Individual Placement and Support (IPS) in Aotearoa New Zealand – New Insights from Linked Administrative Data

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Authors

Fiona Cram, Katoa Ltd
Sheryl Jury, Public Health Physician, Planning, Funding and Outcomes, Waitematā DHB and Auckland DHB
Jesse Kokaua, University of Otago
Bryan Ku, Insights MSD
Helen Lockett, University of Auckland, University of Otago, Wellington, and Work Counts
Moira Wilson, Insights MSD

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Disclaimer

The results in this report are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand.

The opinions, findings, recommendations, and conclusions expressed in this report are those of the author(s), not Statistics NZ or the other agencies involved in this research collaboration.

Access to the anonymised data used in this study was provided by Statistics NZ under the security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this paper have been confidentialised to protect these groups from identification and to keep their data safe.

Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

The results are based in part on tax data supplied by Inland Revenue to Statistics NZ under the Tax Administration Act 1994. This tax data must be used only for statistical purposes, and no individual information may be published or disclosed in any other form, or provided to Inland Revenue for administrative or regulatory purposes.

Any person who has had access to the unit record data has certified that they have been shown, have read, and have understood section 81 of the Tax Administration Act 1994, which relates to secrecy. Any discussion of data limitations or weaknesses is in the

context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

The views, opinions, findings, and recommendations expressed in this report are those of the authors. They do not necessarily reflect the views of MSD, Waitematā DHB or other organisations involved in the study, or people involved in the peer review process. Any errors or omissions are our own.

Conflict of interest statement

At the time of writing, Dr Sheryl Jury was the Clinical Director of the Health Gain Team, Funding Planning and Outcomes, Waitematā DHB and was the Delivery Lead for the implementation of the Waitematā DHB IPS prototype. Bryan Ku and Moira Wilson are employees of MSD, which has funded some IPS initiatives. Dr Helen Lockett is a Strategic Advisor to Work Counts, a part of the Wise Group. Workwise, which is contracted to deliver IPS, is also part of the Wise Group. Helen contributed to the study as a researcher with extensive knowledge of IPS research and implementation in Aotearoa New Zealand as well as overseas. No other potential conflicts of interest are noted.

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Contents

Glossary of terms

For the benefit of international readers, the Māori language (Te Reo Māori) is an official language of Aotearoa New Zealand, and Māori terms are commonly used in Aotearoa New Zealand to describe Māori concepts.

This glossary provides an explanation of some key Māori terms and names used in this report. Definitions were sourced from Te Aka Māori-English English-Māori Dictionary online: https://maoridictionary.co.nz/.
Translations given are those most relevant to the use within this paper.

Kaupapa Māori	Māori approach, incorporating the knowledge, skills, attitudes and values of Māori society
Hapū	Kinship group, clan, tribe, subtribe
Iwi	Extended kinship group, tribe
Māori	Indigenous peoples of Aotearoa New Zealand
Taha Māori	Māori identity
Te ao Māori	The Māori world
Whakapapa	Genealogy, lineage, descent
Whānau	Extended family, family group
Whanaungatanga	Relationship, kinship, sense of family connection

A number of terms and phrases relating to Individual Placement and Support are used throughout this report. Definitions are as follows.

IPS	A well-specified approach to provision of employment support developed for people with severe mental illness that integrates employment support services with mental health and addiction treatment and care
IPS programme	A programme that provides IPS
IPS employment support	Employment support services provided as part of an IPS programme
Team with IPS	A publicly funded team providing specialist mental health or addiction treatment and care that has an assigned IPS employment specialist (i.e. it has an IPS programme)

Executive Summary

A series of recent reports and reviews recommends expanding access to evidence-based integrated approaches that improve employment outcomes for people affected by mental illness and addiction. Individual Placement and Support (IPS) is one such approach. IPS usually involves employment specialists co-locating and working in an integrated way with a publicly-funded specialist mental health or addiction treatment team to integrate employment support with mental health and addiction treatment and care.

Recent meta-analyses show that while employment rates for participants were lower in the period after the Global Financial Crisis than before, IPS makes a large positive difference to the likelihood of employment, when compared to what would have occurred in the absence of the programme, regardless of economic conditions.

This study provides a picture of the current operation of IPS employment support in Aotearoa New Zealand. The service landscape shows low and uneven access, with no services (as at 2019) in around half of District Health Board (DHB) areas, and only around 3.7 full-time equivalent IPS employment specialists per 10,000 people seen by DHB specialist mental health and addiction services nationally.

Five case study DHBs had teams with assigned IPS employment specialists in the three years to June 2018. In these teams, one in ten mental health and addiction service users accessed IPS over that three-year period. IPS participation rates by Māori and Pacific mental health and addiction service users were not systematically different to those for service users overall across these five case study DHBs. People who accessed IPS employment support had high levels of labour market disadvantage, as intended by the programme design. Seven in ten were being supported by a welfare benefit when they started IPS.

Employment outcomes for IPS participants in a 12-month follow-up from programme start varied across ethnic groups in a manner consistent with differences in indicators associated with labour market disadvantage and risk of labour market discrimination. Even so, employment outcomes for all ethnic groups exceeded or were within the 95 percent confidence intervals of an international benchmark of 43 percent in competitive employment at any time (95% CI 37%–50%) after commencing an IPS programme. These findings are positive, particularly given that the follow-up period used in 14 of the 30 studies that contribute to the international benchmark was more than 12 months.

This study examined programmes in which IPS provision was health-led, and contracts required performance monitoring but were not contingent on employment outcomes being achieved. The findings lend support to efforts for the Ministry of Social Development and the Ministry of Health to work together to expand access to IPS in health settings, with health-leadership, and suggest IPS will form a useful part of a strategy of early intervention to enhance employment through the disruptions caused by the COVID-19 pandemic.

As the service expands, attention to and research on client experience, ensuring cultural responsiveness, and equality of access by gender will be beneficial, as will research on costs and benefits and the scale of the programme's positive impacts on employment and other outcomes in the Aotearoa New Zealand context.

1. Introduction

Individual Placement and Support (IPS) is an internationally used, evidence-based approach to employment support for people with severe mental illness and addiction. It usually involves employment specialists co-locating and working in an integrated way with a publicly-funded specialist mental health or addiction treatment team.

IPS has been shown to be more effective than alternative approaches in helping people with severe mental illness and addiction to get and remain in employment (Kinoshita et al., 2013; Lockett, Waghorn, Kydd, & Chant, 2016; Marshall et al., 2014; Modini et al., 2016; Frederick & VanderWeele, 2019; Brinchmann et al., 2020).

IPS programmes have been operating in selected areas of Aotearoa New Zealand for over a decade, but are not available in half of District Health Boards (DHBs), and are available at insufficient levels to meet demand in others (Lockett, Waghorn, & Kydd, 2018b; OECD, 2018).

Expanding access to evidence-based integrated approaches has been recommended in a series of reports, most recently the 2018 OECD country report *Mental Health and Work: New Zealand* (OECD, 2018), the report of the Welfare Expert Advisory Group (Welfare Expert Advisory Group, 2019),[1] and the Ministry of Social Development (MSD) *Working Matters* disability employment action plan (MSD, 2020).

The importance of collaboration to support employment opportunities for people with lived experience of mental distress or substance harm was also emphasised as part of the Ministry of Health's plan setting out the principles and a framework for meeting mental and social wellbeing needs as Aotearoa New Zealand responds to and recovers from the COVID-19 pandemic (Ministry of Health, 2020).

This study provides a picture of the current operation of IPS that can inform the Government's response to the recent recommendations, and to the COVID-19 recovery. The study first describes how IPS aligned services have developed in Aotearoa New Zealand over time, and their national reach as at 2019. It then focuses on five case study DHBs that, in the three years to June 2018, had well-established IPS programmes where employment specialists were assigned to mental health treatment teams. The aim is to address the following questions:

- What was the reach of IPS in these DHBs – what proportion of people in contact with specialist mental health and addiction services participated in IPS?
- What was the profile of the people who participated?
- What proportion gained employment, and how did this compare with an international benchmark for employment outcomes?

The study has a particular focus on Māori and Pacific peoples and IPS. There is strong evidence that these population groups experience high levels of labour market and mental health disadvantage (He Ara Oranga, 2018). It is therefore important that this study focus on equity of access and employment outcomes.

[1] The OECD report was conducted in parallel with a government inquiry into mental health and addiction services. The report of the inquiry acknowledged and supported the OECD report (He Ara Oranga, 2018, p. 67).

The report first provides background information on the IPS approach (section 2). Section 3 then describes our methods. Sections 4–7 present results addressing the research questions set out above. Sections 8 and 9 discuss the findings and the limitations of the study. Section 10 concludes.

2. The Individual Placement and Support approach

The IPS approach to employment support is based on eight evidence-based principles and practices:

- integration of mental health and employment services:[2] employment specialists and clinical teams work and are located together, operating as one team in delivering an IPS programme
- focus on competitive employment: employment in mainstream competitive jobs (paid at minimum wage or above, and not reserved for people with severe mental illness or addiction), either part-time or full-time, is the primary goal
- eligibility based on client choice: 'zero exclusions' apply from referral through to IPS delivery – everyone who is interested in working is eligible for employment support regardless of perceived job-readiness, current or prior substance use, mental health symptoms, history of violent behaviour, cognitive impairment, legal system involvement or personal presentation
- attention to client preferences: job search is consistent with a participant's preferences and skills
- rapid job search: people are helped to look for jobs soon after entering the programme instead of being required to first participate in preparation activities such as training, intermediate work experience, vocational assessments, or sheltered employment
- systematic job development: employment specialists develop relationships with employers and proactively seek work opportunities based on a person's work preferences – they do not just respond to advertised vacancies
- individualised job supports: employment support is time-unlimited and individualised to both the employer and the employee. Some people are supported to try several jobs before finding sustained employment
- work incentives planning: benefits counselling, including advice on how working will affect benefits, supports the person through the transition from benefits to work (Becker, Swanson, Bond, & Merrens, 2011; Bond, Drake, & Becker, 2012).

Integration is important because while work can have a positive effect on recovery from mental health conditions, work-related issues can also contribute to and exacerbate mental health issues. Beneficial health effects depend on the nature and quality of work (Waddell & Burton, 2006). Poor quality jobs, or jobs and work environments that have a poor fit with a person's condition, can be detrimental (Leach et al., 2011; OECD, 2014). Integration also means that health treatment complements and supports individual

[2] Appendix 2 sets out the way in which integration is assessed using the 25-item fidelity scale (Becker, Swanson, Bond, & Merrens, 2011). This scale assesses adherence to IPS principles and practices. The 25-item scale is a well-validated and reliable measure of IPS principles and practices (Bond, Becker, Drake, 2011; Kim et al., 2015).

employment aspirations, from the point of treatment through to enabling a person to commence and sustain employment, which could include multiple jobs.

People in employment can access IPS to help them remain in their job, or to find new work better suited to their mental health needs, skills, and preferences. In a service with high fidelity to the IPS approach, employment specialists have low caseloads of 20 or fewer clients (Becker et al., 2015).

In systematic reviews and meta-analyses (Lockett, Waghorn, Kydd, & Chant, 2016; Marshall et al., 2014; Modini et al., 2016; Frederick & VanderWeele, 2019; Brinchmann et al., 2020), and two Cochrane systematic reviews (Kinoshita et al., 2013; Suijkerbuijk et al., 2018), IPS has consistently demonstrated greater effectiveness than the best locally available alternative approaches in helping adults with severe mental illness (including people with a coexisting substance use issue) into work.

