CRE-DH Impact Evaluation Report
2016 – 2022

CRE–DH
Centre of Research Excellence in Disability and Health

October 2023

in partnership with

THE UNIVERSITY OF MELBOURNE
THE UNIVERSITY OF SYDNEY
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Acknowledgments (Allison Milner)

We pay tribute to our friend and colleague Chief Investigator Allison Milner who died unexpectedly in August 2019. A/Professor Allison Milner played a crucial role in the work of the CRE-DH, driving its mentorship program and leading our research on disability, employment, and health. She was an extremely talented academic who worked tirelessly to produce research that improved the life outcomes for disadvantaged citizens. Her generosity, drive, vim, and verve will not be forgotten.

Art on front cover: Kate Knight, Untitled. Courtesy of the artist and Arts Project Australia.

Art on final page: Kate Knight, Untitled (detail). Courtesy of the artist and Arts Project Australia.

Notes on Terminology

In this report, we primarily use 'person-first' language when referring to people and groups with disability. We acknowledge that many people with disability also use 'identity first' language.

The term 'impact' is often used interchangeably with outcomes; we use 'impact' to encompass outcomes and impacts.

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Centre of Research Excellence in Disability and Health

The University of Melbourne VIC 3001
cre-dh@unimelb.edu.au
credh.org.au
@DisabilityHlth

Contents

Acronyms

ARC	Australian Research Council
ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
COVID-19	Coronavirus Disease 2019
CRE-DH	Centre of Research Excellence in Disability and Health
DES	Disability Employment Services
DOH	Commonwealth Department of Health (now Department of Health and Aged Care)
DSS	Commonwealth Department of Social Services
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NHMRC	National Health and Medical Research Council

CRE-DH Impact Evaluation Report

This report presents the impact evaluation of the Centre of Research Excellence in Disability and Health (CRE-DH) from 2016 until December 2022.

The Centre's goal is to identify implementable and cost-effective policy interventions that improve the health of working-age disabled Australians. The work during this period was funded by an NHMRC program grant. This report also summarises CRE-DH activities and contributions more generally. Information from program outputs, an investigator survey, and stakeholder interviews reveals how the Centre has contributed to policy, practice, and new ways of working.

Key Findings

Research outcomes

CRE-DH projects have shone the light on inequalities in health and social determinants, how social determinants impact health, and how current policies are working (or not) for Australians with disability.

We have shown that people with disability would benefit substantially from the removal of barriers blocking their participation in employment, economic life, transport, community and social activity, leisure, and civic activities, as well as accessibility in the home and community. These benefits can be measured in terms of their health and wellbeing (self-rated health, anxiety, life satisfaction, life worth and happiness).

Emerging from COVID-19 there is a greater appetite for whole-of-government, cross-sectoral responses to improve the health and wellbeing of people with disability.

Ways of working

We have involved people with disability as co-designers in framing our research and interpreting the results. This ensured that we captured what matters most for people with disability and that the outputs are fit-for-purpose.

Our multi-disciplinary collaboration enabled us to examine complex topics from different perspectives and to identify gaps for future research and policy.

We helped to develop public health research capacity in disability across a range of disciplines including health economics, epidemiology, health, social sciences, and policy.

Datasets that include disability identifiers are scarce in Australia. However, our analysis of existing administrative datasets provided an evidence base that can help stakeholders to make decisions supporting better health and wellbeing for people with disability.

We used a variety of channels, such as partnering with other groups and submissions and representations to key strategies and inquiries, to inform advocacy and policy development. These interactions enabled two-way knowledge sharing and contributions to international, national, and state government disability agendas and policy responses.

Our Partner Advisory Group was made up of representatives from the disability and health sectors. This enabled strong cross-sectoral collaborations by creating opportunities for information sharing, accessing academics, and directing stakeholders to resources.

The six year timeline was sufficient to build reputation and trust; develop new lines of inquiry with a diverse group of collaborators and raise additional funds to address emerging challenges. The capacity and expertise of the research team also grew significantly.

CRE-DH Major Research Contributions

CRE-DH research follows four major themes which are summarised below according to their major activities and contributions to knowledge over the evaluation period. Appendix 1 provides a summary of findings by theme.

