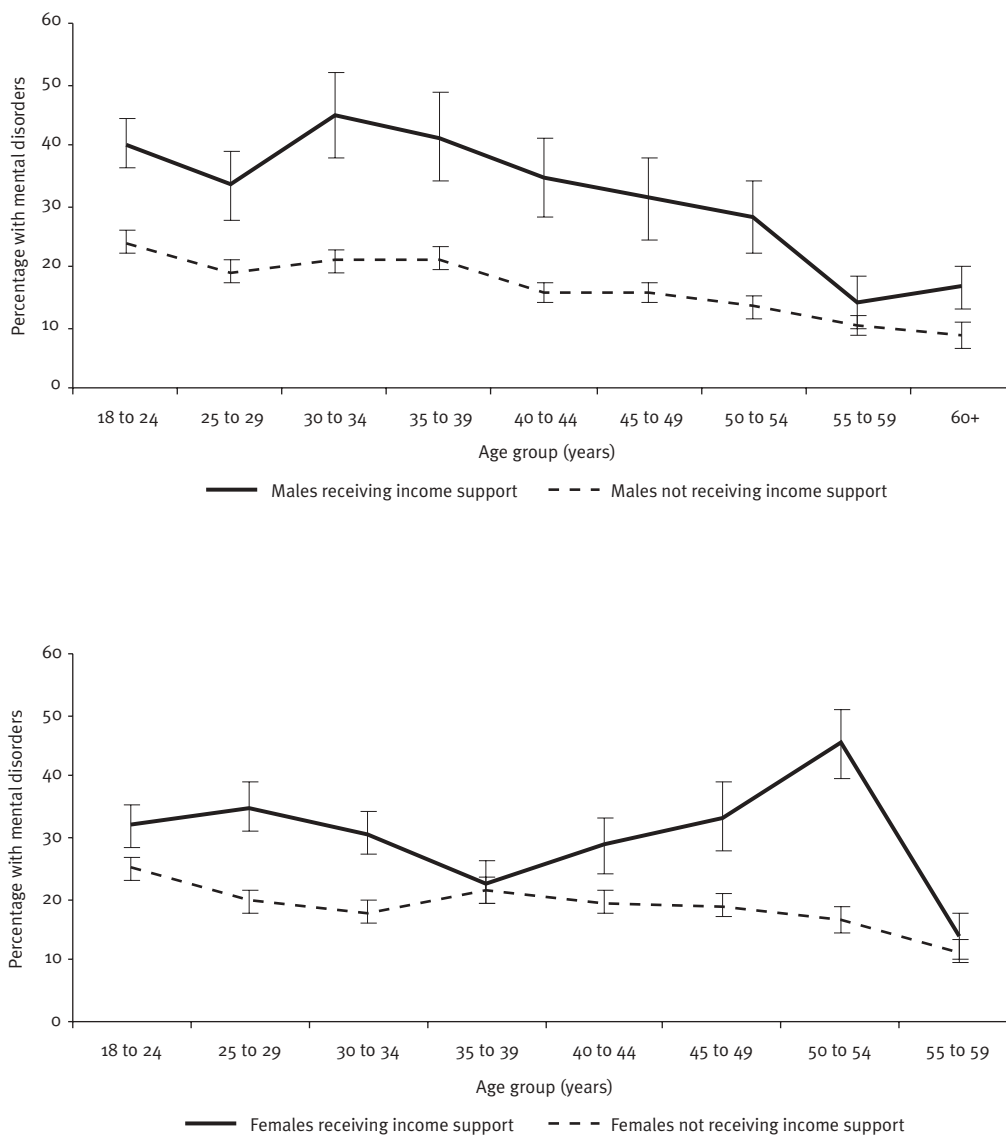
The overall National Survey results showed that 17.7 per cent of Australian adults had an anxiety, affective or substance use disorder in the past year (Henderson et al. 2000). The results of the current analysis are similar, showing that 18.6 per cent of Australians of workforce age who were not receiving income support payments had a clinical mental disorder. In contrast, 30.4 per cent of those receiving income support payments were identified with symptoms indicative of a clinically diagnosable mental disorder. The association between receipt of income support and mental illness was significant ($\chi^2 = 113.1$, $df = 1$, $p < .001$).

There are no significant gender differences in the prevalence of mental disorders among those not receiving income support payments (19.5 per cent of females and 17.9 per cent of males) and those reliant on income support payments (males 30.9 and females 30.1 per cent).

Prevalence by age and gender

Figure 2 presents data on the prevalence of all common mental disorders separately for males and females across age categories. The greater prevalence among income support recipients is evident from the graph. It is also clear that for those not receiving income support payments, as is the case with the overall Australian population, the prevalence of mental disorders decreases with age. This pattern is replicated for males receiving income support payments. In contrast, the rate of mental disorders among female income support recipients and non-recipients seems to converge in the 35 to 39 age group. For older women the prevalence of mental disorders increases among those receiving income support payments until nearing retirement age whereas there is a declining rate of mental disorders with age for those not receiving income support payments.