In a systematic review and meta-analysis of 27 randomised controlled trials (RCTs), IPS more than doubled the rate at which participants gained employment (the risk ratio was 2.07, 95% CI 1.82–2.35). Efficacy was marginally moderated by strong legal protection against dismissals, but was not moderated by regulation of temporary employment, generosity of disability benefits, type of integration policies, Gross Domestic Product, unemployment rate or the employment rate for those with low education (Brinchmann et al., 2020).

There is emerging evidence that IPS can be effective for groups other than those with severe mental illness, and modified models are being contemplated (Fadyl et al., 2020; Whitworth, 2018). In a recent review (Gary R. Bond, Drake, & Pogue, 2019), results in eight out of nine studies showed positive impacts on competitive employment for diverse populations, including people with anxiety, depression, post-traumatic stress disorder (PTSD), spinal cord injury, and substance use disorders. The strongest (and only replicated) positive findings are for veterans with PTSD.

The evidence base on non-vocational outcomes is still developing. For quality of life, global functioning and mental health, impact estimates favour IPS, but study sizes have not been sufficiently large to establish whether effects on these outcomes are statistically significant (Frederick & VanderWeele, 2019). Few studies have looked at the cost-benefit of IPS. Studies need to take into account possible increases in quality of life, the value of which is difficult to quantify (Frederick & VanderWeele, 2019).

Other evidence gaps remain. There is little evidence internationally on the effectiveness of IPS for different ethnic groups or for indigenous peoples, or on cultural adaptations that could enhance engagement and effectiveness (Marshall et al., 2014; Closing the Gap Clearinghouse, 2014). The effectiveness of IPS with populations in contact with the justice system is being trialled here in New Zealand and some limited published literature has examined this (Bond et al., 2015). More research is needed to determine what impacts on effectiveness occur in different contexts and with different populations (Gary R. Bond et al., 2012; Lockett, Waghorn, & Kydd, 2018a). Evidence on augmentations (e.g. cognitive therapy and psychosocial skills training) that can improve programme effectiveness is still emerging (Dewa et al., 2018; Suijkerbuijk et al., 2017).

A number of studies point to the importance of close attention to implementation, as measured by IPS fidelity (Bond, Drake, & Becker, 2012; Bonfils, Hansen, Dalum, & Eplov, 2017; Lockett et al., 2016; Gilbert & Papworth, 2017). Programme fidelity

assessed using one of two validated and standardised scales has been found to have a moderate, yet important, role in predicting employment outcomes. However, good programme fidelity is necessary, but not sufficient, for good outcomes (Lockett et al., 2016). Other aspects of implementation quality and factors not currently captured by fidelity scales may also be important. These include technical support for implementation, ongoing programme evaluation, employment specialist expertise, removal of non-evidence based practices and programmes, the quality of complementary programs, such as housing and clinical support, and aspects of programme intensity (Lockett et al., 2018a).

3. Methods

Programme development and national reach

In this study, analysis of IPS programme development in Aotearoa New Zealand was based on a review of published and unpublished studies and document review. Work Counts developed a chronology of developments up to 2019 to inform the analysis, using data and information provided by Workwise (selected results are presented in Appendix 1). Data were extracted from Workwise programmes, published implementation studies, board reports, and information from key informants on the date IPS aligned services commenced (and ceased), the mental health teams to which employment specialists were assigned, and details of any IPS fidelity reviews. Key people with institutional knowledge reviewed the chronology and provided additions.

Programme reach on a national basis was assessed based on the ratio of full-time equivalent IPS employment specialists to the number of people in contact with specialist mental health and addiction services in 2015/16. At the time of writing, 2015/16 was the most recent year for which published official data on service use by DHB were available.

Descriptive analysis - data sources

The analysis presented in the remainder of the paper is descriptive, examining programme reach, the profile of IPS recipients, and employment outcomes for people who received IPS over the three years to June 2018 in one of the five DHBs that, over that period, had well-established IPS services assigned to some or all of their mental health and addiction teams – there was integration of employment support services with mental health treatment through team assignment. These DHBs are: Auckland, Counties Manukau, Waikato, Lakes and Taranaki.[3]

Analysis is based mainly on data held in the Statistics New Zealand Integrated Data Infrastructure (IDI). This is a collection of de-identified linked administrative and survey data made available for approved research (Statistics NZ, 2017; Milne et al., 2019). Administrative data in the collection have national coverage.

Data sets in the IDI that were used included the Project for Integration of Mental Health Data (PRIMHD), Benefit Dynamics Dataset (BDD) which provides data on spells receiving main income tested benefits for the working age, Inland Revenue collections supplying data on wages and salaries and income from self-employment, and Department of Corrections data on sentences served.

Study population and study period

The study population was comprised of people who had at least one face-to-face contact with a mental health or addiction team over the three years to 30 June 2018, based on

[3] Whilst it was recognised that there were IPS aligned services in other parts of the country, for example Hawkes Bay, Capital & Coast, Wairarapa, and Whanganui, these areas did not, in 2016, have IPS services where employment specialists were co-located with specific mental health treatment teams.

PRIMHD data. We limited the study to adults aged 18-64 at the time of their first contact in the period. We also required the person to be able to be linked to the 'spine' of the IDI.[4] This was necessary to allow PRIMHD records to be linked with records from other administrative systems (Black, 2016).

Measures of participation

We examined participation and the profile of participants for two groups: (1) all people who 'received IPS' employment support at any time in the study period (they either commenced an engagement in the period or had an ongoing engagement at the beginning of the period); and (2) the sub-group who 'commenced IPS' employment support in the study period (this sub-group excluded people whose only engagement was one that was ongoing at the start of the period):

- Whether a person received IPS employment support at any time in the study period was based on PRIMHD records for IPS employment support teams. Participation in IPS was assumed to have occurred if a person had at least one face-to-face contact with an IPS employment support team in the relevant period.
- Whether a person commenced IPS employment support in the relevant period was established based on the person having a referral date for an IPS engagement within the window and at least one face-to-face contact with an IPS employment support service after the referral date. If there was more than one referral to IPS, with a subsequent engagement occurring after the cessation of the first engagement in the period, only the first of the engagements was examined.

Whether a person received mental health or addiction services was based on PRIMHD records for DHB mental health and addiction teams. It was assumed that receipt of such services occurred if a person had at least one face-to-face contact in the relevant period.

Whether a person received mental health or addiction services from a team with IPS was based on PRIMHD records for DHB mental health and addiction teams. Receipt was assumed to have occurred if a person had at least one face-to-face contact in the study period with a team that had access to an IPS employment specialist. Information on which mental health and addiction teams had IPS employment specialists assigned to them was supplied by Work Counts, who developed the chronology of IPS developments (Appendix 1).

Profile variables

Sociodemographic variables and measures of mental health and addiction service engagement as at defined profile dates were derived from a range of sources.

Age, ethnic groups and gender came from Stats NZ estimates which were derived from multiple collections in the IDI using a set of specific rules. Ethnicity variables in this set

[4] The IDI spine includes individuals who were either (i) present in tax data from 1999; (ii) present in births data from 1920; or (iii) present in visa data from 1997. Visa data include any person accepted for a visa to enter New Zealand, other than on a visitor's or transit visa.

of estimates are an 'ever-indicator' that shows all the ethnicities person has recorded across data collections over time.[5] 'Total response' ethnic groups were derived from these data (Statistics NZ, 2004), where a person appeared in all the ethnic groups they were recorded as belonging to.

Benefit receipt and benefit type were derived from the BDD, combining information on spells of benefit receipt as the primary recipient of an income tested main benefit (in the 'spel' dataset), and as a partner (in the 'ptnr' dataset).

Months supported by benefit in the two years prior to the relevant date were derived from the BDD, based on a count of days combining information on spells of benefit receipt as the primary benefit recipients, and as a partner.

Employment status was inferred using Inland Revenue data on wage and salary earnings and self-employment income. Wage and salary data in the IDI is available in the Employer Monthly Schedule (EMS) tables, which include all PAYE tax-withheld earnings payments on a calendar monthly basis. These data do not allow investigation of which days in the month a person was employed or hours of work. If a person received earnings in the same month as the relevant profile date, they were assumed to be in employment. Self-employment income is available on an annual basis from the IDI. Those with self-employment income were treated as if they were working for the whole of tax year for which self-employment income was recorded.

The count of months in employment in the two years prior to the relevant date were derived from the same source. If a person had any earnings in a month, that month was counted as a month in employment. Those with self-employment income were treated as if they were working for the whole of the relevant tax year.

Whether there was a Corrections sentence served in the last 5 years prior to the relevant date was derived from Corrections data. This includes home detention and community sentences.

Whether there was a diagnosis recorded in PRIMHD data was based on a supplementary IDI file. These data are known to be of varying quality and completeness, with the proportion of clients with a diagnosis recorded at the time of their activity showing wide variation across DHBs and across teams within DHBs. We created an indicator of whether a person had any diagnosis recorded in the two years prior to the relevant date.

Whether there was a diagnosis associated with psychosis was inferred where there was any diagnosis of schizophrenia, schizoaffective disorder, bipolar affective disorder, or other non-organic psychosis (ICD10 codes: F20, F25, F28, F29, F30, F31) in the two years prior to the relevant date.

A count of inpatient bed nights was calculated using PRIMHD data. These included the following activity type codes: T02, T03, T04, T05, T11, T12, T13, T14, T16, T20, T21.

A count of months receiving mental health and addiction services in the last 2 years was calculated using PRIMHD data. This was a count of all the calendar months in which a person had any face-to-face activity in the past two years.

[5] See http://archive.stats.govt.nz/browse_for_stats/snapshots-of-nz/integrated-data-infrastructure/idi-data.aspx

Employment outcomes

Whether a person was ever in employment in a 12-month follow-up window was calculated using data on wage and salary earnings and income from self-employment in the 12 months from the month in which the person started IPS. Those with self-employment income were treated as if they were working for the whole tax year in which self-employment income was received.

Ethical Review

The research did not fall within the scope of Health and Disability Ethics Committee Review. The study was reviewed and supported by an independent Research Ethics Panel established to provide advice on MSD and other government agency projects.

4. National development and reach

The importance of aligning the practices of employment and mental health services to the IPS principles was first recognised at a strategic policy level in Aotearoa New Zealand in 1999. A discussion paper published by the former Mental Health Commission (Mental Health Commission, 1999, cited in Priest & Lockett, 2019) suggested that the emerging evidence-base on the effectiveness of the IPS approach may have applicability to the New Zealand context. In particular, the application of this evidence could help address the very low labour force participation of people in contact with specialist mental health and addiction services.

IPS programme delivery in Aotearoa New Zealand began in 2001 in 'early intervention in psychosis' services. Capital and Coast DHB (CCDHB) used its own resources to turn an occupational therapist role into a specific employment specialist role (Porteous & Waghorn, 2009; Porteous & Waghorn, 2007). After the initial development, CCDHB gained contracts with MSD, and a shared approach between the DHB and MSD was developed. By 2009, there were six sites with IPS employment support in CCDHB. These were in early intervention in psychosis services, child and adult mental health services, forensics, and adult community teams. This level of service continued until 2010 when there was a loss of MSD contracts and the IPS services retrenched back to only the DHB funded position, until the Te Ara Pai service reconfiguration in 2014 (see below).