Theme 1

Disability data development

Theme 2

Monitoring inequalities

Theme 3

Identifying social determinants of health inequalities

Theme 4

Impact of health and social policies

Theme 1

Disability data development

What we did

We reviewed the availability of data on disability, considered how to collect disability data, and co-designed with our partners a Disability and Wellbeing Monitoring Framework to measure the differences between people with and without disability for a range of important disability and wellbeing outcomes.

Key insights

- If quantitative measures and indicators of health and life circumstances are co-designed by people with disability, they are more likely to reflect lived experience.
- The information related to disability in administrative datasets ranges from inconsistent to non-existent. There is a need to collect consistent and better quality data on disability in administrative datasets.
- Data from more than one dataset can be combined and a consistent indicator of disability can be developed.

Theme 2

Monitoring inequalities

What we did

We compared people with and without disability across multiple life domains. Usually the comparison was at one point in time (cross-sectional), and sometimes it was over a period (time-trend) using data collected at multiple time points.

Key insights

- Across most indicators of health, lifestyle risk factors, and socio-economic circumstances, people with disability fare worse than people without disability.
- These disparities persist or sometimes grow worse over time.

Theme 3

Identifying social determinants of health inequalities

What we did

We explored the relationships between disability, the social determinants of health, and health outcomes. Most of these studies used longitudinal data, which means we can be more confident that these relationships are causal. The main health outcome studied was mental health.

We asked:

1. Does acquiring a disability cause deterioration in mental health? Is this worse if the person with disability is disadvantaged economically or in other respects?
2. Do the social determinants of health have different impacts on the health of people with disability compared to people without disability?
3. Would improving the socio-economic circumstances of people with disability lead to improvements in their health outcomes? Would it reduce the health gap between people with and without disability?

Key insights

- Interventions that improve the socio-economic circumstances of people with disability, such as employment, housing and financial security, and social support would:
  - Alleviate some of the decline in mental health that people experience when they acquire a disability
  - Improve health outcomes for people with disability, even more than for those without disability
  - Narrow the gap in health outcomes between people with and without disability
- These interventions would likely reduce demand for health services as well as the social and emotional burden borne by people with disability.

Theme 4

Impact of health and social policies

What we did

We used a range of methods including qualitative, quantitative and mixed methods, systematic reviews to research the following:

1. Barriers hindering the implementation of policies to improve social determinants of health for people with disability
2. Disability and employment policies and programs
3. The National Disability Insurance Scheme (NDIS)
4. Policy responses to COVID-19 for people with disability
5. Learnings from COVID-19 to improve health outcomes for people with disability

Key insights

- The evaluation period of 2016–2022 coincided with reforms to Disability Employment Services (DES) and the roll-out of the NDIS across Australia. In 2020–2022, the COVID-19 pandemic disrupted health, disability, employment and all other service systems.
- The CRE-DH recognises the importance of service systems in promoting the health of people with disability. The success of both DES and NDIS has been undermined by their lack of integration with health sector, with negative consequences for people with disability.
- All service systems have failed to respond to people experiencing intersecting disadvantage such as Aboriginal and Torres Strait Islanders, people from culturally and linguistically diverse backgrounds, those with psychosocial disability, and people experiencing housing and financial insecurity. The service systems must find ways to respond better to the most disadvantaged people with disability; otherwise, they risk permanently entrenching inequities in health and other outcomes between people with disability who are extremely disadvantaged and other Australians.
- Responding to COVID-19 necessitated a different coordinated, whole-of-government approach to designing policy solutions, resulting in new ways of working across sectors and levels of government in partnership with advocates, service providers, and academics. By 2022, Commonwealth policymakers and disability advocates had seen the benefits of these new collaborative ways of working and were keen to continue coordinating policy responses across multiple sectors and levels of government. This shift in thinking holds promise that reforms to improve the health of people disability will include sectors beyond health services.