Figure 2: Prevalence of any mental disorders (substance use, anxiety or depressive disorders) for males and females by age and reliance on income support payments (with standard errors)



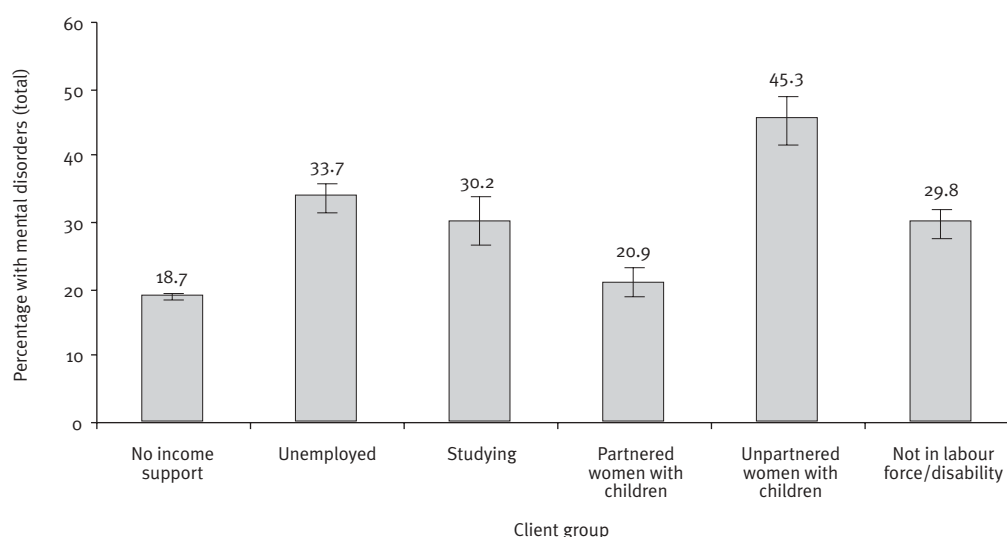
Prevalence of different disorders

The results for each category of mental disorder also show higher prevalence among income support recipients. Compared to 8.7 per cent of non-income support recipients, 18.0 per cent those receiving government payments as their main source of income reported an anxiety disorder ($c^2 = 124.7, df = 1, p < .001$). Similarly, 7.1 per cent of those not receiving payments had a depressive disorder compared to 13.0 per cent of income support recipients ($c^2 = 63.1, df = 1, p < .001$). Finally, whereas 8.3 per cent of those not receiving income support had a substance use disorder, the rate was 12.6 per cent among income support recipients ($c^2 = 29.8, df = 1, p < .001$).

5.2 Prevalence among different client segments

The prevalence of any mental disorder in each of the individual client segments is illustrated in figure 3. It is apparent that mental disorders are more common in all groups receiving income support payments, with the exception of the partnered women with children. This was confirmed by a logistic regression of client segment on presence of any mental disorder. The Wald statistics showed that each of the client segments except the partnered women differed significantly from the no income support group. The odds ratios (which demonstrate the increased odds or chances of experiencing a mental disorder in comparison to those not receiving income support payments) show the increased prevalence of mental disorders amongst the remaining client segments ranged from 1.9 (for students and the NILF group) to 3.6 for unpartnered women. Thus, recipients in the unpartnered women with children group are 3.6 times more likely to experience a mental disorder than those people not receiving income support.

Figure 3: Prevalence of any mental disorder (substance use, anxiety or depressive disorders) within client segments (with standard errors)



The prevalence of each type of mental disorder was also examined. The prevalence of substance use disorders (which includes harmful alcohol and drug use and dependence) is presented in figure 4. This figure demonstrates a different pattern of results to that of total mental disorders. Substance use disorders are most common in the unemployed and student groups. Those in the partnered women with children group have a significantly lower rate of substance use disorders than people not receiving income support. Again, this was confirmed by a logistic regression with presence of substance use disorder as the outcome and client segment as the predictor. The NILF group did not differ from those not receiving income support payments. The odds ratios showed that those in the unemployed group were three times as likely to have a substance use disorder than non-income support recipients. The odds ratio for students and unpartnered mothers were 1.9 and 1.7 respectively, whereas partnered women with children were half as likely as non-income support recipients to have a substance use disorder (OR = 0.49).

Figure 4: Prevalence of substance use disorders within client segments (with standard errors)