At a similar time to the CCDHB developments, health monies were funding an IPS pilot in the Waikato, integrating an existing employment support service, delivered by a non-government provider, with DHB clinical mental health treatment (McLaren, Kristensen, & Li, 2005). This involved three employment specialists employed by Workwise providing an employment coordination model. Each employment specialist serviced an entire mental health team, taking on a caseload of clients from the teams, but also referring clients out to other non-government supported employment providers. The contract and funding for this pilot came from the local DHB. Since 2004, the Waikato IPS contract has grown to funding 10.5 employment specialists who are integrated within all the adult mental health clinical teams, including a Māori mental health service, an alcohol and other drug team, and a forensic community team.

At around the same time, using a contract and funding from MSD, Workwise employment specialists started working more closely with the mental health clinical teams in the Hawkes Bay region. In spite of attempts to develop them there were no formal arrangements between Workwise and the mental health services, and this limited the ability to fully integrate employment support and mental health services. Even so, the IPS program was assessed as aligning with IPS principles, achieving 67 out of a total of 75 on the 15-item fidelity scale (Bond et al., 1997; Browne, Stephenson, Wright, & Waghorn, 2009).

By the late 2000s other DHBs were recognising the value of employment as a health intervention, and IPS implementation commenced in Taranaki, Lakes, Counties Manukau and Auckland DHB regions (Browne et al., 2009; Priest & Lockett, 2019) (see Appendix 1). This made IPS available, albeit on a limited basis, in seven regions at that time. The absence of recurrent funding streams saw the Capital and Coast and Hawkes Bay initiatives subsequently cease, with Capital and Coast DHB re-commencing an

employment support service through its Te Ara Pai occupational services contract in 2015. These services differed from most other IPS services operating at the time in that they did not involve assignment of a dedicated employment specialist to a particular mental health team.[6] Instead, all mental health teams had access to the employment support as one of a range of Te Ara Pai support services (which also included housing, health and well-being services and whānau/family support) they could refer their clients to.

A short-lived MSD-funded implementation served Christchurch Work and Income clients between 2005 and 2007 and involved employment specialists following IPS principles, but not integrated with mental health services. Despite a lack of integration, the implementation achieved fair fidelity, scoring 64/75 on the IPS-15 fidelity scale. Employment outcomes for young people, including Māori, were favourable when compared to international benchmarks, but this may have reflected the diagnostic mix of participants (Browne & Waghorn, 2010).

In 2015, the provision of dedicated technical assistance in the Auckland region was piloted through a specialist IPS implementation manager, following international evidence of the role implementation support played in enhancing IPS fidelity and outcomes (Becker, Drake, & Bond, 2014). Evaluation of this pilot found that implementation support improved programme reach, particularly to people with a diagnosis of psychosis, and increased fidelity to IPS principles (Kongs-Taylor & Lockett, 2016, 2017). The Te Pou o te Whakaaro Nui evaluation also found that clinicians valued the integrated employment service, more clinicians instigated work-focused health conversations as part of routine mental health treatment, and they referred more people on their caseload to the employment specialist.

In 2017, Northland DHB received funding through *Proceeds of Crime* monies to set up an IPS pilot as part of an initiative to reduce methamphetamine use by enhancing clinical treatment in combination with employment support (Priest & Lockett, 2019). The following year two MSD-funded IPS trials began, one in Waitematā DHB (intended to have good fidelity) (Bence-Wilkins et al., 2019), and one in Christchurch (intended to adapt the IPS approach to serve young benefit recipients with mild or moderate mental health problems) (Wilson, Painuthara, Henshaw, & Conlon, 2019). The diagnostic reach of the IPS programmes, and the employment outcomes for people who participated in the Northland and Waitematā initiatives were in line with international benchmarks for IPS, including some evidence from Northland of equitable outcomes for Māori, people with a co-occurring addiction and mental illness, and people with a history of justice involvement (Priest & Lockett, 2019; Bence-Wilkins et al., 2019). There is no readily available benchmark against which to assess the employment outcomes of the Christchurch adaptation (Wilson et al., 2019).

At the end of 2016, Aotearoa New Zealand joined the International IPS Learning Community, established a Centre of Expertise for IPS Implementation (Work Counts), and an IPS National Steering Group, with membership from people with lived experience and cultural expertise, the Ministry of Health, MSD, DHB providers and funders, and NGO employment support providers (Priest & Lockett, 2019). In the same year, MSD and the

[6] For this reason CCDHB data could not be included in this retrospective analysis on a comparable basis.

Ministry of Health partnered with the OECD to conduct a mental health and work country report, which assessed policy across health, education, welfare and employment, and workplaces, against the OECD Council's Recommendation on *Integrated Mental Health, Skills and Work Policies*.[7] The published report (OECD, 2018) recognised the successful pilots, but also highlighted the large and inequitable unmet need. The report recommended developing a mental health and work strategy with a focus on evidence-based employment services integrated with mental health treatment, and ensuring that services of comparable nature and quality are available in all regions (OECD, 2018).

The OECD report complemented the Government Inquiry into Mental Health and Addiction, which also reported in 2018, He Ara Oranga. He Ara Oranga actively endorsed the OECD report stating that:

> "Many of the challenges the OECD team has identified in its draft report, provided to us as we finalised our own report, are similar to those expressed by people we heard from" (p. 67 He Ara Oranga).

So, while programmes aligned to evidence-based practices have been available in Aotearoa New Zealand for nearly two decades, coverage is patchy, and access very limited. Where IPS has been implemented, fidelity to the practices and principles as measured by one of two validated fidelity scales has generally been achieved, and where outcomes have been published, these have been on a par with international benchmarks (Lockett et al., 2016; Richter & Hoffmann, 2018; Bence-Wilkins et al., 2019; Priest & Lockett, 2019).

Table 1 below shows the national reach of IPS in DHBs in 2016 and 2019, expressed as the ratio of full-time equivalent (FTE) IPS employment specialists to every 10,000 unique people seen by DHB mental health and addiction services in 2015/16 (as noted, at the time of writing, 2015/16 was the most recent year for which DHB service use data were available).

In 2016, there were 2.7 FTE employment specialists for every 10,000 clients seen by DHB mental health and addiction services. By 2019, this had increased to 3.7 FTE employment specialists for every 10,000 clients, mainly due to expansion to new DHBs. Some of this expansion was due to IPS services available as part of a trial, which are currently purchased on a time-limited basis.

In places where IPS is not available, or available on a very limited basis, there is access to other forms of supported employment. Although these other employment services have some features in common with IPS, they do not offer vocational rehabilitation integrated with mental health and addiction treatment and care services (Lockett et al., 2018b).

[7] http://www.oecd.org/employment/mental-health-and-work.htm.

Table 1: FTE IPS employment specialists in DHBs in 2016 and 2019 per 10,000 clients seen in 2015/16

DHB	A Unique people seen by mental health or addiction services in the DHB[(1)]	B FTE IPS employment specialists in 2016	C FTE IPS employment specialists in 2019 (includes Waitamatā trial)	D FTEs in 2016 per 10,000 people seen in 2015/16: B/A x10,000	E FTEs in 2019 per 10,000 people seen in 2015/16: C/A x10,000
Northland	6,510		2		3.1
Waitematā	28,822		8		2.8
Auckland	13,166	5	5	3.8	3.8
Counties Manukau	13,460	4	4	3.0	3.0
Waikato	11,113	10.5	10.5	9.4	9.4
Lakes	4,062	5	5	12.3	12.3
Bay of Plenty	8,247				
Tairāwhiti	1,990				
Taranaki	4,282	5.2	5.2	6.3	6.3
Hawkes Bay	5,362				
MidCentral	4,930				
Whanganui	3,026	1	1	3.3	3.3
Capital and Coast	11,859	6	8	5.1	6.7
Hutt Valley	4,619		1		2.2
Wairarapa	1,049	1		9.5	
Nelson Marlborough	5,429		2		3.7
West Coast	1,539				
Canterbury	14,089	1	1	0.7	0.7
South Canterbury	2,230				
Southern	9,620				
Unique Total	142,039	38.7	52.7	2.7	3.7

Sources:
A: Ministry of Health (2018) Mental Health and Addiction: Service Use 2015/16, Table 12: Clients seen by DHB of service vs DHB of domicile, 2015/16; B and C: Work Counts; IPS National Steering Group *Honouring Aspirations. An implementation plan*.
Note:
(1) Based on DHB of service. Includes all age groups. The source table does not include NGO data. Clients may have been seen by more than one DHB.

5. Programme reach in case study DHBs

The principle of eligibility based on client choice (or 'zero exclusions') means that all mental health and addiction service users are eligible for IPS, where it is available.

The rate at which people take up IPS, or programme reach, can be examined in two ways:

- looking at the proportion of all mental health and addiction service users in the DHBs who received IPS ('overall programme reach')
- looking at the proportion of mental health and addiction service users *served by a team with an assigned IPS employment specialist* who received IPS ('programme reach within teams with IPS').

Within the five case study DHBs with IPS programmes, these two measures of reach are different because not all mental health or addiction service teams in the DHBs had an IPS employment specialist assigned to them.

Table 2 examines overall programme reach. This averaged 4.0 percent across the five DHBs, and ranged from 2.3 percent in Counties Manukau to 7.6 percent in Taranaki.

Table 2: Overall programme reach in case study DHBs, July 2015–June 2018

DHB	A: Number of unique people who received IPS employment support	B: Number of unique people who had a face-to-face activity with a mental health or addiction service in the DHB	Overall programme reach: A/B x100
Auckland	573	18,510	3.1%
Counties Manukau	480	20,949	2.3%
Lakes	342	6,330	5.4%
Taranaki	393	5,187	7.6%
Waikato	906	16,830	5.4%
Total	2,694	67,806	4.0%

Table 3 examines programme reach within teams with IPS. This averaged 10.0 percent across the five DHBs, and ranged from 6.5 percent in Auckland to 13.9 percent in Taranaki.