Engagement and Impact Outcomes

1 Research impact and translation

66
conference presentations

40
external committees

57
reports and factsheets

110
peer reviewed publications (1193 citations, 3534 Scopus views)*

20
policy/ parliamentary submissions

2
commissioned works directly related to policy and inequities for people with disability

19% of our publications are in the

Top 10%

most cited publications worldwide*

Most highly cited work

- Loneliness, social support, social isolation and wellbeing among working age adults with and without disability: Cross-sectional study
- Improving health care for disabled people in COVID-19 and beyond: Lessons from Australia and England
- The impact of disability on employment and financial security following the outbreak of the 2020 COVID-19 pandemic in the UK
- Disability-based discrimination and health: findings from an Australian-based population study

2 Collaboration

Policy forum (July 2019) in Canberra bringing together senior policy makers from government departments and disability organisations to discuss pressing health issues for Australians with disabilities.

Two-day policy forum (September 2022) with CRE-DH Partner Advisory Group, government agencies, Disabled People's Organisations, statutory agencies.

Stakeholder mapping in conjunction with health and disability services, disabled people's organisations, and statutory agencies (ABS, AIHW, NDIA, and NDIS).

179

authors from 53 academic institutions across 12 countries collaborated on the 110 peer-reviewed publications*

$21,827,973.80

leveraged in collaborative research grants and research extensions through additional funded projects, fellowships, etc

3 Research capacity strengthening

5
members were promoted over the course of the CRE-DH (at all levels including A/Prof to Prof)

13%
of publications led by an early career researcher

4
research positions supported through fellowships/ scholarships

37
CRE-DH members received academic and community awards over the course of the project

3 affiliated students

Undergraduate

Masters

PhD

7 post-doctoral fellows

Post-doctoral fellows went on to become a Department of Social Services policy officer and chief investigator on a large NHMRC funded Synergy project.

We completed:

A combined webinar with the Australian Human Rights Commission on Australia's Disability Strategy.

A webinar on using national datasets for disability research run by post-doctoral fellows.

4 Disability representation

83% of publications had at least one author with disability

47% of presentations had at least one author with disability

*Scival export – 2016–2022 (export run on 7 July 2023)

1 All CRE-DH outputs can be accessed from credh.org.au

CRE-DH Areas of Focus

Research aim: Reduce disability-related health inequities

Title	Analytic approach	Projects	Partners/Collaborators*
Theme 1 **Disability data development**	Developing and testing disability indicators	Developing a monitoring framework; developing indicators for disability in primary care; identifying people with disability in administrative data; developing wellbeing indicators; Disability Health Data Compendium and Disability Violence Data Compendium	DSS; DoH; ABS; AIHW
Theme 2 **Monitoring iInequalities**	Cross-sectional analyses; time trends in inequalities	Cross-sectional and time trends in discrimination, violence, loneliness, mental health, community attitudes, housing, sexual orientation, masculinity, COVID-19, vaccination, financial conditions, and health outcomes	ABS; AIHW
Theme 3 **Identifying the social determinants of health inequalities**	Longitudinal and cross-sectional analyses of Australian and UK longitudinal studies and linked data, including the Multi-Agency Data Integration Project	Employment status (employed, unemployed, not in labour market), hours worked, psychosocial working conditions, workforce entry and exit, employment trajectories; barriers to community and social participation; bullying; peer cyber-victimisation; physical violence	ABS; DSS; DoH
Theme 4 **Impacts of health and social policies**	Qualitative, quantitative, mixed methods, program evaluation	Barriers to addressing social determinants of health in policy; experiences with Disability Employment Services; inequalities in the NDIS; COVID-19 and health and social policy; policy reforms to improve health outcomes for people with disability	DSS; NDIA; DoH; DFFH

Further information and project outputs can be accessed from credh.org.au

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*ABS, Australian Bureau of Statistics; AIHW, Australian Institute of Health and Welfare; DoH, Commonwealth Department of Health (now Department of Health and Aged Care); DSS, Department of Social Services; NDIA, National Disability Insurance Agency; DFFH, Victorian Department of Families, Fairness and Housing.

CRE-DH Lenses of Impact

The evaluation examined the CRE-DH through five impact lenses: research; relationships; reputation; responsiveness; and reciprocity.