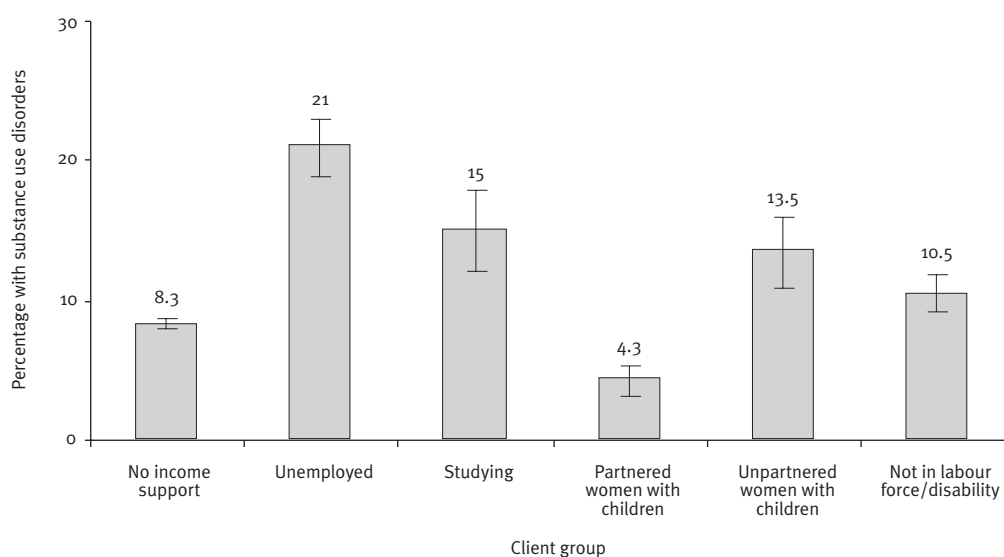
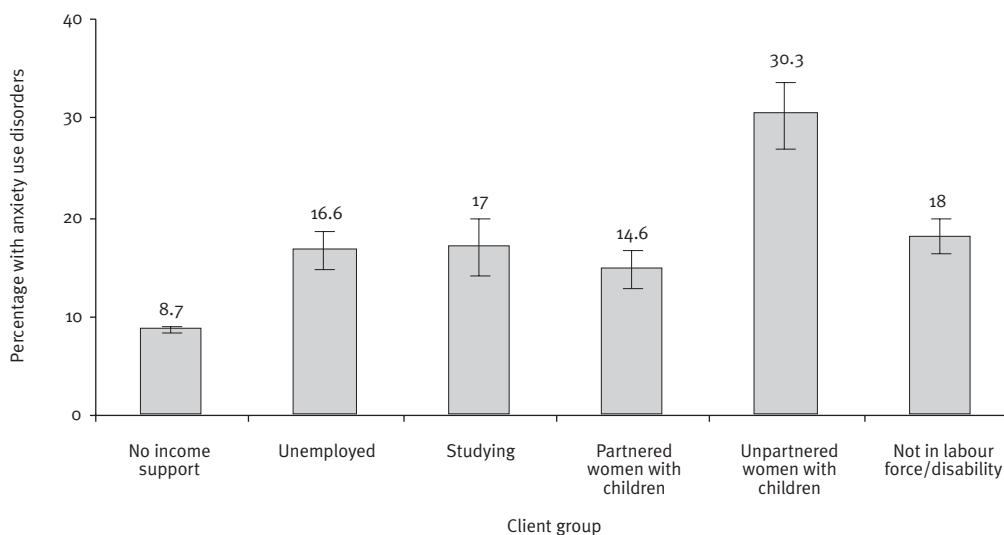


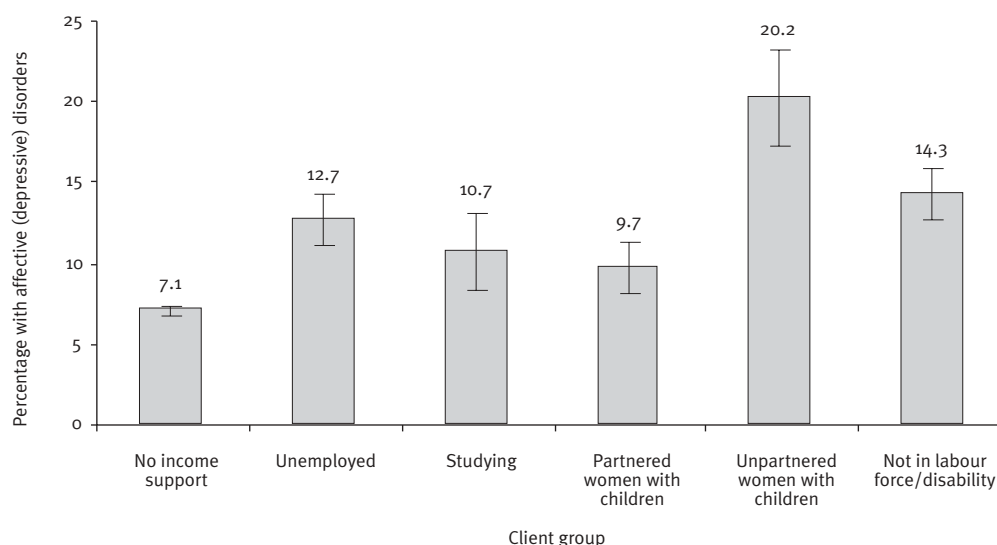
Figure 5 shows the prevalence of anxiety disorders in each of the client segments. Logistic regression confirmed that anxiety disorders are more common in all groups compared to those not relying on income support payments. The most striking result shows that those in the unpartnered women with children group are 4.6 times more likely to experience anxiety disorders than those not receiving income support payments. The next closest odds ratio is for the NILF group at half this figure (OR = 2.3).

Figure 5: Prevalence of anxiety disorders within client segments (with standard errors)



Finally, figure 6 presents the prevalence of depressive disorders across the FaCS client segments. Again, logistic regression showed that all groups reported higher rates of depressive disorders than people not receiving income support payments, though the students and partnered women with children segments were only marginally significant. The pattern of results is similar to that for anxiety disorders but not quite of the same magnitude. The odds ratios ranged up to 3.6 for the unpartnered women with children.

Figure 6: Prevalence of affective (depressive) disorders within client segments (with standard errors)



5.3 Targeting mental health promotion and interventions through FaCS

The preceding analysis demonstrated that common mental disorders are markedly more prevalent among income support recipients while also showing a different pattern of disorders within different client segments. It may also be informative to consider the prevalence data from a different perspective. This section examines the extent to which people with mental disorders are FaCS clients. This approach asks a very different policy question and has distinct policy implications. The previous analysis was designed to enable FaCS to better understand the characteristics of its clients and thereby ensure services, interventions and expectations were appropriate. This approach assesses whether it is practical and/or effective to identify and target services for people with mental disorders by focusing on FaCS clients. For example, it could be an efficient integrated government approach to target mental health promotion, awareness and intervention campaigns specifically at FaCS clients (for example through Centrelink or other service providers), if this is an effective way of contacting a substantial proportion of all people with mental disorders.