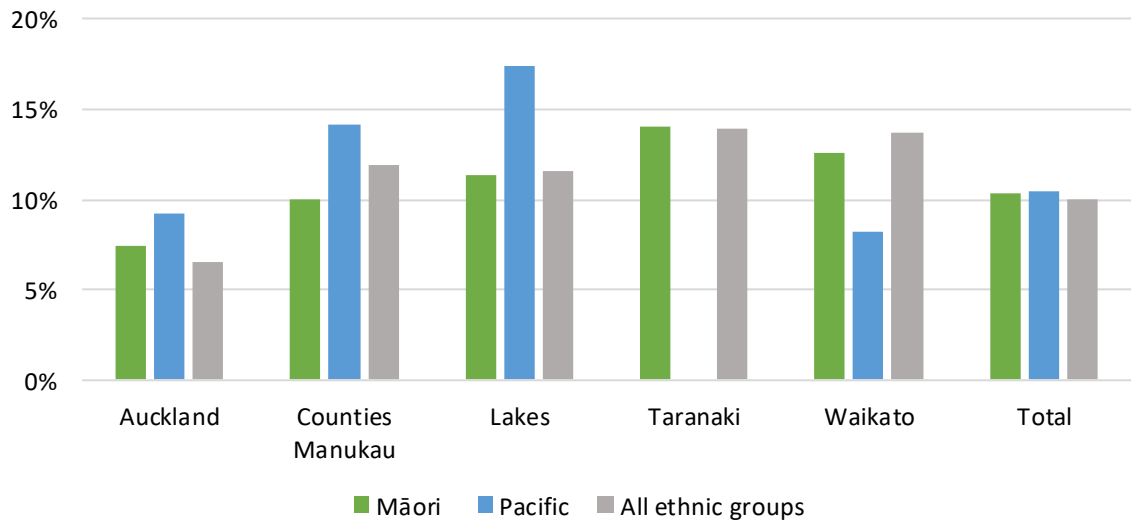
Table 3: Programme reach within teams with IPS in case study DHBs, July 2015–June 2018

DHB	A: Number of unique people who received IPS employment support and mental health or addiction services from a team with IPS	B: Number of unique people who received face-to-face mental health or addiction services from a team with IPS	Programme reach within teams with IPS: A/B x100
Auckland	564	8,673	6.5%
Counties Manukau	423	3,537	12.0%
Lakes	180	1,560	11.5%
Taranaki	261	1,878	13.9%
Waikato	501	3,651	13.7%
Total	1,926	19,299	10.0%

Comparison of the column A totals in Tables 2 and 3 indicate that just over a quarter of the people recorded as receiving IPS employment support over the three-year window received no mental health or addiction service from a team with IPS over that period. Some possible explanations for this include IPS employment specialists having a single assigned team but in practice working across a number of teams; referrals for employment support being made by clinicians in other teams in the DHB (and people receiving employment support that is not necessarily integrated with their mental health and addiction treatment and care); and IPS employment support for a person continuing when mental health and addiction treatment and care had already ended before the start of the period examined.

Programme reach within teams with IPS broken down by ethnic group showed no consistent pattern of higher or lower than average participation among Māori and Pacific across case study DHBs (Figure 1). The 'total' rate for the five DHBs combined was similar at around one in ten for Māori, for Pacific, and for service users overall.

Figure 1: Programme reach within teams with IPS in case study DHBs and by ethnic group(1), July 2015–June 2018



Note:
(1) Data for Pacific in Taranaki are suppressed because there was only one referring team in the cell. Release of these data would contravene Stats NZ confidentiality rules.

6. Profile of participants in case study DHBs

Tables 4 and 5 examine the profile of people who received IPS in the three years to June 2018 within the group of people served by a team with IPS in case study DHBs (column A).[8] This is compared with the profile of non-recipients within these teams (column B). Also shown is the profile of the sub-group who commenced an IPS engagement in the three-year period, looking at their characteristics as at their first face-to-face IPS activity (column C).[9]

Compared to non-recipients, mental health service users who received IPS employment support were more likely to be male, to be supported by a welfare benefit, and to have spent longer periods on a benefit and not in employment (Table 4). Age distributions of recipients and non-recipients were broadly similar, with higher proportions of IPS recipients in the 35-44 year age group and lower proportions in the 55-64 age group. Similar proportions had a Corrections sentence in the previous five years (14 percent compared with 13 percent).

Those who received IPS were more likely than those who did not to have a diagnosis recorded (Table 5, 76 percent compared with 64 percent), which may suggest that IPS employment specialist teams were more likely than referring clinical teams to record diagnoses. Because of the differences in recording rates we do not compare diagnoses for recipients and non-recipients, but it is notable that for those IPS recipients with a recorded diagnosis, there was a diagnosis associated with psychosis in 31 percent of cases. IPS recipients were more likely than non-recipients to have received mental health care as inpatients, and on average had spent longer as inpatients in the last two years, and had spent longer receiving mental health and addiction services overall (in inpatient and community services).

Seventy one percent of those commencing IPS over the period were supported by a welfare benefit at the time they started (Table 4, column C), most commonly Jobseeker Support with a deferral or reduced level of work obligations because of a health condition, injury, or disability (Jobseeker Support-HCD) (35 percent) or Supported Living Payment (26 percent). Six percent received Jobseeker Support without a deferral, and four percent received Sole Parent Support. On average, people commencing IPS had spent 12.9 months supported by a benefit in the previous two years. The proportion in employment in the month they started IPS was 18 percent.

[8] Looking only at those with face-to-face activity with a mental health or addiction team with an assigned IPS employment specialist. We do not present a comparison of the profile of IPS recipients with other mental health and addiction service users in the DHBs with IPS overall. This is because the comparison group would include (i) people receiving services from inpatient and crisis teams; and (ii) people who receive mental health or addiction services without an IPS employment specialist assigned to the team. These may be significantly different groups, in terms of their patterns of labour force participation, to people served by mental health and addiction teams with IPS.

[9] When compared to column A, column C excludes those whose only engagement with IPS was already ongoing at the start of the period.

Table 4: Sociodemographic profile,[1] July 2015–June 2018

	A: Received IPS[2]	95% CI	B: Did not receive IPS[2]	95% CI	C: Commenced IPS[3]	95% CI
Gender:						
Female	45%	43%, 47%	52%	51%, 52%	45%	43%, 47%
Male	55%	53%, 57%	49%	48%, 49%	55%	53%, 58%
Age group:						
18 to 24	25%	23%, 26%	23%	22%, 23%	22%	20%, 24%
25 to 34	25%	23%, 27%	26%	25%, 26%	27%	25%, 30%
35 to 44	24%	22%, 25%	20%	20%, 21%	23%	21%, 25%
45 to 54	19%	17%, 20%	18%	18%, 19%	19%	17%, 21%
55 to 64	9%	7%, 10%	13%	12%, 13%	9%	8%, 11%
Ethnic group (total response)[4]:						
European	72%	70%, 74%	70%	69%, 71%	73%	71%, 75%
Māori	27%	25%, 29%	26%	25%, 27%	26%	24%, 28%
Pacific	10%	9%, 11%	10%	10%, 10%	10%	9%, 11%
Asian	10%	9%, 11%	12%	12%, 12%	10%	9%, 11%
MELAA	3%	2%, 4%	4%	4%, 4%	3%	2%, 4%
Other	2%	1%, 3%	2%	2%, 2%	2%	1%, 3%
Benefit receipt and type:						
Not in receipt of benefit	38%	36%, 41%	55%	54%, 56%	29%	27%, 32%
In receipt of benefit - any	62%	60%, 64%	45%	44%, 46%	71%	68%, 73%
Jobseeker Support	6%	5%, 7%	4%	4%, 4%	6%	5%, 7%
Jobseeker Support-HCD	26%	24%, 28%	14%	14%, 15%	35%	32%, 37%
Supported Living Payment	26%	24%, 28%	23%	22%, 23%	26%	24%, 28%
Sole Parent Support	3%	3%, 4%	4%	4%, 4%	4%	3%, 5%
Months on benefit in last 2 years:						
0	11%	10%, 12%	23%	22%, 24%	12%	10%, 13%
1 to 6	29%	27%, 31%	33%	32%, 34%	26%	24%, 28%
7 to 12	10%	9%, 12%	6%	6%, 6%	12%	10%, 13%
13 to 18	11%	10%, 12%	6%	5%, 6%	10%	9%, 12%
19 to 24	39%	37%, 42%	33%	32%, 33%	41%	38%, 43%
Mean months	12.4	11.94, 12.86	9.6	9.45, 9.77	12.9	12.36, 13.33
Employment status:						
Employed	24%	22%, 26%	35%	35%, 36%	18%	16%, 20%
Not employed	77%	75%, 78%	65%	64%, 65%	82%	80%, 84%
Months employed in last 2 years:						
0	39%	37%, 42%	42%	41%, 43%	41%	39%, 44%
1 to 6	20%	18%, 22%	13%	12%, 13%	19%	18%, 21%
7 to 12	12%	11%, 14%	9%	8%, 9%	13%	11%, 14%
13 to 18	10%	9%, 12%	9%	8%, 9%	10%	9%, 12%
19 to 24	18%	16%, 20%	28%	27%, 28%	16%	14%, 18%
Mean months	7.56	7.16, 7.95	9.09	8.94, 9.24	7.1	6.7, 7.54
Corrections sentence in last 5 years:						
Yes	14%	12%, 15%	13%	12%, 13%	13%	12%, 15%
No	86%	85%, 88%	87%	87%, 88%	87%	85%, 89%
Total (%)[5]	100%		100%		100%	
Total unique people (n)	1,926		17,370		1,590	

Notes: S = suppressed due to small numbers in the cell.

(1) Within the group of people served by a team with IPS in case study DHBs.

(2) Profile as at first face-to-face activity with a mental health or addiction service team with access to IPS in the period.

(3) Profile as at first face-to-face activity with an IPS team in the period.

(4) Percentages sum to more than 100% because a person can belong to more than one ethnic group.

(5) Percentages may not sum due to rounding.

Table 5: Diagnosis and mental health and addiction service,[1] July 2015–June 2018

	A: Received IPS[2]	95% CI	B: Did not receive IPS[2]	95% CI	C: Commenced IPS[3]	95% CI
Diagnosis recorded:						
Yes	76%	74%, 78%	64%	63%, 65%	84%	82%, 86%
No	24%	22%, 26%	36%	35%, 37%	16%	14%, 18%
Psychosis (of those with diagnosis recorded):						
Yes	31%	27%, 35%	22%	20%, 24%	32%	28%, 36%
No	69%	65%, 73%	78%	76%, 80%	68%	64%, 72%
Months receiving mental health or addiction services in last 2 years:						
0			1%	1%, 1%		
1 to 6	41%	39%, 43%	63%	62%, 64%	27%	25%, 29%
7 to 12	16%	15%, 18%	11%	10%, 11%	21%	19%, 23%
13 to 18	13%	11%, 14%	7%	7%, 8%	18%	16%, 20%
19 to 24	30%	28%, 32%	18%	18%, 19%	34%	32%, 37%
Mean months	11.5	11.1, 11.9	7.6	7.4, 7.7	13.7	13.3, 14.1
Inpatient bednights in last 2 years:						
0	65%	63%, 67%	80%	80%, 81%	61%	58%, 63%
1 to 7	6%	5%, 7%	4%	4%, 5%	6%	5%, 8%
8 to 14	7%	6%, 9%	4%	4%, 5%	7%	5%, 8%
15 to 21	5%	4%, 6%	3%	3%, 3%	6%	5%, 7%
22 to 28	3%	3%, 4%	2%	2%, 2%	4%	3%, 5%
29 days or more	14%	12%, 15%	6%	6%, 7%	17%	15%, 19%
Mean bednights	14.5	11.1, 11.9	7.6	7.4, 7.7	13.7	13.3, 14.1
Total (%)[4]	100%		100%		100%	
Total unique people (n)	1,926		17,370		1,590	

Notes: S = suppressed due to small numbers in the cell.

(1) Within the group of people served by a team with IPS in case study DHBs.

(2) Profile as at first face-to-face activity with a mental health or addiction service team with access to IPS in the period.

(3) Profile as at first face-to-face activity with an IPS team in the period.

(4) Percentages may not sum due to rounding.

Tables 6 and 7 examine the profile of IPS recipients in teams with IPS by ethnic group. There was a tendency for Māori and Pacific recipients to be more likely to be male, and more likely to be in younger age groups compared to non-Māori, non-Pacific IPS recipients. Māori and Pacific recipients were significantly more likely than non-Māori, non-Pacific IPS participants to be supported by a benefit, and more likely to have served a Corrections sentence. Māori were significantly less likely to be employed, and had spent less time in employment and longer periods on a benefit, on average.