The evaluation moved beyond traditional evaluations that focus on reporting outputs, seeking a deeper understanding of how new ways and types of knowledge were produced and used by stakeholders, and for what benefit. The value of mutual learning was encouraged through the Centre's diverse membership collaborating on real-world challenges facing the disability sector. These activities were considered from different perspectives through interviews with external and internal stakeholders to identify how the CRE-DH contributed to policy, practice, and new ways of working.

Lenses of impact

Research

What kinds of evidence has the CRE-DH generated?

Relationships

What relationships has the CRE-DH developed with partners?

Reputation

What reputation does the CRE-DH hold with partners?

Responsiveness

How has the CRE-DH responded to stakeholder priorities?

Reciprocity

How has the CRE-DH 'given back' to partners?

Research

The original goal of the CRE-DH was to identify implementable, cost-effective policy interventions that improve the health of working-age disabled Australians.

During the evaluation period the Centre delivered several ‘flagship’ research projects (see table on page 10) generating evidence about the main social and economic determinants connected to poor health and to disability-related health inequities for people with disability. Complex administrative datasets were analysed, an inequalities monitoring framework was developed, and barriers to addressing social determinants of health in social and health policy were investigated.

Findings were presented in various formats for maximum impact. For example, Violence and Disability Factsheets generated by the CRE-DH were used in the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability. Similarly, CRE-DH research was quoted in reports from the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (i.e. Hearing 2, Hearing 28), feeding directly into the Commission’s recommendations and their implementation by the Australian Government.

Stakeholders’ perspectives

External stakeholders generally agreed that the CRE-DH *“Developed an evidence base that can help us do our work”*. Government agencies particularly appreciated receiving timely evidence about current issues they were working on.

> **“[Evidence generated by the CRE-DH] can help us to test ideas we have been developing against an evidence base.”**
>
> External stakeholder

External stakeholders also noted the quality of CRE-DH research, describing it as comprehensive, integrated and distinctive.

> **“The CRE-DH developed a full evidence base that brings all of the data together and it disaggregates by sex and it isn’t ableist. And that’s unusual”**
>
> External stakeholder

> **“A good mix of big datasets and qualitative data – the numbers are often missing in the evidence we see. This is a real strength of the CRE”.**
>
> External stakeholder

However, non-government external stakeholders said it could be challenging to integrate the ‘blue-sky thinking’ of the CRE-DH into their practice. They also saw the need to improve communication of research findings, for example, by expanding beyond written reports to present information.

Relationships

Before the CRE-DH began, there was very little engagement between the disability and health sectors and between academics, policymakers and service providers.

The CRE-DH overcame this by building a diverse network of stakeholders. Quarterly meetings of the Partner Advisory Group guided the research priorities and facilitated a two-way flow of information with diverse constituencies. Members of the Partner Advisory Group came from government and non-government organisations, statutory bodies, peak bodies, and disability advocacy organisations.

They were recruited for their detailed knowledge of the disability and health sectors and relationships with critical decision-makers, including senior bureaucrats and politicians. People with lived experience of disability contributed to the CRE-DH through Partner Advisory Group membership, as expert advisors for the monitoring framework, and as part of the academic research team.

Partner Advisory Group meetings were not always effective. Challenges included membership instability due to staff turnover and lack of engagement from some partner organisations. At times the meetings focused on reporting progress rather than collective information sharing. In future, it may be more beneficial to develop communities of practice that coalesce around specific topics such as housing, employment, etc.

Stakeholders' perspectives

The Partner Advisory Group structure was useful for strengthening cross-sectoral collaborations. It provided a mechanism for connecting with academics (formally or informally) and directing stakeholders to CRE-DH projects, themes, or resources.

> **"This is a partnership – it helps that we aren't just working with one university, but many – and this also helps to find other researchers when we need them."**
>
> External stakeholder

Drawing on the expertise of people with disability improved the quality of the CRE-DH outputs by ensuring they were grounded. An example is the Disability and Wellbeing Monitoring Framework, where for the first time, people with lived experience of disability identified which social determinants mattered most to them. A multidisciplinary research team later populated the framework to identify inequalities for Australians with disability.