This analysis also considered the psychosis screening questions from the National Survey data. Jablensky et al. (1999) reported that 85.2 per cent of people with psychotic disorders received government pensions or benefits and that 68.3 per cent received a disability pension. The National Survey data showed that 43 per cent of those positively identified on the psychosis screening questions were in receipt of income support payments. Although high, the level of income support reliance did not match the level of welfare receipt identified by Jablensky et al. (1999) using a more accurate diagnostic process.

Table 11: Estimated population distribution of mental disorders by receipt of income support (standard errors)

	Not receive income support %	Income support recipients %	Standard error
Overall Australian population	81.0	19.0	
All people with affective disorders	69.9	30.1	1.71
All people with anxiety disorders	67.3	32.7	1.56
All people with substance use disorders	73.8	26.2	1.56
Total mental disorders (affective, anxiety or substance use disorders)	72.3	27.7	1.05
All people positive on psychosis screeners	57.4	42.6	4.65

Whereas less than 20 per cent of the Australian working age population receive income support payments, around 28 per cent of those with some form of mental disorder (anxiety, depression or substance use) rely on pensions or allowances. Almost one third of people with depressive disorders and anxiety disorders are income support recipients. The results are even more striking when considering those people with a mental disorder who also report the presence of a moderate or severe disability that impairs their ability to undertake daily activities (the maximum of the BDQ, SF12—mental and SF12—physical scales). Overall, 35 per cent of those with some form of mental disorder relied on a pension or allowance and 41 per cent of people with an anxiety disorder and a moderate or severe disability are income support recipients. Thus, the FaCS/Centrelink infrastructure may be an effective medium to reach a substantial proportion of Australians with mental health problems.

6 Discussion: What does this mean for social policy?

6.1 The prevalence of mental disorders: What are the top-line findings?

When starting this project it was expected that the analysis would show that mental disorders were more common among income support recipients than those not receiving income support. The strict income and asset tests used to determine eligibility for all payments excludes those with substantial financial resources. Given their demographic and socio-economic characteristics, it was expected that income support recipients would disproportionately experience disadvantage. Therefore, elevated levels of mental disorders in this group would be consistent with well-established research findings (Dohrenwend et al. 1992; Rodgers 1991). It was not expected, however, that the results would replicate the magnitude of mental disorders demonstrated within welfare population in the US. It was considered that the greater income inequality in the US compared to Australia (see Smeeding 2002 for discussion of recent results from the Luxembourg Income Study) could be one factor leading to a greater prevalence of mental illness amongst US welfare recipients. It was also thought that, due to different cultural values and the availability of universal health care in Australia, mental disorders might not be as disproportionately represented amongst income support recipients.

However, the prevalence of mental disorders among Australian income support recipients was of the same magnitude, if not greater, than comparable US figures. Overall, almost one in three income support recipients have a clinically diagnosable common mental disorder in any 12 months. This is 66 per cent greater than the prevalence of mental disorders amongst people not receiving income support payments.

Another surprising finding from the overall results was that the prevalence of mental disorders among women receiving income support payments significantly increases with age from the mid-30s. In contrast, the overall population shows declining prevalence of mental disorders with age (ABS 1998; Henderson et al. 2000), although the prevalence of anxiety disorders does not decline for women up until the age of 55 years. For female income support recipients the increase in prevalence with age seems to be largely a consequence of mental disorders amongst women with children. The data show that women with children become the dominant segment of female income support recipients in these mid to older age groups, and that they report substantially higher levels of anxiety and depression. These results are also likely to reflect that women in the NILF and unpartnered women with children segments dominate these older age groups of income support recipients, whereas those in the partnered women with children segment, who report less mental distress, are the dominant segment in younger age groups. Knowledge of the higher prevalence of mental health problems among older women receiving income support is important when trying to promote employment and develop appropriate participation options.

6.2 What do these findings mean for FaCS?

Customer service staff, policy makers and researchers have demonstrated a level of knowledge and awareness of the problems confronting the relatively small number of people with serious and disabling mental (particularly psychotic) conditions and provide services and assistance to help to meet their needs (DSP, disability employment services, supported accommodation services). Substantial investment has also been made recently in programs such as the PSP in recognition of the serious barriers, including mental health problems, that many income support recipients experience. However, there is scope to increase the research and policy focus on the prevalence and impact of most common mental disorders among mainstream (non-DSP) income support recipients. The overall results from this analysis suggest that FaCS, Centrelink and other agencies and organisations in contact with income support recipients (such as the Department of Employment and Workplace Relations, Job Network and other service providers) could potentially improve the delivery of services to, and increase the economic and social participation of, clients by better addressing their mental health issues. The research reviewed earlier showed that addressing mental health problems and improving psychological functioning and capacity is a proven way to achieve participation outcomes. By considering this issue now, policy makers and service providers can be better prepared to deal with an evolving welfare reform environment in which addressing mental health problems is likely to become an increasingly significant policy issue. By developing strategies that consider and tackle clients' mental health issues, it is possible to minimise the negative impacts on individual capacity and functioning and improve the overall success of employment programs and interventions.

Evaluation findings and current policy initiatives and directions in the US illustrate policies that Australia could pursue. For example, Jayakody and Stauffer (2000) noted that prior to and during the initial phases of US welfare reform, assessment and screening processes did not pay sufficient attention to mental disorders. Action now may avert similar problems in the Australian welfare reform context (see discussion under policy implications), bringing earlier gains in economic participation.