Reporting rates for diagnoses varied significantly across ethnic groups and therefore comparisons need to be treated with some caution. Māori and Pacific IPS recipients had spent more time receiving mental health services in the previous two years, on average, than non-Māori, non-Pacific IPS recipients.

Table 6: Sociodemographic profile[1] by ethnic group,[2][3] July 2015–June 2018

	Māori	95% CI	Pacific	95% CI	non-Māori, non-Pacific	95% CI
Gender:						
Female	43%	39%, 47%	37%	31%, 44%	47%	44%, 49%
Male	57%	53%, 61%	61%	55%, 68%	53%	51%, 56%
Age group:						
18 to 24	27%	24%, 31%	24%	18%, 30%	23%	21%, 26%
25 to 34	26%	22%, 30%	30%	24%, 36%	25%	22%, 27%
35 to 44	26%	22%, 29%	28%	22%, 35%	22%	20%, 24%
45 to 54	17%	14%, 20%	12%	8%, 16%	20%	17%, 22%
55 to 64	4%	2%, 6%	5%	2%, 7%	10%	9%, 12%
Ethnic group (total response)[3]:						
European	51%	47%, 55%	42%	35%, 49%	84%	82%, 86%
Māori	100%	100%, 100%	30%	24%, 36%		
Pacific	12%	9%, 15%	100%	100%, 100%		
Asian	2%	1%, 3%	8%	4%, 12%	14%	12%, 16%
MELAA	2%	1%, 3%	S	S	4%	3%, 5%
Other	S	S	S	S	3%	2%, 4%
Benefit receipt and type:						
Not in receipt of benefit	28%	24%, 32%	27%	21%, 34%	44%	41%, 46%
In receipt of benefit - any	72%	68%, 75%	70%	64%, 77%	56%	54%, 59%
Jobseeker Support	8%	6%, 10%	11%	6%, 15%	5%	4%, 6%
Jobseeker Support-HCD	26%	22%, 30%	29%	23%, 35%	26%	24%, 28%
Supported Living Payment	32%	28%, 36%	32%	25%, 38%	23%	21%, 25%
Sole Parent Support	5%	3%, 6%	S	S	3%	2%, 4%
Months on benefit in last 2 years:						
0	8%	5%, 10%	8%	4%, 11%	13%	11%, 15%
1 to 6	19%	16%, 23%	21%	16%, 27%	33%	31%, 36%
7 to 12	9%	6%, 11%	12%	8%, 17%	10%	9%, 12%
13 to 18	15%	12%, 18%	12%	8%, 17%	9%	8%, 11%
19 to 24	50%	46%, 54%	49%	42%, 55%	34%	32%, 37%
Mean months	15.38	14.54,	14.78	13.41,	10.96	10.4,
Employment status:						
Employed	16%	13%, 19%	15%	10%, 20%	28%	25%, 30%
Not employed	84%	81%, 87%	84%	79%, 89%	72%	70%, 75%
Months employed in last 2 years:						
0	47%	43%, 51%	49%	42%, 55%	35%	33%, 38%
1 to 6	23%	20%, 27%	21%	16%, 27%	19%	17%, 21%
7 to 12	12%	9%, 14%	12%	8%, 17%	13%	11%, 14%
13 to 18	8%	6%, 11%	9%	5%, 13%	11%	10%, 13%
19 to 24	10%	7%, 13%	11%	6%, 15%	22%	20%, 25%
Mean months	5.25	4.6, 5.95	5.38	4.39, 6.54	8.69	8.18, 9.19
Corrections sentence in last 5 years:						
Yes	23%	19%, 26%	21%	15%, 27%	9%	8%, 11%
No	77%	74%, 81%	76%	70%, 82%	91%	89%, 92%
Total (%)[5]	100%		100%		100%	
Total unique people (n)	516		198		1,212	

Notes: S = suppressed due to small numbers in the cell.

(1) Profile as at first face-to-face activity with a mental health or addiction service team with access to IPS in the period.

(2) A person may belong to both the Māori and Pacific ethnic groups.

(3) Within the group of people served by a team with IPS in case study DHBs.

(4) Percentages sum to more than 100% because a person can belong to more than one ethnic group.

(5) Percentages may not sum due to rounding.

Table 7: Diagnosis and mental health and addiction service use[1] ethnic group,[2][3] July 2015–June 2018

	Maori	95% CI	Pacific	95% CI	non-Maori, non-Pacific	95% CI
Diagnosis recorded:						
Yes	83%	79%, 86%	85%	80%, 90%	72%	70%, 74%
No	17%	14%, 21%	15%	10%, 20%	28%	26%, 31%
Psychosis (of those with diagnosis recorded):						
Yes	46%	39%, 53%	30%	17%, 43%	25%	19%, 31%
No	54%	47%, 61%	70%	57%, 83%	75%	69%, 81%
Months receiving mental health or addiction services in last 2 years:						
0						
1 to 6	33%	29%, 37%	22%	17%, 28%	46%	43%, 49%
7 to 12	15%	12%, 18%	16%	11%, 22%	17%	15%, 19%
13 to 18	12%	9%, 14%	15%	10%, 20%	12%	11%, 14%
19 to 24	41%	37%, 45%	45%	38%, 52%	25%	23%, 27%
Mean months	13.4	12.5, 14.1	14.8	13.5, 16.0	10.4	9.9, 10.9
Inpatient bednights in last 2 years:						
0	58%	53%, 62%	63%	56%, 69%	67%	65%, 70%
1 to 7	6%	4%, 9%	5%	2%, 7%	6%	5%, 8%
8 to 14	7%	5%, 9%	8%	4%, 11%	8%	6%, 9%
15 to 21	6%	4%, 8%	6%	3%, 9%	5%	4%, 6%
22 to 28	5%	3%, 7%	S	S	3%	2%, 4%
29 days or more	20%	16%, 23%	18%	13%, 23%	11%	9%, 13%
Mean bednights	17.7	13.7, 21.5	17.1	10.7, 23.9	12.8	10.1, 15.5
Total (%)[4]	100%		100%		100%	
Total unique people (n)	516		198		1,212	

Notes: S = suppressed due to small numbers in the cell.

(1) Profile as at first face-to-face activity with a mental health or addiction service team with access to IPS in the period.

(2) A person may belong to both the Māori and Pacific ethnic groups.

(3) Within the group of people served by a team with IPS in case study DHBs.

(4) Percentages may not sum due to rounding.

7. Employment outcomes in case study DHBs

Looking at people who commenced IPS (n = 1,590), Figures 2 and 3 examine the proportion who had any employment in the 12 months from their IPS start date.

Employment rates are compared with an international benchmark of 43 percent in competitive employment at any time in a period following entry to IPS (95% CI 37%–50%), displayed as a vertical bar. This benchmark is the pooled competitive employment rate from studies of 30 routine IPS programmes (implemented without an RCT) included in a recent meta-analysis (Richter & Hoffmann, 2018). By comparison, the same study found usual care prevocational programmes have a competitive employment rate of 17 percent (95% CI 11%–23%). Competitive employment is defined as working in the regular labour market and compensated at or above the minimum wage or otherwise prevailing wages for at least one day.

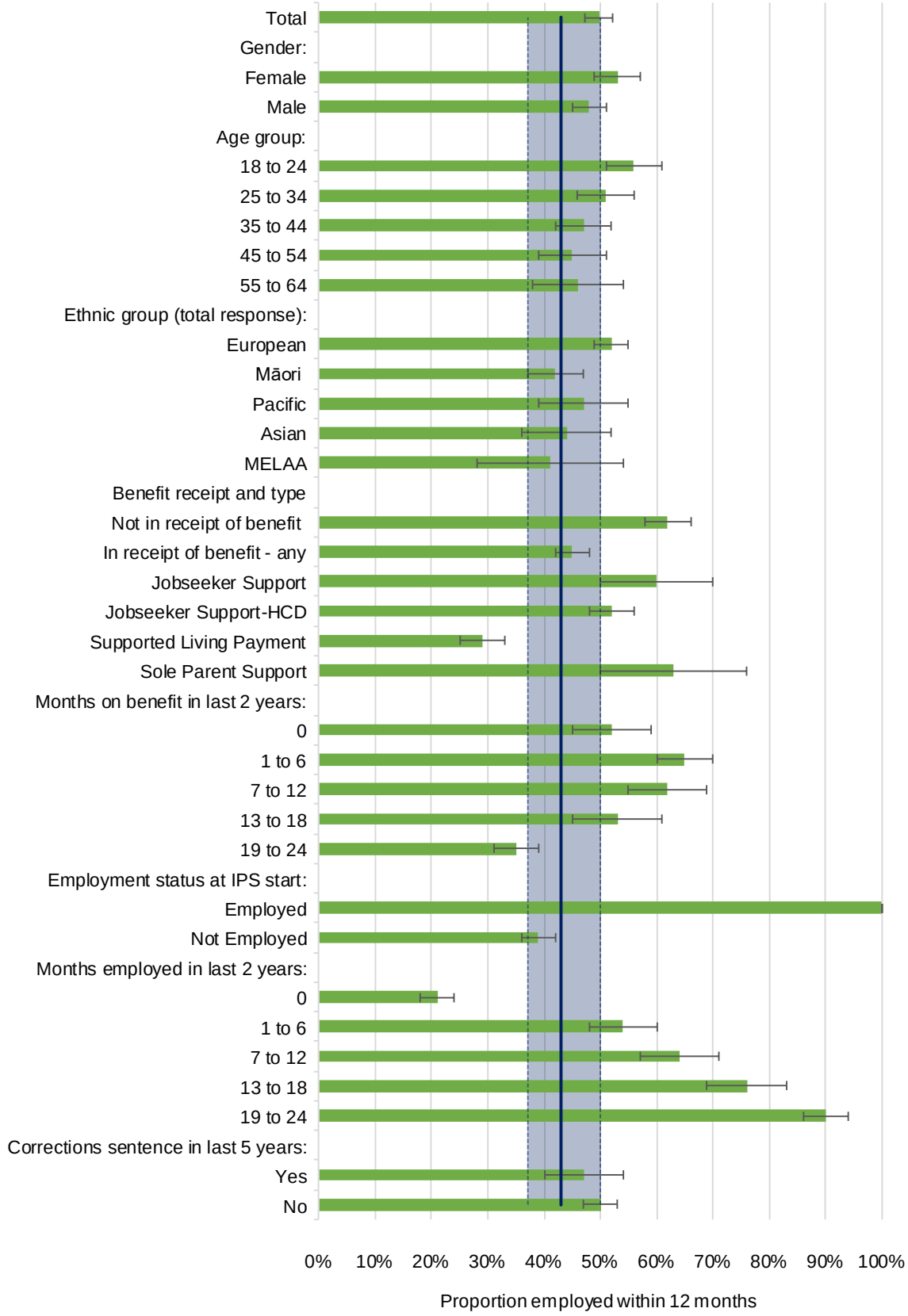
The follow-up period in the IPS studies ranged from six months to five years. In 14 of the studies the follow-up was more than a year (Richter & Hoffmann, 2018). As a result, 43 percent overstates the proportion with any employment that would usually be expected to be achieved within 12 months.