> **"I do think that I've learned a lot by working with people from different disciplines. …I found it very useful to hear different perspectives and see how people are working."**
>
> Internal stakeholder

Reputation

CRE-DH researchers have been part of committees spanning health, social services, academic and advocacy sectors, including those by ministerial invitation. These memberships enabled two-way knowledge sharing and contributions to international, national, and state government disability agendas and policy responses.

Alongside committee memberships, CRE-DH position statements, expert submissions, policy briefs, and policy forums brought evidence to the fore to facilitate policy reform. For example, our research on employment programs for people with disability formed part of our expert witness statement and evidence in Hearing 9 of the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with a Disability; that research was also at the core of our submission to the National Disability Employment Strategy. The CRE-DH also played an advocacy role through media commentary and other dissemination forums, such as the National Disability Strategy: Beyond 2020 Webinar.

Stakeholders' perspectives

The six-year duration of the CRE-DH provided stability for those wanting evidence about disability and health, which was especially valued by public servants who moved positions and/or departments during these years. The Centre made available the expertise of leading disability researchers with specialist skills like working with complex and linked datasets.

> **"The reports come out and I can immediately rely on them. It is a source of truth and one that I can rely on…there's almost no data capacity in the advocacy sector and we need this".**
>
> External stakeholder

Many external stakeholders regard the CRE-DH as a trusted *"sense-checker"*, not only for proposed reforms, but also for example when public servants sought to "stress test" ideas generated by external parties and consultants.

> **"Having a one stop shop is really useful".**
>
> External stakeholder

Responsiveness

From the outset, the CRE-DH was committed to strengthening the disability research workforce. The program developed public health research capacity in disability across a range of disciplines, including health economics, epidemiology, health, social sciences, and policy.

It was also designed to provide ongoing mentorship and professional development for early career researchers and higher degree research students within the team. The original intention to offer mentoring over the duration of CRE-DH was not realised for several reasons: members of the research team changing institutes and roles, the untimely death of the academic overseeing the mentorship program, and shifts in personal circumstances over the six-year period. Mentoring support was focused on academic careers rather than other pathways such industry or government. However, in response to the needs of external stakeholders in the disability sector, we offered professional development and training webinars that were well attended, such as 'How can we use quantitative data for disability research?'

The Centre also responded to emerging community-driven and policy priorities, for example, drawing attention to the precarious position of people with disability early in the COVID-19 pandemic. We developed statements of concern with recommendations leading to policy action and changes to practice in relation to managing COVID-19 outbreaks in disability residential settings, and dealing with COVID-19 vaccine hesitancy in disability support workers (CRE-DH statement #4). Likewise, our expert submissions and witness statements directly informed the recommendations of the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability. These recommendations, endorsed by the Commonwealth government, included an ongoing specific advisory committee related to COVID-19 and disability and guidelines for responses to COVID-19 in disability accommodation settings. The CRE-DH also generated a review of practice standards and quality indicators to ensure providers can respond to COVID-19 and future pandemics and recommendations for ongoing access to Personal Protective Equipment for the disability support workforce. We continue to contribute to government initiatives including the National Disability Data Asset, National Disability Research Partnership and Australia's Disability Strategy.

Stakeholders' perspectives

The CRE-DH provided a rapid mechanism to understand the likely and emerging inequities for Australians with disability, by drawing on knowledge from across the research team's international networks. Our responsiveness to the COVID-19 pandemic was mentioned frequently in the stakeholder interviews.

> **"[The CRE-DH's COVID-19 contributions] … were vital to informing the response from government. So, there's absolutely been a very concrete contribution".**
>
> External stakeholder

> **"I just want to emphasise how valuable the CRE is in keeping us in government honest".**
>
> External stakeholder

Reciprocity

Working closely with people who have lived experience of disability has been a core commitment, as exemplified in the Disability and Wellbeing Monitoring Framework and the National Disability Strategy: Beyond 2020 Webinar jointly hosted by the CRE-DH and Australian Human Rights Commission.

We recruited some staff and students identifying as having a disability or with lived experience of disability. However, fully realising the original vision of disability workforce activation would require structural changes, such as allowing longer timeframes for students with disabilities to complete their studies.