6.3 Understanding the circumstances of each client segment: What do the data show?

The data from individual client segments provide more detailed information about the nature of mental disorders within the income support population to enable better targeting of assistance. While the group representing DSP recipients was expected to demonstrate elevated levels, it was surprising that the magnitude of the overall prevalence of common mental disorders was similar or greater for students, the unemployed and, particularly, for unpartnered women with children. The data from this last group provided the most striking results from this analysis.

Although the current paper is based on a population survey and estimates the different segments of the income support population, it provides considerable detail about a range of different mental disorders. There is a distinctive pattern in the results, with different client segments/payment types experiencing different mental disorders.

Unemployed clients and students: Targeting alcohol and substance abuse

The unemployed and student segments reported an elevated presence of all types of mental disorders relative to non-income support recipients, though they stand out most substantially on the prevalence of substance use disorders. This may well be a function of the younger age of this client segment. The results support initiatives (such as aspects of the National Illicit Drug Strategy) that target education, prevention and intervention drug and alcohol services through Centrelink. It is also important to recognise that the elevated prevalence of anxiety and depressive disorders within the unemployed group may interfere with the ability of many Newstart Allowance recipients to find and keep work. Targeted assistance and services delivered by staff with an understanding of the impact of mental health problems could overcome or reduce the effects of these barriers.

Partnered women with children: Increased anxiety and depression reflects gender difference

Those in the 'partnered women with children' group had the lowest level of mental disorders of all of the groups of income support recipients. This group had significantly lower levels of substance use disorders than non-income support recipients, though the prevalence of depressive and anxiety disorders was greater. Their experience of depression and anxiety is not, however, any greater than that of other (non-income support recipient) women with children. Women caring for children have a higher risk of mental disorders (Meltzer, Gill, Petticrew & Hinds 1995; Rodgers 1991). The data suggest that, for women who are in a relationship, receiving income support payments (and presumably having poorer financial resources) does not have a substantial impact on the prevalence of mental disorders. It may be, however, that any increased prevalence is masked by the inclusion of Family Allowance recipients who have greater financial resources and, possibly, better mental health.

Not in the labour force: Mental disorders and disability

The 'not in the labour force' (NILF) client segment included DSP recipients and was considered likely to have the greatest proportion of recipients with substantial barriers to employment, including mental health problems. While this group experienced all mental disorders more commonly than people not receiving income support, the prevalence of substance use, anxiety and depressive disorders was consistently **lower** than that reported by those in the unpartnered women with children group. This may reflect the inclusion of recipients of other types of non-activity tested payments within this client segment such as Mature Aged and Partnered payments. Further, the NILF client group is considerably older than the other segments and, thus, the prevalence of mental disorders in this group may reflect the fact that the prevalence of mental disorders decreases with age. In contrast to the prevalence of mental disorders, the presence of disability increases with age and, therefore, should be associated with receipt of DSP and the other payment types included in the NILF group. The analysis of the disability data confirmed this.

Unpartnered women with children: Very high rates of depression and anxiety disorders

The prevalence of depression and anxiety disorders was greatest in the sole parent group (and considerably more common than in all other client segments). In addition, the reported level of disability (the effect on the individual's ability to participate in everyday activities) was also greater for sole parents than all other groups apart from the NILF group.

The high prevalence of mental disorders among sole parents was not unexpected. It is well established that sole parents have elevated levels of psychological illness (Baker & North 1999; Brown & Moran 1997; Hope, Power & Rodgers 1999). There is a range of (interrelated) factors that may explain this including financial hardship (Pearlin & Johnson 1977), lack of employment (Rodgers 1991; Warr & Parry 1982), lack of social support (Pearlin & Johnson 1977) and the additional burden of sole responsibility for children (Rodgers 1991). Recent analysis on outcome measures of poverty (Bray 2002) has shown that lone parents in Australia experience significantly higher rates of hardship than other family or household types. The relationship between hardship and mental illness among income support recipients warrants further research attention.

It is also possible that the prevalence of mental disorders demonstrated by sole mothers in the current study reflects that receipt of income support occurs at a particularly stressful time. Receipt of income support for many sole parents may occur at a time when the changes associated with divorce or separation, relationship breakdown, decreased financial stability and increased responsibility for children are new, thus increasing the likelihood of mental illness and psychological distress (McLanahan 1983 but see Hope et al. 1999). Although it is not possible from the current dataset, it would be worth examining whether duration on payment is inversely related to psychological distress.

What are the implications of the sole parent findings?

Experiencing a mental disorder may compromise a person's ability to look for work or maintain employment (Lennon et al. 2001). Changes introduced through the *Australians Working Together* package will encourage recipients of parenting payments to engage in activities to facilitate their return to work when their children are older. While the very high prevalence of mental disorders among lone mothers may well make the task of increasing social and economic participation more difficult, welfare reform and the proposed annual interviews with Personal Advisers provides an opportunity to contact and engage this group of women. As such, it is a chance to assist lone mothers with mental illness to better understand their circumstances and seek assistance. It is, therefore, vitally important that Personal Advisers and other service delivery staff are able to recognise and help lone mothers and other recipients to work towards addressing their mental health problems.

Although participation in activities may improve the mental conditions of some welfare recipients (Mead 2000), unless appropriately managed, participation requirements could increase their level of psychological distress (Arber, Gilbert & Dale 1985). Assistance to deal with the consequences of their poor mental health will potentially overcome negative consequences of participation and facilitate the achievement of positive outcomes.