In spite of this, across the majority of sub-populations examined in Figures 2 and 3, the 12-month employment rate was in line with or exceeded the international benchmark. The proportions with some employment within 12 months of starting IPS for those with and without a Corrections sentence in the last five years, for example, were similar at 47 percent (95% CI 40%–54%) and 50 percent (95% CI 47%–53%) respectively (Figure 2). By definition, all of those employed in the month they started IPS spent some time employed in the 12-month outcome window. For those not employed at the start of IPS, the proportion was 39 percent (95% CI 36%–42%), with a strong positive association between employment outcomes and the number of months of prior employment when starting IPS.

Regardless of the length of time in receipt of mental health services and inpatient service use, employment outcomes either exceeded or were within the 95 percent confidence interval for the international benchmark (Figure 3).

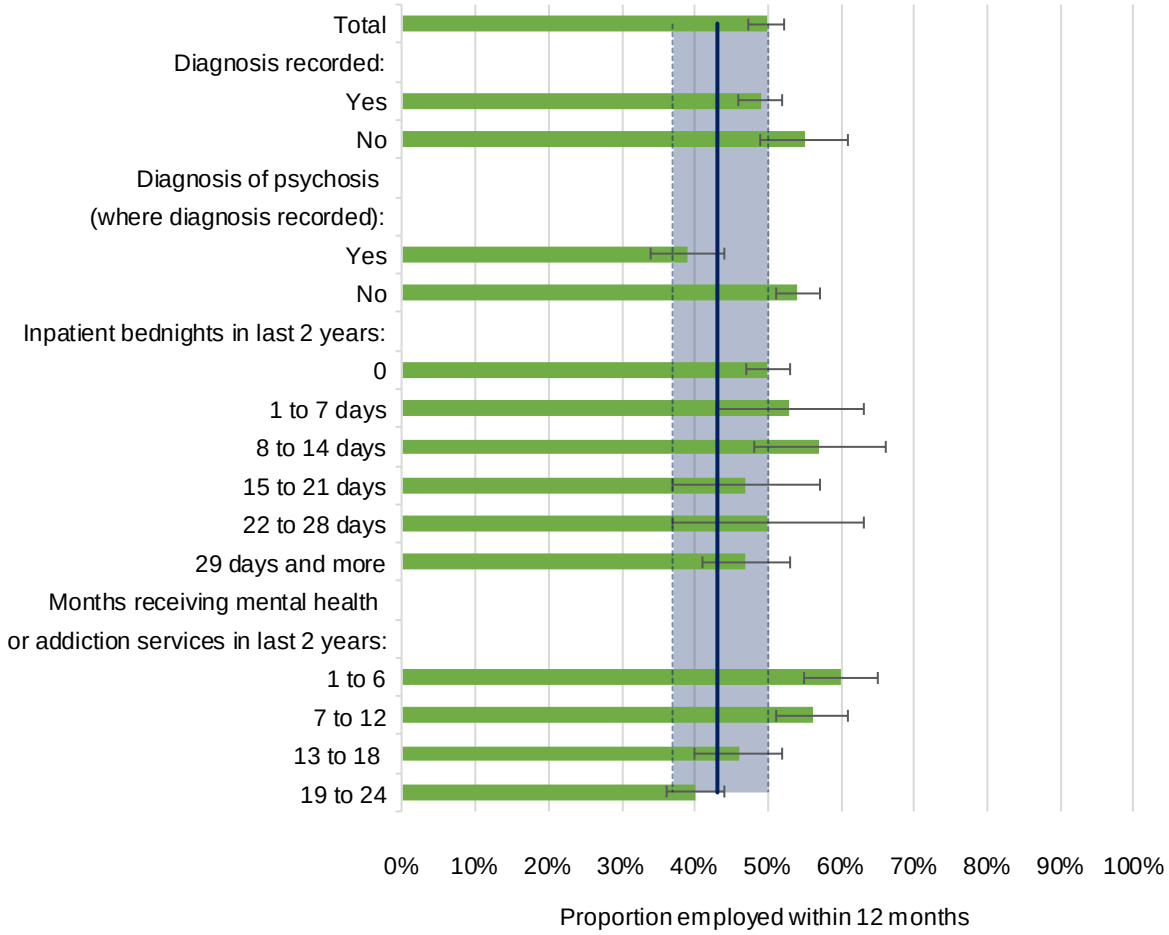
Table 8 examines how employment outcomes vary by selected characteristics across ethnic groups. As with the overall findings, the 12-month employment rate was in line with or exceeded the 43 percent international benchmark across most sub-populations. Employment rates within sub-populations were generally lower for Māori who started IPS than for non-Māori, non-Pacific, consistent with the higher levels of labour market and other barriers apparent in Tables 6 and 7.

Figure 2: Proportion employed within 12 months, by sociodemographic characteristics[1]



Note:
(1) People commencing IPS in case study DHBs July 2015 – June 2018, profile as at first IPS face-to-face activity.

Figure 3: Proportion employed within 12 months, by diagnosis and mental health service use[(1)]



Note:
(1) People commencing IPS in case study DHBs July 2015 – June 2018, profile as at first IPS face-to-face activity.

Table 8: Proportion employed within 12 months, by selected characteristics and ethnic group [(1)(2)]

	Māori	95% CI	Pacific	95% CI	non-Māori, non-Pacific	95% CI
Gender:						
Female	47%	40%, 54%	40%	28%, 52%	56%	52%, 60%
Male	38%	32%, 44%	49%	39%, 59%	51%	47%, 55%
Age group:						
18 to 24	52%	42%, 62%	45%	28%, 62%	57%	51%, 63%
25 to 34	39%	30%, 48%	53%	39%, 67%	57%	51%, 63%
35 to 44	39%	29%, 49%	47%	33%, 61%	51%	45%, 57%
45 to 54	35%	24%, 46%	50%	27%, 73%	48%	41%, 55%
55 to 64	33%	11%, 55%	S	S	49%	40%, 58%
Benefit receipt:						
Not in receipt of benefit	50%	39%, 61%	40%	22%, 58%	66%	61%, 71%
In receipt of benefit - any	41%	36%, 46%	49%	41%, 57%	46%	42%, 50%
Employment status at IPS start:						
Employed	100%	100%, 100%	100%	100%, 100%	99%	98%, 100%
Not employed	35%	30%, 40%	36%	28%, 44%	41%	38%, 44%
Corrections sentence in last 5 years:						
Yes	44%	34%, 54%	50%	34%, 66%	53%	43%, 63%
No	42%	37%, 47%	48%	39%, 57%	53%	50%, 56%
Diagnosis recorded:						
Yes	41%	36%, 46%	46%	38%, 54%	52%	49%, 55%
No	50%	36%, 64%	S	S	57%	50%, 64%
Psychosis (of those with diagnosis recorded):						
Yes	33%	26%, 40%	42%	29%, 55%	44%	37%, 51%
No	48%	41%, 55%	48%	38%, 58%	55%	51%, 59%
Months receiving mental health or addiction services in last 2 years:						
1 to 6	50%	39%, 61%	40%	15%, 65%	62%	57%, 67%
7 to 12	52%	41%, 63%	50%	32%, 68%	59%	53%, 65%
13 to 18	40%	29%, 51%	45%	28%, 62%	48%	41%, 55%
19 to 24	38%	31%, 45%	46%	35%, 57%	42%	37%, 47%

Note: S = suppressed due to small numbers in the cell.

(1) A person may belong to both the Māori and Pacific ethnic groups.

(2) People commencing IPS in case study DHBs July 2015 – June 2018, profile as at first IPS face-to-face activity.

8. Discussion

Development and Reach

Results presented here demonstrate the variability of, and limited access to evidence-based IPS practices that exist at present, both across DHBs overall, and within DHBs with some dedicated employment specialists. IPS has largely been funded by DHBs, with some philanthropic funding, some Proceeds of Crime funding, and some time-limited funding from MSD depending on fluctuating priorities. The level of integration between employment support services and mental health services has varied by health region, largely dependent on local service arrangements, with some fully integrated and others only partially. Coverage in 2019 was estimated to be around 3.7 FTE employment specialists per 10,000 people seen by DHB mental health and addiction services nationally (including a trial IPS service currently purchased on a time-limited basis).

Low coverage is a finding Aotearoa New Zealand has in common with other countries. Despite efforts to expand access, in the United States only around two percent of clients with serious mental illness served in the community mental health system received any supported employment services 2007-2012 (Hoagwood et al., 2015). Less than one percent of Medicaid beneficiaries with a diagnosis of schizophrenia had an identifiable claim for supported employment (Brown et al. 2012 cited in Johnson-Kwochka et al., 2017). To achieve national scale up, a sustainable funding stream for IPS programmes, national and local-level co-ordination, and implementation support systems are needed (Hogan et al., 2014; Lockett et al., 2018; Bond et al., 2020). Expansion, with some of these features, appears to be the direction taken in recent developments in England (Melleney & Kendall, 2019), and has been recommended for Australia (Productivity Commission, 2020).

In five case study DHBs with IPS, the proportion of people seen by DHB mental health and addiction services over a three year period who also received IPS was four percent. Programme reach within teams with an IPS employment specialist assigned was higher but averaged only 10 percent. A notable finding is that while programme reach within teams with an assigned IPS employment specialist varied slightly across ethnic groups within different DHBs, programme reach was not consistently lower among Māori and Pacific service users.

Profile of participants

Consistent with findings reported elsewhere (Cunningham et al., 2018), there were high rates of indicators associated with barriers to employment and risk of labour market discrimination among specialist mental health and addiction service users in the case study teams, whether or not they participated in IPS. Against this backdrop, the prevalence of some of these indicators was even higher among IPS participants (with more extensive past engagement with the benefit system and mental health and addiction services, for example). These indicators were even more prevalent among Māori and to a lesser extent Pacific IPS participants compared to non-Maori, non-Pacific participants. Māori and Pacific IPS participants were more likely to have the added

disadvantage and labour market discrimination risk associated with past involvement with the Corrections system.

For IPS participants with a diagnosis recorded, in just over a third of cases there was a diagnosis associated with psychosis. This proportion appears relatively low when compared with international RCTs of IPS, where in most cases more than half of participants have psychotic disorders (Lockett et al., 2016), but is within the range found in other routine implementations (Richter & Hoffmann, 2018). The available data are suggestive of higher rates of psychosis among Māori and Pacific IPS participants than non-Maori, non-Pacific participants. This is consistent with the available evidence on differences in population prevalence of schizophrenia (Cunningham et al., 2018).

The findings from this analysis confirm that IPS programmes are supporting the people they are designed to support. Consistent with the principle of zero exclusion, people with personal histories that present challenges to employment and who are at risk of labour market discrimination are being served by IPS, including Māori and Pacific people.

Employment outcomes

Examination of employment outcomes for people who received IPS in the case study teams shows that they were generally in line with or exceeded an international benchmark, and that this applied across a range of participant sub-populations. These findings are positive, particularly given that the benchmark overstates the employment outcomes that would be expected to be achieved within 12 months. The results from the present analysis relate to a period in which all IPS provision was health-led, and contracts required performance monitoring, but were not contingent on employment outcomes being achieved for a set percentage of participants.