Engagement with stakeholders, through the Partner Advisory Group and other opportunities, led to new projects receiving funds from government and other sources. These included two test cases for the National Disability Data Asset (focussing on mental health and housing) and a COVID-19 vaccination and disability project with the Commonwealth Department of Health. This collaborative approach also led to cross-sectoral training (e.g. the webinar 'How can we use quantitative data for disability research') and building networks among external stakeholders and the researchers.

Stakeholders' perspectives

Training opportunities for interdisciplinary learning and skill development were valued highly.

> **"[The CRE-DH training session]…really helped our junior staff to get their heads around data sets and how to use these"**
>
> External stakeholder

> **"…six years down the track, I do feel like I have quite a lot of contacts within quite a lot of different government agencies. Which, reflecting on that, it does feel like the CRE-DH has enabled me to develop those connections."**
>
> Internal stakeholder

Recent Significant Achievements & Recognition

This report presents outputs and activities from the beginning of the CRE-DH until December 2022.

However, it takes time to build capacity and expertise, establish reputations, and develop relationships. Some of these are only materialising now; others will emerge in years to come.

Several notable successes have arisen directly or indirectly from the CRE-DH during 2023. These include:

- 2023 ARC Early Career Industry Fellowship
- 2023 ARC Industry Laureate Fellowship
- 2023 Medical Research Future Fund (MRFF) Million Minds Mental Health Research Grant
- 2023 policy report: System changes to enable optimal health outcomes for people with disability
- 2023 Centre of Excellence in Intellectual Disability and Health (led by UNSW)
- NHMRC PhD Scholarship
- Allison Milner Early Career Research Fellowship
- 2023 ARC Future Fellowship

Messages for Action

Driving forward the research agenda

- The significant socio-economic and health disadvantage experienced by people with disability requires urgent action.
- A systems approach should be employed to identify and implement policies and programs addressing entrenched disadvantage, since the relevant policy levers cross multiple sectors, levels of government, and portfolio areas.

Improved ways of working

- Activate cross-sectoral interdisciplinary communities of practice around themes of interest, including representation of people with disability.
- Involve co-researchers with disability in all research designs.
- Continue to build capacity in the disability research workforce; and advocate for and implement structural changes supporting the participation of people with disability as researchers.
- Maintain an online repository for sharing disability research information and expertise.
- Maintain and expand multidisciplinary disability research teams to understand the impacts of intersectionality and disability.
- Build mentoring into disability research programs, taking into consideration diverse career goals and offering a wide range of relevant opportunities.

Investment in disability research capacity

- Future research investment through the National Disability Research Partnership and major funding bodies should be programmatically focused (rather than project-focused) to strengthen capacity, comprehensively address important policy issues, and relationship building benefits.
- Ongoing investment is required in better quality disability data. This includes building disability identifiers into administrative and routine data collections, linking key datasets and improving their availability, and drawing on the expertise of non-government disability analysts when developing data infrastructure.
- Continue to build public health research capacity in disability across a range of disciplines, including health economics, epidemiology, health, social sciences, and policy. The CRE-DH has made advances, but more needs to be done, especially to attract and support people with disability as researchers.

Appendix 1: Summary of findings by theme

Theme 1

Disability data development

- Consistent data on disability are not available in administrative datasets. This makes it difficult to identify people with disability for analyses in linked datasets.
- It is feasible to collect disability data in primary care settings.
- In partnership with National Disability Insurance Scheme (NDIS) participants, a disability wellbeing index is being developed to measure outcomes for participants in the NDIS.
- The inclusion of people with disability in the design of the CRE-DH's Disability and Wellbeing Monitoring Framework resulted in a set of indicators that captured what matters most in the lives of people with disability across health, social determinants of health, and services.