Intergenerational effects

The high level of mental disorders is not only a disturbing finding for income support recipients themselves, but also for their children. There is considerable evidence that maternal depression and mental illness has negative consequences on a child's development, achievement and later mental health (Dawson, Ashman & Carver 2000; Downey & Coyne 1990; Field 1992, 1998; Hammen et al. 1987; Lovejoy, Graczyk, O'Hare & Neuman 2000; Weinberg & Tronick 1998). It may be, for example, that maternal mental health is an important mediator of intergenerational welfare dependence (McCoull & Pech 2000). As well as facilitating the economic and social participation of sole parents, steps to better recognise maternal mental illness and provide appropriate assistance could be a key strategy in the targeting of early intervention strategies and achieving enduring long-term benefits for children.

Understanding client behaviour

The elevated prevalence of mental disorders among Parenting Payment (single) recipients cannot be explained as a misclassification of DSP recipients. FaCS administrative data show that less than two per cent of DSP recipients are unpartnered women with children. Rather, the data suggests that, regardless of the nature of disability or employment barrier, people tend to apply for the payment with the eligibility criteria that is easiest for them to meet. Given that DSP offers no financial or administrative advantage to sole parents, it is simpler to demonstrate eligibility for parenting payment (presence of children) than it is to demonstrate (and continue to demonstrate in regular reviews) the presence, severity and impact of a psychological condition. However, with changing participation requirements for sole parents, there may increasingly be an incentive for those with mental disorders to test their eligibility for DSP.

6.4 Implications and policy responses

The results presented in this paper are particularly important for people and organisations developing policy, managing programs and delivering employment or other services to income support recipients as mental health problems affect a substantial proportion of their clients. The findings raise questions about how to maximise the effectiveness of current and future reforms. Initiatives have been put in place to assist those with multiple barriers, including mental health issues. However, apart from specialised programs there are also benefits in ensuring mainstream programs and services are sensitive to the needs of participants with mental illness. Strategies to understand and respond to mental illness seem to be fundamental to achieving tailored service delivery (Reference Group on Welfare Reform 2000).

Mainstream and specialist programs

There is potential to promote better employment outcomes by better addressing clients' mental health problems in mainstream programs and services. However, there is also likely to be a need for specialist programs. As noted, the Australian approach to welfare reform included early consideration of the needs of the most disadvantaged with the PSP assisting people with multiple and severe barriers to employment, including mental health problems. This focus on recipients with multiple barriers is appropriate and consistent with US research.

Danziger et al. (2000) conducted a two-year follow-up of women receiving welfare. They found that 82 per cent of women with no employment barriers and 72 per cent of women with only one employment barrier were working at least 20 hours per week. In contrast, 60 per cent of women with two or three barriers were working at least 20 hours per week. This decreased to 40 per cent of those with four to six employment barriers and virtually none of the group with seven or more barriers.

Improving assessment and screening

One recommendation on which most policy analysts agree is the need to improve screening and assessment processes (Danziger & Seefeldt 2002; Derr, Douglas et al. 2000; Derr, Hill et al. 2000; Jayakody & Stauffer 2000; Lennon et al. 2001). Even the effectiveness of a specialised program such as the PSP is dependent on the accurate identification of potential participants. An effective screening and assessment process is needed to identify those with mental health problems.

Within Australia, current assessment processes (such as the Job Seeker Classification Instrument) identify at-risk job seekers for specialist follow-up, but are not specifically designed to identify clients with mental disorders. Eardley, Abello and MacDonald (2001), for example, note that the current assessment process depends on self-disclosure and consequently does not identify many people with mental health problems (see also Croft 2002). The US experience has been similar (Danziger & Seefeldt 2002). As an alternative to relying on structured interviews or questioning of recipients, screening tools that are inexpensive and easy to administer could be used to identify those at risk of mental health problems who could then be referred for specialist assessment and possible assistance. Instruments such as the Kessler scale of psychological distress (Kessler, Andrews, Colpe et al. 2002) could be used in medical and community settings to screen for 'at risk' clients. Such approaches have been introduced in several US states (Derr, Douglas et al. 2000).

Mental health literacy: A basis for individualised service delivery

The skills and knowledge of staff involved in customer service is another area where gains could be realised and improvements achieved (Derr, Hill et al. 2000). The first stage of Australia's welfare reform will provide Personal Advisors for many client groups (Vanstone 2002a). Given the current findings, Personal Advisors could increase their effectiveness by using screening tools to help identify clients at risk of mental health problems. It is also important for Personal Advisors to be knowledgeable and aware of mental health and mental disorders (that is, they have a high level of mental health literacy; Jorm et al. 1997) so they can understand the circumstances and barriers of many of the clients they are assisting. Mental health literacy refers to a person's:

- ability to recognise mental disorders and psychological distress
- knowledge of the risk factors and causes of mental disorders
- knowledge about effective interventions and assistance and how to access assistance
- attitudes and beliefs that enable them to recognise and seek assistance for mental health problems.

Mental health literacy may be important for other customer service staff, policy developers and the clients themselves. Improving mental health literacy is a major goal of government mental health strategies (Department of Health and Aged Care 1998a, 1998b, 2000; Department of Health and Aged Care & Australian Institute of Health and Welfare 1998).