Those who had spent no time employed in the last two years did not fare as well as other groups, which is to be expected, and may reflect the fact that gaining employment as a result of IPS supports takes longer than 12 months for some people. A large United States RCT provides evidence that those enrolled in IPS continued to find first jobs at a faster rate than control participants after 12 months participation in IPS (Metcalfe, Drake, & Bond, 2018).

There were also comparatively low 12-month employment rates for IPS recipients with long periods spent on a benefit in the last two years, and those receiving Supported Living Payment. This may reflect the effects of more profound employment challenges for these sub-populations, or the influence of benefit settings and the culture of benefit delivery which can work against people feeling supported to take up employment (Melleney & Kendall, 2019; Metcalfe, Drake, & Bond, 2018; Welfare Expert Advisory Group, 2019; Whitworth, 2018).

In spite of higher rates of indicators associated with barriers to employment and risk of labour market discrimination, Māori who received IPS had employment outcomes that were within the 95% confidence interval for the international benchmark (42 percent had some employment within 12 months, 95% CI 37%–47%), and Pacific IPS recipients had employment outcomes that exceeded the benchmark, although with overlapping confidence intervals (47 percent had some employment within 12 months, 95% CI 39%–

55%). Rates were particularly low in some participant sub-populations, however, including older Māori, and Māori with a recorded diagnosis associated with psychosis.

A focus on achieving equity of access and outcomes for Māori and Pacific people is important. Also important is acknowledgement of different starting points in terms of barriers to employment. Results presented here emphasise the importance of time unlimited supports within the IPS approach. Some people need longer periods of support before they obtain a job (Metcalfe et al., 2018), and Māori and to a lesser Pacific IPS participants are over-represented among those likely to need the most time.

A focus on achieving equity also requires acknowledgement of possible differences in the meaning of employment for wellbeing. Recent strategy documents highlight sustainable employment and economic security as key to Māori wellbeing (Baker, 2016; MSD, 2019; Te Puni Kōkiri, 2016). But employment and economic security sit alongside a range of culturally-grounded aspirations and valued outcomes. Included among these are cultural identity, confident participation in te ao Māori, and the health and wellbeing of collectives, including whānau.

Vera Keefe-Ormsby (2008) writes that "Māori identity comes from multiple sources, of which employment may just be one." Rather than an enquiry about "what do you do?" it is more culturally appropriate within Māori society to ask "nō hea koe?" or "where / what people are you from?" Identity may therefore be about whakapapa, genealogy and cultural connection rather than the type of work someone does (Durie, 1985; Mead, 2003). Likewise, the benefits from employment for Māori may be shaped by the degree to which the workplace offers connection and cultural responsiveness resonant with a worldview that is based on relationships (Keefe-Ormsby, 2008; Cram, 2017).

In her study of the closure of Whakatu Freezing Works, Keefe-Ormsby (2008) found that the Works was known as the 'University of Whakatu'; that is, a place where relationships and comradery were nurtured and knowledge was exchanged (Figure 1). Workers took great pride in working at the Works, with whānau members often working side-by-side. Work relationships flowed through to their lives outside of their work context, and their working roles supported their cultural responsibilities. This helps explain the shock and despair that affected workers when Whakatu was closed and the workforce made redundant (Keefe-Ormsby, 2008).
They had worked for an organisation that not only paid them well but also upheld their 'taha Māori'.

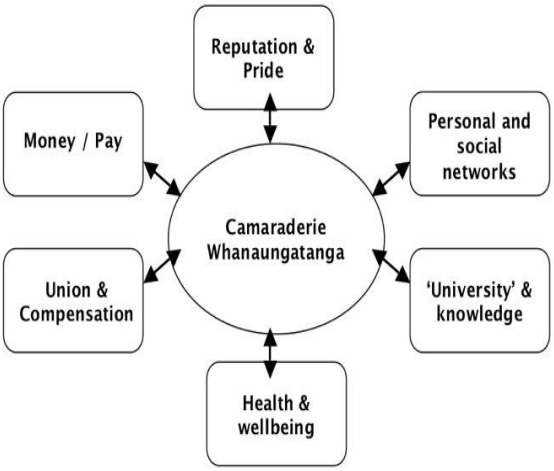


Figure 1. Working at Whakatu themes
Source. Keefe-Ormsby (2008)

Inequities can be exacerbated when an approach developed in a Westernised culture that is individualised in nature is implemented in collective cultures without attention to collectives and collectivity as key to supporting people on their journey of change. Themes from voices of the people heard in He Ara Oranga - the Government Inquiry into

Mental Health and Addiction included, for Māori, "recognition of the impact of cultural alienation and generational deprivation, affirmation of indigeneity, and the importance of cultural as well as clinical approaches, emphasising ties to whānau, hapū and Iwi". For Pacific peoples, they included "the adoption of 'Pacific ways' to enable Pacific health and wellbeing – a holistic approach incorporating Pacific languages, identity, connectedness, spirituality, nutrition, physical activity and healthy relationships" (He Ara Oranga, 2018, p. 9).

Attention to culture should therefore be integral to the implementation of evidence-based practices and career guidance for Māori people (Durie, 2004), and to the future development and delivery of IPS (Fadyl et al., 2020; Priest & Lockett, 2019). Recent prototyping in a kaupapa Māori mental health and addiction service (Bence-Wilkins et al., 2019), and a new IPS employment programme in Northland (Priest & Lockett, 2019), suggest that the IPS principles and practices felt culturally relevant to staff and were considered to be experienced positively by Māori clients. The findings from these studies suggest that the IPS approach may be flexible enough to be adapted to the cultural needs of the population served, but this is yet to be examined in depth taking a te ao Māori or Pacific research lens. It would be useful to consider whether documenting best practice in the cultural context of Aotearoa New Zealand could be a useful addition to, or cultural overlay[10] for, the fidelity review for example. More research on ways to ensure and support cultural responsiveness of employment support in the Aotearoa New Zealand context, and workforce development to support the cultural capability of staff delivering employment support, will be beneficial (Bence-Wilkins et al., 2019; Fadyl et al., 2020), as will research exploring Māori-led approaches to address economic and health inequities (Fadyl et al., 2020).

Finally, while the 12-month employment rate for women who commenced IPS was higher than that for men, with overlapping confidence intervals, programme reach was lower for women (who comprised 52 percent (95% CI 51%–52%) of non-participants within the teams with an assigned employment specialist, but 45 percent of the IPS participants (95% CI 43%–47%)).

Understanding the lower participation rate of women would be a useful avenue for further research, particularly given the strengthened work obligations that have applied to sole parents and partners supported by benefits in Aotearoa New Zealand in recent years (OECD, 2018; Welfare Expert Advisory Group, 2019). Possible explanations include lower barriers to employment or lower interest in employment among women using mental health and addiction services compared to men, or clinicians making referrals to IPS assuming women are less interested in employment than men. Another possible explanation for low participation is a gap between the support IPS offers and the help some women are looking for to help them balance employment with not only their mental health needs, but also their caring responsibilities. It is notable that the Fidelity Review Manual (Becker et al., 2015) does not consider support for childcare or eldercare, or for negotiating absence to care for family members, for example. It not clear from existing Aotearoa New Zealand IPS studies whether this already is, or should become, an area of focus for employment specialists.

[10] An example of this approach is the Āhuru Mōwai overlay developed for the Born to Learn curriculum (Cram et al., 2018).

9. Limitations

IDI data are an important new resource for building evidence about what works (He Ara Oranga, 2018), but there is a need for greater transparency about their existence, use, and limitations (Gulliver, Jonas, Fanslow, McIntosh, & Waayer, 2018).

This paper demonstrates the rich descriptive data that can be obtained, and helps address an important policy topic – how to improve the labour force participation of people with experience of serious mental illness or addiction (OECD, 2018). Studies based on linked administrative data have the benefit of drawing on a longitudinal data source unaffected by non-response bias, and a large, and in our case comprehensive, sample of the populations of interest (Connelly et al., 2016; Currie, 2013; Milne et al., 2019). They also allow examination of characteristics and outcomes traditionally studied in silo, such as mental health service use and employment.

Against these benefits, a number of limitations need to be considered. IDI data linking is generally probabilistic. Some errors and missed links are inevitable in this process. Health data for Pacific and Asian people and older Māori are linked to the IDI spine at a lower than average rate, for example. This suggests inconsistent coverage across population sub-groups (Milne et al., 2019). The IDI data used in this study was information collected or generated in the process of administering services, and inevitably will embody any errors in measurement, reporting and recording that occur in those processes. Data for which there is discretion in data recording can be incomplete. In this study, for example, because diagnosis recording practices vary by team, we were able to make only cautious use of diagnosis information, and the information was not useful for comparing across people served by different groups of teams.

We collated a range of measures of socio-demographic characteristics and past service use and service contact, but we did not examine a range of characteristics that may be important to understanding people's employment opportunities and outcomes, some of which are difficult to obtain from administrative data. Included among these were co-morbid health conditions, caring responsibilities, and employment preferences. In particular, we need to be cautious in inferring health status, or need for services, from people's recorded use of publicly funded health services. Rather than real differences in health status or need, differences between groups and changes over time could reflect variation in access to and affordability of services, changes in the availability and the configuration of private and public services, or changes in data capture systems.

The administrative source of the data also means it often provides an imperfect proxy for the outcome of concern (Connelly et al., 2016; Hughes, 2015). For example, in this study we inferred employment from employee earnings recorded for tax purposes, but we failed to capture employment in the informal economy. We examined a single measure of employment outcomes – whether or not there was any record of participation in paid employment recorded for tax purposes in the 12 months following a person starting IPS. We did not consider health and other non-vocational outcomes that may be positively impacted by IPS. The motivation for this was to select a measure for which robust benchmarks are available (Richter & Hoffmann, 2018). While there is evidence that IPS increases the duration of employment and the level of earnings, the volume of evidence on these outcomes is not as large and benchmarks have not been

developed. Evidence on non-vocational outcomes is also as yet too sparse to provide benchmarks (Frederick & VanderWeele, 2019).

Finally, while this study provides good evidence for favourable employment outcomes when compared with an international benchmark, it makes no attempt to estimate what would have been achieved in the absence of IPS. Doing further research to fill this evidence gap would be useful. A quasi-experimental study to estimate programme impacts would have its own strengths and limitations and would provide less robust evidence than RCTs. However, there are important opportunities to build the evidence to support cost-benefit analysis and assessment of equity of impacts by combining these techniques with the linked administrative data available through the IDI.

Further research on impacts should not be seen as a pre-condition for considering expansion of IPS given the strength of the international evidence base for effectiveness, and the findings from this analysis which show that, where implemented, IPS reaches the people it is intended to support and is effective when assessed against an international benchmark. Meta-analyses and systematic reviews document a strong evidence base for large positive effects on employment. In addition, the available evidence suggests routine programmes (implemented without an RCT) lose little effectiveness when compared to results from RCTs, and although the average proportion of participants commencing employment was lower in the period following the Global Financial Crisis than before (Richter & Hoffmann, 2018), recent meta-regressions of RCTs have found the scale of positive programme effects is not significantly reduced in more difficult economic conditions (Metcalfe et al., 2018; Brinchmann et al., 2020).

10. Conclusions

This study demonstrates low and uneven access to IPS across Aotearoa New Zealand. There are currently only around 3.7 FTE IPS employment specialists per 10,000 people seen by DHB specialist mental health and addiction services nationally.