Theme 2

Monitoring inequalities

Cross-sectional* (one point in time) analyses

- While we found some data gaps, the data that were available showed that the health and socio-economic circumstances of people with disability were worse than among people without disability. Findings were mixed on the use of health and other services.
- The proportion of people with disability was higher in areas of lower liveability, including areas less amenable to walking and with fewer amenities such as public transport infrastructure.
- Compared with people without disability, people with disability were more likely to be unemployed or underemployed; to have jobs with low security and poor psychosocial working conditions; and to leave jobs.
- People with disability were more likely to live in unaffordable housing; at highest risk were those with intellectual and psychosocial disability.
- People with disability experienced higher levels of violence and discrimination, and were more likely to report loneliness and suicidal thoughts than people without disability.
- In terms of masculinity, sexuality and sexual functioning, men with disability were less likely to conform to traditional masculine norms (apart from self-reliance); and were more likely to be in a sexual minority group and to report difficulties with sexual functioning than men without disability.
- Early in the COVID-19 pandemic Australians with disability reported similar levels of vaccine hesitancy to the general population, and similar levels of vaccination coverage despite being declared a priority population for vaccination.

Time trends**

- Between 2001 and 2016 there were persistent socio-economic inequalities between people with and without disability across most Australian progress indicators, with inequalities increasing in housing, financial stress and social support.
- From 2001–2020, inequalities in smoking between adults with and without disability persisted or increased among low- and middle-income groups; while the gap between people with and without disability reduced for the high-income group.
- Between 2003 and 2020, people with disability persistently had poorer mental health than people without disability. Inequalities widened for young people, women, people with intellectual disability, and those with brain injury or stroke.

Outputs from each of the CRE-DH themes can be accessed from credh.org.au

*Cross-sectional analyses involved comparing outcomes for people with and without disability at one point in time
** Time-trend analyses looked at differences between people with and without disability over multiple time points (annually in our analyses)

Theme 3

Identifying the social determinants of health inequalities

Analyses 1: Mental health impacts of acquiring a disability in adulthood

Acquiring a disability in adulthood is associated with:

- A clinically significant deterioration in mental health which increases with each additional year lived with disability.
- The strongest impacts on poor mental health for people who were disadvantaged at the time of acquiring a disability. This includes people who: lived in private rental and housing stress; did not have access to financial assets; were on a low income; were in low skilled/status jobs; had low levels of social support; and were not partnered.

Analyses 2: Comparing health impacts of social determinants for people with and without disability

Compared to people without disability:

- Part-time and full-time employment were associated with greater mental health benefits for people with disability.
- Underemployment, poor working conditions such as job insecurity, and low job control were more damaging to mental health among people with disability.
- Being socio-economically disadvantaged, not in a relationship, and younger were associated with lower wellbeing for people with disability.
- Substantial loneliness was associated with poorer mental health for people with disability.
- Conformity with the masculine norm of self-reliance was associated with worse mental health for people with disability.
- People with disability have higher sickness absence, and sickness absence is especially high for those with disability who are in poor quality jobs.
- Better access to public transport is associated with higher health service use for people with disability.
- The COVID-19 pandemic had a greater impact on health among people with disability compared to people without disability, including higher levels of psychological stress and poorer sleep; increased likelihood of financial stress, loneliness, and relationship conflict; and a larger reduction in number of hours work.

Discrimination based on disability status was more common than other forms of discrimination and associated with a greater deterioration in mental health.

Analyses 3: The impacts of improving socio-economic circumstances of people with disability on health and health inequalities

- Improving the socio-economic circumstances (e.g., income, housing security) of people with disability to equal those of people without disability would reduce the mental health gap between people with and without disability by one third.
- Improving employment outcomes of people with disability would reduce mental health inequalities; but improving income alongside employment does not result in additional mental health benefits.
- Removing barriers to participation in employment, economic life, transport, community, leisure and civic activities, social activity and accessibility in the home and community would bring substantial benefits to health and wellbeing (self-rated health, anxiety, life satisfaction, life worth and happiness). These barriers explained between 15% (self-rated health) and 70% (happiness) of the differences between people with and without disability.

Theme 4

Impacts of health and social policies

Barriers to implementation of policies to address social determinants of health

Interviews conducted in 2017 with government representatives, advocates, service providers and academics found that these stakeholders recognised:

- Addressing barriers to accessing quality health care including attitudes and lack of a skilled workforce as being important
- Improving processes would enable advocates to participate in policy development

When asked about how policies could address the social determinants of health for people with disability, interviewees pointed to the difficulty of reforming policy when responsibility for social determinants spanned various government portfolios.