Access to mental health services

Understanding how best to assist income support recipients with mental health problems depends on the extent to which they currently access mental health services. The overall data from the National Survey show that less than one third of those with mental disorders receive assistance (Andrews et al. 1999; Andrews, Issakidis & Carter 2001). More recent analysis by Parslow and Jorm (2000) found that three sociodemographic variables (being female, being separated and having a higher education) were associated with increased use of mental health services. It may be that sole parents on income support are more likely to seek assistance from their GP or from a mental health professional. It is also possible that those receiving non-activity tested payments (such as DSP) have greater contact with medical professionals (associated with increased disability and their need for evidence to support claims and ongoing eligibility for payment) and, thus, are also more likely to access mental health services. Conversely, it may be that income support recipients are less likely to seek assistance. Research from the US shows that welfare recipients are much less likely than those not on welfare to access to mental health services (Coiro 2001). The situation in Australia may be very different given the availability of universal health care (Issakidis & Andrews 2002).

Integrating mental health and employment programs

Several states in the US have moved to better integrate mental health services and employment programs (Derr, Douglas et al. 2000; Lennon et al. 2001). Many different approaches are possible. For example, payment recipients could be linked or referred to existing community mental health services. Employment programs could provide funding to expand mental health services. Employment services could incorporate short-term mental health counselling services and have better trained and skilled staff. In some instances, government agencies responsible for providing employment services have directly provided training to employment service staff. Derr, Hill et al. (2000) concluded that the integration of employment and mental health services is important, that mental health interventions should be a recognised way for clients to meet their participation obligations, and that there should be flexibility to determine the best approach for each client. The co-ordination of these differing service domains is made more difficult in Australia as responsibilities cross state, territory and Commonwealth governments. However, the issue is worth exploring and is consistent with the model implemented for the PSP.

Building personal capacity: Using the principles of Cognitive Behavioural Therapy

The research on mental disorders among US welfare recipients has found that the relationship between receipt of welfare and poverty and depression may be mediated by a person's sense of mastery (Danziger et al. 2001), exposure to

significant life traumas (Coiro 2001; Danziger et al. 2000), sense of burden or indebtedness (Danziger et al. 2001), hopelessness (Pettersson & Friel 2001), and lack of social support (Kalil, Born et al. 2001).

Some of the most successful employment programs have been those that have not only tried to improve employment and job skills, but have considered the personal characteristics, beliefs, motivations and attitudes of job seekers. One example from the US is the JOBS program which aims to improve job seeker's self-efficacy and coping skills and thereby maintain their motivation and job search activity (Caplan et al. 1997; Caplan et al. 1989). Evaluation studies show that this program is successful in improving mental health as well as achieving employment outcomes.

Other programs that specifically target cognitive style (such as feelings of hopelessness, learned helplessness, self-esteem and attributional style) have been effective at reducing psychological distress among the unemployed. These interventions also increase resilience and the ability to cope with adversity, improve participant employability and facilitate employment outcomes (Creed, Machin & Hicks 1999; Eden & Aviram 1993; Proudfoot, Gray, Carson, Guest & Dunn 1999; Proudfoot, Guest, Carson, Dunn & Gray 1997).

Implications for sanctions and penalties

The findings reported in this paper are relevant to ongoing debate around breach and penalty provisions and issues of negotiating activity requirements. The elevated prevalence of mental disorders among income support recipients may encourage some to recommend the exclusion of more payment recipients from participation requirements. However, the results achieved by participants in programs such as the Community Support Program/PSP and disability employment services, together with evidence from the evaluation of the More Intensive and Flexible Services Pilot (Butterworth, in press-a), shows that people with very severe and disabling conditions are able to make significant progress towards and achieve employment goals given the right types of support. This report provides an indication of the importance of considering psychological factors. There will clearly be cases in which exemptions or exclusions are required. However, if mental health problems are better recognised and understood there may be less need for activity exemptions, less breaches and reduced need for sanctions.

Targeting mental health services through the FaCS network

Finally, the data also show that a substantial proportion of all Australians with mental health problems are welfare recipients (see table 11). It may, therefore, be cost effective and strategic for organisations and agencies involved in mental health promotion, education campaigns and the delivery of programs to consider targeting income support recipients. Pilots, assistance programs and other interventions could reach people with the greatest need by targeted delivery through FaCS or Centrelink. Thus, the effectiveness of such programs could be greater and the outcomes achieved more positive. Given the greater disadvantage amongst income support recipients, such programs could potentially also have a more profound effect on their lives and their employability.

6.5 Limitations of the current study

This research did not attempt to examine the causes of the elevated levels of mental health problems among income support recipients. It may be that income support recipients experience mental health problems at the same rate as others in similar circumstances not receiving income support. Thus, rather than receipt of income support, the critical determining factor could be the experience of poverty, hardship, unemployment, sole parenthood, the presence of young or dependent children in the home or lack of support. The relationship between receipt of income support (client segment) and mental health, controlling for these background characteristics, is examined in future research. However, regardless of the etiology of the disorders, the presence of elevated levels of mental distress among income support recipients is an issue that policy makers must take into account when designing and delivering services to clients and warrants a policy response.

A potential criticism of this work is that it estimates income support recipients from a broad population survey. While analysis showed the findings were valid and meaningful, it would be beneficial to undertake specifically designed and targeted research with income support clients to confirm the results and enable better understanding of their particular circumstances. This could, for example, be incorporated within existing departmental monitoring processes, such as the General Customer Survey, or by extending the identification of income support recipients in other data collections.