In five case study DHB with specialist teams where established IPS services involving team assignment are available, one in ten mental health and addiction service users in those teams accessed IPS employment support over the three years to June 2018. Participation rates for Māori and Pacific mental health and addiction service users in these teams were not consistently higher or lower than those for mental health and addiction service users in the teams overall across DHBs. Those who received IPS had characteristics that are associated with high levels of labour market disadvantage, including long periods of past benefit receipt, showing that the IPS programmes reached the people they intended to support.

Employment outcomes varied across ethnic groups in a manner consistent with differences in indicators associated with labour market disadvantages and risk of labour market discrimination, but for all ethnic groups they were in line with or exceeded an international benchmark for competitive employment rates that are achieved by routine IPS programmes.

These findings lend support to efforts to expand access to IPS. They suggest IPS will form a useful part of a strategy of early intervention to enhance employment and mitigate against inequitable employment outcomes through the disruptions caused by the COVID-19 pandemic. As the service expands, attention to (and research on) cultural responsiveness, Māori-led approaches and equality of access by gender will be beneficial, as will research on costs and benefits and the scale of the programme’s positive impacts on employment and other outcomes in the Aotearoa New Zealand context.

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Appendix 1: Overview of IPS aligned employment support services, by DHB region

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
Northland	Integration	Employment support at Dargaville mental health team	2	Northland DHB[3]	Northland DHB	1 July 2017	Ongoing	Priest & Lockett, 2019
Auckland	Integration	Employment support integrated at Community Mental Health Centres. One FTE to each mental health team, but clinical teams very large (see fidelity review reports). Taylor Centre – Ponsonby, St Lukes, Cornwall, Maanaki, Manawanui Māori mental Health, Early Psychosis Intervention Dec 2011 increased to 5 FTE from 4 FTE	4 then 5	Auckland DHB	Workwise	1 July 2010	Ongoing	Kongs-Taylor & Lockett, 2016; 2017
	Attachment		2	Workwise self-funded	Workwise	July 2009	June 2010	
	Attachment		2	Auckland DHB	Workwise	1 July 2007	30 June 2009	
	Employment coordination model		1	Auckland DHB (no contract, MOU only)	Workwise	June 2006	1 July 2007	

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
Waitematā	Integration	Trial of employment supported integrated with teams based at Adult Mental Health Services (Rodney, West and North), Moko Services (Māori mental health) and Isa Lei.	8	MSD funds via the DHB	Workwise / Emerge Aotearoa / Ember	1 June 2019 (start delayed in Rodney and North)	30 June 2021	
	Integration	Prototype of employment supported integrated with: Moko services (Māori mental health), West recovery team.	2	MSD funds via the DHB	Workwise	May 2018	Evolved into existing trial	Bence et al., 2019
Counties Manukau	Integration	Employment support integrated at Community MH Centres: Cottage, Awhinitia – Papakura, Te Rawhiti – Highland Park, Manukau – Manukau. One FTE per clinical team.	4	Counties Manukau DHB	Workwise	Evolved from Attachment model	Ongoing	Kongs-Taylor & Lockett, 2016; 2017
	Attachment		4	Counties Manukau DHB	Workwise	1 July 2007	Contract evolved to Integration	
	Employment coordination		1	Counties Manukau DHB	Workwise	September 2006	1 July 2007	

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
Waikato	Integrated	Employment support integrated at Community Mental Health Centres: North Central, South Central, North Rural, South Rural, Forensic, Alcohol and Other drugs, Hauora Waikato (Māori mental health team)	10.5	Waikato DHB	Workwise	1 July 2009	Ongoing	
	Attachment		6	Waikato DHB (contract)	Workwise	December 2007	Evolved into existing integrated service	
	Attachment (pilot)	Thames/Hauraki, Hamilton	3	Waikato DHB (MOU only)	Workwise	September 2004	Evolved into existing integrated service	McLaren, Kristensen, & Li, 2005
Bay of Plenty	Not available	Workwise provides services pan-disability Journey to Wellness (MSD contract). Not available for DHB clients						
Lakes	Partial integration	Employment support serving Community Mental Health teams: Te Ngako Rotorua, Rua te Hua Oranga, Totara team Contract asks for: an employment facilitation service	5	Lakes DHB	Workwise	July 2014	Ongoing	
	Attachment	Taupo CMH and Rotorua CMH	5	Lakes DHB	Workwise	2006	Evolved into existing service	

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
Taranaki	Partial integration	Employment support integrated at Community Mental Health Centres: East team, West team, South team, North team, Alcohol and Other Drug team. Contract changed 1 July 2011: Evidence-based supported employment. 2008 contract: work rehabilitation/employment and educational support service.	5.2	Taranaki DHB	Workwise	2008	Ongoing	
Hawkes Bay	Employment coordination	Worked alongside mental health services to take referrals for the DHB.	3	MSD	Workwise	Dec 2004	June 2010	Browne, Stephenson, Wright & Waghorn, 2009

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
Capital and Coast DHB	Partial integration[3]	Te Ara Pai Occupation Services (6 FTE) and Youth mental health services (2 FTE). No assignment of employment specialists to particular teams.[3]	8	Capital and Coast DHB	Workwise	1 July 2014	Ongoing	
	Partial integration	Te Ara Pai Occupation Services - employment support available on referral to clients seen by range of NGO and DHB mental health providers. No assignment of employment specialists to particular teams.	6	Capital and Coast DHB	Workwise	1 July 2014	Ongoing	
	Integrated	Partnership with DHB employment team Work First, delivering IPS services	6-7	Capital and Coast DHB / MSD via the DHB	Workwise / Work First	2004	2010	Porteous & Waghorn, 2007; 2009
	Integrated	Partnership with DHB employment team Work First, delivering IPS services	2	MSD funds via the DHB	Capital and Coast DHB	2002	2004	Porteous & Waghorn, 2007; 2009
	Integrated	Pilot IPS program (Work First) within an early intervention psychosis team	1	Capital and Coast DHB	Capital and Coast DHB	2001	2002	Porteous & Waghorn, 2007; 2009
Hutt Valley	Integrated	Employment support integration to be determined	1	Hutt Valley DHB	Workwise	2 July 2018		
Nelson Marlborough	Attachment	Separate employment support in the process of moving to integration with Blenheim community mental health team.	2	Nelson Marlborough DHB	Te Ara Mahi	Getting started		

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
Canterbury	Integrated	Trial of employment support with young people supported by benefits (most are not DHB clients)	2.2	MSD	Odyssey House Trust Christchurch	1 March 2019	28 Feb 2022	
	Intended to be integrated	Prototype employment support with young people supported by benefits (most are not DHB clients).	1	MSD	Odyssey House Trust Christchurch/ Community Youth Mental Health Service	May 2018	Evolved into existing trial	Wilson et al., 2019
	Partial integration	One employment advisor is co-located with the early intervention in psychosis team	1	Unknown	Emerge Aotearoa	Unknown	Ongoing	
	Employment coordination	Employment specialists operated to IPS principles, but were not co-located into mental health services.	4	MSD	Workwise	1 July 2005	30 June 2007	Browne & Waghorn, 2010
Southern	Not available yet							
Tairāwhiti	Unknown							
Wairarapa	Unknown	One employment advisor serving adult community mental health and addiction services adult mental health services	1		Workwise			
Whanganui	Unknown	One employment advisor in general adult mental health services	1		Workwise			
MidCentral	Unknown							
South Canterbury	Unknown							

DHB Region	Integration approach[1]	Further information	FTE	Funding source for the employment support service	Employment support provider [2]	Contract start date	Contract finish date	Published papers
West Coast	Unknown							

Notes.

DHB=District Health Board. FTE=Full time equivalent staffing. WW=Workwise.

(1) **Attachment:** One consultant one mental health team. The consultant spends a significant amount of their time at a team's base, and their work is defined by the particular population that clinical team is serving. **Employment-coordination**: An Employment Coordinator providing services to an entire mental health centre. The coordinator utilises Enhanced IPS with a personal caseload of job seekers as well as referring people out to other NGO supported employment providers. **Partial integration & Integrated**. These two approaches would score 2 or more on the IPS fidelity scale integration items. See Appendix 2 for more details.

(2) In most regions the mental health and addiction service provider is the DHB provider arm. The funder is the DHB planner and funder. DHBs vary in the operational management relationships between the planner and funder and the provider-arm.

(3) In 2020 Te Ara Pai employment services are moving to full IPS implementation, with integration through clinical team assignment.

Appendix 2: Integration items on the IPS-25 scale items

Integration of employment support service with mental health treatment through team assignment: employment specialists are part of up to 2 mental health treatment teams from which at least 90% of the employment specialist's caseload is comprised.

1=employment specialists are part of a vocational program that functions separately from the mental health treatment

2=employment specialists are attached to three or more mental health treatment teams OR clients are served by individual mental health practitioners who are not organised into teams OR employment specialists are attached to one or more teams from which less than 50% of employment specialist's caseload is comprised

3=employment specialists are attached to one or two mental health treatment teams from which at last 50-74% of the employment specialist's caseload is comprised

4=employment specialists are attached to one or two mental health treatment teams from which at last 75-89% of the employment specialist's caseload is comprised

3=employment specialists are attached to one or two mental health treatment teams from which at last 90-100% of the employment specialist's caseload is comprised

Integration of employment service with mental health treatment through frequent team contact: employment specialists actively participate in weekly mental health treatment team meetings (not replaced by administrative meetings) that discuss individual clients and their employment goals with shared decision-making. The employment specialist's office is in close proximity to (or shared with) their mental health treatment team members. Documentation of mental health treatment and employment services is integrated in a single client chart. Employment specialists help the team think about employment for people who haven't yet been referred to supported employment services.

Five components (Score 1 for each anchor that is present):

- employment specialist attends weekly mental health treatment team meetings

- employment specialist participates actively in treatment team meetings with shared decision-making

- employment services documentation (vocational assessment/profile, employment plan, progress notes) is integrated into client's mental health treatment record

- employment specialist's office is in close proximity to (or shared with) the mental health treatment team members

- employment specialist helps the team think about employment for people who haven't yet been referred to supported employment services

If integration is low it is also very difficult to score well on:

Zero exclusion criteria: All clients interested in working have access to supported employment services, regardless of job readiness factors, substance abuse symptoms, history of violent behaviour, cognitive impairments, treatment non-adherence, and personal presentation. These apply during supported employment services too. Employment specialists offer to help with another job when one has ended, regardless of the reason that the job ended or number of jobs held. If Government Income Support or Labour market programs have screening criteria, the mental health agency does not use them to exclude anybody. Clients are not screened out formally or informally. See the Fidelity Review Manual for how to score this item when the employment specialist caseload is full and no places are currently available.

The Mental Health Agency focus on competitive employment: Agency promotes competitive work through multiple strategies. Agency intake includes questions about interest in employment. Agency displays written postings (e.g., brochures, bulletin boards, posters) about employment and supported employment services. The focus should be with the agency programs that provide services to adults with severe mental illness. Agency supports ways for clients to share work stories with other clients and staff. Agency measures rate of competitive employment and shares this information with agency leadership and staff.

Executive team support for supported employment: Agency executive team members (e.g., CEO/Executive Director, Chief Operating Officer, QA Director, Chief Financial Officer, Clinical Director, Medical Director, Human Resource Director) assist with supported employment implementation and sustainability. All five key components of executive team support must be present for a score of 5.