Disability and employment policies and programs

- Participants in Australia's Disability Employment Services (DES) found that barriers to finding and keeping a job were multifaceted, including vocational (e.g., training), non-vocational (e.g., transport, caring) and structural (e.g., limited availability of jobs, entrenched disability-based discrimination). Many participants felt that DES was not helpful and did not understand their unique circumstances, including lack of secure housing and family conflict. For people with psychosocial disability, the lack of mental health supports to foster recovery posed a barrier.
- A systematic review of employment program trials found some support for Individualised Placement Programs, which integrate employment and mental health supports for people with serious mental illness.
- Reforms to eligibility for the Disability Support Pension and re-assessment of existing recipients resulted in negative mental health outcomes and increased health care costs; and very few of the reassessed recipients were deemed to be ineligible.

National Disability Insurance Scheme

This research focused on inequities in access to NDIS, funding and spending of NDIS plans, and outcomes:

- In terms of access, qualitative research found that people with psychosocial disability, those from culturally and linguistically diverse backgrounds, First Nations Australians and women encounter multiple challenges in accessing the NDIS. This includes navigating the access process; self-advocacy; and staff at the National Disability Insurance Agency (NDIA) lacking the competency to understand to interactions between an individual's impairment and their life circumstances (such as cultural backgrounds, disadvantage, etc.)
- In terms of funding amounts: people living in rural and remote areas tended to receive less funding; those in more disadvantaged areas received similar funding to average; and people from culturally and linguistically diverse and First Nations participants received higher funding packages.
- In terms of spending allocated funds: participants in rural and remote areas, First Nations participants, and those living in disadvantaged areas spent less NDIS funds. This was due to many factors including a lack of services (thin markets), challenges interacting with the NDIA, and negative experiences with service providers.
- For people experiencing extreme disadvantage and exclusion (e.g., homelessness, family break down, incarceration), the lack of integration of the NDIS with other service systems resulted in negative outcomes such as being held in jail or hospital.

Policy responses to COVID-19 for people with disability

We conducted qualitative and quantitative research on Australia's response to COVID-19 for people with disability, identifying what did and didn't work.

- Optimal health care responses for people with disability were hampered by:
  - health and disability system service responses unable to be coordinated due to the siloed nature of government portfolios and federal/state responsibilities
  - slow policy responses because the disability sector lacked knowledge on how to respond to a pandemic (e.g., infection control, isolation) while the health system lacked understanding of disability and of disability services (e.g., the aged care response to COVID-19 was not appropriate for disability services)
- On the positive side, COVID-19 brought some helpful changes to usual practices. These included government committees spanning different sectors to enable knowledge sharing and coordinated action; recognition being given to the importance of lived experience; greater willingness of different sectors to implement strategies outside their usual remit; and the emergence of champions within government to facilitate and coordinate disability and health sector responses.

Learning from COVID-19

We conducted a workshop with Commonwealth senior staff across disability and health sectors, other Commonwealth agencies and advocates from Disabled People's Organisations to identify ways of working together to improve health outcomes for people with disability.

A key recommendation was an overarching Disability and Health Strategy to guide action across portfolios and levels of government, covering social determinants of health, preventative health and health promotion, as well as health services.

Recommendations also included:

- Whole of government responses facilitated by the Disability and Health Strategy and disability health impact assessments. Participants suggested that a central agency (potentially in Prime Minister and Cabinet) should oversee policy responses for people with disability, with sections/groups within departments dedicated to addressing specific issues for people with disability.
- Cross-sector committees with senior policy makers, advocates, services, researchers, and other stakeholders to share knowledge and coordinate policy responses; and investigate ways to improve collaboration across government departments.
- Inclusion of people with disability in policy design and development of a disability identifier and integration (linkage of data) across service systems.
- Reforms to health services and systems, including reforming funding models to incentivise equitable outcomes, overcome barriers to health care for people with disability, and tailor services for people with intellectual disability and others whose needs are not met by the general health system.
- Coordinated disability and health system reforms to make it easier for people with disability to navigate these intersecting systems, including the introduction of service navigators.

Centre of Research Excellence in Disability and Health

T +61 383 440 717
E cre-dh@unimelb.edu.au
W www.credh.org.au
T @DisabilityHlth

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