The current analysis primarily focused on the most common mental illnesses and excluded other mental disorders such as schizophrenia and dementia. The current estimates of the prevalence of mental disorders will be an underestimate as those people with these other mental disorders are disproportionately more likely to be FaCS clients, such as those with a psychotic illness (Jablensky et al. 1999).

The National Survey was a cross sectional survey and, as such, the data represents a point in time. It is therefore not possible to investigate the extent to which disorders and disability are episodic or intermittent. We do know that in any single year more than 30 per cent of income support recipients will experience a mental disorder, but cannot evaluate the long-term experiences of an individual. It is also not possible to track client movement between different payments due to mental illness or disability, or the relationship between mental illness and temporary exemption from activity requirements due to incapacity. These are important issues and warrant further investigation but require longitudinal data and more detailed administrative information.

6.6 Future research directions

There are many research directions in which this work can proceed. One would be to examine in more detail the consequences of mental illness for income support recipients. To what extent does mental illness result in disability or impairment, and how significantly does this limit the potential for income support recipients to participate in work and daily activities. Future research could examine the role that personal experiences, characteristics, attitudes and beliefs have on people's experience of mental illness and their likelihood of successful transition to work.

Research could also investigate the factors that underlie the elevated prevalence of mental illness among income support recipients. There is considerable evidence that unemployment leads to poorer mental health outcomes (Mathers & Schofield 1998). It could be that ongoing receipt of welfare also results in poorer mental health. Alternatively, the presence of a mental disorder may be a risk factor that makes a person more likely to rely on income support. A third possibility is that there are other characteristics that underlie both welfare receipt and poor mental health. Both could be a consequence of adverse early childhood experience or exposure to traumatic life events. It is important to investigate the role of poverty and financial hardship. The relationship between welfare receipt and mental disorders may be moderated by factors such as activity and social engagement. Finally, lack of social support and coping skills may mediate the relationship between welfare receipt and mental illness.

Devising appropriate policy responses requires not only an awareness of the presence of the problem but would also benefit from an understanding of the etiology. Similarly, understanding the personal and socio-demographic characteristics that are associated with poor mental health among income support recipients could provide a key to better targeting of services and interventions. Further analysis could look at the relationship between mental health problems and factors such as duration of unemployment, education and work skills, and locational circumstances.

The co-occurrence or co-morbidity of barriers is another important issue not addressed by the current research. It may be that the presence of multiple disorders or the co-occurrence of different types of barriers (mental health problems together with physical disability, poor education or limited employment skills) provides a better indication of the likely labour market success of income support recipients.

Given differences in the prevalence and types of mental disorders across client segments, it will be necessary for more detailed follow-up analysis to focus on different client segments. For example, to better understand the very high level of mental disorders in the lone mother recipient group, further analysis has been conducted investigating the different forms of disadvantage and the co-occurrence of barriers in this group (Butterworth, in press-b). Similarly focused research in other client segments will be necessary to devise optimal policy responses targeted at the specific needs of different groups of clients.

It is also important to conduct more practical research to understand how best to target assistance to welfare recipients with mental health problems. For example, do income support recipients with a mental disorder use existing mental health services? Research or evaluation that assesses the utility and effectiveness of different types of interventions and modes of service delivery will be critical to help government frame an appropriate policy response.

7 Conclusion

This paper has identified that almost a third of Australian income support recipients experience a mental disorder in any 12-month period. The figure is even greater among some client segments, with almost half of all lone mothers on welfare experiencing an affective, anxiety or substance use disorder. The presence of such elevated levels of mental distress is likely to mean that many people will not benefit from government programs and policy changes, such as those championed through the welfare reform process. There is, therefore, a need to take account of, and give due consideration to the consequences of, the poor mental health of the targeted population.

There are clear implications from the current findings for social policy. The design of interventions, the specification of activity requirements and the skills and abilities of policy makers and customer service staff would be improved by promoting knowledge and understanding of the prevalence of common mental health problems and consideration of how these barriers impact on clients. Further research is needed but so too is the development of innovative interventions and approaches to mainstream service delivery. Identifying and addressing mental health problems presents the opportunity to improve the psychological functioning and capacity of income support recipients and, in the longer term, achieve better social and economic outcomes for recipients and their children.

Endnotes

- ¹ There have been further changes to both income support payments and the taxation system as a result of the introduction of The New Tax System, but the detailed administrative and ABS data needed for the current comparison were not available for subsequent years. The main differences between 1997 and 1999–2000 that may be relevant to the current analysis reflect an improvement in economic and labour circumstances (figures from ABS 2002). Overall, the participation rate was consistent between 1996–97 and 1999–2000 (63.4 per cent), although this stability disguises a decrease in the male and increase in the female participation rates. The unemployment rate decreased significantly over the period, from 8.3 to 6.6 per cent.

There were some differences in the number and characteristics of income support recipients (data from Bond & Wang 2001). Overall, there was a reduction in the total number of income support recipients of 24 600 (or 0.5 per cent). There was, however, an even greater decrease in the number of income support recipients of workforce age from 2 703 616 to 2 627 742 (75 874 or 2.8 per cent). Between 1997 and 1999, the proportion of income support recipients receiving unemployment payments decreased from 17.2 to 15.0 per cent. The share of Parenting Payment single recipients increased from 7.1 to 8.1 per cent, while Parenting Payment partnered remained stable (4.9 to 4.8 per cent of the income support population). The proportion receiving DSP increased over the period from 10.4 to 12.1 per cent.

- ² All people who reported receiving income support payments in addition to Family Allowance were classified as receiving the relevant income support payment, even though they may have received more from Family Allowance.

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